CEMINTEL®

EDGE™ CLADDING + SIMPLELINE®

Installation Guide

01

INTRODUCTION

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Introduction

Edge™ Cladding ("Edge") and SimpleLine® ("SimpleLine") are hidden gems in the Cemintel® ("Cemintel") portfolio. Pre-primed, pre-sealed, external vertical cladding sheets with modern sharp-edge expressed groove architectural styling allows for creative application of the product that pairs fantastically with the whole Cemintel range.

The grooves are very sharp and clean, so you don't have to remove burring before you paint – it's ready to go. The ship-lap joint runs along the long edge and allows for frame movement and avoids joint cracking. The sheets are suitable for gun-nailing for fast and efficient installation and good coverage. The cladding can be installed direct on studs or as a cavity system. The direct fix method creates a narrow wall that saves space and time.

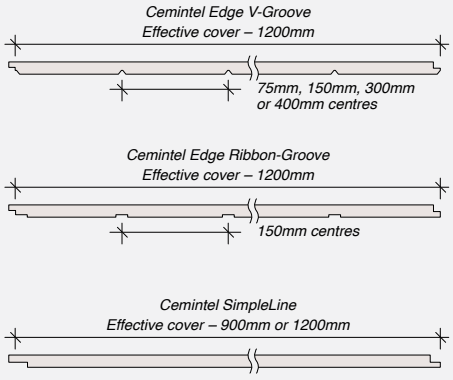
As well as facades, Edge and SimpleLine can also be used in customised solutions for eaves, ceilings, soffits and internal linings. Contact DesignLINK for information on these applications.

This installation guide has been prepared as a general guide and includes information on design and installation considerations, system engineering and construction details. It assumes that the user has an intermediate knowledge level of building design and construction. In no way does it replace the services of the building professionals required to design projects. Nor is it an exhaustive guide of all possible scenarios. It is the responsibility of the architect, designer and various engineering parties to ensure that the details in this installation guide are appropriate for the intended application. For further design information this guide should be read in conjunction with the CSR Cemintel Facades and Cladding – Design Guide and CSR Gyprock® The Red Book™ publications.

Panel Information

Edge cladding sheets are fibre cement sheets featuring a modern sharp-edge vertical expressed groove design. Edge cladding is manufactured from an advanced lightweight fibre cement. The vertical grooves are available in a range of spacings, including 75mm, 150mm, 300mm and 400mm, to accentuate a regular linear design and provide a modern alternative to the traditional weatherboard patterns.

SimpleLine are large format sheets with expressed grooves at the edges to provide a simple, smooth and expansive modern aesthetic. SimpleLine cladding is manufactured from fibre cement. Edge and SimpleLine sheets both conform to the requirements of AS2908.2 – Cellulose-cement products, Part: 2 - Flat sheets, Category 3 Type A.



Applications

Edge and SimpleLine cladding systems are designed for residential projects, and can be used in many external applications including:

- New homes;
- Upper and lower storey additions;
- Composite construction;
- Gable ends;
- Infill sheets around windows and doors;
- Outbuildings including garages and tool-sheds; and
- Over-cladding of existing walls.

Edge and SimpleLine cladding is typically installed on timber or steel framed Class 1 and 10 residential buildings in accordance with the relevant Australian Standards, and is suitable for wind zones N1 to N6/C4 in accordance with AS4055: Wind loads for housing.

Additionally, Edge and SimpleLine systems can be installed on Class 2 to Class 9 buildings of a Type C Construction. Type A and B Construction buildings will require a Cavity Fix wall system with steel top hats and non-combustible components. The support frame and fixing arrangements for a range of design ultimate limit state wind pressures are provided in this guide.

Benefits of Cemintel Edge and SimpleLine Wall Systems

- Simple and quick to install using standard building methods;
- Direct fixed option, where the cladding is direct fixed to studs over wall wrap/sarking;
- Drained and ventilated cavity option where the cladding is fixed to battens over wall wrap/sarking delivers superior weatherproofing by more effectively managing moisture;
- Nail-gun fixing to timber framing or screw fixing to steel framing;
- Manufactured from highly durable and robust fibre cement;
- Immune to permanent water damage;
- Will not rot;
- Low maintenance;
- Termite resistant;
- Fire resistance – Fibre cement sheets can be used where non-combustible material is required under BCA provisions;
- Systems are available for thermal, acoustic and fire requirements as part of an overall solution;
- Bushfire Performance – BAL 29, for a standard wall, and BAL FZ Flame Zone when a 'fire-rated plasterboard' wall system is installed;
- Resistant to cracking, swelling and warping;
- Vertically grooved Edge sheets provide a modern aesthetic and an alternative to the traditional weatherboard;
- Edge sheets are coated with sealers on all surfaces and supplied with an exterior face ready for paint finishing;
- Smooth, flat sheets complemented with discrete ship-lap joints make SimpleLine a cost effective alternative to render; and
- SimpleLine sheets have a pre-sealed exterior face to easily accept all types of exterior paint finished.

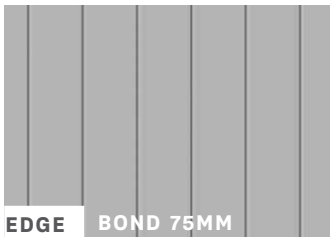
02 PRODUCT OVERVIEW

Product Specifications

Edge cladding sheet is 9mm thick, has a nominal cover of 1200mm and is available in a range of lengths and expressed groove patterns. Sheets are manufactured with ship-lap profiled long edges for joining. Sheets have a repeating pattern of 1.8mm depth x 8.6mm width 'rectangular' profile grooves at a 150mm spacing on the external face, and 2.8mm depth x 5.5mm width 'V' profile grooves on the external face, which are available in a range of spacings 75mm, 150mm, 300mm and 400mm centres. Edge sheets are supplied with a factory sealed face ready for paint finishing.

Edge Cladding is available in 4 sharp and distinct designs that can be used both internally and externally for dramatic effect. It is perfect for the creative pairing with other materials, as part of a composite look, or as a vertical alternative to the traditional weatherboard.

SimpleLine cladding is 8.5mm thick, has a nominal cover of either 900mm or 1200mm and is available in a range of lengths. Sheets are manufactured with a ship-lap profiled long edges for joining. Sheets have a repeating pattern of 3.5mm depth x 6mm width grooves at sheet joints on the external face. SimpleLine has a pre-sealed face that easily accepts all types of exterior paint finishes.



SimpleLine® provides a rendered aesthetic or is a clean blank canvas for you to add your preferred paint colour.

Property	Performance	Reference/Relevant Standard
Thickness	-0mm / +0.3mm	AS 2908.2
Width	-1mm / +0mm	AS 2908.2
Length	-3mm / +0mm	AS 2908.2
EMC Panel Mass (Nominal)	13.1 kg/m² (Edge) 12.5 kg/m² (SimpleLine)	AS 2908.2
Fire Resistance Limits (FRLs)	Up to 90/90/90 in a system with Gyprock fire grade plasterboard	Refer to System Engineering section of Gyprock® The Red Book™
Bushfire Construction	BAL 29 (Construction for Bushfire Attack Level 29 for a standard external wall). Higher BAL ratings are possible with the inclusion of fire-rated layers.	AS 3959
Weatherproofing	Assessed to pass serviceability pressure of 1.19kPa based on ventilated cavity systems	BCA Vol 1 Verification Method FV1.1 and BCA Vol 2 Verification Method V2.2.1
Cyclonic Conditions	Suitable for wind classification up to C4	AS 4055 (Wind loads for housing)

EMC – Equilibrium Moisture Content

Direct Fix and Cavity Fix Cladding Systems

Edge and SimpleLine wall systems have ship-lap joints to create the expressed groove at the joint and continue the regular expressed groove appearance on the external face of the Edge sheets. The sheets are easily fixed to timber or steel frames using common fasteners. Panels can be either installed by DIRECT FIXED to the framing or installed with a ventilated and drained CAVITY, depending on the degree of weather resistance required. The cavity system provides a beneficial path for airflow, ventilation and drainage.

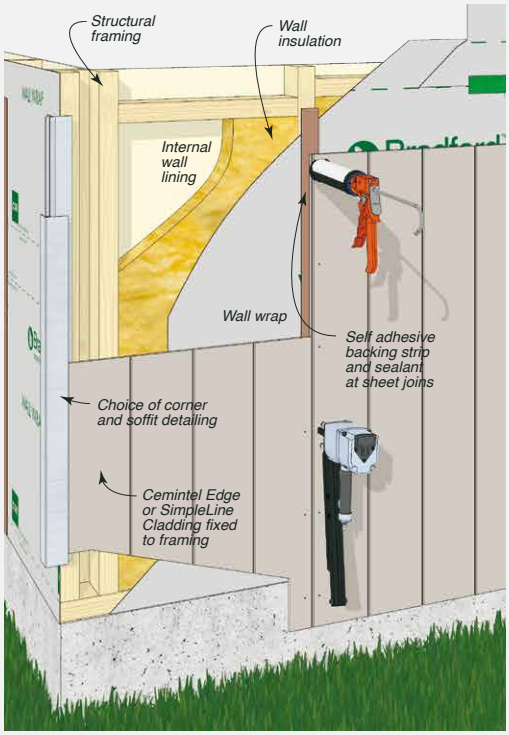
Direct Fix System

In many Australian residential applications (where homes are low rise and subject to low wind pressures), cladding is fixed directly to the frame. A degree of sealing is required at joints and gaps to prevent water ingress. Although not as effective as ventilated and drained cavity systems, direct fix systems can be an effective means of weatherproofing low risk buildings.

