Environmental Noise Solutions Limited

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Lu's Place, Knowle Lane, Meltham

Noise Impact Assessment

For:
Robert Halstead Chartered Surveyors & Town Planners

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Ref: NIA/11930/25/12257/v2/Lu's Place, Knowle Lane, Meltham
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1 Introduction

1.1 Overview

Environmental Noise Solutions Ltd (ENS) has been commissioned by Robert Halstead Chartered Surveyors & Town Planners (hereafter referred to as 'the client') to provide a noise management plan for the existing Lu's Place, a café located off Knowle Lane, Meltham.

This report has been prepared to satisfy the requirements of Planning Condition 3 attached to the extant Planning Permission for the café and play area granted by Kirklees Council in December 2023 (Planning Permission reference: 2023/62/93798/W) which states:

> *3. Before the hereby approved play area as outlined on drawing no. (23239)1_Site Plan Rev B is brought into use, a noise management plan shall be submitted to and approved in writing by the Local Planning Authority. The plan shall detail the control measures that will be taken to ensure that excessive noise does not arise from the use of the property. The approved noise management plan shall be implemented before use of the play area commences and retained thereafter.*

This report has been prepared on behalf of the client for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties referring to the report should consult the client and ENS as to the extent to which the findings may be appropriate for their use.

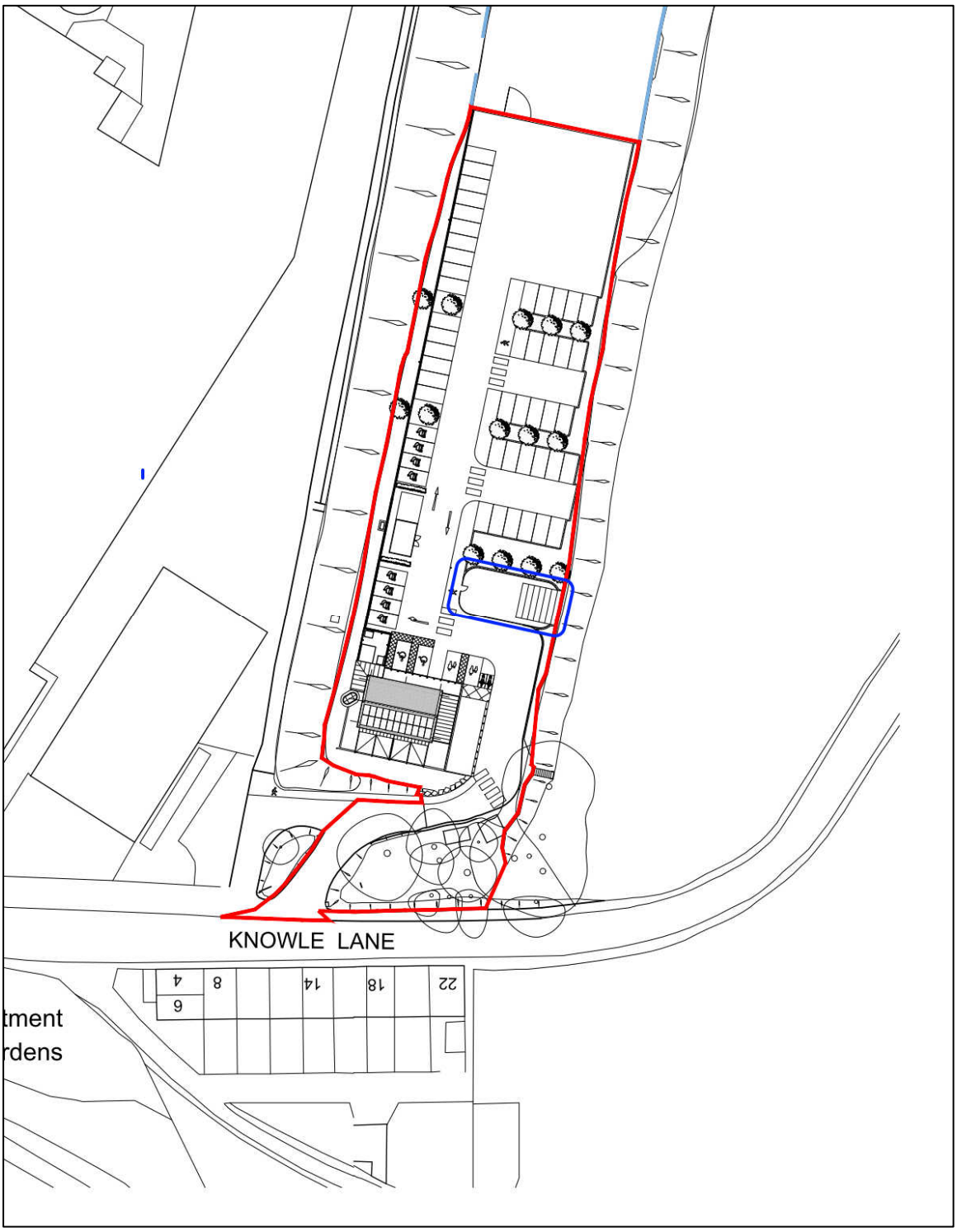
A glossary of acoustic terms used in the main body of the text is contained in Appendix A.

