

Matthew McGee
PMC Construction and Development Services Ltd
80a High Street
Cosham
Hampshire
PO6 3FL

Date: 10th February 2023
Reference: R9906-1 Rev 1

Dear Matthew

RE: FORMER EASTLEIGH POST OFFICE – PLANNING CONDITIONS 19 AND 20

I am pleased to confirm our assessment and recommendations with regard to the acoustic requirements for the approved scheme at the former post office, 12 High Street, Eastleigh.

The above development was granted full planning approval in October 2022 (planning reference F/20/89125) subject to planning conditions. The residential properties will be affected by noise associated with Eastleigh High Street, nearby commercial premises and ground floor commercial units within the development. Planning conditions 19 and 20 relate to the acoustic conditions in the properties, stating:

- 19 Prior to the commencement of the construction of the new buildings, details of the construction proposed separating the residential and commercial units, shall be submitted to the local planning authority for approval. The submission will be supported by a statement from an acoustic consultant that the proposed structure would be expected to provide sound insulation of at least 55dB DnT,w. The buildings shall then be constructed in accordance with the approved details and thereafter maintained in that condition.
- 20 Prior to the commencement of the construction of the new buildings, a scheme shall be submitted to the local planning authority to protect habitable rooms from external noise. The submitted scheme shall consider noise generated from traffic, plant and equipment, commercial activities and activities associated with late night entertainment uses. The scheme shall include the provision of Mechanical Ventilation and Heat Recovery (MVHR) systems serving habitable rooms, designed so as to provide sufficient ventilation, prevent summer overheating and deliver acceptable acoustic conditions for future residents. The approved scheme shall be implemented prior to the first occupation of any residential unit and shall thereafter be maintained in that condition.

PMC Construction is constructing the dwellings in line with the noise mitigation measures set out in the noise assessment by 24 Acoustics (reference R8762-1 Rev 0). The report was submitted with the planning application and includes a detailed assessment of noise levels affecting the residential properties.

Condition 19 – Party Floor Sound Insulation

The party floor construction separating first floor apartments from ground floor commercial units will comprise a reinforced concrete slab with the following overall build-up (see Figure 1):

- 5mm resilient layer
- 225mm reinforced concrete slab
- Rockwool Hi-Impact Soffit slab

The inner leaf of blockwork in the external wall stops either side of the floor slab and the full fill external wall cavity ensures a robust flanking detail.

Insul prediction software confirms that the floor construction would be expected to achieve a sound insulation rating of 66 dB R_w .

With consideration to site conditions and the flanking detail discussed above, the above construction will achieve the required sound insulation performance (minimum 55 dB $D_{nT,w}$) and fully complies with the requirements of planning condition 19.

Condition 20 – Façade Sound Insulation

The report submitted with the planning application provides a specification for building elements to ensure that the following criteria will be achieved with regard to external sources of noise:

- Not to exceed 30 dB $L_{Aeq, 1hr}$ in bedrooms during the daytime (07:00 to 23:00 hours)
- Not to exceed 25 dB $L_{Aeq, 15min}$ in bedrooms at night (23:00 to 07:00 hours)
- Not to regularly exceed 45 dB $L_{Amax, fast}$ in bedrooms at night (23:00 to 07:00 hours)

The building specification for the new dwellings will incorporate the following construction details for non-glazed elements, glazing and ventilation.

