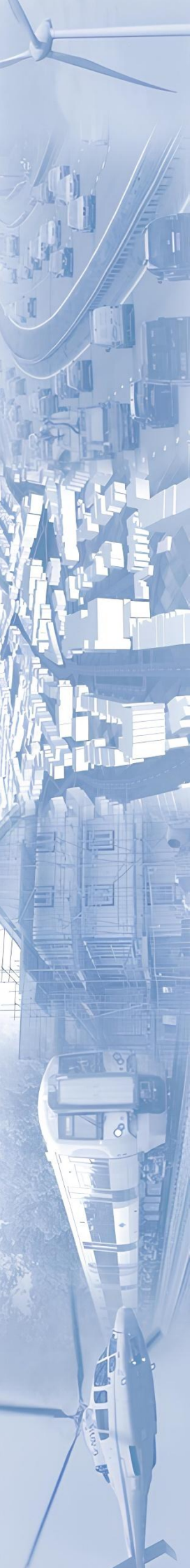


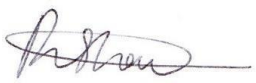
Report for:

HE5 UK Enterprises 25 GP Limited

37-39 West Road, Tottenham

Noise Impact Assessment

Status: Final **Date: 25.02.2025**

Author	 Rebecca Shaw BSc, Dip Acoustics & Noise Control, MIOA Acoustic Consultant
Reviewed and Approved By	 Graham Parry, FIOA Managing Director
Report For	HE5 UK Enterprises 25 GP Limited 7th Floor 50 Broadway London SW1H 0DB
Date	25.02.2025
Version Number	A5401/N/01
Status	Final

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1. INTRODUCTION

1.1. Background

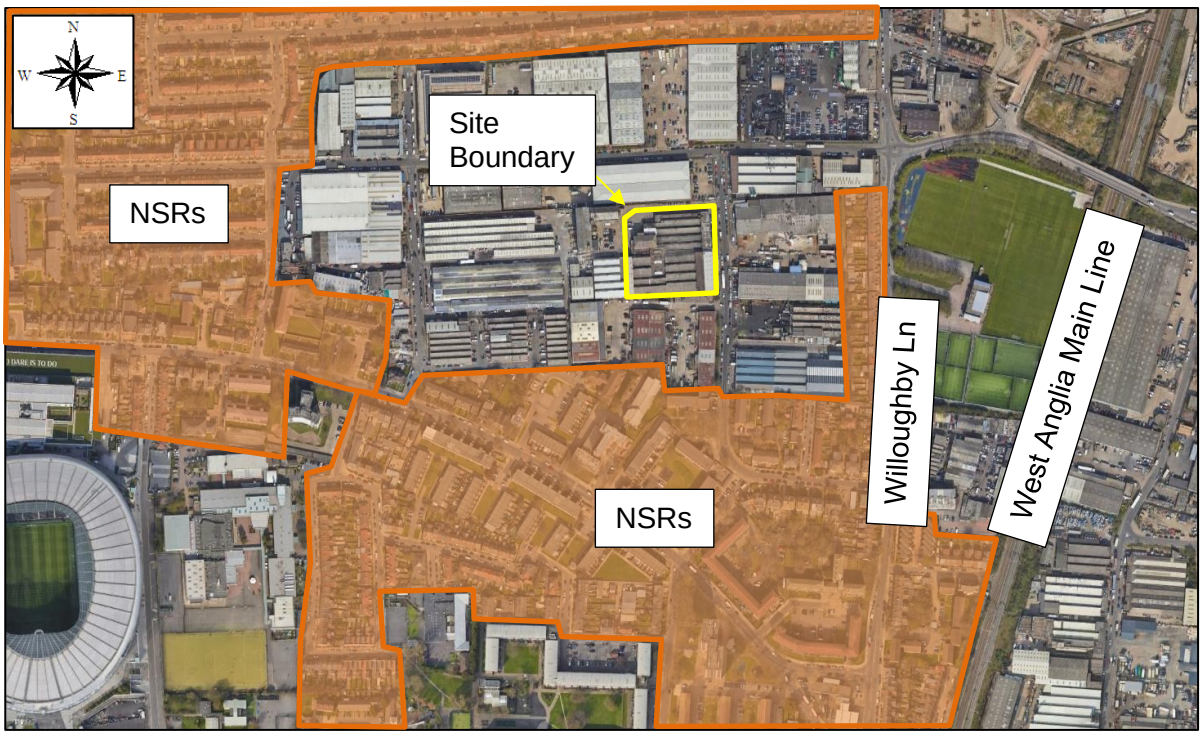
ACCON UK Limited (ACCON) has been commissioned by PRC Architecture & Planning Ltd on behalf of HE5 UK Enterprises 25 GP Limited to undertake a noise impact assessment for the proposed commercial development at 37 – 39 West Road, Tottenham.

1.2. Existing Site

The site is situated within an existing commercial area. West Road is located immediately to the east of the site and the West Anglia Main Line Railway is located approximately 350 metres to the east of the site boundary. The nearest noise sensitive receptors (NSRs) to the site are residential dwellings located on Thornley Close, Perryman House, Burns Court, West Road and Willoughby Lane (shaded orange) identified in **Figure 1.1**, with the site boundary shown in yellow.

The site is located within the administrative boundary of the London Borough of Haringey (LBH).

Figure 1.1: Site Location



1.3. Proposed Development

The assessment is required to support a full planning application for the demolition of all buildings and structures and the construction of a single speculative building for flexible B2 general industrial, B8 storage and distribution, and E(g)(iii) light industrial uses with ancillary office, associated service yard, access point, car parking, and landscape planting.

The proposed site layout is identified in **Figure F.1**.

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2. THE NATURE, MEASUREMENT AND EFFECT OF NOISE

Noise is often defined as sound that is undesired by the recipient. Whilst it is impossible to measure nuisance caused by noise directly, it is possible to characterise the loudness of that noise. '*Loudness*' is related to both sound pressure and frequency, both of which can be measured. The human ear is sensitive to a wide range of sound levels. The sound pressure level of the threshold of pain is over a million times that of the quietest audible sound. In order to reduce the relative magnitudes of the numbers involved, a logarithmic scale of decibels (dB) is normally used, based on a reference level of the lowest audible sound.

The response of the human ear is not constant over all frequencies. It is therefore usual to weight the measured frequencies to approximate the human response. The resulting 'A' weighted decibel, dB(A), has been shown to correlate closely to the subjective human response.

When related to changes in noise, a change of ten decibels, for example from 60 dB(A) to 70 dB(A), would represent a doubling in 'loudness'. Similarly, a 10 dB(A) decrease in noise, for example from 70 dB(A) to 60 dB(A), would represent a halving in 'loudness'. A change of 3 dB(A) is generally considered to be just perceptible[1]. **Table 2.1** provides typical noise levels of common sources.

Table 2.1: Typical Noise Levels

Approximate Noise Level (dB(A))	Example
0	Limit of hearing
30	Rural area at night
40	Library
50	Quiet office
60	Normal conversation at 1 m
70	In car noise without radio
80	Household vacuum cleaner at 1 m
100	Pneumatic drill at 1 m
120	Threshold of pain

A Glossary of Acoustic Terminology is provided in **Appendix 1.**

[1] Institute of Environmental Management and Assessment (2014). Guidelines for environmental noise impact assessment.

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3. NOISE ASSESSMENT CRITERIA

This section of the report identifies relevant National and Local Authority policy and guidance. Additionally, appropriate British Standards and guidance documents are also referenced.

3.1. National Planning Policy Framework

The revised National Planning Policy Framework (NPPF as amended in December 2024) supersedes the December 2023 version of the NPPF. The purpose of the planning system is to contribute to the achievement of sustainable development. There are three dimensions to sustainable development: economic, social and environmental. The environmental role is to contribute to protecting and enhancing our natural, built and historic environment; and as part of this, make effective use of land, help to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate to adapt to climate change including moving to a low carbon economy.

One of the core planning principles is to contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should prefer land of lesser value, where consistent with other policies in the Framework. The planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.

