# Whalley Range
# Manchester

## Environmental Noise Survey and Noise Impact Assessment Report

31862/NIA

5 March 2025

For:
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## Document Control

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# 1.0 Introduction

Hann Tucker Associates Limited (Hann Tucker) has been commissioned by TSA Riley to undertake a noise assessment for a site in Manchester.

The site, which comprises the Co-op store on Mayfield Road, is being considered for downsizing into two smaller commercial units (Class E) as well as extending the Sunday trading hours for the new Co-op store.

The site is subject to road traffic noise from Withington Road and Mayfield Road as well as other surrounding road networks. There is also contribution from existing building services plant in operation at the site, that is considered to contribute to the noise climate experienced by the worst affected noise sensitive receptors, and this is discussed in more depth herein.

Baseline noise conditions have been established by means of a detailed noise survey, which have been used to establish noise limits for any newly proposed building services plant to be assessed.

This Report assesses the noise impacts from the proposed development (when operational) in context with relevant national & local planning policies, design standards and good practice guides.

# 2.0 Objectives

To undertake an environmental noise survey to establish the existing $L_{Amax}$, $L_{Aeq}$ and $L_{A90}$ environmental road, rail and air traffic noise levels at selected accessible positions. With reference to BS 4142 and other relevant guides, to propose suitable noise limits for plant and commercial operations to protect neighbouring noise sensitive receptors.

To assess noise break out during the extended Sunday trading hours sought, from commercial operations of the Co-op store. To also assess noise emissions from the proposed newly installed items of building services plant.

To assess noise emissions from the existing Co-op car park to establish feasibility of extended Sunday opening hours.

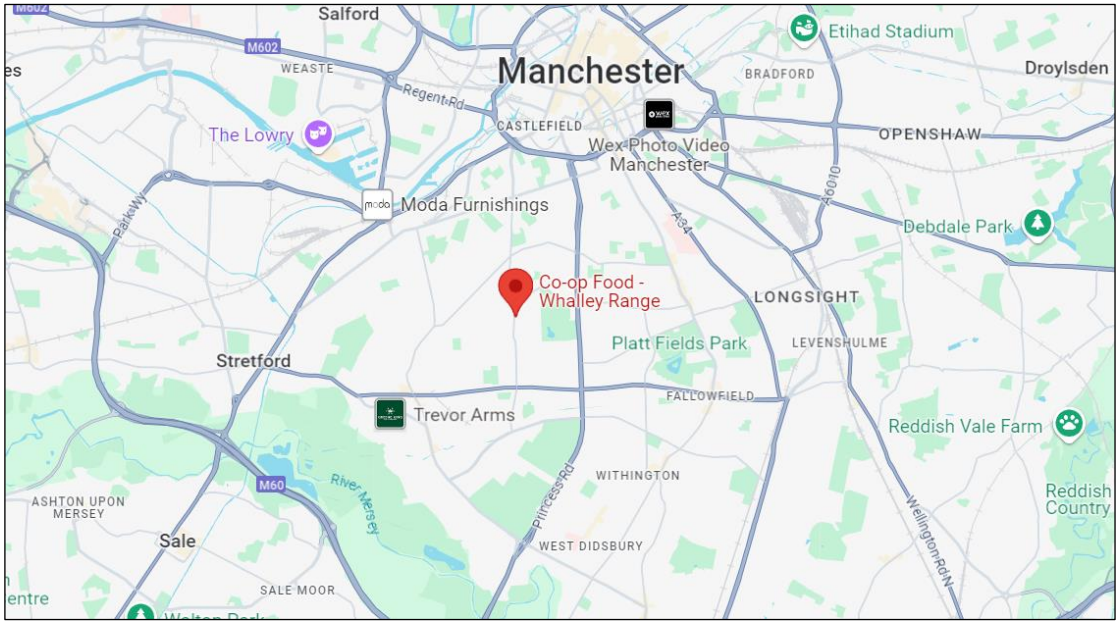
# 3.0 Acoustic Terminology

For an explanation of the acoustic terminology used in this report please refer to Appendix A.

# 4.0 Site Description

## 4.1 Location

The site lies in south Manchester and falls within the jurisdiction of Manchester City Council. The location is shown in the Location Map below.




Location (Map data ©2024 Google) see above

## 4.2 Description

The site lies to the south of Manchester and is surrounded by a mix of residential and commercial properties and the local road networks. The site is bordered by houses on Mayfield Road and Withington Road to the immediate south and west of the site. To the north of the site is Range Garage and Minhaj-ul-Quran Mosque. Approximately 23 metres to the west is Mediterranean Café and Tenzie's shop.

The site is shown in the Site Plan below.



