

Prescot Business Park
Cables Way
Prescot
Knowsley
L34 1LT

Environmental Noise Survey

On behalf of



Project Reference: 94541 | Revision: - | Date: 17th August 2026

Document Information

Project Name : Prescot Business Park, Cables Way, Knowsley
Project Reference : 94541
Report Title : Environmental Noise Survey
Doc Reference : 94541/ENS
Date : 17th August 2026

	Name	Qualifications	Initials	Date
Prepared by:	Nigel Chandler	BSc(Hons), MIOA	NAC	17 th August 2026
Reviewed and approved by:	Jon Stump	BSc(Hons, MIOA	JS	19 th August 2026
For and on behalf of Noise Solutions Ltd				

Revision	Date	Description	Prepared	Reviewed/ Approved

Noise Solutions Ltd (NSL) disclaims any responsibility to the Client and others in respect of any matters outside the scope of this report. This report has been prepared with reasonable skill, care and diligence within the terms of the Contract with the Client and generally in accordance with the appropriate ACE Agreement and taking account of the manpower, resources, investigations and testing devoted to it by agreement with the Client. This report is confidential to the Client and NSL (Noise Solutions Ltd) accepts no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies upon the report at their own risk.

© Noise Solutions Ltd (NSL) 2026

Reg no. 3483481 Head office: Unit 5 Oriel Court, Omega Park, Alton, Hampshire, GU34 2YT
Manchester office: The Old Shippon, Moseley Hall Farm, Chelford Road, Knutsford, WA16 8RB

Contents

1.0	Introduction.....	1
2.0	Details of development.....	1
3.0	Existing noise climate	1
	Analysis of sound levels	2
4.0	Summary	5

Appendices

Appendix A	Acoustic terminology
Appendix B	Photograph of site showing areas of interest
Appendix C	Proposed development plan
Appendix D	Environmental sound survey

Executive Summary

Noise Solutions Ltd (NSL) has been commissioned to undertake assessments of operational noise from proposed employment units at Prescot Business Park, Cables Way, Prescot, Knowsley.

To inform those assessments an environmental noise survey has been undertaken. The results of the survey are set out in this report.

1.0 Introduction

- 1.1. Noise Solutions Ltd (NSL) has been commissioned to undertake assessments of noise from plant, deliveries, and other operational activities resulting from the use of proposed employment units at Prescot Business Park in Knowsley.
- 1.2. This report presents the results of an environmental noise survey undertaken to inform those assessments, which are set out in separate reports.
- 1.3. To assist with the understanding of this report a brief glossary of acoustic terms can be found in **Appendix A**. A more in-depth glossary of acoustic terms can be assessed at the following web address <http://www.acoustic-glossary.co.uk/>.

2.0 Details of development

- 2.1. Phase 1 of the proposed Prescot Business Park comprises two buildings with a total of seven employment units.
- 2.2. The site is to the north of the junction of Cables Way and Carr Lane.
- 2.3. The nearest noise sensitive properties to the proposed employment units are on South Avenue to the north of the site (Receptor R1), Preston Avenue to the northwest (Receptor R2) and Prescot Park Way to the south (Receptor R3).
- 2.4. The site location and the nearest noise-sensitive receptors are shown in **Appendix B**. The layout of the employment units is shown in **Appendix C**.

3.0 Existing noise climate

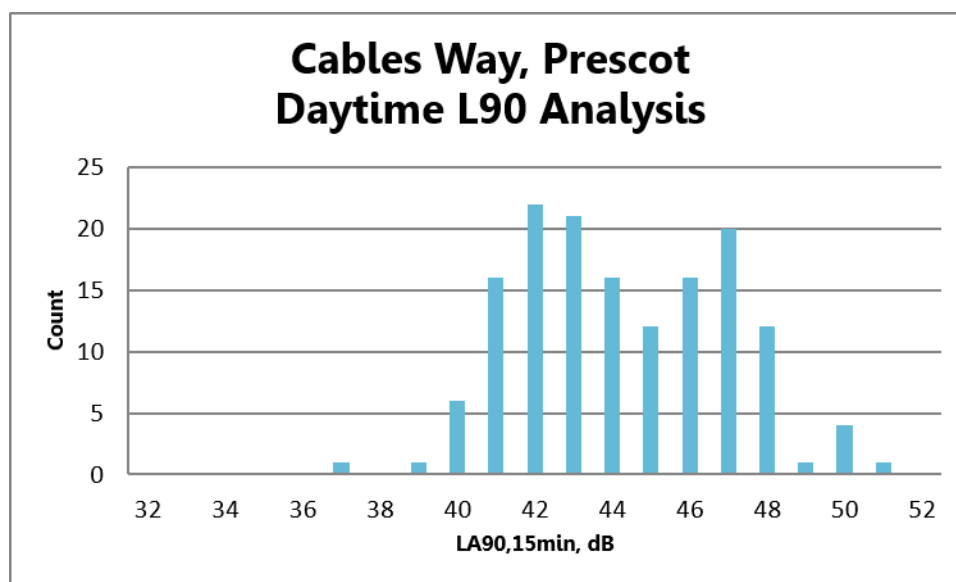
- 3.1. An environmental noise survey was undertaken to establish the typical background sound levels at a location representative of the noise climate outside the façades of the nearest noise sensitive receptors.
- 3.2. The results of the environmental sound survey are summarised in Table 3 below. The full set of measurement results and details of the survey methodology are presented in **Appendix D**.

