

Our Ref: 7475/AH/PC28&39

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W. www.rba-acoustics.co.uk

E. info@rba-acoustics.co.uk

London

44 Borough Road, London SE1 0AJ

T. +44 (0) 20 7620 1950

Manchester

Lowry House, 17 Marble Street,

Manchester M2 3AW

T. +44 (0) 16 1661 4504

317 Finchley Road Limited
Solar House
282 Chase Road
London
N14 6NZ

317 FINCHLEY ROAD PLANNING CONDITIONS 27 & 38 – SOUND INSULATION

This letter aims to provide information for the discharge of Planning Conditions relating to sound insulation between different areas of the development for the above site.

Planning Condition 28 states:

Prior to commencement of the development, other than works of demolition and clearance, details shall be submitted to and approved in writing by the council, of an enhanced sound insulation value $D_{nT,w}$ and $L_{nT,w}$ of at least 5 dB above the Building Regulations value, for the floor/ceiling/wall structures separating different types of rooms/uses in adjoining dwellings. Approved details shall be implemented prior to occupation of the development and thereafter permanently retained.

The uses hereby permitted shall not commence in that phase until the soundproofing works have been implemented in accordance with the approved details. The soundproofing shall be retained permanently in accordance with the approved details.

Planning Condition 39 states:

Prior to commencement of the development, details shall be submitted to and approved in writing by the Council, of the sound insulation of the floor/ ceiling separating the commercial part(s) of the premises from noise sensitive premises. Details shall demonstrate that the sound insulation value $D_{nT,w}$ is enhanced by at least 15dB above the Building Regulations value and, where necessary additional mitigation measures are implemented to contain commercial noise within the commercial premises and to achieve the criteria of BS8233:2014 within the dwellings/noise sensitive premises. Approved details shall be implemented prior to occupation of the development and thereafter permanently retained.



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1.0 PROPOSALS FOR CONDITION 27

Condition 28 requires separating constructions separating adjoining dwellings to exceed Building Regulations $D_{nT,w}$ and $L'_{nT,w}$ performance values by at least 5 dB.

A summary of the various requirements of the development in terms of Approved Document E (2003) of the Building Regulations are summarised below.

1.1 Approved Document E (2003)

Building Regulations Approved Document E (2003) provides guidance for levels of sound insulation within residential developments. Therefore the sound insulation criteria to be achieved are as follows:

Separating Floors

- Minimum airborne sound insulation of 45dB $D_{nT,w} + C_{tr}$. This is an on-site performance rating.
- Maximum impact sound pressure level of 62dB $L'_{nT,w}$. This is an on-site performance rating.

Separating Walls

- Minimum airborne sound insulation of 45dB $D_{nT,w} + C_{tr}$. This is an on-site performance rating.

1.2 Project Requirements ($D_{nT,w}$ and $L'_{nT,w} + 5dB$)

To satisfy the requirements of Planning Condition 28 the sound insulation criteria to be achieved are as follows:

Separating Floors

- Minimum airborne sound insulation of 50dB $D_{nT,w} + C_{tr}$. This is an on-site performance rating.
- Maximum impact sound pressure level of 57dB $L'_{nT,w}$. This is an on-site performance rating.

Separating Walls

- Minimum airborne sound insulation of 50dB $D_{nT,w} + C_{tr}$. This is an on-site performance rating.

1.3 Proposed Constructions

Separating Walls between Flats (overall dimension of 370mm)

- 1No. 27mm Timber Dold Panel
- 1No. 15mm dense plasterboard (12.5 kg/m²)
- 70mm I-studwork with 50mm thickness mineral wool (10-40kg/m³) within studs#
- Nominal gap between studwork and CLT panel
- Minimum 90mm Structural CLT panel
- Nominal gap between studwork and CLT panel
- 70mm I-studwork with 50mm thickness mineral wool (10-40kg/m³) within studs
- 1No. 15mm dense plasterboard (12.5 kg/m²)
- 1No. 27mm Timber Dold Panel

Subject to the above and ensuring a high level of build quality and appropriate detailing of the flanking transmission paths we consider the proposed separating wall construction to be commensurate with the enhanced performance standards for airborne sound insulation outlined in PC28.

Separating Floors between Flats (Overall dimension of 385mm)

- 70mm Polished concrete/screed (2000kg/m³)
- 40mm Thermal insulation
- 6mm Rubber resilient acoustic layer
- 150mm Concrete slab (2000kg/m³)
- 100mm CLT panel

Subject to the above and ensuring a high level of build quality and appropriate detailing of the flanking transmission paths we consider the proposed separating floor construction to be commensurate with the enhanced performance standards for airborne and impact sound insulation outlined in PC28.

2.0 PROPOSALS FOR CONDITION 38

2.1 Project Requirements ($D_{nT,w} + 15\text{dB}$)

To satisfy the requirements of Planning Condition 39, $D_{nT,w}$ performance values 15dB better than the Building Regulations must be demonstrated. The sound insulation criteria to be achieved are as follows:

Separating Floors

- Minimum airborne sound insulation of 60dB $D_{nT,w} + C_{tr}$. This is an on-site performance rating.

Separating Walls

- Minimum airborne sound insulation of 60dB $D_{nT,w} + C_{tr}$. This is an on-site performance rating.

2.2 Proposed Constructions

The following constructions are proposed for walls separating commercial and residential uses.

Separating Walls

Option 1 (Overall dimension of 360mm)

- 200mm Reinforced concrete shear wall (2000kg/m³)
- Minimum 60mm clear cavity
- 70mm I-studwork with 50mm thickness mineral wool (10-40kg/m³) within studs
- 2No. layers 15mm dense plasterboard (12.5kg/m² each)

OR

Option 2 (Overall dimension of 415mm)

- 215mm Dense concrete Blockwork (1800-2200 kg/m³)
- Minimum 100mm clear cavity
- 70mm I-studwork with 50mm thickness mineral wool (10-40kg/m³) within studs
- 2No. layers 15mm dense plasterboard (12.5kg/m² each)

Subject to the above and ensuring a high level of build quality and appropriate detailing of the flanking transmission paths we consider the proposed separating wall construction to be commensurate with the enhanced performance standards for airborne sound insulation outlined in PC39.

The following constructions are proposed for floors separating commercial and residential uses.

Separating Floors (Overall dimension of 575mm)

- 150mm Concrete floating floor (2000kg/m³)
- 25mm Rigid board insulation
- 18mm WBP Plywood
- 75mm Rubber spring isolators with 15Hz natural frequency
- 75mm Mineral wool insulation between isolators
- 300mm Reinforced concrete slab (2000kg/m³)

Subject to the above and ensuring a high level of build quality and appropriate detailing of the flanking transmission paths we consider the proposed separating wall construction to be commensurate with the enhanced performance standards for airborne sound insulation outlined in PC39.

3.0 SUMMARY

The details given above for the proposed wall and floor constructions throughout the development have been provided in order to provide the necessary information to support the discharge of Planning Conditions 28 and 39.

I trust the above is clear and of use, if there are any questions please do not hesitate to contact the undersigned.

Yours sincerely,
For RBA Acoustics

A handwritten signature in black ink, appearing to read 'A Heath', with a stylized flourish at the end.

Andrew Heath