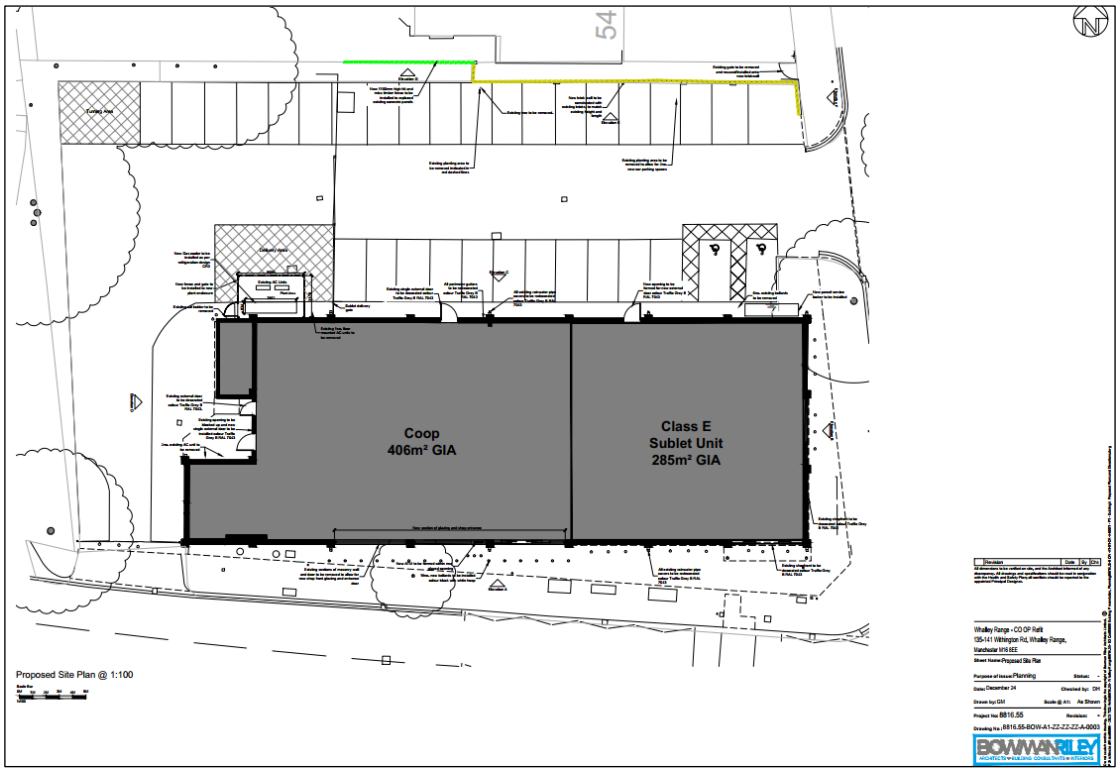

Site Plan (Imagery ©2024 Airbus, Maxar Technologies, Map data ©2024 - see above)

## 5.0 Proposed Development

The development comprises; external works to facilitate the subdivision of the retail unit including shopfront alterations, blocking up and creation of new door openings, installation of a parcel service locker, bollards and ATM, replacement plant equipment and enclosure, removal of a tree, boundary treatment and car park works alongside amendments to Sunday opening hours.

The planning application proposes to extend the hours of trading of the new Co-op store to cover the evening period on a Sunday in line with the typical opening hours for other convenience stores across their estate. It is understood that the Co-op store currently operates Monday to Saturday 07:00 to 22:00 and 10:00 to 16:00 on Sunday. It is sought that Sunday operating hours be extended to 07:00 to 22:00, to match the trading hours for Monday to Saturday.

The site is shown in the Plan below.




Plan showing Project Proposals

# 6.0 Planning Policies, Standards & Guidance

## 6.1 Policies & Guides

In order to provide a suitable assessment a number of local and national planning policies have been considered.

All guidance used to form a noise impact assessment is taken from various standards, guidance, and Local Authority requirements as summarised below:

- Manchester Core Strategy and saved policies from the Manchester Unitary Development Plan.
- British Standard 4142:2014 + A1:2019
- National Planning Policy Framework (NPPF)
- Planning Practice Guidance.

Detailed information for relevant planning policies and guidance can be found within Appendix B.

## 6.2 Local Planning Requirements

Manchester City Council requirements are outlined in Manchester City Council's Planning & Noise Technical Guidance document (June 2022).

The document aims to provide help and advice in relation to noise in a planning context to encourage good acoustic design. It outlines what is expected in relation to current guidance and policy with the aspiration that new developments achieve the highest possible standards without compromising the health and wellbeing of people that live and work within the City of Manchester.

Section 3.7.1.5 states that *"Externally mounted ancillary plant, equipment and servicing shall be selected and/or acoustically treated in accordance with a scheme designed so as to achieve a rating level of 5dB ($L_{Aeq}$) below the typical background ($L_{A90}$) level at the nearest noise sensitive location".*

## 6.3 BS 4142:2014

When setting plant noise emission criteria reference is commonly made to BS 4142:2014 "*Methods for rating and assessing industrial and commercial sound".*

The procedure contained in BS 4142:2014 provides an assessment of the likely effects of sound on people when comparing the specific noise levels from the source with representative background noise levels. Where the noise contains "a tone, impulse or other characteristic" then various corrections can be added to the specific (source) noise level to obtain the "rating level".

BS 4142 states that: *"The significance of sound of an industrial and/or commercial nature depends upon both the margin by which the rating level of the specific sound source exceeds the background sound level and the context in which the sound occurs". An estimation of the impact of the specific noise can be obtained by the difference of the rating noise level and the background noise level and considering the following:*

- *"Typically, the greater this difference, the greater the magnitude of the impact."*
- *"A difference of around +10dB or more is likely to be an indication of a significant adverse impact, depending on the context."*
- *"A difference of around +5dB 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."*

The determination of the "rating level" and the "background level" are both open to interpretation, depending on the context.

# 7.0 Baseline Noise Survey

## 7.1 Procedure

Fully automated environmental noise monitoring was undertaken by Euan Ellis BA(Hons) from approximately 10:30 hours on Friday 11 October 2024 to 10:00 hours on Monday 14 October 2024, to establish full daytime and night-time noise levels over a typical weekday and weekend period. Measurements were taken continuously of the A-weighted (dBA) $L_{90}$, $L_{eq}$, and $L_{max}$ sound pressure levels over discrete 2 and 15-minute periods.

