July 2015 Update Pack

Dear Colleague,

Thank you for subscribing to receive updates to the Part E Robust Details Handbook.

I'm pleased to announce that this update pack includes a new floor, which is now available for registration. Cellecta's E-FS-3 is just the third robustdetails® floor to use a steel-based structure; and only the second to use steel joists. The ScreedBoard® 28 floor treatment and HP30 resilient bars, both from Cellecta, have provided the performance needed for this floor to achieve 3 credits in the Code for Sustainable Homes.

Don't forget that you can always find a completely updated – and completely free – copy of the Handbook on our website. Simply click on the 'Sign in/Sign' up to create a user account; then log on to view and download your copy.

Please update your May 2015, 4th Edition Handbook as follows:

- 1. Remove and replace all pages of the Introduction.
- 2. Remove and replace all pages of the timber separating floors: E-FT-3, E-FT-6 and E-FT-7.
- 3. Insert all pages of the new E-FS-3 Robust Detail to the end of the Separating Floors, Steel-Concrete Composite section.

Yours sincerely

John Tebbit

Managing Director, Robust Details Limited

Changes to the fourth edition following July 2015 update

Section Page Amendment

Introduction

Table 2 5 New floor E-FS-3 added.

Table 3c 7 New floor E-FS-3 added with valid

combinations.

Table 5 8 New floor E-FS-3 added with relevant

note.

Table 6b 11 New floor E-FS-3 added with valid

combinations.

Table 7 12 New floor E-FS-3 added with valid

combinations.

Separating Floors – Timber

E-FT-3

Joist type 1 Joist name updated to 'ITW Gang-Nail Ecojoist'.

E-FT-6

Joist type 1 Joist list corrected to include all valid joist types.

E-FT-7

Diagram 6 5 22mm flooring board corrected to m³.

Separating Floors - Steel

E-FS-3

All 1-6 New Robust Detail added - Cellecta ScreedBoard® 28 on steel

joists.

This Handbook contains the separating wall and separating floor constructions that have achieved the status of Robust Details for Part E of the Building Regulations (England and Wales) and Part G of the Building Regulations (Northern Ireland), "Resistance to the passage of sound".

The Robust Details have undergone an extensive sound insulation testing regime, robust design analysis and independent audit and have satisfied the Robust Details Limited Management Board that they should provide a level of sound insulation compliant with Part E (England and Wales) and Part G (Northern Ireland).

The use of the robustdetails® scheme provides an alternative to pre-completion testing for demonstrating compliance with the performance standards for new build dwellings. Every dwelling built using the robustdetails® scheme needs to be registered with Robust Details Limited and a plot registration fee paid. Further information on the scheme (including how to apply for new Robust Details) is available on the Robust Details Limited web site at:

www.robustdetails.com

or from:

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Each Robust Detail includes materials and construction details for the separating wall/floor and its key interfaces with other elements and should be read in conjunction with Appendix A. The final page of each Robust Detail is a checklist, which should be photocopied and used by the site manager/supervisor to confirm that the separating wall/floor has been built correctly. The building control body may ask to see the checklist.

It is important that separating walls/floors and their associated junctions and flanking conditions are constructed entirely in accordance with the relevant Robust Detail; otherwise the building control body may require pre-completion testing to be carried out.

The tables on pages 5, 6 and 7 show which robust details® separating floors and walls can be used in flats/apartments.

Note:

The contents of this Handbook relate only to compliance with specific aspects of Part E (England and Wales) and Part G (Northern Ireland). Building work will also have to comply with all other relevant legislation and Parts of the Building Regulations.

Where sound testing is required on a wall or floor, the user should seek expert acoustic advice prior to construction commencing.

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Special note for Robust Details constructed in Northern Ireland

Members of an expert panel convened to advise NI Government on the subject, consider that the following Robust Details will integrate most readily with NI standards and methods of construction.

Other Robust Details may be suitable for use in NI, however, it is recommended that Building Control be consulted to ensure full compatibility with other NI Regulations and Standards.

Masonry walls	E-WM-1	Concrete floors	E-FC-1		
	E-WM-2	_	E-FC-2		
	E-WM-3	_	E-FC-4		
	E-WM-4	_	E-FC-5		
	E-WM-11		E-FC-6		
	E-WM-16	_	E-FC-8		
	E-WM-18	_	E-FC-9		
	E-WM-19		E-FC-10		
	E-WM-21		E-FC-11		
			E-FC-12		
			E-FC-13		
		_	E-FC-14		
Timber walls	E-WT-1	_			
	E-WT-2	_			
	E-WT-4	_			
		_			
Timber floors	E ET 4				
	E-FT-1	_			
	E-FT-2				
	E-FT-2 E-FT-3	- - -			
	E-FT-2 E-FT-3 E-FT-5	- - -			
	E-FT-2 E-FT-3	- - -			
	E-FT-2 E-FT-3 E-FT-5				

Note:

Refer to Tables 3a, 3b and 3c in the Introduction for valid combinations of the Robust Details walls and floors.

List of Robust Details

Table 1 – Separating walls

E-WM-1	masonry – dense aggregate blockwork (wet plaster)
E-WM-2	masonry – lightweight aggregate blockwork (wet plaster)
E-WM-3	masonry – dense aggregate blockwork (render and gypsum-based board)
E-WM-4	masonry – lightweight aggregate blockwork (render and gypsum-based board)
E-WM-5	masonry – Besblock "Star Performer" cellular blockwork (render and gypsum-based board)
E-WM-6	masonry – aircrete blockwork (render and gypsum-based board)
E-WM-7	Suspended from further registrations
E-WM-8	masonry – lightweight aggregate blockwork Saint Gobain – Isover RD35 (gypsum-based board)
E-WM-9	masonry – solid dense aggregate blockwork (render and gypsum-based board)
E-WM-10	
	masonry – aircrete thin joint blockwork with specified wall ties (render and gypsum-based board finish)
E-WM-11	masonry – lightweight aggregate blockwork (render and gypsum-based board) with 100mm minimum cavity
E-WM-12	masonry - Plasmor "Aglite Ultima" lightweight aggregate blockwork (render and gypsum-based board)
E-WM-13	masonry – aircrete thin joint - untied blockwork (render and gypsum-based board)
E-WM-14	masonry – lightweight aggregate blockwork Saint Gobain - Isover RD35 (gypsum-based board) with 100mm minimum cavity
E-WM-15	masonry – aircrete blockwork Saint Gobain - Isover RD35 (gypsum-based board)
E-WM-16	masonry - dense aggregate blockwork (render and gypsum-based board) with 100mm minimum cavity
E-WM-17	masonry – lightweight aggregate blockwork Saint Gobain-Isover RD Party Wall Roll (gypsum-based board)
E-WM-18	masonry – dense aggregate blockwork (wet plaster) with 100mm minimum cavity
E-WM-19	masonry – dense or lightweight aggregate blockwork (render and gypsum-based board) with 100mm minimum cavity and MONARFLOOR® BRIDGESTOP® system
E-WM-20	masonry – lightweight aggregate blockwork Saint Gobain - Isover RD Party Wall Roll (gypsum-based board) with 100mm minimum cavity
E-WM-21	masonry – lightweight aggregate blockwork (wet plaster) with 100mm minimum cavity
E-WM-22	masonry – lightweight aggregate blockwork Knauf Earthwool Masonry Party Wall Slab or Superglass Party Wall Roll (gypsum-based board) with 100mm minimum cavity
E-WM-23	masonry – aircrete blockwork Superglass Party Wall Roll (gypsum-based board) with 100mm minimum cavity
E-WM-24	masonry – aircrete blockwork Saint Gobain-Isover RD Party Wall Roll (gypsum-based board) with 100mm minimum cavity
E-WM-25	masonry – Porotherm clay blockwork (Ecoparge and gypsum-based board) with 100mm minimum insulated cavity
E-WM-26	masonry – Besblock "Star Performer" cellular blockwork (gypsum-based board) with 100mm minimum insulated cavity
E-WM-27	masonry - lightweight aggregate blockwork Superglass Party Wall Roll (gypsum-based board) with minimum 75mm cavity
E-WM-28	masonry - lightweight aggregate blockwork Knauf Party Wall Wool (gypsum-based board) with minimum 100mm cavity

See over for timber and steel frame walls

List of Robust Details

Table 1 (continued) – Separating walls

E-WT-1	timber frame - without sheathing board
E-WT-2	timber frame – with sheathing board
E-WT-3	timber frame - Elecoframe prefabricated panels
E-WT-4	timber frame - Excel Industries Warmcell 500 insulation - with sheathing board
E-WS-1	steel frame – twin metal frame
E-WS-2	steel frame – British Gypsum Gypwall QUIET IWL
E-WS-3	steel frame – modular steel frame housing
E-WS-4	steel frame – twin metal frame - 250mm between linings

