

The Independent Expert (Brain Hemsworth) made comments on the *Noise Scheme of Assessment (NSoA)* for *Route Section E* on 1st July 2015. The key concern was that the location of “Dr Booths C.E School” should be correct in the NSoA, and that it has been considered in the NSoA. The relevant extract from the original IE comments are as follows:

“1. Operational impacts are discussed in Section 6.4.2 but Dr Booth’s C.E. Primary School is not included. Neither is it identified as a Noise Sensitive Receptor in the NSoA for Route Section E or any geographical data for its location relative to the railway or noise levels given. Since it was not included on the NSoA it was not possible for me to comment on noise levels.

Some reference to and assessment of Dr Booth’s C.E. Primary School should have been contained in the NSoA for Route Section E and its omission should be addressed by ERM either by explanation of why it was omitted or by carrying out an assessment.

2.School Location within Route Section E.

Criticism was correctly made that Dr Booth’s Primary School was incorrectly placed on the NSoA maps. This should be addressed as in comment 1”.

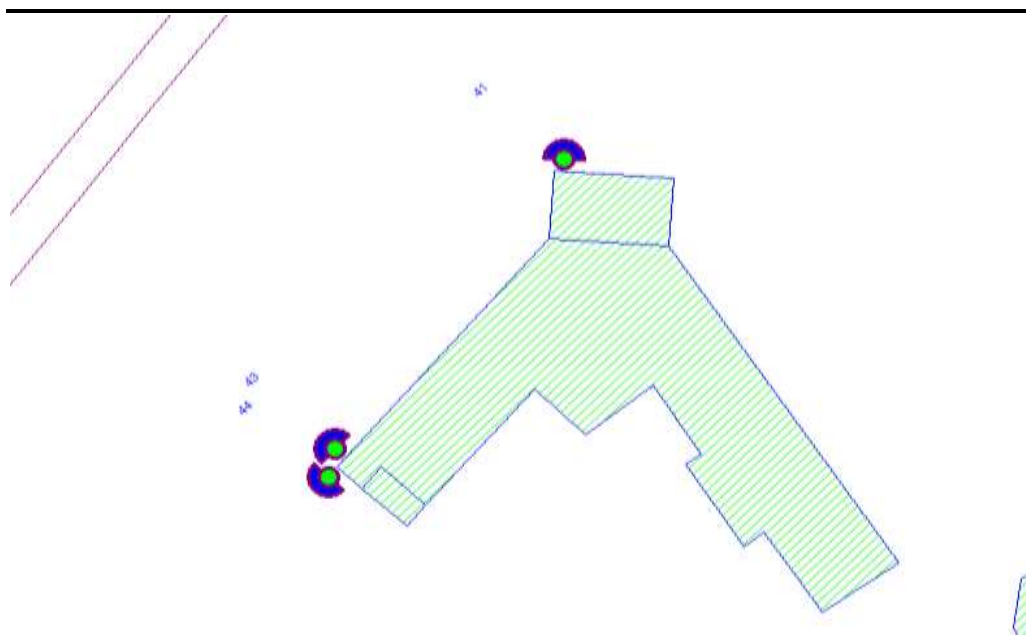
This note responds to those concerns by identifying the building, its location, the predicted noise levels and the need for noise mitigation.

2.1 IDENTIFICATION OF THE BUILDING

ERM has reviewed the location of this building referred to by the IE, and has found that a building of this name does not exist. It is assumed therefore that he means Dr South's C of E VA School which is approximately 30 – 35 m south east of the railway. This is the school referred to in Trevor Dixons (South Northants covering e-mail.