Paragraph 198 of the NPPF states:

"*Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:*

a) Mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life (see Explanatory Note to the Noise Policy Statement for England (Department for Environment, Food and Rural Affairs, 2010));

b) Identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason."

Additionally, Paragraph 200 states:

"*Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.*"

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3.2. Noise Policy Statement for England

The Noise Policy Statement for England (NPSE) aims to "*through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:*

- *Avoid significant adverse impacts on health and quality of life;*
- *Mitigate and minimise adverse impacts on health and quality of life; and*
- *Where possible, contribute to the improvement of health and quality of life*".

Based on concepts from toxicology, it introduces three 'Effect Levels' relevant to the assessment of noise. These are:

- NOEL: No Observed Effect Level: This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise;
- LOAEL: Lowest Observed Adverse Effect Level: This is the level above which adverse effects on health and quality of life can be detected; and
- SOAEL: Significant Observed Adverse Effect Level: This is the level above which significant adverse effects on health and quality of life occur.

3.3. Planning Practice Guidance

The Planning Practice Guidance for Noise (PPG-N) was published in March 2014 and most recently updated in July 2019. The PPG-N suggests that the most appropriate and cost-effective solutions to potential noise issues are best identified when good acoustic design is considered early in the planning process.

The PPG-N provides the following advice on how to determine the noise impact on development:

"*Plan-making and decision making need to take account of the acoustic environment and in doing so consider:*

- *Whether or not a significant adverse effect is occurring or likely to occur;*
- *Whether or not an adverse effect is occurring or likely to occur; and*
- *Whether or not a good standard of amenity can be achieved.*

In line with the Explanatory Note of the Noise Policy Statement for England, this would include identifying whether the overall effect of the noise exposure (including the impact during the construction phase wherever applicable) is, or would be, above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation. As noise is a complex technical issue, it may be appropriate to seek experienced specialist assistance when applying this policy." (Paragraph 003 Reference ID 30-003-20190722)

The document goes on to acknowledge the levels of noise exposure at which an effect may occur as provided in the NPSE and introduces a fourth effect level:

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- UAE: Unacceptable Adverse Effect: Extensive and regular changes in behaviour and/or an inability to mitigate the effect of noise lead to psychological stress or physical effects.

Where residential development is proposed in the vicinity of existing businesses, community facilities or other activities that produce noise, the PPG-N advises that the applicant (or 'agent of change') need to clearly identify the effects of the existing businesses that may cause a nuisance (including noise) and clearly define the mitigation measures being proposed to address any potential significant adverse effects that are identified. The agent of change needs to not only consider the current activities of the business, but the permitted activities too, even if they are not occurring at the time of the application being made. The PPG-N acknowledges that "*It can be helpful for developers to provide information to prospective purchasers or occupants about mitigation measures that have been put in place, to raise awareness and reduce the risk of post-purchase/occupancy complaints.*" (Paragraph 009 Reference ID 30-009-20190722).

It is important to understand that as the PPG-N does not specifically provide any advice with respect to noise levels/limits for different sources of noise, it is appropriate to consider other sources of advice and guidance documents when considering whether new developments would be sensitive to the prevailing acoustic environment and the PPG-N signposts a number of appropriate guidance documents.

3.4. London Borough of Haringey

Haringey Development Management DPD adopted July 2017

2.9: 'The Council recognises that amenity can be compromised in a number of ways through development such as detrimental loss of daylight and sunlight to existing and adjacent occupiers; loss of privacy and outlook due to the proximity and design of developments; harmful noise, odour, vibration and air pollution from existing and proposed developments (typically commercial activities and other activities such as rail); developments with the potential to endanger highway safety; and cause detrimental micro-climate effects. Buildings should therefore be compatible with their local environment and conditions'

Policy DM23: Environmental Protection

D: 'The Council will seek to ensure that new noise sensitive development is located away from existing or planned sources of noise pollution. Proposals for potentially noisy development must suitably demonstrate that measures will be implemented to mitigate its impact.'

E: 'A noise assessment will be required to be submitted if the proposed development is a noise sensitive development, or an activity with the potential to generate noise.'

Noise and Vibration

4.60: 'Noise pollution can adversely impact on the amenity and health of building occupiers as well as the wider public. The Council will seek to ensure that new developments both minimise noise pollution and appropriately manage its impact. Noise sensitive development (such as housing, schools and health facilities) should be located away or appropriately separated from major sources of noise. The Council will expect that mitigation measures are

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considered and incorporated into the design process prior to the submission of an application.'

Sustainable Design & Construction Supplementary Planning Document adopted March 2013

7.3: 'In Haringey, noise can be a planning issue arising from a variety of different sources, in particular major roads and railways. A noise assessment will need to be submitted with a planning application if the proposed development is either a noise-sensitive development or an activity with the potential to generate noise. Developments adjacent to railways will also require a vibration assessment.'

The London Plan adopted March 2021

Policy D14 Noise

A. 'In order to reduce, manage and mitigate noise to improve health and quality of life, residential and other non-aviation development proposals should manage noise by:

1) avoiding significant adverse noise impacts on health and quality of life

2) reflecting the Agent of Change principle as set out in Policy D13 Agent of Change

3) mitigating and minimising the existing and potential adverse impacts of noise on, from, within, as a result of, or in the vicinity of new development without placing unreasonable restrictions on existing noise-generating uses

4) improving and enhancing the acoustic environment and promoting appropriate soundscapes (including Quiet Areas and spaces of relative tranquillity)

5) separating new noise-sensitive development from major noise sources (such as road, rail, air transport and some types of industrial use) through the use of distance, screening, layout, orientation, uses and materials – in preference to sole reliance on sound insulation

6) where it is not possible to achieve separation of noise-sensitive development and noise sources without undue impact on other sustainable development objectives, then any potential adverse effects should be controlled and mitigated through applying good acoustic design principles

7) promoting new technologies and improved practices to reduce noise at source, and on the transmission path from source to receiver.

B. Boroughs, and others with relevant responsibilities, should identify and nominate new Quiet Areas and protect existing Quiet Areas in line with the procedure in Defra's Noise Action Plan for Agglomerations.'

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3.5. Noise Guidance

3.5.1. British Standard BS 8233:2014

BS 8233 *Guidance on sound insulation and noise reduction for buildings* has a number of design criteria for intrusive external noise without a specific character. The guidelines, in relation to this development, are designed to achieve good listening conditions in rooms.

With respect to intrusive external noise, BS 8233 identifies the British Council for Offices (BCO) Guide to Specification for general acoustic guidance on offices. BS 8233 highlights that complaints from officer workers typically arise from the intrusion of external noise, high internal noise levels from services, low background noise, excessive reflections from room surfaces, and inadequate sound insulation between offices. Advice is provided within the BS 8233 guidance in respect of the internal design of offices, including open-plan offices for speech privacy and the control of noise.

The relevant criteria for offices are reproduced in **Table 3.1**.

Table 3.1: Indoor Ambient Noise Levels: Offices

Activity	Location	Design Range	
		$L_{Aeq, T}$ (dB)	L_{AFmax} (dB)
Study and work requiring concentration	Executive office	35 – 40	50
Work requiring acoustic privacy	Open plan office	45 – 50	55
Speech or telephone Communications	Corridor, circulation space	45 – 55	50

Furthermore, BS 8233 advises that: "*In order to achieve unintelligible speech from another office, the minimum sound insulation between two offices needs to be approximately D_W=38 dB. Where privacy is important the minimum sound insulation should be D_W=48 dB.*"

For industrial buildings, BS 8233 advises that: "*Even where speech communication is not important, it is important that audible warnings and information announcements can be heard clearly*." The maximum noise levels for reliable speech communication are reproduced in **Table 3.2**.

Table 3.2: Indoor Ambient Noise Levels: Industrial Buildings

Distances Between Talker and Listener (m)	Noise level ($L_{Aeq, T}$, dB)	
	Normal Voice	Raised Voice
1	57	62
2	51	56

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4	45	50
8	39	44

The noise levels provided in **Table 3.2** apply to empty workshops. A noise level of 56 $L_{Aeq, T}$ dB is considered by ACCON to be a reasonable worst case internal ambient noise level within industrial spaces.