List of Robust Details

Table 2 – Separating floors

E-FC-1	precast concrete plank with directly applied screed and floating floor treatment
E-FC-2	in-situ concrete slab and floating floor treatment
E-FC-3	Suspended from further registrations
E-FC-4	precast concrete plank and Thermal Economics IsoRubber system and floating screed
E-FC-5	precast concrete plank and Cellecta Yelofon HD10+ system and floating screed
E-FC-6	beam and block with concrete topping Regupol E48 system and floating screed
E-FC-7	beam and block with concrete topping and floating floor treatment
E-FC-8	precast concrete plank with floating screed and bonded resilient floor covering
E-FC-9	precast concrete plank with directly applied screed and Thermal Economics IsoRubber top bonded resilient floor covering
E-FC-10	in-situ concrete slab with Thermal Economics IsoRubber top bonded resilient floor covering
E-FC-11	precast concrete plank and Icopal-MONARFLOOR® Tranquilt and floating screed
E-FC-12	precast concrete plank and Thermal Economics IsoRubber Base HP3 system and floating screed
E-FC-13	precast concrete plank and InstaCoustic InstaLay 65 system and floating screed
E-FC-14	precast concrete plank and Thermal Economics IsoRubber Code layer and floating screed
E-FC-15	precast concrete plank and Regupol Quietlay layer and floating screed
E-FC-16	precast concrete plank with directly applied screed and Thermal Economics IsoRubber CC3 bonded resilient floor covering
E-FT-1	timber I-joists and floating floor treatment
E-FT-2	timber solid joists and floating floor treatment
E-FT-3	MiTek Posi-Joist, Prestoplan PresWeb, WOLF easi-joist, ITW Gang-Nail Ecojoist or ITW Alpine SpaceJois metal web timber joist and floating floor treatment
E-FT-4	timber Finnjoists with Finnforest Acoustic layer and Gyvlon screed
E-FT-5	Cellecta ScreedBoard® 28 system on timber I-joists
E-FT-6	Cellecta ScreedBoard® 28 system on metal web joists
E-FT-7	timber I-joists and FFT80 floating floor treatment
E-FT-8	timber solid joists and FFT80 floating floor treatment
E-FS-1	steel deck and in-situ concrete and floating floor treatment
E-FS-2	UltraBEAM metal joists and floating floor treatment
E-FS-3	Cellecta ScreedBoard® 28 system on metal joists

Table 3a – Combinations of Robust Details separating walls and floors for flats/apartments in **loadbearing masonry** constructions

		Separating floors					
		E-FC-1					
		E-FC-11	E-FC-14				E-FC-8
Separa	ting walls	E-FC-12	E-FC-15			E-FC-6	E-FC-9
		E-FC-13	E-FC-16	E-FC-4	E-FC-5	E-FC-7	E-FC-10
E-WM-1	E-WM-16		/	V	~	V	V
E-WM-3	E-WM-18	V		· ·		•	
E-WM-2	E-WM-20						
E-WM-4	E-WM-21						
E-WM-5	E-WM-26			~	~	F	~
E-WM-8	E-WM-27	·		,		-	·
E-WM-11	E-WM-28						
E-WM-14							
E-WM-6	E-WM-15						
E-WM-10	E-WM-23	F	=	V	see note 1	F	✓
E-WM-13	E-WM-24						
	E-WM-12	F	=	V	F	F	F
E-WM-17	E-WM-22	✓ see	note 2	/	✓ see note 2	F	see note 2
	E-WM-25	F		F	F	F	F

Key

- **F** Only the separating floor requires pre-completion sound testing.
- 1 Where this combination is selected, 200mm (min) thick precast concrete planks and ceiling treatment CT5 must be used.
- 2 This combination can only be selected where the construction does not include Plasmor Aglite Ultima blocks (1050 kg/m³).

Combining robustdetails® loadbearing masonry walls and floors with robustdetails® lightweight framed separating walls Upper storeys of blocks of flats may be constructed using lightweight steel or timber frame, where the lower storeys are loadbearing masonry.

The lightweight separating walls built directly off the uppermost concrete separating floors may be registered as Robust Details provided:

- the lightweight walls are in vertical alignment with the masonry walls below, such that they can follow the principles of the ground floor junction shown for the relevant robustdetails® separating wall;
- the external (flanking) wall construction above the separating floor meets the requirements on page 2 of the relevant robustdetails® separating wall, and has 2 layers of gypsum-based board;
- the junction between the bottom rail (or sole plate) is well sealed;
- all other relevant requirements in the Handbook are strictly followed.

The separating floor may be registered as a Robust Detail provided:

- the floor is constructed in accordance with the requirements of the published Detail;
- the external (flanking) wall below the precast concrete floor satisfies the requirements of detail 1 on page 2 of the relevant robustdetails® separating floor;
- all other relevant requirements in the Handbook are strictly followed.

Table 3b – Combinations of Robust Details separating walls and floors for flats/apartments in **timber frame** constructions

	Separating floors		
	E-FT-1		
	E-FT-2		
	E-FT-3		
	E-FT-4		
Separating walls	E-FT-5		
	E-FT-6		
	E-FT-7	E-FC-2	
	E-FT-8	E-FS-1	
E-WT-1	V	W see note 1	
E-WT-2	V	W see note 1	
E-WT-3	F	W see note 1	
E-WT-4	F	W see note 1	

Table 3c – Combinations of Robust Details separating walls and floors for flats/apartments in reinforced concrete and steel frame constructions

	Separating floors				
Separating walls	E-FC-2	E-FC-10	E-FS-1	E-FS-2	E-FS-3
E-WS-1	W see note 1	W	W see note 1	~	~
E-WS-2	V	W	W	W	W
E-WS-3	W	W	W	W	W
E-WS-4	W see note 1	W	W see note 1	~	/

Key for Table 3b and Table 3c

- F Only the separating floor requires pre-completion sound testing.
- W Only the separating wall requires pre-completion sound testing.
- 1 Lightweight steel and timber frame walls may be constructed above in-situ poured concrete floors. The lightweight walls built directly off the concrete floors may be registered as Robust Details provided:
- they meet all other requirements of the Robust Detail, including flanking constructions;
- the principles of the raft foundation junction are followed. As such, the concrete of the floor must have a mass of 365 kg/m² (min), and a floating floor treatment must be provided;

Walls constructed to the soffit of in-situ poured concrete floors cannot be registered as Robust Details and may be subject to pre-completion sound testing.

See also notes relating to Combining loadbearing masonry and lightweight framed separating walls included under Table 3a.

Table 4 – Combining Robust Details separating walls with non-Robust Details separating floors in flats/apartments

Loadbearing masonry

E-WM-1	F1	_	E-WM-21	F1
E-WM-2	F1		E-WM-22	F1
E-WM-3	F1		E-WM-23	F1
E-WM-4	F1		E-WM-24	F1
E-WM-5	F1		E-WM-25	F1
E-WM-6	F1	_	E-WM-26	F1
E-WM-8	F1	_	E-WM-27	F1
E-WM-10	F1	_	E-WM-28	F1
E-WM-11	F1	_		
E-WM-12	F1			
E-WM-13	F1			
E-WM-14	F1			
E-WM-15	F1			
E-WM-16	F1			
E-WM-17	F1			
E-WM-18	F1			
E-WM-20	F1			

Timber frame

E-WT-1	F2
E-WT-2	F2
E-WT-3	F2
E-WT-4	F2

Light steel frame

E-WS-1	F3
E-WS-2	F4
E-WS-3	F3
E-WS-4	F3

Key

- F1 Only the separating floor requires pre-completion testing provided the floor does not bridge the separating wall cavity. Otherwise both the wall and floor need testing.
- F2 Only the separating floor requires pre-completion testing provided the floor is timber-based and does not bridge the separating wall cavity. Otherwise both the wall and floor need testing.
- F3 Only the separating floor requires pre-completion testing provided the wall is being used in a lightweight steel frame flat/apartment and the floor does not bridge the separating wall cavity. Otherwise both the wall and floor need testing.
- F4 Only the separating floor requires pre-completion testing provided the wall is being used in a concrete frame building and the base of the wall is shielded by a floating floor treatment. Otherwise both the wall and floor need testing.

Table 5 – Combining Robust Details separating floors with non-Robust Details separating walls in flats/apartments

Loadbearing masonry

E-FC-1	W1	E-FC-11	W1
E-FC-4	W2	E-FC-12	W1
E-FC-5	W2	E-FC-13	W1
E-FC-6	W1	E-FC-14	W1
E-FC-7	W1	E-FC-15	W1
E-FC-8	W2	E-FC-16	W1
E-FC-9	W2		
E-FC-10	W2		

Timber frame	е	RC frame	
E-FT-1	W3	E-FC-2 V	۷4
E-FT-2	W3	E-FC-10 V	V 4
E-FT-3	W3		
E-FT-4	W3		
E-FT-5	W3	Light steel frame	
E-FT-6	W3	E-FS-1 V	۷4
E-FT-7	W3	E-FS-2 V	V 5
E-FT-8	W3	E-FS-3 V	V 5

Key

- W1 Only the separating wall requires pre-completion testing provided the wall is constructed using aggregate blocks specified for the inner leaf in the floor Robust Detail. Otherwise both the floor and wall need testing.
- W2 Only the separating wall requires pre-completion testing provided the wall is constructed using blocks specified for the inner leaf in the floor Robust Detail. Otherwise both the floor and wall need testing.
- W3 Only the separating wall requires pre-completion testing if used with timber frame supporting walls and twin leaf timber frame separating walls. Otherwise both the floor and wall need testing.
- W4 Only the separating wall requires pre-completion testing provided the external wall meets the specification given in the separating floor Robust Detail. Otherwise both the floor and wall need testing.
- W5 Only the separating wall requires pre-completion testing if used with steel frame supporting walls and twin leaf steel frame separating walls. Otherwise both the floor and wall need testing.

