

Memorandum

To: Robin Shepherd – Barton Willmore
From: Chris McConnell – 24 Acoustics Ltd
Date: 15th July 2021
Job: 6930-8 Rev 0 Ford Airfield

This memo has been prepared as an addendum to 24 Acoustics' Noise Impact Assessment R6930-3 Rev 2, following recent changes to the development layout.

The updated parameters plan (see Figure 1) shows residential development in the south-eastern section of the site has been moved closer to the Viridor MRF. Residential properties are now proposed at a minimum distance of approximately 170m from the Viridor site boundary, compared to the previous layout which shows a minimum distance of approximately 190m.

The assessment of noise impact from the Viridor MRF upon the residential development has therefore been updated in light of this change.

Noise from Viridor MRF

The measured noise levels as presented in 24 Acoustics' report R6930-3 Rev 2 have been corrected for distance and acoustic screening to determine the noise levels at the rear of the closest proposed properties.

This assessment includes the following mitigation measures, as recommended in report R6930-3 Rev 2:

- (i) Gardens located to not face the industrial sources, i.e. acoustically screened by the dwellings;
- (ii) Orientation of dwellings so that no habitable rooms are directly facing the industrial sources.

An overall rating penalty of + 5 dB has been applied under BS 4142, as the impulsive character (+ 3 dB) and tonality (+ 2 dB) of the noise from Viridor may both be just perceptible at the receptor locations, with the recommended mitigation in place.

The results of the updated BS 4142 assessments for daytime and night-time periods are summarised in Tables 1 and 2 below.

Description	Noise Level
Source Noise Level (unmitigated)	44 dB L _{Aeq} , 1 hour
BS 4142 Specific Source Level (with mitigation)	29 dB L _{Aeq} , 1 hour
Character Corrections	+ 3 dB (impulsivity just perceptible) + 2 dB (tonality just perceptible)
BS 4142 rating level (with mitigation)	34 dB L _{Aeq} , 1 hour
Typical Background Noise Level (07:00 – 23:00)	39 dB L _{A90} , 1 hour
BS 4142 Assessment Level	-5 dB

Table 1: BS 4142 Noise Impact Assessment, Proposed Dwellings to West of Viridor MRF, daytime hours 07:00 – 23:00

Description	Noise Level
Source Noise Level (unmitigated)	44 dB $L_{Aeq, 15min}$
BS 4142 Specific Source Level (with mitigation)	29 dB $L_{Aeq, 15min}$
Character Corrections	+ 3 dB (impulsivity just perceptible) + 2 dB (tonality just perceptible)
BS 4142 rating level (with mitigation)	34 dB $L_{Aeq, 15min}$
Typical Background Noise Level (23:00 – 07:00)	34 dB $L_{A90, 15min}$
BS 4142 Assessment Level	0 dB

Table 2: BS 4142 Noise Impact Assessment, Proposed Dwellings to West of Viridor MRF, night-time hours 23:00 – 07:00

The updated noise assessments in Tables 1 and 2 show BS 4142 rating noise levels that are only 1 dB higher compared to the previous assessment. This is an insignificant change in noise terms.

The above assessments show that the difference between BS 4142 rating noise level from the Viridor site and the prevailing typical background noise level will be in the region of - 5 dB for daytime and 0 dB for night-time periods. As the rating noise levels are equal to or lower than the background noise levels, this is considered a low noise impact given the context of the site. i.e. for new dwellings being introduced near to existing industrial operations.

Summary

The noise impact from Viridor's operations upon the proposed residential development will be acceptable taking into consideration the revised scheme layout and recommended mitigation measures, and will be no worse compared to the previous scheme layout.

FIGURE I – UPDATED PARAMETERS PLAN