Whilst the internal noise levels suggested in BS 8233 *Guidance on sound insulation and noise reduction for buildings* at Section 7 of the BS relate to noise without a specific character, they provide useful guidance where no local authority guidance exists for internal noise levels from commercial noise sources. The guidelines are designed to achieve reasonable resting/sleeping conditions in bedrooms and good listening conditions in other rooms. The most appropriate noise levels for the residential environment are reproduced in **Table 3.3**.

Table 3.3: Indoor Ambient Noise Levels for Dwellings

Activity	Location	Daytime 0700 hrs to 2300 hrs	Night-time 2300 hrs to 0700 hrs
Resting	Living room	35 dB $L_{Aeq,16hr}$	-
Dining	Dining room/area	40 dB $L_{Aeq,16hr}$	-
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hr}$	30 dB $L_{Aeq,8hr}$

3.5.2. British Standard BS 4142:2014+A1:2019

BS 4142 *Methods for rating and assessing industrial and commercial sound* provides a method for the measurement and rating of industrial type noise sources and background noise levels outside dwellings. The rating level (defined in the BS) is used to rate the noise level of the source (this is defined as the 'specific sound level') outside residential dwellings.

The rating level is determined by assessing the character of the noise and applying an acoustic feature correction, if appropriate, to the specific sound level. Corrections are applied for the tonality, impulsivity and intermittency of the noise source which can all increase the impact of noise.

The initial assessment described in BS 4142 to determine whether an adverse impact is likely is based on establishing the difference between the rating level and the background noise level outside the residential property of interest. The British Standard states that the following points should be considered:

- "*Typically, the greater this difference, the greater the magnitude of the impact.*

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- *A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.*
- *A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.*
- *The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.*"

Where it is considered that the initial assessment of the impact needs to be modified due to the context in which the noise is occurring, BS 4142 suggests that all pertinent factors are taken into consideration, including:

1) *The absolute level of sound. For a given difference between the rating level and the background sound level, the magnitude of the overall impact might be greater for an acoustic environment where the residual sound level is high than for an acoustic environment where the residual sound level is low.*

   Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background. This is especially true at night.

   Where residual sound[2] levels are very high, the residual sound might itself result in adverse impacts or significant adverse impacts, and the margin by which the rating level exceeds the background might simply be an indication of the extent to which the specific sound source is likely to make those impacts worse.

2) *The character and level of the residual sound compared to the character and level of the specific sound. Consider whether it would be beneficial to compare the frequency spectrum and temporal variation of the specific sound with that of the ambient or residual sound, to assess the degree to which the specific sound source is likely to be distinguishable and will represent an incongruous sound by comparison to the acoustic environment that would occur in the absence of the specific sound. Any sound parameters, sampling periods and averaging time periods used to undertake character comparisons should reflect the way in which sound of an industrial and/or commercial nature is likely to be perceived and how people react to it.*

3) *The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design measures that secure good internal and/or outdoor acoustic conditions, such as:*

   i. facade insulation treatment;

[2] The residual sound is defined as the ambient sound level at the assessment location in the absence of the specific sound source

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ii. ventilation and/or cooling that will reduce the need to have windows open so as to provide rapid or purge ventilation; and

iii. acoustic screening.

There is also a requirement within BS 4142:2014 to consider the uncertainty in the measurement and assessment procedure.

3.5.3. British Council for Offices Guide to Specification (2019)

The BCO *Guide to Specification* recommends the following noise ratings (NR) for external noise intrusion levels within offices:

- Open plan offices: NR40 ($L_{eq,T}$)
- Speculative offices: NR38 ($L_{eq,T}$)
- Cellular offices/meeting rooms: NR35 ($L_{eq,T}$)

NR levels are described in Annex B of BS 8233. BS 8233 provides the following approximate relationship between A-weighted decibels and NR levels:

NR ≈ dBA – 6

The BCO guidance also states that:

"*$L_{Amax(fast)}$ noise intrusion levels should not normally be more than 55 dB in open plan/speculative offices or 50 dB in cellular offices.*"

3.5.4. Design Manual for Roads and Bridges LA111 Noise and Vibration

The change in noise levels due to the change in the number of road traffic movements can be assessed by considering the long-term increase (an adverse effect) in traffic flows on public roads following the principles of the Design Manual for Roads and Bridges (DMRB).

The magnitude of the change in road traffic noise levels is considered using the criteria outlined in **Table 3.4**. The relative levels are reproduced from the semantic scale for long-term changes in road traffic noise levels found in the DMRB guidance document.

Table 3.4: Magnitude of Change: Long Term

Magnitude of impact	Long term noise change (dB $L_{A10,18hr}$ or L_{night})
Major	Greater than or equal to 10.0
Moderate	5.0 to 9.9
Minor	3.0 to 4.9
Negligible	Less than 3.0

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3.6. Building Research Establishment Environmental Assessment Method (BREEAM) – BREEAM UK New Construction 2022 Assessment Criteria

Two acoustics credits are being sought using the Building Research Establishment Environmental Assessment Method (BREEAM) New Construction 2022 (Shell & Core or Shell Only) criteria.

The noise assessments for BREEAM must be carried out by a suitably qualified acoustic consultant. The author of this Noise Impact Assessment, Rebecca Shaw, meets the requirements of a Suitably Qualified Acoustician (SQA) by virtue of:

1. Having a minimum of three years relevant experience (within the last five years), including acting in an advisory capacity to provide recommendations for suitable acoustic performance levels and mitigation measures; and
2. Holding a recognised acoustic qualification (the author Rebecca Shaw has a post graduate diploma in Noise and Acoustics) and membership of an appropriate professional body (the author is a member of the Institute of Acoustics, MIOA).

This Noise Impact Assessment is considered suitable for use as a 'Professional specialist report' as outlined in Table 2.9: 'General evidence types' of BREEAM New Construction 2022.

3.6.1. Hea 05: Acoustic Performance

For Shell & Core or Shell Only buildings one credit is available for BREEAM Hea 05 if

"*The building meets the appropriate acoustic performance standards and testing requirements defined in the relevant table below. These tables define criteria for the acoustic principles of:… 11.b. Indoor ambient noise level*".

For industrial and office buildings ambient noise levels must comply with the design criteria in Section 7 of BS 8233:2014. The relevant criteria for offices are reproduced in **Table 3.1**. 56 dB $L_{Aeq,\ T}$ is considered a reasonable worst case internal ambient noise level within industrial spaces.

3.6.2. Pol 05: Reduction of Noise Pollution

One credit is available for this specific issue. The aim is to reduce the likelihood of noise arising from fixed installations associated with the new development affecting nearby noise-sensitive buildings. As there are noise sensitive areas within 800 m of the site, noise to those receptors must be assessed using BS 4142:2014 by a suitably qualified acoustic consultant. To achieve the credit, noise from the assessed building must be at least 5 dB lower than the background noise throughout the day and night, or noise mitigation measures must be implemented to achieve this target.

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4. NOISE MEASUREMENT SURVEY

Noise measurements were carried out between Wednesday 29th January 2025 and Thursday 30th January 2025 to determine the existing ambient noise levels for the proposed development and the background noise levels at nearby existing noise sensitive dwellings.

4.1. Methodology

Unattended semi-permanent noise monitoring was undertaken at position **MP1** between 1430 hrs on Wednesday 29th January 2025 and 1140 hrs on Thursday 30th January 2025 to obtain ambient noise levels on the site for the proposed commercial development.

On Wednesday 29th January 2025, short-term attended noise monitoring was undertaken at position **ST1 Proxy** between 1300 hrs to 1515 hrs, at position **ST2** between 1300 hrs to 1515 hrs, and at position **ST3** between 1530 hrs and 1630 hrs. On Thursday 30th January 2025, short-term attended noise monitoring was undertaken at position **ST1** between 0035 hrs to 0110 hrs, at position **ST2** between 0035 hrs to 0105 hrs, and at **ST3** between 0110 hrs to 0135 hrs.

