



interhome high-rise

-/90/90 Supplement

Separating Wall System for Slab-to-Slab
Multi-Residential Construction

Disclaimer

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Sep 2021



about us

Siniat is one of the Etex Group's flagship commercial brands, and one of the leading global manufacturers of interior and exterior materials for drywall construction.

In Australia, Etex has Siniat manufacturing facilities located in Sydney, Melbourne, Bundaberg and Brisbane. Etex supplies Siniat branded plasterboard, compounds, cornice, steel profiles and associated products and systems to the Australian building industry through its national distribution network.

Siniat's comprehensive range of quality wall and ceiling lining products are developed with specific characteristics to enhance performance and provide fire, water, acoustic and decorative solutions to all construction projects.

The Siniat team is committed to providing excellent technical service and sales support to help with innovative solutions for your next project.

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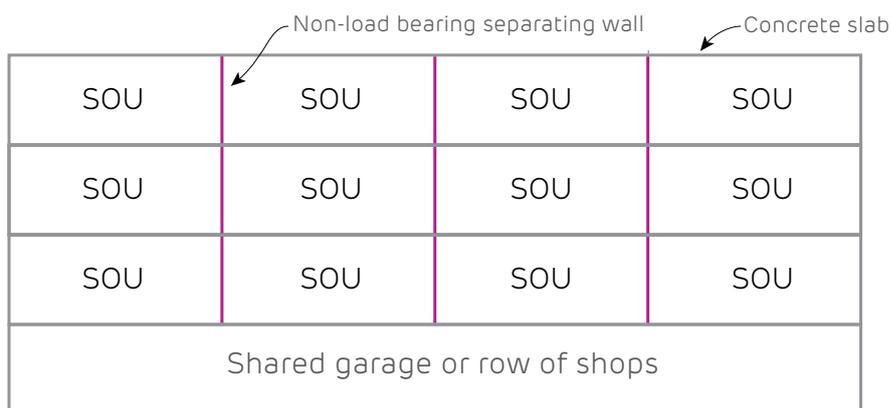


FIGURE 1 Suitability of FRL -/90/90 Interhome High-Rise Wall Section

The 90 minute systems and construction details in this supplement are provided in the event that a designer selects a Fire Resistance Level (FRL) of -/90/90 construction or it is required for a fire engineered solution. They are suited to slab-to-slab construction in Class 2 or 3 buildings (apartments, hotels or hostels).

Features

- Fire Resistance Level -/90/90
- Sound insulation performance of separating wall of $R_w + C_{tr} 50$ plus discontinuous construction
- Sound insulation performance for soil and waste pipes of $R_w + C_{tr} 25$ and $R_w + C_{tr} 40$.
- Provision for the installation in wet areas.

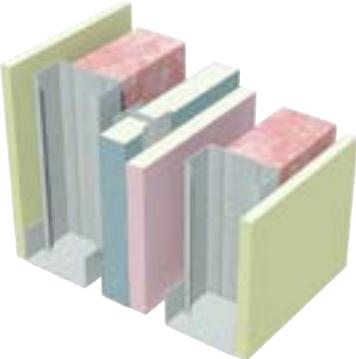
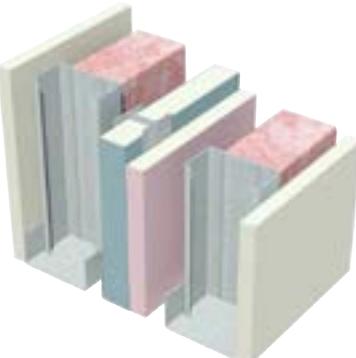
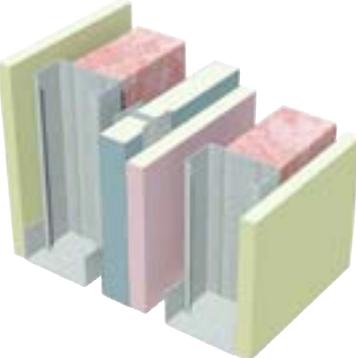
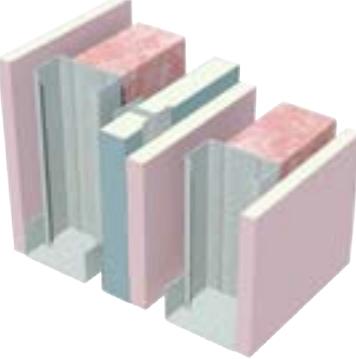
interhome high-rise systems consist of twin steel framed walls with a central fire barrier of 25mm **shaftliner** and 16mm **fireshield**. An additional 16mm **fireshield** is laminated to the central fire barrier and is required when the outer wall linings do not extend to the soffit.

The central fire barrier provides the primary fire and acoustic barrier and simplifies the installation by allowing non-fire rated installation, and non-fire rated penetrations through the internal wall linings during construction and once the sole occupancy units (SOU) are occupied.

This guide has **interhome high-rise** systems, installation and construction details for slab to slab construction and an option for finishing under the ceiling of a framed roof.

This guide is designed as a supplement to Section 3.6 of the Siniat Blueprint.

Separating Wall Systems

 <p>IHS220</p>	<ul style="list-style-type: none"> • 1 layer of 10mm soundshield or opal • Steel stud framing • Minimum 20mm air gap • 1 layer of 25mm shaftliner encased in interhome H-studs plus 1 layer of 16mm fireshield • Minimum 20mm air gap • Steel stud framing • 1 layer of 10mm soundshield or opal 	<p>Fire Resistance Level -/90/90 rated from both sides Report FAR 4815</p>																		
<table border="1"> <thead> <tr> <th>Minimum Cavity On Both Sides (mm)</th> <th>Wall Width (mm)</th> <th>Sound Insulation Rw (Rw + Ctr)</th> </tr> </thead> <tbody> <tr> <td>Cavity size = stud size + air gap</td> <td></td> <td>Pink® Partition 75mm 11 kg/m³ R1.8 in both cavities</td> </tr> <tr> <td>71 (51 stud + 20 gap)</td> <td>203</td> <td>64 (50)</td> </tr> <tr> <td>84 (64 stud + 20 gap)</td> <td>229</td> <td>66 (54)⁴</td> </tr> <tr> <td>96 (76 stud + 20 gap)</td> <td>253</td> <td>66 (52)</td> </tr> <tr> <td>110 (64 stud + 46 gap)</td> <td>281</td> <td>67 (53)</td> </tr> </tbody> </table>		Minimum Cavity On Both Sides (mm)	Wall Width (mm)	Sound Insulation Rw (Rw + Ctr)	Cavity size = stud size + air gap		Pink® Partition 75mm 11 kg/m³ R1.8 in both cavities	71 (51 stud + 20 gap)	203	64 (50)	84 (64 stud + 20 gap)	229	66 (54) ⁴	96 (76 stud + 20 gap)	253	66 (52)	110 (64 stud + 46 gap)	281	67 (53)	<p>Day Design 5008-18 ⁴CSIRO TL601-01 Note: Impact Sound Resistant - Discontinuous Construction</p>
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 <p>IHS215</p>	<ul style="list-style-type: none"> • 1 layer of 13mm mastashield or watershield • Steel stud framing • Minimum 20mm air gap • 1 layer of 25mm shaftliner encased in interhome H-studs plus 1 layer of 16mm fireshield • Minimum 20mm air gap • Steel stud framing • 1 layer of 13mm mastashield or watershield 	<p>Fire Resistance Level -/90/90 rated from both sides Report FAR 4815</p>																		
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110 (64 stud + 46 gap)	287	70 (57)																		
 <p>IHS230</p>	<ul style="list-style-type: none"> • 1 layer of 13mm fireshield or multishield • Steel stud framing • Minimum 20mm air gap • 1 layer of 25mm shaftliner encased in interhome H-studs plus 1 layer of 16mm fireshield • Minimum 20mm air gap • Steel stud framing • 1 layer of 13mm fireshield or multishield 	<p>Fire Resistance Level -/90/90 rated from both sides Report FAR 4815</p>																		
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84 (64 stud + 20 gap)	235	68 (54)																		
110 (64 stud + 46 gap)	287	69 (55)																		



IHS235



- 1 layer of 16mm **fireshield** or **multishield**
- Steel stud framing
- Minimum 20mm air gap
- 1 layer of 25mm **shaftliner** encased in **interhome H-studs** plus
- 1 layer of 16mm **fireshield**
- Minimum 20mm air gap
- Steel stud framing
- 1 layer of 16mm **fireshield** or **multishield**

Fire Resistance Level
-/90/90
rated from both sides
Report FAR 4815

Minimum Cavity On Both Sides (mm)	Wall Width (mm)	Sound Insulation Rw (Rw + Ctr)
Cavity size = stud size + air gap		Pink [®] Partition 75mm 11 kg/m ³ R1.8 in both cavities
71 (51 stud + 20 gap)	215	67 (54)
84 (64 stud + 20 gap)	241	69 (56)
110 (64 stud + 46 gap)	293	70 (57)

Day Design
5008-18
Note: Impact Sound Resistant -
Discontinuous Construction

IHS250



- 1 layer of 6mm **Villaboard™**
- Steel stud framing
- Minimum 20mm air gap
- 1 layer of 25mm **shaftliner** encased in **interhome H-studs** plus
- 1 layer of 16mm **fireshield**
- Minimum 20mm air gap
- Steel stud framing
- 1 layer of 6mm **Villaboard™**

Fire Resistance Level
-/90/90
rated from both sides
Report FAR 4815

Minimum Cavity On Both Sides (mm)	Wall Width (mm)	Sound Insulation Rw (Rw + Ctr)
Cavity size = stud size + air gap		Pink [®] Partition 75mm 11 kg/m ³ R1.8 in both cavities
84 (64 stud + 20 gap)	221	66 (50)
110 (64 stud + 46 gap)	273	67 (51)

