

Report

Maes y Droell Quarry

Appendix 6.3 Baseline Noise Conditions

For Stephenson Halliday Ltd

16 February 2026

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1 Introduction

- 1.1.1 The following sections present the findings of the baseline noise survey which have been used to establish the existing daytime and night-time noise exposure at the Site and at the nearest noise sensitive receptors (NSRs).
- 1.1.2 A baseline vibration survey has been excluded from the scope of the baseline conditions assessment as construction and operational vibration impact have been deemed not significant.
- 1.1.3 Vibration impact from construction traffic and operational road traffic is likely to be negligible. Based on the guidance in the Design Manual for Roads and Bridges LA 111 Noise and Vibration a *"maintained road surface will be free of irregularities [...] and under general maintenance"* such that vibration will be negligible.

2 Survey Approach

2.1 Overview

- 2.1.1 A baseline noise survey has been carried out to quantify current levels of ambient noise across the Site and at the closest NSRs. The survey has captured noise levels during the daytime (07:00 – 23:00) and night-time (23:00 – 07:00) periods on a part-attended basis. The noise survey was conducted over an 8-day period, including a weekend, between Wednesday 21st May and Wednesday 28th May 2025.
- 2.1.2 Unattended noise monitoring was carried out at four locations across the Site, which were chosen to be representative of the closest NSRs.
- 2.1.3 A fifth location was proposed along the northwestern boundary, but this location was not safely accessible at the time of the survey due this area of the site being heavily overgrown. However, observations during the noise survey shown that the noise climate in this area was very similar to that of LT4, as the main source of noise in this location was road traffic noise from the Unnamed Road adjacent to the western site boundary and distant road traffic noise.
- 2.1.4 **Figure 2-1** presents the noise monitoring locations, which are described in **Table 2-1**.
- 2.1.5 Photographs of the noise monitoring locations are provided in **Section 4**.