A proxy position was used during the daytime for **ST1** due to elevated noise levels near **ST1** caused by loud mechanical plant.

Short-term noise measurements were carried out where there were no safe and secure noise measurement positions to leave equipment for a 24-hour noise survey, which were representative of the nearest noise sensitive receptors in order to obtain background noise levels.

Table 4.1 details the noise measurement locations and the noise sources observed during the survey. The noise measurement locations are also identified on **Figure 4.1**. The microphone was located at a height of 1.5 m for all noise measurements.

Table 4.1: Noise Survey Locations

Location Reference	Location Description	Measurement Duration	Observed Noise Sources
MP1	Located in the north west of the proposed development site, approximately 11m south of the northern site boundary.	24 Hours.	Commercial noise from the industrial estate, road traffic noise from West Road.
ST1	Located in line with the western façade of the properties at 1 – 12 Morpeth Walk, approximately 95m south west of the southwestern corner of	1 x 30-minute night-time period	Road traffic noise from West Road, commercial nose from the industrial estate.

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Location Reference	Location Description	Measurement Duration	Observed Noise Sources
	the proposed development's site boundary.		
ST1 (Proxy)	Located in line with the western façade of the properties at 1 – 12 Morpeth Walk, approximately 125m south west of the southwestern corner of the proposed development's site boundary.	1 x 1-hour daytime period	Road traffic noise from West Road, commercial nose from the industrial estate.
ST2	Located 6m north of Willoughby Park Road in front of the southern façade of the property at 2A Willoughby Grove.	1 x 1-hour daytime period 1 x 30-minute night-time period	Road traffic noise from Willoughby Lane and West Road. Construction noise for two minutes at 1325 hrs. A loud helicopter was also audible during the night-time at 0038hrs.
ST3	Located 5m east of Willoughby Lane, approximately 175m east of the eastern site boundary of the proposed development.	1 x 1-hour daytime period 1 x 30-minute night-time period	Road traffic noise from Willougby Lane, distant road traffic noise from the Angel Edmonton Road.

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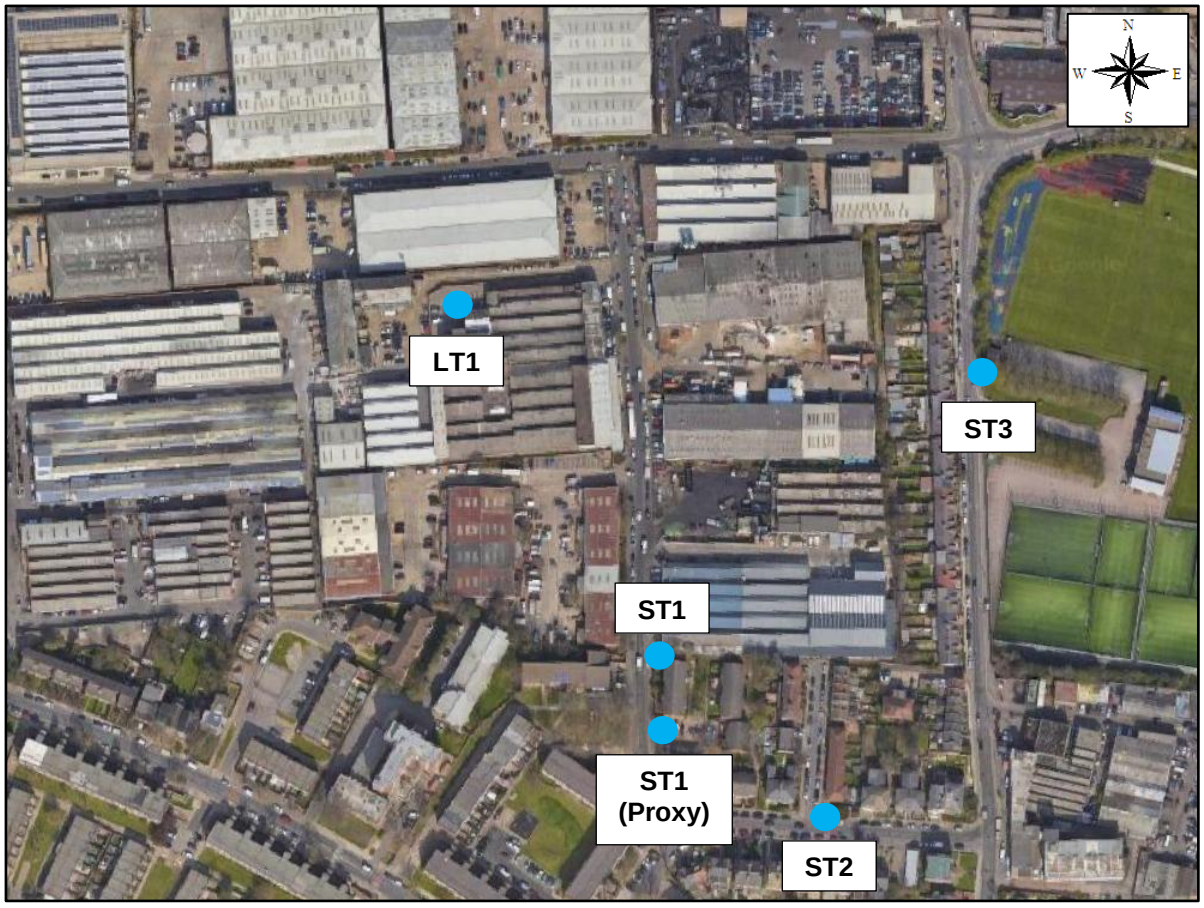
Figure 4.1: Noise Measurement Locations



The weather conditions on Wednesday 29th January 2025 were dry with 100% cloud cover, with a daytime temperature of 9°C and a south-westerly wind with speeds of up to 1.0 m/s.

During the night-time noise measurement period at 0035 hrs, the weather conditions were dry with approximately 100% cloud cover, with a night-time temperature of 5°C and a south-westerly wind with speeds of less than 1 m/s.

At the end of the measurement period on Thursday 30th January 2025, the weather was dry with 0% cloud cover, a daytime temperature of 7°C and a south-westerly wind with speeds of up to 2.5 m/s. Weather conditions throughout the noise survey were suitable for noise measurements.

4.2. Results

The unattended measured noise levels are summarised in **Table 4.2**. The hourly noise measurement results for **LT1** are provided in **Appendix 2**.

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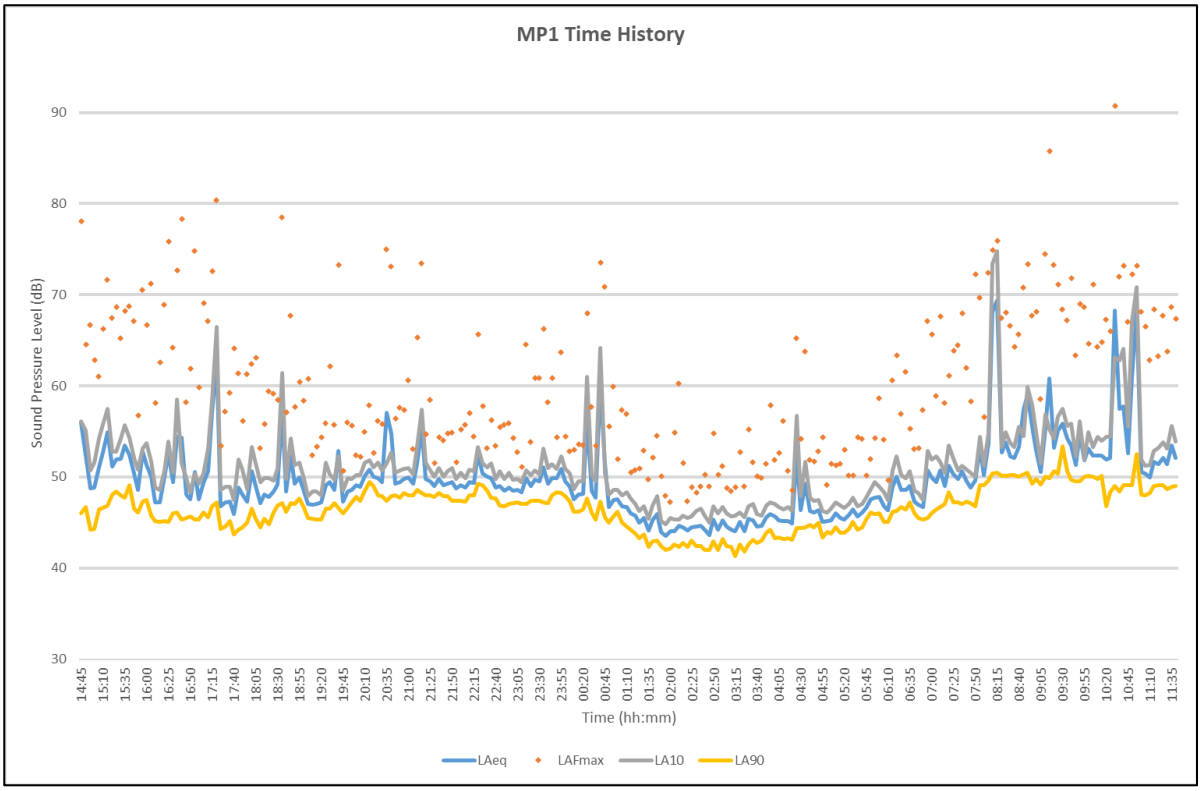
Table 4.2: Unattended Noise Measurement Summary

