

# drywall manual

**Shaftwall  
section**

version 2.0.0



For ease of download, the Siniat Drywall Manual has been split into separate volumes with their own page numbering.

#### Shaftwall section

This section includes updated information, added since it was first published in December 2018.

#### Revision history

Version	Date of publication
1.0.0	December 2018
1.1.0	March 2023: Technical content updated, rebranded and compiled as a separate section
2.0.0	April 2024: Technically reviewed and updated. New system naming and revised performances to provide EN classification. Added A1 Shaftwall systems as separate section

Please check that this is the current version by visiting the [Siniat website](#). For archived versions please [contact Technical Services](#).

# shaftwall systems

Siniat Shaftwall range uses a specially designed system to protect voids and shafts in buildings. It enables installation from one side of the shaft only.

Version: 2.0.0  
Published: April 2024

The A1 Shaftwall systems uses non-combustible (Euroclass A1) boards to provide an option where this is required.

## System performance tables

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# the right route to compliance

Siniat are committed to using the latest standards to reduce the level of risk in construction and meet increasingly stringent regulations. This approach helps ensure that drywall remains one of the safest parts of a building specification, offering 'built-in' fire resistance and reducing project risk.

The most recent changes to Approved Document B asks for testing to EN fire standards; that the results are only extended using appropriate EN standards, by qualified third parties; and that all fire resistance performances are 3rd Party classified using the official EN classification standard, EN 13501-2.

### How do Siniat fire test shaftwalls?

A 3rd party UKAS Accredited notified laboratory conducts the test to the EN 1364-1 standard 'Fire resistance tests for non-loadbearing elements – Walls'

### How is a fire test extended?

By extending a fire test following strict EN standards, a single test can be used to substantiate many variations of the specific build-up.

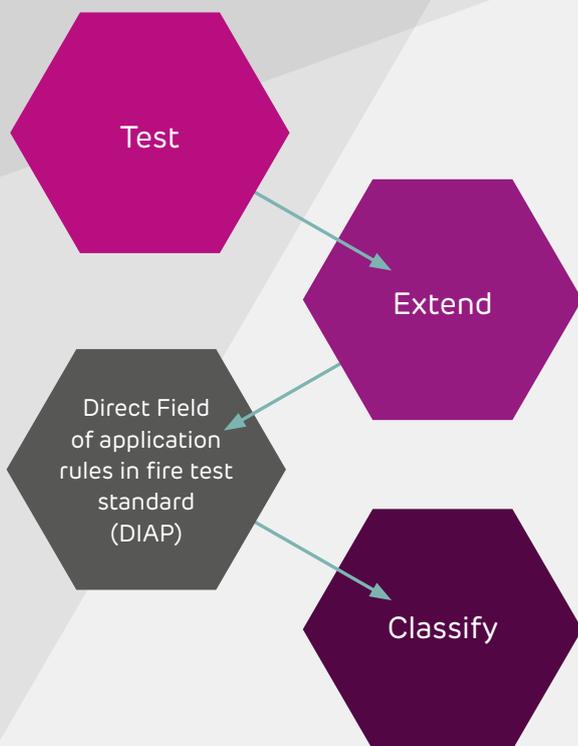
Fire resistance performance can be extended via Direct Field of Application (DIAP) rules included in the fire test standard EN 1364-1.

As there is no EXAP standard covering shaftwall systems at this time, we default to using the DIAP rules defined in EN 1364-1.

### How is a shaftwall system classified?

Approved Document B asks that fire resistance of building elements should be classified in accordance with EN 13501-2. All of our shaftwall systems have an accompanying 3rd party classification report to this standard. It will contain:

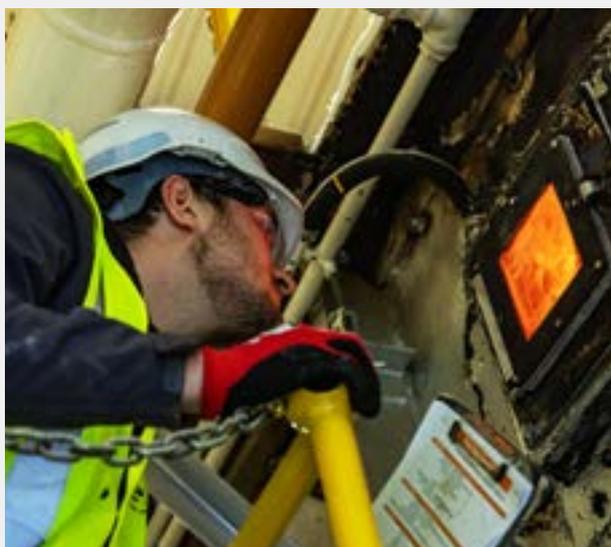
- ▶ Details of test build-up
- ▶ Test results
- ▶ Fire classification
- ▶ System extensions allowed



### Shift from BS to EN

Siniat have been testing to EN standards for many years – it is the most up to date testing approach and is now the default standard in Approved Document B. EN 1363/4 test methods are slightly more onerous than BS 476 due to differing temperature measurement methods, but the most significant difference between EN and BS standards is the treatment of fire-state height.

In EN methods the results do not necessarily apply above the typical 3m furnace size unless certain conditions are met. EN Fire state height was not considered in BS 476 and therefore has not traditionally formed part of the specification requirements of most UK construction. However, compliance with EN standards, as laid out by Approved Document B, means that Fire State height must be considered. This can slightly alter the system make-ups for taller walls, and places overall limits on height.



### Maximum Heights

There are two types of maximum heights for a shaftwall.

- ▶ Cold state: Maximum height without a fire resistance classification.
- ▶ Fire state: Maximum height to achieve a specific fire resistance classification.

### What is EN fire state height?

The EN fire state heights stated in this manual are Approved Document B and EN Compliant. These values are the lower of the two states, fire and cold state.

The fire state height is derived from extension rules in EN 1364-1 (DIAP).

The cold state height is calculated using structural engineering methods to L/240 limits @ 200Pa or 0.2kN/m<sup>2</sup>. Varying pressures inside shafts may affect maximum cold state heights. Contact Siniat for further details.

By agreement between the project’s client, designers and appointed building control body it may be possible to design based only on mechanical ‘cold state’ maximum height.



All Siniat shaftwall systems have been classified to EN 13501-2.

# performance tables

## introduction

### Each system displayed includes:

- ▶ Build-up
- ▶ Fire performance to EN
- ▶ Acoustic performance
- ▶ Max heights (Cold and EN Fire State)
- ▶ Duty Rating (to BS 5243-2)
- ▶ System weight
- ▶ Nominal thickness.

### Reading system codes

Each system displayed has a unique identification code, which spells out the build-up:

### Framing—Boarding—Insulation Examples

#### Shaftwall

##### CH60B-19FC#212F-25G

- Siniat CHS1960/B CH Stud
- 19mm Siniat Fire Core Board to shaft side
- 2 x 12.5mm Siniat Fire Board on non-shaft side
- 25mm Glass mineral wool

#### A1 Shaftwall

##### CH90B-19WD#312WD

- Siniat CHS1990/B CH Stud
- 19mm Siniat Weather Defence™ Board
- 3 x 12.5mm Siniat Weather Defence™ Board

### Performance notes

- ▶ 'EN Fire state Height' is the highest permissible 'fire-state' height calculated according to the following EN standards and clauses, as required to comply with Approved Document B, and where these heights are no greater than the 'cold state' mechanical height. The fire state height is derived from extension rules in EN 1364-1 (DIAP).
- ▶ Insulation shown may be replaced with thicker and/or heavier quilt material without impairing the quoted performances (may also be replaced with stone mineral wool if required).
- ▶ Adding insulation to an uninsulated system, or removing it from an insulated system, may impair quoted performances.
- ▶ Performance values are for imperforate, jointed systems using Siniat components (metal studs and tracks, boards, metal accessories, screws and finishing systems) and specified insulation quilt material (type and thickness) and installed to Siniat specification and installation guides. Any alterations may impair the quoted performance.
- ▶ All maximum cold state shaftwall heights are calculated with a uniform lateral pressure of 200Pa or 0.2kN/m<sup>2</sup>, the quoted height reflects the maximum deflection of height/240 at mid-height.
- ▶ It may be possible to increase cold state heights from those quoted in the system tables where reduced deflection limits or pressure criteria are acceptable.



System performance tables

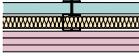
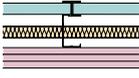
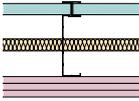
Siniat shaftwall systems

Buildup				Performance			
Boarding Inner Outer	Frame based on 600mm centres Type Stud	Insulation (Glass mineral wool)  (mm)	Acoustic Rw  (dB)	Fire perf. EN 1364-1 & EN 13501-2  (mins)	Max height Cold state EN Fire state* Duty rating (m)	Other Nominal thickness System weight  (mm) (kg/m <sup>2</sup> )	
<b>CH60B-19FC#212F</b>							
Side A 1 x 19mm Siniat Fire Core Board Side B 2 x 12.5mm Siniat Fire Board	Single CHS1960/B	—	43	EI60	4.8 3.0 Severe	85 39	
<b>CH60B-19FC#212F-25G</b>							
Side A 1 x 19mm Siniat Fire Core Board Side B 2 x 12.5mm Siniat Fire Board	Single CHS1960/B	25	46	EI60	4.8 3.0 Severe	85 40	
<b>CH90B-19FC#212F</b>							
Side A 1 x 19mm Siniat Fire Core Board Side B 2 x 12.5mm Siniat Fire Board	Single CHS1990/B	—	45	EI60	5.3 4.0 Severe	115 40	
<b>CH90B-19FC#212F-25G</b>							
Side A 1 x 19mm Siniat Fire Core Board Side B 2 x 12.5mm Siniat Fire Board	Single CHS1990/B	25	48	EI60	5.3 4.0 Severe	115 41	
<b>CH14B-19FC#212F</b>							
Side A 1 x 19mm Siniat Fire Core Board Side B 2 x 12.5mm Siniat Fire Board	Single CHS19146/B	—	47	EI60	6.7 4.0 Severe	171 41	
<b>CH14B-19FC#212F-25G</b>							
Side A 1 x 19mm Siniat Fire Core Board Side B 2 x 12.5mm Siniat Fire Board	Single CHS19146/B	25	49	EI60	6.7 4.0 Severe	171 42	

\*Use EN Fire state height unless otherwise specified. See page 5 for notes on alterations to shaftwall configuration.



## Siniat shaftwall systems continued

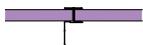
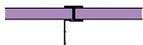
Buildup				Performance			
Boarding Inner Outer	Frame based on 600mm centres Type Stud	Insulation (Glass mineral wool)  (mm)	Acoustic Rw  (dB)	Fire perf. EN 1364-1 & EN 13501-2  (mins)	Max height Cold state EN Fire state* Duty rating (m)	Other Nominal thickness System weight (mm) (kg/m <sup>2</sup> )	
<b>CH60B-19FC#315F-25G</b>							
	<b>Side A</b> 1 x 19mm Siniat Fire Core Board <b>Side B</b> 3 x 15mm Siniat Fire Board	Single CHS1960/B	25	49	 E120	4.8 <b>4.8</b> Severe	105 56
<b>CH90B-19FC#315F-25G</b>							
	<b>Side A</b> 1 x 19mm Siniat Fire Core Board <b>Side B</b> 3 x 15mm Siniat Fire Board	Single CHS1990/B	25	51	 E120	5.3 <b>4.8</b> Severe	135 57
<b>CH14B-19FC#315F-25G</b>							
	<b>Side A</b> 1 x 19mm Siniat Fire Core Board <b>Side B</b> 3 x 15mm Siniat Fire Board	Single CHS19146/B	25	52	 E120	6.7 <b>4.8</b> Severe	191 58

\*Use EN Fire state height unless otherwise specified. See [page 5](#) for notes on alterations to shaftwall configuration.



