

Didsbury Point Manchester

Acoustic Assessment Report -
Planning Condition 19B (Acoustic Insulation Scheme)

Client:

Bridgestone Construction Limited
Hyde Park House, Cartwright St, Hyde, SK14 4EH

Date:

21 March 2026

Our Ref:

22163-RP-4-R0



**JAMESON
ACOUSTICS**

Consultants in acoustics,
noise and vibration

Document Control

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1.0 Introduction

Jameson Acoustics Limited has been commissioned by Bridgestone Construction Limited to survey and assess internal noise levels within a selection of new dwellings at the recently constructed Didsbury Point residential development in Manchester. The aim is to assist in the discharge Part B of Planning Condition 19, which states:

No	Wording
19	<p>a) The development shall be acoustically insulated in accordance with the approved Noise Impact Assessment and Substation Noise Assessment set out in condition 1 of this decision notice.</p> <p>b) Prior to first occupation of the residential units, a verification report shall be required to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the approved acoustic consultant's report. The report shall also undertake post completion testing to confirm that the internal noise criteria have been met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the internal noise criteria.</p>

It shall be for others to provide evidence, e.g. photographic or copies of product order sheets, to demonstrate the acoustic measures have been implemented. We cover what evidence is/is not required below:

- Residential façade solutions: No evidence required, the results of internal noise level testing presented herein provides evidence that windows/ventilators have sufficient acoustic performance.
- Commercial to residential floor: Evidence that acoustic ceiling has been installed within the health centre – specification shall be: *KCS Thermatex/Mediguard Acoustic (Class C, mass 4.3 kg/m²)* or equivalent.
- Substation: No acoustic measures required, so no evidence needs submitting.

Hence, the only evidence required from the contractor relates to the inclusion of the acoustic ceiling product installed in the Health Centre.

The purpose of this report is to present the methodology and results of the internal noise level testing.

2.0 Project Information

The development comprises a Part 8 and Part 6 storey building to form 76 no. residential apartments (Class C3) with ground floor medical centre use (Class E(e)) with associated car parking provided on a two-tiered decked car park, landscaping and infrastructure.

Each apartment is afforded double glazed windows and MVHR ventilation. These were specified as confirmed in our Report 22163-RP-2-R0 *Acoustic Assessment Report – Planning Condition 19 (Acoustic Insulation Scheme)*.

3.0 Acceptable Internal Noise Levels

The following table summarises the internal noise levels to be achieved within dwellings.

The requirements apply to finished and furnished dwellings with ventilation systems providing background rates (to Part F) and windows closed.

Location (wrt Figure in Section 3.0)	Acceptable Internal Noise Level	
	Daytime (07:00-23:00)	Night-time (23:00-07:00)
Living Rooms	35 dB $L_{Aeq,16hr}$	-
Bedrooms	35 dB $L_{Aeq,16hr}$	30 dB $L_{Aeq,8hr}$ 45 dB* L_{Amax}

* not to be exceeded by scheduled noise events more than 10-15 times per night

All apartments are ventilated with whole-house mechanical ventilation systems (MVHR) which have been designed to maintain the 35 dB L_{Aeq} (daytime bed/liv) and 30 dB L_{Aeq} (night-time bed) noise levels during normal operation. Two boost modes exist, for which relaxations are permitted under the IOA/ANC Guide *Acoustics, Ventilation & Overheating* (AVO), as follows:

- Extract boost – extract rates are increased to remove humid air in bathrooms: noise levels in bedrooms would be unchanged (extract ducts do not serve bedrooms) and noise levels in living rooms should not exceed 35 dB L_{Aeq} .
- Summer boost – manual switch to boost supply/extract air for summer cooling: this condition effectively helps to reduce the reliance on openable windows in the summer. As such, the AVO permits a relaxation of up to +5 dB on the above L_{Aeq} limits in bedrooms and living rooms. NB: As an alternative to having the window open, the +5 dB provides far better acoustic conditions in the apartments than opening the windows.

