

24105-L10-BT

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15/08/2025

Dear Lucy

EQUITABLE BUILDING, MANCHESTER – FURTHER PLANNING QUERIES

Following the issue of dBx Acoustics report ref 24105-R02B-BT, and letters L06 and L08, it is understood that Manchester City Council (MCC) has requested further information before they will determine planning conditions associated with planning applications 141994/FO/2025 and 141995/FO/2025.

Our comments below, MCC's comments in orange.

The dBx acoustic response, reference 24105-L08-BT, has been reviewed. Points 4 and 7 still require confirmation and updated information.

Point 4 Ventilation - The response advises that assessment and validation measurements of the MVHR system will capture noise levels when the continuous background supply is in use and not during comfort cooling and heating use. We are not sure of the exact site which the consultant is referring to regarding discussions with Rick Knightley or the specific details of that discussion or how long ago that was but we have concerns that the potential for higher noise levels during comfort mode operation could lead to exceedances of the criteria, especially as this option is likely to be selected by the occupants for long spells during the summer months. It is not considered unreasonable for assessment of the MVHR and validation testing to also include comfort cooling and heating modes, so we will also need measurements at validation stage to confirm the internal noise level with fan coils operating whilst cooling and/or heating modes have been selected for this site.

This was discussed in July 2025, and in relation to this specific project, although an overall consistent understanding of the exact requirements in the Noise and Planning guidance document would be helpful for all planning applications in Manchester.

It was explicitly stated that the noise limits are for background ventilation only. This aligns with our view, as this is directly comparable to the noise requirements when assessing natural ventilation via trickle vents and is therefore consistent.

As previously stated, the design of the internal M&E systems is to achieve 35dB_{L_{Aeq,16hour}}/30dB_{L_{Aeq,8hour}}, as per good practise. It does not however seem reasonable to tie this to a planning condition. It seems unlikely that a resident would contact Environmental Health to complain about noise issues relating to their own air conditioning, nor would it be expected that Environmental Health would respond to such a complaint.

The response also advises that they do not want to confirm the specific silencer loss for the system as it may hamper changes in design of the MVHR system and ceiling void dimensions. However, if the MVHR system changes it will require an updated assessment anyway. The performance of the silencers required for the selected MVHR system should be confirmed as requested for the specific MVHR system to be installed. This may be required as the design develops further as suggested in the previous comments.

There appears to be a misunderstanding. While the ongoing review of M&E noise levels is standard as part of Stage 3, 4 and 5 design work, to reflect changes in design, requirements or plant selections, the concern is that a specific silencer insertion loss becomes a planning condition, every time there is a change there would need to be a variation in planning conditions agreed with MCC. It is very rare that there is even an outline M&E design at planning stage. I am not aware in over 20 years of acoustic consultancy of any instances where silencer insertion losses were required to be submitted as part of a planning application. It is also unclear why these are required. If they are not accepted, then this implies that MCC are taking design responsibility of the M&E noise levels. Is this the intention?

Regardless, based on the current plant selections, the insertion losses detailed below are proposed to meet MCC's criteria of $35\text{dBL}_{\text{Aeq},16\text{hour}}/30\text{dBL}_{\text{Aeq},8\text{hour}}$ in noise sensitive spaces.

Table 1 – Proposed Insertion Losses

System	Insertion Loss, dB							
	63	125	250	500	1000	2000	4000	8000
MVHR Supply	4	12	22	27	30	29	21	17
MVHR Extract	5	7	10	13	12	12	11	11
FCUs Inlet and Outlet	5	7	10	13	12	12	11	11

Point 7 Noise Transfer - The response confirms that testing of the separating floor performance for the newly created 4th floor will be tested at validation stage. However, the report should be including recommendations for the performance / build requirements before it is built so it can be incorporated into the design stage to ensure the apartments will be suitably insulated against noise transfer from the commercial units below.

The commercial units are on ground and first. There are no commercial units on 2nd, 3rd or 4th floors.

Noise from commercial units was considered in our letter ref 24105-L06-BT Equitable Building Planning Tracker, dated 17/04/2025. Even the base existing concrete floor alone was shown to control noise levels of $75\text{dBL}_{\text{Aeq},T}$ to inaudibility in the flats above.

The ground and first are being designed by a different design team, for a different end user, and hence we have no direct control over the design of this element. However, it is understood that a plasterboard ceiling is also to be provided to the first floor soffit.

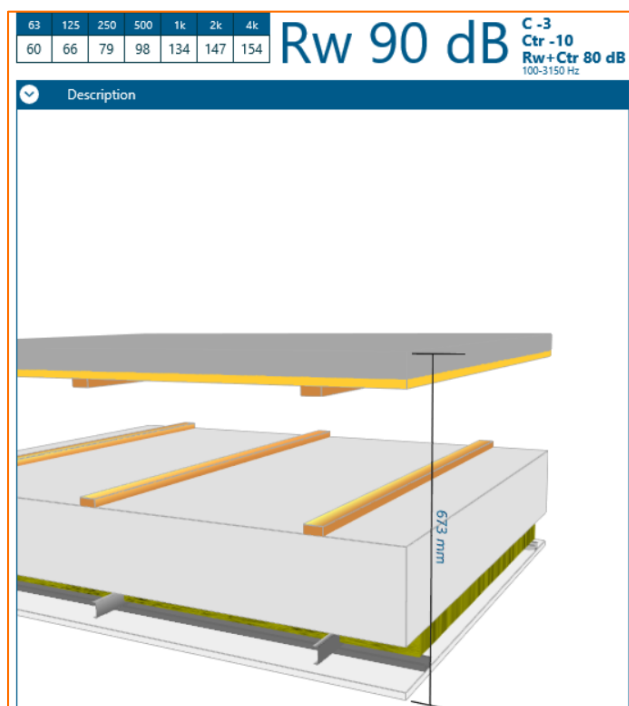
This will increase the sound insulation performance by at least 10dB. On this basis, noise levels of up to $85\text{dBL}_{\text{Aeq},T}$ (the second action level in the Noise at Work Regulations) would be controlled to inaudibility in the apartments above. Noise levels in a jewellery store would be expected to be significantly (30dB or more) lower than this.

The new floor/roof separates apartments from apartments, and hence is not usually a planning issue, rather Building Control. Regardless, in the hope of avoiding any further delays, this floor comprises

- 30mm timber floor finish;
- 40mm screed;
- 130mm void former;
- 25mm timber deck;
- 350mm cavity for steelwork;
- 50mm clear gap;
- Existing concrete slab (varies)
- Plasterboard ceiling, with 50mm mineral fibre in the cavity.

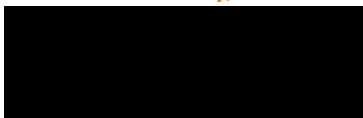
This floor has a predicted sound insulation performance of at least 90dB_{Rw}/80dB_{Rw}+C_{tr}, and hence would achieve over 70dB_{BDnT,w}+C_{tr}, well above the required performance of 43dB_{BDnT,w}+C_{tr} for a residential development. Due to limitations in the modelling software it is not possible to model the additional 130mm void and 25mm timber deck, which will increase the performance further.

The sound insulation performance between the first and fourth floors is therefore well over 100dB_{Rw} and hence commercial noise will be completely inaudible in the 4th floor apartment.



We trust this information meets your needs at the current time but please do not hesitate to contact us should you have any questions.

Yours Sincerely,



Ben Tomlin

Associate, dBx Acoustics Ltd