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Our Ref: R21/0603/DRK

Ref: Noise Impact Assessment – Protos Plastics to Hydrogen Facility – Section 73 Application

Planning Permission Ref: 19/03489/FUL

Technical Note

It is proposed to alter the design and layout of the approved Protos Plastics to Hydrogen Facility. NVC have been asked by Axis to review the site generated noise levels at nearest sensitive receptors (NSRs) resulting from the proposed changes to the site layout and dimensional changes to some of the buildings and structures at the site when compared with the original noise predictions.

The original noise impact assessment was provided within NVC report R19.0404/DRK dated 30th April 2019.

The proposed layout is attached as Figure 1 and the results of the remodelling of the latest site layout is attached as Figure 2. This includes the same input settings for the CadnaA noise prediction model and assumptions on plant noise levels and mitigation, as previously detailed in the NVC report.

The results of the noise model are presented below in Table 1, which includes comparison of noise levels based on the original scheme layout.

Table 1: Predicted Noise from Proposed Development Plant Operations (with mitigation) in terms of LAeq at residential NSRs relative to condition 17

Receptor Position (Refer to Figure 1)	Period	Predicted external noise level (new layout) LAeq (dB)	Predicted external noise level (original layout) LAeq (dB)	Condition 17 noise limits LAeq dB (day 1hr) (night 5mins)	Level difference between new layout noise and condition 34 levels LA90 dB
R1. Holme Farm	Daytime	34	34	52	-18
	Night-time	34	34	41	-7
R2. Marsh Lane	Daytime	31	31	40	-9
	Night-time	31	31	35	-4
R3. Station Road	Daytime	28	29	48	-20
	Night-time	28	29	41	-13
R4. Redwood Drive	Daytime	34	34	51	-17
	Night-time	34	34	37	-3

Receptor Position (Refer to Figure 1)	Period	Predicted external noise level (new layout) LAeq (dB)	Predicted external noise level (original layout) LAeq (dB)	Condition 17 noise limits LAeq dB (day 1hr) (night 5mins)	Level difference between new layout noise and condition 34 levels LA90 dB
R5. Ince Orchards	Daytime	31	31	45	-14
	Night-time	31	31	41	-10

The above results show minimal change in site generated noise levels when compared with the previous noise impact assessment and therefore no further mitigation measures would be required.

We hope the above additional information provides further clarification of the assessment of noise, relating to the layout changes to the proposed development.

Yours sincerely,



D R Kettlewell MSc MIOA MAE I.Eng
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 Principal Acoustic Consultant

Figure 1: Site Layout

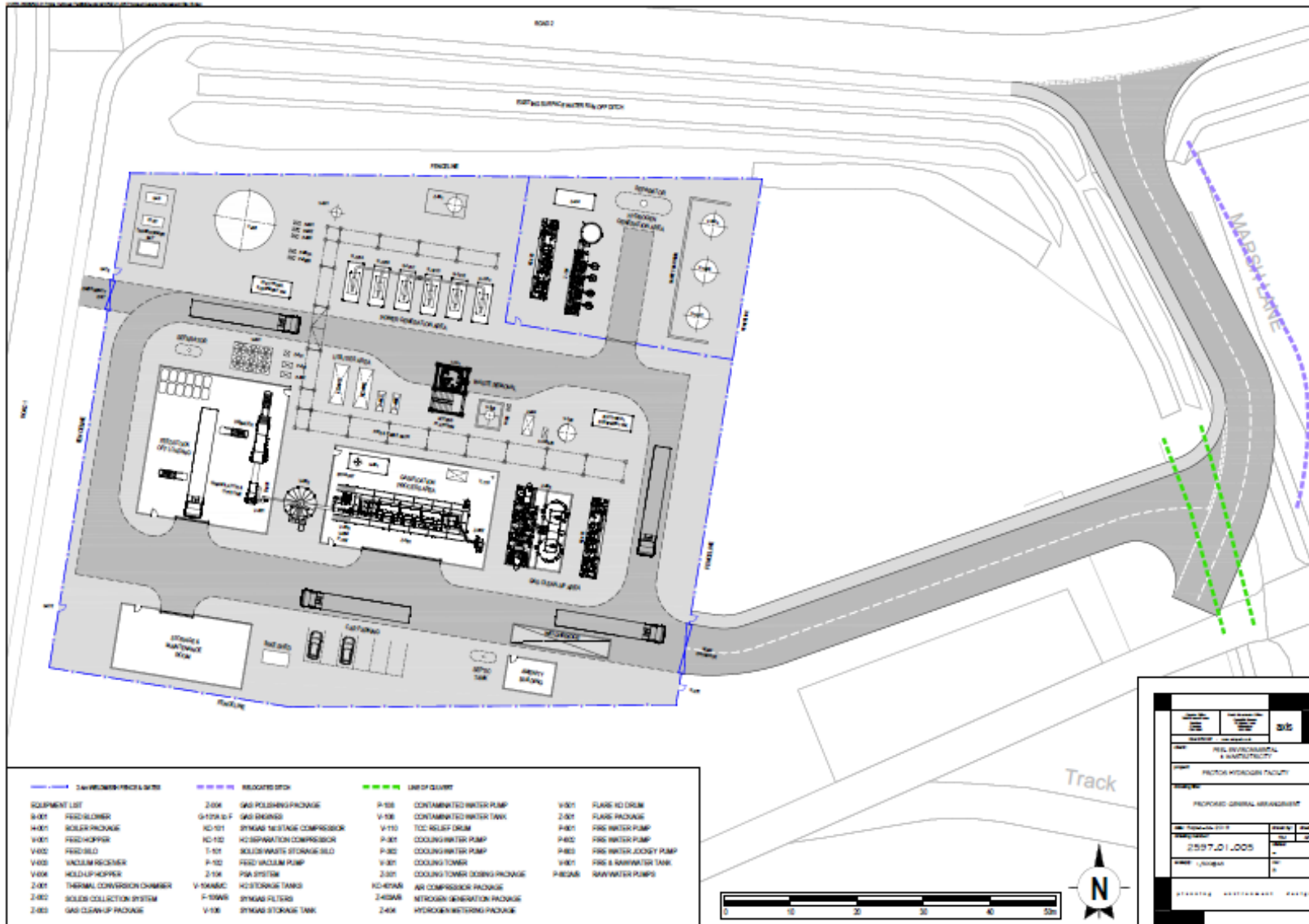


Figure 2: Noise Mapping Contour Results