System performance tables

Siniat A1 shaftwall systems

Buildup				Performance			
Boarding Inner Outer	Frame based on 600mm centres Type Stud	Insulation (Glass mineral wool)  (mm)	Acoustic Rw  (dB)	Fire perf. EN 1364-1 & EN 13501-2  (mins)	Max height Cold state EN Fire state* Duty rating (m)	Other Nominal thickness System weight  (mm) (kg/m <sup>2</sup> )	
<b>CH90B-19WD#312WD</b>							
 <b>Side A</b> 1 x 19mm Siniat Weather Defence™	Single CHS1990/B		50	 E1120	5.3 4.0 Severe	127.5 53	
 <b>Side B</b> 3 x 12.5mm Siniat Weather Defence™							
<b>CH14B-19WD#312WD</b>							
 <b>Side A</b> 1 x 19mm Siniat Weather Defence™	Single CHS19146/B		51	 E1120	6.7 4.0 Severe	183.5 54	
 <b>Side B</b> 3 x 12.5mm Siniat Weather Defence™							

shaftwall

Siniat A1 Shaftwall systems comprise A1 framing and board components. According to EN 13501-1, Euroclass A1 is the highest performing class for reaction to fire testing. A1 indicates that at no stage of the fire, even in a fully developed fire, does the material promote the spread of the fire nor does it increase the fire load.

\*Use EN Fire state height unless otherwise specified. See [page 5](#) for notes on alterations to shaftwall configuration.

## System guidance

# Siniat shaftwall systems

Siniat Shaftwall Systems are EN classified for fire resistance up to 120 minutes. They protect shafts and voids in multi-storey buildings, preventing continuous routes for the spread of fire. Asymmetric assembly enables rapid installation from one side of the shaft – ideal in tight spaces.

The frame features friction fit channels to receive Siniat Fire Core Board and a fixing flange for the installation of Siniat Fire Board ready to finish on the room side.

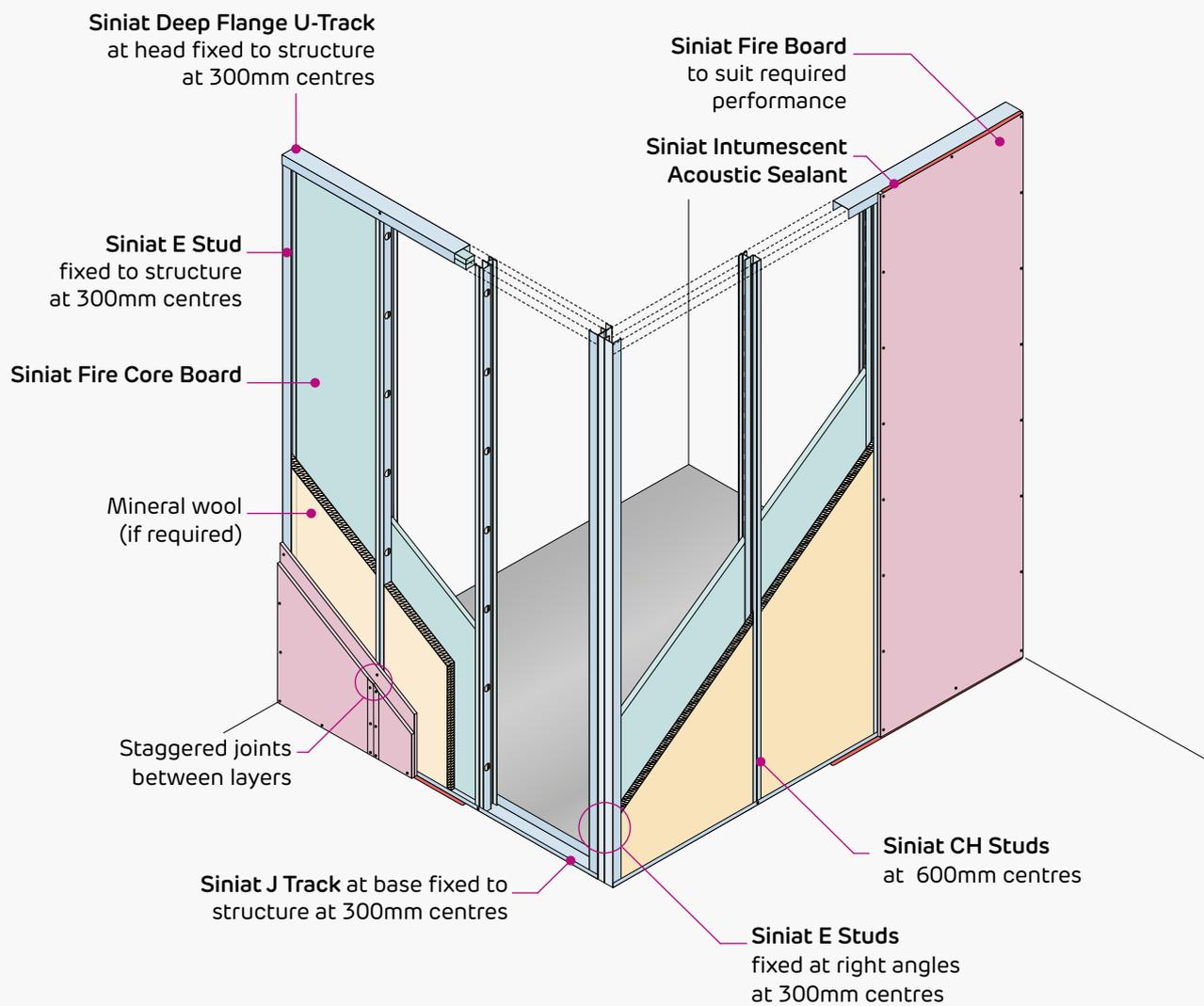


For a system using A1 non-combustible boards please see [page 8](#).

## Where to use:

- ▶ The system is used in commercial multi-storey construction to ensure fire compartmentation of shafts.

Features	Benefits
System designed to be erected from one side only	No scaffolding required
Offers fire resistance from both directions	Provides up to 120 minutes fire performance
Lightweight friction fit framing system	Fast to install with lower material costs
Specialised components designed as a system	Reliable and easy to specify



## System components

### boards



#### Siniat Fire Core Board

High strength fire and moisture resistant board for use in shaftwall.

See performance tables, [page 6 to 7](#)



#### Siniat Fire Board

A fire resistant plasterboard.

See performance tables, [page 6 to 7](#).

### frame



#### Siniat CH Stud

Metal profile for vertical frame elements.

CHS1960/B, CHS1990/B, CHS19146/B



#### Siniat E Stud

Metal profile used for vertical frame element at junctions and end studs.

ES1960/B, ES1990/B, ES19146/B



#### Siniat J Track

Metal profile used for base channel.

JT62/B, JT92/B, JT148/B



#### Siniat U Track Deep Flange

Deep flange metal profile for deflection heads.

UDT62/B, UDT92/B, UDT148/B



#### Siniat U Track Extra Deep Flange

Extra deep flange metal profile for deflection heads.

UXT92/W, UXT148/W



#### Siniat Metal Angle

Multi-purpose galvanised metal section.

MFC2525, MFC2550, MFC2330



#### Siniat Flat Strap

Provides support for plasterboard joints and fixtures.

FS50/RX, FS90/W

## fix



**Siniat Drywall Screws (as appropriate)**  
For connecting plasterboard and metal components.

See [annex d: screw selection guide](#)

## insulation



**Glass Mineral Wool Insulation**  
To improve acoustic performance

## finishing



**Siniat Corner and Edge beads**  
Corner and edge reinforcement.



**Siniat Joint Tape**  
Joint reinforcement in conjunction with Siniat Jointing Compounds.



**Siniat Intumescent Acoustic Sealant**  
Perimeter sealing to restrict smoke, sound and fire penetration to achieve quoted performances.



**Siniat Compounds**  
To finish joints between boards and bed corner beads prior to decorating. Ensures system performance.

See [annex b: product reference](#)

