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PROJECT TECHNICAL MEMORANDUM

JOB TITLE : Snell Street, Manchester
REF : HT: 28744/PTM3
DATE : 29 September 2023
FROM : James Hardacre
ISSUED TO : Alex Farmer (Artal)

RE: SNELL STREET, MANCHESTER CONDITION 15b DISCHARGE NOTE

A residential scheme on Snell Street in Manchester has been granted planning permission subject to several conditions. One of these conditions, Condition 15b, relates to the pre-completion assessment of noise levels within dwellings. The specific wording is as follows:

“Prior to the first occupation of the development, a verification report will be required to validate that the work undertaken conforms to the recommendations and requirements approved as part of part (a) of this planning condition. The verification report shall include post completion testing to confirm the noise criteria has been met. In instances of non-conformity, these shall be detailed along with mitigation measures required to ensure compliance with the noise criteria. A verification report and measures shall be agreed until such a time as the development complies with part (a) of this planning condition.”

This Technical Memorandum sets out our testing procedure and results confirming compliance with the above condition.

1.0 Criteria

Part (a) of Planning Condition 15 states the following:

“...prior to the first occupation of the development a scheme for acoustically insulating the proposed residential accommodation against noise from the local traffic network shall be submitted for approval in writing by the City Council...”



The following noise criteria will be required to be achieved:

Bedrooms (night time – 23.00 – 07.00) 30 dB L_{Aeq} (individual noise events shall not exceed 45 dB $L_{Amax,F}$ by more than 15 times)

Living Rooms (daytime – 07.00 – 23.00) 35 dB L_{Aeq}

Gardens and terraces (daytime) 55 dB L_{Aeq}

2.0 Noise Survey

2.1 Procedure

An environmental noise survey was carried out between 10:30 hours on Tuesday 26 September 2023 and 10:00 hours on Friday 29 September 2023 to establish the typical internal ambient noise levels due to environmental sources over a typical weekday and weekend period.

Prior to installation of the loggers it was confirmed that the MVHR units were commissioned and operational for the duration of the survey.

