

Appendix 6.2

Title	Baseline Noise Survey		
Project	Southleigh, Havant		
Reference	2856.AP.02.01	Author(s)	FD
Date	23 May 2025	Reviewer	RM

Methodology and Instrumentation

Noise measurements were undertaken at multiple positions across the site through a combination of unattended and attended surveys. Measurement positions can be seen in the images below and additional details can be seen in the subsequent tables.

Image 1. Measurement positions

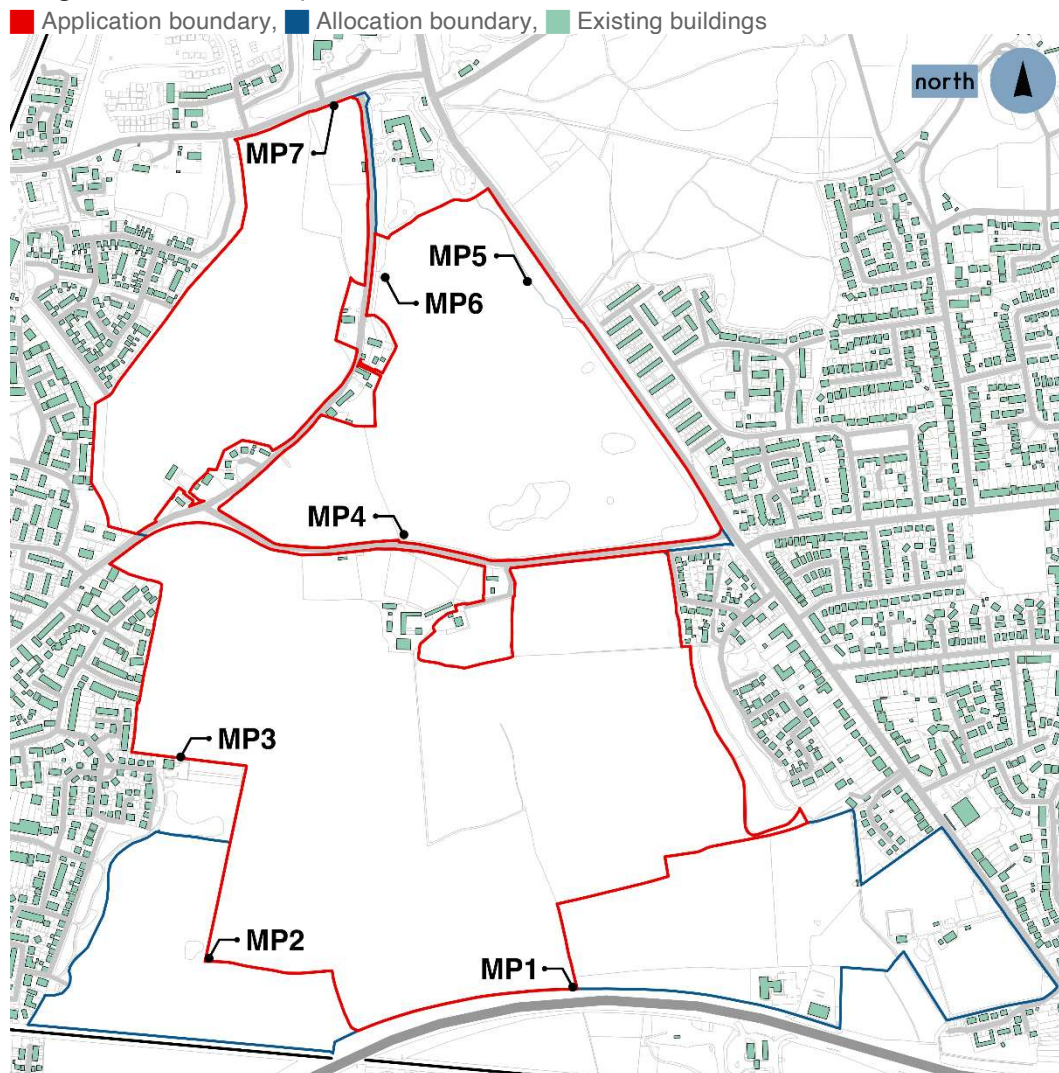


Image 2. MP10 location



Aerial image courtesy of Google Maps

Table 1 Measurement position survey dates and type

Measurement Position	Dates Surveyed	Attended / Unattended
MP1	16/07/2024 – 19/07/2024	Unattended
MP2	17/04/2024 – 22/04/2024	Unattended
MP3	17/04/2024 – 22/04/2024	Unattended
MP4	22/04/2024 – 26/04/2024	Unattended
MP5	22/04/2024 – 26/04/2024	Unattended
MP6	22/04/2024 – 26/04/2024	Unattended
MP7	11/07/2024 – 16/07/2024	Unattended
MP8	26/04/2024	Attended
MP9	16/07/2024	Attended
MP10	17/04/2024	Attended

Table 2 Noise measurement locations

Location	Detail
MP1	Microphone at 1.5 m above local ground level, on the southern boundary of the site, close to the A27 approximately 13 m from the nearest carriageway edge.
MP2	Microphone at 1.5 m above local ground level, in the southwest corner of the site controlled by <i>Bloor Homes</i> , approximately 146 m from the nearest railway line and 250 m from the nearest kerb edge of the A27.
MP3	Microphone at 1.5 m above local ground level, to the west of the site on the boundary between the site and the Stride Community Centre on Daffodil Way.
MP4	Microphone at 1.5 m above local ground level, in the middle of the site, approximately 12 m from the nearest kerb edge of Southleigh Road.
MP5	Microphone at 1.5 m above local ground level, on the northwestern boundary of the site, approximately 36 m from the nearest kerb edge of Horndean Road at national speed limit (60 mph).
MP6	Microphone at 1.5 m above local ground level, towards the north of the site, approximately 22 m from the nearest kerb edge of Eastleigh Road.
MP7	Microphone at 1.5 m above local ground level, on the northern boundary of the site, approximately 10 m from the nearest kerb edge of Bartons Road.