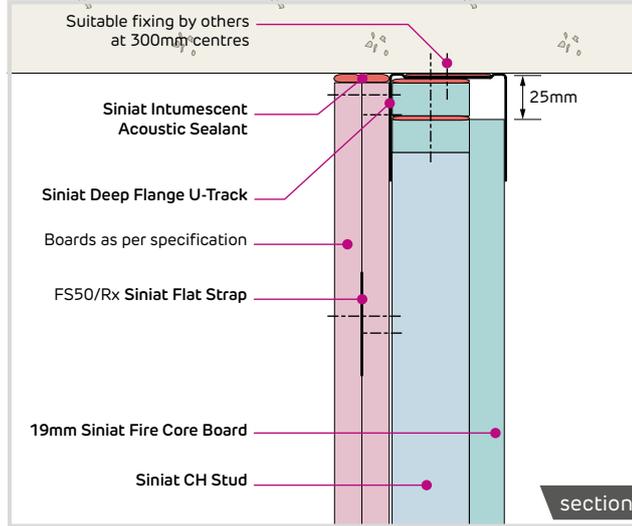


**Siniat Sealer**  
To seal plasterboard prior to decoration.

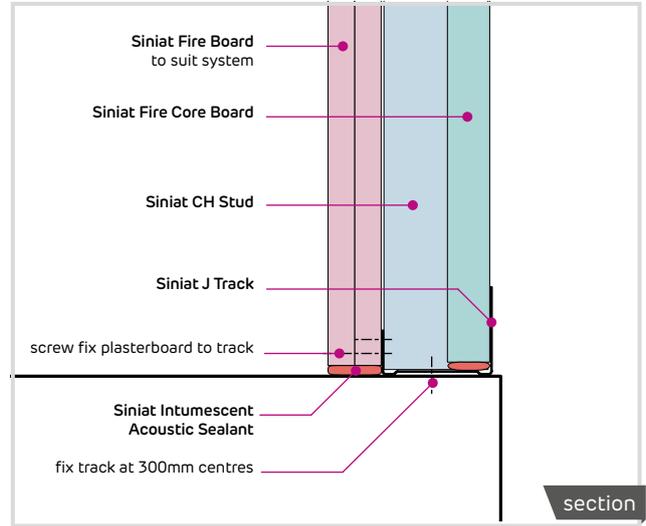
# System guidance

## Frame and shaft side boarding

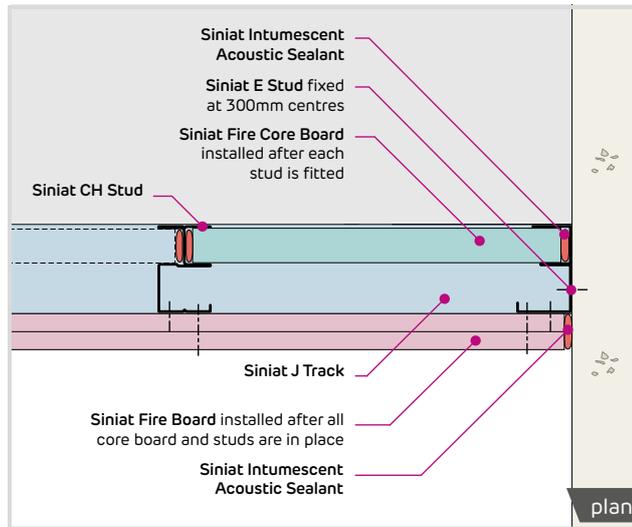
FP-SH-101S-Head



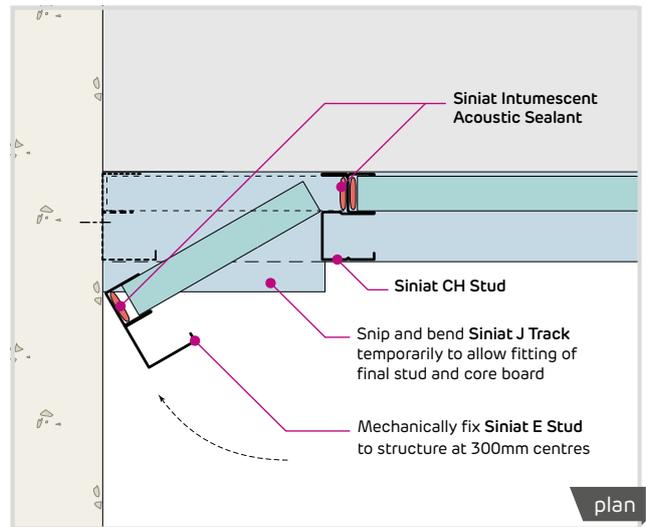
FP-SH-102S-Base



FP-SH-201P-Partition assembly – start



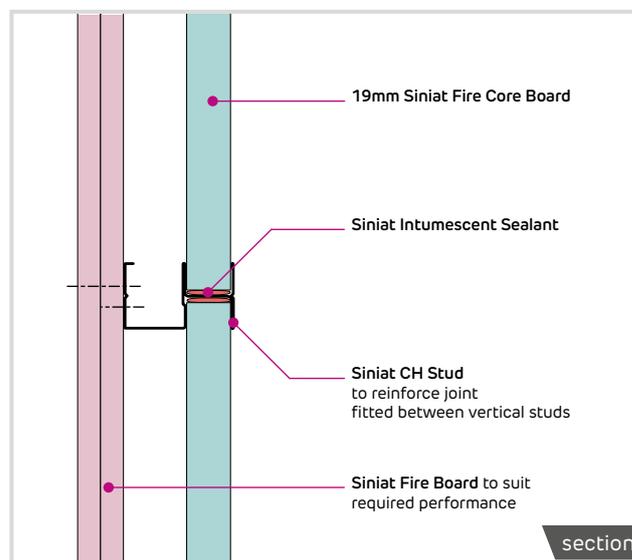
FP-SH-202P-Partition assembly – end



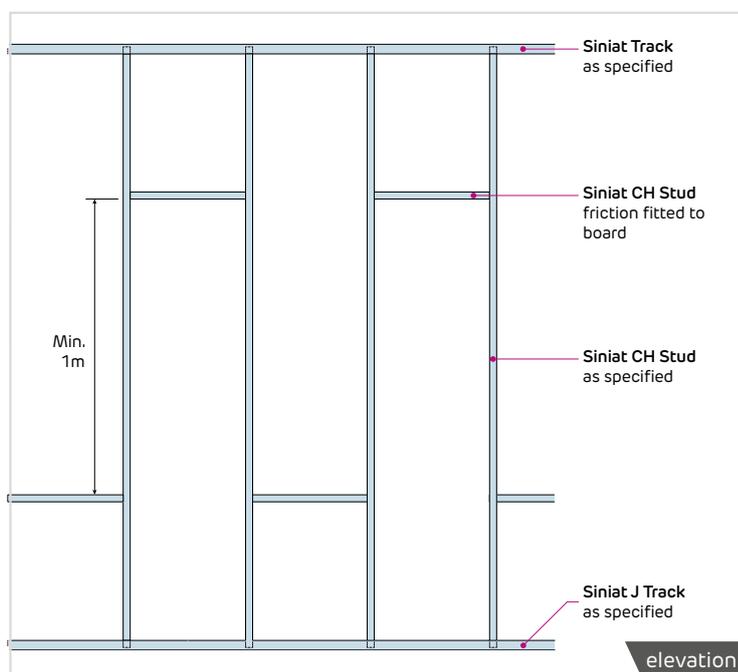
### Frame and shaft side boarding continued

- ▶ Select compatible size (e.g. 90mm stud and 92mm track) Siniat CH Stud, Siniat E Stud and Siniat Track framing elements to suit system performance.
- ▶ A bead of Siniat Intumescent Acoustic Sealant to be applied at junction of all metal framing with structure, and at all other locations specified in drawings.
- ▶ Siniat J Track at base and Siniat Deep Flange U-Track at head to be fixed flat to structure, long leg of track to shaft side, using appropriate fixings at maximum 300mm centres.
- ▶ First Siniat E Stud to be fixed abutting structure using appropriate fixings at maximum 300mm centres. Stud to be fixed to head and base track with appropriate Siniat Drywall Screws ([annex d: screw selection guide](#)). Final Siniat E Stud to be installed with final Siniat Fire Core Board.
- ▶ Protect base track from moisture with damp proof membrane when situated on newly laid concrete floors.
- ▶ Siniat Fire Core Board to be 25mm short of floor to soffit height.
- ▶ Siniat Fire Core Board to be installed before intermediate stud with construction proceeding progressively, alternating in sequence between board and Siniat CH Stud.
- ▶ All Siniat CH Studs to be 25mm shorter than floor to soffit height except in case of deflection requirement. Each Siniat CH Stud to be firmly fitted to board and friction fitted into track.

FP-SH-204S-Overheight shaftwall reinforcement



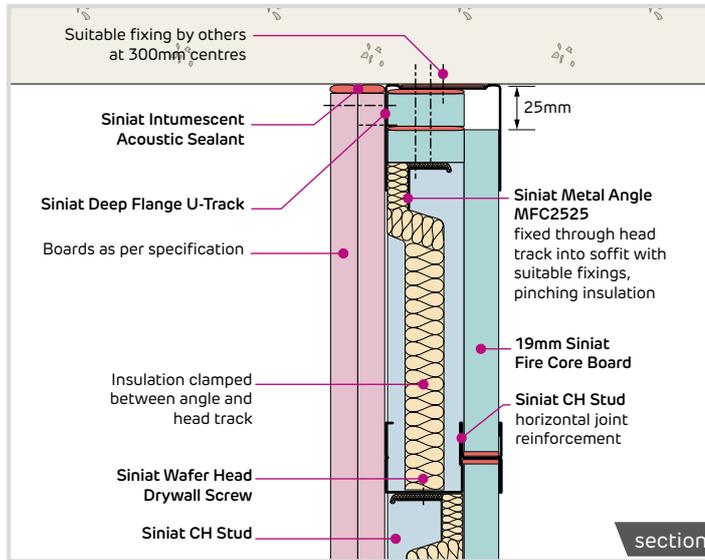
FP-SH-205S-Core board horizontal joint support



- ▶ Where partition exceeds Siniat Fire Core Board length, horizontal joints are permitted using a CH-Stud noggings.
- ▶ Stagger horizontal noggings on adjacent bays by a minimum of one metre.

## Insulation

### PT-CS-151M-Insulation fixing method



- ▶ Insulation, if required, to be of type and thickness to achieve acoustic performance and installed in a continuous layer between frames or studs.
- ▶ Insulation to be clamped between Siniat Metal Angle fixed through to soffit/intermediate nogging with a minimum of two fixings per stud bay.

## General boarding

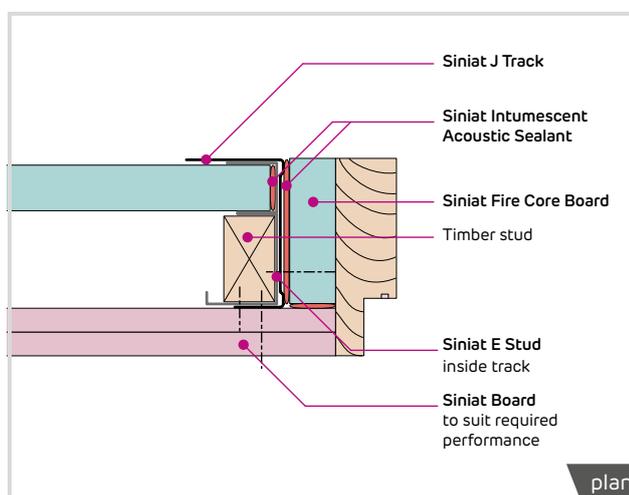
- ▶ Siniat Fire Core Board to be used as shaft side boarding.
- ▶ Siniat Fire Board to be used as room side boarding.
- ▶ Room side boarding to be fixed at 600mm on inner layers and 300mm on outer layer using appropriate Siniat Drywall Screw ([see annex d: screw selection guide](#)).
- ▶ Board edges to be centred over studs.
- ▶ Stagger all board joints between layers and stagger screws by 100mm compared to adjacent layers.

### Over-height multiple layer boarding:

- ▶ Where shaftwall height exceeds board height for double or multiple layer boarding fix outer layer room side boards to continuous band of Siniat Flat Strap FS50/RX behind all horizontal joints.

## Openings

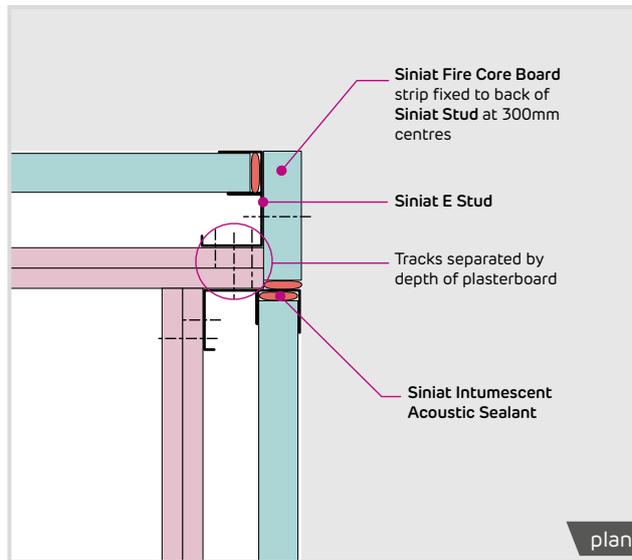
### FP-SH-401P-60kg Door Jamb



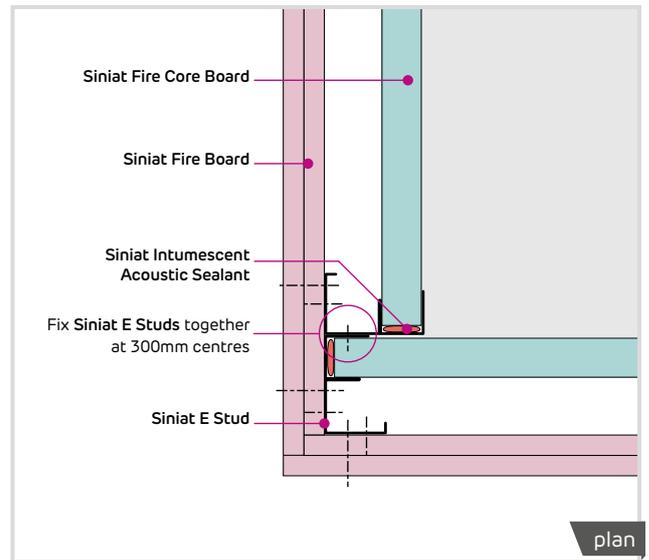
- ▶ Form openings following guidance in Construction Detail Drawings to suit duct penetration or door configuration.
- ▶ For doors, reinforce head-to-jamb junction down each jamb stud by cutting and folding head track, continue track down full length of jamb and reinforce with timber as described in Construction Detail Drawings.
- ▶ Jamb studs to be configured to ensure continuity of Siniat Fire Core Board to inside of opening.
- ▶ Jamb studs to be fixed to track with appropriate Siniat Drywall Screws ([see annex d: screw selection guide](#)).