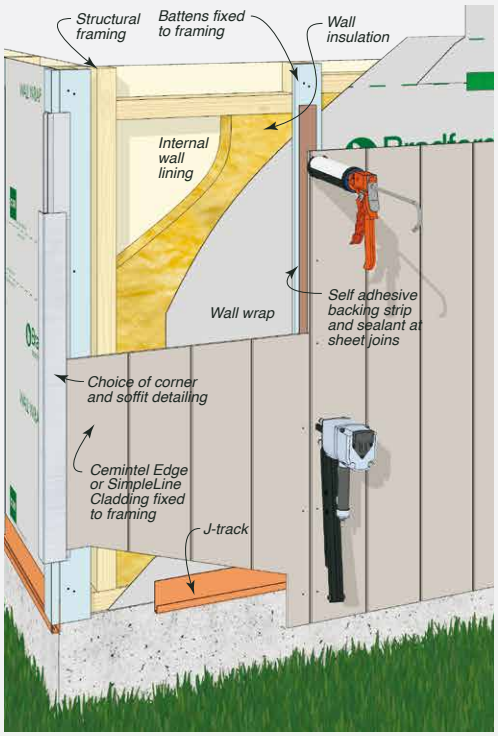
Drained and Ventilated Cavity Fix System

For buildings that are subject to higher wind loads or have features associated with a higher risk level for weatherproofing, a ventilated and drained cavity is required (refer to NCC BCA Volume 2, Part 2.2 Damp and Weatherproofing (Verification Methods), Table V2.2.1a – Risk Factors and Scores). Typically, a ventilated and drained cavity or “Rainscreen” has openings at the joints that provide a rear-ventilated cladding system. To achieve a ventilated system, battens or top hats are fixed over an air barrier to the face of studs or structural framing to form a cavity to enable air flow at the base and/or head of the external cladding wall via J-Track and eaves, respectively.

FIGURE 3.01 Typical Direct Fix System and Cavity Fix System Arrangements



Typical Direct Fix System



Typical Cavity System

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SYSTEM OVERVIEW

Design and installation considerations are provided in this guide for both methods. A unique weatherproofing solution can be also achieved through a combination of these two methods.

The weatherproofing performance of the cavity is further enhanced by allowing sufficient air flow into the cavity behind the cladding, so that the pressures on either side of the cladding are similar and creates a pressure equalised cavity. This feature reduces the risk of moisture and water entering the cavity by means of pressure equalisation and provides a path for any water that does enter the cavity to effectively drain away and evaporate, leaving the building shell dry.

The weatherproofing performance of the Edge and SimpleLine wall systems have been assessed and independently certified. For further information contact CSR DesignLINK.

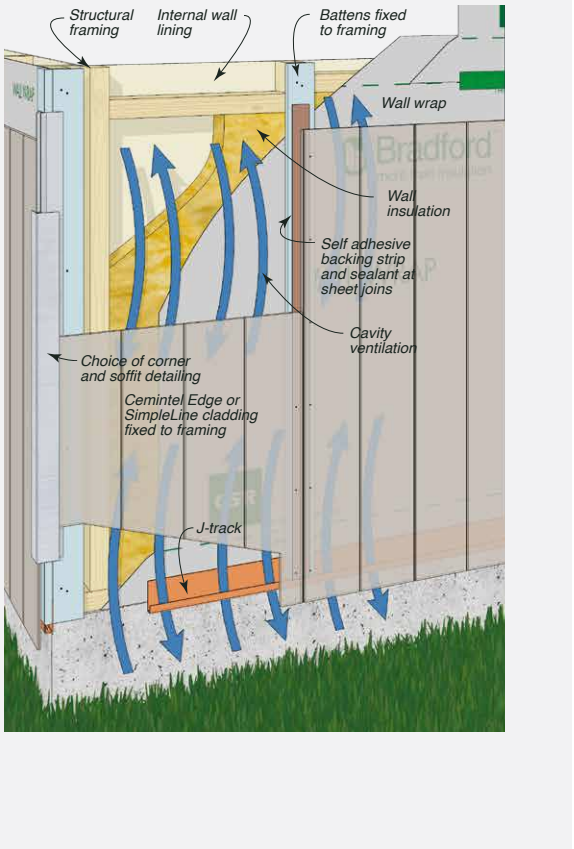
Cavity Battens and Top Hats

The cavity can be formed with the following batten/top hat components:

- Non-structural – 18mm to 20mm deep/thick timber battens with a minimum 35mm – 70mm face width;
- Structural – 18mm to 50mm deep steel top hats with a 35mm minimum face width, 19mm deep Cemintel FC Batten (Residential Class 1 and 10 buildings only), or 35mm to 50mm deep timber battens with a minimum 35mm – 70mm face width; and
- At vertical joins – studs or battens must have a minimum face width of 45mm.

The non-structural battens are fixed 'On-stud' to the structural framing and acts as a spacer with the Edge and SimpleLine cladding direct fixed to the framing. For structural battens and top hats, the Edge and SimpleLine cladding can be direct fixed to batten or top hats. Note, for steel framed buildings the designer will advise on the thermal break requirements. The timber battens will require a minimum H3 protective treatment. The steel top hats will require a protective treatment or stainless steel material in C4: High Corrosivity Zone and higher zones. Horizontal surfaces of battens must have a minimum fall of 5° to the horizontal to allow drainage of any moisture.

FIGURE 3.02 Air Flow in the Ventilated Cavity Fix System



Air Barriers

The air barrier is required to reduce air leakage between the exterior and interior areas of the building to achieve the pressure equalised self-draining cavity system and the 'building envelop sealing' level for energy efficiency performance. This guide considers the internal plasterboard lining as the predominant air barrier. Refer to the CSR Cemintel Facades and Cladding – Design Guide and CSR Gyprock The Red Book literature for further information on plasterboard linings, and Edge and SimpleLine wall systems.

In high wind areas or Risk Factors, an appropriate securely fixed air barrier (i.e., wall wrap, rigid air barrier, waterproofing layer, backpan of a cavity wall system) will be required as a replacement air barrier to the internal plasterboard lining.

Further information on the air barrier requirements to achieve a pressure equalisation system are presented in Cemintel Air Barriers – Design and Installation Guide.

DESIGN + AESTHETIC CONSIDERATIONS 04

This guide provides detailed installation information for external wall systems clad with Edge and SimpleLine sheets over timber, steel, concrete or masonry construction. This section outlines some important areas for consideration in determining an appropriate design of the Edge and SimpleLine clad facade. The following points are not exhaustive. It is the responsibility of the architect / building designer to ensure the design conforms to BCA requirements and other relevant building standards that may exist for that location. It is recommended that the architect/building designer assigns the responsibility for the façade design to the project engineer.

This installation guide should be read in conjunction with the BCA, and for design information presented in the CSR Cemintel Facades and Cladding – Design Guide and CSR Gyprock The Red Book publications.

Design Considerations – Façades and Cladding Systems

CSR recommends that a comprehensive assessment of the performance requirements for the facades and external wall cladding systems be undertaken to address the areas of:

- Structural Design – framing and substrate options, direct fix and cavity fix installation requirements, earthquake loading, wind loading, stud set-out, cyclonic zones, structural bracing, internal linings and curved walls;
- Weatherproofing;
- Moisture Management – condensation risk, wall wrap/sarking selection and air barriers;
- Energy Efficiency/Thermal Design – thermal performance, thermal break requirements, building envelop sealing and thermal bridging;
- Climates Zones for Thermal Design;
- Fire Resistance Performance – fire rated external wall systems, supplementary fire zone protection, wall framing fire resistance, framing and lining, spread of fire, bushfire prone zones and roof & eaves design;
- Acoustic Performance;
- Extreme Climate Conditions – coastal areas, corrosive zones/ categories and temperature extremes; and
- Other Design Considerations – window selection, services, renovations, termite management, specialist profiles and product limitations.

Panel Layout

The Edge and SimpleLine sheets must be installed with the joins in a vertical orientation. All Sheet joints must be backed by framing, battens or top hats. For the direct fix method, it is critical that the layout of the stud framing be determined to coincide with the vertical joint of a full sheet width, as the pre-formed ship-lap joints can not be produced on-site.

Sheet Layout of Openings

Penetrations in the Cemintel cladding must be neatly cut using appropriate tools such as a saw, drill or hole saw. Penetrations should be prepared with a clearance of 5mm all around and the gap must be fully sealed with sealant.

Control Joints

A control joint must be installed when a masonry wall adjoins framed construction, and at the junction of framed additions to existing buildings, to allow for differential movement. The current and new framing and cladding systems must be discontinuous at this control joint. Refer to ‘Construction Drawings + Details’ section.

Movement joints provided in framing should be carried through the cladding.

For multi-storey construction, a horizontal control joint should be provided at each floor level. Frame shrinkage and building movement also requires consideration by the building designer in all cases.

04 DESIGN + AESTHETIC CONSIDERATIONS

Joint Solutions & Surface Finish

All products should be painted within three months of delivery to site. Edge and SimpleLine sheets must be dry before painting. The Edge sheets are supplied with a pre-sealed front face of the sheet. Cut edges should be pre-painted with Cemintel Edge Sealer.

Where Cemintel cladding products are exposed to the elements for more than three months from delivery, CSR recommends the application of a priming coat before applying the decorative coatings. Refer to the coating manufacturer's recommendations.