For any construction that requires a separating element to be tested, the user should seek expert acoustic advice on the design and potential acoustic performance.

Table 6a – Robust Detail separating walls which can be used together with the proprietary flanking constructions contained in Appendix A2

		BRIDGESTOP® system	Smartroof system	Kingspan TEK	Prestoplan PresPeak 60	Wall Cap RDA2	RoofSpace I-Roof
Masonry	E-WM-1	V				~	
walls	E-WM-2	V				~	
	E-WM-3	V	V			~	/
	E-WM-4	V	V			V	V
	E-WM-5	V	V			/	/
	E-WM-6		/			/	/
	E-WM-8	V	/			/	V
	E-WM-9						
	E-WM-10		/			/	V
	E-WM-11	V	V			✓	~
	E-WM-12	V	V			✓	V
	E-WM-13		/			/	V
	E-WM-14	V	V			✓	V
	E-WM-15		V			/	V
	E-WM-16	V	V			~	V
	E-WM-17	V	V			~	V
	E-WM-18	V				~	
	E-WM-19	✓ see note 1					
	E-WM-20	V	/			/	~
	E-WM-21	V				✓	
	E-WM-22	V	V			✓	~
	E-WM-23	✓ see note 1	V			~	V
	E-WM-24	✓ see note 1	V			~	V
	E-WM-25					~	
	E-WM-26	/	~			~	~
	E-WM-27	/	~			~	~
	E-WM-28	/	~			/	/

Key

See over for timber and steel frame walls

When constructing these walls off raft foundations, the raft must have insitu concrete with 150mm minimum thickness.

Table 6a (continued) – Robust Detail separating walls which can be used together with the proprietary flanking constructions contained in Appendix A2

		BRIDGESTOP® system	Smartroof system	Kingspan TEK	Prestoplan PresPeak 60	Wall Cap RDA2	RoofSpace I-Roof
Timber	E-WT-1		~	~	V	~	V
walls	E-WT-2		/	/	V	~	V
	E-WT-3		/			~	V
	E-WT-4		/			~	V
Steel	E-WS-1					~	
walls	E-WS-2						
	E-WS-3						
	E-WS-4					~	

Table 6b – Robust Detail separating floors which can be used together with the proprietary flanking constructions contained in Appendix A2

		BRIDGESTOP® system	Smartroof system	Kingspan TEK	Prestoplan PresPeak 60	Wall Cap RDA2	RoofSpace I-Roof
Masonry	E-FC-1					~	
floors	E-FC-2						
	E-FC-4					~	
	E-FC-5					/	
	E-FC-6					~	
	E-FC-7					V	
	E-FC-8					V	
	E-FC-9					V	
	E-FC-10					✓ see note 1	
	E-FC-11					V	
	E-FC-12					V	
	E-FC-13					~	
	E-FC-14					V	
	E-FC-15					~	
	E-FC-16					~	
Timber	E-FT-1					V	
floors	E-FT-2					V	
	E-FT-3					V	
	E-FT-4					~	
	E-FT-5					~	
	E-FT-6					V	
	E-FT-7					V	
	E-FT-8					V	
Steel-concrete	E-FS-1						
and steel floors	E-FS-2					V	
	E-FS-3					✓	

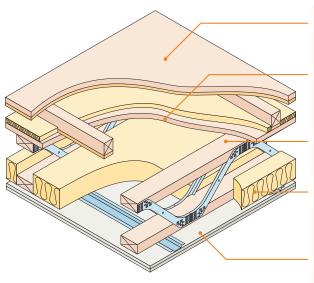
Key

¹ Applies only to loadbearing masonry constructions.

Table 7 – Robust Detail separating floors which can be used together with alternative products contained in Appendix A3

		British Gypsum GypFloor	Insumate insulation tray
Concrete	E-FC-1	V	
floors	E-FC-2	V	
	E-FC-4		
	E-FC-5		
	E-FC-6		
	E-FC-7	V	
	E-FC-8		
	E-FC-9		
	E-FC-10		
	E-FC-11		
	E-FC-12		
	E-FC-13		
	E-FC-14		
	E-FC-15		
	E-FC-16		
Timber	E-FT-1		V
floors	E-FT-2		V
	E-FT-3		V
	E-FT-4		
	E-FT-5		
	E-FT-6		
	E-FT-7		✓
	E-FT-8		V
Steel-concrete	E-FS-1	/	
and steel floors	E-FS-2		
	E-FS-3		

Timber flange and metal web joists ■
Use with timber frame walls only ■



Floating floor	See section 10 for suitable floating floor treatment
Floor decking	18mm thick (min) wood based board, density min 600 kg/m ³
Joists	253mm (min) metal web joists (see joist type below)
Absorbent material	100mm (min) mineral wool quilt insulation (10–36 kg/m³) between joists
Ceiling	See section 9 for suitable ceiling treatment

Joist type

IMPORTANT

Only the following metal web joists may be used in E-FT-3:

- MiTek Posi-Joist
- Prestoplan PresWeb
- WOLF easi-joist
- ITW Gang-Nail Ecojoist
- ITW Alpine SpaceJoist

Notes:

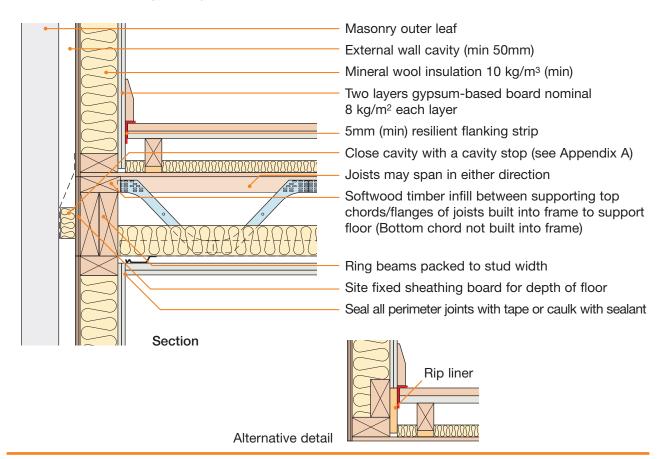
Although single header and sole plates are indicated, increasing the number of header and sole plates would be acceptable, however, all dimension specifications within this Robust Detail must be adhered to.

Metal web joists can be **top chord/flange** supported or **fully built-in** and supported on the panel and this is permitted, however, all dimension specifications within this Robust Detail must be adhered to.

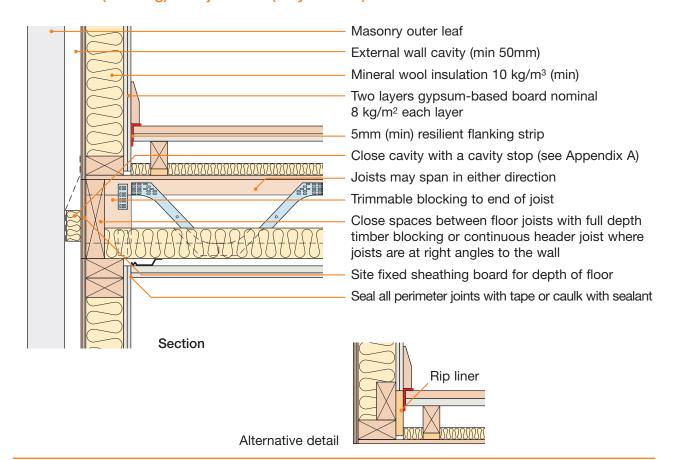
DO

- Ensure correct metal web joists are being used (see joist type)
- Lay quilt (min 100mm thick) between joists ensuring no gaps remain
- Ensure floating floor treatment is suitable and is installed in accordance with the manufacturer's instructions (See page 7)
- Ensure quilt within floating floor is laid between and not under flooring battens
- Install resilient flanking strips around the perimeter of the flooring board to isolate floor from walls and skirtings
- Ensure resilient ceiling bars are fixed at right angles to the joists
- Ensure timber floor ceiling treatment is fixed correctly (see page 6)
- Stagger joints in ceiling layers
- Refer to Appendix A

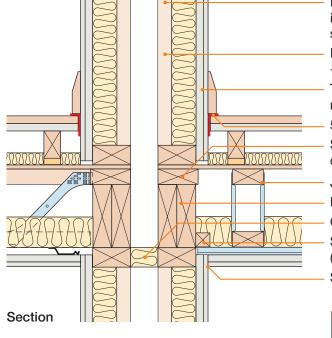
1. External (flanking) wall junction (top chord supported)



2. External (flanking) wall junction (fully built-in)



3. Separating wall junction (top chord supported)



If using robustdetails® for wall - refer to Table 3b in introduction to select an appropriate robustdetails® separating wall

If using wall requiring pre-completion testing

- seek specialist advice

Two layers gypsum-based board total nominal mass per unit area 22 kg/m² both sides

5mm (min) resilient flanking strip

Softwood timber infill between supporting top chords/flanges of joists

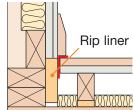
Joists may span in either direction

Ring beams packed to stud width

Close cavity with a cavity stop (see Appendix A)