## Corners and junctions

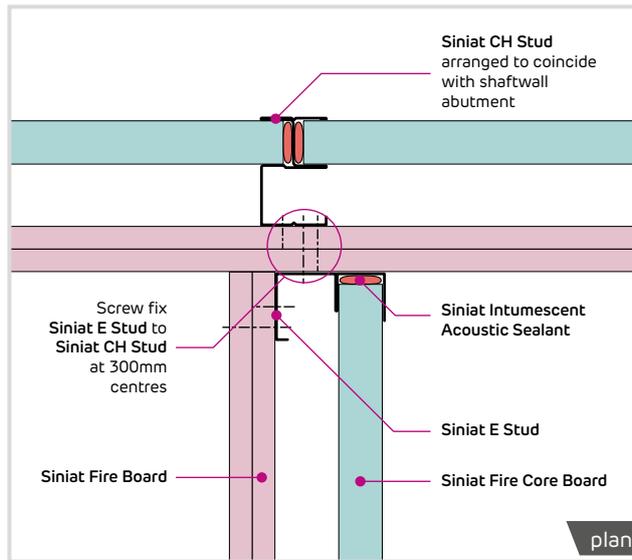
FP-SH-501P-Internal corner



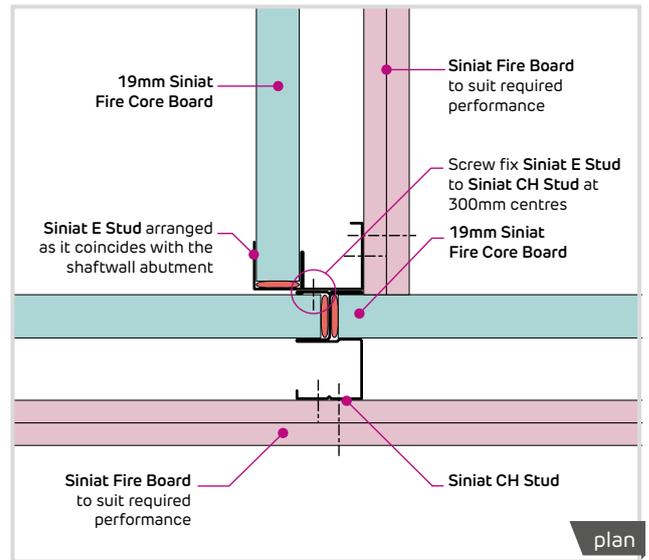
FP-SH-502P-External corner



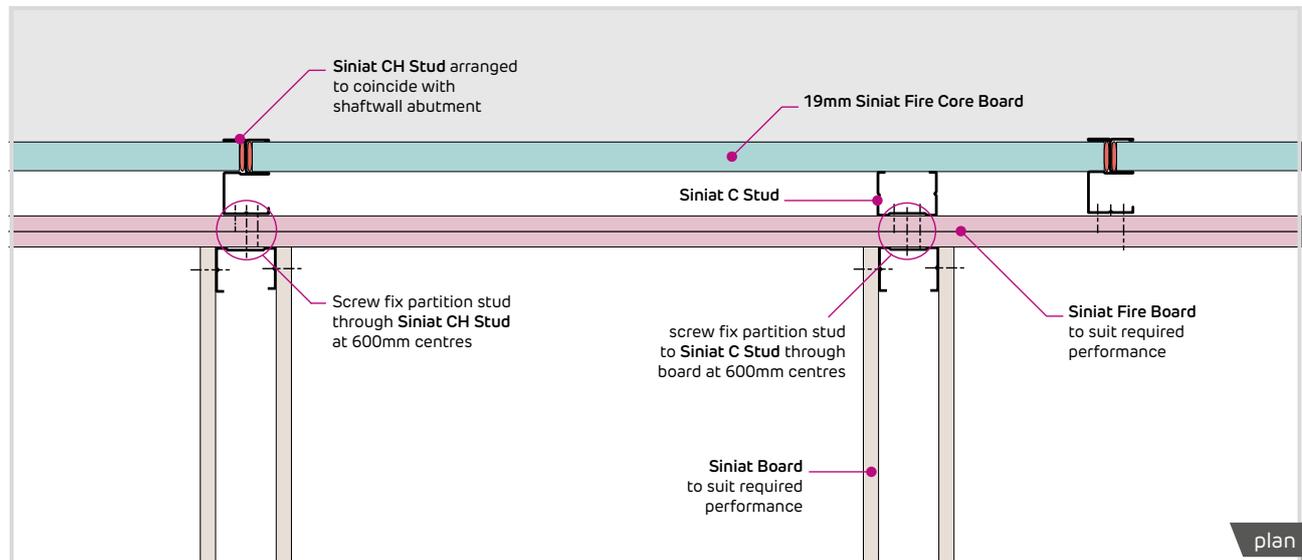
FP-SH-503P-T-junction – room side



FP-SH-504P-T-junction – shaftside



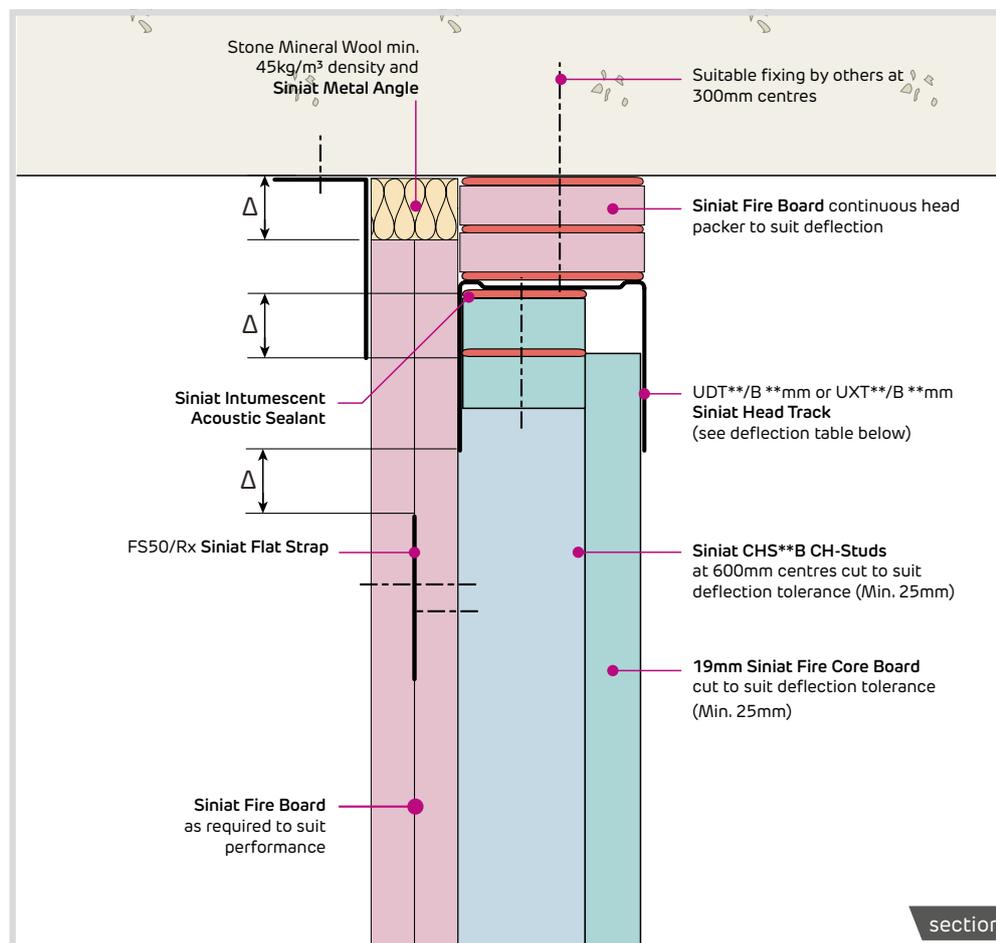
FP-SH-505P - Junction of partition to shaftwall option 1 and 2



- ▶ Abutting partitions to coincide with Shaftwall stud, or C Stud in the shaftwall cavity.
- ▶ Connect studs through plasterboards at corners and junctions.
- ▶ Ensure continuity of Siniat Fire Core Board at corners.
- ▶ See Construction Details Drawings for further guidance on arrangement and fixing.

### Shaftwall deflection head

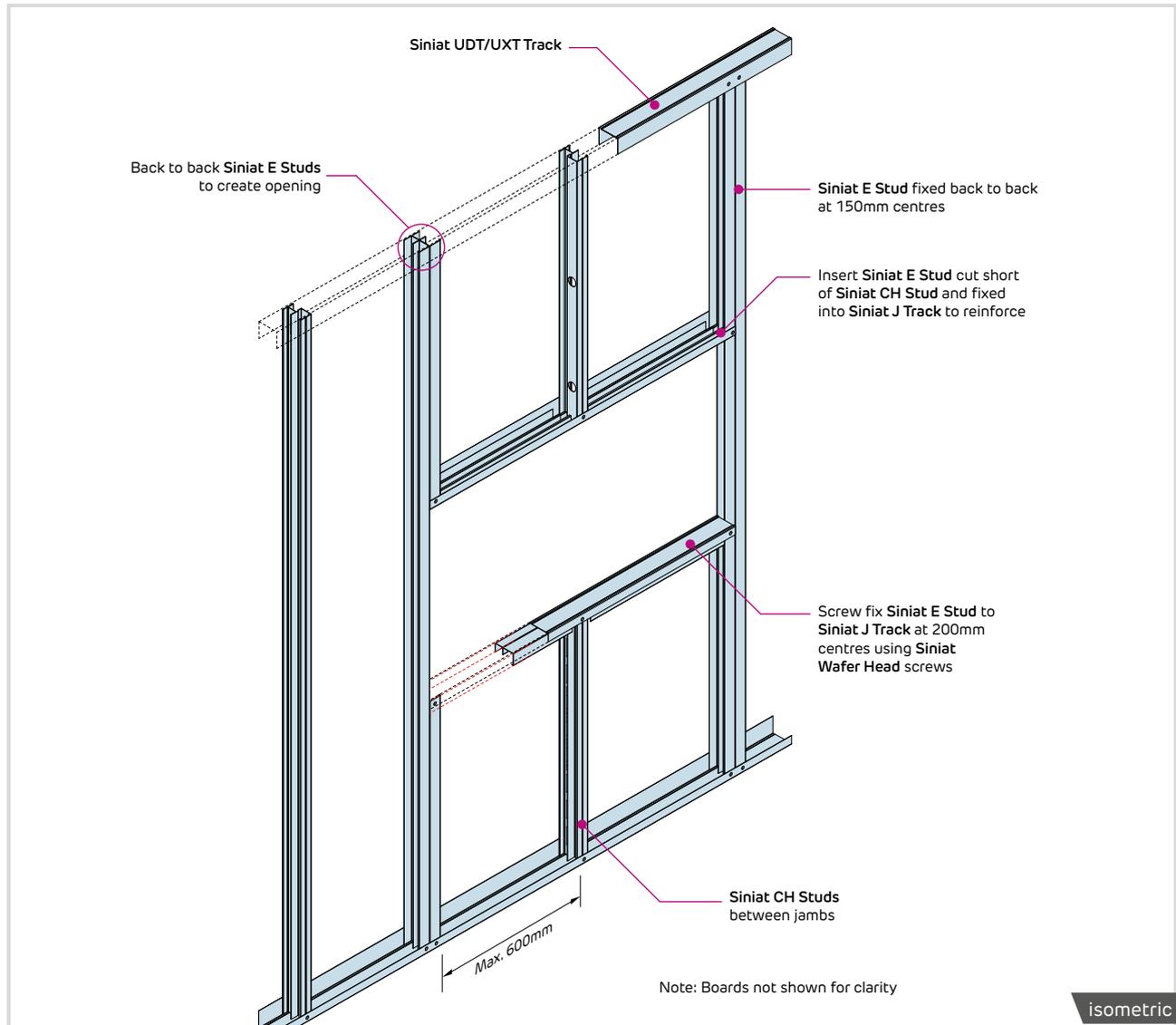
FP-SH-602S-Shaftwall Deflection Head



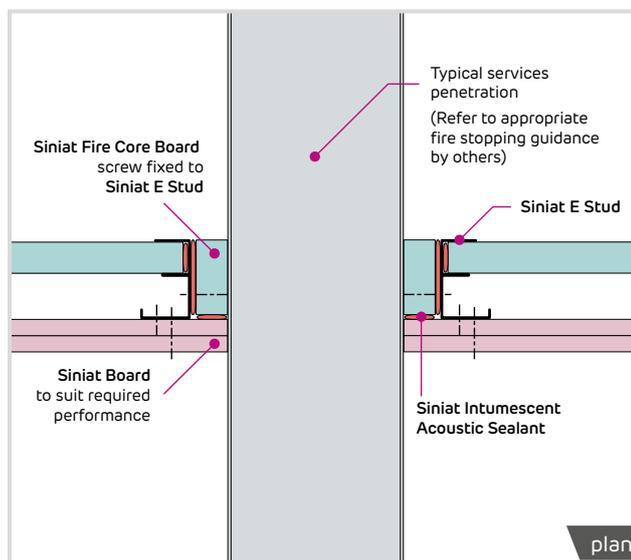
Deflection required ( $\Delta$ ):	Packing board(s) above track	Packing board(s) inside track	Head track:
0-5mm	12.5mm Siniat Fire Board	2x19mm Siniat Fire Core Board	Siniat Deep Flange U Track (UDT)
6-10mm	15mm Siniat Fire Board	2x19mm Siniat Fire Core Board	Siniat Deep Flange U Track (UDT)
11-20mm	2x12.5mm Siniat Fire Board	2x19mm Siniat Fire Core Board	Siniat Deep Flange U Track (UDT)
21-25mm	2x15mm Siniat Fire Board	2x19mm Siniat Fire Core Board	Siniat Deep Flange U Track (UDT)
26-30mm	3x12.5mm Siniat Fire Board	3x19mm Siniat Fire Core Board	Siniat Extra Deep Flange U Track (UXT)
31-40mm	3x15mm Siniat Fire Board	3x19mm Siniat Fire Core Board	Siniat Extra Deep Flange U Track (UXT)