It is important to seek advice from the coating manufacturer to ensure you select the most appropriate and compatible products for Edge and SimpleLine. Considerations should include:

- Prior to the application of the external coating system, walls must be washed down with clean fresh water to remove salt spray build-up from sheets and fixings. Sheets must be allowed to dry before coating. Refer to Section 10 for additional information;
- The straightness of the substrate framing;
- Fasteners may be patched with CSR Wet Area Base Coat and finished flush with the external face surface, with any excess material removed before hardening;
- The movement joint systems for use with Edge and SimpleLine wall systems are appropriate for external use, e.g., UV stabilised;
- The durability of the weatherboard system can be improved by periodic inspection and maintenance. Inspections should include examination of the paint, flashings and seals;
- The durability of the system can also be increased by painting all exposed sealants to the sealant manufacturer's recommendations;
- A minimum of a two-coat coating systems suitable for use with Edge and SimpleLine systems are usually 100% acrylic, exterior grade, high performance, elastomeric membrane weatherproofing coatings; and
- Paint finishes must be maintained in accordance with the manufacturer's recommendations. Any cracked or damaged flashings or seals that would allow water ingress must be repaired immediately. Any damaged sheets must be replaced.

Refer to coating manufacturer to determine suitable coatings. Cemintel recommends using trained applicators that are approved by the coating manufacturer. It is the responsibility of the applicator to use the appropriate components and compounds adequate to eliminate cracking under normal building conditions.

COMPONENTS + ACCESSORIES

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Note: Codes can change from time to time. Refer to the website for the current list of components prior to ordering.

Sheets

Product Code	Nominal Thickness (mm)	Width (mm)	Length (mm)	Mass	Sheets per Pack
EDGE CLADDING					
BOND V-Groove at 75mm centres					
454471	9	1200	2450	13.1kg/m²	30
454504	9	1200	2750	13.1kg/m²	30
454474	9	1200	3000	13.1kg/m²	30
OXFORD V-Groove at 150mm centres					
454475	9	1200	2450	13.1kg/m²	30
454476	9	1200	2750	13.1kg/m²	30
454477	9	1200	3000	13.1kg/m²	30
YORK V-Groove at 300mm centres					
454505	9	1200	2450	13.1kg/m²	30
454479	9	1200	2750	13.1kg/m²	30
454500	9	1200	3000	13.1kg/m²	30
CROWN V-Groove at 400mm centres					
454501	9	1200	2450	13.1kg/m²	30
454502	9	1200	2750	13.1kg/m²	30
454503	9	1200	3000	13.1kg/m²	30
RIBBON-Groove at 150mm centres					
115654	9	1200	2450	13.1kg/m²	30
115655	9	1200	2750	13.1kg/m²	30
115656	9	1200	3000	13.1kg/m²	30
SIMPLELINE CLADDING					
136719	8.5	900	3000	12.5kg/m²	30
136820	8.5	1200	2400	12.5kg/m²	30
136861	8.5	1200	3000	12.5kg/m²	30

Accessories

Note: The length of the fixings will need to be increased to ensure the same or greater embedment depth is obtained when additional layers are added, such as a Rigid Air Barrier (RAB), fire-rated linings, and/or thermal break materials. Nail fixing through multiple layers can be difficult and screw fixings are the preferred method of construction.

Product	Description	Size/Colour	Quantity	Product Code
CLADDING FIXINGS				
	**Cladding Nails for Timber Framing and Battens** – Machine driven nails, Class 3 Hot Dipped Galvanised (HDG) or Class 4 Stainless Steel (S/S). Used for direct fixing Edge and SimpleLine cladding to timber framing or 35mm minimum thickness structural timber battens.			
	• Paslode 2.5mmø x 45mm Ring Shank Coil Nail (30mm minimum embedment)	2.5mmø x 45mm	Supplied by others	
	• 2.8mmø x 40mm Gal. Clout nail (30mm minimum embedment)	2.8mmø x 40mm	Supplied by others	
	**Cladding Nails for Timber Framing** – Machine driven nails, Class 3 Hot Dipped Galvanised (HDG) or Class 4 Stainless Steel (S/S). Used for direct fixing Edge and SimpleLine cladding to timber framing. 30mm minimum embedment.			
	• Paslode 2.5mmø x 50mm Plain or Ring Shank Nail	2.5mmø x 50mm	Supplied by others	
	• ND50 Brad Nail S/S	2.5mmø x 50mm		
	**Cladding Nails for Cemintel FC Batten** – Machine driven nails, Class 3 or Class 4 Stainless Steel (S/S). Used for direct fixing Cemintel Edge and SimpleLine cladding to Cemintel FC Battens.			
	• C25 Brad Nail	16G x 25mm	Supplied by others	

05 COMPONENTS + ACCESSORIES

Note: Codes can change from time to time. Refer to the website for the current list of components prior to ordering.

Product	Description	Size/Colour	Quantity	Product Code
CLADDING FIXINGS (CONT'D)				
	Cladding Nails for Timber Framing and Non-Structural Timber Batten – Machine driven nails, Class 3 Hot Dipped Galvanised (HDG) or Class 4 Stainless Steel (S/S). Used for direct fixing Cemintel Edge and SimpleLine cladding through 20mm maximum thickness non-structural timber battens to timber framing.			
	• Paslode 2.5mmø x 60mm Smooth Shank nail • Paslode 2.7mmø x 60mm Screw or Ring Shank Dome 15° nail	2.5mmø x 60mm 2.7mmø x 60mm	Supplied by others	
	**Cladding Screws for Steel Framing or Top Hats** – Used for direct fixing Cemintel Edge and SimpleLine cladding to steel framing and steel top hats over a thermal break. To suit 0.50mm BMT to 1.15mm BMT framing.			
	• Buildex Fibre Teks self-embedding CSK Rib head, Phillips drive, Climaseal 4 finish	10-18 x 30mm (M4.8-18 x 30mm)	Pack of 1000 (loose)	125614
BATTEN AND TOP HAT FIXINGS				
	Batten Nails for Timber Framing – Manually driven nails, Class 3 Hot Dipped Galvanised (HDG). Used for fixing 35mm maximum thickness structural battens to timber framing.			
	• Flat head nail, 30mm minimum embedment	3.75mmø x 75mm	Supplied by others	
	Batten Nails for Timber Framing – Machine driven nails, Class 3 Hot Dipped Galvanised (HDG) or Class 4 Stainless Steel (S/S). Used for fixing 20mm maximum thickness non-structural battens to timber framing.			
	• Paslode 2.8mmø x 50mm D Head nail	2.8mmø x 50mm	Supplied by others	
	Batten Nails for Timber Framing – Machine driven nails, Class 3 Hot Dipped Galvanised (HDG) or Class 4 Stainless Steel (S/S). Used for fixing 35mm maximum thickness structural battens to timber framing.			
	• Paslode 3.15mmø x 90mm D Head nail • Paslode 3.15mmø x 90mm Screw or Ring Dome 15° nail	3.15mmø x 90mm 3.15mmø x 90mm	Supplied by others	
	Batten Screws for Timber Framing – Used for fixing Cemintel FC Batten to timber framing.			
	• Type 17 CSK Rib head, Phillips drive screw	8-10 x 57mm	Supplied by others	
	Batten Screw for Steel Framing – Used for fixing the Cemintel FC Batten over a thermal break to steel framing. To suit 0.50mm BMT G550 steel and 0.75mm BMT G2 steel framing.			
	• SCROOZ Fasteners FibreFix Metal FC Board screws, self-embedding head, SQ2-driver, Screw Armour Ceramic finish.	8g x 42mm	Supplied by others	
	Batten Screw for Steel Framing – Used for fixing the Cemintel FC Batten over a thermal break or 35mm maximum thickness structural battens to steel framing. To suit 0.75mm BMT to 1.15mm BMT framing.			
	• Prolnx winged self-drilling, CSK self-embedding head, Class finish screw	10-16 x 55mm	Pack of 500 (loose)	195881
	• Otter (SLEG+) CSK Rib head, Phillips drive, GAL Class 3 finish. Cemintel FC Batten fixing.	10-16 x 40mm	Supplied by others	
	Top Hat Screws for Timber Framing – Used for fixing the intermediate top hat to timber framing.			
	• Type 17, Hex head screw	12-11 x 45mm	Supplied by others	
	**Top Hat Screws for Steel Framing** – Class 4 screw. Used for fixing intermediate top hat to steel framing over a thermal break, as required. To suit 0.50mm BMT to 1.15mm BMT framing.			
	• Self-drilling Hex head screw	12-14 x 20mm	Supplied by others	
	**Cemintel FC Batten – Structural** battens are fixed to the structural framing to create a 19mm deep drained cavity system. Thermal resistance, R-Value of 0.06 m^2.K/W.	70mm x 19mm 2.7m lengths	1 each	125431
	**Timber H3 Batten – Non-structural** timber battens are fixed to the structural framing to create a 19mm deep drained cavity system. 35mm minimum width and greater than stud framing width. (minimum of 20mm thick batten required for R-Value of 0.2 thermal break layer).	35mm min. x 18-20mm	Supplied by others	

COMPONENTS + ACCESSORIES

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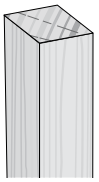
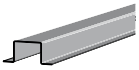
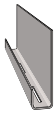
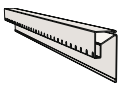
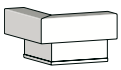
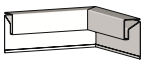
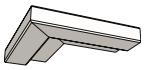
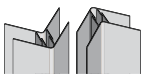
Note: Codes can change from time to time. Refer to the website for the current list of components prior to ordering.