## 7.2 Measurement Position

The microphone was attached to a pole approximately 4 metres above ground level in free field. The position is shown on the plan below.




Plan Showing Measurement Positions (Imagery ©2024 Airbus, Map data ©2024 - see above)

## 7.3 Weather Conditions

For the unattended survey between Friday 11 October 2024 and Monday 14 October 2024, local weather reports indicated no notable periods of prolonged or heavy rainfall, with temperatures ranging from 2 °C (night) to 14 °C (day) and wind speeds less than 5 m/s. During our time on site, skies were clear, wind conditions were calm and from a southerly direction and road surfaces were dry.

## 7.4 Instrumentation

The instrumentation used during the survey is presented in the table below:

| Position | Description | Model | Manufacturer | Serial Number | Calibration |
|---|---|---|---|---|---|
| 1 | Type 1 Data Logging Sound Level Meter | LxT | Larson Davis | 4568 | Calibration on 30/05/2024 |
| | Microphone | PRML x TL1 | PCB | 154999 | |
| | Pre-Amp | 377B02 | PCB | 36021 | |
| 1 | Type 1 Calibrator | Bruel & Kjaer | 4226 | 3070450 | Calibration on 06/03/2024 |

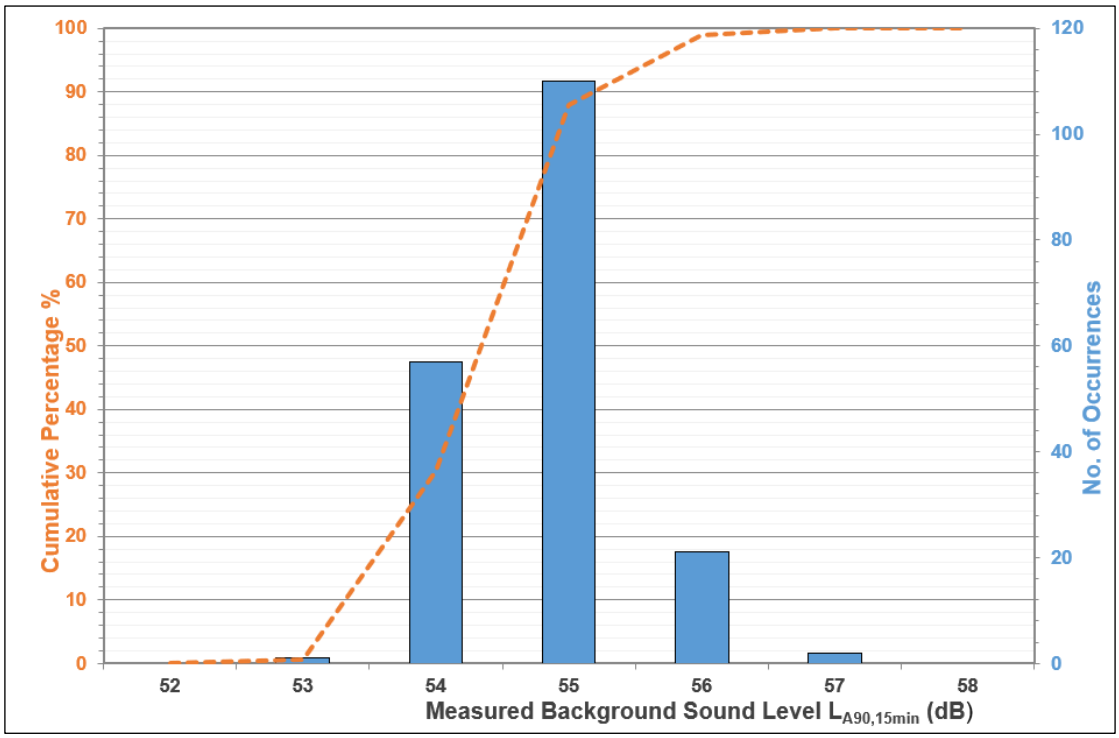
The sound level meter, including the extension cable, was calibrated prior to and on completion of the surveys. No significant change was found to have occurred (no more than 0.3 dB).

The sound level meter was in an environmental case with the microphone connected to the sound level meter via an extension cable. The microphone was fitted with a windshield.