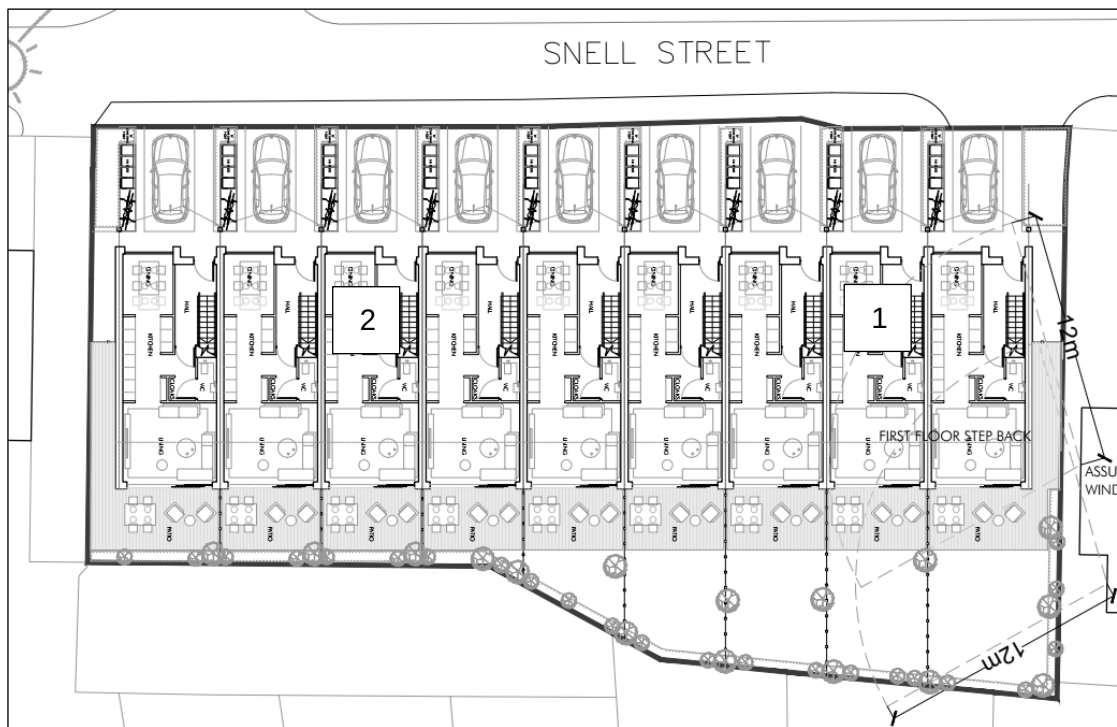
2.2 Measurement Positions

The survey was carried out across 2No. positions as described in the following table.

Position	Description
1	The microphone was located in Bedroom 4 of Unit 2. The sound level meter was located within an environmental case with the microphone extruded out via an extension cable. The microphone was affixed to a tripod in the centre of the room approximately 1.5m above floor level and approximately 1.5m from the nearest window.
2	The microphone was located in Bedroom 1 of Unit 7. The sound level meter was located within an environmental case with the microphone extruded out via an extension cable. The microphone was affixed to a tripod in the centre of the room approximately 1.5m above floor level and 1.5m from the nearest window



The unit locations are shown on the following plan.



Site Plan indicating IANL measurement positions.

2.3 Instrumentation

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

Position	Description	Manufacturer	Type	Serial Number	Calibration
1	Type 1 Data Logging Sound Level Meter	Larson Davis	LxT	4568	Calibration on 30/05/2023
2	Type 1 Data Logging Sound Level Meter	Larson Davis	LxT	6490	Calibration on 08/09/2023
1, 2	Type 1 Calibrator	Larson Davis	Cal200	3083	Calibration on 27/03/2023

Each sound level meter, including extension cable, was calibrated prior to and on completion of the survey. No significant changes were found to have occurred (no more than 0.1dB).

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



2.4 Results

The results have been plotted on Time History Graphs 28744/TH3 to 28744/TH4 enclosed presenting the 15 minute A-weighted (dBA) L_{90} , L_{eq} , and L_{max} levels at each position throughout the duration of the survey.

In order to compare the results of our survey with the guidance set out in Condition 15a it is necessary to convert the measured $L_{Aeq,(15 \text{ minute})}$ noise levels into single figure daytime $L_{Aeq(16 \text{ hour})}$ (07:00 – 23:00 hours) and night-time $L_{Aeq(8 \text{ hour})}$ (23:00 – 07:00 hours) levels.

Upon inspection of the data it became apparent that significant construction noise was present at both positions between approximately 08:00hrs and 16:30hrs on all days. As such, these periods have been excluded from our analysis in order to obtain the daytime L_{Aeq} directly due to environmental sources. The night-time levels were not noted to be affected by any construction noise.

A summary of the results is presented in the table below. L_{Amax} values are the '15th highest' 2-minute value.

Position	Day	Daytime (07:00 – 23:00 hrs)	Night-time (23:00 – 07:00 hrs)	
		L_{Aeq}	$L_{Aeq,8hr}$	L_{Amax}
1	26/09/2023	29	23	45
	27/09/2023	29	21	36
2	26/09/2023	28	24	42
	27/09/2023	30	24	41
	28/09/2023	29	25	42
	29/09/2023	32	-	-

2.5 Discussion

As discussed, the periods that were affected by construction noise have been omitted from analysis. These have been highlighted on the appended Time History Graphs.

Based on the results and the above discussion, it can be considered that the development meets the criteria set out in Planning Condition 15.