4.0 Internal Noise Levels Survey

4.1 Overview

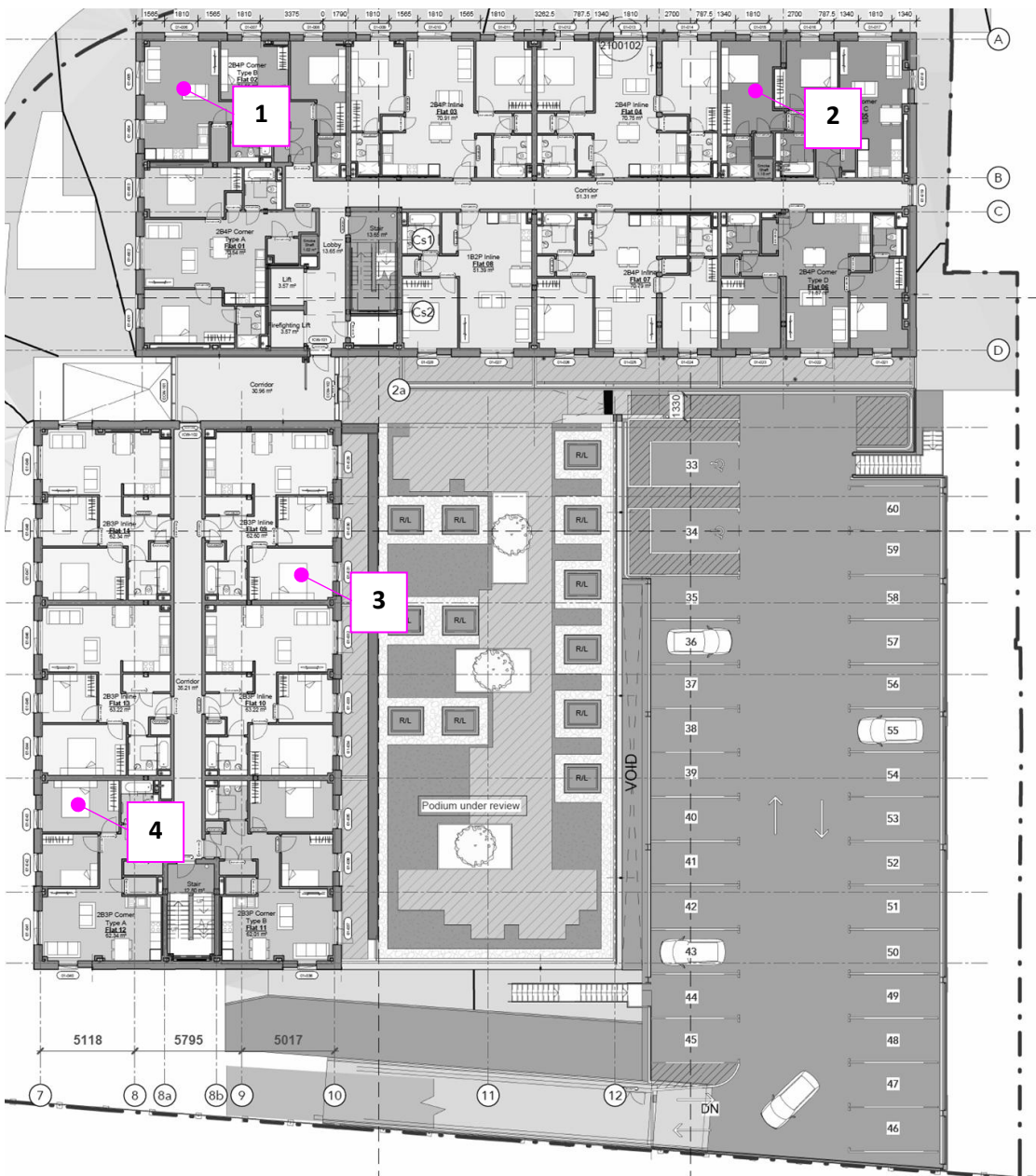
The testing comprises long term measurements of external noise intrusion, using noise loggers installed in 4nr units, and manned noise level measurements of total internal noise levels (external noise intrusion + MVHR operation) in 8nr dwellings. This covers the minimum 10% usually requested by MCC.