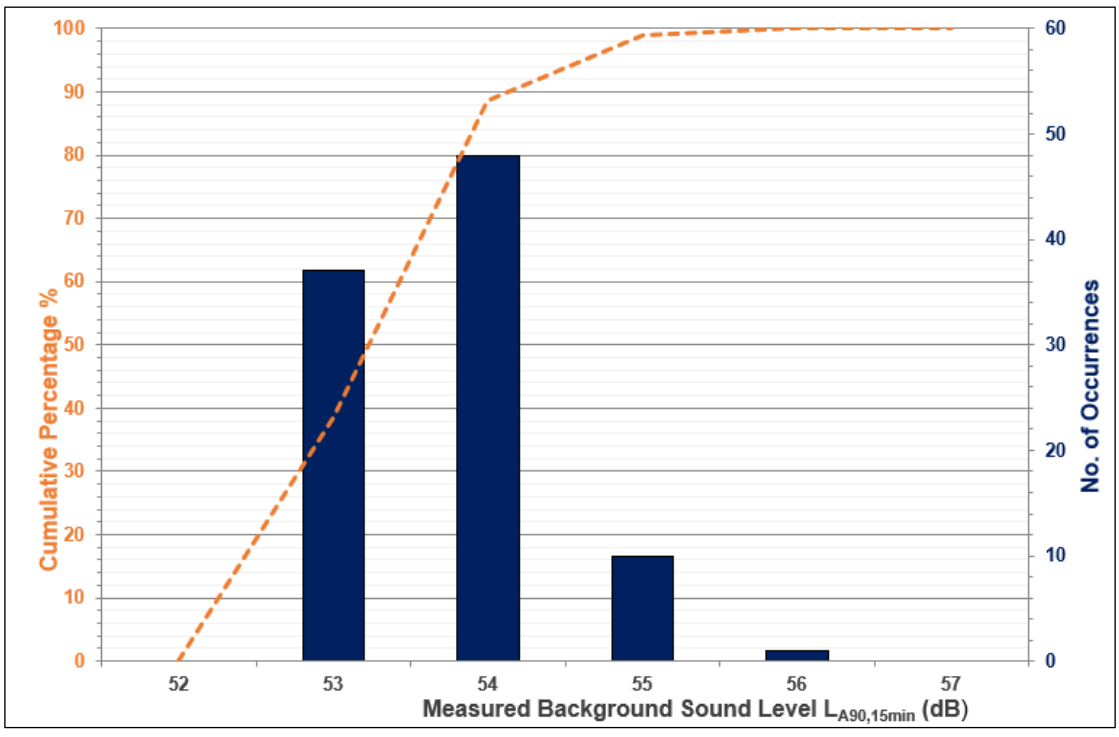
## 7.5 Results

The results have been plotted on Time History Graph 31862/TH1 enclosed presenting the 15 minute A-weighted (dBA) $L_{90}$, $L_{eq}$ and $L_{max}$ levels at each measurement position throughout the duration of the survey.

In-line with the procedure set out in BS4142:2014+A1:2019, statistical analysis of the measured 15-minute noise levels is required to establish the typical background noise levels. See histograms below.




Daytime Measured Background Levels (07:00 – 23:00)




Measured Nighttime Background Noise Levels (23:00 – 07:00)

A summary of the results, as used to inform subsequent assessments against current guidelines, is presented in the table below. The $L_{A90}$ values presented are the 'representative' levels determined through statistical analysis of the 15-minute readings or Local Authority

requirement i.e. typical lowest, in line with BS 4142.

| Position | Day/Period | Daytime (07:00 – 23:00 hrs) | | Night-time (23:00 – 07:00 hrs) | |
|---|---|---|---|---|---|
| | | $L_{Aeq,16hr}$ | $L_{A90}$ | $L_{Aeq,8hr}$ | $L_{A90}$ |
| 1 | 10:30 – 23:00 11/10/24 | 57 | 54 | 55 | 53 |
| | 07:00 – 23:00 12/10/24 | 58 | | 55 | |
| | 07:00 – 23:00 13/10/24 | 56 | | 55 | |

## 7.6 Discussion of Noise Climate

Due to the nature of the survey, i.e. unattended, it is not possible to accurately describe the dominant noise sources, or specific noise events throughout the entire survey period. However, at the beginning and end of the survey period the noise climate was noted to be dominated by road traffic noise primarily from Mayfield Road and Withington Road, as well as noise from existing plant to the rear of the existing store. Whilst it is typical to seek avoidance of measuring plant noise, as the measurement location is in very close proximity to the affected noise sensitive receptors, it can be regarded as “part of the noise climate” in that area.

# 8.0 Noise Sensitive Receptors

The following plan shows the nearest noise sensitive receptors that we believe will be most affected by plant noise.




Imagery ©2025 Airbus, Maxar Technologies, Map data ©2025 – See Above

# 9.0 Operational Noise Impacts

## 9.1 Fixed Plant & Equipment Limits

Based on the results of the noise survey and the requirements of the Local Authority, we propose that the following noise emission criteria be achieved incident at the nearest noise sensitive residential windows, in free-field conditions, with all plant running simultaneously.

Although the Manchester Planning Policy states that noise limits should be set to 5dB below background, as the measured noise levels at NSR 1 has contribution from existing plant noise, emission limits for new plant are proposed to be set to achieve 10dB below the measured background levels. This is slightly more onerous than the standard LPA requirement, though has been proposed to avoid cumulative noise levels when accounting for new plant and existing plant increasing further, also known as “noise creep”, and allow for a robust assessment.

| Location | Plant Noise Emission Criteria ($L_{Aeq,T}$, dB) | |
|---|---|---|
| | Daytime (07:00 – 23:00 hours) | Night-time (23:00 – 07:00 hours) |
| 1 | 44 | 43 |

Noise shall be assessed in accordance with BS 4142:2014 with corrections applied for any plant emitting noise of a tonal or irregular quality. The above limits shall be subject to the final approval of the Local Authority.

## 9.2 Commercial Noise Breakout Criteria

Whilst the commercial use of the building is already established and the subdivision of the units is not noted to require planning permission, considering the desire to extent the hours of trading on Sundays an assessment of commercial noise break-out from internal operations is to be undertaken in the interest of robustness. The intention of this assessment is to demonstrate the increase hours of trading remain commensurate with suitable control of noise break-out.

MCC recommends that noise ($L_{eq}$) breaking out from commercial units should not exceed 5 dB below the background noise level ($L_{90}$) at all octave band frequencies at the nearest noise sensitive windows. However, as has been suggested in Section 9.1, it is suggested that 10dB below the measured noise levels be targeted given the survey has been somewhat affected by existing plant noise operations. This should mitigate the effect of “noise creep”, and poses a robust assessment herein.