Yours sincerely

James Hardacre

for HANN TUCKER ASSOCIATES

Snell Street

Position 1

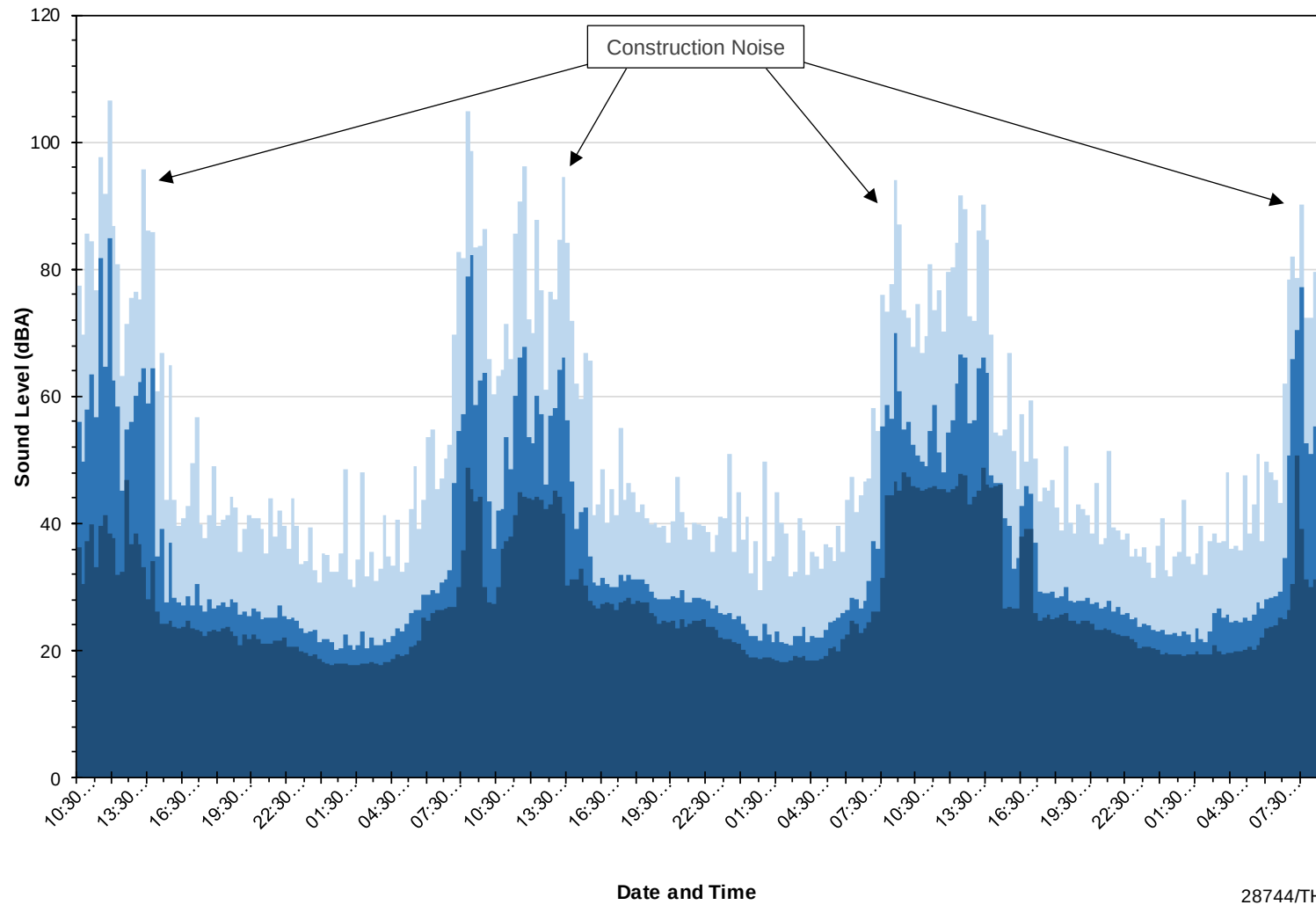
L_{eq} , L_{max} and L_{90} Noise Levels