Day Design
5008-18
Note: Impact Sound Resistant -
Discontinuous Construction

Fire Rated

Interhome High-Rise Central Fire Barrier Installation

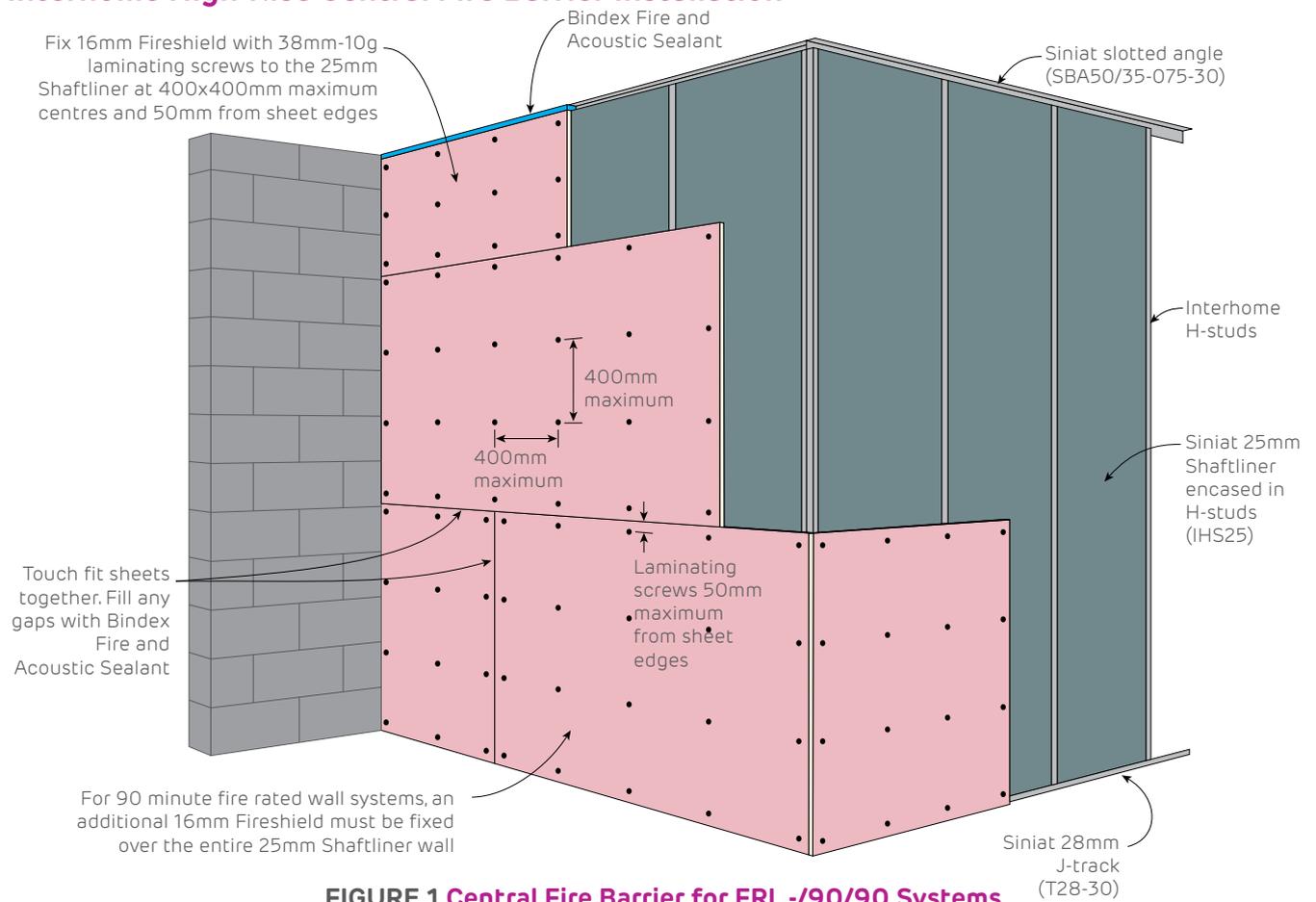


FIGURE 1 Central Fire Barrier for FRL -/90/90 Systems
Perspective

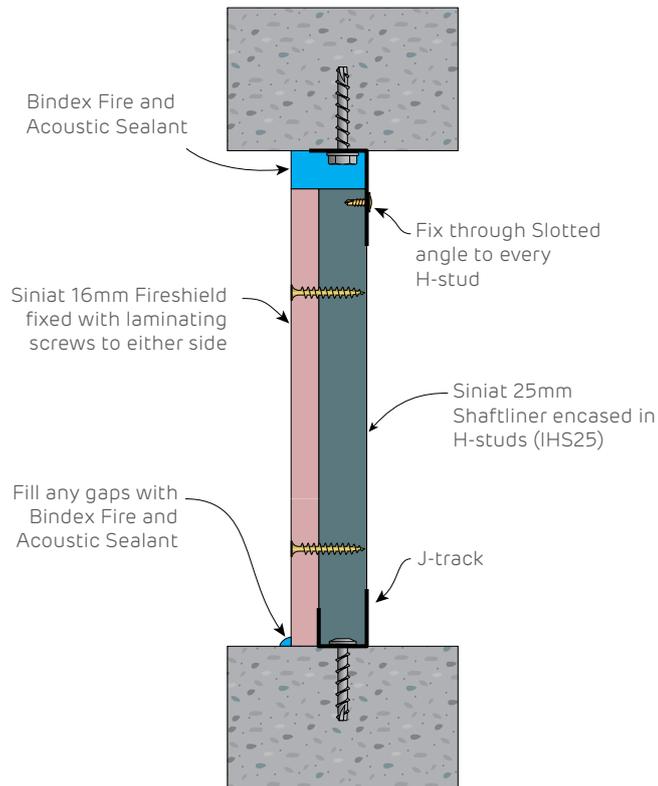


FIGURE 2 Central Fire Barrier
For FRL -/90/90 Systems
Section



Fire Rated

Interhome High-Rise Head and Base Detail - FRL -/90/90 - Wall Height ≤ 3.6m

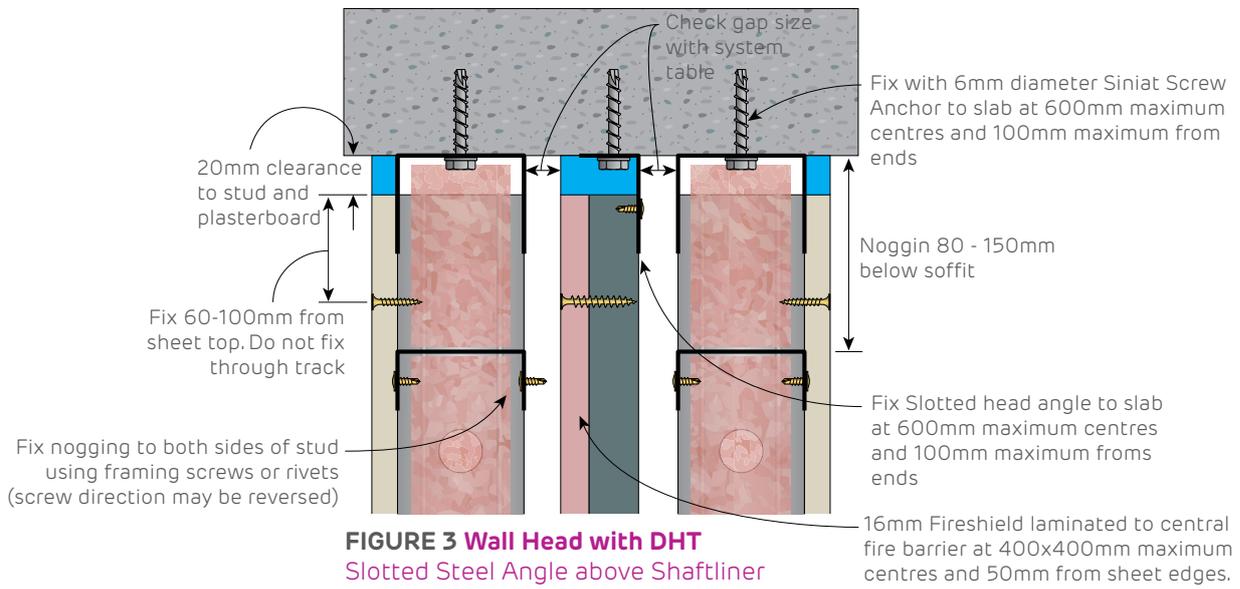


FIGURE 3 Wall Head with DHT Slotted Steel Angle above Shaftliner Section

i Fill any gaps with Bindex Fire and Acoustic Sealant to maintain integrity

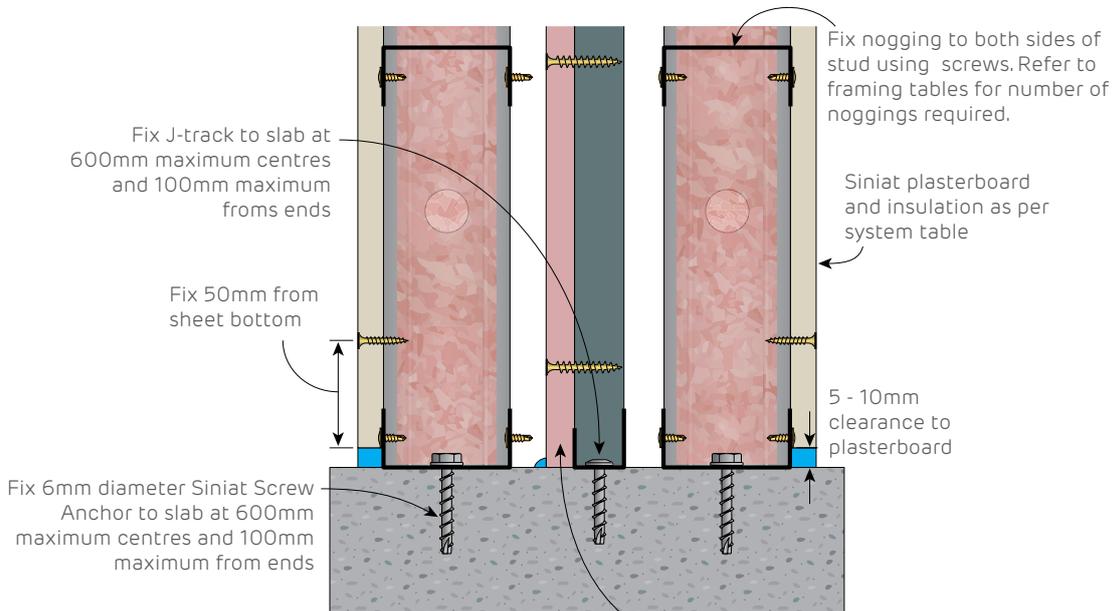


FIGURE 5 Wall Base J-track below Shaftliner Section

16mm Fireshield laminated to central fire barrier at 400x400mm maximum centres and 50mm from sheet edges.

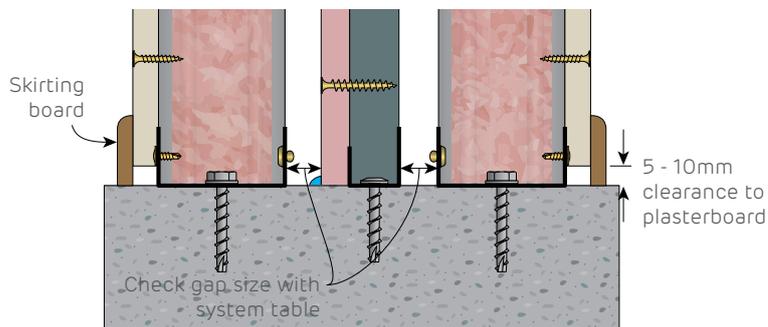


FIGURE 7 Alternative Wall Base J-track below Shaftliner

Fire Rated

Interhome High-Rise Head Details with CAC Ceiling - FRL -/90/90 - Wall Height ≤ 3.6m

