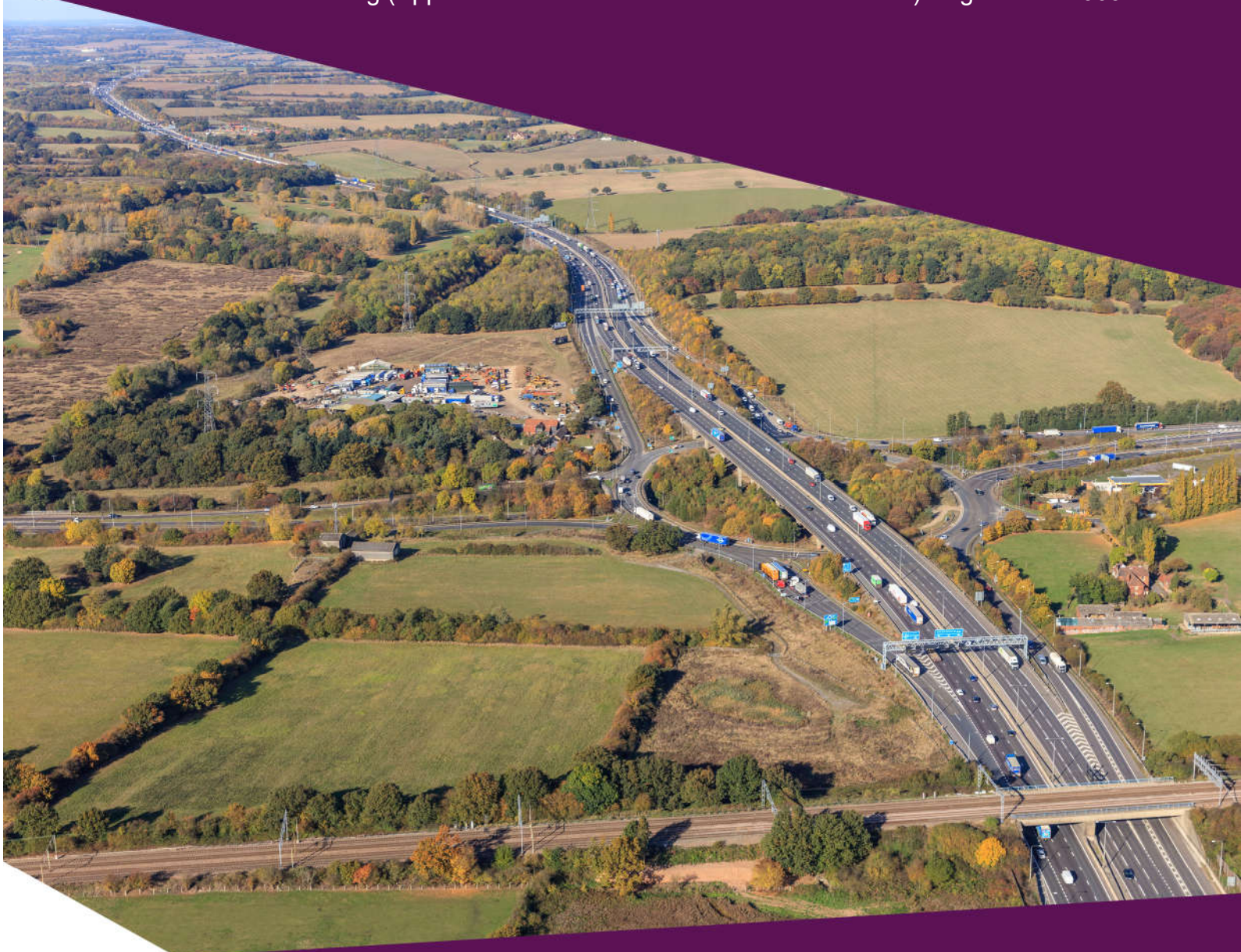


M25 junction 28 improvement scheme
TR010029
6.3 Environmental Statement
Appendix 6.1: Baseline noise survey data

APFP Regulation 5(2)(a)
Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

M25 junction 28 scheme Development Consent Order 202[x]

6.3 ENVIRONMENTAL STATEMENT APPENDIX 6.1: BASELINE NOISE SURVEY DATA

Regulation Number:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference:	TR010029
Application Document Reference:	TR010029/APP/6.3
Author:	M25 junction 28 improvement scheme project team, Highways England

Version	Date	Status of Version
1	May 2020	Application issue

Table of contents

Chapter	Pages
6. Baseline noise survey data	5
6.1 Introduction	5
6.2 Survey methodology	5
6.3 Long-term unattended noise monitoring	6
6.4 Short-term attended noise monitoring	8
Tables	
Table 6.1: Site L1 – Grove Farm	6
Table 6.2: Site S1 – 61 - 63 Brook Street	8
Table 6.3: Site S2 – Nags Head Lane	10
Table 6.4: Site S3 – Junction of Colchester Road / Maylands Way	12

