

Ref: P25-374-M01v2
Project: Mindale Farm, Prestatyn - Proposed Residential Development
Date: 14 November 2025
To: Leah Pickup – Castle Green Homes
From: James Shaw BSc MIOA – Principal Consultant

Subject: Assessment of Noise Constraints

1. Further to your recent instruction, I am writing to provide the findings of our appraisal of the potential noise constraints associated with the proposed residential development at the Mindale Farm site in Prestatyn.
2. The site location is shown on Figure 1.
3. We have carried out a assessment of any potential noise constraints affecting the site.
4. The findings set out below are based on an inspection of the site that was made on Tuesday 11th November 2025 and the results of daytime noise measurements.

Introduction

5. The proposed development site currently comprises agricultural land and a single dwelling with associated outbuildings that will be demolished as part of the development. It is bounded to the north, east and west by fields. To the south is Ffordd Ty Newydd residential road that leads to a small number of dwellings. The site boundary lies approximately 300m north of Ffordd Talargoch, a lightly trafficked road.
6. There are no roads within 400m to the north, south, or west of the site, and those present in the wider area are all lightly trafficked. On the basis of the site inspection and measurements described below, it has been determined that existing noise levels across the site are low.
7. The proposed layout is presented in Figure 2, with the current scheme comprising 160 dwellings ranging from one to four bedrooms.

Noise Survey

8. An initial noise survey was carried out to investigate the prevailing noise levels on the proposed development site. The survey was carried out at Location 1 indicated on Figure 1.
9. The measurement position was selected as being representative of the likely boundary of the proposed residential plots closest to Ffordd Ty Newydd.
10. The noise survey was carried out between 12:00 and 14:00 on Tuesday 11th November 2025 using a Brüel & Kjær 2260 ‘Type 1’ integrating sound level meters (s/n: 2467016), independently calibrated within the preceding 24 months.

11. Acoustic calibration of the sound level meter was carried out before and after the noise measurements using an acoustic calibrator that had been independently calibrated within the preceding 12 months. No significant variation in the calibrated noise levels was noted.
12. Weather conditions during the survey were suitable for noise measurements being dry, 12°C, and with a light breeze .
13. The noise level measured at Location 1 was found to average 45 dB L_{Aeq} . Peaks from the small number of passing vehicles were within the range 53 – 63 dB L_{AFmax} .
14. Full results along with details of the equipment used, and the weather conditions during the survey, are shown in Appendix A.

Acoustic Design Criteria

15. Guidance on acceptable noise levels in habitable rooms and private gardens is set out in British Standard 8233: 2014, ‘Sound insulation and noise reduction for buildings’.
16. The recommended criteria are summarised in Table 1 below.

Table 1: Recommended Acoustic Design Limits for New Dwellings

Location	Daytime 07:00 – 23:00	Night Time 23:00 – 07:00
Resting	35 dB $L_{Aeq,16hr}$	-
Dining	40 dB $L_{Aeq,16hr}$	-
Sleeping (daytime resting)	30 dB $L_{Aeq,16hr}$	30 dB $L_{Aeq,8hr}$ 45 dB $L_{AFmax,10th\ Highest}$

17. BS8233 recognises that regular individual noise events at night can cause sleep disturbance, though no specific criterion is stated. Peaks of noise from individual events are usually described in terms of L_{Amax} values and these can be highly variable and unpredictable such that for design purposes it is usual to take into account the findings of research described in WHO *Community Noise Guidelines* that states ‘for a good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45 dB L_{Amax} more than 10-15 times per night’.
18. For rear gardens BS8233 states that ‘it is desirable that the external noise level does not exceed 50 dB $L_{Aeq,T}$ with an upper guideline value of 55 dB $L_{Aeq,T}$ which would be acceptable in noisier environments’.
19. While BS 8233 provides internal and external design targets, land-use suitability for residential development in Wales is assessed with reference to ‘*Technical Advice Note (Wales) 11 – Noise*’ (TAN 11, 1997) and subsequent CL-01-15 updates.
20. TAN 11 sets out Noise Exposure Categories (NECs) for proposed residential development land that is exposed to different types of noise, and their suitability for residential use.
21. The NECs for land exposed to road traffic noise are shown in Table 2 overleaf.