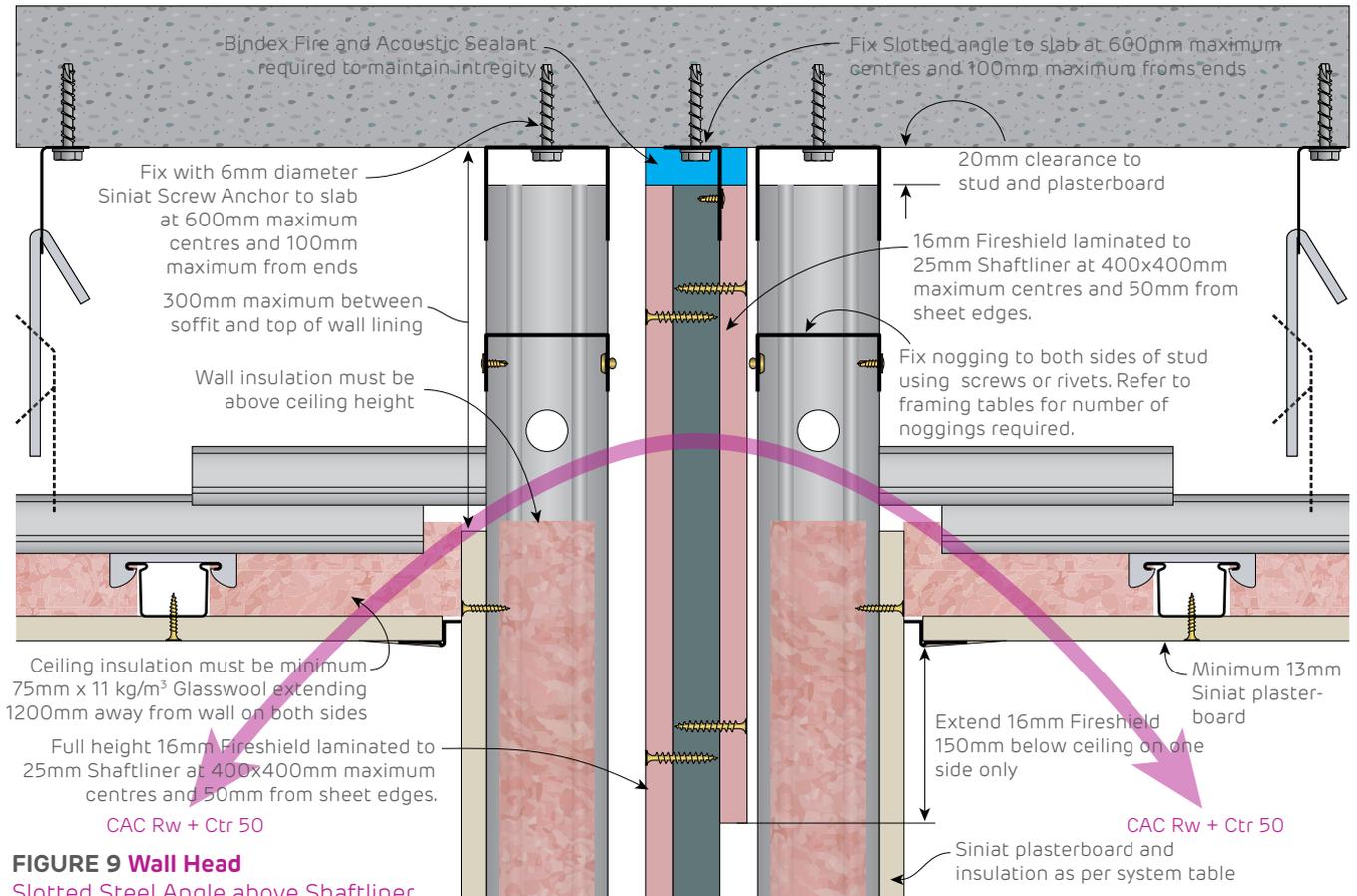


FIGURE 9 Wall Head
Slotted Steel Angle above Shaftliner Section

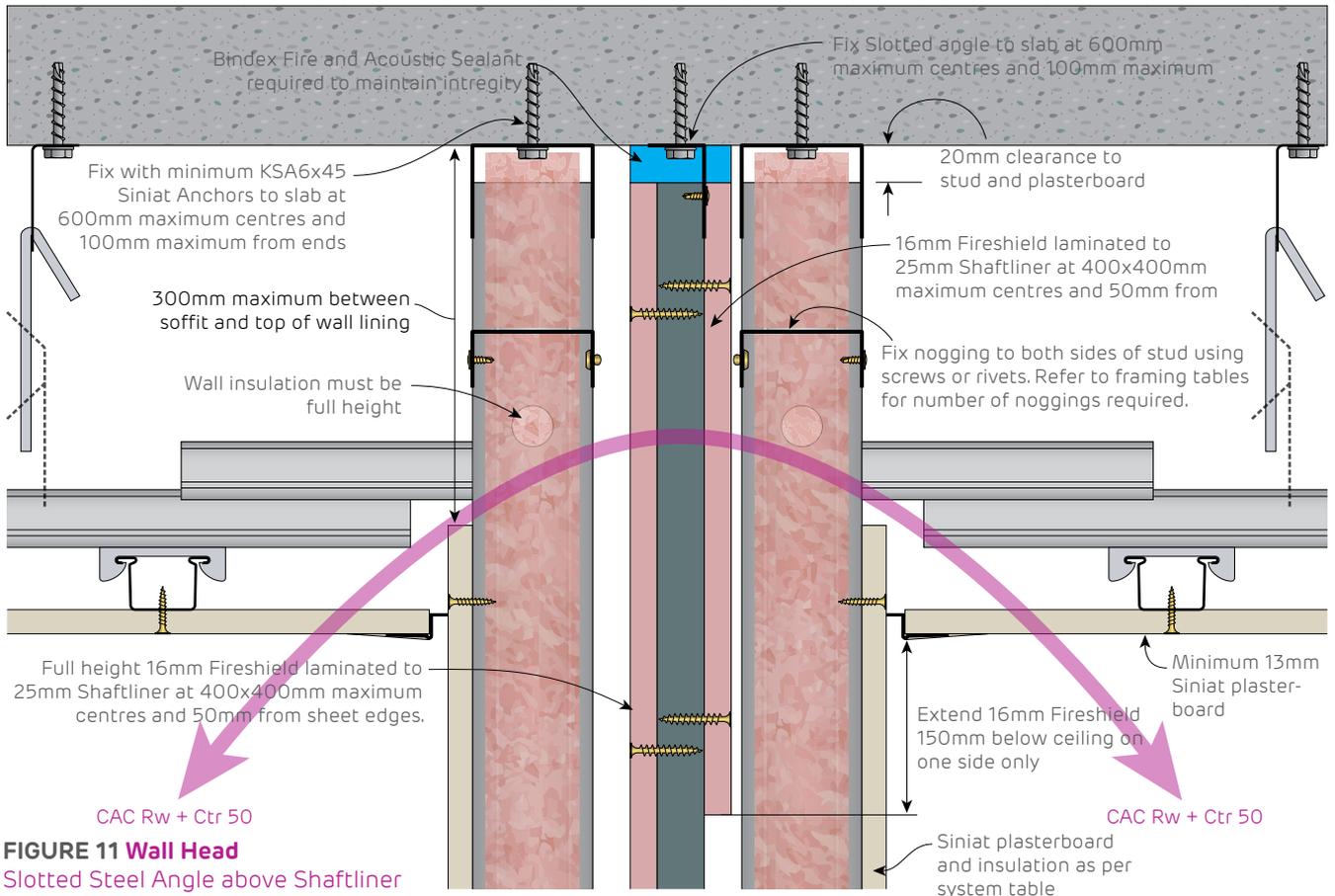


FIGURE 11 Wall Head
Slotted Steel Angle above Shaftliner Section

Fire Rated

Interhome High-Rise Head Details with Fire Rated Ceiling - FRL -/90/90 - Wall Height ≤ 7.2m