MP8	Microphone at 1.5 m above local ground level, to the east of the site, approximately 23 m from the nearest kerb edge of Horndean Road at 30 mph and 66 m from the nearest kerb edge of Southleigh Road.
MP9	Microphone at 1.5 m above local ground level, in the southeast corner of the allocation, approximately 25 m from the nearest kerb edge of Horndean Road at 30 mph.
MP10	Microphone at 1.5 m above local ground level, to the east of the site on a public footpath, approximately 10 m from the nearest railway line.

Noise levels from numerous train passbys were measured at MP10 located to the east of the site off a public footpath. At the time of surveying, access to the land not controlled by *Bloor Homes* could not be arranged therefore measurements of train passbys were taken along a suitably representative stretch of track to that running to the south of the site.

This measurement location is indicated on **Image 2** above and was selected to quantify train noise separately to road traffic noise. Using the results of these measurements and a standard train timetable, day and night time noise levels from the railway line have been quantified.

Representative ambient day and night-time noise levels have been calculated at positions MP8 and MP9 using a combination of the CRTN¹ shortened measurement procedure and the $L_{Aeq,16hour}$ / $L_{Aeq,8hour}$ DEFRA conversions².

Local roads controlled the noise climate with an underlying contribution from the A27 throughout. The community centre, A27 service station, Emsworth recreational ground and Havant rifle club were not noted to be significant contributors of noise across the site, but on observations made while on site and a review of the measured noise data.

¹ Calculation of Road Traffic Noise

² TRL Limited Project Report PR/SE/451/02 - Converting the UK traffic noise index $L_{A10,18hour}$ to EU noise indices for noise mapping

Publicly available weather data suggests that the majority of survey periods were clear of adverse weather conditions. Data recorded during periods of adverse weather conditions has been omitted from calculations.

