



Hammonds Way, Hinckley - Technical Note

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BB	DS	100989	Hinckley Investment LLP	12/02/2026
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1. Introduction

- 1.1. This technical note (TN) has been produced to answer queries from Hickley and Bosworth Borough Council that relate to the Air and Acoustic Consultants Ltd noise assessment '100989[00] Hammonds Way Hinckley Noise Assessment Final'. The assessment considered likely levels of noise and impacts from a proposed employment development at Hammonds Way, Hinckley.

2. Comments and Responses

- 2.1. The single comment has been split up in this document to allow individual elements to be responded to individually.

Comment 1

"The Noise Impact Assessment uses a layout based on B2 use. How does this differ from a B8 layout? How do transport predictions differ between the two uses and what has been used for this assessment?"

Response 1

- 2.2. The layouts that have been provided show little difference between the B2 and B8 layouts that would affect noise, the service yard and dock levellers are in the same location relative to the building and the floor area is the same, the number of car parking spaces in the main car park are also the same. The differences relate to the number of HGV parking spaces in the service yard. The B8 layout includes 15 lorry parking spaces as opposed to 9 for the B2 layout and there are also 5 tractor unit/van parking spaces which are not present on the B2 layout. In the B2 layout this space is shown as car parking.
- 2.3. It is understood that there is a larger volume of operational traffic associated with the B2 use and so this is what has been included in the assessment, B8 traffic predictions were not provided. However, the assessment has assumed double the number of HGV movements from the worst-case hour in the provided traffic predictions to ensure that a reasonable worst-case scenario has been assessed.

Comment 2

"Some consideration of noise from B2 use (internally) should be provided."

Response 2

- 2.4. At this point there isn't an occupier proposed so the impacts of internal noise from known sources cannot be calculated. However, it is possible to determine the potential impacts of an example use within the B2 industrial planning use class using the likely sound insulation performance of the building, the propagation from the building to the receptors and the level of background sound currently experienced.
- 2.5. The main access doors into the building are located on the opposite side of the building to the receptors so the main route for breakout noise will be through the building fabric, this assumes a simple corrugated steel or sandwich panel façade. If the façade had a higher sound insulation performance break-out noise would be lower.
- 2.6. In order to calculate the likely noise impacts at the noise sensitive receptors, an example sound pressure level of 77 dB(A) has been used, this was measured inside a steel rolling mill. A steel rolling mill would be a relatively loud industrial operation, and any end users might produce higher or lower sound levels.
- 2.7. The assumed façade construction would provide a reduction between internal and external sound levels of 24 dB(A), this could vary for different internal noise sources because of the interaction between the spectral sound insulation performance and the spectral sound source levels.
- 2.8. The building façades have been modelled in CadnaA to allow the distance propagation loss between the proposed building and the residential receptors to be calculated including the effects of multiple facades and accounting for them as large vertical area sources. The propagation loss is 4 dB(A) for the residential receptors on Nutts Lane and this is the smallest propagation loss between any of the proposed building façades and the residential receptors. The calculations assume that the internal sound level is equal throughout the building in order for the entirety of the west façade to radiate sound. In reality, small areas will radiate lower sound levels and the resulting propagation loss could be much more substantial.
- 2.9. An indicative penalty has been added consisting of 2 dB for tonality and 3 dB for impulsivity, although this could be different depending on the characteristics of emitted sound.
- 2.10. The resulting noise levels at the worst-case receptors is presented in [Table 1](#), along with a summary of the calculations described above.

Table 1: Noise Break-Out from B2 Industrial Use

Parameter	Daytime (dBA)	Night-Time dB(A)
Internal Sound Level	77	77
Façade Sound Insulation	-24	-24
Distance Attenuation	-4	-4
Allowance for Penalty	+5	+5
Result	54	54
Background Sound Level	44	40
Difference to Background Sound Level	+10	+14

- 2.11. The results show that a relatively loud industrial use inside the building could result in an exceedance of the background sound levels by more than 10 dB. This would be classified by BS 4142:2014+A1:2019 as a significant adverse impact. However, there would be a number of mitigation options available to an operator with equipment that produces high sound levels, including enclosing loud equipment, placing it far from the west façade, replacing with quieter equipment or even adding additional sound insulation to the building façade.