Based on the measured background noise levels recorded during our unattended survey we propose the following noise limits when measured at 1m from nearby noise sensitive windows. These limits are 10 dB below the typical lowest background noise levels at each octave band during the operational hours and are subject to the final approval of MCC.

| Location | Operational Noise Emission Criteria ($L_{Aeq,T}$, dB) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 63 | 125 | 250 | 500 | 1k | 2k | 4k | dBA |
| Daytime Limit 07:00 – 23:00 | 68 | 58 | 50 | 45 | 41 | 38 | 36 | 49 |

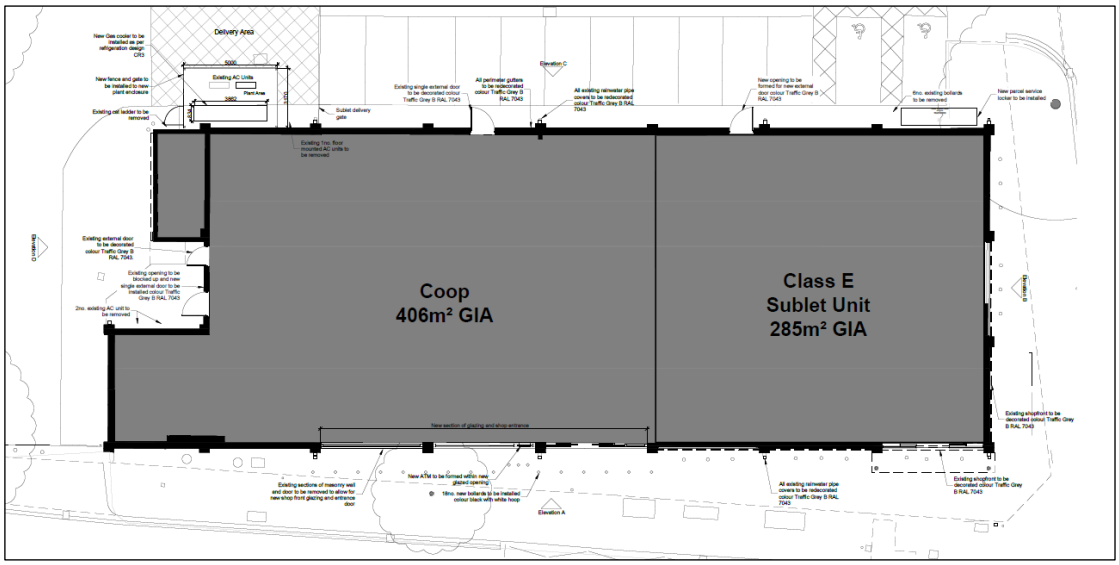
# 10.0 Plant Noise Assessment

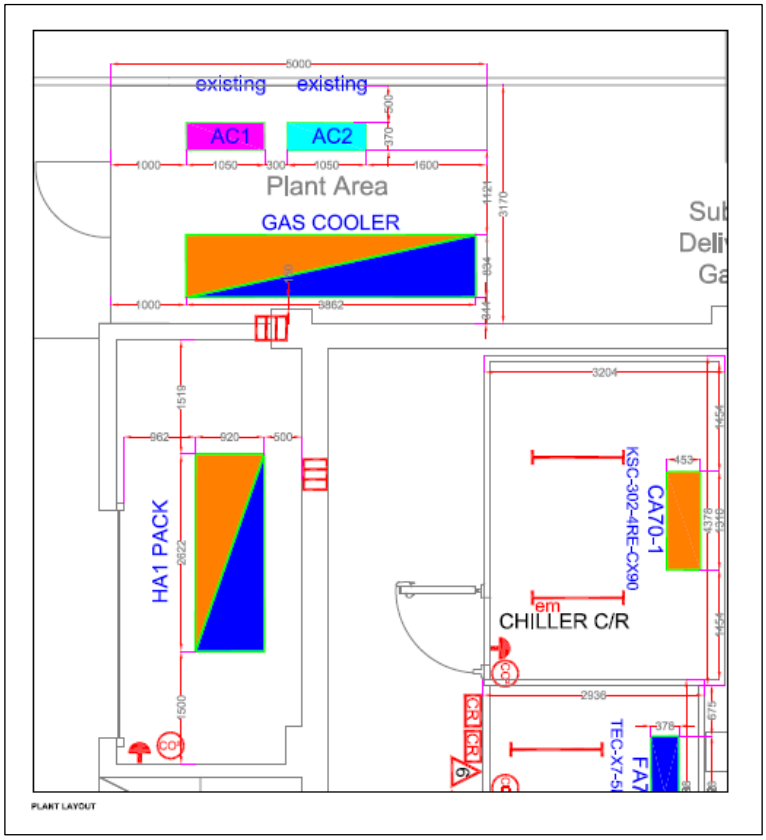
## 10.1 Proposed Plant

The table below presents the proposed new items of building services plant.

| Plant Description | Sound Pressure Level (dB re $2x10^{-5}$ Pa) at 10 metre at Broad Band Centre Frequency (dBA) |
|---|---|
| DA Pack: 2C-2M INT Eco2 MINI I 2x2 | 50 |
| DA Gas Cooler: GF-SA103GH-063U029-750MM | 20 |

The location of each plant item is indicated on the below drawing.




Based on the table above, the gas cooler will have line of sight, but the HA1 Pack is located inside an existing brick enclosure with a single side opening. As such the DA pack is considered to be screened from the receptors and this has been taken into account in our calculations below.