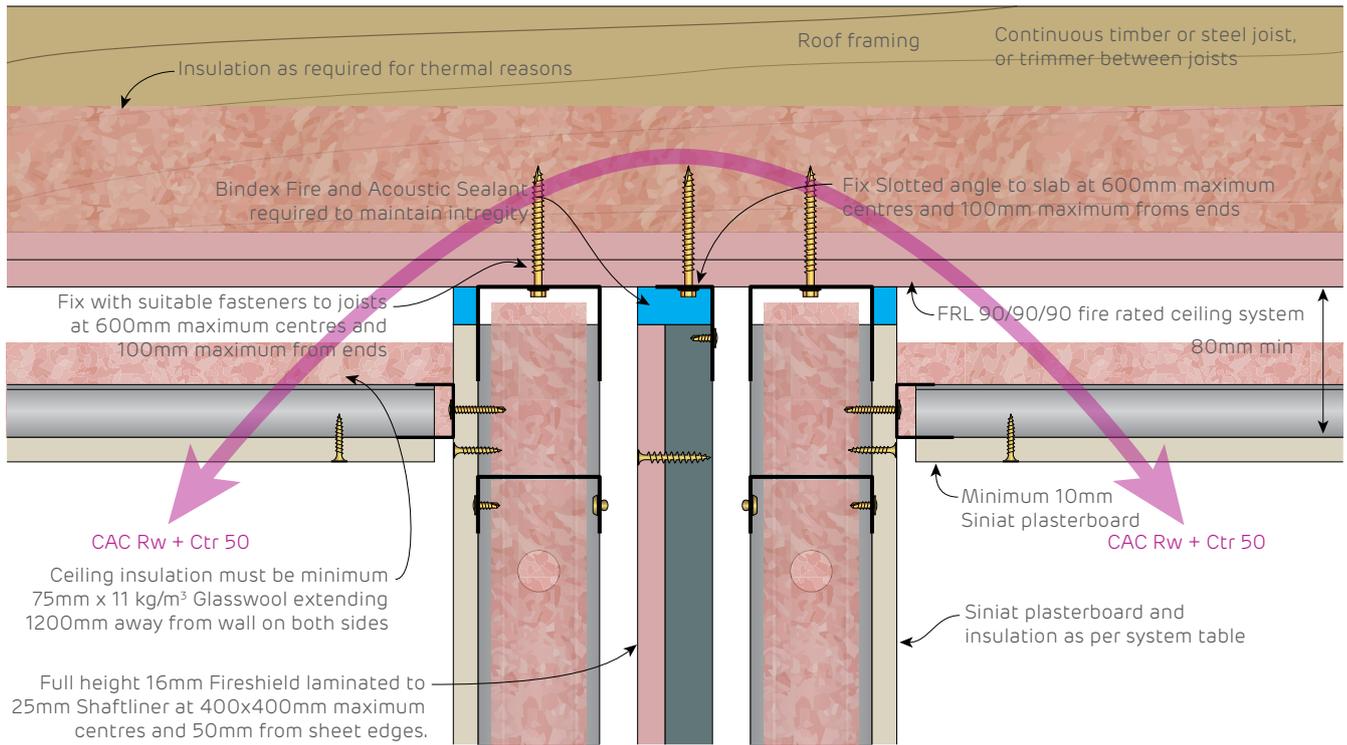


FIGURE 14 Wall Head

Slotted Steel Angle above Shaftliner Section



Fire Rated

Interhome High-Rise Details - FRL -/90/90

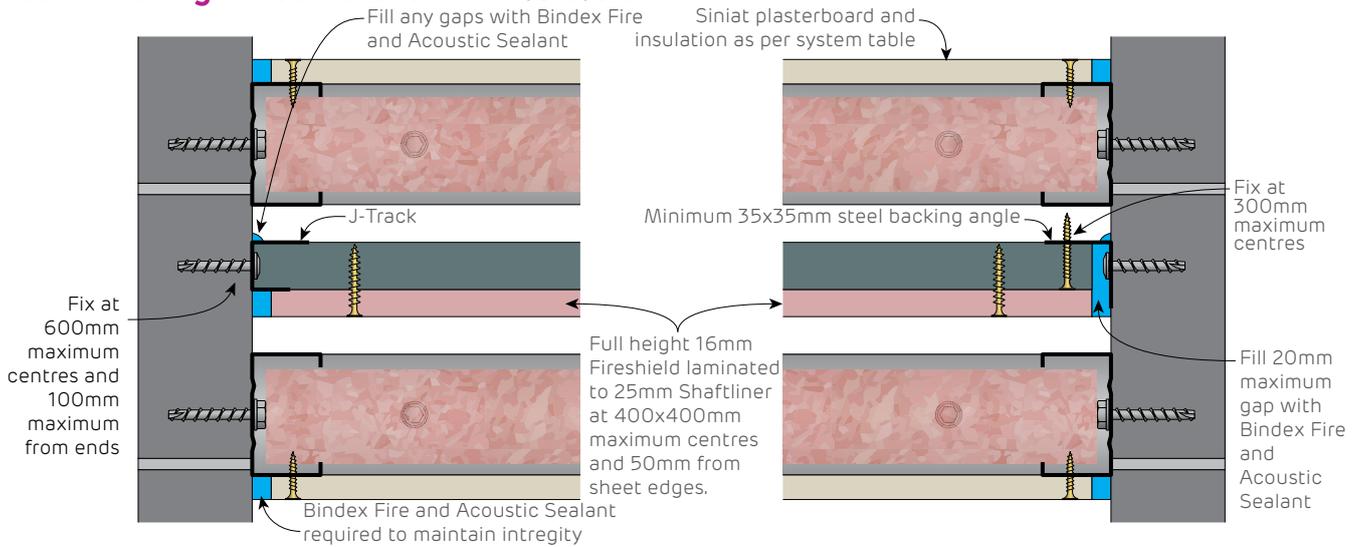


FIGURE 16 Wall End to Masonry

J-track
Plan

FIGURE 17 Wall End to Masonry

steel backing angle
Plan

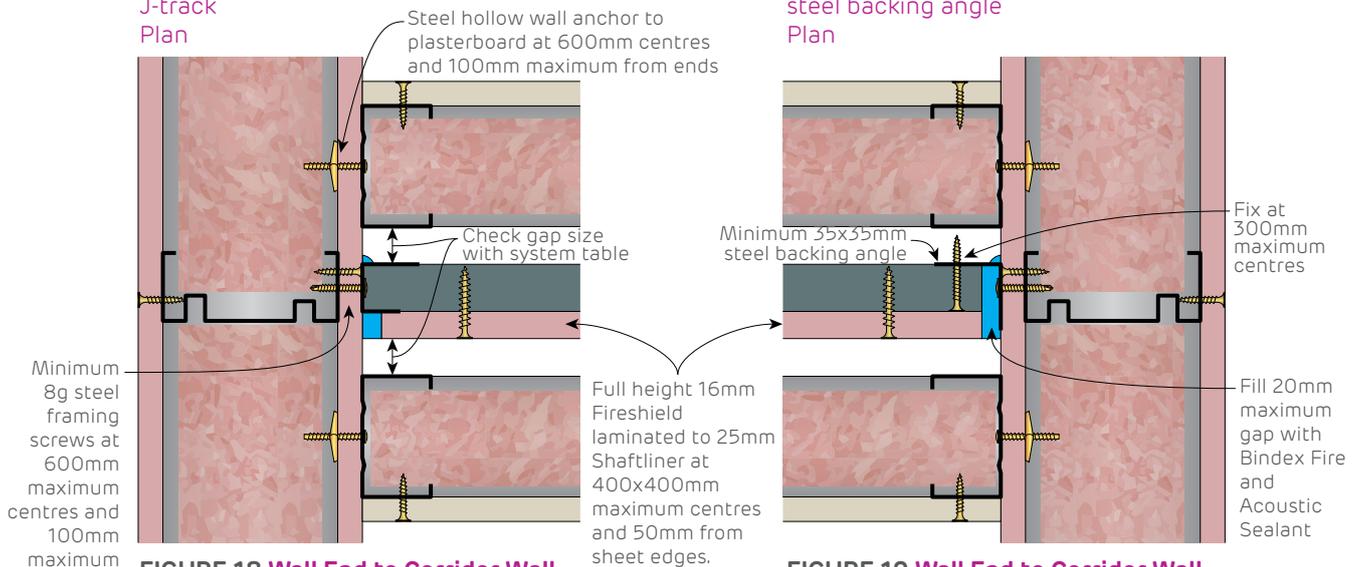


FIGURE 18 Wall End to Corridor Wall

J-track
Plan

FIGURE 19 Wall End to Corridor Wall

steel backing angle
Plan

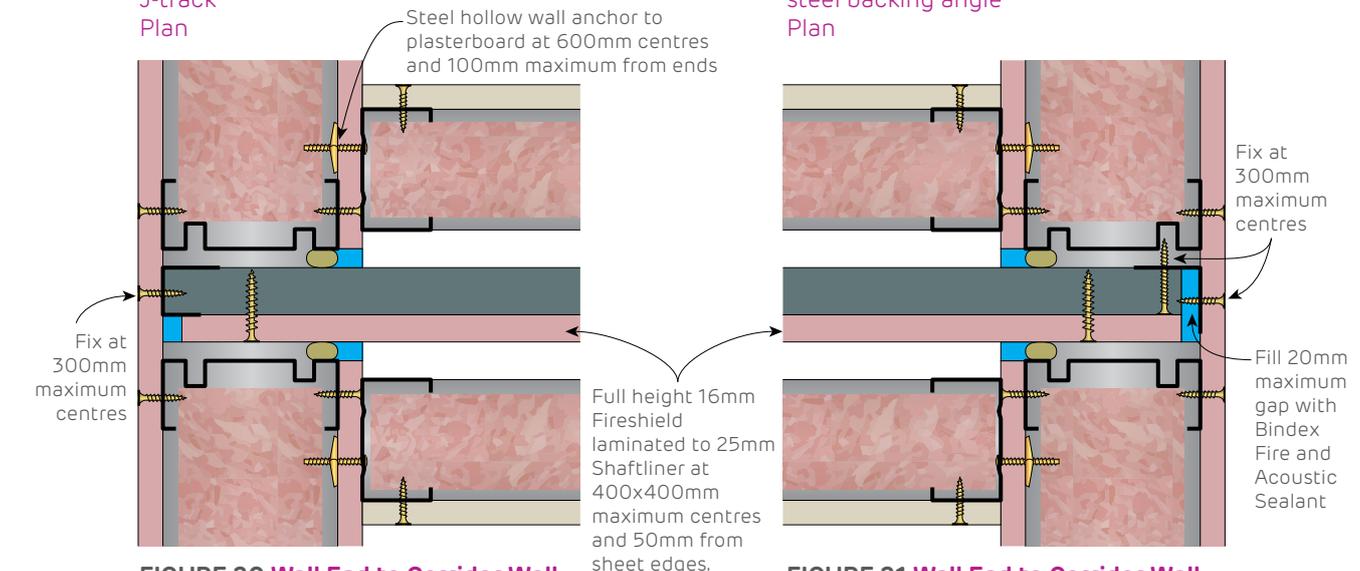


FIGURE 20 Wall End to Corridor Wall

Improved Acoustic Detail - J-track
Plan

FIGURE 21 Wall End to Corridor Wall

Improved Acoustic Detail - Steel angle
Plan

i Fill any gaps with Bindex Fire and Acoustic Sealant to maintain integrity

Fire Rated

Interhome High-Rise Details - FRL -/90/90

Steel hollow wall anchor to plasterboard at 600mm maximum centres and 100mm maximum from ends, or 65mm x 8g plasterboard screws through