Measurements of the L_{Aeq} , L_{Amax} and L_{A90} indices were recorded over consecutive 15-minute periods for the duration of the survey. Detailed summaries of the measurement positions are set out in the following table.

Noise measurements were made using the equipment set out in the following table. The sound level meters were fitted within weatherproof enclosures and field calibration checks were undertaken both before and after the survey periods to confirm an acceptable level of accuracy. No significant drift was noted to have occurred.

Table 3 Noise monitoring equipment

Location	Item	Detail
MP1 to MP4 and MP6 to MP8	Sound Level Analyser	Svantek 971
	Outdoor Microphone Kit	Svantek SA 271A
	Acoustic Calibrator	Svantek SV33B
MP5, MP9 and MP10	Sound Level Analyser	Norsonic Nor118
	Outdoor Microphone Kit	Norsonic Nor1251
	Acoustic Calibrator	Norsonic Nor1217

The site is generally sufficiently far from the Railway line that vibration is not a significant consideration. If residential development were to come forward on the southern boundary of the site adjacent to the railway line (not currently proposed by *Bloor*), further study may be required.

Results

The following tables set out the period noise levels captured across the duration of the unattended noise surveys.

Table 4 Measured noise levels at MP1 (A27)

Date	Noise Level, dB		
	Daytime Average	Night-time Average	Night-time Max ³
	$L_{Aeq,16hr}$	$L_{Aeq,8hr}$	$L_{Amax,f}$
Tuesday 16 th July 2024	68*	63	78
Wednesday 17 th July 2024	67	63	78
Thursday 18 th July 2024	67	63	78
Friday 19 th July 2025	68*	-	-

*Partial daytime period due to survey start/end time

³ The 10th highest $L_{Amax,f}$ over 1 minute periods recorded between 23:00 and 07:00 hours

Table 5 Measured noise levels at MP2 (A27 / Railway line)

Date	Noise Level, dB		
	Daytime Average	Night-time Average	Night-time Max ³
	$L_{Aeq,16hr}$	$L_{Aeq,8hr}$	$L_{Amax,f}$
Wednesday 17 th April 2024	47*	49	53
Thursday 18 th April 2024	54	50	58
Friday 19 th April 2024	52	48	56
Saturday 20 th April 2024	53	50	58
Sunday 21 st April 2024	53	50	56
Monday 22 nd April 2024	55*	-	-

*Partial daytime period due to survey start/end time

Table 6 Measured noise levels at MP3 (The Stride Community Centre)

Date	Noise Level, dB		
	Daytime Average	Night-time Average	Night-time Max ³
	$L_{Aeq,16hr}$	$L_{Aeq,8hr}$	$L_{Amax,f}$
Wednesday 17 th April 2024	46*	45	51
Thursday 18 th April 2024	49	49	50
Friday 19 th April 2024	51	44	52
Saturday 20 th April 2024	48	44	55
Sunday 21 st April 2024	47	43	50
Monday 22 nd April 2024	50*	-	--

*Partial daytime period due to survey start/end time

Table 7 Measured noise levels at MP4 (Southleigh Road)

Date	Noise Level, dB		
	Daytime Average	Night-time Average	Night-time Max ³
	$L_{Aeq,16hr}$	$L_{Aeq,8hr}$	$L_{Amax,f}$
Monday 22 nd April 2024	58*	48	69
Tuesday 23 rd April 2024	58	49	69
Wednesday 24 th April 2024	58	50	70
Thursday 25 th April 2024	59	49	69
Friday 26 th April 2024	59*	-	-

*Partial daytime period due to survey start/end time

Table 8 Measured noise levels at MP6 (Eastleigh Road)

Date	Noise Level, dB		
	Daytime Average	Night-time Average	Night-time Max ³
	$L_{Aeq,16hr}$	$L_{Aeq,8hr}$	$L_{Amax,f}$
Monday 22 nd April 2024	51*	48	61
Tuesday 23 rd April 2024	52	45	61
Wednesday 24 th April 2024	52	47	61
Thursday 25 th April 2024	52	45	62
Friday 26 th April 2024	53*	-	-