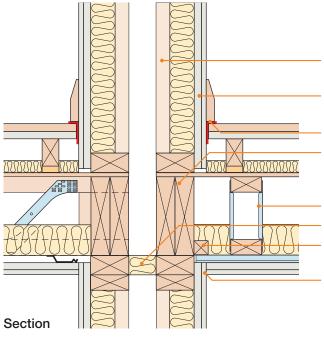
Softwood timber nogging for resilient bar support (leave a small gap at end of resilient bar)

Seal all perimeter joints with tape or caulk with sealant



Alternative detail

4. Separating wall junction (fully built-in)



If using robustdetails® for wall - refer to Table 3b in introduction to select an appropriate robustdetails® separating wall

If using wall requiring pre-completion testing

- seek specialist advice

Two layers gypsum-based board total nominal mass per unit area 22 kg/m² both sides

5mm (min) resilient flanking strip

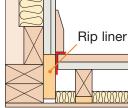
Close spaces between floor joists with full depth timber blocking or continuous header joist where joists are at right angles to the wall

Joists may span in either direction

Close cavity with a cavity stop (see Appendix A)

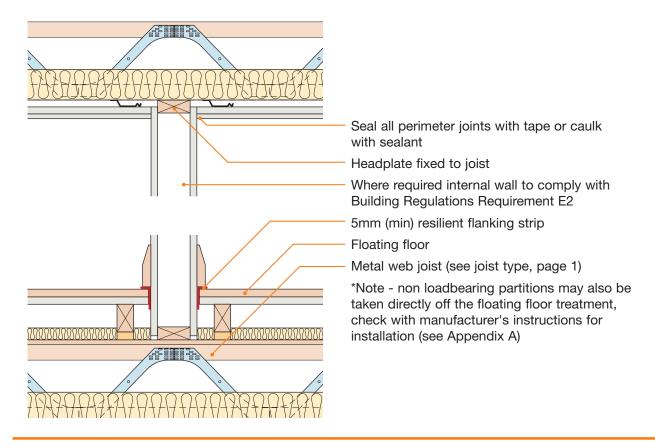
Softwood timber nogging for resilient bar support (leave a small gap at end of resilient bar)

Seal all perimeter joints with tape or caulk with sealant

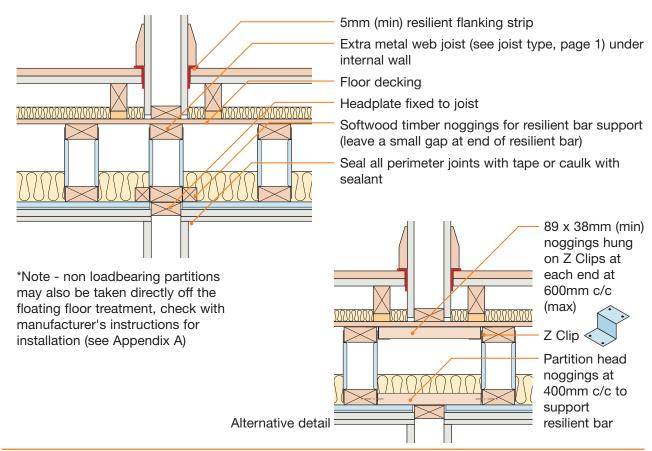


Alternative detail

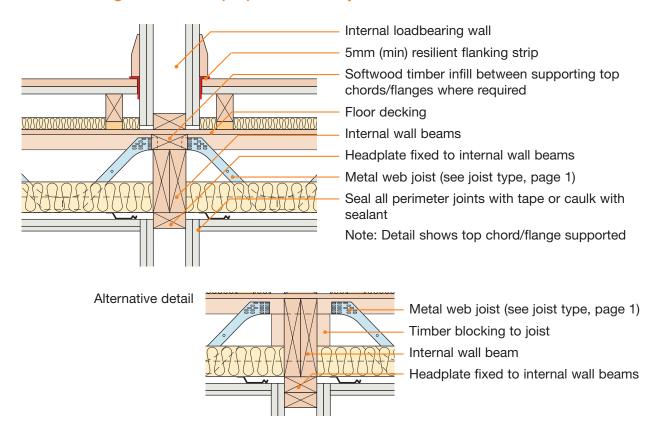
5. Non loadbearing internal wall perpendicular to joists



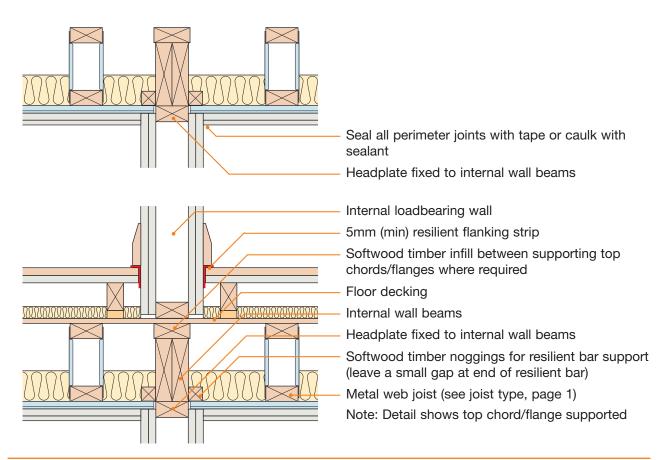
6. Non loadbearing internal wall parallel to joists



7. Loadbearing internal wall perpendicular to joists



8. Loadbearing internal wall parallel to joists



9. Ceiling treatment for E-FT-3

Timber floor ceiling treatment must be either CT1, CT2 or CT3 (see below). All joints to outer layers of ceiling must be sealed with tape or caulked with sealant.

The maximum load on resilient bars should not exceed that specified in the manufacturer's instructions.

Ensure ceiling layers have staggered joints.

Services must not puncture ceiling linings (except cables, which should be sealed around with flexible sealant)

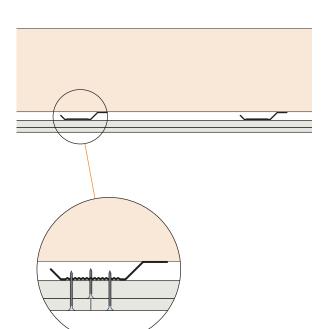
Downlighters and recessed lighting

Downlighters or recessed lighting may be installed in the ceiling:

- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room unless the use of a greater density of light fittings is supported by testing undertaken in accordance with Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety

Note: Only downlighters which have been satisfactorily assessed in accordance with the procedure described in Appendix F "Determination of the acoustic performance of downlighters and recessed lighting in timber separating floors" are acceptable.



CEILING BOARD FIXINGS MUST NOT PENETRATE OR TOUCH JOISTS

16mm (min) resilient bars with CT1 and CT2

16mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of $rd\Delta Rw+Ctr=17dB$ and $rd\Delta Lw=16dB$) – see Appendix E

Ceiling treatment CT1

Two layers of gypsum-based board, composed of 19mm (nominal 13.5 kg/m²) fixed with 32mm screws, and 12.5mm (nominal 10 kg/m²) fixed with 42 mm screws

Ceiling treatment CT2

Two layers of gypsum-based boards composed of 15mm (nominal 11.7 kg/m²) fixed with 25mm screws and second layer of 15mm gypsum-based board (nominal 11.7 kg/m²) fixed with 42mm screws

25mm (min) resilient bars with CT3

25mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of $rd\Delta Rw+Ctr=17dB$ and $rd\Delta Lw=16dB$) - see Appendix E

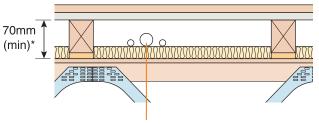
Ceiling treatment CT3

Two layers of gypsum-based board, composed of 10mm (nominal 12kg/m²) fixed with 30mm screws and second layer of 10mm (nominal 12kg/m²) fixed with 30mm screws

10. Floating floor treatment for E-FT-3

Floating floor treatment:

- a) Must achieve a minimum laboratory performance of $rd \Delta R_w + C_{tr} = 13dB$ and $rd \Delta L_w = 15dB$ - see Appendix C.
- b) Must be installed in accordance with the manufacturer's instructions.
- c) Require 5mm (min) resilient flanking strips around the perimeter of the flooring board to isolate floor from walls and skirting.
- d) For further guidance on floating floor treatments and flanking strips, please refer to Appendix A.
- * Note void dimension indicated is when floor is loaded to 25 kg/m².