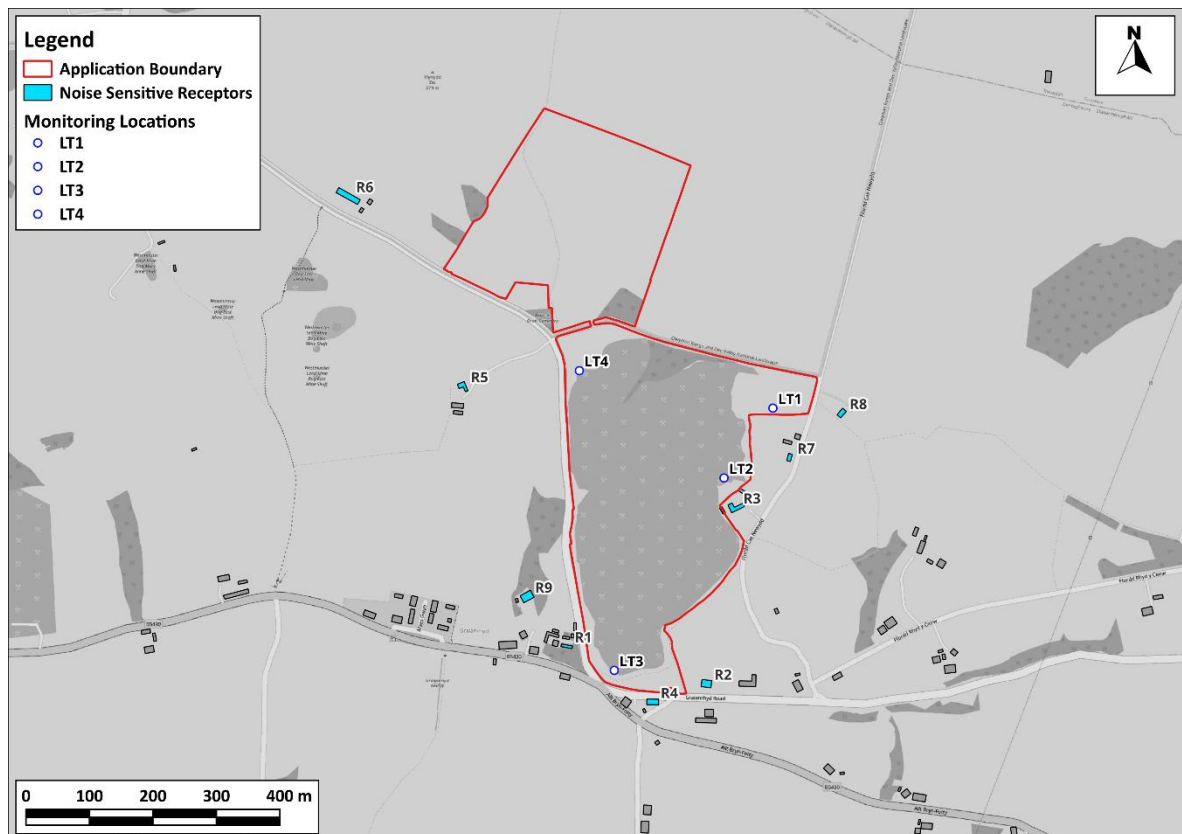


Figure 2-1: Noise and Weather Monitoring Locations

Table 2-1: Site Observations

Measurement Location	Date	Description
LT1	21/05/2025 - 28/05/2025	1.5 m above ground, free-field conditions. Birdsong and psithurism were the dominant sources at this location in the daytime, evening, and night-time. Faint distant road traffic noise was occasionally audible.
LT2		1.5 m above ground, free-field conditions. Birdsong and psithurism were the dominant sources at this location in the daytime, evening, and night-time. Faint distant road traffic noise was occasionally audible.
LT3		1.5 m above ground, free-field conditions. In the daytime, evening, and night-time, road traffic noise from the B5430 was the dominant source, however traffic flows were low and infrequent. In the absence of road traffic noise, birdsong and psithurism were the dominant sources.
LT4		1.5 m above ground, free-field conditions. Birdsong and psithurism were the dominant sources at this location in the daytime, evening, and night-time. Road traffic noise from the west was occasionally audible.

2.2 Local Conditions

- 2.2.1 There were some sporadic periods of rain during the survey between Wednesday 21st May 2025 and Wednesday 28th March 2025. Data from these periods of rain has been excluded from use within any assessments. The periods of excluded data affected by rain are shown graphically in **Section 3**. Wind speeds were below 5 m/s⁻¹ for the entire duration of the survey. The temperature during the survey ranged from daytime was 7 °C. The prevailing wind direction during the survey was from the south.
- 2.2.2 There were no known atypical conditions on local roads (e.g. road works, temporary traffic lighting and traffic management) during the survey.

2.3 Noise Monitoring Equipment

- 2.3.1 Noise monitoring was undertaken using fully calibrated Class 1 sound level meters as defined in BS EN 61672-1:2013¹, calibrated to traceable standards within 2 years of the survey. Prior to and following noise measurements, acoustic field-calibration of the sound level meters and microphones used in the survey was performed using an acoustic calibrator that itself had been calibrated within the preceding 12 months. No significant drift (i.e., >0.5 dB) in the field-calibrated noise level was observed. Measurement microphones were fitted with suitable windshields for the duration of the noise monitoring and were time synchronised.
- 2.3.2 A weather station was deployed for the duration of the survey to enable any noise data obtained during periods of unacceptable weather to be excluded from the assessment.
- 2.3.3 All instrumentation was configured to report the environmental parameters L_{Aeq}, L_{A10}, L_{A90}, and L_{Amax} in whole octave bands. All measurements were conducted, where possible, in accordance with BS

¹ BS EN 61672-1:2013 Electroacoustics. Sound Level Meters Specifications (2013)

7445-1:2003 'Description and measurement of environmental noise. Guide to quantities and procedures' (BS 7445, 2003).

