



DDN-AC-03

TO	Michael Percival, Deloitte	FROM	Una Brown, WSP (Acoustics)
DATE	30 July 2024	CONFIDENTIALITY	Public
SUBJECT	DDN-AC-03 Assessment to discharge Planning Condition 17		

This technical note provides the relevant information to discharge planning condition 17 of the planning permission relating to Mayfield Republic (ref 137349/JO/2023).

Planning condition 17

Planning Condition 17 (ref 137349/JO/2023) for the development states the following:

Before above ground works commence a scheme for acoustically insulating the Class E (g)(i)(Office Use) against noise from adjacent roads and any noise transfer from the ground floor commercial uses to the offices above shall be submitted to and approved in writing by the City Council as local planning authority.

The approved noise insulation scheme shall be completed before each of the approved uses commence. Prior to occupation a verification report shall be submitted to and approved in writing by the City Council as Local Planning Authority. This required 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 above 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 agreed noise criteria.

Reason- To secure a reduction in noise in order to protect future residents from noise nuisance, pursuant to policies SP1 and DM1 of the Core Strategy and saved UDP Policy DC 26.

WSP RESPONSE

The building envelope sound insulation has been specified to control external noise in line with the guidance in the British Council for Offices (BCO) Guide to Specification (2019) (BCO:2019). On this basis the office floors (Class B1) of this development are considered to satisfy the requirements of Condition 17.

Ground and mezzanine floors house the main reception/ entrance as well as commercial spaces, which may be used as café.

Building Envelope

EXTERNAL NOISE LEVELS

An environmental noise survey was carried out in August 2019 at the site and full details of the survey can be found in WSP report 70059652-R01-AC *Mayfield Plot M Baring Street Office 2* noise survey report.

An updated noise survey was undertaken in February 2024 and the results have been used to validate the results of the 2019 survey.

The results have been used to provide an assessment of external noise ingress and these are summarised below.

- Free-field external noise levels around The Republic varied from L_{Aeq} 72 dB facing Mancunian way to $<L_{Aeq}$ 60 dB to the rear, screened from Mancunian Way.
- Daytime L_{AFmax} levels along Mancunian Way did not typically exceed 87 dB.
- The daytime $L_{A1,15mins}$ along Mancunian way did not typically exceed 80 dB. At the unattended monitoring positions, the $L_{A1,1hour}$ did not typically exceed 77 dB during the daytime.

INTERNAL AMBIENT NOISE LEVEL CRITERIA DUE TO EXTERNAL NOISE INGRESS

Based on the measured external noise levels, the building envelope shall provide sufficient sound insulation so that when all windows, doors and façade louvres/vents are closed, the following internal ambient noise levels achieved.

Table 1 Maximum internal noise levels due to external noise ingress

Location	Maximum internal ambient noise level due to external noise ingress
Office	NR 38 $L_{eq,T}^*$
Ground floor reception/mixed-use breakout	NR 40 $L_{eq,1hr}$
Commercial unit	NR 40 $L_{eq,1hr}$

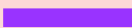
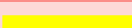
*Where T is the period between 09:00-17:00 in line with BCO 2019

OVERALL FAÇADE SOUND INSULATION PERFORMANCES

To be capable of achieving the internal ambient noise levels in Table 1 the building envelopes shall be selected to meet the minimum sound insulation performances in Table 2.

These performances apply to the entire building envelope assembly, including frame, seals, glass and any associated hardware.

Table 2 Minimum façade sound insulation performance

Façade zone (refer to Figure 1 and 2)	Calculated free-field level	Minimum overall façade sound insulation performance
	L_{Aeq} 70-72 dB	R_w+C_{tr} 34 dB
	L_{Aeq} 64-69 dB	R_w+C_{tr} 32 dB
	$L_{Aeq} \leq 60$ dB	R_w+C_{tr} 28 dB
	L_{Aeq} 64-72 dB	Plant/BOH areas: Non-louvred areas – R_w+C_{tr} 34 dB

Internal sound transfer

SEPARATING FLOOR SOUND INSULATION PERFORMANCE

A minimum airborne sound insulation performance of $D_{nT,w}$ 55 dB has been specified between the ground floor/mezzanine level and Level 1 office.

The separating floor construction between the ground/mezzanine levels and Level 1 Office is currently formed from a concrete coffered slab, understood to be 140 mm at the thinnest point, with medium grade raised access floor above (minimum floor void 250 mm, 50 mm mineral fibre insulation in the void). This construction is capable of meeting the specified performance.

The specified performance is greater than the minimum recommendation under BCO:2019 for adjacent tenancies of $D_{nT,w}$ 48 dB.

ENTERTAINMENT NOISE

There are currently no areas where entertainment noise (e.g. amplified music) is proposed within Mayfield Republic. Where occupants of the ground/mezzanine level F&B areas would like to have amplified music, noise levels from this will be limited such that it does not cause a level of NR 25 L_{Fmax} to be exceeded in the office floor above.