Position	Period	$L_{Aeq, T}$ (dB)	L_{AFmax} (dB)	$L_{A10, T}$ (dB)	Mean $L_{A90, T}$ (dB)	Modal $L_{A90, T}$ (dB)
LT1	1445 hrs to 2300 hrs	51	75	52	47	47
	2300 hrs to 0700 hrs	48	74 (63)	48	45	43
	0700 hrs to 1145 hrs	58	79	55	49	50

Note: The levels stated are logarithmic average for $L_{Aeq, T}$ and arithmetic averages for $L_{A10, T}$ and mean $L_{A90, T}$. The L_{AFmax} is the average of the highest hourly maximum sound levels measured during the measurement period, measured with a fast time-weighting. The L_{AFmax} levels in brackets are the tenth highest L_{AFmax} noise levels measured during the measurement period.

Figure 4.2 identifies the time history for the $L_{Aeq,T}$, L_{AFmax}, $L_{A10,T}$ and $L_{A90,T}$ at **LT1** during the noise measurement survey.

Figure 4.2: Noise Measurement Time History: MP1



The summary of the noise levels measured during the attended short-term noise measurement surveys is identified in **Table 4.3**.

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Table 4.3: Attended Noise Measurement Summary

Position	Date	Period	$L_{Aeq, T}$ (dB)	L_{AFmax} (dB)	$L_{A10, T}$ (dB)	$L_{A90, T}$ (dB)
ST1 Proxy	29.01.2025	1300 hrs – 1515 hrs	58	83	59	44
ST1	30.01.2025	0035 hrs – 0110 hrs	55	74	54	48
ST2	29.01.2025	1300 hrs – 1515 hrs	57	88	57	43
	30.01.2025	0035 hrs – 0105 hrs	51	72	51	46
ST3	29.01.2025	1530 hrs – 1630 hrs	69	85	73	55
	30.01.2025	0110 hrs – 0135 hrs	63	82	64	50

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5. NOISE MODELLING

5.1. Methodology

The CadnaA noise modelling software has been utilised to calculate the external noise levels from the proposed development. CadnaA is a three-dimensional noise model developed by DataKustik and has been extensively used by ACCON and others to develop noise models for a wide variety of situations and noise sources. CadnaA utilises the methodology in ISO 9613 to predict noise from point, line and area sources.

5.2. Model Details

The following information has been used with the noise model:

- Layout of the proposed development: PRC drawing number PL 103 'Proposed Block Site Plan' dated January 2025;
- Topography: Defra Survey Data;
- Road traffic data: Data from Stunt Consulting Ltd received on 5th February 2025;
- Plant sound power levels provided by MBA Consulting Engineers.

5.3. Selection of Plant

5.3.1. HGV Deliveries

The daytime assessment period for commercial noise is 1-hour and the night-time assessment period is 15-minutes.

Source noise levels for the HGV movements associated with the use of the development have been obtained from ACCON's noise database of previous source noise measurements. Average noise source percentage on-times have been derived from previous observations by ACCON.

It has been assumed that a maximum of 24 HGV movements (arriving and departing from the delivery bays) may occur per hour (two HGVs arriving and departing to each delivery bay per hour) during the daytime period. It is not known how many HGV movements will occur during the night-time period, therefore for the purpose of the noise assessment, it has been assumed that there may be six HGV movements (three HGV arriving and departing from the unit) within any 15-minute period for the night-time period as a worst-case scenario.

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Table 5.1: Delivery Plant List

Plant	Reference	Sound pressure level at 10m	Estimated Quantity		On-time
			Day	Night	
HGV movement ($L_{Aeq,T}$)	ACCON's noise database	75	24 in any one hour	6 in any 15-minute period	100%

5.3.2. Fixed Plant – Air Conditioning Units

External fixed plant details have been provided by Shepherd Brombley Partnership Ltd, the project Mechanical and Engineering consultants. The proposed commercial units will have four Daikin REYA20A heat recovery units located within a louvred plant room to the north end of the building.

The octave band sound power levels for the fixed plant units are provided in **Table 5.2**. The location of the proposed fixed plant is identified on **Figure F.1**.

Table 5.2: Fixed Plant Sound Power Levels

Unit	Octave Band Sound Power Level (dB, Hz)							Overall Sound Power Level (dBA)
	125	250	500	1000	2000	4000	8000	
Daikin REYA20A	90	88	89	83	78	79	71	90

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6. NOISE IMPACT ASSESSMENT

6.1. External Noise to Residential Receptors

The data from the noise measurement survey has been used to determine the impact that will be produced by any potential plant and delivery vehicles associated with the proposed development when assessed using the methodology in BS 4142. BS 4142 is only suitable for the assessment of noise to residential receptors.

The nearest residential noise sensitive receptors (NSRs) to the site are dwellings located on Thornley Close and Perryman House, approximately 67 metres and 80 metres to the south of the site, dwellings on Burns Court and West Road, approximately 90 metres and 100 metres to the south of the site boundary, and dwellings located on Willoughby Lane, approximately 145 metres to the east of the site boundary. The locations of the noise sensitive receptors are identified on **Figure 1.1**.

6.1.1. Noise from Fixed Plant

Table 6.1 provides a summary of the predicted specific noise levels from fixed plant associated with the development at the nearest NSRs. The location of the proposed plant is identified on **Figure F.1**.

Table 6.1: Fixed Plant Noise Levels Predicted at Residential NSRs

NSR	Specific Plant Noise Level ($L_{Aeq,T}$, dB)
41 – 46 Thornley Close: Ground Floor	15
41 – 46 Thornley Close: First Floor	15
41 – 46 Thornley Close: Second Floor	15
1 – 20 Perryman House: Ground Floor	15
1 – 20 Perryman House: First Floor	15
1 – 20 Perryman House: Second Floor	15
1 – 15 Burns Court: Ground Floor	15
1 – 15 Burns Court: First Floor	15
1 – 15 Burns Court: Second Floor	15
7 – 12 West Road: Ground Floor	18
7 – 12 West Road: First Floor	18
7 – 12 West Road: Second Floor	18

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NSR	Specific Plant Noise Level ($L_{Aeq,T}$, dB)
143 Willoughby Lane: Ground Floor	17
143 Willoughby Lane: First Floor	17

6.1.2. Noise from Service Yards

External operational activities may include the movement of vehicles, loading and unloading of vehicles, public address (PA) systems and mobile sources (such as fork-lift trucks).

The volume control and mounting of any ancillary PA systems will be fully considered to ensure that noise is adequately controlled as the design of the development progresses. Therefore, PA noise has not been assessed in detail at this stage.