Product	Description	Size/Colour	Quantity	Product Code
BATTEN AND TOP HAT FIXINGS (CONT'D)				
	**Structural Timber Battens** – MGP10 grade, **structural** timber battens are used for support of the Edge cladding at vertical joints and create the 35mm deep drained cavity system.			
	• Use 45mm (w) x 35mm (d) MGP10 for on-stud joints.	45mm x 35mm F5 grade timber	Supplied by others	
	• Use 70mm (w) x 35mm (d) MGP10 for off-stud joints. May also be used as alternative to 45mm (w) x 35mm (d) battens.	75mm x 35mm F5 grade timber	Supplied by others	
	**Cemintel® Intermediate Top Hat** – Used for support and fixing of the Edge cladding at vertical joints in off-stud locations. Manufactured from galvanised (Z275) steel of 0.75mm base metal thickness with a mass of 0.95kg/m.	3.0m lengths x 35mm deep	1 each	126144
	**Cavity Baffle** – PVC profile used at base of wall to exclude vermin and moisture. To suit 35mm wide cavity.	3.0m lengths	1 each	38651
	**J Track (Batten closer)** – PVC extrusion fitted at base of battens to provide drainage, air flow and vermin proofing. To suit 18mm wide cavity.	18 x 18 x 70mm x 3000mm	1 each	134845
	**Internal Corner Backing** – metal angle flashing used at internal corners. Manufactured from steel galvalume AZ150 corrosion resistant coating. (reference: FC 133).	50x50x3030mm	1 each	111498
	**Cemintel Eaves Trim** – provides an attractive finish at eaves junction and provides cavity ventilation. Powder coat finish on 0.35mm BMT steel with Galvalume AZ150 corrosion resistant coating.	60 x 26mm x 3030mm White	1 each	134451
	**Cemintel Eaves Trim External Corner** – provides an attractive finish at eaves trim corner. Powder coat finish on 0.35mm BMT steel with Galvalume AZ150 corrosion resistant coating.	100 x 100mm White	1 each	134426
	**Cemintel Eaves Trim Internal Corner** – provides an attractive finish at eaves trim corner. Powder coat finish on 0.35mm BMT steel with Galvalume AZ150 corrosion resistant coating.	150 x 150mm White	1 each	134429
	**Cemintel Soffit Trim** – provides an attractive finish at soffit edge as well as cavity ventilation and cavity closure below battens. To suit 18mm wide cavity. Powder coat finish on 0.35mm BMT steel with Galvalume AZ150 corrosion resistant coating.	60 x 18mm x 3030mm White	1 each	134452
	**Cemintel Soffit Trim External Corner** – provides an attractive joint at soffit trim corner. To suit 18mm wide cavity. Powder coat finish on 0.35mm BMT steel with Galvalume AZ150 corrosion resistant coating.	76.5 x 76.5mm x 18mm White	1 each	134431
	**Cemintel Soffit Trim Internal Corner** – provides an attractive joint at soffit trim corner. To suit 18mm wide cavity. Powder coat finish on 0.35mm BMT steel with Galvalume AZ150 corrosion resistant coating.	91.5 x 91.5mm x 18mm White	1 each	134432
	**Two Piece Corner** – Snap together paintable aluminium corner. Can be used at internal and external corners to cover board ends	3m length	1	108451

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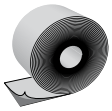
COMPONENTS + ACCESSORIES

Note: Codes can change from time to time. Refer to the website for the current list of components prior to ordering.

Product	Description	Size/Colour	Quantity	Product Code
CEMINTEL RIGID AIR BARRIER/WALL WRAPS				
	**Cemintel Rigid Air Barrier***	1200mm x 3000mm x 6mm	Pack of 30 sheets	170076
	Thermoseal™ Wall Wrap Classification – Non-permeable Reflective Water Classification – High	1350mm – 30m roll	1 roll	40483
		1350mm – 60m roll	1 roll	10576
	Thermoseal™ Resiwrap Classification – Non-permeable Reflective Water Classification – High	1350mm – 30m roll	1 roll	108879
		1350mm – 60m roll	1 roll	108004
		1500mm – 30m roll	1 roll	120121
	Enviroseal ProctorWrap™ Residential (RW) Classification – Permeable High. Water Classification – High	1500mm – 50m roll	1 roll	120923
	Enviroseal ProctorWrap™ Commercial (CW) Classification – Permeable High. Water Classification – High	1500mm – 50m roll	1 roll	118593
	Enviroseal ProctorWrap™ Commercial (CW-IT)	1500mm – 50m roll	1 roll	153675
	Enviroseal ProctorWrap™ High Tensile Roof (HTS)	1500mm – 50m roll	1 roll	122933
	Thermoseal™ 733 Classification – Non-permeable Reflective. Water Classification – High	1350mm – 60m roll	1 roll	86166
	**Enviroseal ProctorWrap Hightack Tape** – used to seal wall wrap/sarking at overlap joins, around openings and at flashings. Black, single sided, aggressive adhesive tape with a high initial grab and flexible carrier.	60mm x 25m	1 roll	160950
	Enviroseal ProctorWrap SLS Tape – used to seal wall wrap/sarking at overlap joins, around openings and at flashings. Grey, single sided, aggressive adhesive tape with a high initial grab and flexible carrier.	60mm x 25m	36 rolls	124872
INSULATION				
	**Bradford Gold Wall Batts** – R1.5 (75mm)	1160mm x 430mm 1160mm x 580mm	22 pack 22 pack	113938 113939
	Bradford Gold Wall Batts – R2.0 (HP) (75mm)	1160mm x 420mm 1160mm x 570mm	12 pack 12 pack	153643 153648
	Bradford Gold Wall Batts – R2.5 (90mm)	1160mm x 420mm 1160mm x 570mm	9 pack 9 pack	181430 181471
	Bradford Gold Wall Batts – R2.7 (90mm)	1160mm x 420mm 1160mm x 570mm	5 pack 5 pack	152191 152197
	**Sealant** – polyurethane. Used to seal joints, control joints, junctions, gaps around windows/doors/other penetrations. Can be painted over with most paints.	310mL tube (GREY) 310mL tube (BLACK)	1 each 1 each	11378 39488
	**Backing Strip Tape** - A self-adhesive closed cell flexible foam tape for water tightness across ship-lap joints. It is applied under sheet joins to the wall wrap (at stud locations) or to the face of the battens or top hats.	3.2 x 48mm x 23m roll	1 each	133978
	**Backing Rod** – 10mm polyethylene foam bead for insertion to joints prior to enable correct filling of joints with sealant. Also used as an air seal at window openings and construction junctions. The diameter of backing rod must be appropriate for the width of the gap being filled.	10mm diameter x 50m roll	1 each	11177
	**Thermal Break** – Extruded polystyrene strip with R-Value = 0.22. Used with steel stud framing to achieve thermal performance. Suitable for Class 1 and 10 residential and Type C Construction buildings only, and not suitable for fire-rated wall systems.	6mm x 38mm x 1250mm	1 each	129333

COMPONENTS + ACCESSORIES 05

Note: Codes can change from time to time. Refer to the website for the current list of components prior to ordering.

Product	Description	Size/Colour	Quantity	Product Code
INSULATION (CONT'D)				
	**Cemintel Edge Sealer** – for sealing panel edges after on-site cutting.	200ml 2ltr	1 each 1 each	100166 180928
	**Gyprock® Wet Area Base Coat** – Used to fill and patch the fastener heads.	15kg	1	10146
	Flashings and Cappings – flashings are to be designed and installed in accordance with SAA-HB39 1997 and good building practice.	Supplied by others		

* Cemintel Rigid Air Barrier can be made to order. Minimum order quantities and lead times apply. Refer to Cemintel for more information.

Other Tools

CSR recommends the use of the following tools in conjunction with appropriate dust reduction methods.

Product	Description	Size	Quantity	Product Code
	**Makita Plunge Saw Kit (1300W) includes 1400mm guide rail and bonus 165mm fibre cement saw blade** – excellent for cutting cement based sheets	165mm	1	165485
	**Makita 165mm Fibre Cement Saw Blade** – ideal for use with the Makita Plunge saw and other 165mm circular saws fitted with vacuum extraction systems	165mmx20x4T	1	165486

06

SYSTEM ENGINEERING

Design, Detailing and Performance Responsibilities

Cemintel engages independent testing laboratories to test and report on the performance of a wall in accordance with the relevant Australian Standards. Consultants use these reports as the basis for opinions (estimates of laboratory performance) they issue for variations or different arrangements to the tested system. Using their experience, the consultant will make judgement about on-site installed performance of various walls.

Project Consultants
(Structural, Fire, Acoustic, Façade etc.)

These consultants are typically responsible for the following:

- Opinions on expected laboratory performance of wall configurations that vary from actual test configuration, such as substitution products and components;
- Judgements about expected field performance using laboratory test reports and practical experience; and
- Design, specification and certification of structural, fire, acoustic, durability, weather tightness and any other required performance criteria for individual projects.

This involves the design and selection of building elements, such as wall and floors and their integration into the building considering the following:

- Interface of different building elements and to the structure / substrate;
- Wall and floor junctions;
- Penetrations;
- Flashing issues;
- Room / building geometry; and
- Acoustic and water penetration field-testing.

Design Responsibility

Cladding, air barrier, battens and top hats, and structural framing are required to resist wind and earthquake loads that are specific to the building and the site. Additional 'local pressure factors' can apply to cladding and the supporting battens and top hats in accordance with the Australian Standard AS/NZS 1170.2 – Wind actions. It is recommended that the Architect/Building Designer assigns the responsibility for the façade design to the Project Engineer. Once loads have been determined, the battens and top hat spans, fastener spacing, air barrier construction details, and cladding fixing details may be selected from the appropriate tables in this guide. It is also the responsibility of the Architect / Building Designer to select the appropriate corrosivity category. Refer to appropriate details in this guide.

