

Ref: P25-257-M03v2
Project: Approved Care Home at Yew Tree Lane, Northern Moor
Date: 24 November 2025
To: Craig Collishaw, LNC Property Developments Ltd
From: David Thurstan BSc MIOA – Principal Consultant

Subject: Verification of Internal Ambient Noise Levels

1. This memo sets out the details and findings of recent acoustic verification testing carried at the approved care home development at Yew Tree Road, Northern Moor.
2. This memo is an update of the previous memo following correspondence from Sharon McAndrew, EHO at Manchester City Council requesting that further validation testing be carried out to ensure 10% of bedrooms in the building are tested. On this basis, it was agreed that further automated measurements would be undertaken in one bedroom during evening and night-time periods, with a number of additional attended measurements over a shorter evening period.
3. The development was granted planning permission in February 2025, as per planning reference 141842/JO/2025.

Planning Condition

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

“14) Prior to the first occupation of the residential units, a verification report shall be required to validate that the work undertaken throughout the development to acoustically insulate it conforms to the recommendations and requirements in the approved acoustic consultant's report agreed under condition 7 of this planning permission. The report shall also undertake post completion testing to confirm that the internal noise criteria have been met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the internal noise criteria.”

Noise Criteria

5. 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 $L_{Amax,F}$ more than 10 times)
 - Living Rooms or bedrooms (daytime - 07.00 - 23.00) 35 dB $L_{Aeq,T}$
6. 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 Surveys

7. An automatic data-logging sound analyser was installed in bedroom 43 overlooking Yew Tree Lane to measure noise levels in consecutive 5-minute periods from approximately 14:45 hours on Monday 8 to 11:00 hours on Tuesday 9 September 2025.
8. The noise measurements were carried out with an NTi XL3 'Class 1' Sound Level Meter (serial no. A3A-01451-F0) located at the centre of the room and at 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.
9. The room was empty and unfurnished, although it was carpeted.
10. Weather conditions during the measurements were dry, mild (8-15°C), cloudy, and calm (<3m/s north-westerly breeze). The weather conditions during the noise survey were suitable for the purposes of determining the noise ingress.
11. A further survey was carried out from approximately 16:15 hours on Wednesday 19 to 09:00 hours on Thursday 20 November 2025 in order to undertake further testing in bedrooms.
12. An automatic data-logging sound analyser was installed in bedroom 47 overlooking Yew Tree Lane to measure noise levels in consecutive 5-minute periods. Further attended noise measurements were carried out in bedrooms 44, 45, 46 and 59 during the evening period (i.e. 16:20 to 18:45 hours), which are indicated in the attached Figure. All rooms were fully furnished and carpeted, with trickle ventilators open.
13. The noise measurements were carried out with NTi XL2 'Class 1' Sound Level Meters (serial no. A2A-20228-E0 & A2A-20361-E0) and a Bruel & Kjaer 2250 Class 1 Sound Level Meter (serial no. 3011706).. Sound level meters were located at the centre of the room and at 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.
14. A summary of the noise levels measured over the daytime and night-time periods is shown in Table 1, with full results shown in the enclosed charts. During the September noise survey the development was still an active construction site and the bedroom used in the assessment overlooks the main site entrance. During the November noise survey the care home was completed and occupied except for the second floor. Therefore, only the measured noise levels during the evening periods outside of the site construction hours/day-to-day care home operations have been considered in this assessment (i.e. 16:00/16:30 to 06:30/07:00 hours).

Table 1: Summary of Measured Noise Levels on second floor (dB)

Description	Night-time		Daytime
	L_{AFmax}	$L_{Aeq,8hr}$	$L_{Aeq,16hr}^*$
Bedroom 43, 8 – 9 September 2025	31 – 53	30	33
Bedroom 47, 19 - 20 November 2025	20 – 48	23	23

* 16 hour is based on measurements between approximately 16:00 to 23:00 hours

15. From review of the audio recordings the noise climate was generally distant road traffic, occasional overhead aircraft and other extraneous intermittent sources such as ice cream van chimes, emergency

services sirens etc. There were also some internal peaks or other extraneous activity within the building which influenced the results as indicated on the enclosed charts.

16. A summary of the noise levels measured over the evening period in Bedrooms 44, 45, 46 and 59 are shown in Table 2.

Table 2: Summary of Measured Evening Noise Levels on second floor (dB)

Bedroom	Evening Period	
	L_{AFmax}	$L_{Aeq,5mins}$
44	23 – 42	23 – 25
45	23 – 41	22 – 25
46	23 – 43	23 – 25
59	32 – 44	24

17. The noise surveys covered a daytime/evening period including a rush hour period. The attended noise measurements undertaken in bedrooms 44, 45, 46 and 59 corresponded with the automated noise levels carried out in bedroom 47. The daytime noise levels were below the internal daytime noise criterion.
18. The 10th highest night-time peak noise level during the September and November surveys were 44 dB and 36 dB L_{AFmax} respectively. These are both within the peak noise criteria.

Conclusion

19. The results of the noise measurements demonstrate that the installed glazing and ventilation scheme adequately reduce the ingress of external noise and hence the noise criteria required by Condition 14 of the Planning Approval have been achieved.