For the purpose of predicting delivery noise, the site access road has been modelled as a line source due to the low traffic flow. The predicted period noise levels ($L_{Aeq,T}$) produced by the delivery activities are detailed in **Table 6.2**, in respect of the plant list in **Table 5.1**.

Table 6.2: Delivery Noise Levels Predicted at Residential NSRs: $L_{Aeq,T}$

NSR	Specific Delivery Noise Level ($L_{Aeq,T}$, dB)	
	Daytime	Night-time
41 – 46 Thornley Close: Ground Floor	29	23
41 – 46 Thornley Close: First Floor	28	22
41 – 46 Thornley Close: Second Floor	28	22
1 – 20 Perryman House: Ground Floor	16	10
1 – 20 Perryman House: First Floor	15	9
1 – 20 Perryman House: Second Floor	15	9
1 – 15 Burns Court: Ground Floor	15	9
1 – 15 Burns Court: First Floor	14	8
1 – 15 Burns Court: Second Floor	14	8
7 – 12 West Road: Ground Floor	28	22
7 – 12 West Road: First Floor	27	21
7 – 12 West Road: Second Floor	27	21

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NSR	Specific Delivery Noise Level ($L_{Aeq,T}$, dB)	
	Daytime	Night-time
143 Willoughby Lane: Ground Floor	17	11
143 Willoughby Lane: First Floor	17	11

6.1.3. Break-out Noise

Operational activities are likely to be undertaken predominantly within the buildings and may involve the use of mechanical and electrical plant, amplified music or public address (PA) systems and mobile sources (such as fork-lift trucks). The level of activities may vary from day to day depending on the specific use of the premises.

The exact uses of the proposed development have yet to be determined, however, it is known that they will be industrial in nature. An internal noise level of 80 dB $L_{Aeq,T}$ has been assumed to provide a very worst-case assessment for the daytime period, for the night-time period an internal noise level of 75 dB $L_{Aeq,T}$ has been assumed as a worst-case assessment as it is highly likely that there will not be the same level of activity during the night-time as the daytime period. These noise levels would be unlikely to be exceeded internally in line with the Control of Noise at Work Regulations.

Table 6.3 provides a summary of the assumed sound insulation properties of the building fabric of the proposed unit.

Table 6.3: Sound Insulation Properties of Typical Constructions

Element	Description of Example Construction	Assumed Weighted Sound Reduction R_w (dB)
Wall and Roof Panels	Insulated metal panels (i.e. corrugated outer metal sheet, insulation, corrugated inner metal sheet)	40(1)
Roller Doors	Insulated metal roller doors	25
Personnel Doors	Insulated metal personnel doors	35
Roof lights	Multi-wall polycarbonate	22
Windows	Standard double-glazed windows	30
Note (1): Depending on the thickness and density of the insulation.		

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For the purpose of calculating break-out noise it has been assumed that the internal walls for the office, lobby and stairwell of the unit will reduce noise from the main operational areas such that noise transmitted through these areas to outside will be reduced.

The overall façade sound reduction for each façade has been calculated based on the area of different materials identified from drawings received from PRC.

Table 6.4 provides a summary of the predicted break-out noise levels at the nearest existing NSRs.

Table 6.4: Break-out Noise Levels Predicted at Residential Receptors: Daytime and Night-time

NSR	Specific Break-out Noise Level at property ($L_{Aeq,T}$, dB)	
	Daytime	Night-time
41 – 46 Thornley Close: Ground Floor	22	17
41 – 46 Thornley Close: First Floor	22	17
41 – 46 Thornley Close: Second Floor	22	17
1 – 20 Perryman House: Ground Floor	14	9
1 – 20 Perryman House: First Floor	14	9
1 – 20 Perryman House: Second Floor	14	9
1 – 15 Burns Court: Ground Floor	22	17
1 – 15 Burns Court: First Floor	22	17
1 – 15 Burns Court: Second Floor	22	17
7 – 12 West Road: Ground Floor	21	16
7 – 12 West Road: First Floor	21	16
7 – 12 West Road: Second Floor	21	16
143 Willoughby Lane: Ground Floor	19	14
143 Willoughby Lane: First Floor	19	14

This assessment assumes that doors will be closed when internal noise-generating activities are taking place. This should be encouraged for any future occupant, particularly those who might carry out noisy activities. Doors could be opened when noisy machinery is not in use. Other means of ventilation should be considered where necessary.

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The predicted break-out noise levels consider potential worst-case uses of the new unit and utilise historic noise measurement data obtained by ACCON at commercial units of varying size and number of employees. This prediction does not necessarily represent the final uses or potential business that will occupy the new space and is included to demonstrate the likely impact on nearby receptors in a potential worst-case scenario.

6.1.4. Summary of Initial BS 4142 Assessment

Time-Average Noise Levels

For daytime, the BS 4142 assessment period is one hour and for the night-time the assessment period is 15-minutes. Therefore, it is reasonable to consider the combined noise level over these periods from deliveries, fixed plant and break-out noise from the proposed commercial unit.

Due to the distance of the noise sensitive receptors (NSRs) to the site, the proposed layout of the development and intervening buildings, no acoustic features will be audible at the NSRs and therefore no corrections have been applied to the rating noise level.

Daytime (0700 hrs to 2300 hrs)

Table A3.1 of **Appendix 3** provides the BS 4142 assessment for operational noise from deliveries, fixed plant and break-out noise from the proposed development at the residential NSRs during the daytime. It can be seen that the combined rating noise levels of plant noise, break-out noise and delivery noise does not exceed the background noise levels with the highest rating level being 14 dB below the existing background sound levels.

According to BS 4142:2014+A1:2019, a difference of *"around +5 dB"* is *"likely to be an indication of an adverse impact, depending on the context",* and where the *"rating level does not exceed the background level"* it is "a low impact, depending on context". The initial BS 4142 assessment for the daytime therefore indicates a low impact.

Night-time (2300 hrs to 0700 hrs)

Table A3.2 of **Appendix 3** provides the BS 4142 assessment for operational noise from deliveries, fixed plant and break-out noise from the proposed unit for the night-time period. It can be seen that the rating noise level does not exceed the background noise level with the highest rating level being 22 dB below the existing background sound levels. The initial BS 4142 assessment for the night-time period from operational noise therefore indicates a low impact.

6.1.5. Discussion of Context and Conclusion of BS 4142 Assessment

The proposed development is situated in an area of existing commercial units and therefore the proposed development is not introducing sound with a new character to the surrounding area.

The site and surrounding properties in the area are also affected by relatively high levels of road traffic noise. Delivery noise (excluding the unloading and loading of HGV's) has a very similar character to road traffic noise as it is predominately the noise of slow-moving vehicles.

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The BS 4142 assessment has indicated a low impact during the daytime and night-time periods.

6.1.6. BREEAM Pol 05 Assessment

This assessment has demonstrated that the BREEAM Pol 05 requirement of 5 dB below background sound levels for noise from fixed installations would be achieved. This has been identified by the results in **Table A3.1** and **Table A3.2** of **Appendix 3** where predicted noise levels from the plant are less than 18 dB L_{Aeq}.

6.2. Change in Road Traffic Noise

The calculation of the increase in road traffic noise due to traffic generation from the proposed development does not include the site access road as noise from this source has been calculated as part of the delivery noise prediction. The remaining relevant road links have been compared for the 2026 Baseline and the 2026 With Proposed Development scenarios.

Table 6.5 presents the predicted change in road traffic noise to nearby NSRs. It can be seen that the road traffic noise levels are not predicted to increase as the change in noise level is less than 3 dB. In the long-term, this indicates there would be a negligible impact on road traffic noise due to the proposed development (refer to **Table 3.4**).