Services, where required, may be located above or below quilt

FFT1 - Resilient composite deep batten system for E-FT-3

- 18 mm (min) t&g flooring board
- gypsum-based board nominal 13.5 kg/m²
- FFT1 resilient composite deep battens
- battens may have the resilient layer at the top or the bottom
- mineral wool quilt laid between battens
 - 13mm (min) 33-36 kg/m³, or
 - 25mm (min) 10-36 kg/m³
- ensure any services do not bridge the resilient layer
- * Note Services may run within the floor zone (see Appendix A)

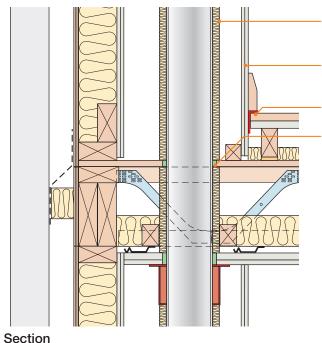
25mm (min) mineral wool quilt (10-36 kg/m³)

Pipe boxed in with two layers of gypsumbased board, combined nominal 16 kg/m²

5mm (min) resilient flanking strip

All voids around pipe sealed

11. Services - pipes through separating floor



5mm (min) polyethylene foam flanking strip

Alternative detail

around pipe

CHECKLIST (to be completed by site manager/supervisor)

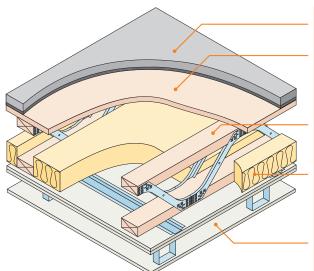
Com	npany:					
Site:	:					
Plot:	:	Site manager/supervisor:				
Ref.	Item		Yes (✔)	No (✔)	Inspected (initials & date)	
1.	Are correct metal we Robust Detail)?	o joists being used (see page 1 of			(initials a date)	
2.	Which of the permitte	ed metal web joist types are being used?				
3.	Are joists at least 25	3mm deep?				
4.	Has quilt (min 100m	m thick) been fitted between the joists?				
5.	Are resilient ceiling b	pars fitted at right angles to the joists?				
6.	Has ceiling system I manufacturer's instr	peen fitted in accordance with the uctions?				
7.	Has floating floor tre the manufacturer's i	eatment been fitted in accordance with nstructions?				
8.	Has quilt been fitted	between the floor battens?				
9.	<u> </u>	CT1, CT2 or CT3 fixed to the resilient bars such that the screws do the the joists?				
10.	Are all joints to gyps caulked with sealant	sum-based boards sealed with tape or ??				
11.		pipes wrapped in quilt and boxed in with m-based board combined nominal mass g/m ² ?				
12.	Have all resilient flar	nking strips been fitted?				
13.	Is separating floor s	atisfactorily complete?				
		any corrective action) signature				

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- Cellecta® ScreedBoard® 28 on timber sub-floor
 - Timber flange and metal web joists
 - Use with timber frame walls only ■



Floating floor	Cellecta® ScreedBoard® 28
Floor decking	18mm thick (min) wood based board, density min 600 kg/m ³
Joists	253mm (min) metal web joists (see joist type below)
Absorbent material	100mm (min) mineral wool quilt insulation (10-36 kg/m³) between joists
Ceiling	See section 9 for suitable ceiling treatment

Joist type

IMPORTANT

Only the following metal web joists may be used in E-FT-3:

- MiTek Posi-Joist
- Prestoplan PresWeb
- WOLF easi-joist
- ITW Gang-Nail Ecojoist
- ITW Alpine SpaceJoist

Notes:

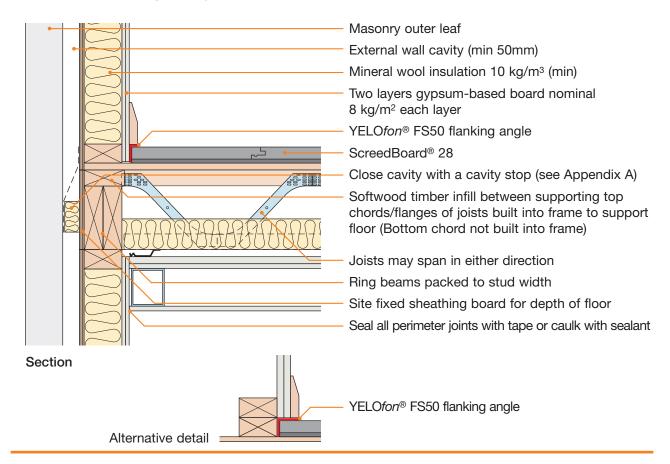
Although single header and sole plates are indicated, increasing the number of header and sole plates would be acceptable, however, all dimension specifications within this Robust Detail must be adhered to.

Metal web joists can be **top chord/flange** supported or **fully built-in** and supported on the panel and this is permitted, however, all dimension specifications within this Robust Detail must be adhered to.

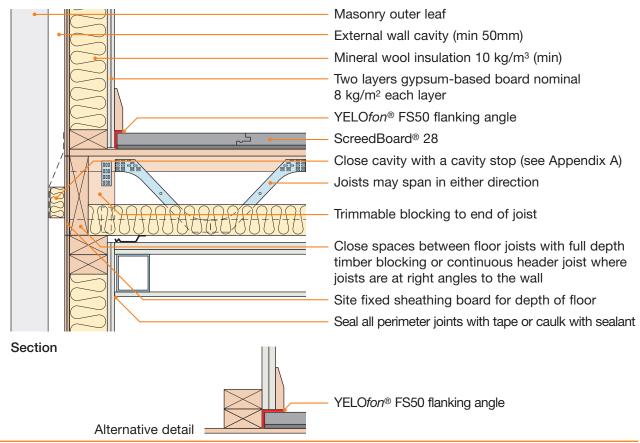
DO

- Ensure correct metal web joists are being used (see joist type)
- Lay quilt (min 100mm thick) between joists ensuring no gaps remain
- Apply Cellecta® SB adhesive to all ScreedBoard® 28 decking joints
- Install YELOfon® FS50 flanking angle around the perimeter of the ScreedBoard® 28 to isolate floor from walls and skirtings
- Ensure resilient ceiling bars are fixed at right angles to the joists
- Ensure timber floor ceiling treatment is fixed correctly (see section 9)
- Stagger joints in ceiling layers
- Refer to Appendix A

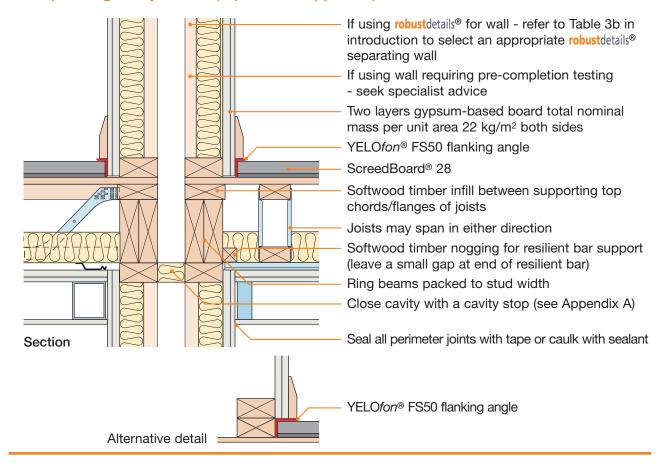
1. External (flanking) wall junction (top chord supported)



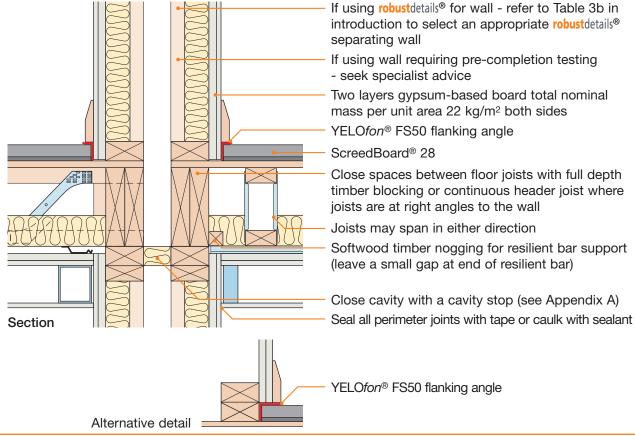
2. External (flanking) wall junction (fully built-in)



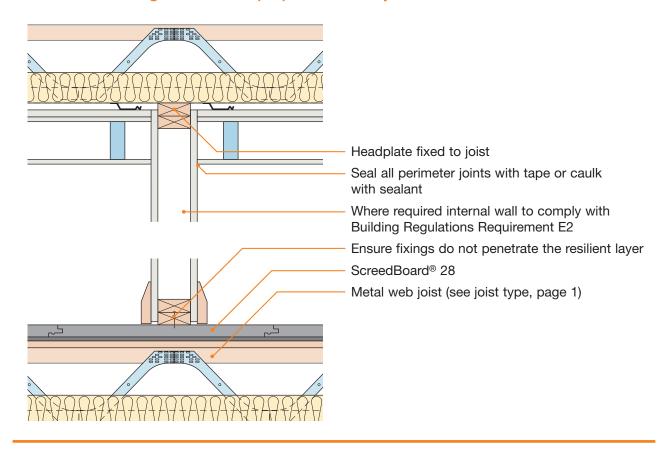
3. Separating wall junction (top chord supported)



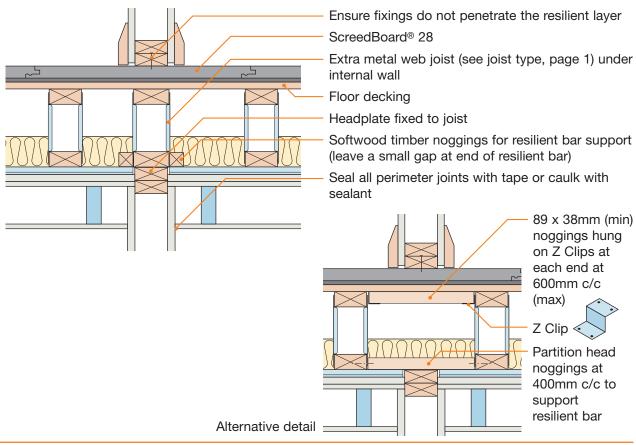
4. Separating wall junction (fully built-in)