Table 2-2: Noise Survey Equipment Specifications

Equipment	Make	Model	Serial	Date of Calibration
Sound level meter	RION	NL-52	01176453	31/07/2023
Sound level meter	RION	NL-52	01176433	31/07/2023
Sound level meter	RION	NL-52	00687043	22/12/2023
Sound level meter	RION	NL-52	01009670	04/02/2025
Acoustic calibrator	RION	NC-75	34291339	19/08/2024
Weather Station	Davis	Vantage Vue	-	N/A

3 Noise and Weather Monitoring Results

- 3.1.1 A summary of the long-term noise measurement results is presented in **Table 3-1**. Due to the volume of noise measurement data obtained during the baseline survey, **Figure 3-1** to **Figure 3-4** present the detailed results of the baseline survey as a time-level history, which show the diurnal variation of noise levels expected of a site close to sources of road traffic noise. Weather monitoring data is presented graphically in **Figure 3-5**.
- 3.1.2 The results of the unattended daytime, evening, and night-time noise measurements are rounded to the nearest decimal since fractions of decibels are imperceptible to the human ear. For $L_{Aeq,T}$ noise levels, the values presented in the table are the logarithmic average of the 15-minute logging periods measured during the entire survey duration. For L_{A90} the arithmetic mean and mode are presented. All data measured during periods of rain has been excluded from the calculations and summary in **Table 3-1**.

Table 3-1: Long Term Noise Measurement Results Summary

Measure-ment Location	Date and Time	Period	L _{Aeq,T} (dB)	Mean L _{A90,15mins} (dB)	Mode L _{A90,15mins} (dB)
LT1	21/05/2025 13:00 – 28/05/2025 13:00	Daytime (07:00-19:00)	44	34	31
		Evening (19:00 – 23:00)	42	29	29
		Night-time (23:00-07:00)	45	30	18*
LT2	21/05/2025 13:00 – 28/05/2025 13:00	Daytime (07:00-19:00)	46	34	26
		Evening (19:00 – 23:00)	43	29	23
		Night-time (23:00-07:00)	45	30	16*
LT3	21/05/2025 13:00 – 28/05/2025 13:00	Daytime (07:00-19:00)	52	39	34
		Evening (19:00 – 23:00)	51	34	33
		Night-time (23:00-07:00)	48	33	17*
LT4	21/05/2025 13:00 – 28/05/2025 13:00	Daytime (07:00-19:00)	46	35	29
		Evening (19:00 – 23:00)	45	30	30
		Night-time (23:00-07:00)	43	31	16*
Note * Modal noise level at the noise floor of the monitoring equipment and is therefore unreliable.					

