
Fw: FLOOR DETAIL

From Marge Ballinger <[REDACTED]>

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To Marge Ballinger <[REDACTED]>

 1 attachment (247 KB)

Floor build-up.jpg;

Description of Build-up:

The proposed floor construction is based on the **Robust Detail E-FT-1** specification, significantly enhanced to exceed the standard 60dB airborne sound insulation requirement. The build-up utilizes a primary structural timber joist layer (250mm) with 150mm mineral wool insulation, decoupled via a **Gypframe MF** suspended system.

Fire Safety & Compartmentation:

To ensure the fire resistance period (typically 60 minutes) remains uncompromised by modern internal fit-outs, a **two-tier ceiling strategy** has been implemented:

- **Primary Fire Barrier:** The upper layer of the ceiling system serves as the primary fire and acoustic seal. This layer remains continuous and unpenetrated to maintain the integrity of the floor compartment.
- **Sacrificial Service Void:** The lower ceiling layer (the finish seen by the client) is designed to house recessed lighting and MEP services. Because the fire and primary acoustic performance are already achieved by the upper "shield" layer, penetrations for built-in lights in this lower layer do not degrade the overall fire rating or sound insulation of the separating floor.

Acoustic Justification:

As evidenced by the attached **British Gypsum** technical data for the **GypCeiling Lining** system, the lower assembly alone is capable of achieving R_w values in excess of 60dB. By combining this with:

1. **Resilient Bars/MF De-coupling:** Minimizing mechanical bridging.
2. **Flanking Strips:** Eliminating vibration transfer through perimeter walls.
3. **Secondary Mass Layer:** The addition of the second plasterboard layer.

We can confidently confirm that the site-tested performance will significantly exceed the minimum requirements of **Approved Document E**, even with the inclusion of client-requested service penetrations in the lower ceiling finish.

Kindest Regards,

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