Appendix 6.1

Baseline noise survey data

6. Baseline noise survey data

6.1 Introduction

- 6.1.1 This document presents detailed results from the baseline noise monitoring undertaken for the Scheme. The baseline noise monitoring consisted of long-term unattended measurements at two locations and short-term attended measurements at three locations. A map showing the locations of the baseline noise monitoring positions is provided in Figure 6.4 (application document TR010029/APP/6.2).
- 6.1.2 The measured noise levels at the long-term unattended noise monitoring sites are provided in section 6.3 below, showing how the noise levels fluctuated throughout the monitoring period. A summary of the measured noise levels is provided for each site, indicating how the noise levels changed between daytime and night-time periods, and weekdays and weekends.
- 6.1.3 A weather station was installed alongside the long-term unattended noise monitoring equipment to document the weather conditions throughout the measurement period. In accordance with industry best practice to reduce measurement uncertainty, time periods where unfavourable weather occurred (precipitation and wind speeds exceeding 5 m/s) have been excluded from the assessment. The time periods corresponding to adverse weather conditions are highlighted in yellow on the graphs shown for each monitoring site.
- 6.1.4 The measured noise levels at the short-term attended monitoring sites are provided in section 6.4. The results are supplemented with a commentary on the noise sources that were audible at each site and the weather conditions during the measurements.

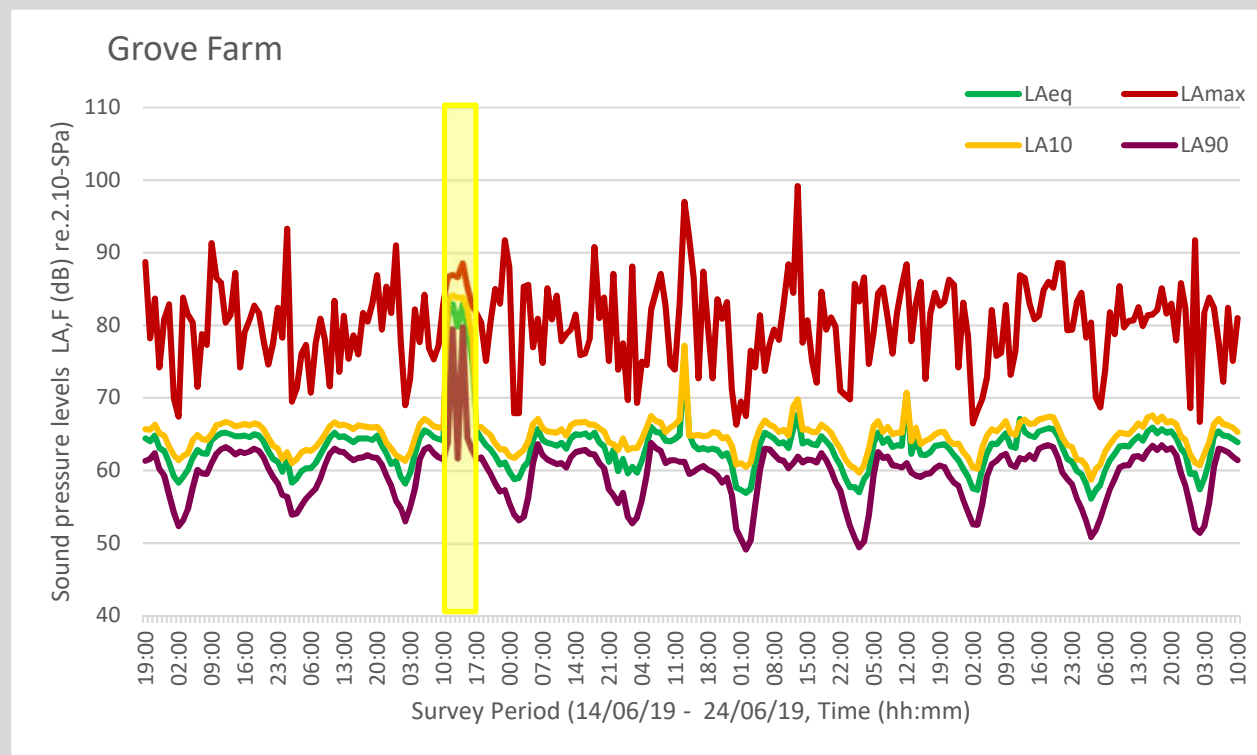
6.2 Survey methodology

- 6.2.1 For details regarding the survey methodology, please refer to the Noise and Vibration (Chapter 6) of ES (application document TR010029/APP/6.1). The calibration certificates for the instrumentation used to undertake the noise monitoring are available on request.