## Penetrations

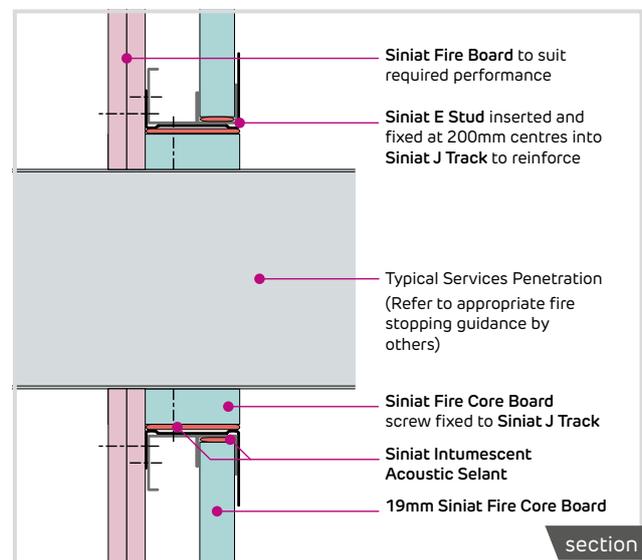
FP-SH-701M (up to 1200mm wide)



FP-SH-702P-Service penetration plan



FP-SH-703S-Service penetration section



### Penetrations

- ▶ M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated Shaftwall systems.
- ▶ Penetrations to be fire-stopped with appropriate materials in line with manufacturer and ASFP guidelines.
- ▶ Pipe penetrations of 40mm diameter or less may be sealed with Siniat Intumescent Acoustic Sealant (for cPVC pipes use FSi Promat PYROPRO® HPE).
- ▶ Ductwork to be independently supported and not supported by the Shaftwall system.

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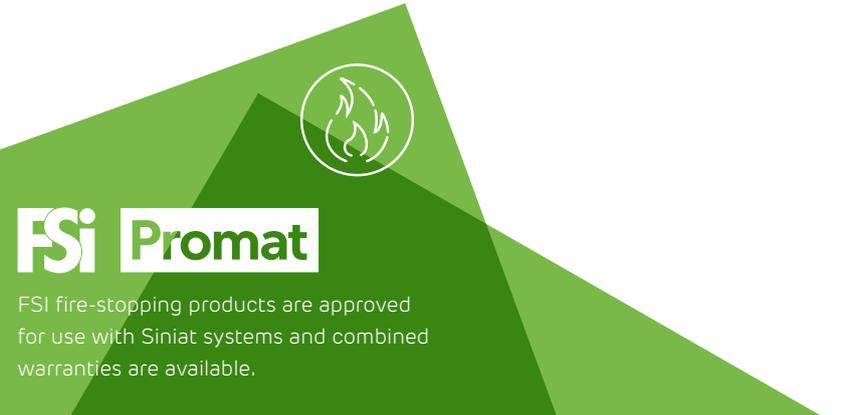
### Finishing

- ▶ All room side board joints to be taped, jointed or finished according to guidance in [annex a1: taping and jointing](#) section to achieve system performances.
- ▶ Siniat Finish materials appropriate to board type to be used.

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### System continuity

- ▶ Bead of Siniat Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- ▶ Siniat Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/smoke spread and acoustic transmission.
- ▶ Full, imperforate system continuity must be maintained to achieve rated performances.



**FSi Promat**

FSi fire-stopping products are approved for use with Siniat systems and combined warranties are available.

## System guidance

# Siniat A1 shaftwall systems

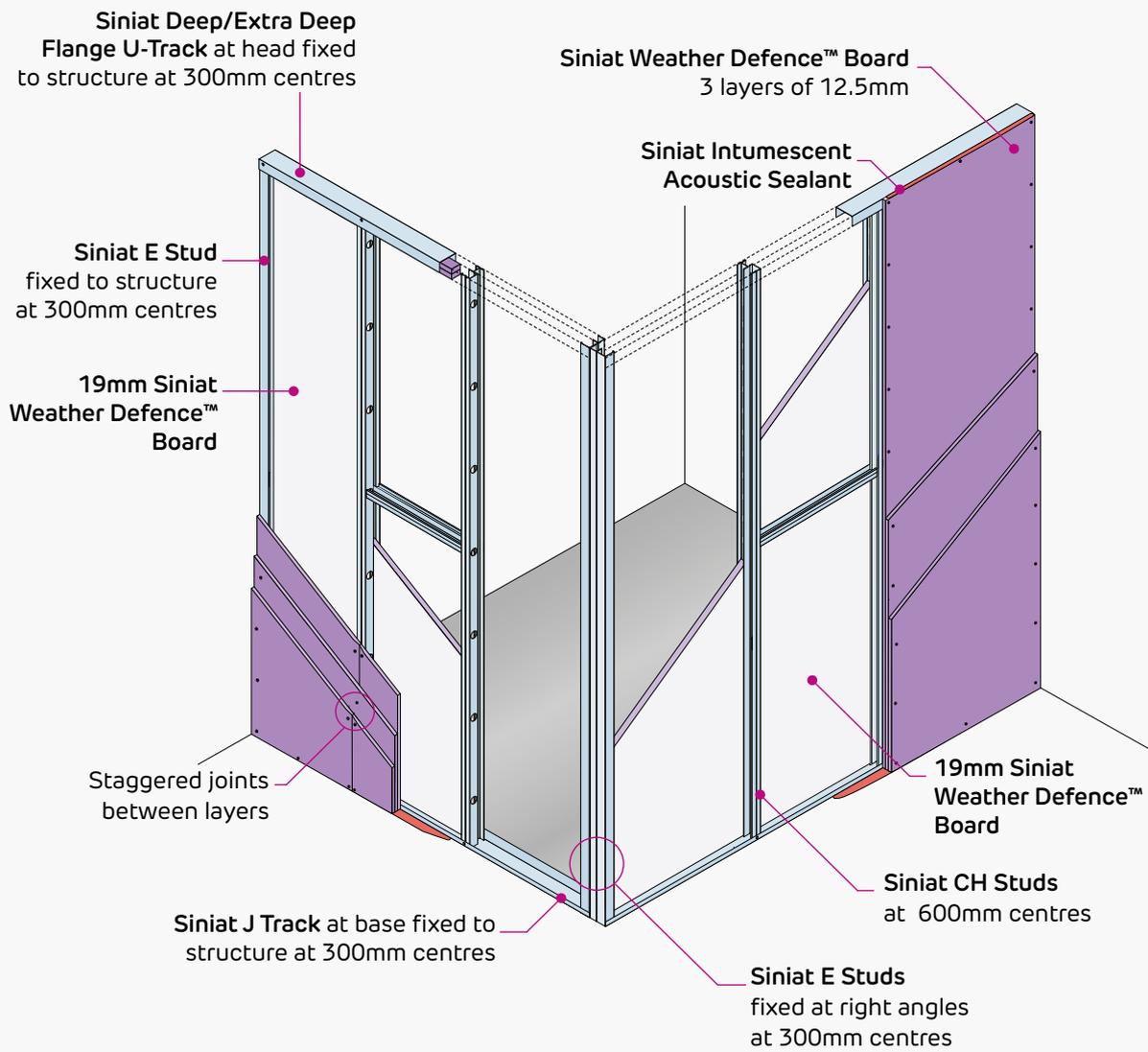
Siniat A1 Shaftwall Systems use Euroclass A1 boards and framing, and are EN classified for 120 minutes fire resistance. They protect shafts and voids in multi-storey buildings, preventing continuous routes for the spread of fire. Asymmetric assembly enables rapid installation from one side of the shaft – ideal in tight spaces.

The frame features friction fit channels to receive 19mm Siniat Weather Defence™ Board, and a fixing flange for the installation of Siniat 12.5mm Weather Defence™ Board on the room side.

## Where to use:

- ▶ The system is largely used in commercial and residential multi-storey construction to ensure fire compartmentation of shafts.

Features	Benefits
System designed to be erected from one side only	No scaffolding required
Offers fire resistance from both directions	Provides 120 minutes fire performance
Lightweight friction fit framing system for 19mm shaft side board	Fast to install with lower material costs
Specialised components designed as a system	Reliable and easy to specify
Euroclass A1 boarding and framing	Highest reaction-to-fire performance (non-combustible)



## system components

### boards



**12.5mm Siniat Weather Defence™**  
An A1 non-combustible, gypsum based sheathing board, faced with a water-resistant material.

See performance tables, [page 8](#).



**19mm Siniat Weather Defence™**  
An A1 non-combustible, gypsum based sheathing board, faced with a water-resistant material.

See performance tables, [page 8](#).

### frame



**Siniat CH Stud**  
Metal profile for vertical frame elements.

CHS1990/B, CHS19146/B



**Siniat E Stud**  
Metal profile used for vertical frame element at junctions and end studs.

ES1990/B, ES19146/B



**Siniat J Track**  
Metal profile used for base channel.

JT92/B, JT148/B



**Siniat U Track Deep Flange**  
Deep flange metal profile for deflection heads.

UDT92/B, UDT148/B



**Siniat U Track Extra Deep Flange**  
Extra deep flange metal profile for deflection heads.

UXT92/W, UXT148/W



**Siniat Metal Angle**  
Multi-purpose galvanised metal section.

MFC2550



**Siniat Flat Strap**  
Provides support for plasterboard joints and fixtures.

FS50/RX

## fix



**Siniat Drywall Screws (as appropriate)**  
For connecting plasterboard and metal components.

See [annex d: screw selection guide](#)

## finishing



**Siniat Corner and Edge beads**  
Corner and edge reinforcement.



**Siniat Joint Tape**  
Joint reinforcement in conjunction with Siniat Jointing Compounds.



**Siniat Intumescent Acoustic Sealant**  
Perimeter sealing to restrict smoke, sound and fire penetration to achieve quoted performances.



**Siniat Compounds**  
To finish joints between boards and bed corner beads prior to decorating. Ensures system performance.

