

Project

30817 Dob Brook Close
Planning Condition 15 Noise Verification
Report

Prepared for

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Summary

Manchester City Council imposed a planning condition on a new residential development at Dob Brook Close, Manchester setting limits for internal ambient noise levels of the Living rooms and Bedrooms. You appointed SRL Technical Services to conduct a noise survey on site to discharge this planning condition.

SRL attended site on Thursday 17th November 2022 to install noise monitors in a number of rooms on site. These monitors were then left to monitor the noise levels in these space over the course of the following night-time and daytime period.

It was found that the measured internal ambient noise levels meet the required noise levels for Planning Condition 15. This planning condition can therefore be discharged.

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1.0 Introduction

SRL Technical services has been appointed to conduct an internal noise survey at a new residential development at Dob Brook Close, Manchester. The purpose of this survey was to discharge Planning Condition 15, imposed on the site by Manchester City Council. This Planning Condition reads:

“Upon completion of the development and before first occupation of the development, a verification report shall be submitted for approval in writing the City Council as Local Planning Authority to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the approved acoustic report. The report shall also undertake post completion testing to confirm that the internal noise criteria has 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. The additional mitigation measures shall be implemented within a timescale to be agreed with the City Council as Local Planning Authority”.

This planning condition was imposed on the site due to the operations of the scrap yard, Hygrade Motor Spares, which lies to the west of the residential development. This is shown in Figure 1, below.

1.1 Noise Criteria

Section 3.6.1.1 of Manchester City Council's Planning & Noise Technical Guidance documents provided for this development are summarised below:

"Manchester City Council has adopted the following internal noise limits for residential properties:

- *Bedrooms (night time - 23.00 - 07.00) 30 dB L_{Aeq} (individual noise events should not normally exceed 45 dB $L_{Amax,F}$ by more than 15 times [in a night-period])*
- *Living Rooms (daytime - 07.00 - 23.00) 35 dB L_{Aeq}*

The internal noise limits specified in the local authority criteria are in line with the guidance for internal noise limits given in BS 8233:2014 'Guidance on sound insulation and noise reduction for buildings'. These criteria were adopted by SRL in the report titled 30817-SRL-RP-YA-001-S3-PI Acoustic Report for Planning dated 31 January 2020.

2.0 Noise Survey

2.1 Site Plan and Measurement Locations

Figure 1 shows a plan of the site and surrounding area.

Figure 1: Site Plan showing tested plots



On the western site boundary is a two-storey high brick wall that blocks line of sight of all plots on site to the scrap yard. The only exception to this is Plot 7 Living room, which can see over the wall into the scrap yard.

The worst affected rooms on site were judged to be:

- Plot 7 Living room – First floor duplex with Living room on the second floor overlooking the scrap yard
- Plot 6 Living room – Ground floor flat
- Plot 1 Bedroom – House, first floor bedroom

To determine whether the internal ambient and maximum noise levels meet the required criteria, SRL conducted an unattended noise survey. Unattended noise monitors were installed in the afternoon of Thursday 17th November 2022 to measure noise levels over a 24-hour period from 23:00. All noisy constructions works were halted during this period, but the scrapyards were operating normally 09:00 till 18:00.

All noise monitors were installed 1m from the nearest window to the scrap yard, with the windows firmly closed and the trickle vents open for normal, background ventilation. The microphones were set at 1.4m high. The full equipment details are shown in Appendix A.

2.2 Noise Survey results

The results from these periods are displayed graphically in Appendix B. The rooms are not fully finished, carpets and furniture are not yet installed and the reverberation times in these spaces are therefore substantially higher than they will be once occupied. The results reported in Table 1 have been normalised to a standard residential reverberation time of 0.5s.

Table 1: Measured Internal Noise Levels

Room	Period	Ambient Noise Level ($\text{dBL}_{\text{Aeq,T}}$)	Highest Maximum Noise Level (dBL_{Amax})
Plot 7 Living room	Night-time (23:00 - 07:00)	33	No requirement
	Daytime (07:00 - 23:00)	35	No requirement
Plot 6 Living room	Night-time (23:00 - 07:00)	26	No requirement
	Daytime (07:00 - 23:00)	30	No requirement
Plot 1 Bedroom	Night-time (23:00 - 07:00)	26	45 [1]
	Daytime (07:00 - 23:00)	28	No requirement

[1] Occurred once in night-time period.

As shown by Table 1, the measured noise levels meet the criteria in all rooms tested. Planning Condition 15 can therefore be discharged.