Table 1 Summary of survey results

Measurement period	Range of recorded sound pressure levels (dB)			
	L _{Aeq} (15mins)	L _{Amax} (15mins)	L _{A10} (15mins)	L _{A90} (15mins)
Daily (including weekend)				
Daytime (07.00 – 23.00 hours)	44-60	59-89	45-59	37-51
Night-time (23.00 – 07.00 hours)	37-54	44-74	39-49	33-44
Proposed operational hours, 06.00 to 22.00hrs				
Monday to Friday	49-58	65-87	50-58	43-51
Saturday	42-57	56-83	44-58	38-48
Sunday	44-60	52-89	45-59	37-45
All	42-60	52-89	44-59	37-51
All, 06.00 to 07.00hrs only	42-49	52-70	44-49	38-44
All, 07.00 to 22.00hrs	44-60	59-89	45-59	37-51

Analysis of sound levels

Figure 1 Histogram of daytime L_{A90} background sound pressure levels



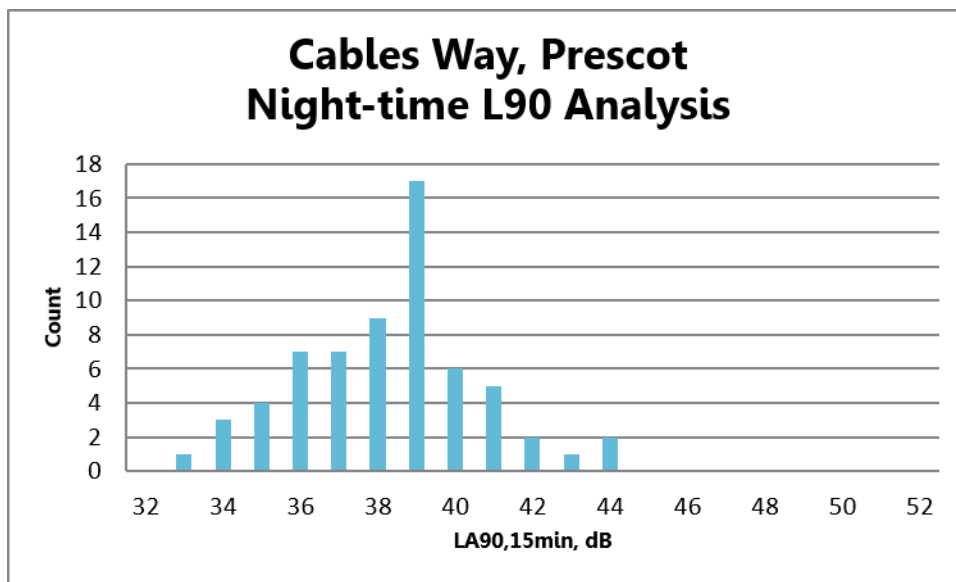
- 3.3. Additional statistical analysis has been undertaken. As shown in Table 4, the mean, median, and modal values have been calculated:

Table 2 Statistical analysis of $L_{A90,15min}$ levels during the daytime period

dB, L_{A90} daytime period	
Mean	44
Mode	42
Median	44

- 3.4. From reviewing the above histogram, 41dB has been selected to be representative of the background sound level in this area.