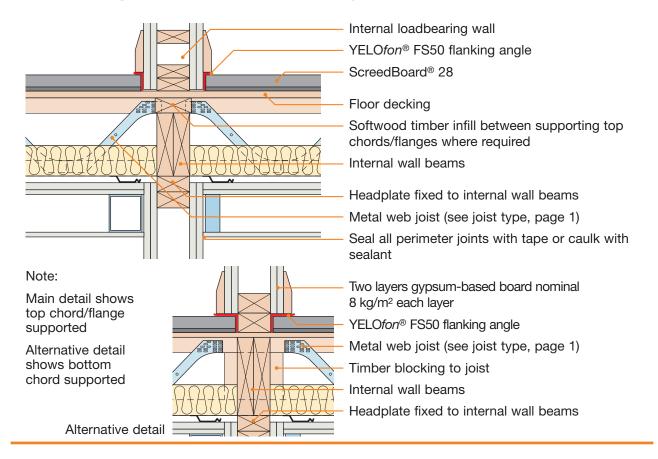
5. Non loadbearing internal wall perpendicular to joists



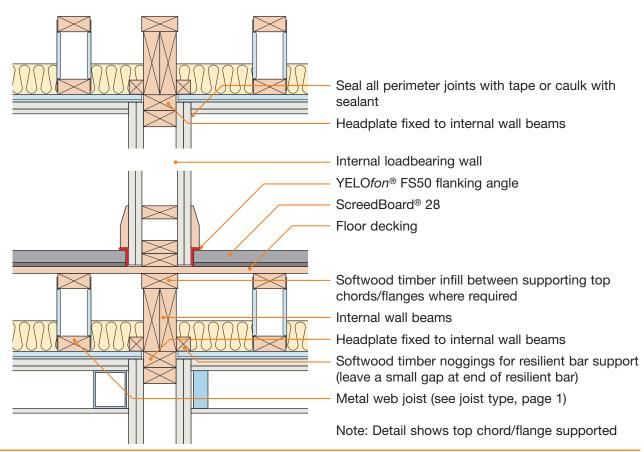
6. Non loadbearing internal wall parallel to joists



7. Loadbearing internal wall perpendicular to joists



8. Loadbearing internal wall parallel to joists



9. Ceiling treatment for E-FT-6

The maximum load on resilient bars should not exceed that specified in the manufacturer's instructions.

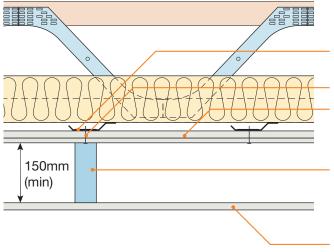
Ensure ceiling layers have staggered joints.

Services must not puncture ceiling linings (except cables, which should be sealed around with flexible sealant)

Downlighters and recessed lighting

Downlighters or recessed lighting may be installed in the ceiling in accordance with the manufacturer's instructions

Particular attention should also be paid to Building Regulations Part B - Fire Safety



mounted at right angles to joists

Min 16mm resilient bars at 400mm centres.

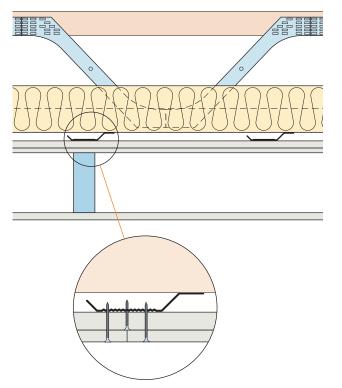
See detail CT1 or CT2 below

Two layers gypsum-based board. See detail CT1 or CT2 below

150mm (min) metal frame suspended service ceiling supported from resilient bars only according to manufacturer's instructions. See Appendix A

12.5mm ceiling board (nominal 8 kg/m²)

*Note - Ensure that there is no contact between screws and joists



CEILING BOARD FIXINGS MUST NOT PENETRATE OR TOUCH JOISTS

16mm (min) resilient bars with CT1 and CT2

16mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of rdΔRw+Ctr=17dB and rdΔLw=16dB) - see Appendix E

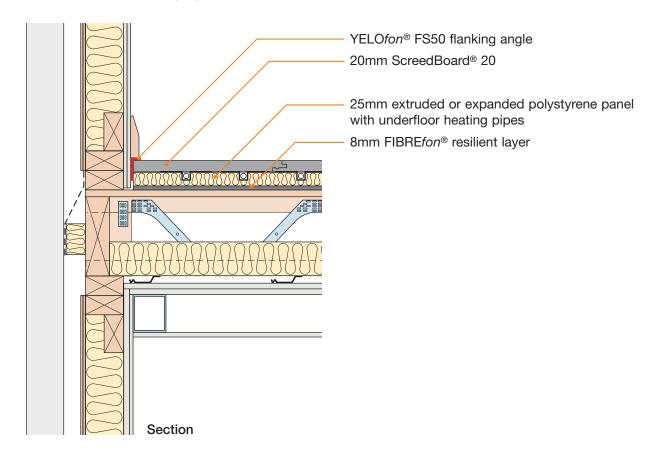
Ceiling treatment CT1

Two layers of gypsum-based board, composed of 19mm (nominal 13.5 kg/m²) fixed with 32mm screws, and 12.5mm (nominal 10 kg/m²) fixed with 42 mm screws

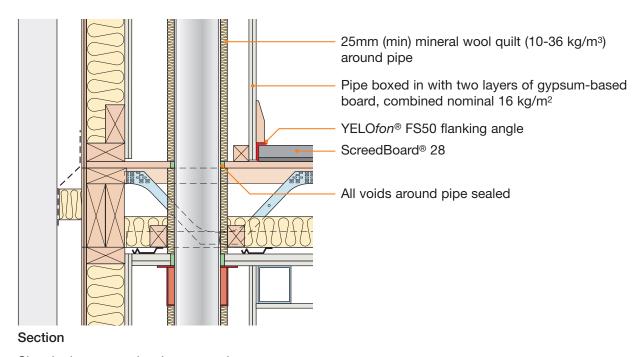
Ceiling treatment CT2

Two layers of gypsum-based boards composed of 15mm (nominal 12.5 kg/m²) fixed with 25mm screws and second layer of 15mm gypsumbased board (nominal 12.5 kg/m²) fixed with 42mm screws

10. Underfloor heating systems below ScreedBoard®



11. Services - pipes through separating floor



Sketch shows top chord supported external (flanking) wall junction detail, for fully built-in arrangement see section 2

CHECKLIST (to be completed by site manager/supervisor)

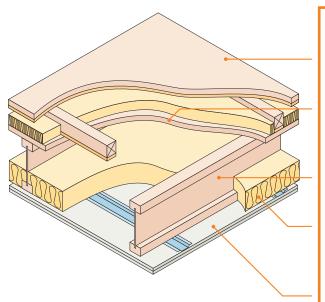
Com	npany:					
Site:						
Plot:		Site manager/supervisor:				
Ref.	Item			Yes No	Inspected (initials & date)	
1.	Are correct metal well Robust Detail)?	o joists being used (see page 1	of		(initials & date)	
2.	Which of the permitte	ed metal web joist types are bei	ng used?			
3.	Are joists at least 25	3mm deep?				
4.	Has quilt (min 100m	m thick) been fitted between t	he joists?			
5.	Are resilient ceiling b	pars fitted at right angles to th	e joists?			
6.	Has ceiling system to manufacturer's instru	peen fitted in accordance with uctions?	the			
7.	_	ked to the resilient bars with coldonot touch or penetrate the j				
8.	Are all joints to gyps caulked with sealant	sum-based boards sealed with ??	tape or			
9.	Is secondary ceiling	void minimum 150mm?				
10.		d [®] 28 floating floor treatment with the manufacturer's instru				
11.	Where underfloor he addition to the Screen	eating is used, is FIBREfon® 8 edBoard® 20?	installed in			
12.	Are YELOfon® FS50	flanking angles installed corre	ectly?			
13.		pipes wrapped in quilt and bo m-based board combined non g/m²?				
14.	Is separating floor sa	atisfactorily complete?				
	ntact details for technical	assistance from <i>Cellecta</i> ®, manufac	turer of ScreedBo	-		
	·	f any corrective action)				

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- Timber I-Joists ■
- Use with timber frame walls only ■



Floating floor See page 5 for suitable

floating floor treatment

Floor decking 15mm thick (min) wood

based board, density

600 kg/m³ (min)

Joists 240mm (min) timber

I-Joists

Absorbent 100mm (min) mineral wool material

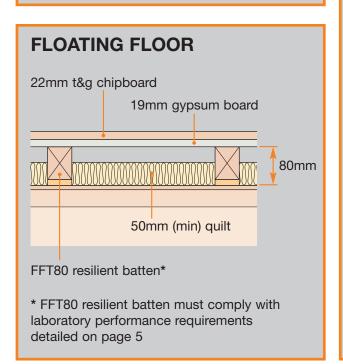
quilt insulation (10-36 kg/m³)

between joists

Ceiling See page 4 for suitable

ceiling treatment

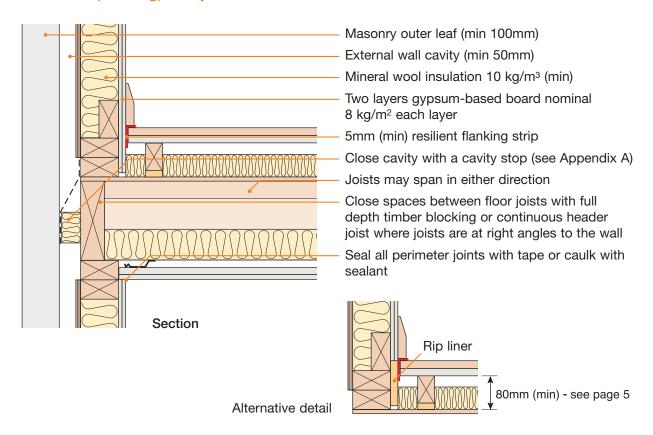
Note: Structural framing details may vary slightly between different manufacturers and this is permitted, however, all dimension specifications within this Robust Detail must be adhered to.