Appendix A - Survey Details

A1. Location of Survey

Dob Brook Close, Manchester.

A2. Date & Time of Survey

Thursday 17th November – Monday 21st November 2022

A3. Personnel Present During Survey

MJ deployed – unattended survey

A4. Instrumentation

Plot 7 Living room - Bruel & Kjaer - Noise Meter AEI

Description	SRL No.	Make	Type	S/N
Sound Level Meter (AEI, Orange)	516	Brüel & Kjaer	2250	2506736
Pre-amp	516	Brüel & Kjaer	ZC0032	14463
Microphone	516	Brüel & Kjaer	4189	2643199
Calibrator	517	Brüel & Kjaer	4231	2528393

Plot 6 Living room – Sonitus EM-2030 Noise Monitoring System

Description	SRL No.	Make	Type	S/N
Sonitus Noise Monitoring system	1038	Sonitus	EM2030	0001157

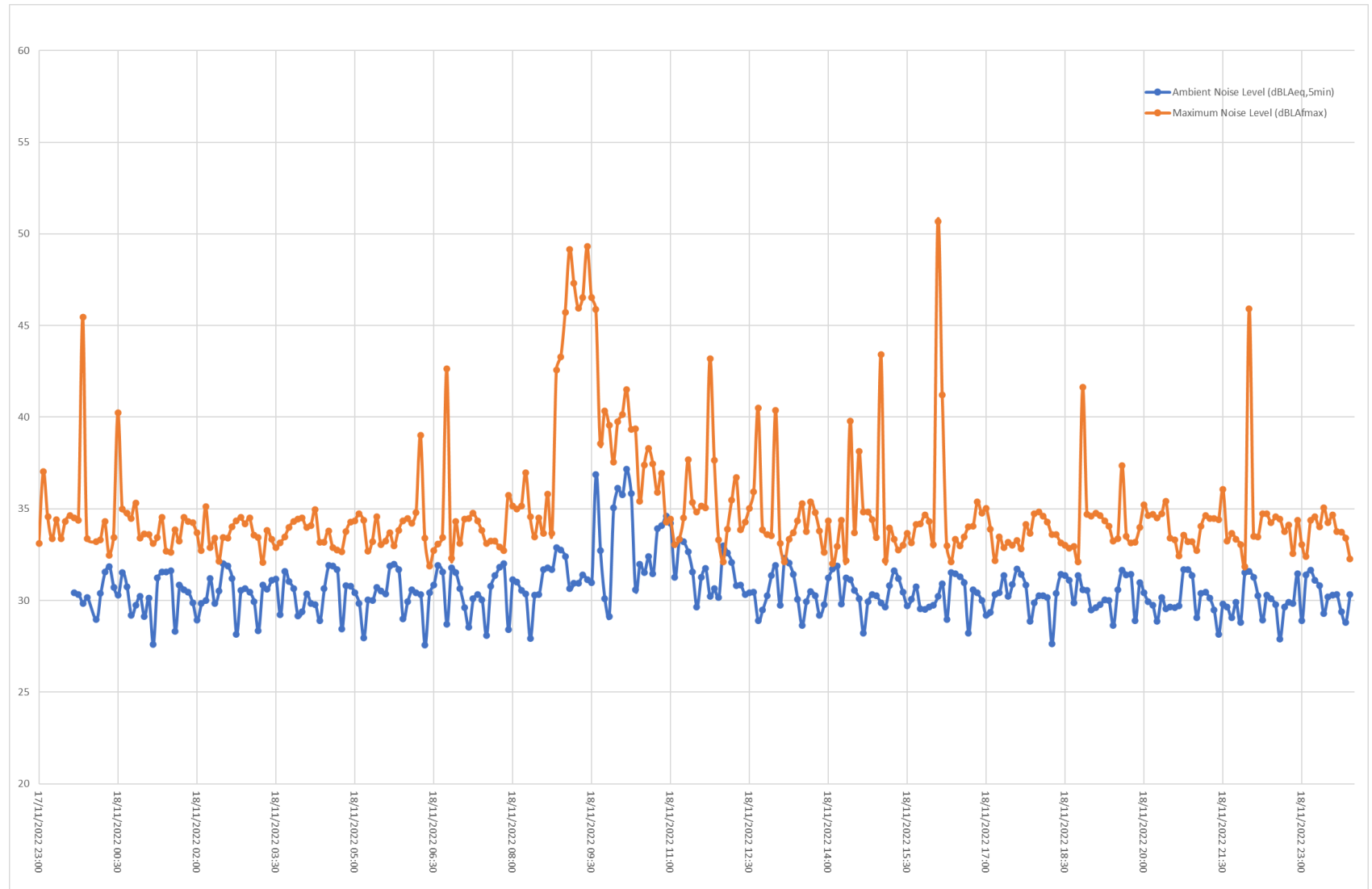
Plot 1 Bedroom – Sonitus EM-2030 Noise Monitoring System