Figure 2 Histogram of night-time L_{A90} background sound pressure levels



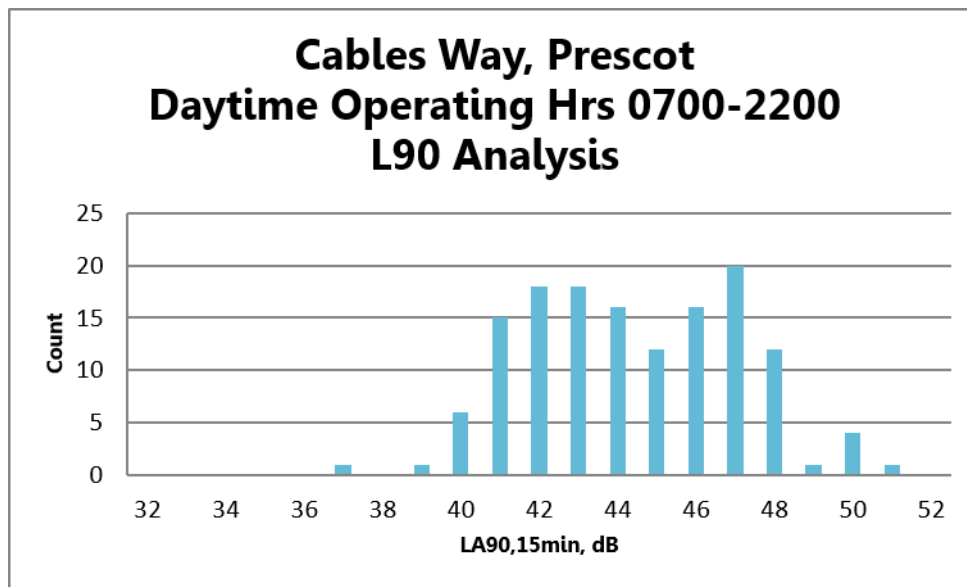
- 3.5. Additional statistical analysis has been undertaken. As shown in Table 3, the mean, median, and modal values have been calculated:

Table 3 Statistical analysis of $L_{A90,15min}$ levels during the night-time period

dB, L_{A90} night-time period	
Mean	38
Mode	39
Median	39

- 3.6. From reviewing the above histogram, 35dB has been selected to be representative of the night-time background sound level in this area.

Figure 3 Histogram of L_{A90} background sound pressure levels during proposed daytime operating hours (07.00 to 22.00hrs, daily)



- 3.7. Additional statistical analysis has been undertaken. As shown in Table 3, the mean, median, and modal values have been calculated:

Table 4 Statistical analysis of $L_{A90,15min}$ levels during the Mon-Sat daytime period

dB, L_{A90} night-time period	
Mean	44
Mode	47
Median	44

- 3.8. From reviewing the above histogram, 40dB has been selected to be representative of the background sound levels during the proposed daytime operating period (07.00 to 22.00hrs), Monday to Sunday.
- 3.9. The lowest background sound level measured during the early morning operating hours (06.00 to 07.00hrs) was 38dB. To provide a robust assessment this is taken to be representative of the early morning background sound level.
- 3.10. Therefore, the following values are considered as representative of the existing background sound pressure levels at nearby noise sensitive premises:
- 41dB L_{A90} during the full daytime period;
 - 35dB L_{A90} during the full night-time period;
 - 40dB L_{A90} during the proposed daytime operating hours (07.00 – 22.00hrs), daily;

- 38dB L_{A90} during the proposed early morning operating hours (06.00 – 07.00hrs), daily.

4.0 Summary

- 4.1. Noise Solutions Ltd (NSL) has been commissioned to undertake assessments of operational noise associated with seven proposed employment units at Prescot Business Park.
- 4.2. An environmental noise survey has been undertaken to establish the existing prevailing noise levels at a location representative of the noise climate outside the nearest noise sensitive receptors.
- 4.3. The results of the survey will be used within the assessments, set out in separate reports.