See [annex b: product reference](#)

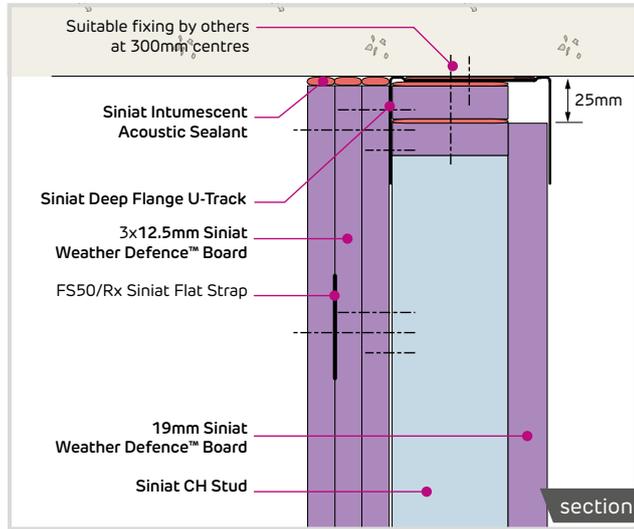


**Siniat Sealer**  
To seal plasterboard prior to decoration.

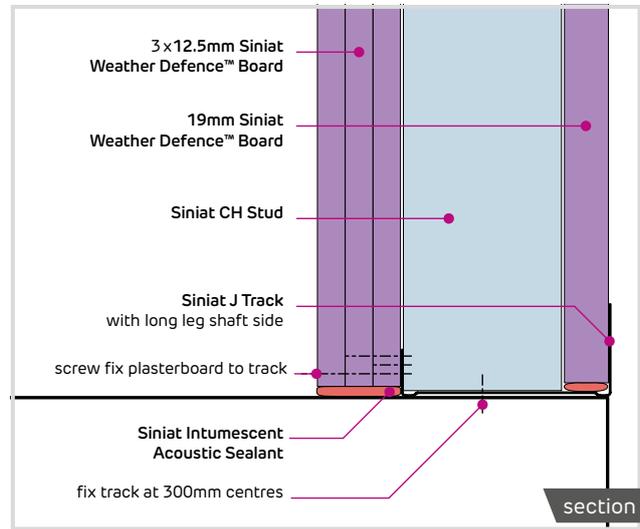
# System guidance

## Frame and shaft side boarding

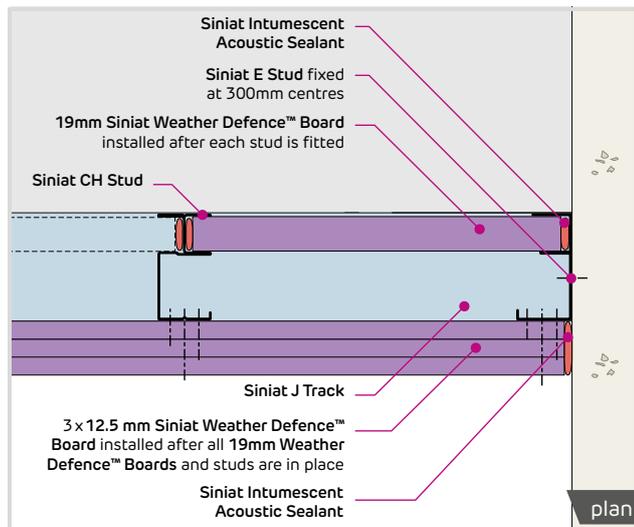
FP-SA-101S-Head



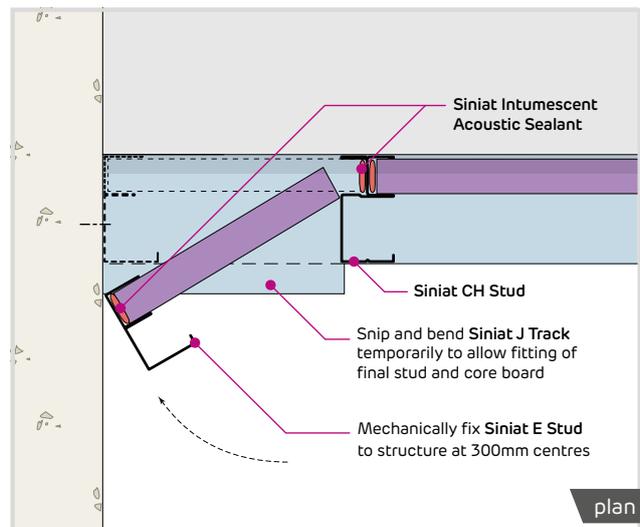
FP-SA-102S-Base



FP-SA-201P-Partition assembly – start



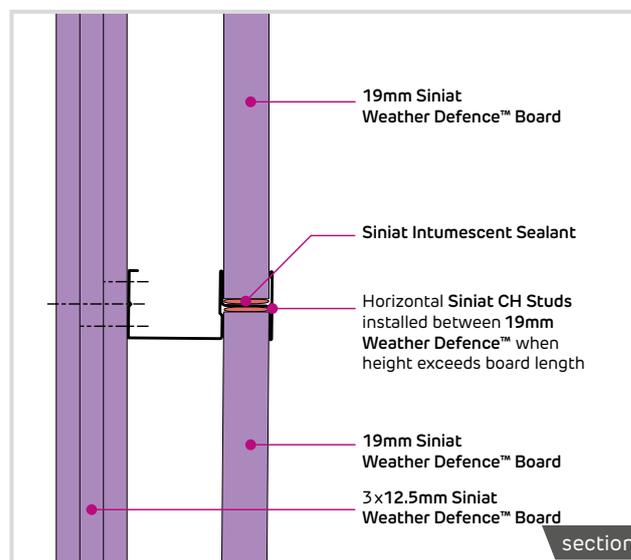
FP-SA-202P-Partition assembly – end



### Frame and shaft side boarding

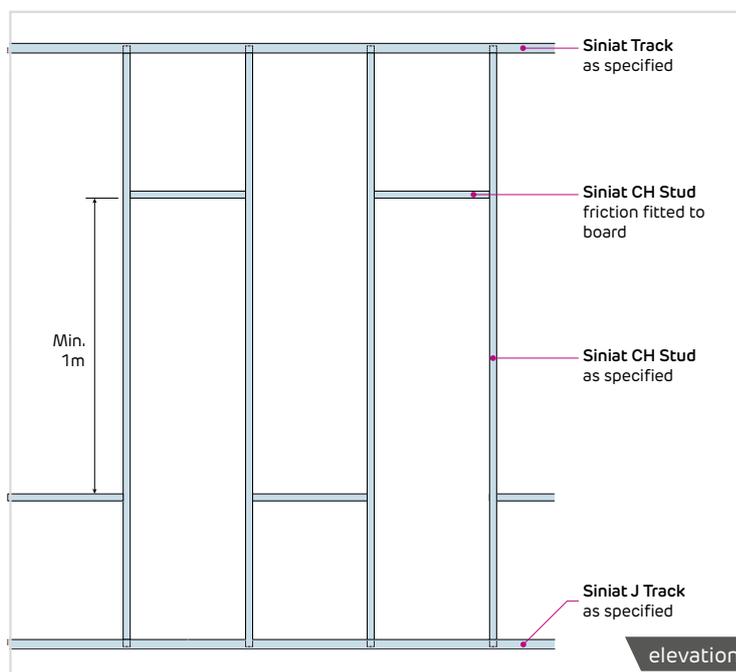
- ▶ Select compatible size (e.g. 90mm stud and 92mm track) Siniat CH Stud, Siniat E Stud, and Siniat Track framing elements to suit system performance.
- ▶ A bead of Siniat Intumescent Acoustic Sealant to be applied at junction of all metal framing with structure, and at all other locations specified in drawings.
- ▶ Siniat J Track at base, long leg of track to shaft side, and Siniat Deep Flange U-Track at head to be fixed flat to structure, using appropriate fixings at maximum 300mm centres. Siniat Deep Track (or Extra Deep Track to suit deflection, as specified).
- ▶ Protect base track from moisture with damp proof membrane when situated on newly laid concrete floors.
- ▶ First Siniat E Stud to be fixed abutting structure using appropriate fixings at maximum 300mm centres. Stud to be fixed to head and base track with Siniat self tapping Screws ([annex d: screw selection guide](#)). Final Siniat E Stud to be installed with final Siniat 19mm Weather Defence™ Board.
- ▶ 19mm Siniat Weather Defence™ Board to be 25mm short of floor to soffit height. If deflection is greater than 25mm, 19mm Siniat Weather Defence™ Board to be cut by deflection amount.
- ▶ 19mm Siniat Weather Defence™ Board to be installed before intermediate stud with construction proceeding progressively, alternating in sequence between board and Siniat CH Stud.

Horizontal joint in 19mm WD shaft side board



- ▶ All Siniat CH Studs to be 25mm shorter than track to track inside dimension height, except in case of deflection requirement. Each Siniat CH Stud to be firmly fitted to board and friction fitted into track.

FP-SA-205S-19mm Weather Defence™ Board horizontal joint support



- ▶ Where shaftwall exceeds Siniat 19mm Weather Defence™ Board length, horizontal joints are permitted using CH Stud noggings facing up.
- ▶ Stagger horizontal noggings on adjacent bays by a minimum of one metre.

### General boarding

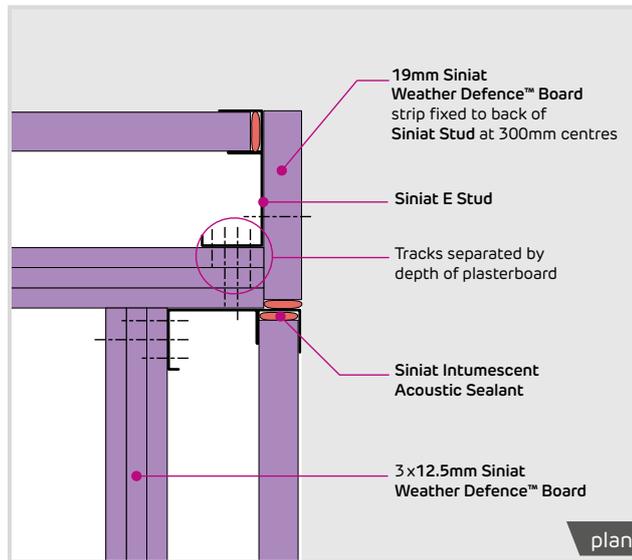
- ▶ 19mm Siniat Weather Defence™ Board to be used as shaft side boarding.
- ▶ 3 layers of 12.5mm Siniat Weather Defence™ Board to be used as room side boarding.
- ▶ Room side boarding to be fixed at 600mm on inner layers and 300mm on outer layer using appropriate Siniat self tapping screws (see annex d: [screw selection guide](#)).
- ▶ Board edges to be centred over studs.
- ▶ Stagger all board joints between layers and stagger screws by 100mm compared to adjacent layers.

### Over-height boarding:

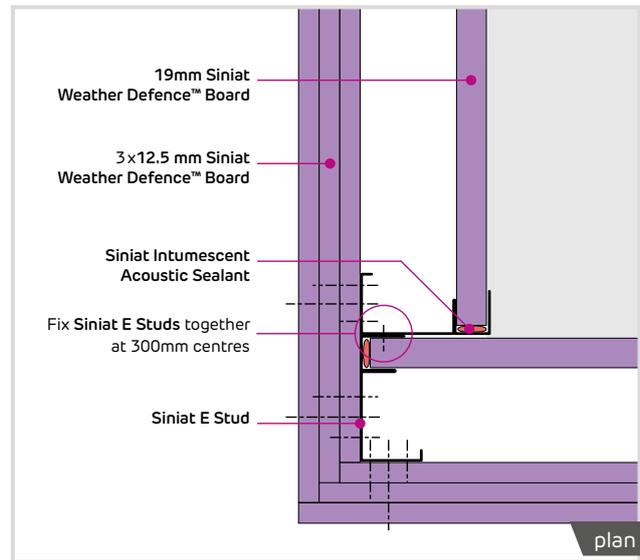
- ▶ Where shaftwall height exceeds board height, fix outer layer of room side boards to continuous band of Siniat Flat Strap FS50/Rx behind all horizontal joints.