Table 2: TAN 11 Road Traffic Noise Exposure Categories

	Noise Exposure Category			
	A	B	C	D
Daytime (07:00-23:00)	<55	55-63	63-72	>72
Night-time (23:00-07:00)	<45*	45-57*	57-66	>66

[* sites where noise events regularly exceed 82 dB L_{Amax} several times in any hour at night should be treated as being in Category C]

Category A - Noise need not be considered as a determining factor in granting planning permission.

Category B - Noise should be taken into account and steps taken to ensure an adequate level of protection against noise.

Category C - Planning permission should not normally be granted. Where development is permitted, steps should be taken to ensure a commensurate level of protection against noise.

Category D - Planning permission should normally be refused.

22. The measured daytime noise level of 45 dB L_{Aeq} at the part of the site closest to Ffordd Ty Newydd places the site comfortably within Noise Exposure Category A under TAN 11.
23. Although no night-time measurements were undertaken, the noise levels measured during the daytime are below the night-time Category A threshold, it is entirely reasonable to expect that night-time levels would be considerably lower than those recorded during the day.
24. On this basis, night-time noise levels are also expected to fall well within Category A, indicating that noise need not be considered as a determining factor for this development.

Recommendations

Gardens

25. The daytime noise level at the site boundary (i.e. in the rear gardens of the proposed houses) was found to be 45 dB L_{Aeq} , which meets the lower guideline 50 dB(A) criterion that is recommended for gardens in BS 8233. Therefore, no specialist noise mitigation measures in respect to external noise need to be installed.

Sound Insulation of Dwellings

26. Windows of standard well-sealed thermal double glazing (4mm glass – 4mm glass) have a typical sound reduction performance of 25 dB $R_w + C_{tr}$. Therefore, where road noise levels exceed 60 dB $L_{Aeq,16hr}$ during the daytime and/or 55 dB $L_{Aeq,8hr}$ at night, and/or 70 dB L_{Amax} for more than 10 times a night, higher specification glazing will be necessary.
27. As noise levels at the site boundary are below these thresholds, we consider that for all living rooms and bedrooms the criteria set out in Table 1 will be achieved without the need for specialist acoustic double glazing or enhanced acoustic ventilation.
28. The measured daytime levels are also lower than the night-time threshold values at which mitigation would normally be required for bedrooms. As night-time noise levels would be expected to be lower still, the relevant internal and external criteria are likely to be comfortably satisfied.
29. It is therefore concluded that there are no noise-related constraints affecting the suitability of the site for residential development. No specific noise mitigation measures would be necessary beyond the use of standard glazing and non-acoustic trickle ventilation.

Appendix A: Noise Survey Results

Date(s):	Tuesday 11 November 2025
Equipment:	Brüel & Kjær 2260 'Type 1' sound level meter (s/n: 2467016) with associated calibrator and tripod
Weather:	12°C, cloudy, dry, and light breeze

Time		Measured Noise Levels (dB)			Comments
Start	End	L_{AFmax}	L_{Aeq}	L_{A90}	
12:18	12:33	57.4	45.2	42.4	
12:33	12:48	55.9	45.7	43.0	
12:48	13:03	53.4	44.0	41.4	
13:03	13:18	57.0	44.6	41.4	
13:18	13:33	70.2* Dog Barking Close to Sound Level Meter	45.8	41.0	Faint distant road traffic. A small number of cars passing on Ffordd Ty Newydd Dog walking on field, Bird song
13:33	13:48	63.4	45.8	40.4	
13:48	14:03	59.7	45.0	41.6	
14:03	14:18	56.5	43.2	40.4	

Figure 1: Site Location & Noise Measurement Location



Figure 2: Proposed Site Layout