## 10.2 Plant noise Assessment

The following table presents our predicted noise emissions from proposed new plant items based on the information provided.

| | Sound Pressure Level (dBA) | |
|---|---|---|
| | **DA Pack** | **DA Gas Cooler** |
| Sound Pressure Level at 10m, $L_{Aeq}$ | 50 | 20 |
| Distance Correction | 10m to 22m<br>-1 | 10m to 22m<br>-1 |
| Barrier Correction | -16[1] | 0 |
| BS4142:2014 Corrections | 0[2] | 0[2] |
| Calculated Noise Level at Receptor, $L_{ArTr}$ | 33 | 19 |
| Calculated Cumulative Rating Level, $L_{ArTr}$ | 33 | |
| Plant Noise Emission Limit, $L_{ArTr}$ | 44 | |
| Difference | **-11** | |
| *Note 1* | *A screening loss correction of 16dB has been applied to account for the brick enclosure where the DA Gas Cooler is located* | |
| *Note 2* | *No acoustic feature correction has been applied to the plant items as the predicted noise levels are far below existing background noise. Therefore, acoustic features are not likely to be perceived at the receptor.* | |

The calculations above show that noise from plant noise should cause no adverse effect on the nearest noise sensitive receptor and no mitigation is necessary to comply with the local authority criteria and limiting noise levels set out in Section 9.1.

In accordance with the wording in BS 4142:2014+Annex:2019, and given the rating level is sufficiently below the typical background level, the above assessment concludes that the specific sound source should have a low impact at the noise sensitive receptors.

# 11.0 Operational Noise Assessments

## 11.1 Overview

The following section outlines an assessment of the various potential noise impacts associated with the Co-op store and provides outline specifications to control noise egress in line with the criteria proposed above.

Assessment of noise break-out from the internal operations of the store, and car park movements, have been assessed over the extended hours of trading sought to ensure suitable levels of noise egress.

## 11.2 Hours of Operation

It is understood that the Co-op store currently operates Monday to Saturday 07:00 to 22:00 and 10:00 to 16:00 on Sunday. It is sought that Sunday operating hours be extended to 07:00 to 22:00, to match the trading hours for Monday to Saturday.

## 11.3 Noise Sensitive Receptors

The following image shows the locations of the nearest noise sensitive receptors.




NSR locations (Imagery ©2025 Airbus, Maxar Technologies, Map data ©2025 – See Above)

## 11.4 Assessment of Internal Noise Break-out

### 11.4.1 Building Facade

To inform the assessment of the various uses, it is assumed that the unit frontages will be constructed from glazing achieving at least the following sound reduction index:

| Sound Reduction Index, $R_w + C_{tr}$ (dB) |
|---|
| 27 |

The glazing specification of 27dB $R_w + C_{tr}$ is feasible, and commonly achieved or bettered, for most typical retail stores.

### 11.4.2 Internal Operational Levels

The following table highlights typical operational noise levels for a retail store.

| Use Type | Typical Operational Noise Level, $L_{eq}$, (dB) at each Octave Band Centre Frequency (Hz) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 |
| Typical Retail Store | 67 | 70 | 66 | 63 | 63 | 62 | 54 |

Based on the above noise levels and the expected sound insulation of the unit frontage (see section 11.4) an operational noise breakout calculation has been done to predict the noise level of store operation at 1m from the nearest noise sensitive receptor.

| Calculated operational noise levels from store to 1m from noise sensitive receptor at each Octave Band Centre Frequency (Hz) | | | | | | | dBA |
|---|---|---|---|---|---|---|---|
| 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | |
| 2 | 15 | 20 | 13 | 6 | 10 | 0 | 16 |

The table above shows that noise levels from store operation should have no adverse impact on surrounding receptors as noise levels are predicted to be well below the operational noise limits.

In accordance with the wording in BS 4142:2014+Annex:2019, and as the above levels are sufficiently below the typical background level, the above assessment concludes that the specific sound source should have a low impact on the noise sensitive receptor.

## 11.5 Car park operational noise assessment

The following section outlines our noise level predictions for car park operations based on library noise data obtained by HTA, and the expected number of cars entering and exiting the car park over a daytime and nighttime period. The library noise data for car park operations includes a car arriving, manoeuvring, a door/boot closure, and car leaving. These are grouped and defined as a "car event" herein.

The worst affected noise sensitive receptor to the car park is highlighted on the image below, defined as NSR1.




NSR location (Imagery ©2025 Airbus, Maxar Technologies, Map data ©2025 – See Above)

The following table presents the calculated noise levels for car park operations, assuming 40no. car events within any 1 hour period. A 3 dB penalty has also been applied for potential impulsivity within the car park during its operation.

| Description | Sound Pressure Level (dB) |
|---|---|
| | Daytime Period (07:00 – 23:00 hours) |
| Calculated car park Noise Emission Rating Level, $L_{ArTr}$ | 42 |
| Operational Noise Emission Criteria, $L_{ArTr}$ | 44 |
| Difference | -2 dB |

As is shown in the table above, noise emissions from the use of the car park during daytime operations are predicted to be 2dB below the operational emission limits presented in Section 9.2 and therefore no mitigation is considered necessary.

This assessment calculates the car park noise emission levels during the daytime hours (07:00 – 23:00), the predictions are applicable to the proposed Sunday extended hours of trading (ie up to 23:00).

Furthermore, as background noise levels during the evening of Sunday are typically 53-54dB $L_{A90}$, and the suggested criterion has been placed at 10dB below this, car park operations of up to 40no. “car events” an hour is predicted to be 12dB below the currently prevailing background noise levels. This, in accordance with BS 4142:2014 +Annex 2019, is an indication of low impact.

