

Appendix 12.7

Operational Traffic Noise Prediction Results

Operational Traffic Prediction Results - DAY

Receptor ID	Receptor	Predicted road traffic noise level, DAY, dB L _{Aeq,16hr} * freefield			DS effect level	Change, dB (DM to DS)	Magnitude of impact	Significant effect indicated?
		Baseline scenario ¹	DM scenario ²	DS scenario ³				
R01	Billingley Green Lane	55.7	56.1	57.0	Between LOAEL and SOAEL	+0.9	Negligible	NO
R02	Rose Valley Cottage	70.7	71.1	71.9	≥SOAEL	+0.8	Negligible	NO
R03	Woodbine	68.6	69.0	69.6	≥SOAEL	+0.6	Negligible	NO
R04	Highgate House	60.8	61.2	61.8	Between LOAEL and SOAEL	+0.6	Negligible	NO
R05	Holly Grove	59.0	59.6	59.8	Between LOAEL and SOAEL	+0.2	Negligible	NO

* L_{Aeq,16hr} (07:00-23:00) value calculated by subtracting 2 dB from the L_{Aeq,18hr} value (06:00-00:00) as initially predicted

¹ Baseline scenario, 2022 (for reference only)

² Do-minimum scenario, 2026, i.e., future baseline traffic flows not including traffic associated with the Development

³ Do-something scenario, 2026, i.e., future baseline traffic flows plus operational traffic associated with the Development for first year of full site operation

Operational Traffic Prediction Results - NIGHT

Receptor ID	Receptor	Predicted road traffic noise level, NIGHT, dB $L_{Aeq,8hr}$ freefield			DS effect level	Change, dB (DM to DS)	Magnitude of impact	Significant effect indicated?
		Baseline scenario ¹	DM scenario ²	DS scenario ³				
R01	Billingley Green Lane	52.5	52.5	54.0	Between LOAEL and SOAEL	+1.5	Minor Adverse	NO
R02	Rose Valley Cottage	67.1	67.1	68.6	≥SOAEL	+1.5	Minor Adverse	YES
R03	Woodbine	65.6	65.6	66.8	≥SOAEL	+1.2	Minor Adverse	YES
R04	Highgate House	58.1	58.1	59.1	≥SOAEL	+1.0	Minor Adverse	YES
R05	Holly Grove	58.2	58.2	58.4	≥SOAEL	+0.2	Negligible	NO

¹ Baseline scenario, 2022 (for reference only)

² Do-minimum scenario, 2026, i.e., future baseline traffic flows not including traffic associated with the Development

³ Do-something scenario, 2026, i.e., future baseline traffic flows plus operational traffic associated with the Development for first year of full site operation