

Matt Broad
Feltham Construction Ltd
42 London Road
Newbury
Berkshire
RG14 1LA

Date: 25th September 2026
Reference: R10924-3 Rev 0

Dear Matt

RE: Normandy Way, Havant– Noise Commissioning Tests

Further to our recent noise monitoring, I am pleased to provide our technical report relating to Planning Condition 16 at the above site.

1.0 CRITERIA

- 1.1 Planning Condition 16 (Application Number: APP/23/00665) sets out the following requirements in relation to the control of environmental noise within the new residential properties:

"The development hereby permitted shall not be occupied unless and until the following information has been submitted to and approved in writing by the Local Planning Authority:

- Confirmation that the acoustic mitigation measures to be employed with regard to the building envelope, including fenestration and ventilation, for all residential rooms, will meet BS8223:2014 standards as recommended for indoor ambient noise levels for dwellings, and conform to the measures as recommended in the Noise impact assessment dated 19 April 2023 Rev 1 and produced by Parkerjones Acoustics.*
- Similarly for any potential mechanical plant associated with the development, an assessment in accordance with BS 4142:2014, has provided that a noise rating level limit of 40 dB and 30 dB LAeq for the day and night-time periods respectively, shall not be exceeded at 1m outside of nearby residential windows on and off site.*

Reason: To ensure the amenities of nearby residential receptors external to the proposed care home and also future residents of the home, are not impacted upon by any external noise levels and having due regard to policies CS16 and DM10 of the Havant Borough Local Plan (Core Strategy) 2011 and the National Planning Policy Framework."

- 1.2 This report addresses the requirements of the first element of condition 16 (internal noise levels). The second element of the condition (noise from plant) is addressed in 24 Acoustics report R10924-1 Rev 0.

- 1.3 The following internal noise levels are specified in BS 8233:2014, for noise from road traffic sources:
- 35 dB $L_{Aeq,16hr}$ daytime noise level for living rooms and bedrooms;
 - 30 dB $L_{Aeq,8hr}$ night-time noise level for bedrooms;
 - 45 dB $L_{Amax,f}$ night-time noise levels in bedrooms for regular events;
- 1.4 The test methodology and bedroom locations have been discussed and agreed with Havant Borough Council's Environmental Health Officer Craig Milligan on the 16th September 2026 (by email).
- 1.5 This report presents the results of noise measurements undertaken within two completed bedrooms (room 223 room 123).

2.0 MEASUREMENT INSTRUMENTATION AND PROCEDURE

- 2.1 Noise measurements were undertaken between Thursday 17th and Monday 20th September 2026 in the following locations as indicated on Figure 1:
- Room 223 First Floor Bedroom;
 - Room 123 Ground Floor Bedroom.
- 2.2 The internal noise measurements were undertaken within the completed, unfurnished rooms with the windows closed. The bedrooms were fitted with trickle ventilators which were set to the open position for the duration of the measurements.
- 2.3 The following instrumentation was used:
- 2 x Rion Class 1 sound level meter Type NL52;
 - Brüel & Kjær acoustic calibrator Type 4231.
- 2.4 Noise measurements were made in terms of the linear octave-band and overall A-weighted statistical parameters including L_{eq} and L_{max} (all measured on fast response) in 1-minute intervals. The octave band reverberation times were also measured in each room using a loudspeaker and interrupted noise source.
- 2.5 The calibration of all equipment was checked before and on completion of the measurements and no significant drift was found. Calibration of 24 Acoustics' equipment is traceable to National Standards.
- 2.6 Periods affected by noise from construction works have been omitted from the analysis.

3.0 RESULTS AND ASSESSMENT

Internal Noise Levels

- 3.1 As the rooms were unfurnished, the measured noise levels have been corrected using the measured reverberation times, to a reverberation time of 0.5 seconds in accordance with BS 8233: 2014
- 3.2 A summary of the measured corrected noise levels in rooms 223 and 123 for daytime and night-time periods are presented in Tables 1 and 2 .

Date	Measured Internal Noise Level, dB		
	Daytime (07:00 to 23:00) $L_{Aeq, 16 \text{ hour}}$	Night-time (23:00 to 07:00)	
		$L_{Aeq, 8 \text{ hour}}$	Typical $L_{Amax, f}$
Thursday 17th September	19	15	31
Friday 18th September	20	16	32
Saturday 19th September	21	14	27
Sunday 20th September	19	15	29
Criterion	≤ 35	≤ 30	≤ 45

Table 1 Room 223 – corrected measured internal noise levels

Date	Measured Internal Noise Level, dB		
	Daytime (07:00 to 23:00) $L_{Aeq, 16 \text{ hour}}$	Night-time (23:00 to 07:00)	
		$L_{Aeq, 8 \text{ hour}}$	Typical $L_{Amax, f}$
Thursday 17th September	18	14	27
Friday 18th September	20	17	31
Saturday 19th September	21	14	26
Sunday 20th September	18	15	27
Criterion	≤ 35	≤ 30	≤ 45

Table 2 Room 123 – corrected measured internal noise levels

- 3.3 24 Acoustics considers the typical max event to be the 10th highest $L_{Amax, f}$ noise level during the relevant night-time period.
- 3.4 The noise measurement results, as presented in Tables 1 and 2, demonstrate that the internal noise levels achieve the requirements of BS 8233: 2014 and the criteria outlined in section 1.