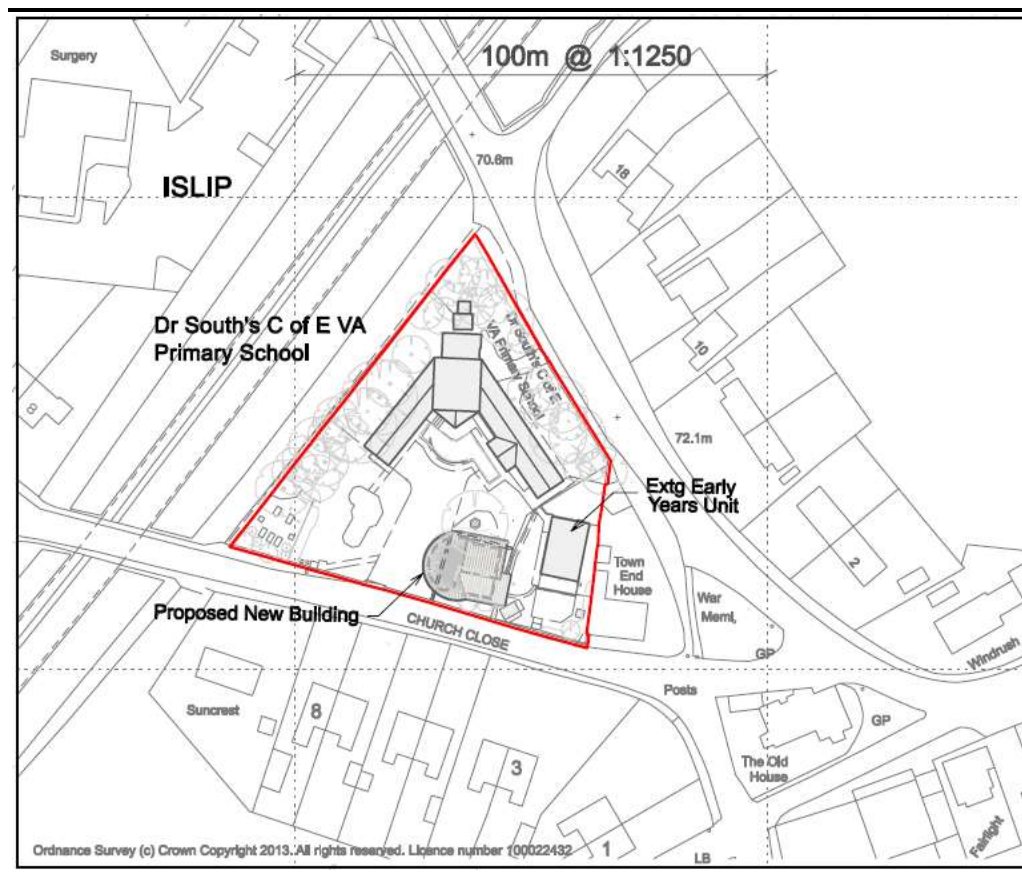
ERM has reviewed the mapping and maintains that the School is correctly included in the noise modelling. *Figure 5.1* in the NSoA showing the noise contours does include the building, although it is recognised that the label is some distance from the School. Although results are not tabulated for this receptor specifically, it was taken into account when designing the mitigation. The School and the proposed railway lines as modelled are shown in *Figure 2.1*.

Figure 2.1 *Modelled School Building*



The School submitted a planning application which included a proposed new building (the Lin Cooper Practical Skills Building) on the site in 2013 (CDC Ref: 13/01849/F). The proposed location plan as submitted is shown in *Figure 2.2*.

Figure 2.2 Proposed Location of Lin Cooper Practical Skills Building



This proposed building does not appear on aerial imagery and may or may not have been built. However, the proposed building is outside any of the predicted noise contours that indicate noise impacts, and therefore it will not be significantly affected. For that reason, this has not been considered further.

The location map provided as part of the application (CDC Ref: 13/01849/F) matches exactly to the mapping of the school which was used in ERM's noise modelling. Whilst there is a structure at the northern end which is not modelled, this looks likely to be a small storage/maintenance area or a small out building used by the children when not in lessons.

The existing elevations submitted with the application show the existing school building as a single storey structure. However, the windows in the hall (which is the building at the junction of the two "arms" of the buildings containing the classrooms) are at the top of the façade which at an approximate height of 6 m. Predictions have been carried out for ground floor for all buildings and an additional prediction has been carried out to reflect the noise levels at the top hall windows.

This cautious approach has been based on inspection of imagery taken from the road. The presence of windows facing the railway has been assumed as a worst case, but has not been confirmed by a site visit.

2.2

PREDICTED NOISE LEVELS

The predicted noise levels at the School are shown in *Table 2.1*. The results show that the predicted noise levels were 56 dB outside the hall, 50 dB outside the south west façade and 48 dB at the southern façade. Since these levels do not exceed the daytime *Noise Impact Threshold* in the *Noise and Vibration Mitigation Policy*, which is 55 dB $L_{Aeq, 16 \text{ hr}}$, by more than 3 dB, no noise mitigation is required.

Table 2.1 **Results of the Noise Modelling**

Receptor	Relevant Floor	Predicted Unmitigated Impact (Free-field) above thresholds		Maximum Noise Level, $L_{Amax,night}$	Proposed Mitigation	Predicted Residual Impact (Free-field) above thresholds		Maximum Noise Level, $L_{Amax,night}$	Noise Insulation (statutory or non-statutory)
		Daytime ($L_{Aeq,16h}$)	Night-time ($L_{Aeq,8h}$)			Daytime ($L_{Aeq,16h}$)	Night-time ($L_{Aeq,8h}$)		
(North façade of Hall)	Ground floor (lower windows)	0	N/A	N/A	none	0	N/A	N/A	No
(North façade of Hall)	Ground floor (upper windows)	1	N/A	N/A	none	1	N/A	N/A	No
Southwest facade	Ground floor	0	N/A	N/A	none	0	N/A	N/A	No
South facade	Ground floor	0	N/A	N/A	none	0	N/A	N/A	No

2.3

MITIGATION

Since the noise levels do not exceed the *Noise Impact Threshold* for daytime by more than 3 dB, no noise mitigation is required either in terms of noise control at source, through noise barriers or noise insulation. The NSoA did consider this receptor and the mitigation in the NSoA is robust.