

Ref: VA5551.260212.L2



12 February 2026

Mark Sennitt

Dear Mark

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VA5551 BROADWAY FARM, BROAD OAK, BOTLEY

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EH Comments

We have received the following comments from Mr Pires of Eastleigh Borough Council Environmental Health on our noise impact assessment ref. VA5551.250514.NIA3 dated 15th May 2025.

I reviewed the Venta Acoustics noise report and can confirm the correct approach regarding criteria, methodology and noise survey duration/location.

All receptors including the residential receptor linked financially to the scheme should be included in the noise report. Only the closest residential receptor to the southwest of the site is shown in the noise calculations.

The noise report states that the difference between the existing yard and the proposed new yard location will result in a 2dB increase following a BS4142 assessment and an excess of rating over background sound level of +9 dB. BS4142 criteria states that a difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.

The calculations also use a distance of 140m this is taken from the centre of the site and not a worst-case scenario. Is important to state that this is not a cumulative assessment of all movements over a period of time. This +9dB impact is per HGV movement and can relate to multiple impacts per night depending on the number of movements.

The mitigation proposed in the noise assessment is to stop de use of tonal and impulsive reversing alarms and the use of a visual flashing alert system instead. With this mitigation the excess of rating over background sound level is proposed to be +4dB. Already including -10dB attenuation of a boundary fencing that is not shown in the noise assessment.

I understand that this operation already exists in a similar distance to other residential properties and this is only a relocation (context), but I have to raise that both the outcome of the assessment and the proposed mitigation (hard to enforced) increase the risk of noise nuisance significantly to the area.

Can I please have an explanation of the location and height of this boundary fencing.

Considering the above comments and request for clarifications and inclusion of further receivers, a more detailed assessment of noise from use of the proposed trailer storage yard has been undertaken.

Due to the complexity of the building interaction in this locale and the likelihood of noise both reflecting off and being screened by the surrounding buildings, 3D noise mapping using DataKustik CadnaA software was implemented to ensure the most accurate prediction of plant noise levels at the nearest noise sensitive receivers.

This process uses several different calculation protocols to derive accurate noise analysis predictions. Noise propagation and barrier attenuation are calculated in accordance with ISO 9613-1:1993 *Acoustics - Attenuation of sound during propagation outdoors - Part 1: Calculation of the absorption of sound by the atmosphere* and ISO 9613-2:2024 *Attenuation of sound during propagation outdoors - Part 2: Engineering method for the prediction of sound pressure levels outdoors*.

The local topography has been imported into the model from the DEFRA Lidar digital terrain model to account for the various levels across the site. The model has been set to allow for three reflections off all surfaces, and suitable finishes allowed for the buildings.

The same source noise level 73dB(A) at a distance of 8m from an HGV manoeuvring has been utilised for this assessment. As pointed out in the EH comments, this was previously modelled as a point source in the middle of the trailer storage area, which may not accurately represent noise propagation from the area.

To address this concern, a moving source has been modelled, with the HGV driving into the storage area, manoeuvring back and forwards as they would do when lining up a trailer to be reversed, and then, having completed this, driving out of the area. The movement lines of the HGV source can be seen on the attached noise map, ref. VA5551/NM1, with the location of the 2m high solid boundary fence to the trailer storage area shown in pink.

The output of the noise map predicts a noise level at the most affected receiver, to the south-west at 6 Broad Oak of 36dB(A), slightly lower than predicted in the noise report, likely due to the variation in distance, screening and ground absorption that would be captured in the noise model. Noise levels at Broadway Farm House, on site, are predicted to be much lower at 28dB(A), due to the greater degree of screening provided by the existing warehouse and ancillary buildings from the trailer storage area.

An assessment under BS4142 with the same mitigation measures assumed as before has been undertaken. The change was for tonal reversing alarms to be turned off and instead a visual flashing alert utilised during the night-time periods on site to remove the tonal and impulsive elements of the noise penalties under BS4142.

The results of the assessment are summarised in Table 1 below, with the results indicating a reduced level of impact from the previous assessment.

Results		Relevant Clause	Commentary
Specific Sound Level	L_{Aeq} 36 dB		As calculated in VA5551/NM1
Time correction	-12 dB	7.2	1 minute per 15 minute period
Acoustic feature correction	+3 dB	9.2	+3dB for intermittency
Rating level	L_{Ar} 27 dB	9.2	
Night-time background sound level	L_{A90} 25 dB	8	
Excess of rating over background sound level	+2 dB	11	
Assessment indicates marginal impact		11	Depending on context

Table 1 – BS4142 Assessment – proposed, mitigated

As highlighted in the comments, this is based upon a single HGV manoeuvring per 15-minute period, and so there would be a potential increase in noise level (3dB for 2 HGVs per 15-minute period, 5dB for 3 HGVs, etc). However, it is not expected that the storage area would be used that intensively during the quieter parts of the night, especially as due to space constraints, there will be a limit to how many HGV movements can take place in 15-minute period.

It should also be noted that no allowance has been made from localised screening in the storage area that would be provided by parked trailers, which would likely reduce noise levels further at the receivers.

As highlighted in the report, the above noise levels are predicted externally, whilst during the quieter parts of the night, residents would experience the noise internally. Allowing for a partially open window loss of 15dB, as per BS8233, internal noise levels resulting from the noise of HGVs manoeuvring (36dB(A) externally) would be expected to be 21dB(A) for the proposed new trailer park area. This is 9dB lower (subjectively nearly half as loud) than the corresponding BS8233 guideline level (although it is noted that this guidance is intended for consideration of anonymous noise), and is also lower than the existing average noise levels measured during the quieter night time periods without any activity, (i.e., the residual noise climate).

We trust the above to be of assistance. Do not hesitate to contact us should you have any further questions.

Yours sincerely
on behalf of Venta Acoustics

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