

1. Acoustic measures:

- a. Suspended acoustic ceiling: There is an existing acoustic suspended ceiling which will be upgraded. A false ceiling within the service void using Siniat acoustic plasterboard (GTEC dB board) and mineral wool. This board is around 30% heavier than standard plasterboard and provides up to ~49 dB sound reduction per layer.
- b. Partition walls: Upgraded walls between the office and flats with double acoustic plasterboard (15 mm) and acoustic mineral wool. Resilient channels or independent studs will be used to reduce vibration transfer.
- c. Seals and gaps: All service penetrations and joints will be sealed with acoustic sealant, and any new doors will include acoustic drop seals to prevent flanking noise.
- d. Floor treatment: Acoustic underlay or a floating floor in the first-floor flats to reduce impact noise, with resilient underlay or carpet to further dampen sound.

2.

These measures work together to control both airborne noise (e.g., voices, equipment) and structure-borne noise (e.g., footsteps), which is best practice in mixed-use buildings.

a.

All wall and floor constructions will meet or exceed UK Building Regulations (Approved Document E). Based on experience with similar projects, these measures will also ensure compliance with BS 8233:2014 and Planning Policy guidance on noise.

The combination of enhanced acoustic materials, careful detailing, and limited operating hours will effectively control noise from the office, while also preventing normal residential noise from affecting the workspace below.