Figure 3-1: LT1 Unattended Noise Measurements

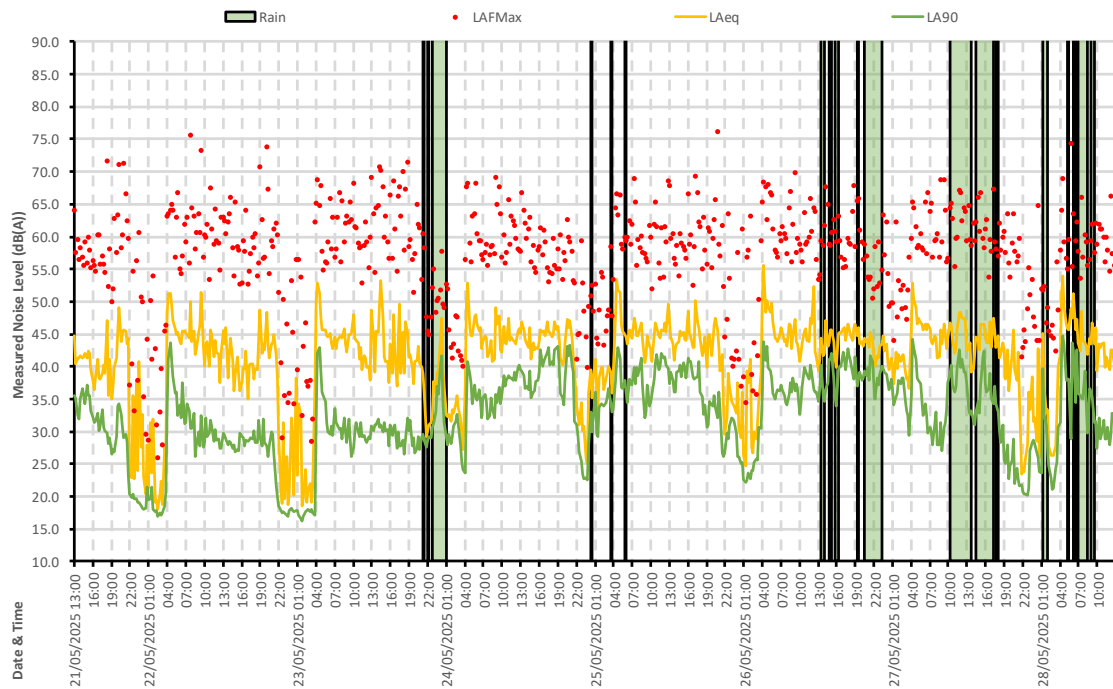


Figure 3-2: LT2 Unattended Noise Measurements

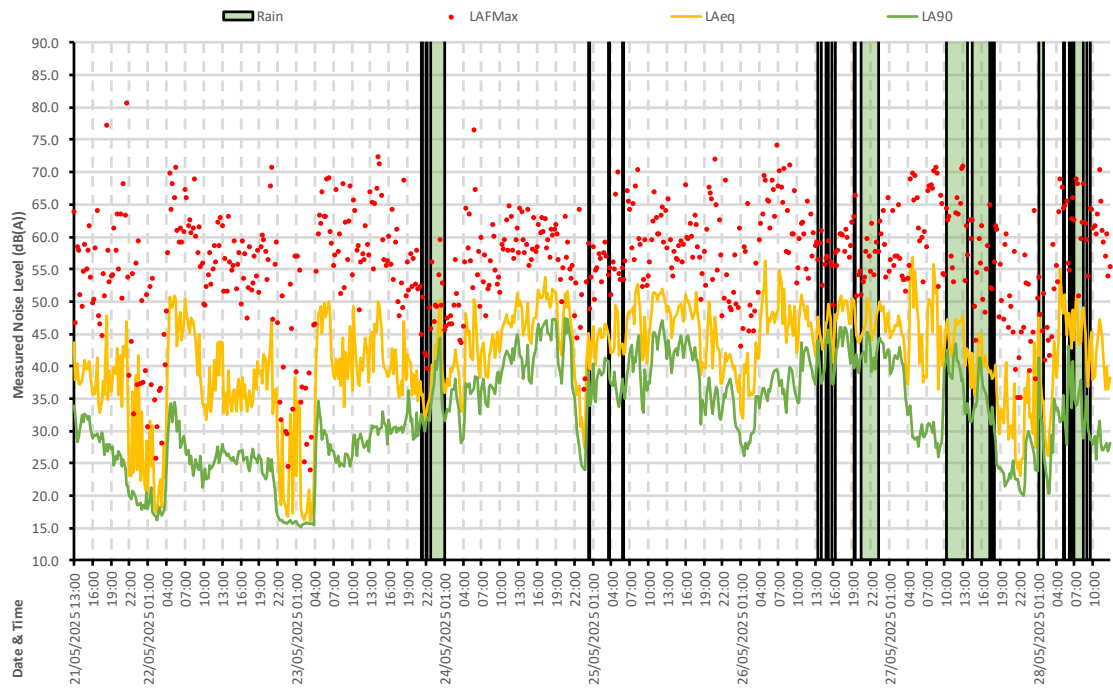


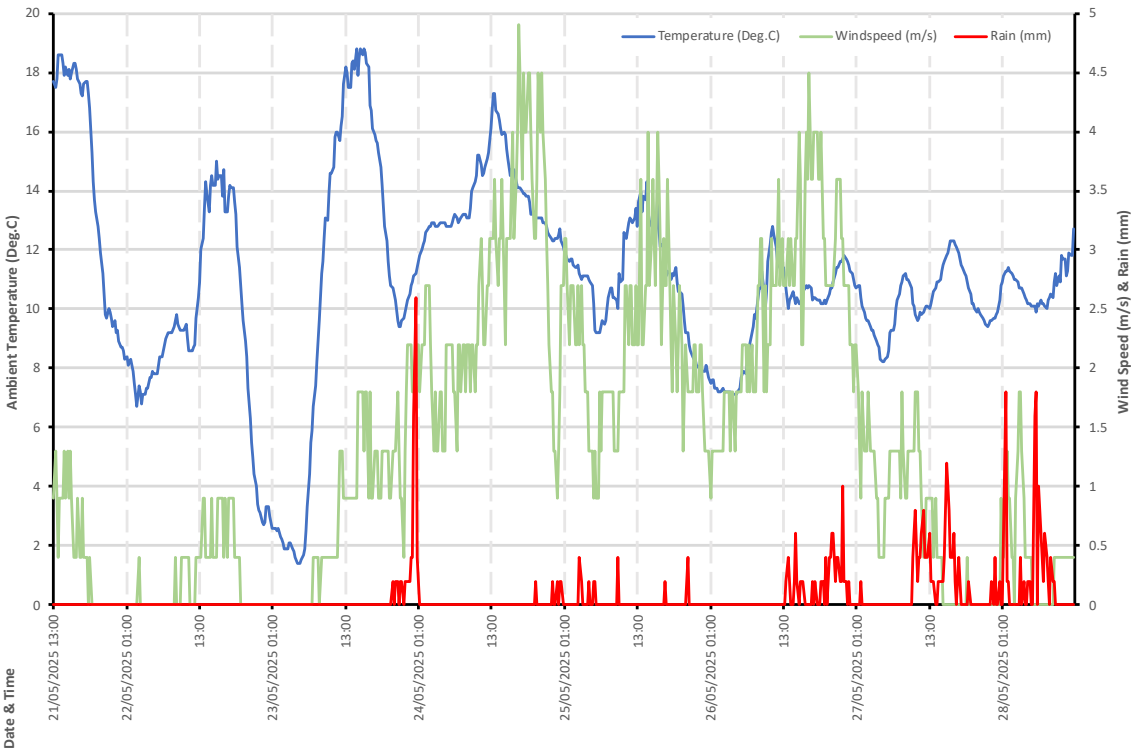
Figure 3-3: LT3 Unattended Noise Measurements



Figure 3-4: LT4 Unattended Noise Measurements



Figure 3-5: Weather Monitoring Results