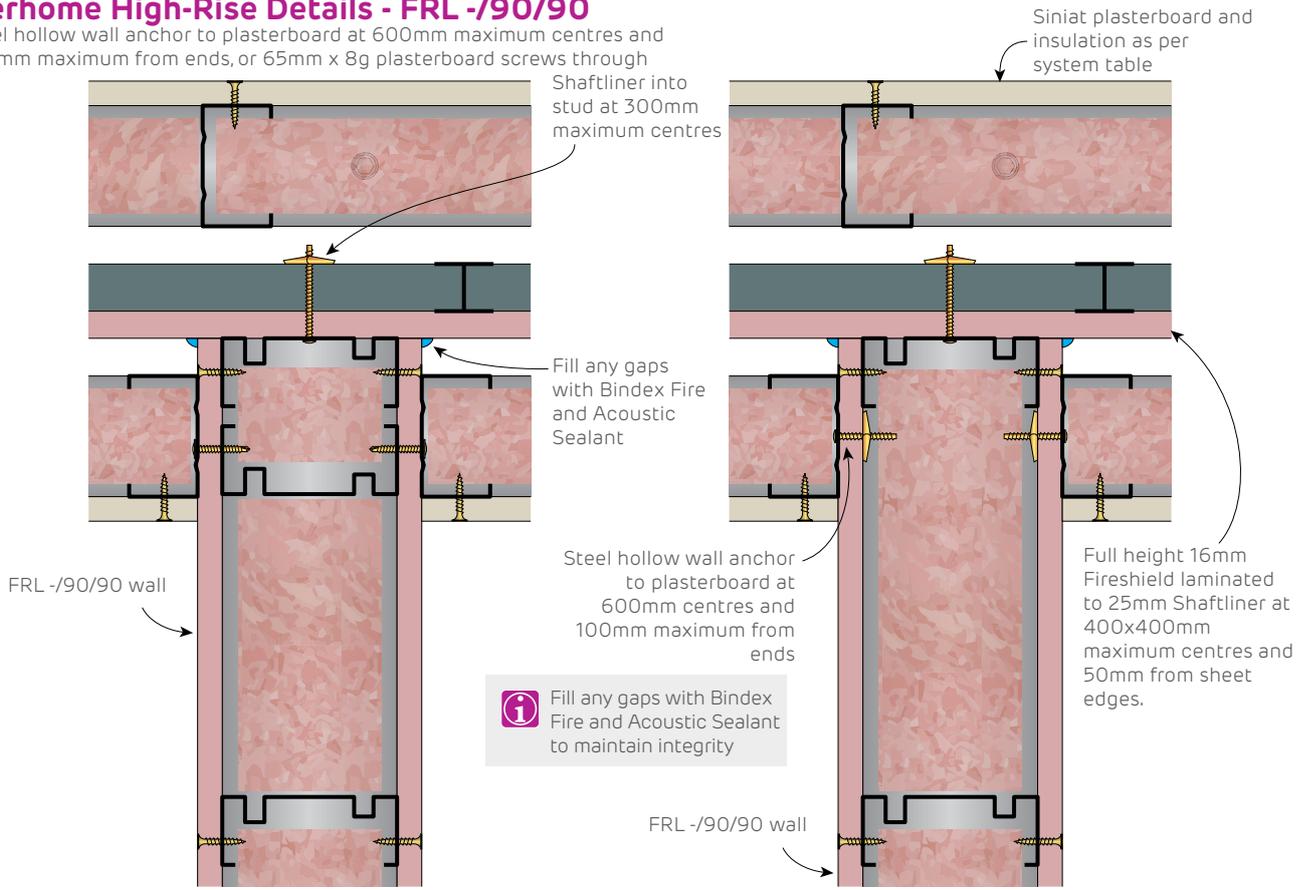


FIGURE 22 Wall Intersection with Fire Rated Wall
Plan

FIGURE 23 Wall Intersection with Fire Rated Wall
Plan

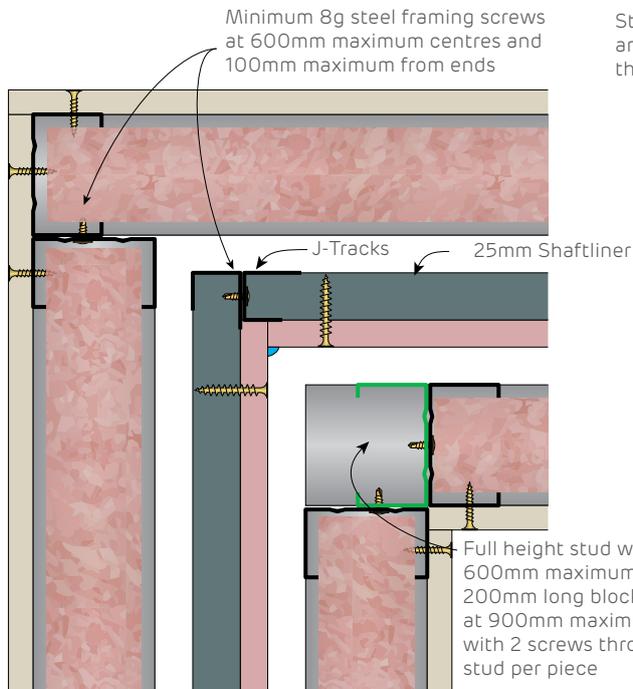


FIGURE 24 Wall Corner
Plan

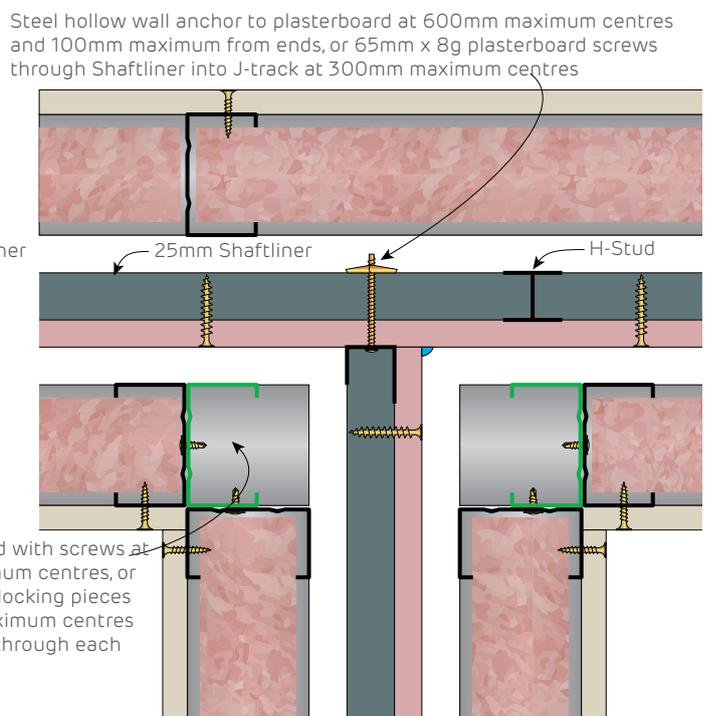


FIGURE 25 Corridor Wall to Inter-tenancy Wall Junction
Plan



Fire Rated

Interhome High-Rise Details - FRL -/90/90

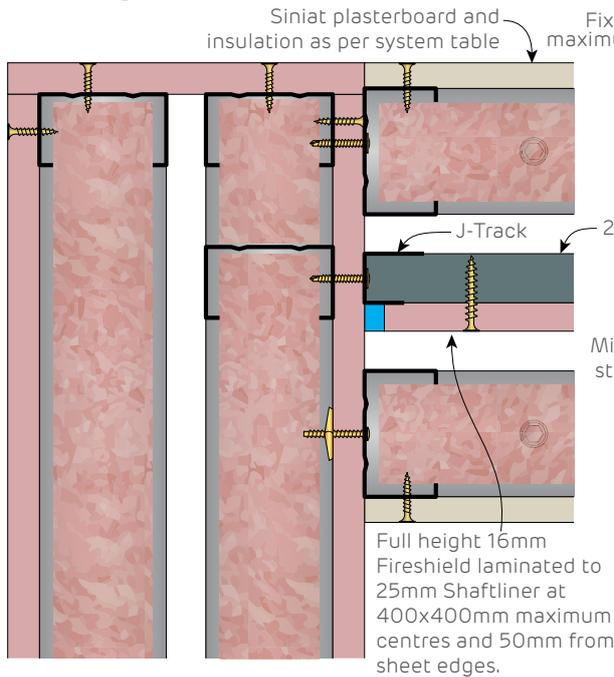


FIGURE 26 Interhome Highrise Wall Connection to Fire Rated Plasterboard Wall
Plan

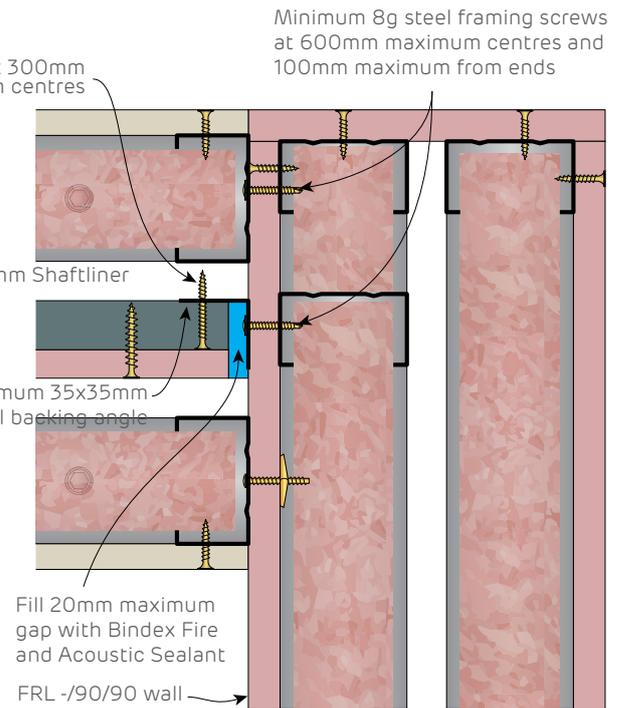


FIGURE 27 Interhome Highrise Wall Connection to Fire Rated Plasterboard Wall
Plan



Fill any gaps with Bindex Fire and Acoustic Sealant to maintain integrity

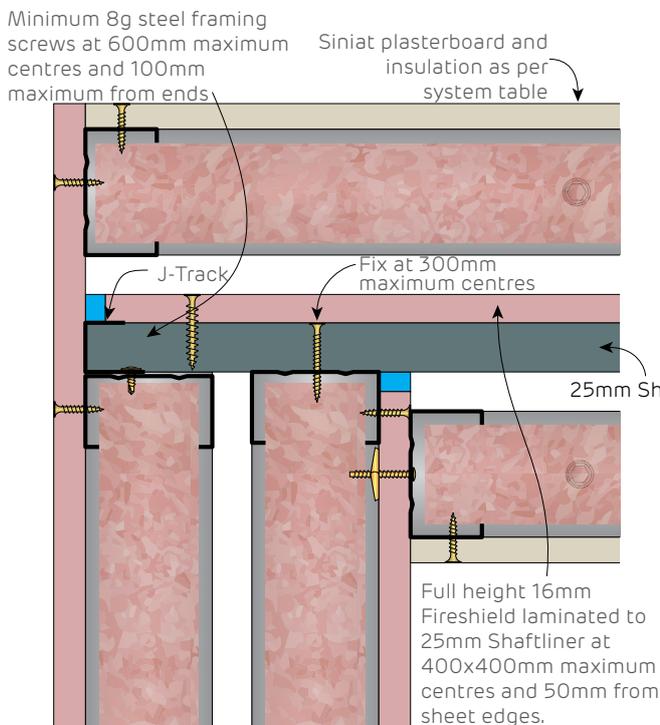


FIGURE 28 Interhome Highrise Wall Connection to Fire Rated Plasterboard Wall
Plan

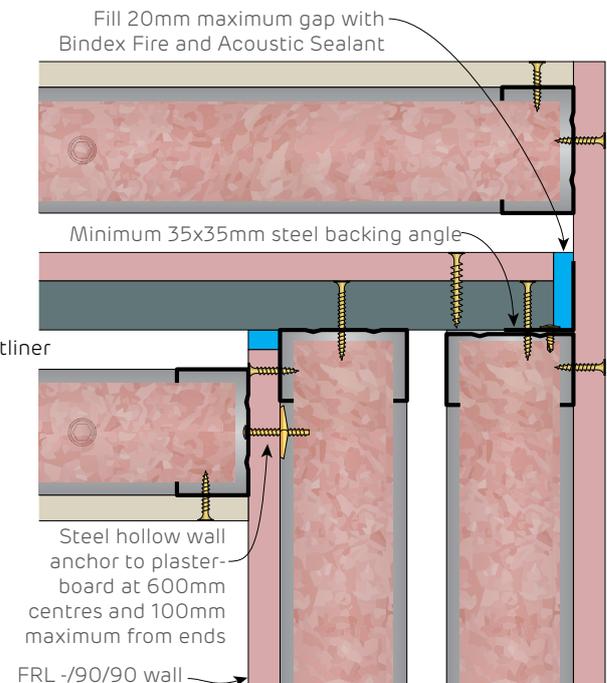


FIGURE 29 Interhome Highrise Wall Connection to Fire Rated Plasterboard Wall
Plan

Fire Rated

Interhome High-Rise Details - FRL -/90/90

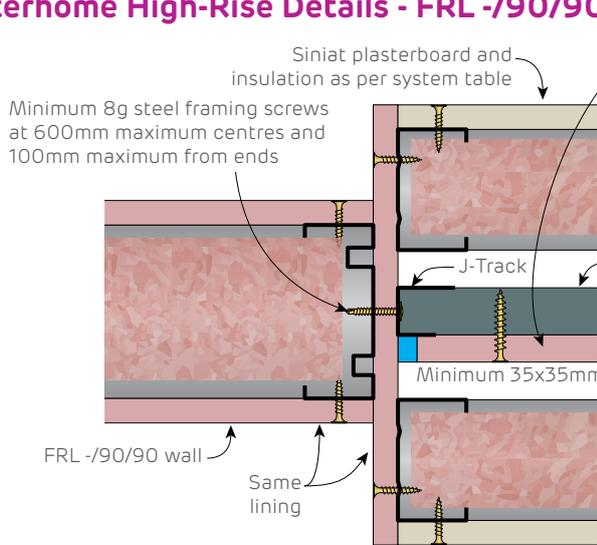


FIGURE 30 Interhome Highrise Wall Transition to Single Stud Fire Rated Plasterboard Wall Plan

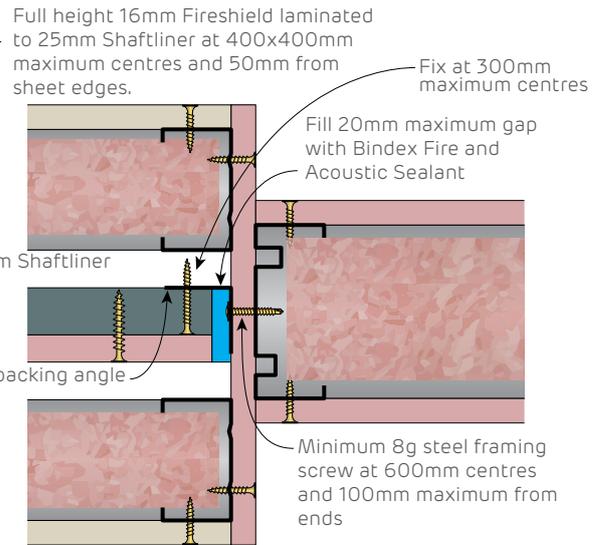


FIGURE 31 Interhome Highrise Wall Transition to Single Stud Fire Rated Plasterboard Wall Plan

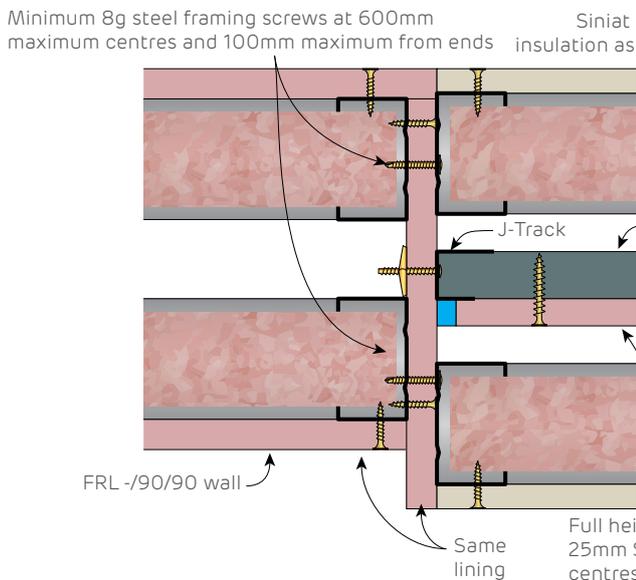


FIGURE 32 Interhome Highrise Wall Transition to Double Stud Fire Rated Plasterboard Wall Plan