The performance levels of walls documented in this guide and CSR Gyprock® The Red Book™ are either what is reported in a test or the documented opinion of consultants. Performance in projects is typically the responsibility of:

Project Certifier and/or Builder

These professionals are typically responsible for:

- Identifying the performance requirements for the project in accordance with the BCA and clearly communicating this to the relevant parties;
- Applicability of any performance characteristics supplied by Cemintel including test and opinions for the project; and
- The project consultant's responsibilities detailed above if one is not engaged in the project.

Cemintel does not provide consulting services. Cemintel only provides information that has been prepared by others and therefore shall not be considered experts in the field.

Any party using the information contained in this guide or supplied by Cemintel in the course of a project must satisfy themselves that it is true, current and appropriate for the application, consequently accepting responsibility for its use.

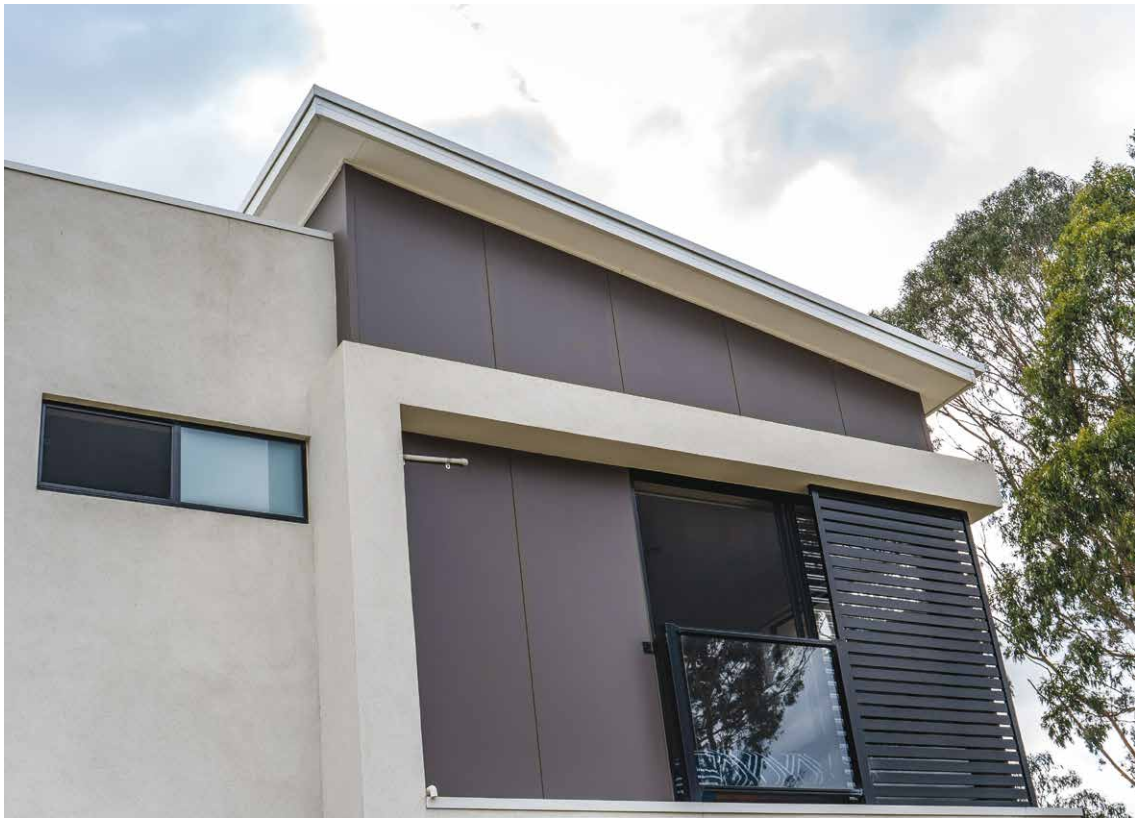
It is the responsibility of the architectural designer and engineering parties to ensure that the details in this design guide are appropriate for the intended application.

The recommendations in this guide are formulated along the lines of good building practice but are not intended to be an exhaustive statement of all relevant data.

Cemintel is not responsible for the performance of constructed walls, including field performance, and does not interpret or make judgements about performance requirements in the BCA.

Note: It is the responsibility of the Project Engineer/ Frame Designer to specify the connection of the structural noggings to the structural framing for off-stud top hats. It is also the responsibility of the project engineer to calculate the wind loads and earthquake loads for the cladding, air barrier and support framing of the façade on a project.

Edge Cladding // Bond



SimpleLine

06

SYSTEM ENGINEERING

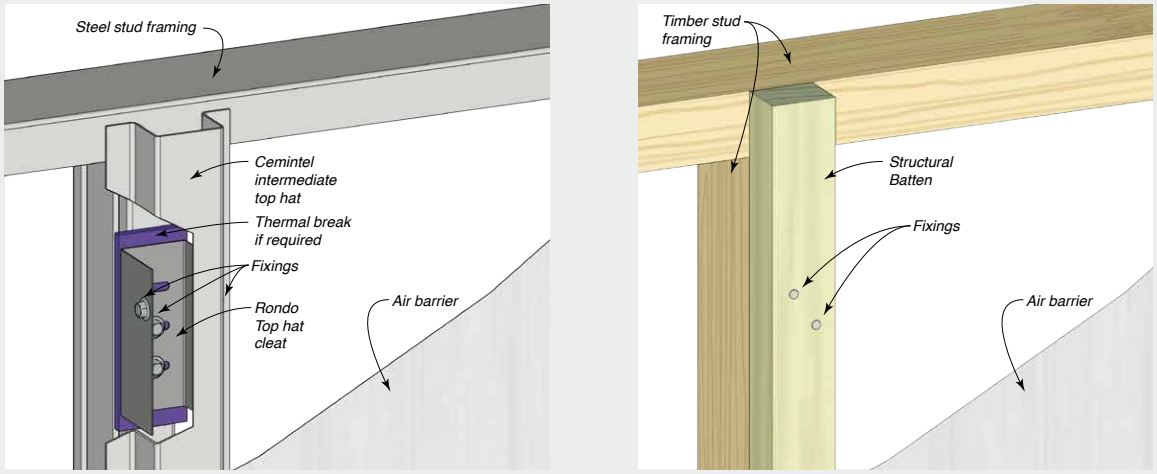
Batten and Top Hat Arrangements

Stud Wall Support Framing – 'On-Stud' Fixing

Structural and non-structural timber battens and top hats may be fixed 'On-stud' to the stud of the structural wall framing designed from MGP10 or higher grade timber framing, or a minimum 0.50mm BMT steel framing. The battens and top hats should be arranged to not restrict the structural movement of the wall framing.

Stud frame walls designed to meet the structural requirements of the project, and designed to also support the Edge and SimpleLine cladding and associated battens and top hats.

FIGURE 6.01 Structural Timber Battens and Steel Top Hats Fixed to Studs of the Structural Framing – 'On-Stud' Fixing

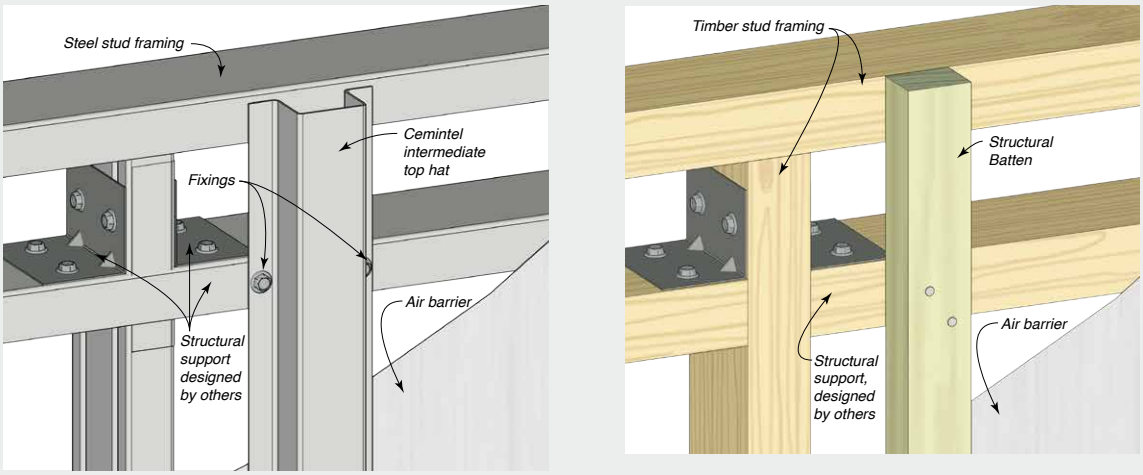


Horizontal Structural Wall Supports – 'Off-Stud' Fixing

Structural battens and steel top hats may be fixed 'Off-stud' to horizontal timber or steel structural support framing of a minimum 1.15mm BMT. It is the responsibility of the project engineer to specify this additional horizontal support structure and connections.

Where the top plates and bottom plates of the structural framing permit movement, such as deflection at an inter-storey junction, the wall framing will require additional horizontal structural supports near the plates for the batten and top hat end support. Also the battens and top hats will need to be discontinuous with an adequate gap to accommodate the structural movement.

