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PROJECT TECHNICAL MEMORANDUM

JOB TITLE	:	Print Press, New Mount Street
PROJECT NO	:	26269/PTM7
DATE	:	10 June 2020
FROM	:	Tom Bonnert
ISSUED TO	:	Domis / Team

RE: PRINT PRESS PLANNING CONDITION 8

1.0 Introduction

The purpose of this memo is to address Planning Condition 8 which is imposed on the development. Planning Condition 8 states:

> *"Prior to the first occupation of the residential accommodation hereby approved, details of any plant at the development shall be submitted for approval, including an appropriate noise survey. The approved scheme be implemented prior to the first use of the development and thereafter be retained and maintained in situ for as long as the development remains in use."*

2.0 Acoustic Criteria

An environmental noise survey of the site has previously been undertaken by Enzygo Environmental Consultants. The methodology and results are presented in their Report referenced SHF.1035.004.NO.R.002 dated December 2016.

The noise levels measured by Enzygo Environmental Consultants were used to determine plant noise emission limits for non-emergency building services plant based on the typical requirements of Manchester City Council. These limits are presented below, and should be achieved with plant operating cumulatively at 1m from noise sensitive windows.

Period	BS 4142 Plant Noise Rating Limit
Daytime (07:00-23:00)	40 dB(A)[1]
Night-time (23:00-07:00)	36 dB(A)[1]

Note 1 Limits are presented as façade noise limits (ie include influence of a façade as would be present at the assessment location).

3.0 Site Installations

Andy Rea of Aberla M&E and Chris O'Connor of Dyer Environmental Controls Ltd have confirmed the external plant items related to the site are emergency plant items only, with the exception of individual apartment ventilation systems (ie MVHR and MEV). Consequently, emergency plant items would not be subject to the above limits, and the only plant items that are required to achieve the agreed plant noise limits will be noise egress from MVHR and MEV units.

It understood that the MVHR and MEV units will operate on no higher than 29 l/s.

Noise data for MVHR and MEV units provided within the scheme has been provided by Aberla M&E, along with typical ductwork layouts within apartments to atmosphere. The following table presents the acoustic data for the installed ventilation systems.

		Octave Band Centre Frequency (Hz)						
		63	**125**	**250**	**500**	**1k**	**2k**	**4k**
Nuaire MRXBOX(AB)-ECO3	Open Inlet Sound Power Level (dB)	33	27	26	16	16	16	16
	Open Outlet Sound Power Level (dB)	39	34	31	32	22	16	16
In-duct attenuator - 5SL-500	Open Outlet Sound Power Level (dB)	44	44	48	29	22	22	17

4.0 Noise Egress Calculations

Based on the project information, there is noted to be 61no. Apartments and 5no. Townhouses. 29no. of these residential dwellings have MVHR units and the other 37no. have MEV units.

Based on industry recognised prediction methods as included within the Sound Research Technologies book, octave band calculations have been undertaken to establish the sound pressure level at 1m from the MVHR connections to atmosphere, as well as a cumulative (worst-case) sound pressure level at the nearest residential receptor to the development. The calculated sound pressure levels are presented in the following table as an A-weighted value to allow a direct comparison with the plant noise limits set out in Section 2.0.

Assessment location	Sound Pressure Level (dBA) from Inlet and Exhaust Ducts	Plant noise limit (dBA)	Below Criteria
1m from MVHR connection to atmosphere[1]	21	36	✓
1m from MEV connection to atmosphere[2]	30		✓
Boundary Lodge Student Accommodation[3]	26		✓

Note 1 Assumes a single MVHR unit at window of new residential facade, including both inlet and exhaust

Note 2 Assumes a single MEV unit at window of new residential facade

Note 3 Assumes that all 66no. apartments are equal distance to receptor, which is worst case as this does not account for screening or increased distance due to development geometry

5.0 Conclusion

Based on the above, it can be seen that the non-emergency operating plant items (MVHR units) are significantly below the plant noise limits set in-line with Manchester City Councils typical planning requirements. Consequently, it is considered that the installed building services plant are commensurate with the requirement of Planning Condition 8.

We trust the above is clear and of assistance.

For and on behalf of
HANN TUCKER ASSOCIATES



Tom Bonnert