4.2 External Noise Intrusion

Automated noise level measurements were taken from 11:00 hours on Friday 27 February 2026 to 08:00 hours on Monday 2 March 2026 within 4nr test habitable rooms as described below.

The positions were selected to establish the typical prevailing daytime and night-time internal ambient and maximum noise levels within habitable rooms on each major building elevation.

Position	Description
1	Plot 2. – First floor living room (dual aspect, facing roundabout, with view to Princess Rd).
2	Plot 5 – First floor bedroom (facing The Boulevard).
3	Plot 9 – First floor bedroom (facing rear car park).
4	Plot 13 – First floor bedroom (facing Didsbury High St access road).



First floor plan showing measurement locations

The microphones were fitted with windshields and mounted in the centre of the rooms, at least 1.4 metres from walls at a height of ~1.5 metres. The equipment was programme to continuously log all relevant A-weighted broadband (dBA) and linear spectral noise level indices, including L_{eq} , L_{90} , L_{10} and L_{max} , over 1-minute, 5-minute and 15-minute intervals.

The instrumentation used for the survey is summarised below. The sound level meters were hand-calibrated at the beginning and end of the survey period. No significant deviations in calibration level were noted.

Description	Equipment	Serial Nr	Lab Calibration Expiry	Lab Calibration Certificate Nr
Class 1 sound level meter	Svantek 971A (with Type 7152 mic)	127647 (84398)	25 Jul 2027	1512926-1
Class 1 sound level meter	Svantek 971A (with Type 7152 mic)	131642 (85571)	25 July 2027	1512926-2
Class 1 sound level meter	Svantek 971A (with Type 7152 mic)	154301 (94512)	16 Jan 2027	16 Jan 2025
Class 1 sound level meter	Svantek 971A (with Type 7152 mic)	154288 (94517)	16 Jan 2027	16 Jan 2025
Class 1 sound calibrator	Cirrus CR:515	57570	11 Nov 2026	1190855

Based on internet reports, weather conditions remained suitable for obtaining representative internal noise level measurement results, with no periods of notably adverse weather.

The results of the surveys have been plotted on Time History Graphs 22163-G1 to G4 enclosed in Appendix B. The graphs present the uncorrected 15-minute A-weighted (dBA) L_{eq} and L_{max} levels at each position throughout the duration of the survey.

The graphs include indicators of periods affected by construction noise which shall be excluded from our analysis.

4.3 Internal MVHR Noise Levels

In order to ensure internal noise level measurements cover 10% of the scheme, as required by MCC, manned noise level measurements have been taken within 8nr apartments. For these measurements, MVHR units were operational (set to operate on background rates to Part F).

Measurements were taken between 08:00-10:00hr on Friday 26 February 2026, capturing rush hour traffic (in this area, this mainly comprising increased local traffic with parents dropping children off at the high school). Extraneous noise from construction works were excluded as far as reasonably possible. Each measurement was taken over a period of at least 1-minute, and long enough until the L_{eq} level had settled.

All apartments across the scheme have the same specification of MVHR unit.

The locations for testing are listed below:

- Plot 13 (2 bed).
- Plot 12 (2 bed).
- Plot 11 (2 bed).
- Plot 10 (2 bed).
- Plot 3 (2 bed).
- Plot 5 (2 bed).
- Plot 14 (2 bed).
- Plot 8 (1 bed).

The instrumentation used for the survey is summarised below. The sound level meters were hand-calibrated at the beginning and end of the survey period. No significant deviations in calibration level were noted.

Description	Equipment	Serial Nr	Lab Calibration Expiry	Lab Calibration Certificate Nr
Class 1 sound level meter	Cirrus CR:171B (with MK:224 mic)	G056718 (204055A)	11 Nov 2026	1190853
Class 1 sound calibrator	Cirrus CR:515	57570	11 Nov 2026	1190855

Weather conditions were suitable for obtaining representative internal noise level measurement results, with dry road surfaces.