FIGURE 6.02 Structural Timber Battens and Steel Top Hats Fixed to Additional Horizontal Structural Supports – 'Off-Stud' Fixing



Design Tables

FIGURE 6.03 Typical Cemintel FC Batten Installation

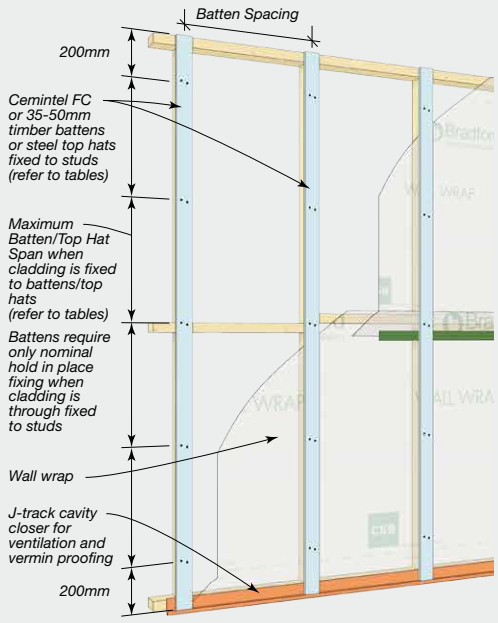


TABLE 6.01 Maximum Fastener Spacing for Fixing Cemintel FC Battens to Framing – RESIDENTIAL (Class 1 and Class 10 only)

NOTE: This table applies to the fasteners to fix the Cemintel FC Batten to support framing when used with fixing Mosaic, Edge and SimpleLine claddings. Provide a double (2) nail or a single screw fixing, U.N.O., at the timber batten connections. The minimum structural grade of the timber framing is MGP10 and the minimum steel framing is shown in the table. The structural capacity of all support frame locations to be confirmed by the project engineer. The maximum span values are applicable in General Zones and Corner Zones.

Type A and Type B Construction buildings must use steel frames and Intermediate Top Hats only. Type C Construction buildings may use either timber / steel frames, battens, or Intermediate Top Hats.

Cemintel FC Batten Spacing (mm)	Wind Classification	Maximum Cemintel FC Batten Span – Double Span / 3 or More Supports (mm)			
		Structural Framing Type			
		Timber		Steel	
				0.5mm BMT	0.75mm BMT
		Fastener Type			
		2 – 2.8mmø x 50mm Nails	1 – 8-10 x 50mm Screw	1 – 10-18 x 30mm FibreTEKS® Screw	1 – 10-18 x 30mm FibreTEKS® Screw
300	N1	800	800	800	800
	N2	800	800	800	800
	N3/C1	600	600	600	600
	N4/C2	500	500	500	500
	N5/C3	350	400	400	400
450	N1	700	700	700	700
	N2	650	650	650	650
	N3/C1	500	500	500	500
	N4/C2	350	400	400	400
	N5/C3	200	350	250	350
600	N1	650	650	650	650
	N2	550	550	550	550
	N3/C1	400	450	450	450
	N4/C2	250	350	300	350
	N5/C3	180	300	200	300

① GENERAL ZONES – Wall areas greater than 1200mm from an External Building Corner for Buildings satisfying the AS 4055 geometry limits.
② CORNER ZONES – Wall areas less than 1200mm from an External Building Corner for Buildings satisfying the AS 4055 geometry limits.
NOTE: Loads based on AS 4055 with Factored external pressure coefficient, $k_l.C_{p,e}$ = -1.3 & ±0.7
* - denotes a 600mm maximum batten span where sheets are to be hand nailed.
U.N.O. – denotes unless noted otherwise.

06

SYSTEM ENGINEERING

FIGURE 6.04 Typical Timber Batten Installation

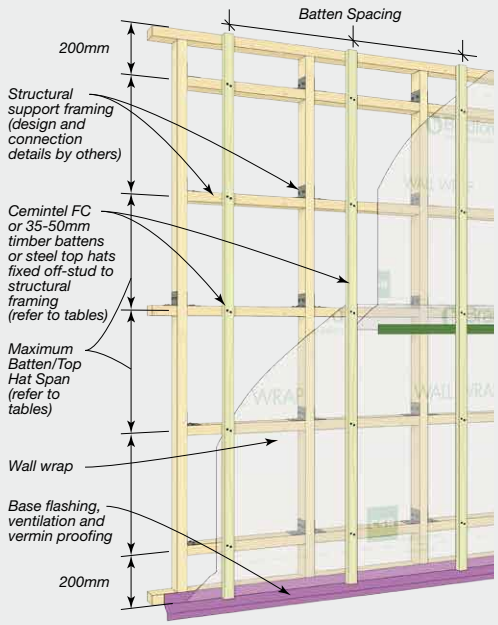


TABLE 6.02 Maximum Fastener Spacing for Fixing Structural Battens and Top Hats to Framing – RESIDENTIAL (Class 1 and Class 10)

NOTE: This table applies to the fasteners to fix the structural battens (45mm/70mm wide x 35mm thick MGP10 minimum timber battens) and steel top hats (0.75mm BMT) to timber framing. Provide a double (2) nail or a single screw fixing, U.N.O., at the timber batten connections. The minimum structural grade of the timber framing is MGP10 and the minimum steel framing is 0.50mm BMT. The structural capacity of all support locations to be confirmed by the project engineer.

Maximum Batten Spacing (mm)	Wind Classification	Maximum Batten/Top Hat Span – Double Span / 3 or More Supports (mm)					
		Batten Type and Wind Load Zone					
		Timber Batten* 45mm (w) x 35mm (d)		Timber Batten* 70mm (w) x 35mm (d)		Intermediate Top Hat 35mm (d) x 0.75mm BMT	
		General Zone ①	Corner Zone ②	General Zone ①	Corner Zone ②	General Zone ①	Corner Zone ②
300	N2	1850	1000	1850	1000	2650	1450
	N3/C1	1200	650	1200	650	1700	900
	N4/C2	800	400	800	400	1150	600
	N5/C3	550	250	550	250	750	400
400/450	N2	1250	650	1250	650	1750	950
	N3/C1	800	400	800	400	1150	600
	N4/C2	500	250	500	250	750	400
600	N1	1300	700	1300	700	1850	1000
	N2	900	500	900	500	1350	700
	N3/C1	600	300	600	300	850	450

① GENERAL ZONES – Wall areas greater than 1200mm from an External Building Corner for Buildings satisfying the AS 4055 geometry limits.
② CORNER ZONES – Wall areas less than 1200mm from an External Building Corner for Buildings satisfying the AS 4055 geometry limits.
NOTE: Loads based on AS 4055 with Factored external pressure coefficient, $k_l.C_{p,e}$ = -1.3 & ±0.7
* - denotes a 600mm maximum batten span where sheets are to be hand nailed.
U.N.O. – denotes unless noted otherwise.

TABLE 6.03 Maximum Fastener Spacing for Fixing Structural Battens and Top Hats to Framing – COMMERCIAL (Class 2 to Class 9)

NOTE: This table applies to the fasteners to fix the structural battens (45mm/70mm wide x 35mm thick MGP10 minimum timber battens) and steel top hats (0.75mm BMT) to the timber and steel framing. Provide a double (2) nail or a single screw fixing, U.N.O., at the timber batten connections. The minimum structural grade of the timber framing is MGP10 and the minimum steel framing is 0.50mm BMT. The structural capacity of all support locations to be confirmed by the project engineer.

Type A and Type B Construction buildings must use steel frames and Intermediate Top Hats only. Type C Construction buildings may use either timber / steel frames, battens, or Intermediate Top Hats.

Maximum Batten Spacing (mm)	Design Ultimate Limit State Pressure (kPa)	Maximum Batten/Top Hat Span – Double Span / 3 or More Supports (mm)					
		Batten Type and Support Framing					
		Timber Batten* 45mm (w) x 35mm (d)		Timber Batten* 70mm (w) x 35mm (d)		Intermediate Top Hat 35mm (d) x 0.75mm BMT	
		Timber	Steel	Timber	Steel	Timber	Steel
300	1	1650	1250	1650	1250	3150	3150
	1.5	1100	800	1100	800	1850	1200
	2	800	600	800	600	1550	900
	2.5	650	500	650	500	1350	700
	3	550	400	550	400	1200	600
	3.5	450	350	450	350	1100	500
	4	400	300	400	300	1000	450
	4.5	350	250	350	250	900	400
	5	300	250	300	250	850	350
400/450	1	1100	800	1100	800	2700	2400
	1.5	700	550	700	550	1450	800
	2	550	400	550	400	1200	600
	2.5	400	300	400	300	1050	450
	3	350	250	350	250	900	400
	3.5	300	200	300	200	850	300
600	1	800	600	800	600	2350	1800
	1.5	550	400	550	400	1200	600
	2	400	300	400	300	1000	450

NOTE: Loads based on AS 4055 with Factored external pressure coefficient, $k_l.C_{p,e}$ = -1.3 & ±0.7

* - denotes a 600mm maximum batten span where sheets are to be hand nailed.