*Partial daytime period due to survey start/end time

Table 9 Measured noise levels at MP7 (Bartons Road)

Date	Noise Level, dB		
	Daytime Average	Night-time Average	Night-time Max ³
	$L_{Aeq,16hr}$	$L_{Aeq,8hr}$	$L_{Amax,f}$
Monday 22 nd April 2024	51*	48	61
Tuesday 23 rd April 2024	52	45	61
Wednesday 24 th April 2024	52	47	61
Thursday 25 th April 2024	52	45	62
Friday 26 th April 2024	53*	-	-

*Partial daytime period due to survey start/end time

Table 10 Measured noise levels at MP6 (Horndean Road at national speed limit)

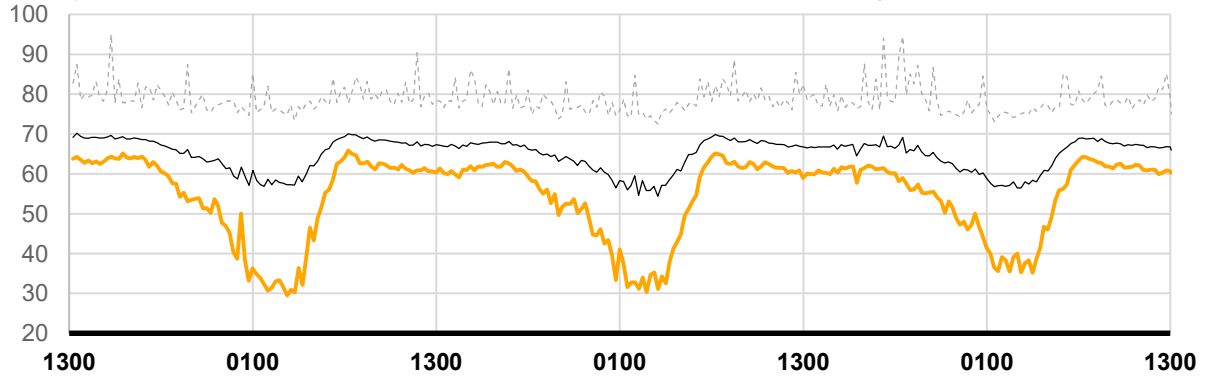
Date	Noise Level, dB		
	Daytime Average	Night-time Average	Night-time Max ³
	$L_{Aeq,16hr}$	$L_{Aeq,8hr}$	$L_{Amax,f}$
Thursday 11 th July 2024	55*	49	65
Friday 12 th July 2024	57	48	64
Saturday 13 th July 2024	55	48	65
Sunday 14 th July 2024	55	51	65
Monday 15 th July 2024	58	49	65
Tuesday 16 th July 2024	59*	-	-

*Partial daytime period due to survey start/end time

The following time history graphs present the background ($L_{A90,15min}$), ambient ($L_{Aeq,15min}$) and maximum ($L_{Amax,f}$) noise levels measured at **unattended** positions.

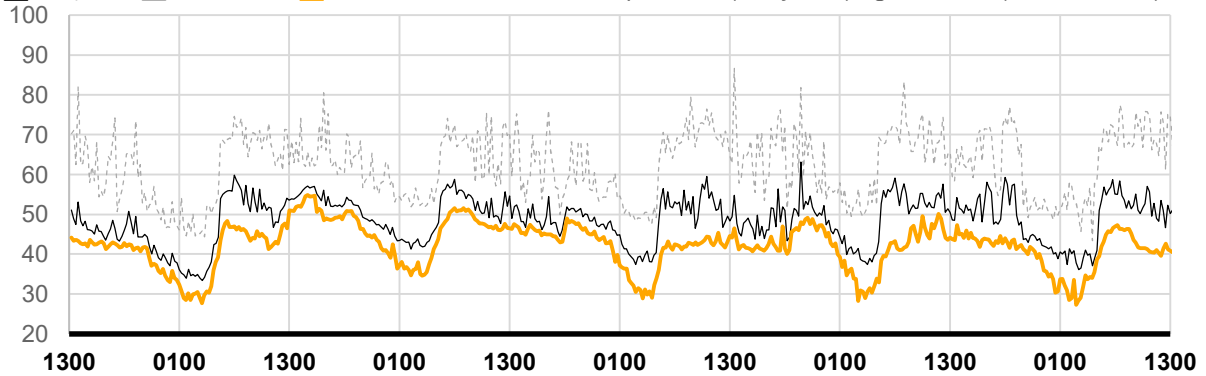
MP1 (A27)