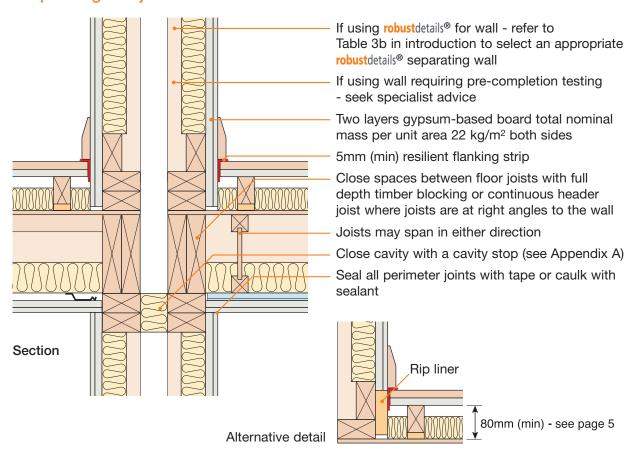
DO

- Lay quilt (min 100mm thick) between all joists, including doubled up I-joists, ensuring no gaps remain
- Ensure floating floor treatment is suitable and is installed in accordance with the manufacturer's instructions
- Ensure quilt is laid between and not under flooring battens
- Install flanking strips around the perimeter of the flooring board to isolate floor from walls and skirtings
- Ensure resilient ceiling bars are fixed at right angles to the joists
- Ensure timber floor ceiling treatment is CT1 and is fixed correctly (see page 4)
- Stagger joints in ceiling layers
- Refer to Appendix A

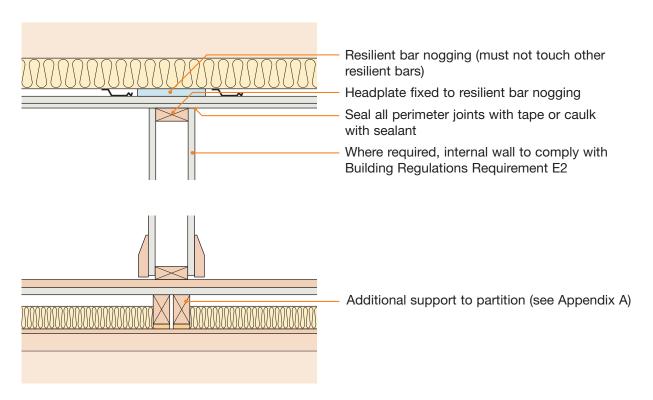
1. External (flanking) wall junction



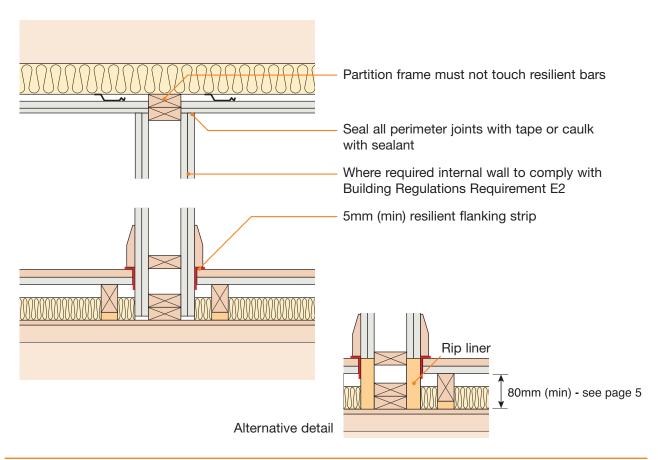
2. Separating wall junction



3. Internal wall junction (non loadbearing)



4. Internal wall junction (loadbearing)



5. Ceiling treatment for E-FT-7

Timber floor ceiling treatment must be CT1, (see below). All joints to outer layers of ceiling must be sealed with tape or caulked with sealant.

The maximum load on resilient bars should not exceed that specified in the manufacturer's instructions.

Ensure ceiling layers have staggered joints.

Services must not puncture ceiling linings (except cables, which should be sealed around with flexible sealant)

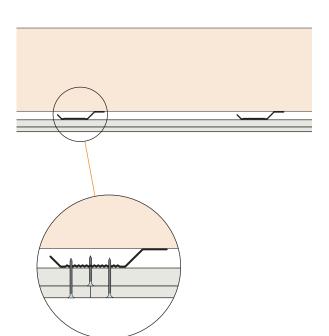
Downlighters and recessed lighting

Downlighters or recessed lighting may be installed in the ceiling:

- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room unless the use of a greater density of light fittings is supported by testing undertaken in accordance with Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety

Note: Only downlighters which have been satisfactorily assessed in accordance with the procedure described in Appendix F "Determination of the acoustic performance of downlighters and recessed lighting in timber separating floors" are acceptable.



CEILING BOARD FIXINGS MUST NOT PENETRATE OR TOUCH JOISTS

16mm (min) resilient bars with CT1

16mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of $rd\Delta R_w + C_{tr} = 17dB$, $rd\Delta R_w = 18dB$ and $rd\Delta L_w = 16dB$) – see Appendix E

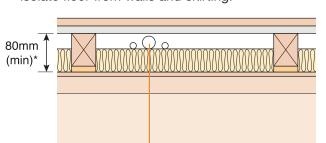
Ceiling treatment CT1

Two layers of gypsum-based board, composed of 19mm (nominal 13.5 kg/m²) fixed with 32mm screws, and 12.5mm (nominal 10 kg/m²) fixed with 42 mm screws

6. Floating floor treatment for E-FT-7

Floating floor treatment:

- a) Must achieve a minimum laboratory performance of $rd \Delta R_w + C_{tr} = 13 dB$, $rd \Delta R_w = 17 dB$ and $rd \Delta L_w = 16 dB$ see Appendix C.
- b) Must be installed in accordance with the manufacturer's instructions.
- c) Require 5mm (min) resilient flanking strips around the perimeter of the flooring board to isolate floor from walls and skirting.



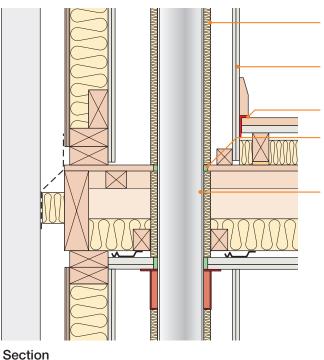
Services, where required, may be located above or below quilt

- d) For further guidance on floating floor treatments and flanking strips, please refer to Appendix A.
- * Note 80mm void dimension indicated is when floor is loaded to 25 kg/m².