06

SYSTEM ENGINEERING

Fastener Spacings for Fixing Edge and SimpleLine Cladding

FIGURE 6.05 Fastener Spacing for Fixing Edge and SimpleLine Cladding

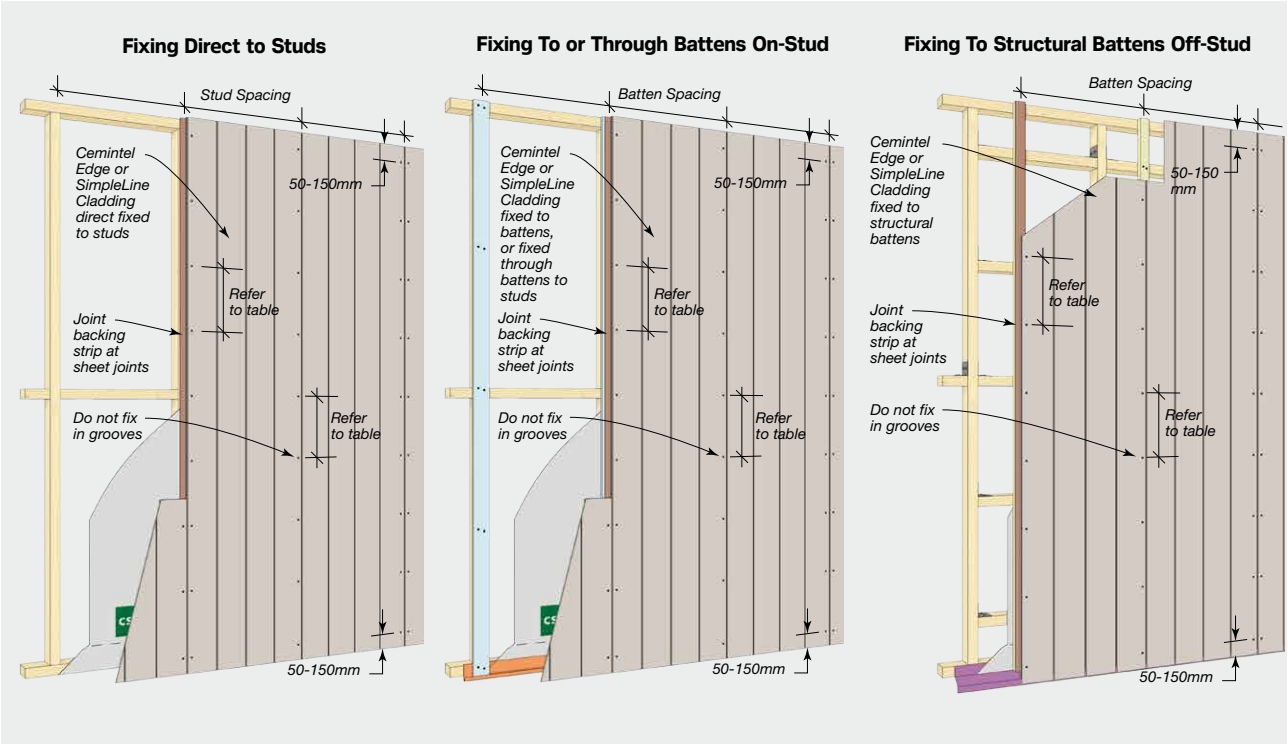


TABLE 6.04 Maximum Fastener Spacing for Fixing Edge and SimpleLine Cladding – RESIDENTIAL (Class 1 and Class 10)

NOTE: This table applies to the fasteners to fix the cladding directly to the support framing, or through the non-structural timber battens to the framing studs, or to the structural battens/top hats (45mm/70mm wide x 35mm thick MGP10 minimum timber battens and 0.75mm BMT minimum steel top hats). When cladding is fixed through the 18-20mm timber battens and into the structural framing, then battens only require a nominal fixing to hold in-place during the cladding installation.

Maximum Stud/Batten Spacing (mm)	Wind Classification	Maximum Fastener Centres (mm)			
		Cladding Fixed to Two Supports		Cladding Fixed to Three or More Supports	
		General Zone ①	Corner Zone ②	General Zone ①	Corner Zone ②
300	N1, N2	300	300	300	300
	N3/C1	300	300	300	300
	N4/C2	300	300	300	275
	N5/C3	300	300	300	175
	N6/C4	300	300	250	125
400/450	N1, N2	300	300	300	300
	N3/C1	300	-	300	275
	N4/C2	300	-	300	175
	N5/C3	-	-	225	-
	N6/C4	-	-	175	-
600	N1	-	-	300	300
	N2	-	-	300	300
	N3/C1	-	-	300	-

① GENERAL ZONES – Wall areas greater than 1200mm from an External Building Corner for Buildings satisfying the AS 4055 geometry limits.
② CORNER ZONES – Wall areas less than 1200mm from an External Building Corner for Buildings satisfying the AS 4055 geometry limits.
NOTE: Loads based on AS 4055 with Factored external pressure coefficient, $k_1C_{p,e}$ = -1.3 & ±0.7
* - denotes a 600mm maximum batten span where sheets are to be hand nailed.
U.N.O. – denotes unless noted otherwise.

TABLE 6.05 Maximum Fastener Spacing for Fixing Edge and SimpleLine Cladding – COMMERCIAL (Class 2 to Class 9)

NOTE: This table applies to the fasteners to fix the cladding through the non-structural timber battens to the framing studs, or to the structural battens/ top hats (45mm/70mm wide x 35mm thick MGP10 minimum timber battens and 0.75mm BMT minimum steel top hats) to the framing studs or support framing. When cladding is fixed through the 18-20mm timber battens and into the structural framing, then battens only require a nominal fixing to hold in-place during the cladding installation.

Stud Spacing (mm)	Design Ultimate Limit State Pressure (kPa)	Maximum Fastener Centres (mm)		
		Cladding Fixed over Two or More Spans		
		Structural Framing Type		
		Timber		Steel
		Fastener Type		
		Brad Nails ND50 2.5mmø x 50mm	2.8mmø x 40mm Gal. Clout Nails	FibreZIPS M5-18 x 30mm Screws
300	1	300	300	300
	1.5	300	300	300
	2	300	300	300
	2.5	300	300	300
	3	275	300	300
	3.5	225	300	300
	4	200	300	300
	4.5	175	300	300
	5	150	300	300
400/450	1	300	300	300
	1.5	300	300	300
	2	275	300	300
	2.5	225	300	300
	3	175	300	300
	3.5	150	300	300
	4	-	-	-
600	1	300	300	300
	1.5	-	-	-

NOTE: Loads based on AS/NZS 1170.2 with factored external pressure coefficient $k_l.C_{p,e}$ = -1.3 & ±0.7
* - denotes a 600mm maximum batten span where sheets are to be hand nailed.
U.N.O. – denotes unless noted otherwise.

07 INSTALLATION

CHECKLIST – Prior to Installation

The following pre-install checklist may assist with ensuring you have the best possible outcome when installing the Edge and SimpleLine cladding.

- ☐ Ensure substrate is structurally sound and square. Edge and SimpleLine cladding cannot compensate for excessively misaligned framing and may show an uneven surface even after the coating has been applied. Cemintel recommends that alignment should be within 4mm over 3000mm, 3mm over 1200mm, or 2mm over 600mm when checked both horizontally and vertically. Pack to straighten if necessary (timber frames as per AS 1684, steel frames as per AS/NZS4600). **Check with certifier or building certifier regarding packing materials.**
- ☐ Confirm bracing is in place. Where sheet bracing is used behind sheets, the entire wall area needs to be braced or bracing sheet packers fixed to the frame to ensure a uniform fixing plane.
- ☐ Ensure studs and noggings are correctly located and of the appropriate width (Refer to "Design + Aesthetic Considerations" and tables in "System Engineering" section). Timber and steel studs must have a minimum fixing face width of 35mm and be spaced at maximum 600mm centres to ensure they match sheet widths and fixing locations. All sheet edges must be supported by framing members. Ensure all noggings are flush.
- ☐ Install additional studs, trimmers and noggings to support sheet edges, battens and top hats, prior to installation of the wall wrap.
- ☐ Install additional studs at control joints.
- ☐ Remove any concrete that may foul the cladding line, particularly at steps in slabs and isolated columns.
- ☐ Ensure there is adequate ground clearance to the bottom edge of the Edge and SimpleLine cladding, as per regulatory requirements (including for water/rain runoff and termite management). These can vary from 20-150mm depending on type of ground and termite requirements.
- ☐ Confirm your panel layout to determine the location of joints and identify whether additional studs are required.
- ☐ Confirm the chosen eaves and soffit details and prepare accordingly. Ensure cavity blocking has been installed in the stud, roof and floor framing.
- ☐ Arrange for a pre-cladding inspection by the appropriate local building authority if required.

Check quality and quantity of sheets and components before installing. If there is any sign of damage or visible defects in sheets, or the colour/finish is not in keeping with the owners' aesthetic requirements DO NOT INSTALL. Contact Cemintel to address any issues.

Installation Considerations

Fastener Placement

Sheets are fixed to the batten, top hat or framing using nails or screws. Refer to 'Construction Drawings + Details' section for appropriate fixing information for the chosen fasteners.

Fasteners are to be spaced as detailed in Table 6.04 and Table 6.05. Fasteners must be positioned at a minimum 18mm from sheet edges, 50mm – 150mm from sheet corners, in the full sheet thickness only and not in a groove, and 25mm minimum from the batten end. The batten fasteners must be 200mm minimum from batten ends. Fastener heads must be driven flush with the sheet surface.

Batten/Top Hat Installation

Battens and top hats may be installed On-stud or Off-stud, provided suitably designed framing supports are installed behind each fixing location. For screw fixing, the Cemintel FC Batten, the battens must be pre-drilled and countersunk. Nails are to be used in pairs, spaced 30mm to 100mm apart.

Penetrations

Penetrations in cladding sheets may be cut or drilled prior to installation. Cut from the back or drill from the front. Cut penetrations oversize by 6 – 10mm all round. Mask, prime and fill gaps with sealant in accordance with recommended methods and products.