Table 6.5: Calculated Changes in Road Traffic Noise

Link	Opening Year Without Proposed Development		Opening Year With Proposed Development		Noise Change dB(A)
	18-hour AAWT	% HDV	18-hour AAWT	% HDV	
A406	112927	6.0%	112909	6.0%	0.0
A1010 High Road	20647	10.0%	20626	10.0%	0.0
Brantwood Road	1446	5.6%	1405	4.9%	-0.3
Northumberland Park	1755	28.0%	1755	28.0%	0.0
Willoughby Lane	4302	12.9%	4273	13.0%	0.0
West Road	825	23.9%	754	24.6%	-0.3

6.3. Noise to Proposed Commercial Uses

6.3.1. BREEAM Hea 05 Assessment for Offices

The layouts of the proposed office within the unit do not identify any cellular offices. However, it is possible that future occupants will install partition walls to create cellular offices, therefore cellular and open plan offices have been considered. **Table 6.6** summarises the predicted internal ambient and maximum noise levels resulting from external sources of noise within offices using the assumptions listed in **Table 6.3**.

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Table 6.6: Predicted Internal Ambient Noise Level within Offices

Unit	Predicted Internal Noise Level within Offices ($L_{Aeq,T}$, dB)		Predicted Internal Maximum Noise Level within Offices (L_{AFmax}, dB)	
	Day	Night	Day	Night
Unit 1 Office	15	8	36	23

Table 6.6 demonstrates that the predicted internal ambient noise levels are below the criteria for all office types (as summarised in **Table 3.1**). If internal partitions are installed by the occupiers, they should have a sound insulation performance of D_W = 38 dB for unintelligible speech or D_W = 48 dB where privacy is important.

6.3.2. BREEAM Hea 05 Assessment for Industrial Spaces

Table 6.7 summarises the predicted internal ambient noise levels within industrial spaces from existing noise sources using the assumptions listed in **Table 6.3**.

Table 6.7: Predicted Internal Ambient Noise Level within Industrial Spaces

Unit	Predicted Internal Ambient Noise Level within Industrial Spaces ($L_{Aeq,T}$, dB)	
	Day	Night
Unit 1	26	19

Table 6.7 demonstrates that the predicted internal ambient noise levels are below the criterion (**Section 3.6.1**) of 56 dB $L_{Aeq,T}$ for all industrial spaces.

6.4. Discussion of Uncertainty

6.4.1. Noise Survey

The noise survey was undertaken with other commercial uses around the site operating as normal, therefore, the noise measurement data is considered to be representative for all noise sensitive receptors considered in this assessment. The noise survey was undertaken over typical weekdays during suitable weather conditions using Class 1 (IEC 61672-1:2013) sound level meters.

6.4.2. Assessment

The assumptions used in the noise predictions and assessments are based on worst-case activities for potential noisy occupants of the development. However, the assessment has been restricted to single-value quantities for sound insulation, break-out noise and distance correction.

Overall, it is considered that this noise assessment represents a reasonable worst-case with a low level of uncertainty in the assessment procedure, considering both the noise survey and the noise predictions.

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7. SUMMARY AND CONCLUSIONS

A noise assessment has been carried out to consider the noise impact of the proposed commercial development at 37 – 39 West Road, Tottenham, on the nearest existing noise sensitive receptors (NSRs) to the site. The impact from existing noise sources to potential employees of the development has also been assessed as part of a BREEAM assessment.

An assessment of the noise impact of the proposed development on residential NSRs has been completed in line with the methodology provided in BS 4142:2014+A1:2019. The assessment indicates that the combined rating noise level of plant noise, break-out noise and delivery noise does not exceed the background noise levels during the daytime and night-time periods.

The fixed plant noise level is significantly below the BREEAM target of 5 dB below the background sound level.

An assessment of the change in road traffic due to the development indicates that there is no increase in road traffic noise as a result of the proposed development.

This assessment has demonstrated that the aims of paragraph 198 of the NPPF will be met as noise from the proposed development will not result in any significant adverse impact on the health or quality of life for occupiers of nearby NSRs.

Predicted noise levels within the proposed offices are expected to be suitable for the proposed uses without mitigation.

As a Suitably Qualified Acoustician (SQA), the author confirms that the developer's work will enable a future tenant utilising a typical fit-out and specification to meet the levels required to demonstrate compliance with the requirements for one credit under BREEAM Hea 05 for a Shell and Core building and one credit under BREEAM Pol 05 for Reduction of Noise Pollution.

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ADDITIONAL FIGURES

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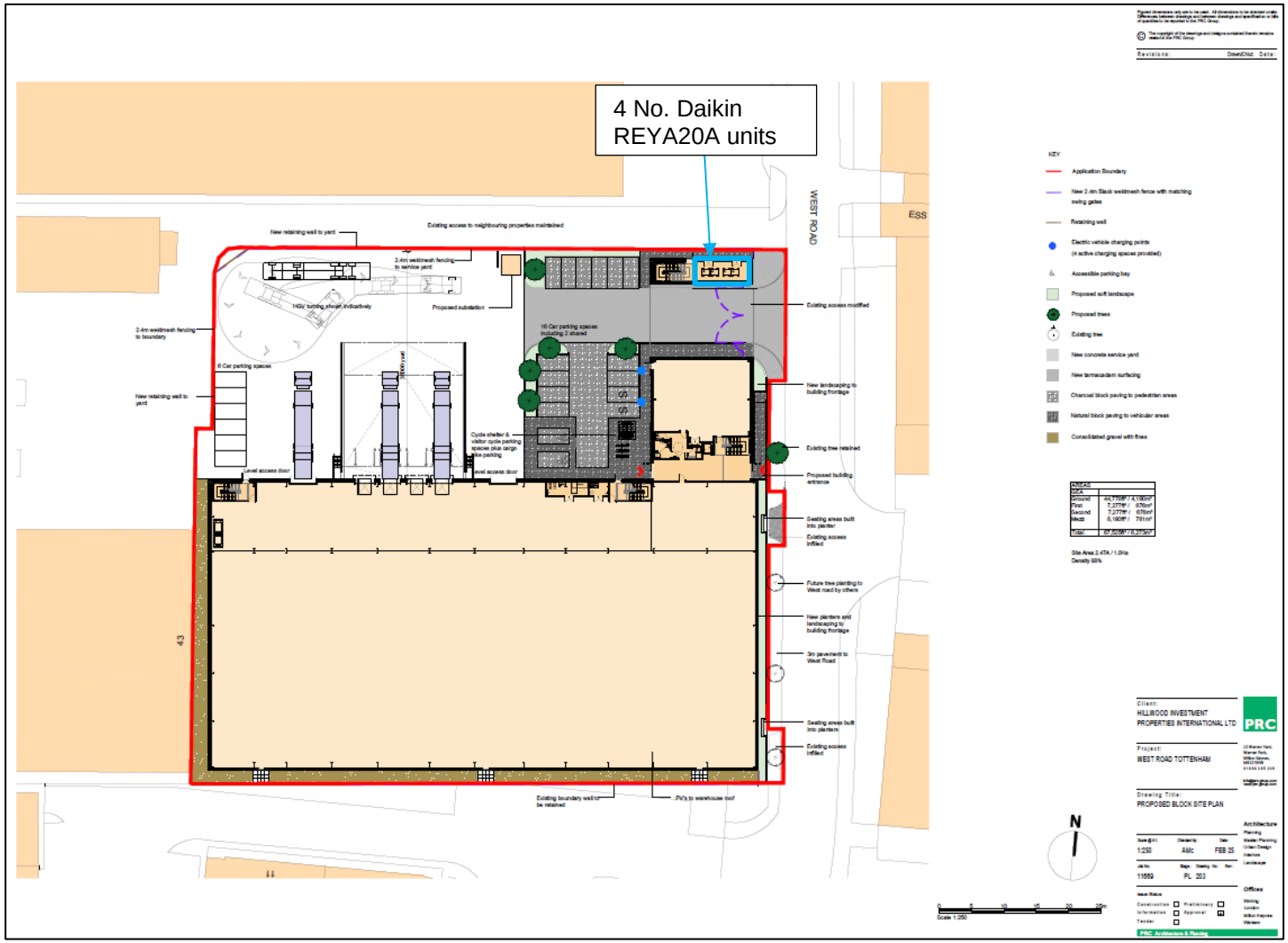
Figure F.1: Proposed Site Layout