### Corners and junctions

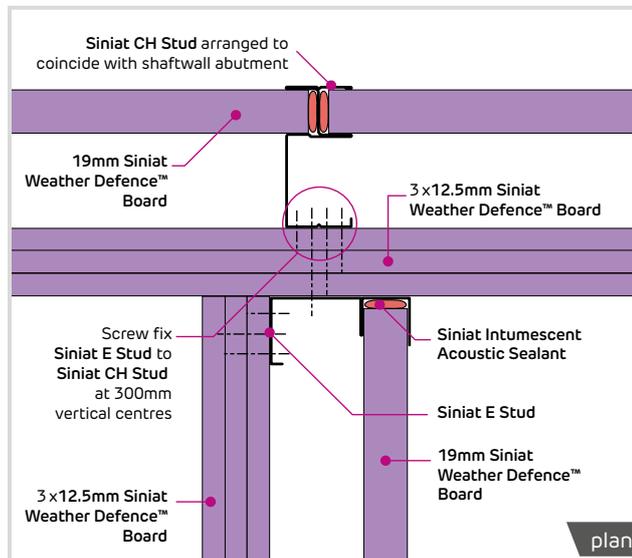
FP-SA-501P-Internal corner



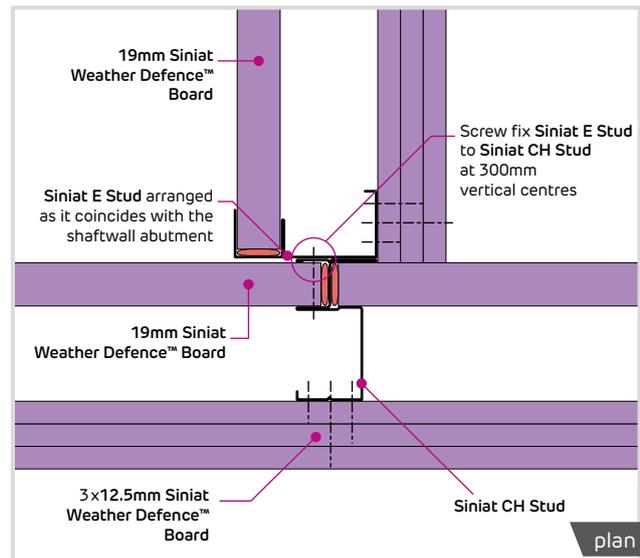
FP-SA-502P-External corner



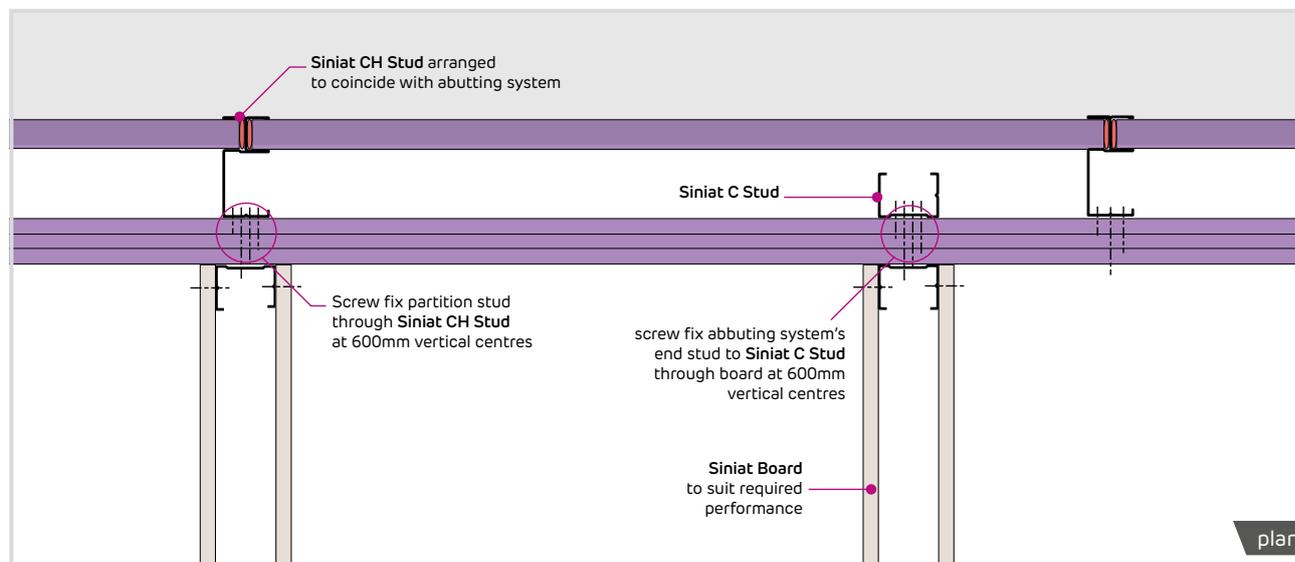
FP-SA-503P-T-junction – room side



FP-SA-504P-T-junction – shaftside



FP-SA-505P - Junction of partition to shaftwall option 1 and 2

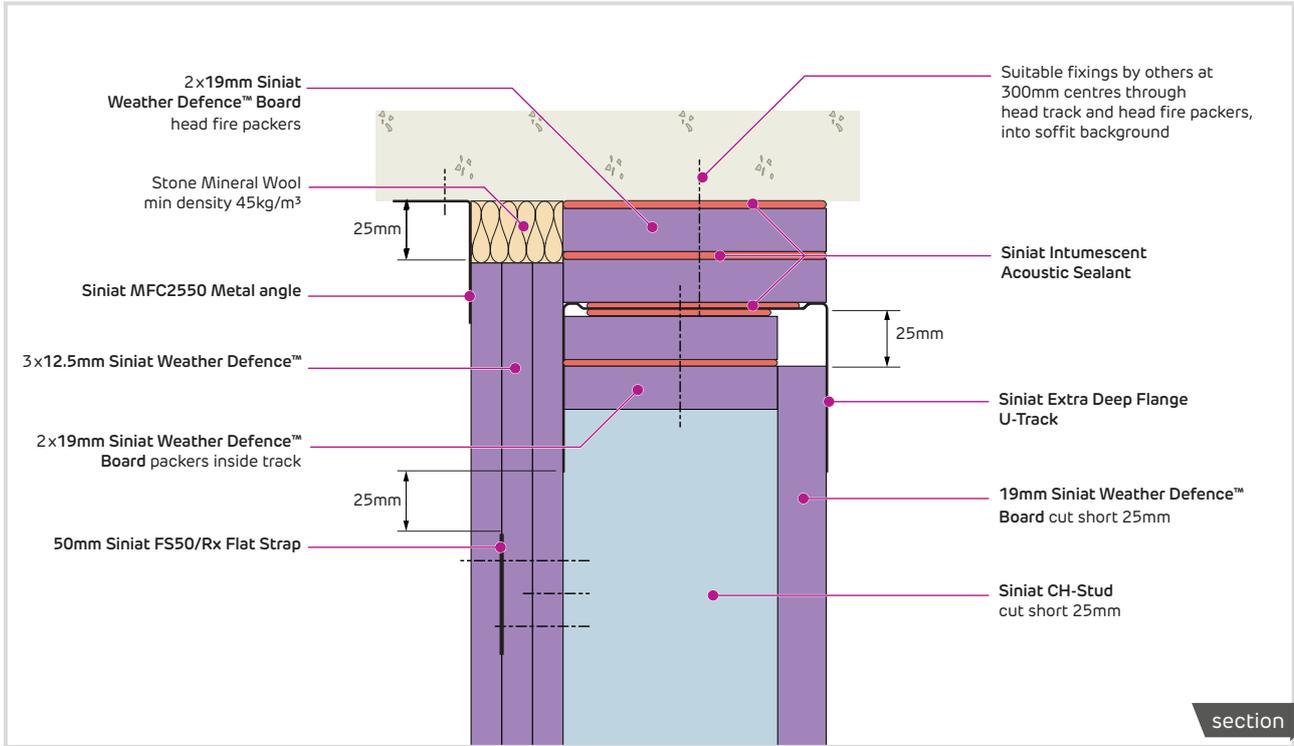


- ▶ Abutting systems to coincide with shaftwall stud, or C Stud within the shaftwall cavity.
- ▶ Connect studs through plasterboards at corners and junctions.