5.0 Internal Noise Level Assessment

5.1 External Noise Intrusion

The internal noise levels are to be achieved in finished and furnished rooms. The rooms tested were finished but unfurnished, without floor coverings laid. The correction from unfurnished to furnished rooms of this size (typically 4m x 3m x 2.5m) is 2 dB, calculated by a reverberation time correction (a conservative 0.8 seconds unfurnished to the BS 8233 reference time of 0.5 seconds furnished).

With periods of construction noise excluded, and with the reverberation time correction applied, the following tables summarises the measured internal ambient L_{Aeq} and maximum L_{Amax} noise levels in each test room. NB: For Position 1, the night-time L_{Aeq} and L_{Amax} noise levels are technically not applicable but have been presented to demonstrate that bedrooms in this façade location would also be compliant.

Position 1 – Plot 2 Living Room

Period Commencement (Day/Night of...) 2026	Ambient Noise Level (dB)		10-15 th Highest Noise Level at Night, dB <i>L</i> _{Amax,5min} (23:00-07:00)
	Daytime <i>L</i> _{Aeq,16hr} (07:00-23:00)	Night-time <i>L</i> _{Aeq,8hr} (23:00-07:00)	
Friday 27 February (15:00-23:00)	24	19	34
Saturday 28 February	23	19	32
Sunday 1 March	22	20	35
Max.	24	20	35
<i>Upper Limit</i>	35	30	45
Compliance/Exceedance	✓	✓	✓

Position 2 – Plot 5 Bedroom

Period Commencement (Day/Night of...) 2026	Ambient Noise Level (dB)		10-15 th Highest Noise Level at Night, dB <i>L</i> _{Amax,5min} (23:00-07:00)
	Daytime <i>L</i> _{Aeq,16hr} (07:00-23:00)	Night-time <i>L</i> _{Aeq,8hr} (23:00-07:00)	
Friday 27 February (15:00-23:00)	23	22	33
Saturday 28 February	23	22	33
Sunday 1 March	22	21	34
Max.	23	22	34
<i>Upper Limit</i>	35	30	45
Compliance/Exceedance	✓	✓	✓

Position 3 – Plot 9 Bedroom

Period Commencement (Day/Night of...) 2026	Ambient Noise Level (dB)		10-15 th Highest Noise Level at Night, dB <i>L</i> _{Amax,5min} (23:00-07:00)
	Daytime <i>L</i> _{Aeq,16hr} (07:00-23:00)	Night-time <i>L</i> _{Aeq,8hr} (23:00-07:00)	
Friday 27 February (15:00-23:00)	19	18	36
Saturday 28 February	19	18	33
Sunday 1 March	20	19	35
Max.	20	19	36
<i>Upper Limit</i>	35	30	45
Compliance/Exceedance	✓	✓	✓

Position 4 – Plot 13 Bedroom

Period Commencement (Day/Night of...) 2026	Ambient Noise Level (dB)		10-15 th Highest Noise Level at Night, dB <i>L</i> _{Amax,5min} (23:00-07:00)
	Daytime <i>L</i> _{Aeq,16hr} (07:00-23:00)	Night-time <i>L</i> _{Aeq,8hr} (23:00-07:00)	
Friday 27 February (15:00-23:00)	20	17	33
Saturday 28 February	20	17	32
Sunday 1 March	18	19	36
Max.	20	19	36
<i>Upper Limit</i>	35	30	45
Compliance/Exceedance	✓	✓	✓

The results demonstrate that, in all test rooms, the internal ambient noise levels and internal maximum noise levels at night achieved the upper limits of acceptable internal noise levels (as presented in Section 3.0).