Tuesday 26 September 2023 to Friday 29 September 2023

LA_{max}

LA_{eq}

LA₉₀



28744/TH1

Snell Street

Position 2

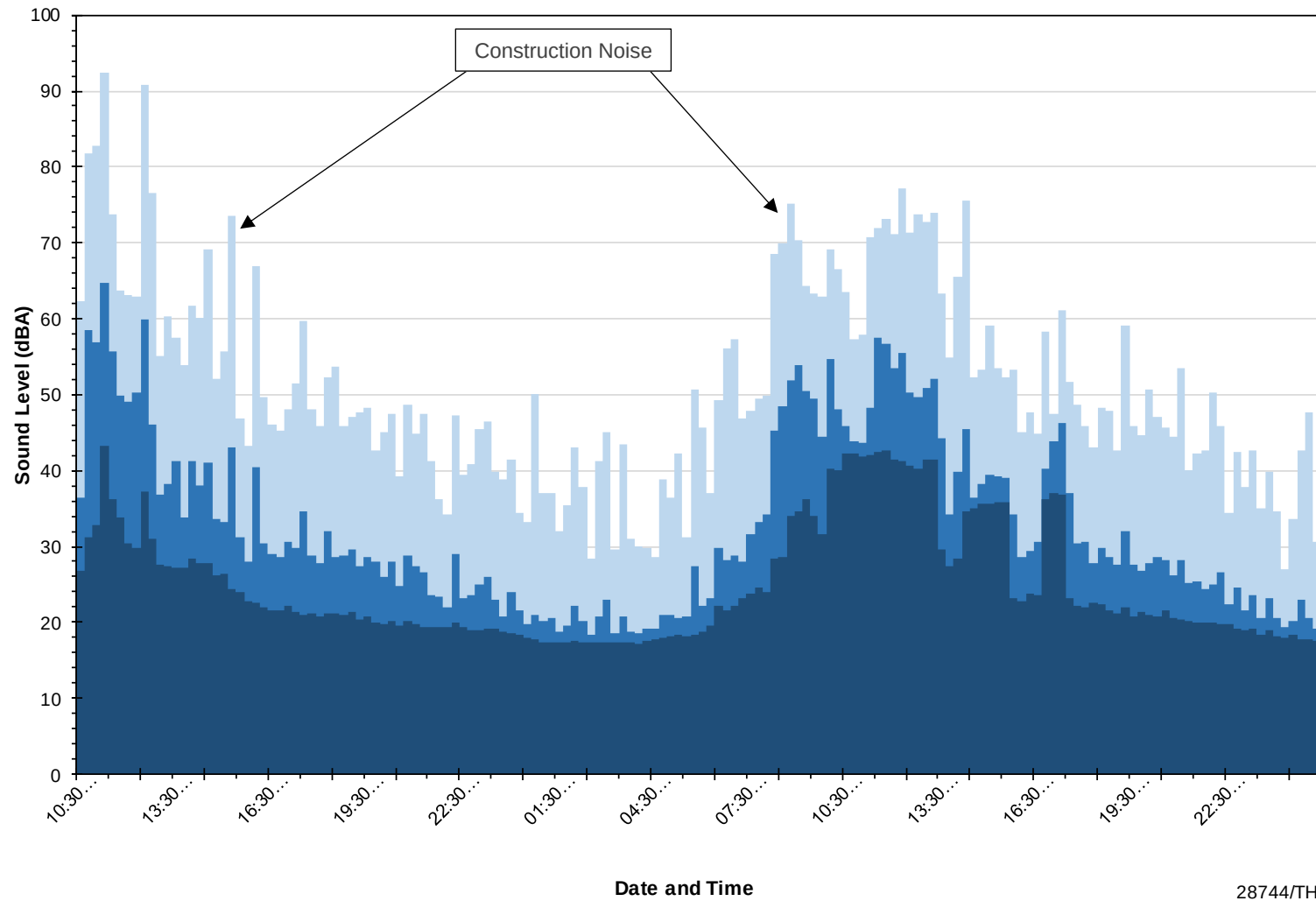
L_{eq} , L_{max} and L_{90} Noise Levels

Tuesday 26 September 2023 to Thursday 28 September 2023

LA_{max}

LA_{eq}

LA₉₀



28744/TH2