MEMO

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Ref: P25-165-M01

Project: Stansty Chain Road, Wrexham
Outline Approved Residential Development

Date: 4 June 2026

To: Olivia Forde, Castle Green Homes

From: James Shaw BSc MIOA – Principal Consultant

Subject: **External Amenity Area Noise Criteria**

Introduction

1. Hepworth Acoustics Ltd was commissioned by Castle Green Homes Ltd to prepare Noise Mitigation Schemes for Phases 1 and 2 of the outline approved residential development at Stansty Chain Road, Wrexham (Ref: *P25-165-R02*).

2. This memo has been prepared to set out the justification for adopting a 55 dB L_{Aeq} external amenity area (garden) noise criterion for the development, in response to comments received from Wrexham County Borough Council (WCBC) Environmental Health requesting that a 50 dB L_{Aeq} criterion be achieved in all gardens.

3. Outline planning permission was granted for the development in 2019 for the construction of up to 455 dwellings, to be brought forward in two phases.

4. The entire site is bounded to the south by the A483 dual carriageway, a busy road which carries high traffic volumes, to the west by Mold Road (Phase 1) and to the east (on Phase 2 parcel) by the Wrexham to Bidston railway line.

5. The site is therefore influenced by both road traffic and railway noise from the adjacent strategic transport network. In the context of BS 8233:2014 the guidance recognises that a degree of flexibility may be appropriate when considering external amenity areas in locations affected by established transportation noise sources.

6. Measured daytime road traffic noise exposure levels were up to 70 dB $L_{Aeq,16hr}$ at the A483 boundary (Location 1). However, the proposed dwellings are set significantly back from the A483 and, consequently, lower daytime noise levels of 57–59 dB $L_{Aeq,16hr}$ were measured at locations representative of the proposed residential development plots, situated approximately 50–150 m from the carriageway (Locations 3 and 4). Railway noise at the eastern boundary was measured at 54 dB $L_{Aeq,16hr}$ (daytime).

BS 8233:2014

7. BS 8233:2014 states that for external amenity areas it is desirable that the external noise level does not exceed 50 dB L_{Aeq}, with an upper guideline value of 55 dB L_{Aeq} which would be acceptable in noisier environments. BS 8233:2014 does not present 55 dB L_{Aeq} as a strict limit, the standard acknowledges that this guideline value will not be achievable in all circumstances where development is desirable. Indeed, the standard goes further for sites exposed to the strategic transport network, is it stated that noise levels *in excess of* 55 dB L_{Aeq} in external amenity areas may be acceptable.

8. The site is located within an area for which the standard anticipates and accepts amenity levels above even the 55 dB upper guideline. Therefore, we consider, the adoption of 55 dB L_{Aeq} is not a relaxation of BS 8233:2014 but a conservative application.

Outline Approval

9. The outline planning permission was supported by a Noise Assessment prepared by (e3p Consultants Ref: 50-204-R1-6 dated March 2021) which adopted the upper 55 dB L_{Aeq} external criterion. This formed the accepted basis upon which the principle of residential development was approved. The 55 dB L_{Aeq} criterion was therefore established and accepted at the outline stage, and it is therefore reasonable and consistent for the same criterion to be carried forward to the Reserved Matters stage.

10. Previous residential planning permissions granted by WCBC have accepted a 55 dB L_{Aeq} external amenity criterion, including the following developments:

Development Location	Date of Planning Approval	Garden Criterion Accepted
Land Opposite of St Peters Close Llay New Road Rhosrobin Wrexham LL11 4RB (Ref: P/2021/1057]	09/6/2024	55 dB L_{Aeq}
British Legion Social Club Watts Dyke Llay Wrexham LL12 0RL (Ref: P/2021/038)	26/07/2021	55 dB L_{Aeq}
Main Road Old Rhosrobin Wrexham LL11 4RL (Ref: P/2021/0135)	15/11/2021	55 dB L_{Aeq}

Implications for the Mitigation Scheme

11. Strict application of the 50 dB L_{Aeq} criterion for all gardens would require significantly greater lengths and heights of acoustic fencing across the development. Whilst compliance with the 55 dB L_{Aeq} upper guideline value can be achieved with acoustic barriers that are generally 2.2m in height, with only a small number of localised sections extending to 2.4m, achievement of the 50 dB L_{Aeq} criterion would necessitate acoustic barriers up to 3.2m in height in certain locations.

12. Such barriers would represent a substantial increase in the scale of the mitigation scheme and would have the potential to adversely affect visual amenity and the character of the residential environment. Adoption of the 55 dB L_{Aeq} upper guideline value, consistent with the outline planning approval and the guidance contained within BS 8233 for sites of this character, therefore provides a balanced and reasonable acoustic design that protects residential amenity whilst avoiding disproportionate mitigation.

Summary

13. For the reasons set out above, it is considered that a 55 dB L_{Aeq} external amenity area criterion is appropriate and justified for the Stansty Chain Road development, on the basis that:

    - The site lies adjacent to the strategic transport network and constitutes a "*noisy environment*" for which BS 8233:2014 expressly acknowledges 55 dB L_{Aeq} or higher as being acceptable.
    - The outline approval was supported by a Noise Assessment adopting a 55 dB L_{Aeq} criterion, which formed the accepted basis of the consent.
    - A 55 dB L_{Aeq} garden criterion is established and has been accepted by the Local Planning Authority and Environmental Health on comparable local developments, including one located very nearby and adjoining the same stretch of the A483.

14. Should the Environmental Health Officer wish to discuss the assessment in more detail, we would be pleased to arrange a Teams meeting to review the matter.