

Our ref: P19-300-TN01v1
25 February 2020

**TECHNICAL NOTE: Land off Workhouse Lane, Burbage, Leicestershire
Response to EHO Comments re 20/01012/OUT**

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This Technical Note has been prepared to provide a response to comments relating to noise impact, set out by the Environmental Health Department at Hinckley and Bosworth Borough Council on 11 November 2020, with respect to application reference 20/01012/OUT, i.e. Land West Of Workhouse Lane Burbage Leicestershire.

The comments relating to noise address the findings of the Hepworth Acoustics noise assessment report that accompanied the application; report reference: P19-300-R01v1, dated September 2019.

Specifically with regard to noise the comments were as follows:

The noise impact assessment predicts that noise criteria will be exceeded both indoors and outdoors and further consideration of noise is required.

Indoor Noise

It is reasonable to expect that occupants would wish to regulate temperature by opening windows particularly during warmer months. Based on measured noise levels at the site, should occupants of the proposed dwellings wish to open windows to regulate temperature during the summer months they could experience higher than desirable levels of noise intrusion - if they were solely reliant on the ability to open windows to assist with the thermal control of their properties.

In light of the above it would be appropriate to make provision for mechanical ventilation of plots that could be exposed to internal noise levels above 35dB (night time LAeq bedrooms) and 40dB (Daytime LAeq Living rooms) This would protect future residents from the existing noise from the M69.

Outdoor Noise

The assessment predicts exceedances of the "upper guideline level" of 55 dB LAeq,T as stated in BS8233 for garden areas. The upper guideline level is based upon a noise level where the majority of people are seriously annoyed. As stated in the WHO Guidelines for Community Noise "To protect the majority of people from being seriously annoyed during the daytime, the sound pressure level on balconies, terraces and outdoor living areas should not exceed 55 dB LAeq for a steady, continuous noise. To protect the majority of people from being moderately annoyed during the daytime, the outdoor sound pressure level should not exceed 50 dB LAeq". The developer may wish to consider boundary treatment for the development, as has been used in other nearby developments, to reduce external noise levels towards 50 dB LAeq,T.

We respond as follows:

Regarding **Indoor Noise**, the comments suggest that mechanical ventilation is needed, as with windows open some rooms may experience internal noise levels more than 5dB above the BS8233 guideline values. However, as per para 2.15 of our report, BS 8233 states that if there is a reliance on closed windows to meet the guide values, *“there needs to be an appropriate alternative ventilation that does not compromise the façade insulation or the resulting noise level”*. Further, it is stated that assessments should be based on a room with *“adequate ventilation provided (e.g. trickle ventilators should be open)”*. On this basis, we have advised that standard glazing and standard trickle vents will suffice, as this will achieve the BS8233 guideline values with windows closed and trickle vents open. We would consider a requirement for mechanical ventilation to be at odds with the classification of the site (as per ProPG) in the ‘low’ risk category (or ‘low’ to ‘medium’ for night-time).

Regarding **Outdoor Noise**, it is noted that the overall assessment daytime noise level is ‘tipped-over’ the BS8233 upper guideline limit due to consideration of levels in the worst-case wind direction, with noise levels measured to be within that limit at other times. Given that the worst-case wind direction in this case is a relatively infrequent mode (south-easterly) it is considered that the assessment is potentially a slight over-estimate, adopted for robustness. It is also necessary to take full account of the provisions of BS 8233 set out in para 2.17 of our report, which notes that *“it is recognised that these guideline values are not achievable in all circumstances where development might be desirable. In higher noise areas such as city centres or urban areas adjoining the strategic transport network, compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, developments should be designed to achieve the lowest practicable levels in these external amenity spaces, but should not be prohibited”*.

In this context, we consider that the predicted 2dB exceedance, based on assessment levels, which would generally be imperceptibly different to a situation just meeting the upper guideline value, is not significant, providing best practicable mitigation is incorporated. We have indicated that due to the distance separation and other existing attenuation factors, it is not likely that simple acoustic fencing will have a substantial effect, unless of a height atypical of normal garden fencing. That said, some benefit may be achieved using that approach, so this could be explored where necessary to demonstrate that best practicable mitigation is incorporated. Nonetheless it is on the above basis that we recommended minimising the number of gardens towards the southernmost boundary areas of the site, instead, where possible, protecting gardens behind the houses. However, we also note that this may not be entirely practicable, accounting for other design and planning constraints, and that based on the above given provision of BS8233 this should not be prohibitive. Again, we would consider an alternative conclusion on this point to be at odds with the classification of the site (as per ProPG) in the ‘low’ risk category during the daytime.