Building Element and Performance Specification	Selected Construction	Sound Insulation Performance
Non-Glazed elements	102.5mm external brickwork 205mm cavity with full-fill Rockwool Cavity Batts 100mm blockwork (850 kg/m ³ or greater) 15mm plasterboard on adhesive with skim finish Or 30mm metal cladding 50mm ventilated cavity 200mm Knauf Rocksilk Slab between metal brackets 12.5mm Windliner board 90mm Knauf ImniFit Slab 35 between SFS studs Two layers 125mm Knauf Fir Panel with skim finish	≥ 50 dB R _w
Glazing	Acoustically rated triple-glazed unit 8mm laminated glass / 14mm argon / 6 mm glass 14mm argon / 8mm glass Or Acoustically rated triple-glazed unit 8mm laminated glass / 12mm argon / 4 mm glass 12mm argon / 4mm glass	≥ 39 dB R _w ≥ 36 dB R _w
Ventilation MVHR	Vectair Midi mechanical ventilation and heat recovery unit with summer bypass	N/A

Table 1 Acoustic Specification

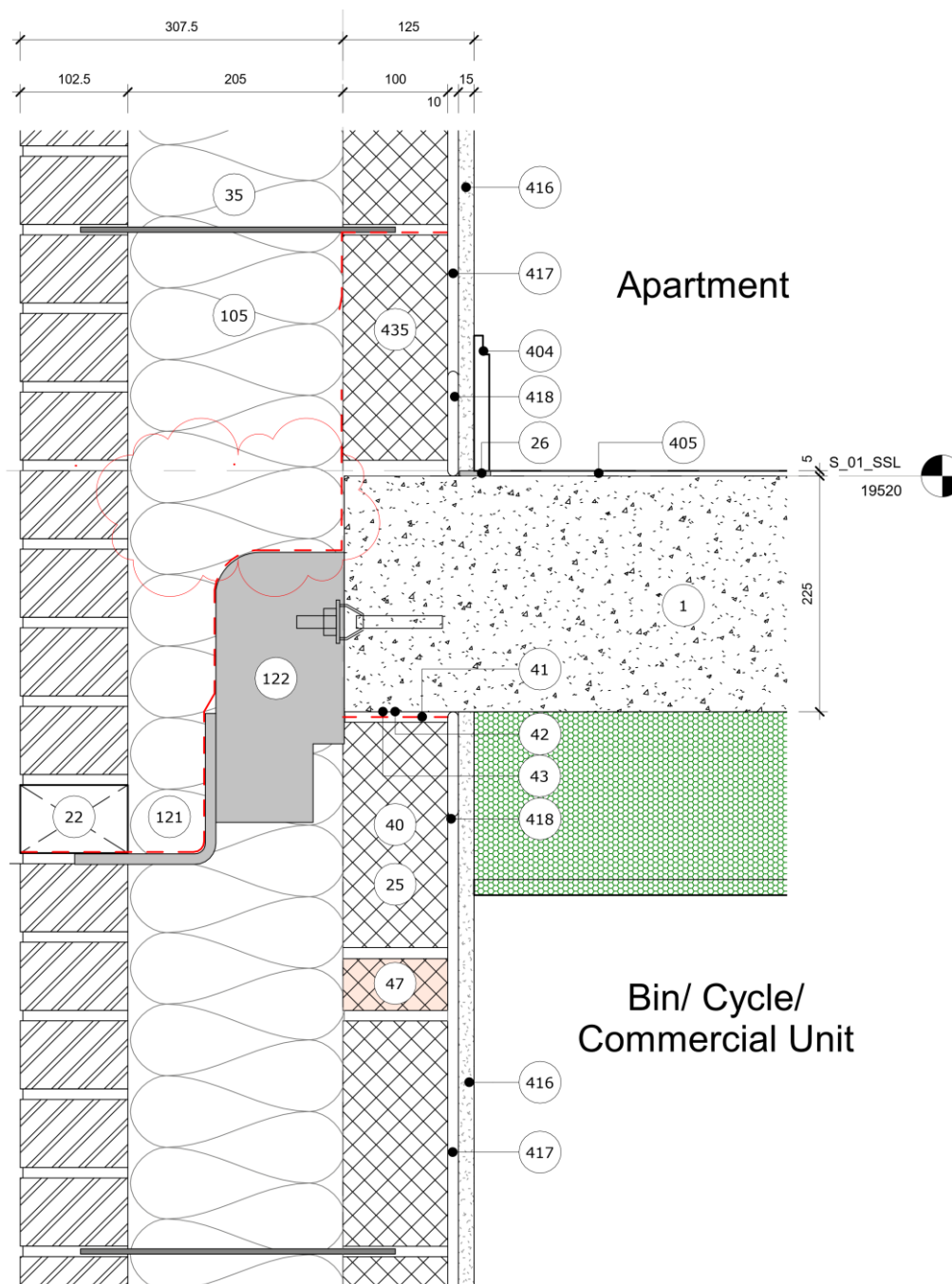
The MVHR unit will be located in a cupboard and noise associated with the unit will be no higher than 28 dB L_{Aeq, T} in living rooms and bedrooms, which is acceptable.