1.2 Site Description

The site is located to the north of Knowle Lane, approximately 1km east of Meltham, in a mixed-use area comprising commercial properties to the west, residential dwellings to the south and areas woodland in the immediate vicinity.

The site location and approximate boundary is presented on Figure 1.1 below, with the proposed play area highlighted in blue.

Figure 1.1: Site Location



1.3 Noise Sensitive Receptors

The closest residential noise sensitive receptors are dwellings to the south of the Site boundary, indicated on the site location plan included as Appendix B, and described in Table 2.2 below.

Table 2.2: Noise Sensitive Receptors

NSR	Description	Direction	Approximate minimum distance to site boundary (m)
A	Residential dwellings on Knowle Lane	South	10

2 Noise Management Plan

Planning Permission for the erection of a Café and children's play area was granted by Kirklees Council in December 2023 subject to a number of Planning Conditions. With reference to Planning Condition 3, a noise management plan is required prior to bringing the play area into use.

The play area in question is located approximately 60m north of the closest noise sensitive receptors on Knowle Lane.

To reduce the potential for adverse noise effects at the NSRs the following measures should be adopted.

- Children using the play area should be supervised at all times by a responsible adult.
- Clear signage to be provided to outline the need for limiting of raised voices to a minimum.
- The general manager of the Café will be responsible for the monitoring of procedures and ensuring compliance.
- A designated member of staff should periodically monitor the use of the area to ensure that it is not being used improperly.
- Contact details to be provided to nearby residents for a member of staff on site to be contacted in the event that a noise issue arises. All complaints to be logged and reviewed with site management.
- All equipment used in the play area should be well maintained, and selected for low noise where possible.
- Control the use of the play area to less noise-sensitive hours between 09:00 and 21:00
- Use of external amplified music should be prohibited at all time

Appendix A – Abbreviations and Definitions

Sound Pressure Level (L_p)
The basic unit of sound measurement is the sound pressure level. As the pressures to which the human ear responds can range from 20 μPa to 200 Pa, a linear measurement of sound levels would involve many orders of magnitude. Consequently, the pressures are converted to a logarithmic scale and expressed in decibels (dB) as follows:

$L_p = 20 \log_{10}(p/p_o)$

Where L_p = sound pressure level in dB; p = rms sound pressure in Pa; and p_o = reference sound pressure (20 μPa).

A-weighting
A frequency filtering system in a sound level meter, which approximates under defined conditions the frequency response of the human ear. The A-weighted sound pressure level, expressed in dB(A), has been shown to correlate well with subjective response to noise.

Equivalent continuous A-weighted sound pressure level, $L_{Aeq,\,T}$
The value of the A-weighted sound pressure level in decibels of continuous steady sound that within a specified time interval, *T*, has the same mean-square sound pressure as a sound that varies with time. $L_{Aeq,\,16h}$ (07:00 to 23:00 hours) and $L_{Aeq,\,8h}$ (23:00 to 07:00 hours) are used to qualify daytime and night time noise levels.

$L_{A10,\,T}$
The A-weighted sound pressure level in decibels exceeded for 10% of the measurement period, T. $L_{A10,\,18h}$ is the arithmetic mean of the 18 hourly values from 06:00 to 24:00 hours.

$L_{A90,\,T}$
The A-weighted sound pressure level of the residual noise in decibels exceeded 90% of a given time interval, T. L_{A90} is typically taken as representative of background noise.

$L_{AF\,max}$
The maximum A-weighted noise level recorded during the measurement period. The subscript 'F' denotes fast time weighting, slow time weighting 'S' is also used.

Single Event Level / Sound Exposure Level (SEL or L_{AE})
The energy produced by a discrete noise event averaged over one second, regardless of the event duration. This allows for comparison between different noise events which occur over different lengths of time.

Weighted Sound Reduction Index (R_W)
Single number quantity which characterises the airborne sound insulation properties of a material or building element over a defined range of frequencies (R_W is used to characterise the insulation of a material or product that has been measured in a laboratory).

Appendix B –Site Location Plan and Monitoring Positions