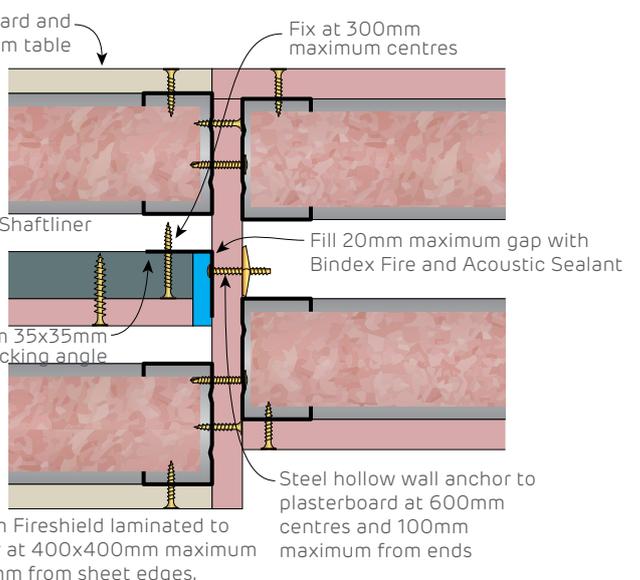


FIGURE 33 Interhome Highrise Wall Transition to Double Stud Fire Rated Plasterboard Wall Plan

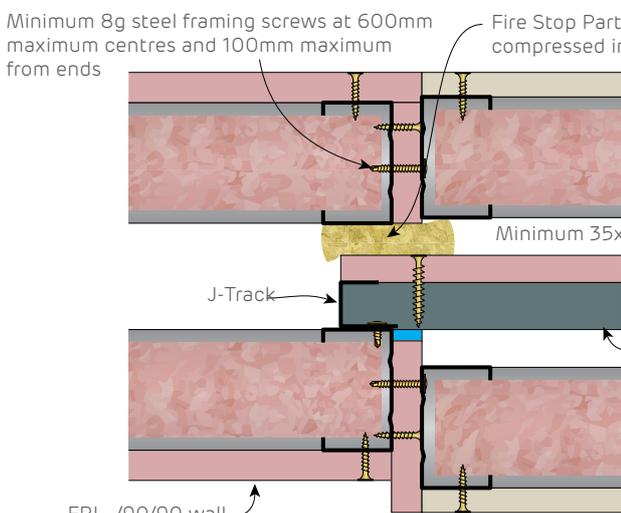


FIGURE 34 Interhome Highrise Wall Transition to Double Stud Fire Rated Plasterboard Wall Plan

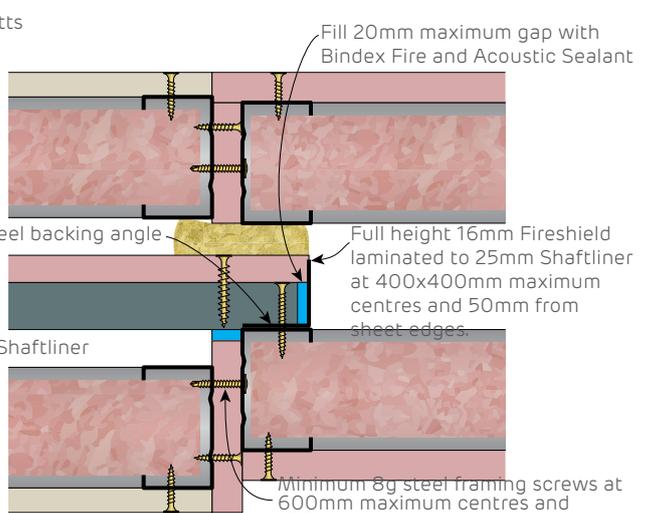


FIGURE 35 Interhome Highrise Wall Transition to Double Stud Fire Rated Plasterboard Wall Plan

Fire Rated
Interhome High-Rise Details - FRL -/90/90

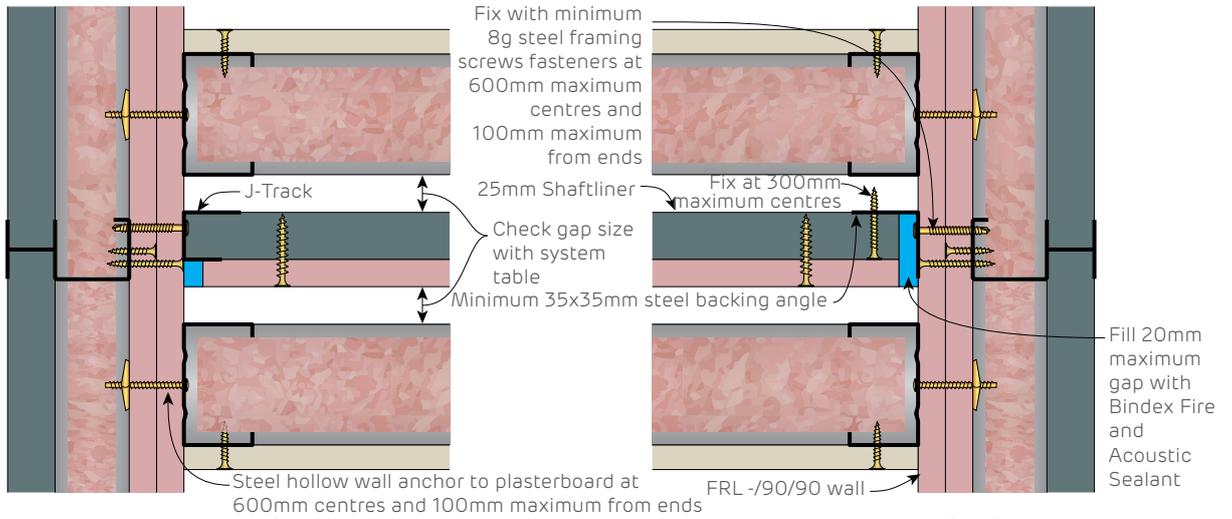


FIGURE 38 Interhome Highrise Wall to Shaft Wall
Plan

FIGURE 39 Interhome Highrise Wall to Shaft Wall
Plan

Low sound flanking resistance for separating walls

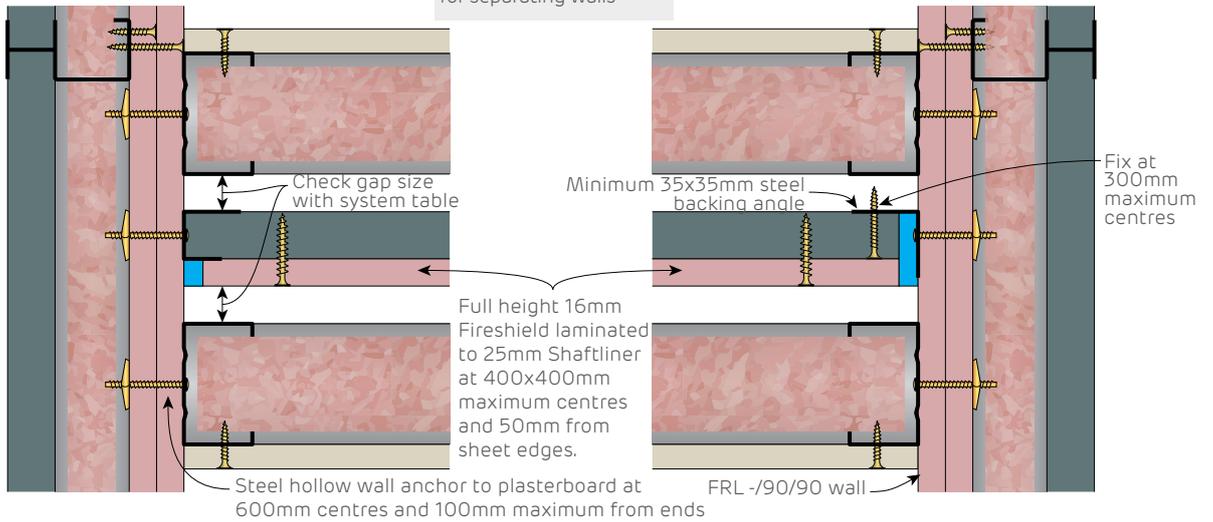


FIGURE 40 Interhome Highrise Wall to Shaft Wall
Plan

FIGURE 41 Interhome Highrise Wall to Shaft Wall
Plan

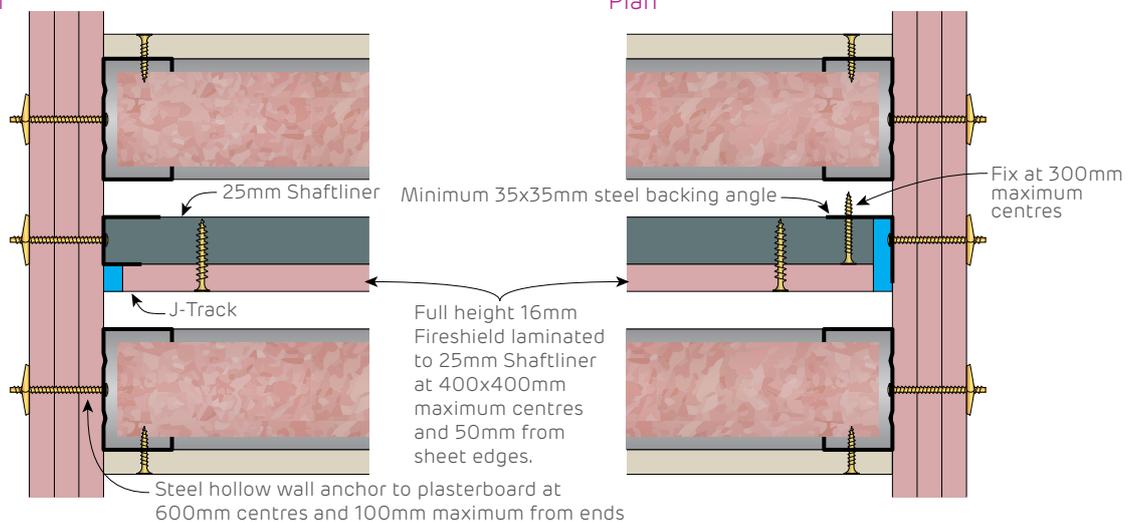


FIGURE 42 Interhome Highrise Wall to Laminated Vertical Duct
Plan

FIGURE 43 Interhome Highrise Wall to Laminated Vertical Duct
Plan



Fire Rated

Interhome High-Rise Details - FRL -/90/90

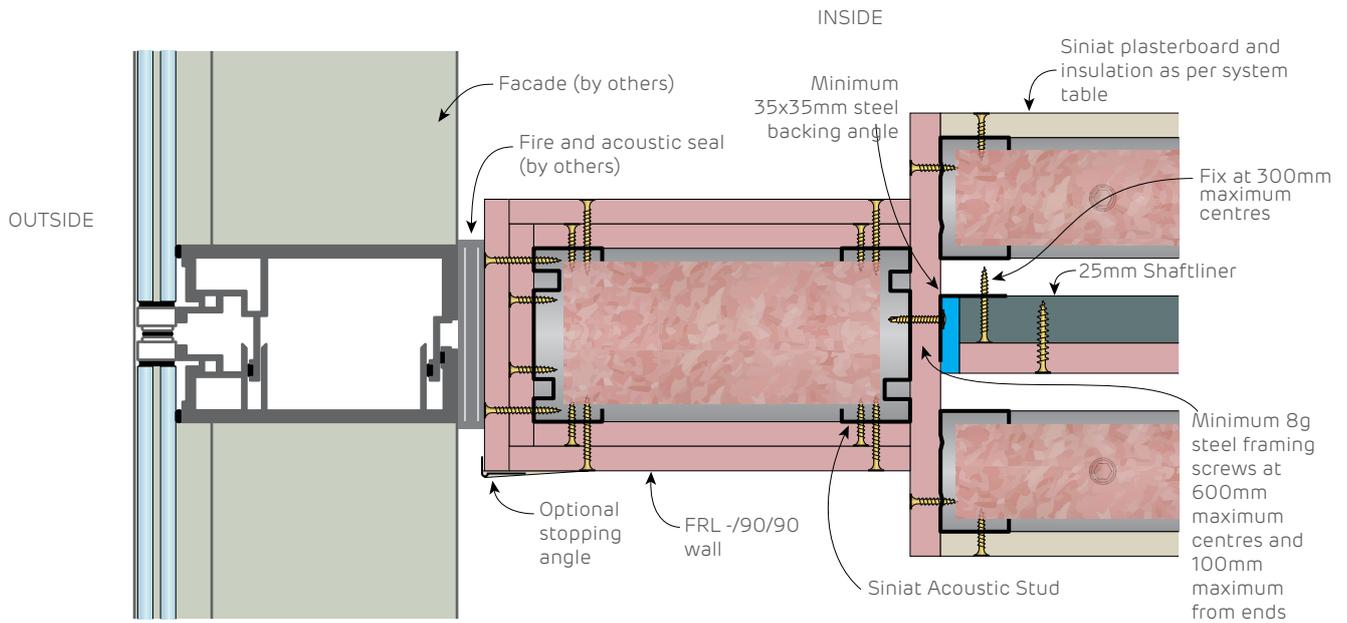


FIGURE 44 Interhome Highrise Wall Transition to Curtain Wall Mullion Plan

Consider project specific requirements before joining internal partition walls to facades

