

4th January 2024

FAO Matt Grindey

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By email to: Matt@day-architectural.com

Dear Matt,

DC3706-L2v2 – The Fairfax – Proposed Variation to Glazing Specification

Further to our discussions, it is now proposed that the glazing units to be installed across the Fairfax development are due to vary from those which were previously set out within our noise impact assessment (ref: DC3706-R1) which was submitted to support the discharge of Condition 18 of the extant planning permission for the site (121099/FO/2018).

The variation is a necessity as the specific construction of the glazing units has required alteration to meet with other building regulations requirements and to address practical elements of the glazing unit constructions. The glazing systems and the relevant sound insulation performances which were included in our Report DC3706-R1 are as follows:

Table 1
Glazing Specification from DC3706-R1, dB R_w

Frequency in Hz	125	250	500	1000	2000	R _w	C: C _{tr} Correction	R _w + C _{tr}
G1	22	24	31	38	36	34	-1; -4	32
G2	25	26	35	41	41	38	-2;-5	33
G3	26	27	34	40	38	38	-2;-5	33

This glazing specification was designed to achieve the following internal noise levels, based on the external noise levels detailed in DC3706-R1.

- L_{Aeq,16h} (Daytime) – internal levels must not exceed 35dB L_{Aeq,16h};
- L_{Aeq,8h} (Night-time) – internal levels must not exceed 30dB L_{Aeq,16h};
- L_{AFMax} (Typical) – internal levels must not exceed 45dB L_{AFMax} on more than 10 occasions per night.

The proposed amended glazing specification is as follows:

Table 2
Amended Glazing Specification, dB R_w

Frequency in Hz	125	250	500	1000	2000	R _w	C: C _{tr} Correction	R _w + C _{tr}
G1	27	27	35	38	32	34	-2; -4	32
G2	30	29	36	37	36	36	-1:-3	33
G3	30	28	36	37	35	36	-1:-3	33

Although there are some differences in the glazing performance, most notably in the 1kHz and 2kHz octave bands, the overall corrected sound insulation performance (R_w + C_{tr}) of the units is identical.

Furthermore, a detailed review has been conducted of the predicted internal noise levels within bedrooms and living rooms based on the new glazing specification. This review has demonstrated that the same internal noise criteria (as detailed in bullet points above) will be achieved in all rooms for the new glazing systems.

It can therefore be demonstrated that the revised glazing specification also achieves the following internal noise levels, based on the external noise levels detailed in DC3706-R1.

- L_{Aeq,16h} (Daytime) – internal levels must not exceed 35dB L_{Aeq,16h};
- L_{Aeq,8h} (Night-time) – internal levels must not exceed 30dB L_{Aeq,16h};
- L_{AFMax} (Typical) – internal levels must not exceed 45dB L_{AFMax} on more than 10 occasions per night.

Therefore, it is considered that this design amendment does not represent a material change to the development and is likely to be considered as a non-material amendment to the building design by Manchester City Council.

I trust the attached is suitable, however, if you have any further queries or require further information, please do not hesitate to contact me.

Yours sincerely,



Chris Chittock BSc (Hons), MIOA
Director
For and on behalf of
Dragonfly Consulting