4 Photographs of Noise Monitoring Locations



Figure 4-1: Noise Monitoring Location LT1



Figure 4-2: Noise Monitoring Location LT2

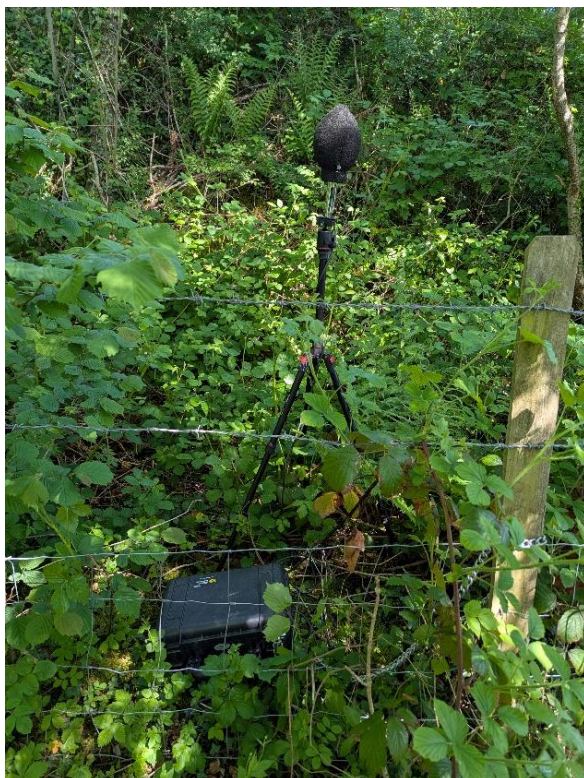


Figure 4-3: Noise Monitoring Location LT3



Figure 4-4: Noise Monitoring Location LT4



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