■ $L_{Aeq,15min}$, ■ $L_{Amax,f}$, and ■ $L_{A90,15min}$ in terms of sound pressure (dB, y-axis) against time (hhmm, x-axis)



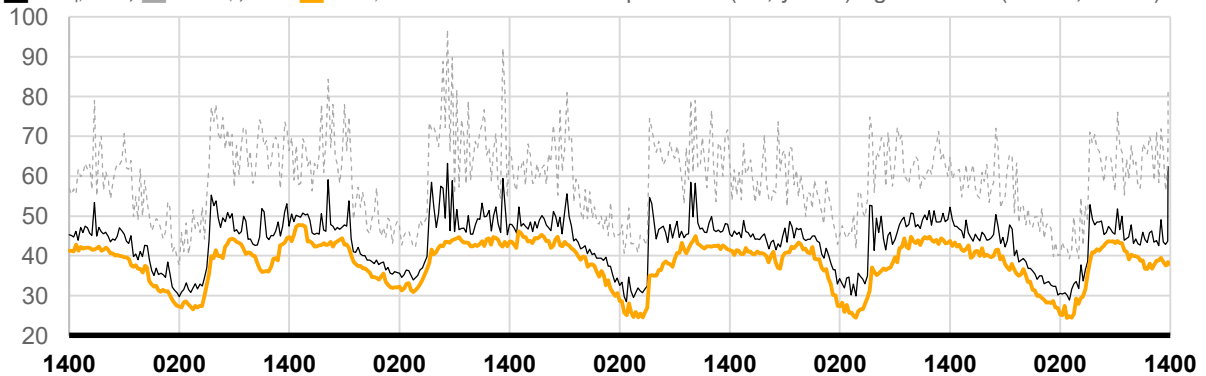
MP2 (A27 & Railway Lines)

■ $L_{Aeq,15min}$, ■ $L_{Amax,f}$, and ■ $L_{A90,15min}$ in terms of sound pressure (dB, y-axis) against time (hhmm, x-axis)



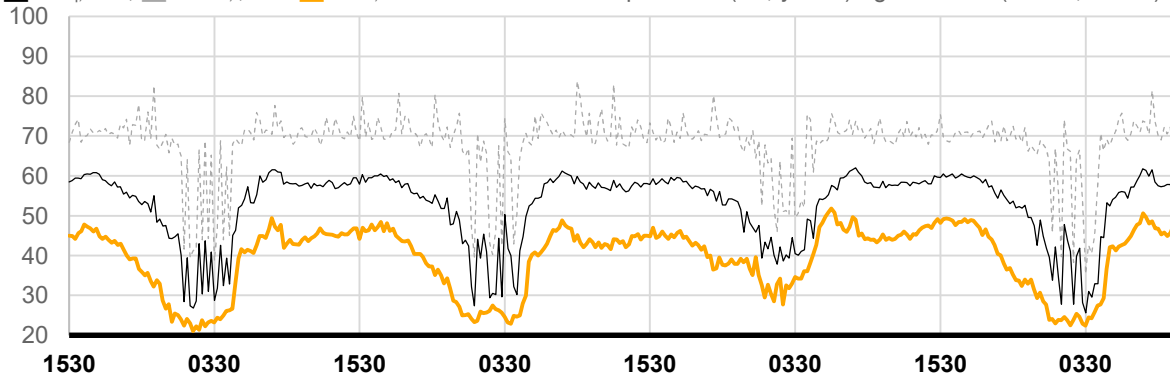
MP3 (Community Centre)