Description	SRL No.	Make	Type	S/N
Sonitus Noise Monitoring system	1046	Sonitus	EM2030	0001165

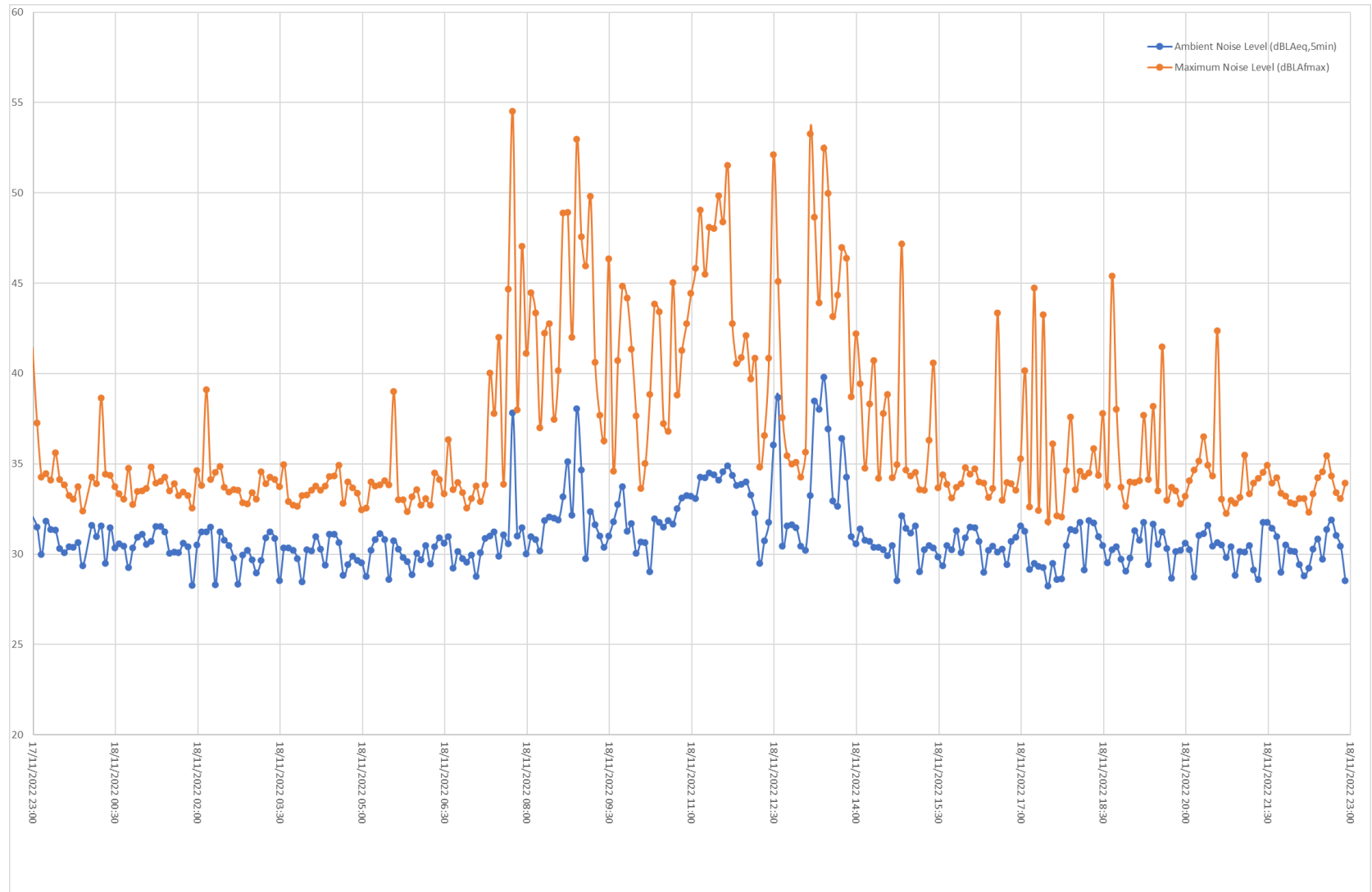
A5. Calibration Procedure

Before and after the survey the measurement apparatus was check calibrated to an accuracy of ± 0.3 dB using the type 4231 Sound Level Calibrator. The Calibrator produces a sound pressure level of 93.8 dB re 2×10^{-5} Pa at a frequency of 1 kHz.