Appendix A Acoustic terminology

Parameter	Description
Ambient Noise Level	The totally encompassing sound in a given situation at a given time, usually composed of a sound from many sources both distant and near ($L_{Aeq,T}$).
Decibel (dB)	A scale for comparing the ratios of two quantities, including sound pressure and sound power. The difference in level between two sounds s_1 and s_2 is given by $20 \log_{10} (s_1/s_2)$. The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is $20\mu\text{Pa}$. The threshold of normal hearing is in the region of 0 dB and 140 dB is the threshold of pain. A change of 1 dB is only perceptible under controlled conditions.
dB(A), L_{Ax}	Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB(A) broadly agree with people's assessment of loudness. A change of 3 dB(A) is the minimum perceptible under normal conditions, and a change of 10 dB(A) corresponds roughly to halving or doubling the loudness of a sound. The background noise in a living room may be about 30 dB(A); normal conversation about 60 dB(A) at 1 metre; heavy road traffic about 80 dB(A) at 10 metres; the level near a pneumatic drill about 100 dB(A).
Fast Time Weighting	Setting on sound level meter, denoted by a subscript F, that determines the speed at which the instrument responds to changes in the amplitude of any measured signal. The fast time weighting can lead to higher values than the slow time weighting when rapidly changing signals are measured. The average time constant for the fast response setting is 0.125 (1/8) seconds.
Free-field	Sound pressure level measured outside, far away from reflecting surfaces (except the ground), usually taken to mean at least 3.5 metres
Façade	Sound pressure level measured at a distance of 1 metre in front of a large sound reflecting object such as a building façade.
$L_{Aeq,T}$	A noise level index called the equivalent continuous noise level over the time period T. This is the level of a notional steady sound that would contain the same amount of sound energy as the actual, possibly fluctuating, sound that was recorded.
$L_{max,T}$	A noise level index defined as the maximum noise level recorded during a noise event with a period T. L_{max} is sometimes used for the assessment of occasional loud noises, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.
$L_{10,T}$	A noise level index. The noise level exceeded for 10% of the time over the period T. L_{10} can be considered to be the "average maximum" noise level. Generally used to describe road traffic noise. $L_{A10,18h}$ is the A-weighted arithmetic average of the 18 hourly $L_{A10,1h}$ values from 06:00-24:00.
$L_{90,T}$	A noise level index. The noise level that is exceeded for 90% of the measurement time interval, T. It gives an indication of the lower levels of fluctuating noise. It is often used to describe the background noise level and can be considered to be the "average minimum" noise level and is a term used to describe the level to which non-specific noise falls during quiet spells, when there is lull in passing traffic for example.

Appendix B Photograph of site showing areas of interest



Aerial image © Google 2026

Appendix C Proposed development plan



Appendix D Environmental sound survey

Details of environmental sound survey

- D.1 Measurements of the existing environmental sound levels were undertaken between 15.30 hours on Friday 14th August and 20.45 hours on Sunday 16th August 2026.
- D.2 The sound level meter was programmed to record the A-weighted L_{eq} , L_{90} , L_{10} and L_{max} noise indices for consecutive fifteen-minute sample periods for the duration of the survey.

Measurement position

- D.3 The representative measurement position was located on a lamp-post on South Avenue, to the northeast of the site. (location indicated on the site plan in [Appendix B](#)). In accordance with BS 7445-2:21991 '*Description and measurement of environmental noise – Part 2: Guide to the acquisition of data pertinent to land use*', the measurements were undertaken under free-field conditions. The location was chosen to avoid any undue and inappropriate influence from the existing commercial premises to the south of Cables Way.

Equipment

- D.4 Details of the equipment used during the survey are provided in the table below. The sound level meter was calibrated before and after the survey; no significant change (+/-0.2 dB) in the calibration level was noted.

Description	Model / serial no.	Calibration date	Calibration certificate no.
Class 1 Sound level meter	Svantek 977D / 99472	13/05/2025	15164442-1
Condenser microphone	Microtech MK255 / 26252		
Preamplifier	Svantek SV12L / 144633		
Calibrator	Svantek SV33B / 148015	12/03/2026	1516962-1

- D.5 Weather conditions were determined both at the start and on completion of the survey. It is considered that the meteorological conditions were appropriate for environmental noise measurements. The table below presents the weather conditions recorded on site at the installation and removal of the meter.

Weather Conditions				
Measurement Location	Time/Date	Description	Beginning of Survey	End of Survey
As indicated on Appendix B	15.30 14 Aug - 20.45 16 Aug 2026 (observations made 17 Aug 2026)	Temperature (°C)	23	18
Cloud Cover Symbol Scale in oktas (eighths)  0 Sky completely clear  1  2  3  4 Sky half cloudy  5  6  7  8 Sky completely cloudy  (9) Sky obstructed from view		Precipitation:	No	No
		Cloud cover (oktas – see guide)	6	7
		Presence of fog/snow/ice	No	No
		Presence of damp roads/wet ground	No	damp
		Wind Speed (m/s)	<1	<1
		Wind Direction	NW	SW
		Conditions that may cause temperature inversion (i.e. calm nights with no cloud)	No	No

Results

- D.6 The results of the survey are considered to be representative of the background sound pressure levels at the façades of the most affected noise sensitive receptors. During installation and removal of the meter, the noise climate at the measurement position was dominated by distant road traffic, with some intermittent local traffic. The results of the survey are presented in a time history graph overleaf.

Cables Way, Prescot Friday 14 - Sunday 16 Aug 2026