S4.16	Bedroom S1	Bedroom	19 m²
S4.17	En-Suite	Bedroom	4 m²
S4.18	Store	Storage	2 m²
S4.19	Lounge	Common	43 m²
S4.20	External balcony	Common	19 m²
S4.31	Riser	Stair_RSH	1 m²
S4.32	Accessible W/C	W/C	4 m²
S3.01	Lobby S1	Circulation	12 m²
S3.02	Protected Stair 03	Circulation	17 m²
S3.03	Bedroom 47	Bedroom	18 m²
S3.04	En-Suite	Bedroom	4 m²
S3.05	Reading Room	Common	26 m²
S3.06	Bedroom 48	Bedroom	18 m²
S3.07	En-Suite	Bedroom	4 m²
S3.08	Bedroom 49	Bedroom	18 m²
S3.09	Bedroom	Bedroom	4 m²
Usable Floor Space Total			794 m²



Do not scale from this figure

Key:



Room Tested

Project: P25-257

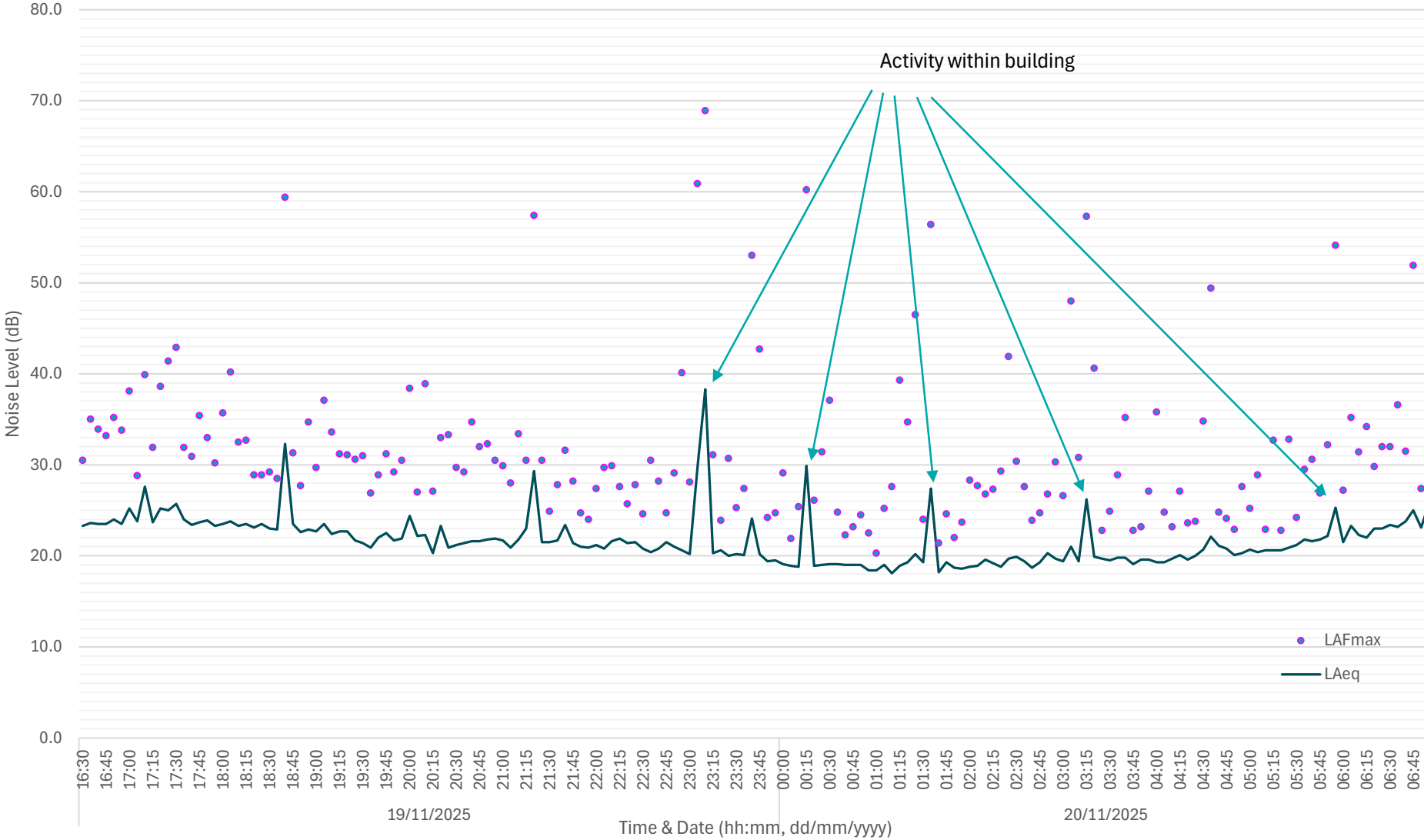
Ref: **Figure**

Title: Second floor layout & room positions

hepworthacoustics

Yew Tree Lane

Bedroom 47 (Novemeber 2025)



Bedroom 43 (September 2025)