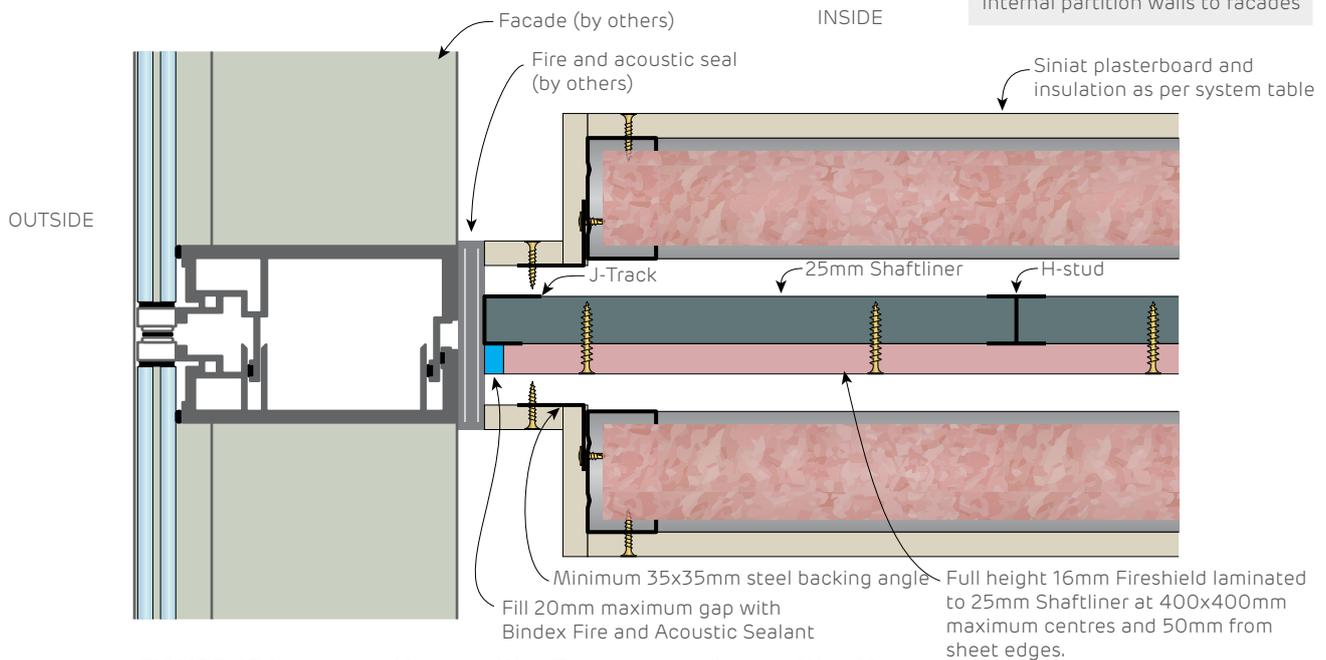


FIGURE 45 Interhome Highrise Wall Transition to Curtain Wall Mullion Plan

Fire Rated

Interhome High-Rise Penetration Details - FRL -/90/90

i Penetrations in wall linings can be back-to-back. Penetrations through the central fire barrier must be in accordance with an approved detail.

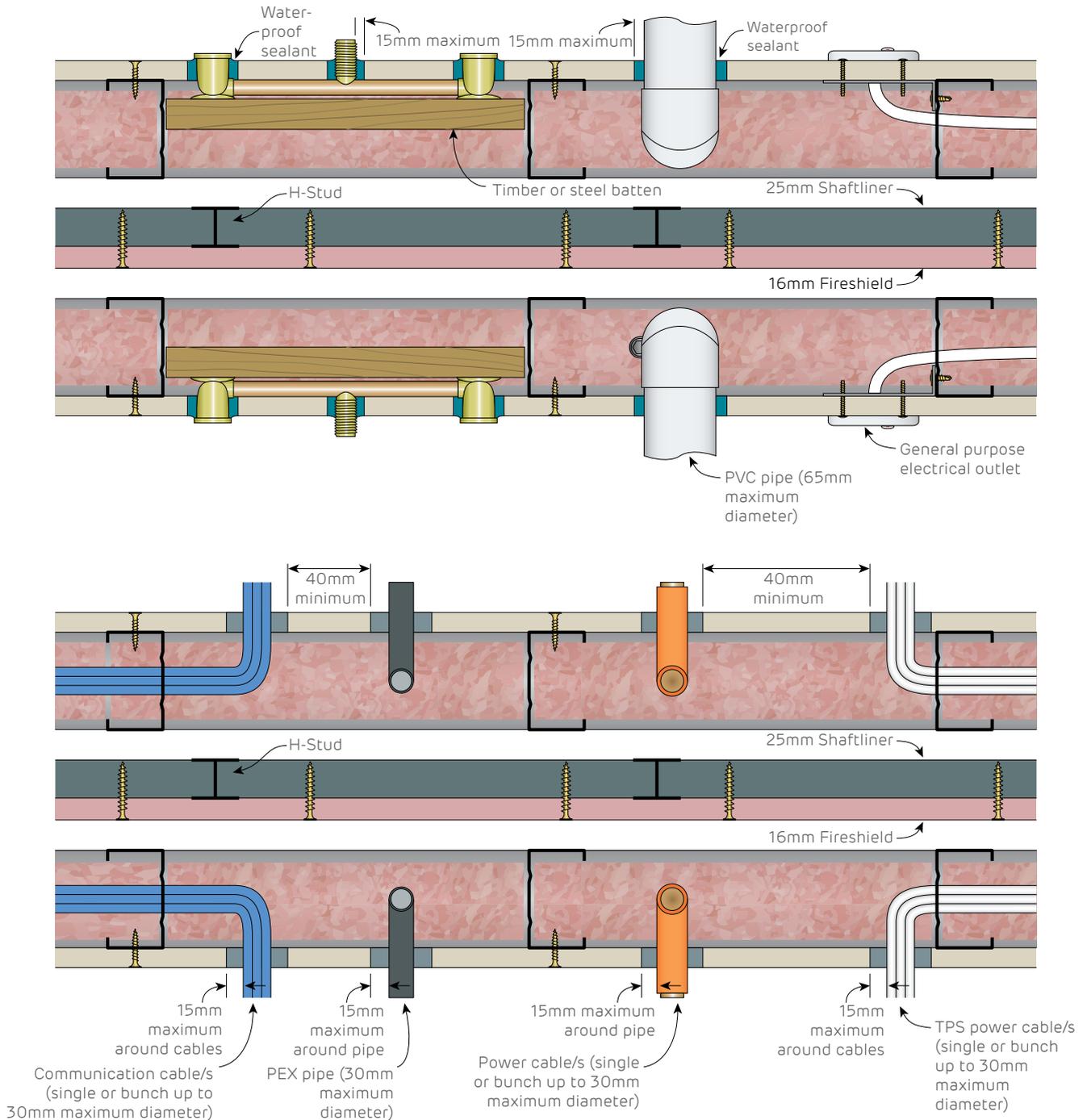
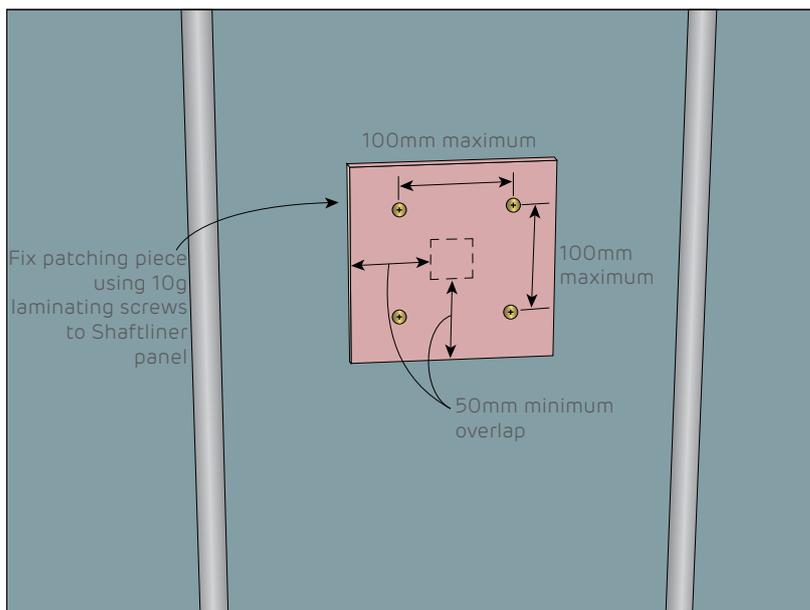
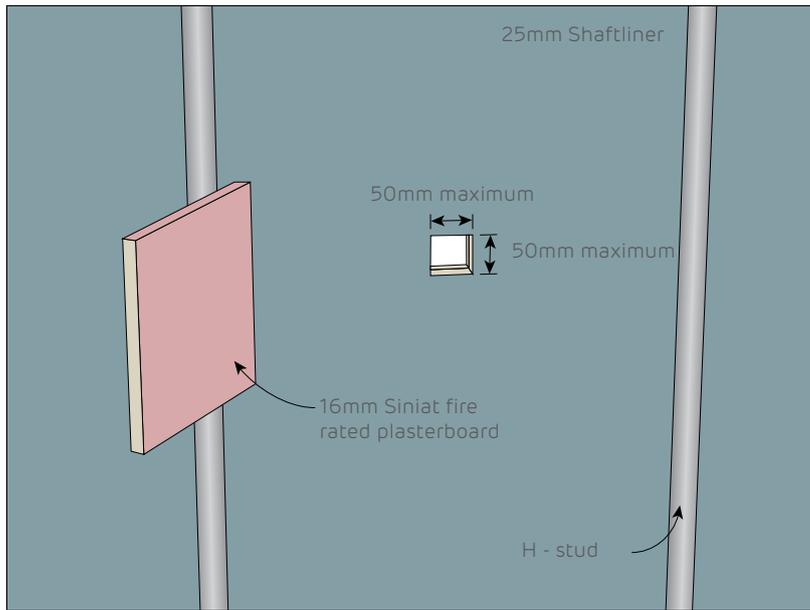