5.2 Internal MVHR Noise Levels

The internal noise levels are to be achieved in finished and furnished rooms. The rooms tested were finished but unfurnished, without floor coverings laid. The correction from unfurnished to furnished rooms of this size (typically 4m x 3m x 2.5m) is 2 dB, calculated by a reverberation time correction (a conservative 0.8 seconds unfurnished to the BS 8233 reference time of 0.5 seconds furnished).

The results of the testing are summarised below. These values are the total noise levels in test rooms (i.e. due to traffic noise intrusion and the operation of the MVHR system).

The colour of the text indicates either compliance in **green** or exceedances in **orange**.

Plot	Room	Measured, dB L _{Aeq}	
		Trickle duty	Residual (MVHR Off)
13	Living Room	30	22
	Bedroom	25	21
12	Living Room	31	27
	Bedroom	26	24
11	Living Room	32*	30*
	Bedroom	29*	26*
10	Living Room	28*	27*
	Bedroom	28*	28*
3	Living Room	30	27
	Bedroom	27	24
5	Living Room	27	26
	Bedroom	27	25
14	Living Room	32	31
	Bedroom	27	26
8	Living Room	32	32
	Bedroom	28	28

* temporary generator outside near to apartment window influencing the noise floor in apartment

The results demonstrate compliance with the MCC noise requirements in all test cases.

It is worth noting that, if we consider the worst case 16/8hr L_{Aeq} external noise intrusion levels presented, the logarithmic addition of the worst-case values versus the worst-case measured noise levels above (with MVHR running) would not exceed the internal noise limits. This provides assurance that internal noise limits have been comfortably achieved in all test dwellings.

7.0 Conclusion

Jameson Acoustics Limited has been commissioned by Bridgestone Construction Limited to survey and assess internal noise levels within a selection of new dwellings at the recently constructed Didsbury Point residential development in Manchester. The aim is to assist in the discharge Part B of Planning Condition 19.

The assessment demonstrates that internal noise levels within the tested dwellings achieved the upper limits of acceptable internal noise levels.

Appendix A – Acoustic Terminology

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.
dB(A)	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 (e.g. $L_{Aeq,T}$ in dB). Noise 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 only just perceptible.
$L_{Aeq,T}$	$L_{Aeq,T}$ is the equivalent continuous sound pressure level. It is an average of the total sound energy measured over a specified time measurement period, T .
$L_{10,T}$	L_{10} is the noise level exceeded for 10% of the measurement period T (i.e. the quietest 10% of the measurement) and has, for many years, been used in the assessment of road traffic noise.
$L_{90,T}$	L_{90} is the noise level exceeded for 90% of the measurement period T (i.e. the quietest 10% of the measurement) and is often used to describe the 'background' noise level.
L_{max}	L_{max} is the maximum sound pressure level recorded over the measurement period, T . L_{max} is often used in assessing scheduled environmental noise 'events' (such as train passbys), particularly at night where such events may cause sleep disturbance.
R_w	The weighted sound reduction index, R_w , is a single figure description of sound reduction as defined in BS EN ISO 717-1. It is single-number quantity which characterizes the airborne sound insulating properties of a material or building element over a range of frequencies. The R_w is calculated from sound insulation measurements taken in an acoustic laboratory. Sound insulation ratings derived from site measurements are invariably lower than the laboratory figures and are referred to as the apparent weighted sound reduction index, R'_w .
$D_{n,e,w}$	The weighted element-normalised level difference, $D_{n,e,w}$, is a single figure description of the sound insulation performance of small building elements, such as a trickle ventilator.
C_{tr}	C_{tr} is correction term applied against the sound insulation single-number values (e.g. R_w) to provide a weighting against low frequency performance. The reference values used within the C_{tr} calculation are based on urban traffic noise.