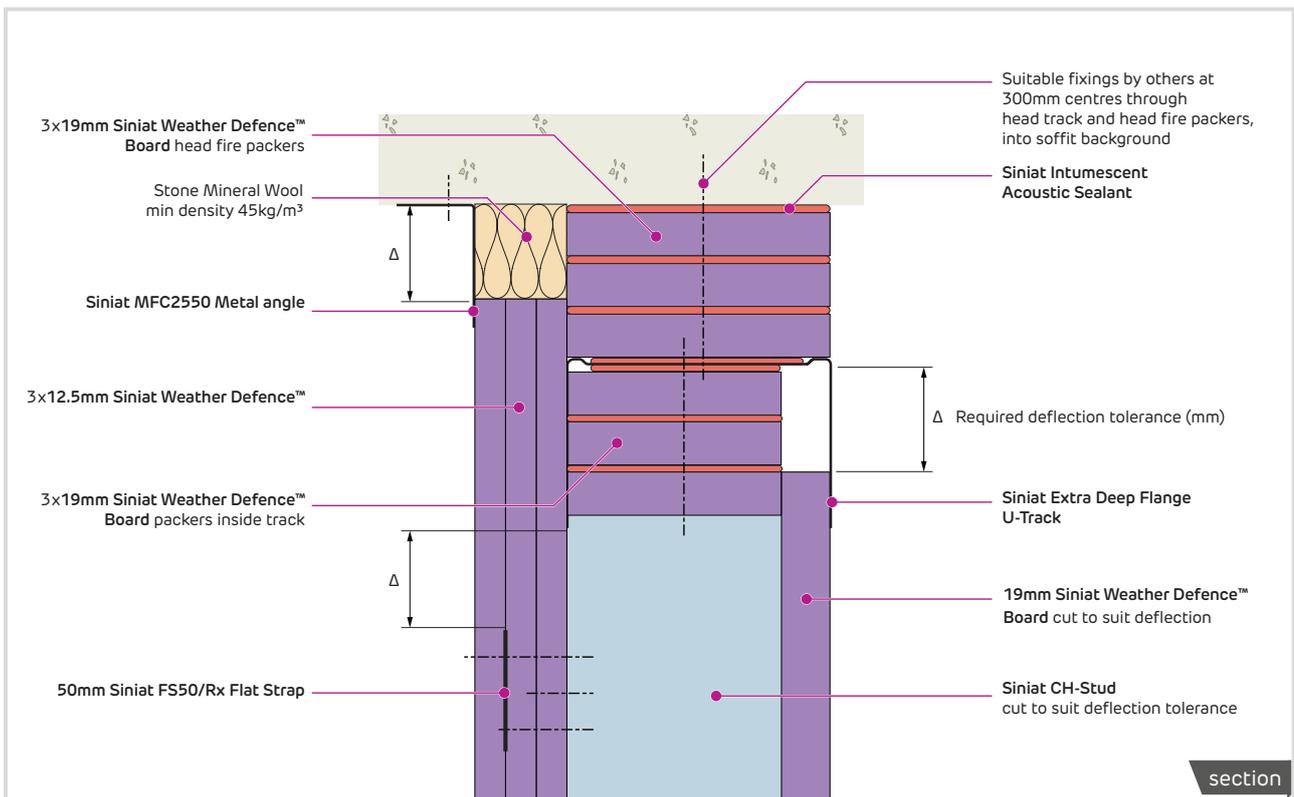
### A1 Shaftwall deflection head

for CH90B-19WD#312WD and CH14B-19WD#312WD

For deflection ( $\Delta$ )  $\leq$  25mm



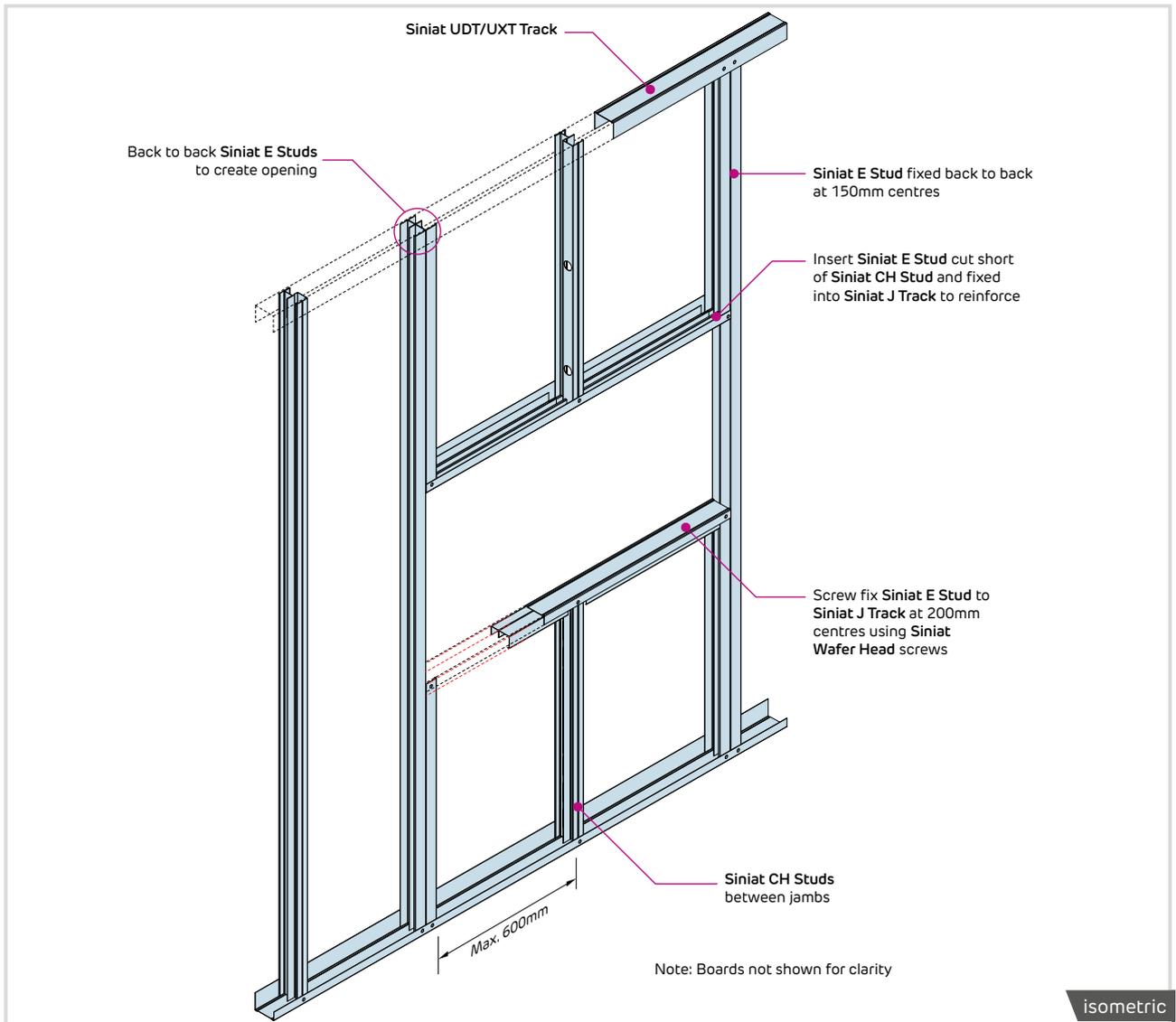
For deflection ( $\Delta$ ) 26mm-40mm



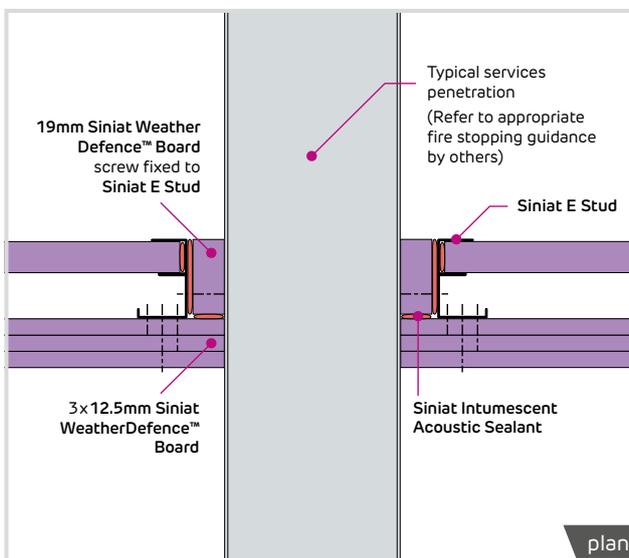


## Penetrations

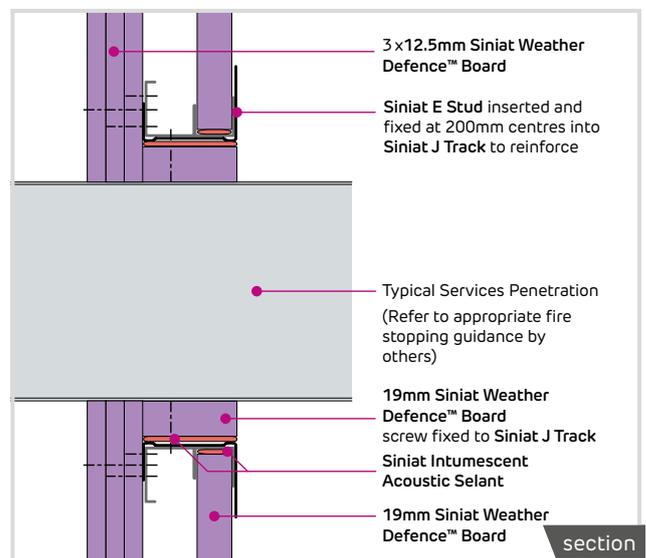
FP-SA-701M (up to 1200mm wide)



FP-SA-702P-Service penetration plan



FP-SA-703S-Service penetration section



## Penetrations

- ▶ M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated Shaftwall systems.
- ▶ Continuity of Siniat Weather Defence™ Board to be maintained around penetration openings.
- ▶ Penetrations to be fire-stopped with appropriate materials in line with manufacturer and ASFP guidelines.
- ▶ Pipe penetrations of 40mm diameter or less may be sealed with Siniat Intumescent Acoustic Sealant (for cPVC pipes use FSi Promat PYROPRO® HPE).
- ▶ Ductwork to be independently supported and not supported by the Shaftwall system.

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## Finishing

- ▶ Taping and jointing can be used with Weather Defence™ Boards without additional treatment. Skim finish requires PVA treatment.

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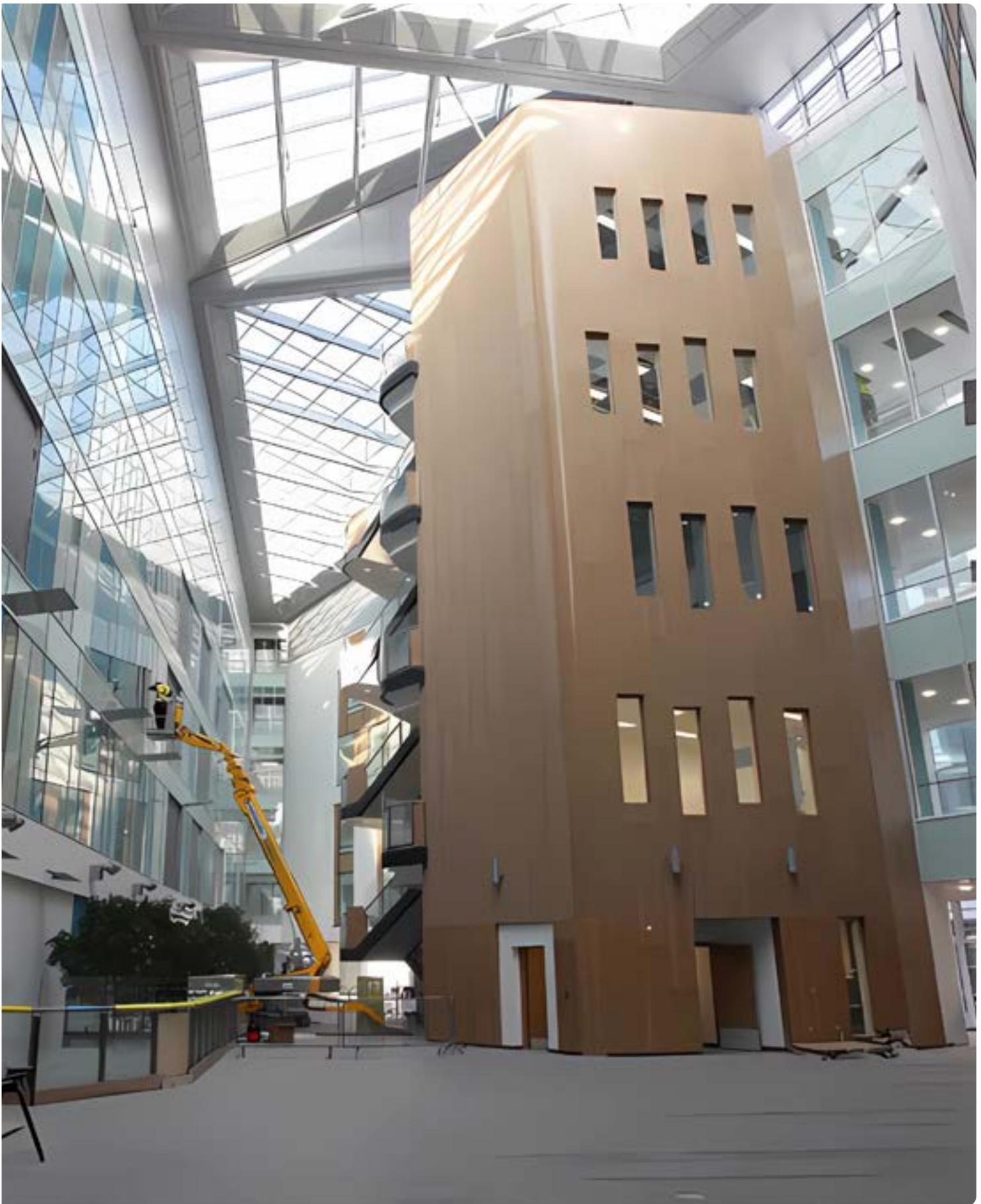
## System continuity

- ▶ Bead of Siniat Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- ▶ Siniat Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/smoke spread and acoustic transmission.
- ▶ Full, imperforate system continuity must be maintained to achieve rated performances.



**FSi Promat**

FSi fire-stopping products are approved for use with Siniat systems and combined warranties are available.



Southmead Hospital, Bristol

### GB orderline

For placing orders, delivery enquiries and local stockists etc.

☎ 0800 373 636 (select option 1)

@ [orderline@siniat.co.uk](mailto:orderline@siniat.co.uk)

### Customer support

☎ 0800 373 636 (select option 2)

@ [customer.support@siniat.co.uk](mailto:customer.support@siniat.co.uk)

### Technical services

Advisory service.

☎ 01275 377 789

@ [technical@siniat.co.uk](mailto:technical@siniat.co.uk)

### The Training Centre

For all drywall training needs from basic introduction to advanced skills and development.

☎ 01275 377 789

@ [training@siniat.co.uk](mailto:training@siniat.co.uk)

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0758-SIN V2(f) 04/2024