FIGURE 46 Plumbing and Electrical Penetrations in Wall Linings
Plan



**Fire Rated
Patching of Central Fire Barrier - 50 x 50mm maximum opening**



i Fill any gaps with Bindex Fire and Acoustic Sealant to maintain integrity

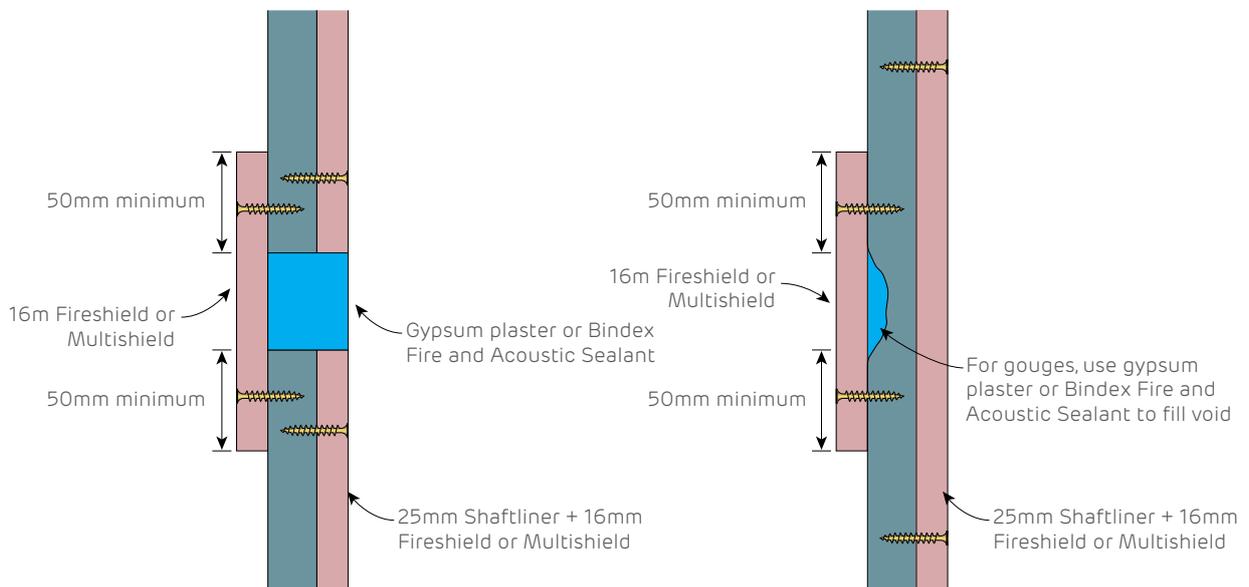
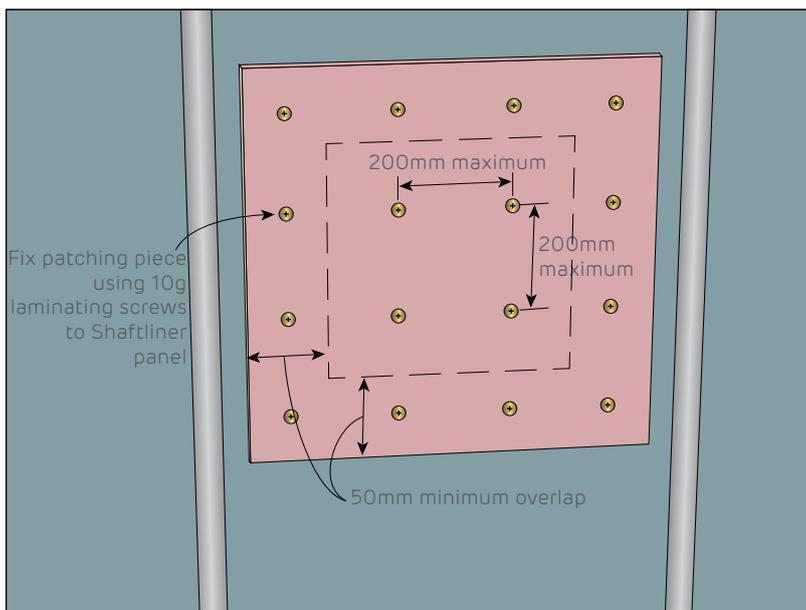
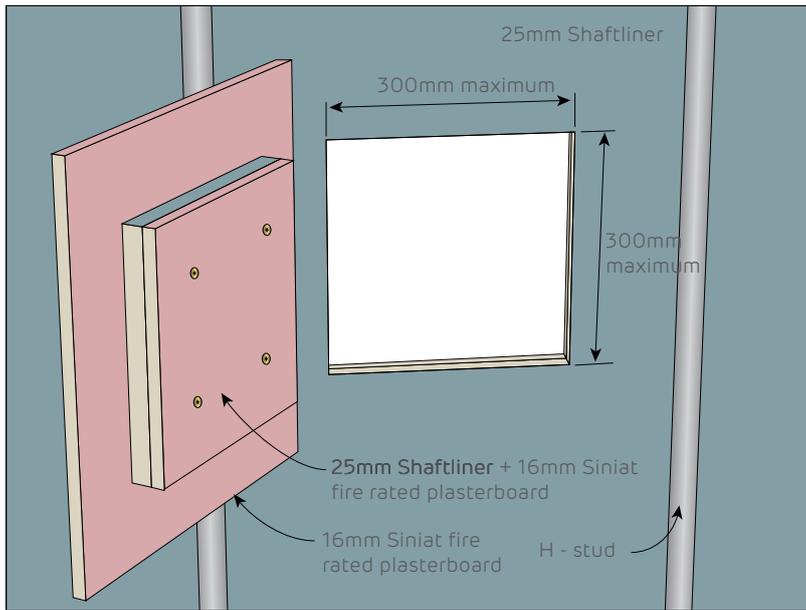


FIGURE 47 Fire Rated Patch for Central Fire Barrier
Section - FRL -/90/90

Fire Rated Patching of Central Fire Barrier - 300 x 300mm maximum opening



 Fill any gaps with Bindex Fire and Acoustic Sealant to maintain integrity

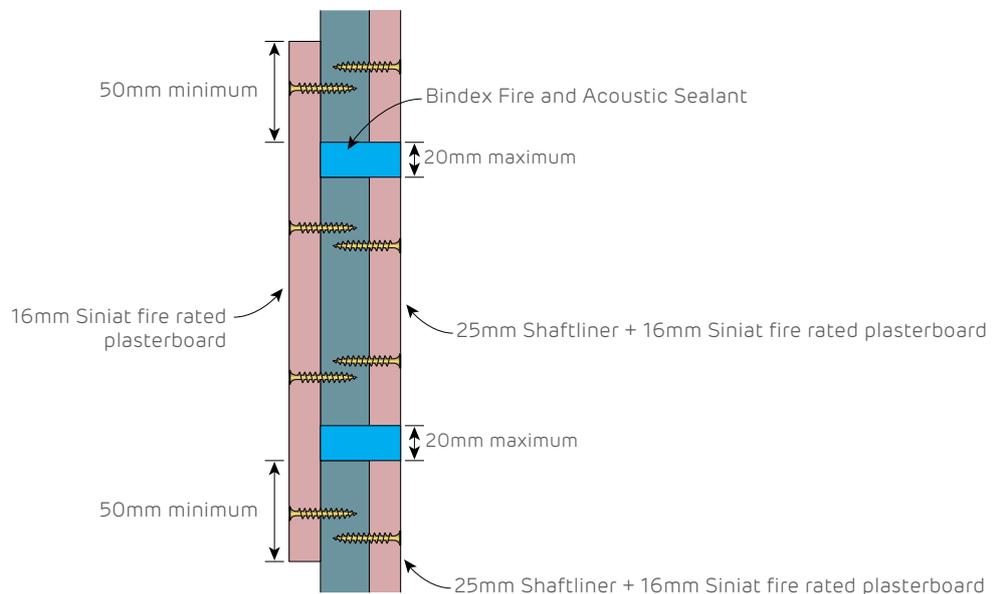


FIGURE 48 Fire Rated Patch for Central Fire Barrier
Section - FRL -/90/90



Fire Rated

Patching of Central Fire Barrier - Crack in Shaftliner

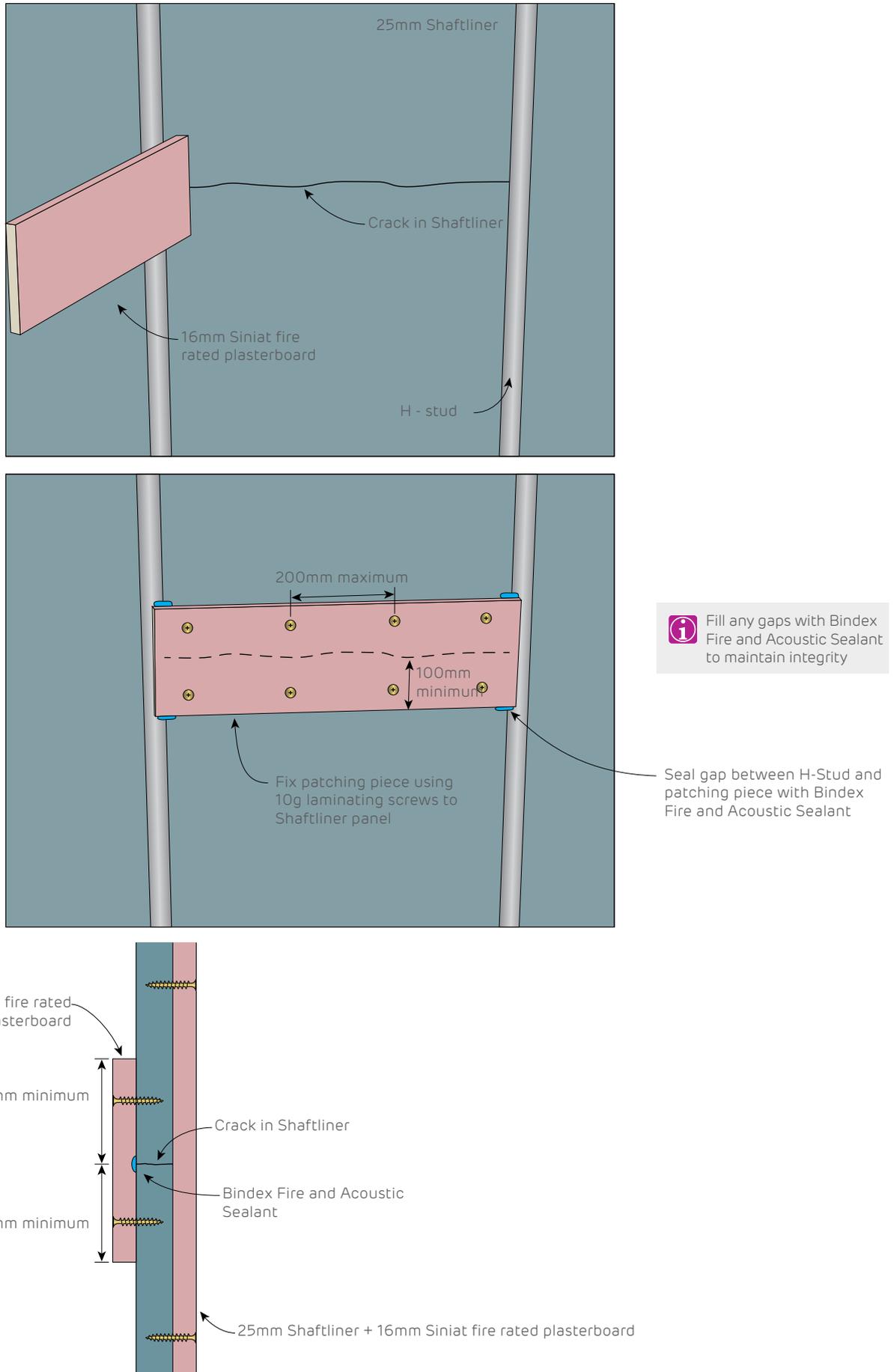


FIGURE 49 Fire Rated Patch for Central Fire Barrier

Section - FRL -/90/90



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