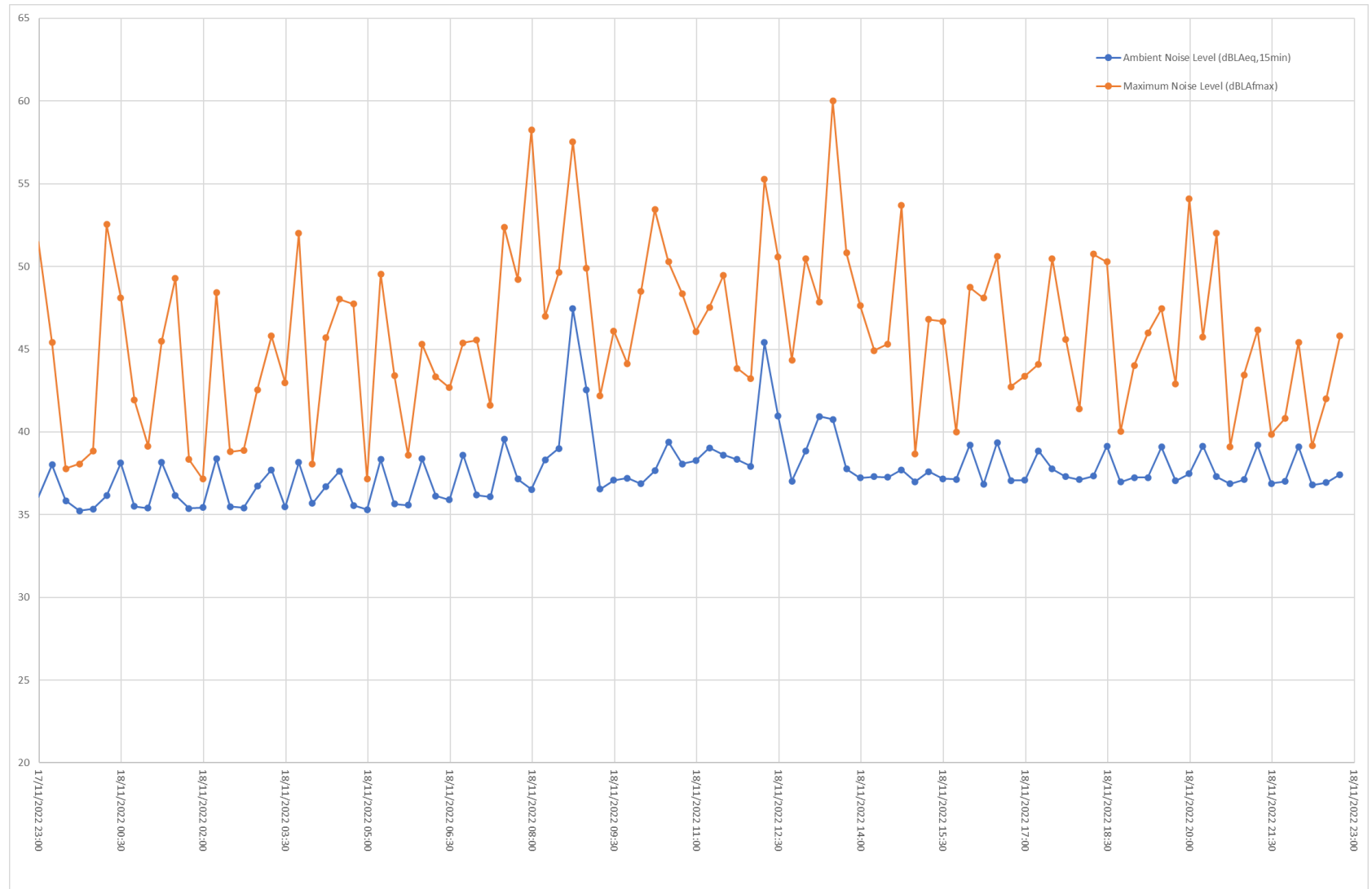
Plot I Bedroom



Plot 6 Living room



Plot 7 Living room



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