



269 CAMDEN HIGH STREET, LONDON NW1 7BX – REAR EXTENSION & HMO CONVERSION

PLANNING APPLICATION 2019/4835/P

NOISE MITIGATION NOTES : 31 March 2020

A. INTRODUCTION

1. Planning application ref.2019/4835/P, registered with Camden Council on 25.10.19, concerns the proposed extension of an existing three-storey plus basement, mid-terrace property, consisting of an additional floor on an existing two-storey rear extension. The new upper floor of the rear extension, together with the two upper floors of the main building, are to be in residential HMO use.
2. The new upper floor of the rear extension is located adjacent to the adjoining property at 2 Jamestown Road, on which there is a first floor external terrace close to the site boundary. As 2 Jamestown Road is presently in use as a café/restaurant, there is a possibility that the external terrace could be in evening use by the public, and the noise generated by this use could affect the adjacent bedroom, i.e. Room 4 (refer to planning application drawing 549/P10).
3. These notes consider the noise-reduction performance of the external fabric, with particular focus on the bedroom of Room 4 in the new rear extension, and describes the noise mitigation measures that are to be incorporated in order to provide acceptable internal noise levels Room 4.

B. NOISE ASSESSMENT – INTERNAL NOISE CRITERIA

4. BS8233:2014 “Sound insulation and noise reduction for buildings” describes recommended acceptable internal noise levels for residential spaces during daytime and night-time hours. These levels are shown in Table 1, below.

Table 1 – BS8233 Recommended Internal Background Noise Levels

Activity	Location	Design range $L_{Aeq,T}$ dB	
		Daytime (07:00-23:00)	Night-time (23:00-07:00)
Resting	Living Room	35 dB(A)	-
Dining	Dining Room/Area	40 dB(A)	-
Sleeping	Bedroom	35 dB(A)	30 dB(A)

5. An earlier document, BS8233:1999, states that for reasonable standards in a bedroom at night, individual noise events should not normally exceed a maximum noise level L_{Amax} of 45 dB(A). The external building fabric of the new extension has been carefully designed to achieve these recommended internal levels, both in terms of the glazed units (windows and roof-lights) and the non-glazed elements, as described in Sections C and D, below.

C. EXTERNAL BUILDING FABRIC – SPECIFICATION OF NON-GLAZED ELEMENTS

6. The non-glazed external building fabric elements of the proposed development are to be comprised of a metal stud system, with mineral wool thermal insulation. This would contribute towards a significant reduction of ambient noise levels, in combination with a good quality double glazed window configuration, as described in Section D, below.
7. The non-glazed elements of the building façade, as described above, are assumed to provide a sound reduction performance of at least the figures shown in Table 2, when assessed in accordance with BS EN ISO 140-3:1995.

Table 2 – Minimum Sound Reduction Performance – Non-glazed Elements

Element	Octave band centre frequency SRI, dB					
	125	250	500	1k	2k	4k
Non glazed element SRI	41	43	48	50	55	55

D. EXTERNAL BUILDING FABRIC – SPECIFICATION OF GLAZED UNITS

8. An assessment of the potential sound reduction performance of the glazed units (windows and roof-lights) has been undertaken in order to specify the minimum performance required from these elements to achieve the recommended internal noise levels shown in Table 1. This assessment uses BS8233:2014 criteria, for potential internal noise levels in Room 4.
9. Following this assessment, it is proposed that all glazed elements in the vicinity of the identified noise source, will be designed to achieve the minimum sound reduction index (SRI) value as shown in Table 3, below. Please note that the performance is specified for the whole window unit, including the frame and other design features.

Table 3 – Required Glazing Performance

Glazing Type	Required Overall Glazing Sound Reduction Performance R_w	Double Glazing Type <i>Indicative Only</i>
ROOM 4: Rear Facade	42 dB	R_w 42 dB Laminated Glazing System [e.g. 10/12/16 acoustic laminate] Acoustic Trickle Ventilation [Required $D_{n,e,w}$ 43 dB] Or alternative means of ventilation

E. CONCLUSION

- Additional noise mitigation measures, including a sound-reducing glazing specification and an acoustic trickle ventilator, are to be incorporated, which are considered to be sufficient to achieve good internal noise levels, according to BS8233:2014, for the room identified within the proposed development, Room 4.