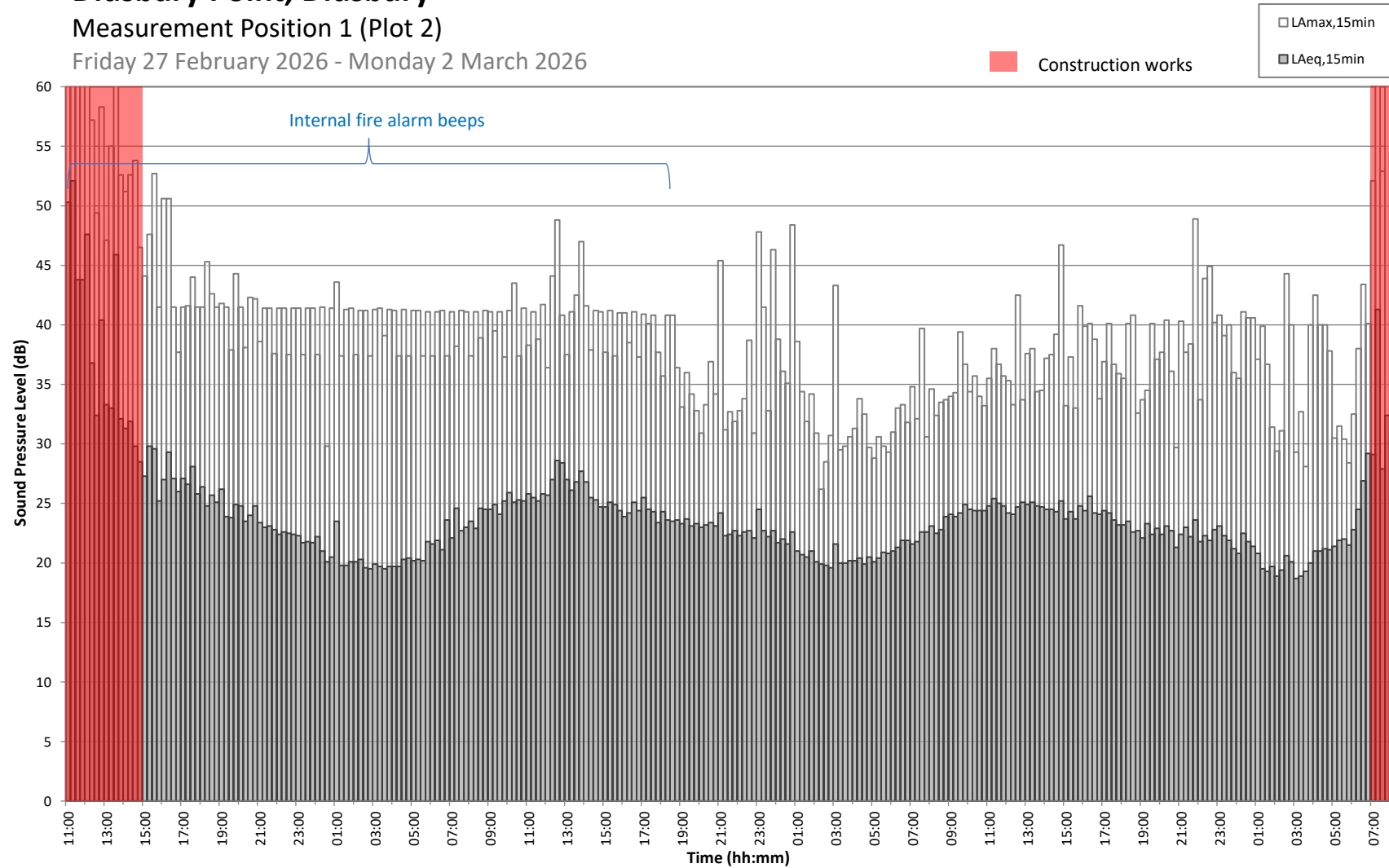
Appendix B – Time History Graphs

Didsbury Point, Didsbury

Measurement Position 1 (Plot 2)