4.0 CONCLUSIONS

- 4.1 Noise measurements have been undertaken within two completed rooms (rooms 223 and 123) at Normandy Way, Havant to address the internal noise level requirements outlined in planning Condition 16 (Ref: APP/23/00665).
- 4.2 The measurement results confirm that noise levels within habitable rooms comply with the requirements of Condition 16 and are therefore acceptable.

I trust the above is in order. Please feel free to get in touch if you have any questions.

Yours sincerely,

For 24 Acoustics Ltd

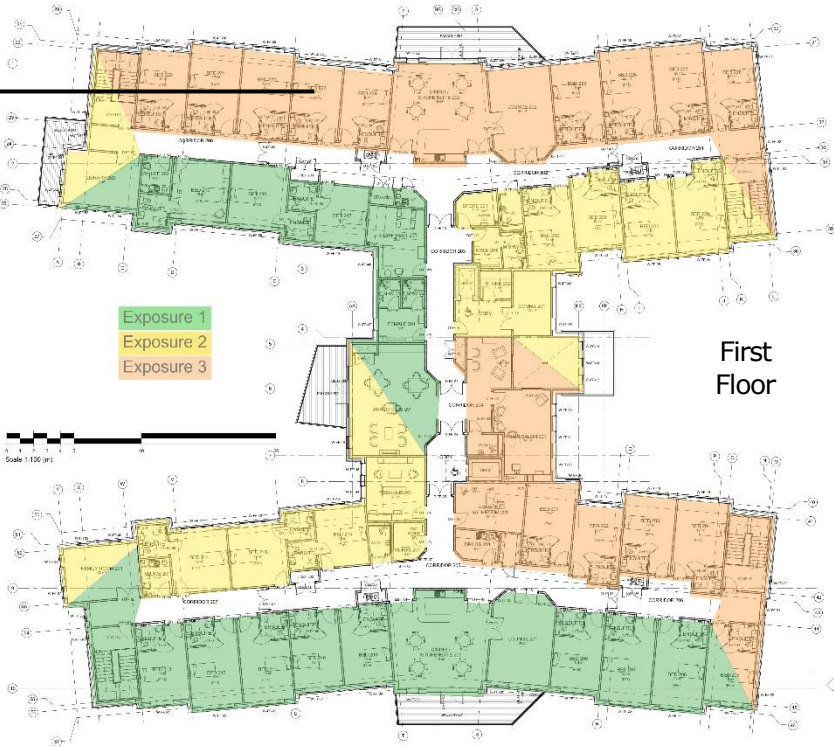
Kiel Edwards BSc MIOA
Senior Consultant

Room 123



Upper
Ground
Floor

Room 223



First
Floor

Project: Normandy Way, Havant	Title: Site plan and room measurement locations		
DWG No: Figure 1	Scale: N.T.S.	Rev: 0	
Date: September 2026	Drawn By: KE	Job No: 10924	

APPENDIX A: ACOUSTIC TERMINOLOGY

Noise is defined as unwanted sound. The range of audible sound is from 0 to 140 dB. The frequency response of the ear is usually taken to be around 18 Hz (number of oscillations per second) to 18000 Hz. The ear does not respond equally to different frequencies at the same level. It is more sensitive in the mid-frequency range than the lower and higher frequencies and because of this, the low and high frequency components of a sound are reduced in importance by applying a weighting (filtering) circuit to the noise measuring instrument. The weighting which is most widely used and which correlates best with subjective response to noise is the dBA weighting. This is an internationally accepted standard for noise measurements.

For variable sources, such as traffic, a difference of 3 dBA is just distinguishable. In addition, a doubling of traffic flow will increase the overall noise by 3 dBA. The 'loudness' of a noise is a purely subjective parameter, but it is generally accepted that an increase/ decrease of 10 dBA corresponds to a doubling/ halving in perceived loudness.

External noise levels are rarely steady, but rise and fall according to activities within an area. In attempt to produce a figure that relates this variable noise level to subjective response, a number of noise indices have been developed. These include:

i) The L_{Amax} noise level

This is the maximum noise level recorded over the measurement period.

ii) The L_{Aeq} noise level

This is "equivalent continuous A-weighted sound pressure level, in decibels" and is defined in British Standard BS 7445 as the "value of the A-weighted sound pressure level of a continuous, steady sound that, within a specified time interval, T, has the same mean square sound pressure as a sound under consideration whose level varies with time".

It is a unit commonly used to describe construction noise and noise from industrial premises and is the most suitable unit for the description of other forms of environmental noise. In more straightforward terms, it is a measure of energy within the varying noise.

iii) The L_{A10} noise level

This is the noise level that is exceeded for 10% of the measurement period and gives an indication of the noisier levels. It is a unit that has been used over many years for the measurement and assessment of road traffic noise.

iv) The L_{A90} noise level

This is the noise level that is exceeded for 90% of the measurement period and gives an indication of the noise level during the quieter periods. It is often referred to as the background noise level and is used in the assessment of disturbance from industrial noise.