■ $L_{Aeq,15min}$, ■ $L_{Amax,f}$, and ■ $L_{A90,15min}$ in terms of sound pressure (dB, y-axis) against time (hhmm, x-axis)



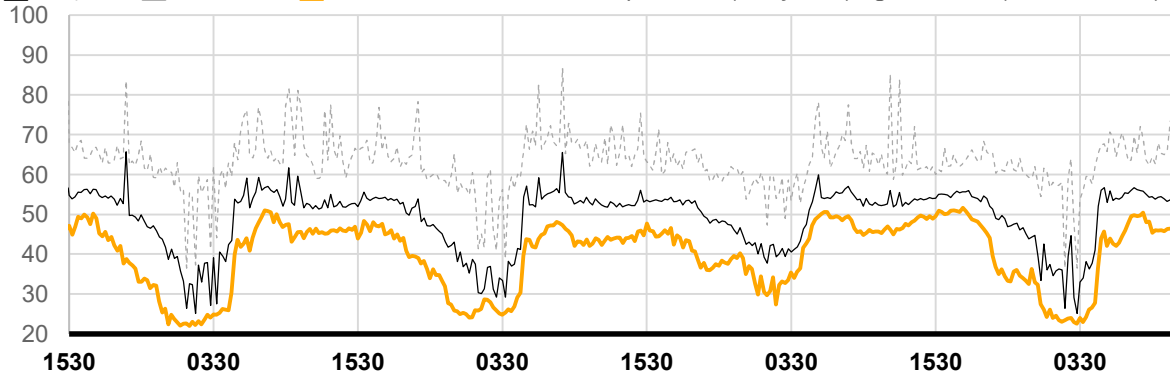
MP4 (Southleigh Road)

■ $L_{Aeq,15min}$, ■ $L_{Amax,f}$, and ■ $L_{A90,15min}$ in terms of sound pressure (dB, y-axis) against time (hhmm, x-axis)



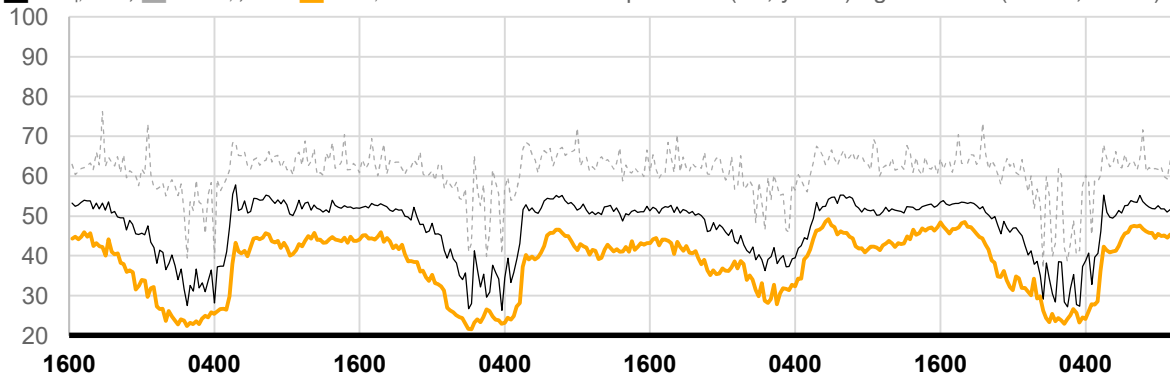
MP5 (Horndean Road)

■ $L_{Aeq,15min}$, ■ $L_{Amax,f}$, and ■ $L_{A90,15min}$ in terms of sound pressure (dB, y-axis) against time (hhmm, x-axis)