Friday 27 February 2026 - Monday 2 March 2026

22163-G1

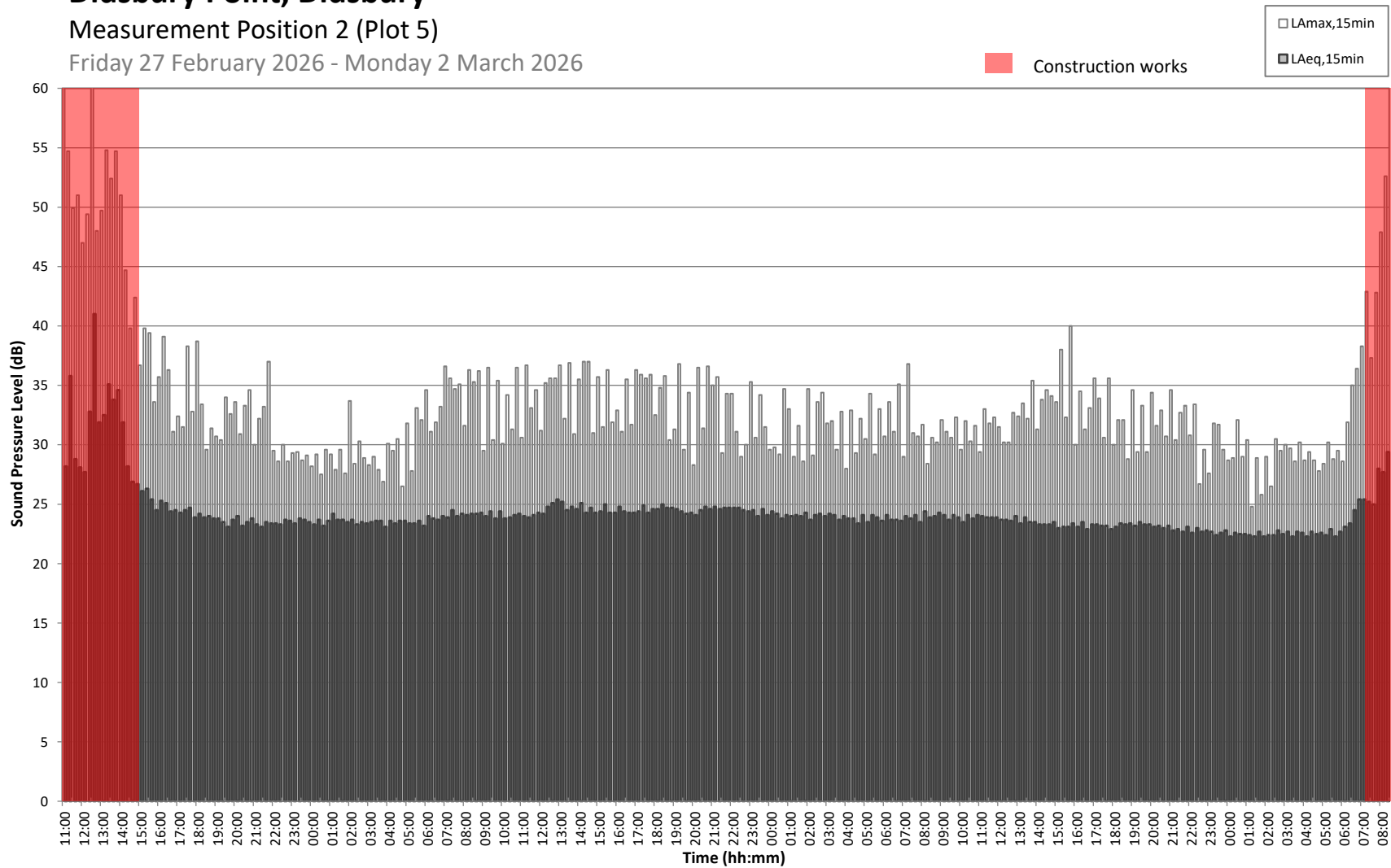


Didsbury Point, Didsbury

Measurement Position 2 (Plot 5)