## 12.0 Cumulative Operational Noise Impacts

The following table calculates the cumulative noise emissions from all operations from the Co-op store (i.e car par emissions, store operation emissions and plant noise emissions), at 1m from the noise sensitive receptors.

| | Sound Pressure Level (dBA) | | |
|---|---|---|---|
| | **Plant Operation** | **Car Park Operation** | **Store Operation** |
| Calculated Noise Level at Receptor, $L_{ArTr}$ | 33 | 42 | 16 |
| Calculated Cumulative Rating Level, $L_{ArTr}$ | 43 | | |
| Plant Noise Emission Limit, $L_{ArTr}$ | 44 | | |
| Difference | -1 | | |

The table above shows that cumulative noise levels from all store activity is within the noise emission limits and should have no adverse impact on surrounding receptors. Therefore, no mitigation is considered necessary.

In accordance with the wording in BS 4142:2014+Annex:2019, and as the above levels are below the typical background level, the above assessment ultimately concludes that the proposed operations should have a low impact in terms of noise on the noise sensitive receptor.

# 13.0 Conclusions

A detailed environmental noise survey has been undertaken in order to establish the currently prevailing environmental noise climate around the site.

Appropriate plant noise criteria, and operational noise criteria, have been set and noise emissions from the proposals have been calculated.

An assessment of cumulative noise levels (i.e car par emissions, store operation emissions and plant noise emissions) has been conducted which shows that noise should not cause adverse impact to surrounding noise sensitive receptors, and the scheme as proposed is predicted to comply with the noise emission limits set in accordance with the local planning authority.

# Appendix A

## Acoustic Terminology

The acoustic terms used in this report are defined as follows:

dB — Decibel - Used as a measurement of sound level. Decibels are not an absolute unit of measurement but an expression of ratio between two quantities expressed in logarithmic form. The relationships between Decibel levels do not work in the same way that non-logarithmic (linear) numbers work (e.g. 30dB + 30dB = 33dB, not 60dB).

dBA — The human ear is more susceptible to mid-frequency noise than the high and low frequencies. The 'A'-weighting scale approximates this response and allows sound levels to be expressed as an overall single figure value in dBA. The $_A$ subscript is applied to an acoustical parameter to indicate the stated noise level is A-weighted

It should be noted that levels in dBA do not have a linear relationship to each other; for similar noises, a change in noise level of 10dBA represents a doubling or halving of subjective loudness. A change of 3dBA is just perceptible.

$L_{90,T}$ — $L_{90}$ is the noise level exceeded for 90% of the period *T* (i.e. the quietest 10% of the measurement) and is often used to describe the background noise level.

$L_{eq,T}$ — $L_{eq,T}$ is the equivalent continuous sound pressure level. It is an average of the total sound energy measured over a specified time period, *T*.

$L_{max}$ — $L_{max}$ is the maximum sound pressure level recorded over the period stated. $L_{max}$ is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the $L_{eq}$ noise level.

$L_p$ — Sound Pressure Level (SPL) is the sound pressure relative to a standard reference pressure of $2 \times 10^{-5}$ Pa. This level varies for a given source according to a number of factors (including but not limited to: distance from the source; positioning; screening and meteorological effects).

$L_w$ — Sound Power Level (SWL) is the total amount of sound energy inherent in a particular sound source, independent of its environment. It is a logarithmic measure of the sound power in comparison to a specified reference level (usually $10^{-12}$ W).

# Appendix B

# Planning Policies, Standards & Guidance

## B.1 Noise Policy Statement for England

The Noise Policy Statement for England (NPSE) was published in March 2010 (i.e. before the NPPF). The NPSE is the overarching statement of noise policy for England and applies to all forms of noise other than occupational noise, setting out the long term vision of Government noise policy which is to:

*"Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development."*

That vision is supported by the following NPSE noise policy aims which are reflected in three of the four aims of planning policies and decisions in paragraph 123 of the NPPF (see paragraph 8.2 (b) below):

*"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."*

The Explanatory Note to the NPSE has three concepts for the assessment of noise in this country:

**NOEL – No Observed Effect Level**
This is the level below which no effect can be detected and below which there is no detectable effect on health and quality of life due to noise.

**LOAEL – Lowest Observable Adverse Effect Level**
This is the level above which adverse effects on health and quality of life can be detected.

**SOAEL – Significant Observed Adverse Effect Level**
This is the level above which significant adverse effects on health and quality of life occur.

None of these three levels are defined numerically and for the SOAEL the NPSE makes it clear that the noise level is likely to vary depending upon the noise source, the receptor and the time of day/day of the week, etc. The need for more research to investigate what may represent an SOAEL for noise is acknowledged in the NPSE and the NPSE asserts that not stating specific SOAEL levels provides policy flexibility in the period until there is further evidence and guidance.

The NPSE concludes by explaining in a little more detail how the LOAEL and SOAEL relate to the three NPSE noise policy aims listed above. It starts with the aim of avoiding significant adverse effects on health and quality of life, then addresses the situation where the noise impact falls between the LOAEL and the SOAEL when *"all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development."* The final aim envisages pro-active management of noise to improve health and quality of life, again taking into account the guiding principles of sustainable development which include the need to minimise travel distance between housing and employment uses in an area.

## B.2 National Planning Policy Framework (NPPF)

The following paragraphs are from the NPPF (published December 2024):

191. 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;

    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; and

    c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

193. 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."