- 2.12. The number of unknowns that affect the assessment of internal sound levels from a potential B2 industrial end user are substantial so an assessment of the proposed operations once the end user is known would be much more accurate. The following planning condition could be applied to the consent to ensure this happens:

Prior to the installation of any plant or equipment on-site, a BS 4142:2014+A1:2019 noise impact assessment shall be submitted for approval to the Local Planning Authority. The assessment shall be undertaken in accordance with BS 4142:2014+A1:2019. The noise rating levels shall be determined at the worst affected existing residential property and should include the provision to be made for the control of noise arising from the development use where adverse impacts are predicted. The development shall be operated in accordance with the approved scheme, unless otherwise agreed in writing by the Local Planning Authority.

Comment 3

"With regard to section 6 please can more detail regarding the sound levels used from the AAC library be provided. Does this include reverse beepers. As with the neighbouring industrial site I would expect broadband reverse beepers to be used where possible- certainly on site based FLT's."

Response 3

- 2.13. The sources used in the assessment were measured by AAC on different sites, the van reversing, HGV manoeuvre and forklift unloading HGV all include reversing alarms as part of the source sound levels.

Comment 4

"Table 6 relates to the rating penalties and states that no penalties have been applied because "Predictions show the identified receptors are likely to be unaffected by the new sources as predictions at facades are below the background sound levels. Therefore, no distinctive characteristics are likely to be audible, and no penalties have been applied" Receptor R01 (GF and 1F) are predicted to be only 1dB below the background noise level. Whereas noise of a similar nature to the background noise level may not be distinguishable, industrial, site based noise (FLT's reverse beepers, loading/unloading) would be and this should be revisited (particularly in light of the contents of section 3.6.3. -the three of the four sources have reversing alarms that are part of the measured sound levels calculation error could be greater than ± 3 dB.)"

Response 4

- 2.14. The worst-case predicted specific sound levels are 1 dB less than the background sound level at R01 but the predicted levels are substantially less than the background sound levels at all of the other receptors so it is assumed that this comment relates to the residential properties represented by R01 only.
- 2.15. The character penalties that could be applied for reversing alarms that may be part of the sound from the proposed development would be impulsivity and tonality, these sources do not exist currently and so any penalties can only be added qualitatively. The level of penalty that is applied depends on how perceptible the potential tonality or impulsivity would be at the receptor, the specific sound level with the reversing alarms is less than the existing background sound level and so it is unlikely that it would be perceptible.
- 2.16. Part of the consideration of potential penalties included a consideration of the ambient noise and while the specific sound level at R01 is only 1 dB less than the background sound level at this location, the ambient sound level measured at L2 (close to R01) during the night-time was 50.9 dB(A). This ambient sound level is 10.9 dB higher than the background sound level and will further disguise operational noise from the proposed development, so the lack of rating penalties is justified.

- 2.17. The ambient night-time sound levels are also suitably high that the residential properties represented by R01 would be expected to experience sound levels that exceed recommended internal sound levels limits from BS 8233 and so would be likely to keep windows closed which will reduce their sensitivity to external noise.
- 2.18. Finally, the predicted noise levels from the development represent a reasonable worst-case so are likely to be higher than levels that will be experienced once the development is built, the stated error for calculations using ISO 9313 can result in higher sound levels, however the assessment includes a number of worst-case assumptions which mean that sound levels are likely to be overpredicted. ISO 9613 also includes a number of worst-case assumptions such as the wind direction always being calculated as going from source to receiver which artificially increase the predicted sound levels especially over long distances. So while the stated error can underestimate sound levels, overestimates are more likely. ISO 9613 is the industry standard calculation method used in industrial predictions in the UK and is built into the sound modelling software packages. The only reason that this has been raised is because the submitted assessment seeks to be transparent and openly acknowledges that any calculation will include inherent error, this level of potential error would be present in any industrial modelling.
- 2.19. While distinctive characteristics of the specific sound level are not considered perceptible, if they were just perceptible, penalties of 3 dB for impulsivity and 2 dB for tonality would result in a noise rating level less than the threshold where adverse impacts become likely and would not change the outcome of the assessment.

3. Summary and Conclusions

- 3.1. Responses to the comments from Hickley and Bosworth Borough Council have been provided, additional information has been provided on noise break-out from a potential B2 industrial use of the site but it is not possible to predict exact levels of noise or consider reasonable mitigation options when the end user is unknown. Therefore, AAC propose that future noise from the proposed B2 uses be assessed at such a time as a B2 occupier is selected. This can be controlled by planning condition, of which a suggested phrasing has been provided.
- 3.2. The lack of penalties included in the BS 4142 noise assessment has been explained and it is demonstrated that penalties, if they were added, would not affect the outcome of the assessment but it is unlikely that the noise from the site would be prominent enough to make penalties necessary.