Friday 27 February 2026 - Monday 2 March 2026

22163-G2

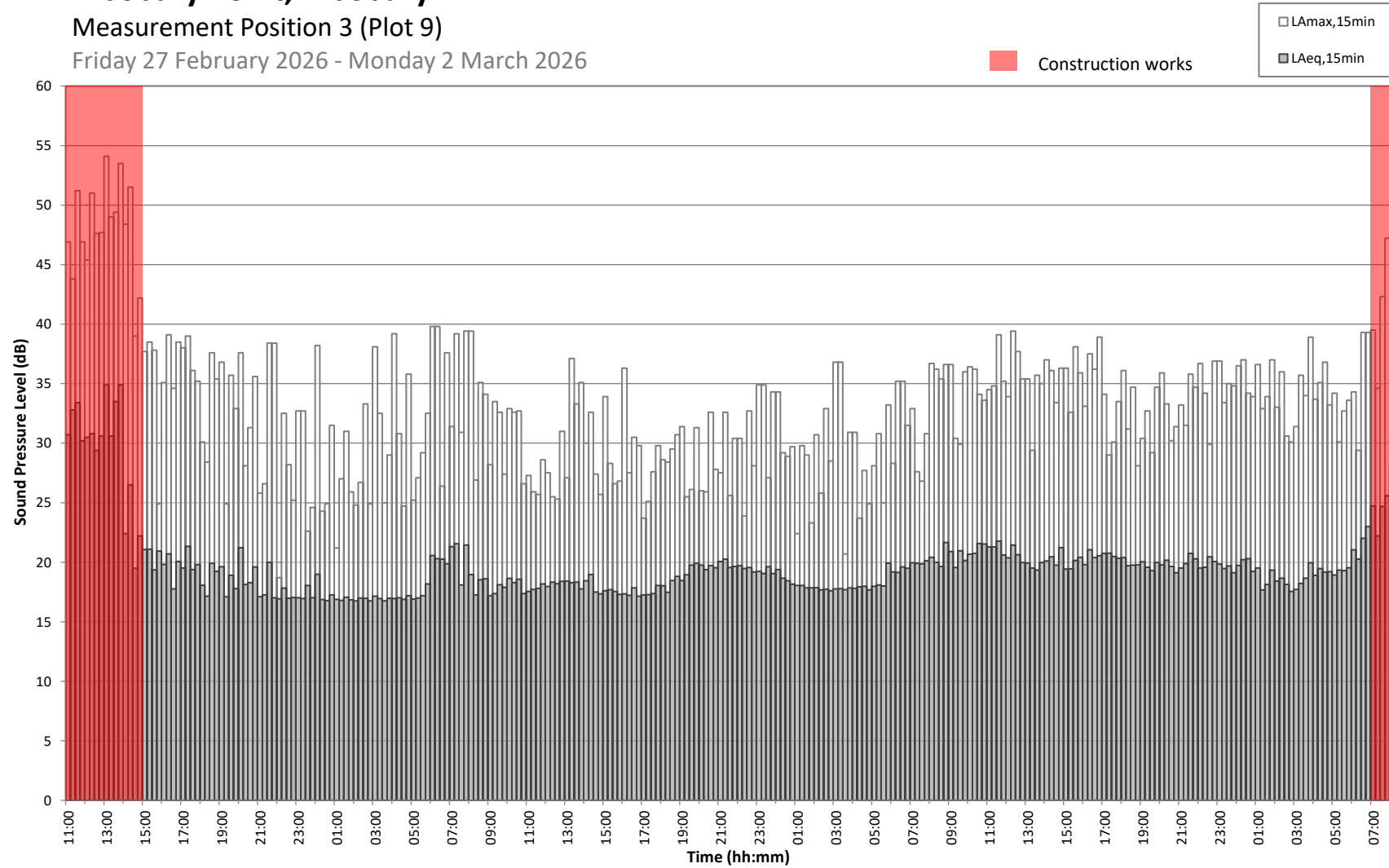


Didsbury Point, Didsbury

Measurement Position 3 (Plot 9)

Friday 27 February 2026 - Monday 2 March 2026

22163-G3



Didsbury Point, Didsbury

Measurement Position 4 (Plot 13)

Friday 27 February 2026 - Monday 2 March 2026

22163-G4