Paragraph 185 also references the Noise Policy Statement for England (NPSE). This document does not refer to specific noise levels but instead sets out three aims:

- "Avoid significant adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.
- Mitigate and minimise adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.
- Where possible, contribute to the improvement of health and quality of life through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development."

## B.3 British Standard 4142:2014 + A1:2019

When setting plant noise emission criteria reference is commonly made to BS 4142:2014 "*Methods for rating and assessing industrial and commercial sound".*

The procedure contained in BS 4142:2014 provides an assessment of the likely effects of sound on people when comparing the specific noise levels from the source with representative background noise levels. Where the noise contains "a tone, impulse or other characteristic" then various corrections can be added to the specific (source) noise level to obtain the "rating level".

BS 4142 states that: *"The significance of sound of an industrial and/or commercial nature depends upon both the margin by which the rating level of the specific sound source exceeds the background sound level and the context in which the sound occurs". An estimation of the impact of the specific noise can be obtained by the difference of the rating noise level and the background noise level and considering the following:*

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

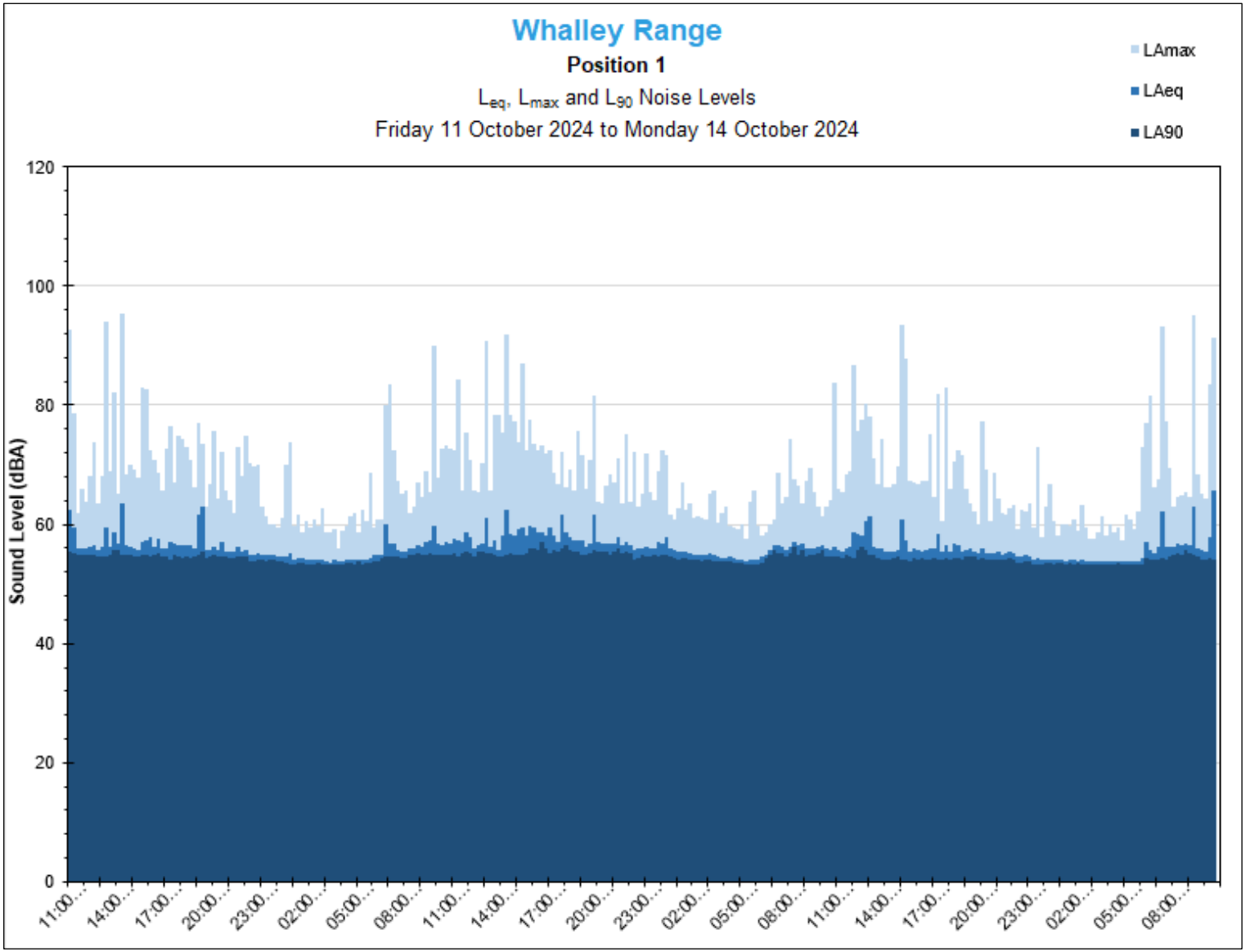
• *“A difference of around +10dB or more is likely to be an indication of a significant adverse impact, depending on the context.”*

• *“A difference of around +5dB 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.”*

The determination of the “rating level” and the “background level” are both open to interpretation, depending on the context.

# Appendix C


Whalley Range
Position 1
$L_{eq}$, $L_{max}$ and $L_{90}$ Noise Levels
Friday 11 October 2024 to Monday 14 October 2024
LAmax
LAeq
LA90
Sound Level (dBA)
120
100
80
60
40
20
0
11:00...
14:00...
17:00...
20:00...
23:00...
02:00...
05:00...
08:00...
11:00...
14:00...
17:00...
20:00...
23:00...
02:00...
05:00...
08:00...
11:00...
14:00...
17:00...
20:00...
23:00...
02:00...
05:00...
08:00...