The sound insulation performance of each element fully complies with the specification set out in 24 Acoustics' report submitted with the planning application (report reference R8762-1 Rev 0). The established internal noise criteria will, therefore, be achieved and the development will fully comply with the requirements of planning condition 20.

I trust the above is in order. Please call if you have any questions.

Yours Sincerely,
For 24 Acoustics Ltd

Neil McLeod BA(Hons) MIOA
Senior Consultant



Project:
Eastleigh Post Office

Title:
Typical Floor Junction (commercial to residential)

DWG No: Figure 1

Scale: N.T.S.

Rev: -

Date: January 2023

Drawn By: NM

Job No: 9906

Sound Insulation Prediction (v9.0.22)

Program copyright Marshall Day Acoustics 2017

Margin of error is generally within $R_w \pm 3$ dB

24 Acoustics Ltd - Key No. 1595

Job Name:

Initials: Findwave2015

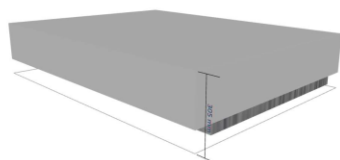
Job No.:

Date: 07/02/2023

File Name: Eastleigh Post Office Floor.1xl



Notes:



R_w 66 dB
C -2 dB
Ctr -7 dB

Mass-air-mass resonant frequency = 160 Hz

Panel Size = 2.7 m x 4.0 m

Partition surface mass = 506 kg/m²

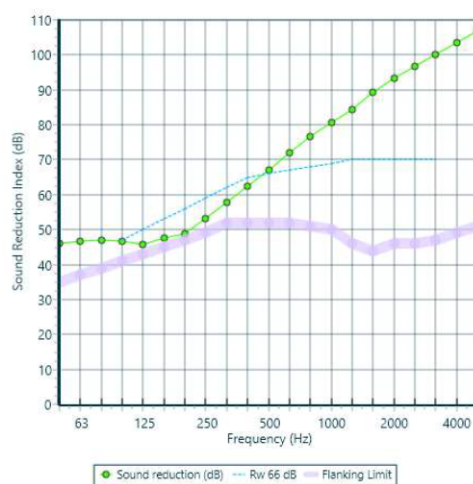
System description

Panel 1 : 1 x 215 mm Concrete

Frame: None (no connections) (90 mm x 45 mm), Stud spacing 600 mm; Cavity Width 90 mm, 1 x Rockwool (40kg/m³) Thickness 50 mm

Panel 2 : 1 x 0.4 mm Aluminium

freq.(Hz)	R(dB)	R(dB)
50	46	
63	47	47
80	47	
100	47	
125	46	47
160	48	
200	49	
250	53	52
315	58	
400	62	
500	67	66
630	72	
800	77	
1000	81	79
1250	84	
1600	89	
2000	93	92
2500	97	
3150	100	
4000	104	103
5000	107	



Project:
Eastleigh Post Office

Title:
Insul Floor Sound Insulation (commercial to residential)

DWG No: Figure 2

Scale: N.T.S.

Rev: -

Date: January 2023

Drawn By: NM

Job No: 9906