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APPENDICES

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Appendix 1

Glossary of Acoustic Terminology

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Term	Description
'A'-Weighting	This is the main way of adjusting measured sound pressure levels to take into account human hearing, and our uneven frequency response.
Decibel (dB)	This is a tenth (deci) of a bel. A decibel can be a measure of the magnitude of sound, changes in sound level and a measure of sound insulation. Decibels are not an absolute unit of measurement but are an expression of ratio between two quantities expressed in logarithmic form.
Ambient /Period Sound Level, $L_{Aeq, T}$	The equivalent steady sound level in dB containing the same acoustic energy as the actual fluctuating sound level over the given period, T. T may be as short as 1 second when used to describe a single event, or as long as 24 hours when used to describe the noise climate at a specified location. $L_{Aeq, T}$ can be measured directly with an integrating sound level meter.
Road Traffic Noise Level, $L_{A10, T}$	The 'A'-weighted sound pressure level of the residual noise in decibels exceeded for 10 per cent of a given time. The $L_{A10, T}$ is used to describe road traffic noise levels at a particular location.
Background Sound Level, $L_{A90, T}$	The 'A'-weighted sound pressure level of the residual noise in decibels exceeded for 90 per cent of a given time (T). The $L_{A90, T}$ is used to describe the background noise levels at a particular location.
L_{AFmax}	The 'A'-weighted maximum sound pressure level measured over a measurement period measured with 'fast' weighting (125 ms).
Rating Level, $L_{Ar, Tr}$	The specific sound level plus any adjustment for the characteristic features of the sound.
Specific Sound Level, $L_{Aeq,Tr}$	The equivalent continuous A-weighted sound pressure level produced by the specific sound source at the assessment location over a given reference time interval, Tr.
R	Sound reduction index. Laboratory measure of the sound insulating properties of a material or building element in a stated frequency band
R_w	Weighted sound reduction index, a single number quantity for the airborne sound insulation in buildings and of building elements such as wall, doors and windows. The quantity is intended for rating the airborne sound insulation and for simplifying the formulation of acoustical requirements in building codes, when measured in the presence of flanking sound transmission, denoted R'_w.

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Term	Description
D	Arithmetic difference of the SPL between two spaces, for example room (a) and room (b)
D_w	Single number quantity describing arithmetic difference in SPL between room (a) and room (b) in buildings and of building elements such as walls, doors and windows, when measured in the presence of flanking sound transmission, denoted D_w.

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Appendix 2
Noise Measurement Results

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Table 1: Hourly Noise Measurement Results at LT1

Time	$L_{Aeq,T}$ (dB)	L_{Amax} (dB)	$L_{A10,T}$ (dB)	$L_{A90,T}$ (dB)
14:00-15:00	47	78	54	46
15:00-16:00	52	72	54	47
16:00-17:00	51	78	51	46
17:00-18:00	54	80	52	45
18:00-19:00	51	78	52	46
19:00-20:00	49	73	50	46
20:00-21:00	52	75	51	48
21:00-22:00	51	73	51	48
22:00-23:00	50	66	51	48
23:00-00:00	50	66	51	47
00:00-01:00	53	74	52	46
01:00-02:00	46	57	47	44
02:00-03:00	44	60	46	42
03:00-04:00	45	58	46	43
04:00-05:00	47	65	48	44
05:00-06:00	46	54	47	45
06:00-07:00	48	67	50	46
07:00-08:00	50	72	52	47
08:00-09:00	62	76	58	50
09:00-10:00	55	86	55	50
10:00-11:00	62	91	59	49
11:00-12:00	50	69	53	49

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Appendix 3
Operational Noise Assessment

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Table A3.1: BS 4142: Operational Noise Assessment for Residential Receptors: Daytime

NSR	Plant Specific Noise Level ($L_{Aeq,T}$, dB)	Development Break-out Specific Noise Level ($L_{Aeq,T}$, dB)	Development Delivery Specific Noise Level ($L_{Aeq,T}$, dB)	Overall Development Rating Noise Level (($L_{ar,Tr}$, dB)	Measured Background Sound Level ($L_{A90,T}$, dB)	Difference between Rating Level and Background Sound Level (dB)	Initial Estimate of BS 4142 Impact
41 – 46 Thornley Close: Ground Floor	15	22	29	30	44	-14	Low Impact
41 – 46 Thornley Close: First Floor	15	22	28	29	44	-15	Low Impact
41 – 46 Thornley Close: Second Floor	15	22	28	29	44	-15	Low Impact
1 – 20 Perryman House: Ground Floor	15	14	16	20	44	-24	Low Impact
1 – 20 Perryman House: First Floor	15	14	15	20	44	-24	Low Impact
1 – 20 Perryman House: Second Floor	15	14	15	20	44	-24	Low Impact
1 – 15 Burns Court: Ground Floor	15	22	15	23	44	-21	Low Impact
1 – 15 Burns Court: First Floor	15	22	14	23	44	-21	Low Impact
1 – 15 Burns Court: Second Floor	15	22	14	23	44	-21	Low Impact
7 – 12 West Road: Ground Floor	18	21	28	29	43	-14	Low Impact
7 – 12 West Road: First Floor	18	21	27	29	43	-14	Low Impact
7 – 12 West Road: Second Floor	18	21	27	29	43	-14	Low Impact

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NSR	Plant Specific Noise Level ($L_{Aeq,T}$, dB)	Development Break-out Specific Noise Level ($L_{Aeq,T}$, dB)	Development Delivery Specific Noise Level ($L_{Aeq,T}$, dB)	Overall Development Rating Noise Level ($L_{ar,Tr}$, dB)	Measured Background Sound Level ($L_{A90,T}$, dB)	Difference between Rating Level and Background Sound Level (dB)	Initial Estimate of BS 4142 Impact
143 Willoughby Lane: Ground Floor	17	19	17	22	55	-33	Low Impact
143 Willoughby Lane: First Floor	17	19	17	22	55	-33	Low Impact

Table A3.2: BS 4142: Operational Noise Assessment for Residential Receptors: Night-time

NSR	Plant Specific Noise Level ($L_{Aeq,T}$, dB)	Development Break-out Specific Noise Level ($L_{Aeq,T}$, dB)	Development Delivery Specific Noise Level ($L_{Aeq,T}$, dB)	Overall Development Rating Noise Level ($L_{ar,Tr}$, dB)	Measured Background Sound Level ($L_{A90,T}$, dB)	Difference between Rating Level and Background Sound Level (dB)	Initial Estimate of BS 4142 Impact
41 – 46 Thornley Close: Ground Floor	15	17	23	24	48	-24	Low Impact
41 – 46 Thornley Close: First Floor	15	17	22	24	48	-24	Low Impact
41 – 46 Thornley Close: Second Floor	15	17	22	24	48	-24	Low Impact
1 – 20 Perryman House: Ground Floor	15	9	10	17	48	-31	Low Impact
1 – 20 Perryman House: First Floor	15	9	9	17	48	-31	Low Impact

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NSR	Plant Specific Noise Level ($L_{Aeq,T}$, dB)	Development Break-out Specific Noise Level ($L_{Aeq,T}$, dB)	Development Delivery Specific Noise Level ($L_{Aeq,T}$, dB)	Overall Development Rating Noise Level ($L_{ar,Tr}$, dB)	Measured Background Sound Level ($L_{A90,T}$, dB)	Difference between Rating Level and Background Sound Level (dB)	Initial Estimate of BS 4142 Impact
1 – 20 Perryman House: Second Floor	15	9	9	17	48	-31	Low Impact
1 – 15 Burns Court: Ground Floor	15	17	9	19	48	-29	Low Impact
1 – 15 Burns Court: First Floor	15	17	8	19	48	-29	Low Impact
1 – 15 Burns Court: Second Floor	15	17	8	19	48	-29	Low Impact
7 – 12 West Road: Ground Floor	18	16	22	24	46	-22	Low Impact
7 – 12 West Road: First Floor	18	16	21	24	46	-22	Low Impact
7 – 12 West Road: Second Floor	18	16	21	24	46	-22	Low Impact
143 Willoughby Lane: Ground Floor	17	14	11	19	50	-31	Low Impact
143 Willoughby Lane: First Floor	17	14	11	19	50	-31	Low Impact

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