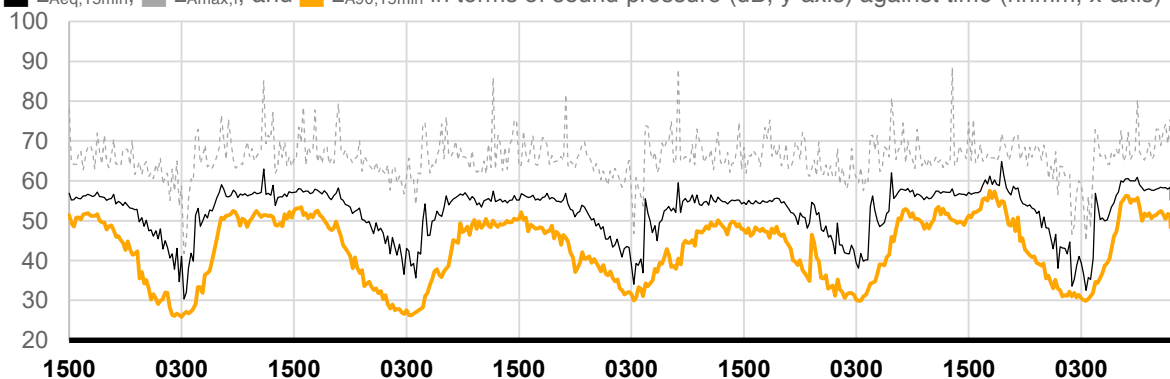
MP6 (Eastleigh Road)

■ $L_{Aeq,15min}$, ■ $L_{Amax,f}$, and ■ $L_{A90,15min}$ in terms of sound pressure (dB, y-axis) against time (hhmm, x-axis)



MP7 (Bartons Road)

■ $L_{Aeq,15min}$, ■ $L_{Amax,f}$, and ■ $L_{A90,15min}$ in terms of sound pressure (dB, y-axis) against time (hhmm, x-axis)



The following tables set out the measured noise levels at the attended measurement locations.

Table 11 Measured noise levels at MP8 (Horndean Road at 30 mph)

Period	Noise Level, dB			
	$L_{Aeq,15min}$	$L_{Amax,f}$	$L_{A10,15min}$	$L_{A90,15min}$
26/04/2024 11:00	57	75	61	47
26/04/2024 11:15	57	68	61	47
26/04/2024 11:30	57	67	61	47
26/04/2024 11:45	57	65	61	46
26/04/2024 12:00	59	68	62	50
26/04/2024 12:15	58	69	61	49
26/04/2024 12:30	58	69	62	47
26/04/2024 12:45	59	81	62	49
26/04/2024 13:00	58	67	62	47
26/04/2024 13:15	58	68	61	48
26/04/2024 13:30	59	74	62	47

Table 12 Measured noise levels at MP9 (Horndean Road at 30 mph)

Period	Noise Level, dB			
	$L_{Aeq,15min}$	$L_{Amax,f}$	$L_{A10,15min}$	$L_{A90,15min}$
16/07/2024 10:45	59	69	61	54
16/07/2024 11:39	59	74	62	55
16/07/2024 12:02	59	67	62	54

Using a combination of the shortened measurement procedure in CRTN and the $L_{Aeq,16hour} / L_{Aeq,8hour}$ DEFRA conversions, the values seen in the following table have been calculated at MP8 and MP9.

Table 13 Calculated period noise levels for MP8 and MP9

Measurement position	Daytime Average, dB	Night Time Average, dB
	$L_{Aeq,16hour}$	$L_{Aeq,8hour}$
MP8	58	51
MP9	59	51

Noise levels from train passbys recorded at MP10 are set out within the table below.

Table 14 Train passbys

Date / Time	Direction of travel	Duration of passby	$L_{Aeq,T}$, dB	SEL, dB
17/04/2024 15:19	West	19 seconds	73	85
17/04/2024 15:19	East	16 seconds	73	85
17/04/2024 15:52	East	15 seconds	75	87
17/04/2024 16:04	West	15 seconds	71	83