6.3 Long-term unattended noise monitoring

Table 6.1: Site L1 – Grove Farm

Site reference	L1 – Grove Farm	Site details	Free-field, microphone 1.5m above ground	
Start date/time	14/06/2019 19:00:02	End date/time	24/06/2019 10:00:02	Measurement interval: _ second, continuous
Noise sources/notes	Road			



Summary of results (dB)		
Weekday daytime	LA10,18h	65.6
	LAeq,16h	64.2
	LA90,16h	60.7
	LAmx,16h	99.2
Weekday night	Lnight	61.4
	LAmx,8h	91.7
Weekend daytime	LA10,18h	65.6
	LAeq,16h	64.3
	LA90,16h	61.5
	LAmx,16h	91.3
Weekend night	Lnight	61.0
	LAmx,8h	93.3

Photograph



6.4 Short-term attended noise monitoring

Table 6.2: Site S1 – 61 - 63 Brook Street

Start calibration (Day / Night)			94.0dB / 94.0dB			End calibration (Day / Night)					94.2dB / 94.0dB
Date	Time	Duration	Weather			Noise levels (dB)					Comments
			Wind speed (m/s)	Wind direction	Temperature (°C)	L _{Aeq}	L _{A10}	L _{A90}	L _{A01}	L _{Amax}	
20/06/2019	12:53	15 min	0 - 1	Variable	12	67	69	65	70	74	Dominated by Brook Street road traffic, 1x aircraft flyover
20/06/2019	14:19	15 min	0 - 1	Variable	12	68	70	64	71	75	Dominated by Brook Street road traffic, 1x HGV drive-by
20/06/2019	15:36	15 min	0 - 1	Variable	12	67	69	65	71	79	Dominated by Brook Street road traffic, 1x car horn blast
20/06/2019	23:29	15 min	0 - 1	Variable	8	64	67	58	71	77	Contributions from Brook Street, M25 and A12 road traffic, 1x nearfield HGV drive-by
21/06/2019	00:48	15 min	0 - 1	Variable	8	61	64	56	68	74	Contributions from Brook Street, M25 and A12 road traffic, 1x HGV drive-by, 1x aftermarket exhaust

Photograph



Table 6.3: Site S2 – Nags Head Lane

Start calibration (Day / Night)			94.0dB / 94.0dB			End calibration (Day / Night)					94.2dB / 94.0dB
Date	Time	Duration	Weather			Noise levels (dB)					Comments
			Wind speed (m/s)	Wind direction	Temperature (°C)	L _{Aeq}	L _{A10}	L _{A90}	L _{A01}	L _{Amax}	
20/06/2019	13:20	15 min	0 - 1	Variable	12	68	69	67	70	73	Dominated by M25 road traffic, 1x aftermarket exhaust, 2x aircraft flyover
20/06/2019	14:42	15 min	0 - 1	Variable	12	68	69	67	70	76	Dominated by M25 road traffic, 1x aircraft flyover, nearfield van movement
20/06/2019	16:01	15 min	0 - 1	Variable	12	68	69	67	70	72	Dominated by M25 road traffic
20/06/2019	23:29	15 min	0 - 1	Variable	8	61	64	58	65	72	Dominated by M25 road traffic, 2x train pass-by
21/06/2019	00:48	15 min	0 - 1	Variable	8	60	62	57	63	66	Dominated by M25 road traffic

Photograph



Table 6.4: Site S3 – Junction of Colchester Road / Maylands Way

Start calibration (Day / Night)			94.0dB / 94.0dB			End calibration (Day / Night)					94.2dB / 94.0dB
Date	Time	Duration	Weather			Noise levels (dB)					Comments
			Wind speed (m/s)	Wind direction	Temperature (°C)	L _{Aeq}	L _{A10}	L _{A90}	L _{A01}	L _{Amax}	
20/06/2019	13:52	15 min	0 - 1	Variable	12	70	73	73	75	80	Dominated by A12 road traffic, 2x aftermarket exhaust, 1x aircraft flyover
20/06/2019	15:09	15 min	0 - 1	Variable	12	71	74	64	76	79	Dominated by A12 road traffic, 3x nearfield car movement, 1x HGV drive-by
20/06/2019	16:25	15 min	0 - 1	Variable	12	71	74	65	76	88	Dominated by A12 road traffic, 2x aftermarket exhaust, 1x nearfield car movement
20/06/2019	23:54	15 min	0 - 1	Variable	8	66	70	51	74	86	Contributions from A12 and M25 road traffic, 2x aftermarket exhaust, 1x HGV drive-by
21/06/2019	01:13	15 min	0 - 1	Variable	8	63	66	49	72	80	Contributions from A12 and M25 road traffic, 1x HGV drive-by

Photograph



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