FFT80 – Resilient composite deep batten system for E-FT-7

- 22mm (min) t&g flooring board 600 kg/m³ (min)
- gypsum-based board nominal 13.5 kg/m²
- FFT80 resilient composite deep battens
- resilient layer must be continuous and pre-bonded to batten
- battens may have the resilient layer at the top or the bottom
- mineral wool quilt laid between battens
 50mm (min) 10-36 kg/m³
- ensure any services do not bridge the resilient layer

7. Services - pipes through separating floor



25mm (min) mineral wool quilt (10-36 kg/m³) around pipe

Pipe boxed in with two layers of gypsumbased board combined nominal 16 kg/m²

5mm (min) resilient flanking strip

All voids around pipe sealed

Penetration through separating floor must comply with Building Regulations Part B - Fire Safety

5mm (min) polyethylene foam flanking strip

Alternative detail

CHECKLIST (to be completed by site manager/supervisor)

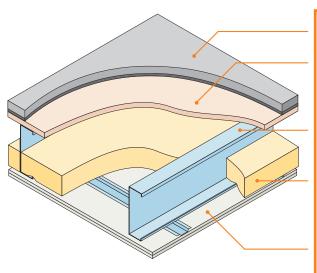
Yes No	
Yes No	
Yes No	
(v) (v)	Inspected (initials & date)
	(initialo a dato)
_	

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Cellecta ScreedBoard® 28 on timber sub-floor ■ Use with lightweight metal frame walls only ■



Floating floor Cellecta ScreedBoard® 28

Floor decking 18mm thick (min) wood

based board, density

600 kg/m³ (min)

Joists 254mm (min) deep metal

joists

Absorbent 100mm (min) mineral wool material quilt insulation (10-36 kg/m³)

between joists

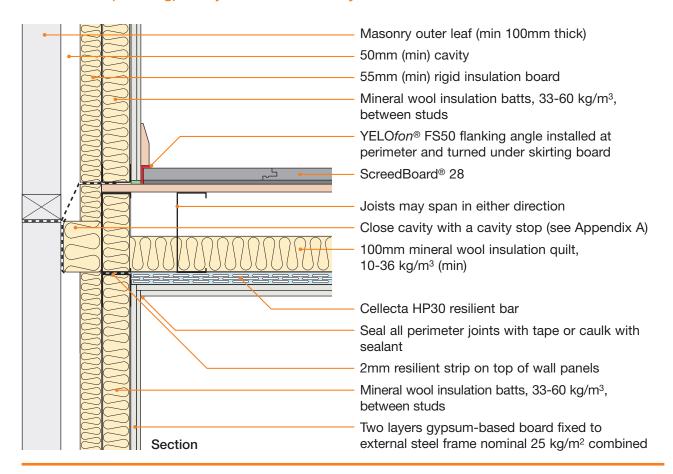
Ceiling See section 4 for suitable

ceiling treatment

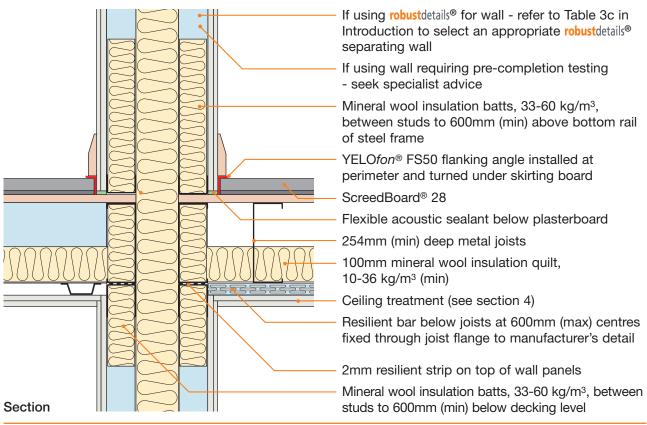
DO

- Lay quilt (min 100mm thick) between all joists, including doubled up joists, ensuring no gaps remain
- Apply Cellecta SB adhesive to all ScreedBoard® 28 decking joints
- Install YELOfon® FS50 flanking angle around the perimeter of the ScreedBoard® 28 to isolate floor from walls and skirtings
- Ensure resilient ceiling bars are fixed at right angles to the joists
- Ensure ceiling treatment is fixed correctly (see section 4)
- Stagger joints in ceiling layers
- Refer to Appendix A

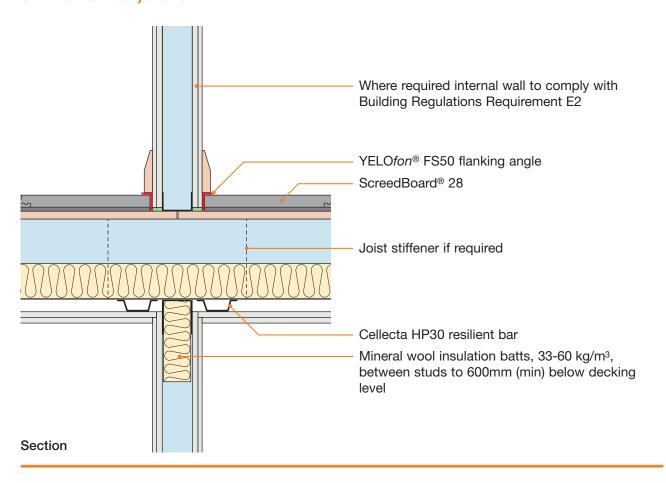
1. External (flanking) wall junction - masonry outer leaf



2. Separating wall junction



3. Internal wall junction



4. Ceiling treatment for E-FS-3

Metal floor ceiling treatment must be as shown below. All joints to outer layers of ceiling must be sealed with tape or caulked with sealant.

The maximum load on resilient bars should not exceed 50 kg/m².

Ensure ceiling layers have staggered joints.

Services must not puncture ceiling linings (except cables, which should be sealed around with flexible sealant)

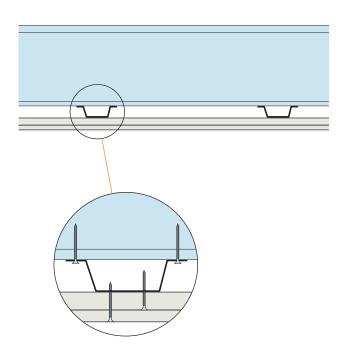
Downlighters and recessed lighting

Downlighters or recessed lighting may be installed in the ceiling:

- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room unless the use of a greater density of light fittings is supported by testing undertaken in accordance with Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety

Note: Only downlighters which have been satisfactorily assessed in accordance with the procedure described in Appendix F "Determination of the acoustic performance of downlighters and recessed lighting in lightweight separating floors" are acceptable.



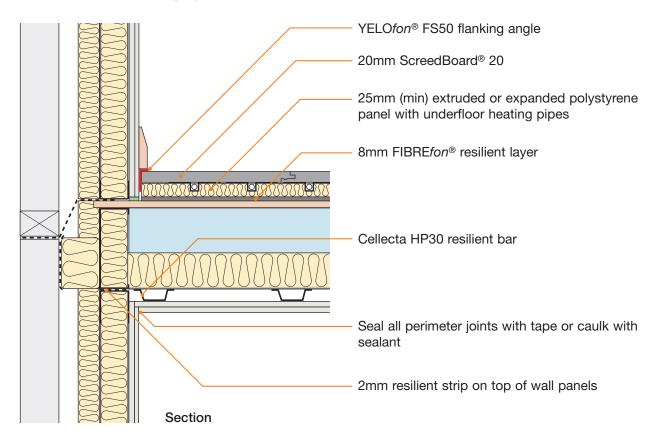
CEILING BOARD FIXINGS MUST NOT PENETRATE OR TOUCH JOISTS

Cellecta HP30 30mm deep metal resilient bar fixed perpendicular to floor joists at 600mm (max) centres

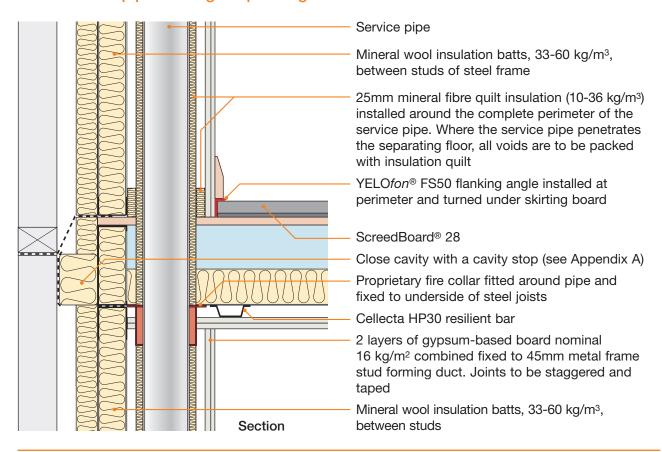
Ceiling treatment CT1

Two layers of gypsum-based boards composed of 15mm (nominal 12.5 kg/m²) fixed with 25mm screws and second layer of 15mm gypsum-based board (nominal 12.5 kg/m²) fixed with 42mm screws

5. Underfloor heating systems below ScreedBoard®



6. Services - pipes through separating floor



CHECKLIST (to be completed by site manager/supervisor)

	npany:				
Site	:				
Plot	: Site manage	r/supervisor:			
Ref.	Item		Yes (✔)		Inspected (initials & date)
1.	Are metal joists minimum 254mm de	ep?	()		(iiiilais & date)
2.	Is sub-deck minimum 18mm, 600 kg	/m³?			
3.	Are YELOfon® FS50 flanking angles	installed correctly?			
4.	Has the ScreedBoard® 28 floating floin accordance with the manufacturer				
5.	Where underfloor heating is used, is addition to the ScreedBoard® 20?	FIBREfon® 8 installed in			
6.	Are Cellecta HP30 30mm deep meta at right angles to the joists?	I resilient ceiling bars fitted			
7.	Has quilt (min 100mm thick) been fit	ted between the joists?			
8.	Has ceiling system been fitted in accomanufacturer's instructions?	cordance with the			
9.	Are the ceiling treatments fixed to the correct screws, such that the screws penetrate the joists?				
10.	Are all joints sealed with tape or cau	lked with sealant?			
11.	Are vertical service pipes wrapped in two layers of gypsum-based board oper unit area of 16 kg/m ² ?				
12.	Is separating floor satisfactorily com	plete?			
	ntact details for technical assistance from Ce lephone: 08456 717174 Fax: 084	lecta, manufacturer of ScreedBoa 56 717172 E-mail: techr		-	
	etes (include details of any corrective a				

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