FIGURE 7.01 Sheet Layout Around Small Openings

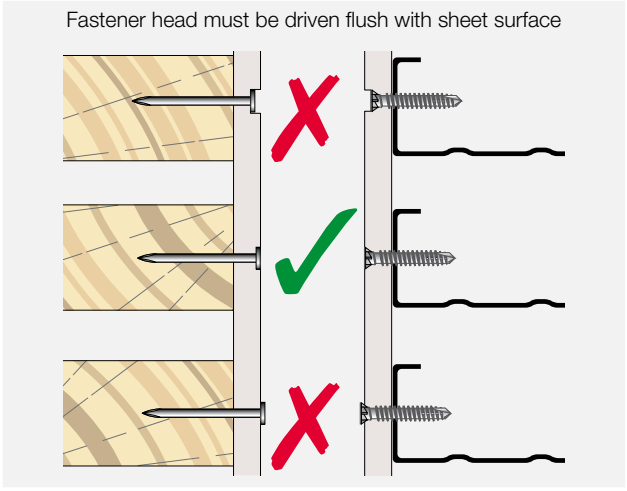


FIGURE 7.02 Pre-drill Batten for Screw Fixing

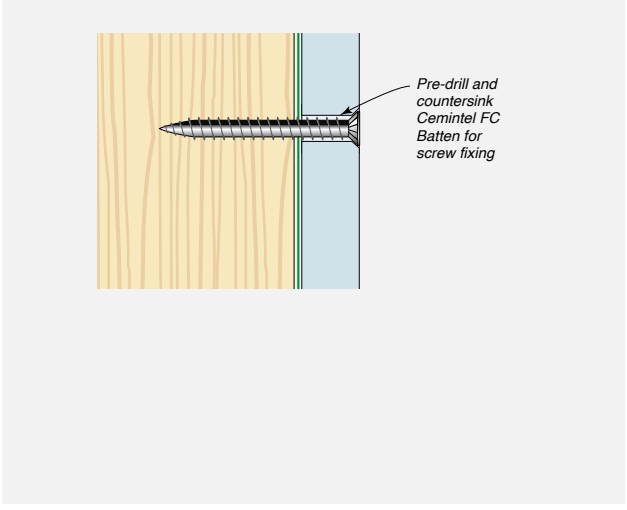
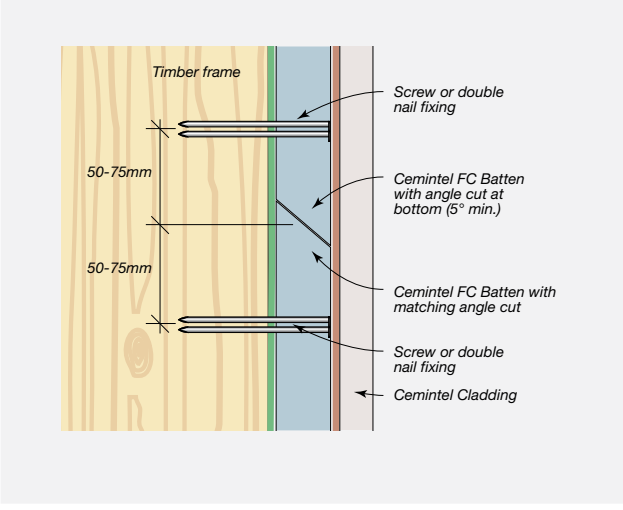


FIGURE 7.03 Batten Joining – On-Stud Only

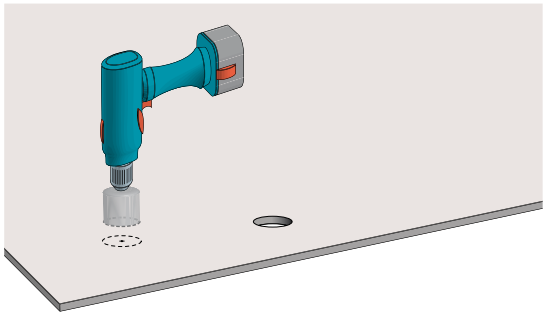


07 INSTALLATION

Hole Forming

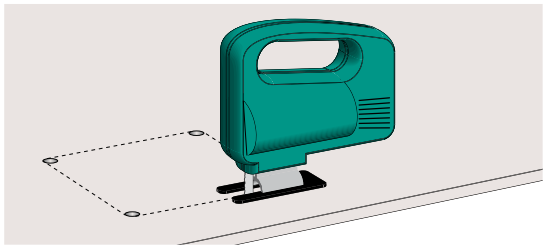
Small holes are formed by using a Hole Saw:

1. Locate the centre of the hole.
2. Form hole with appropriately sized hole saw.



Large holes or openings are formed by using a Jig Saw fitted with a masonry blade:

1. Mark the required opening.
2. Drill holes in all corners using high speed masonry drill and do not use the hammer action.
3. Cut along marked lines.



Flashings & Cappings

In general, flashings shall be designed and installed in accordance with SAA-HB39 1997 - Installation code for metal roofing and wall cladding. All flashings are supplied by others.

Base Details

Flashing sheets must overhang footings and must be kept clear of the ground. Refer to base details in “Construction Drawings + Details”.

In addition to regulatory requirements (i.e., termite risk management, surface water drainage, etc.), Cemintel requires cladding clearances of:

- 20mm minimum to a paved surface; and
- 100mm minimum to an unpaved surface.

Cavity Flashing / J-Track

The cavity flashing and J-track provide a barrier to vermin and drafts from the cavity, while allowing moisture to freely escape.

At corners of the building, the flashing must be mitred and/or sealed to prevent wind and water from being driven behind the sheeting, refer to Figure 7.04 and Figure 7.05.

FIGURE 7.04 Base Flashing at Internal Corner

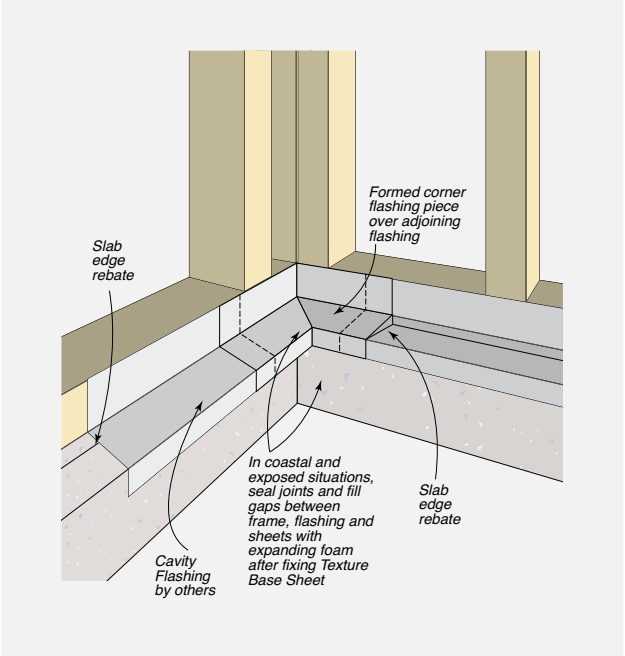
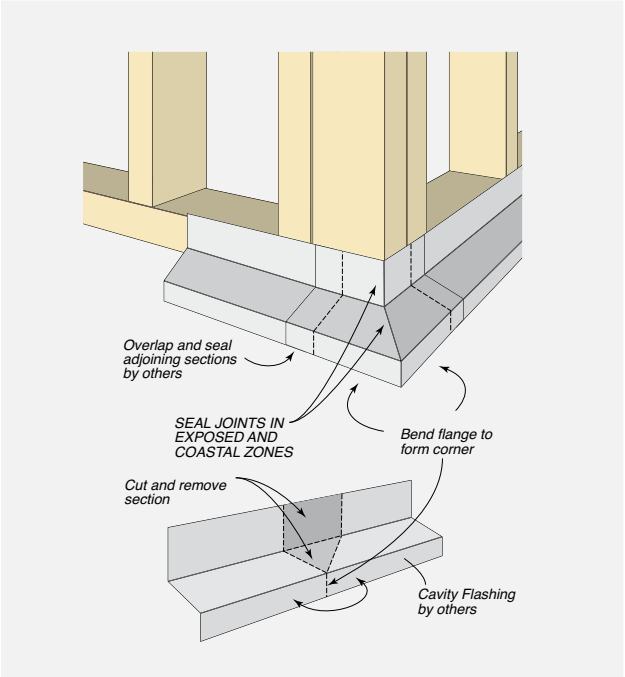


FIGURE 7.05 Base Flashing at External Corner



Corner Details

Internal and external corners are to have PVC or metal flashing installed over wall wrap/sarking for additional water resistance. Refer to Corner Details in “Construction Drawings + Details”.

Structural Support Framing – Cavity Fix System

Timber or steel stud framing is to be designed in accordance with the relevant standards, and maximum stud spacing is to be as shown in the design tables in 'Systems Engineering' section. The Edge and SimpleLine cladding is installed vertically on battens or top hats. Joints not aligned with studs require an Off-stud batten, as shown in Figures 7.07 and 7.08, fixed to structural stud framing / nogging.

Double studs are required at the sides of openings and additional studs should be installed at internal corners as shown in the 'Construction Drawings + Details' section.

Battens are to be fixed to each stud and/or structural nogging with screws or nails spaced at 200mm maximum from their ends and at spacings as shown in Figures 6.03 and 6.04.

Battens must also be provided at the sides of openings for support and fixing of head reveals. Where vertical sheet joints are formed between studs, a batten or top hat is required behind the joint, see Figures 7.07 to 7.08. The battens or top hats must be supported by horizontal support framing spaced as shown in the design tables in 'Systems Engineering' section.

FIGURE 7.06 On-stud Fixing of Timber Batten to Stud

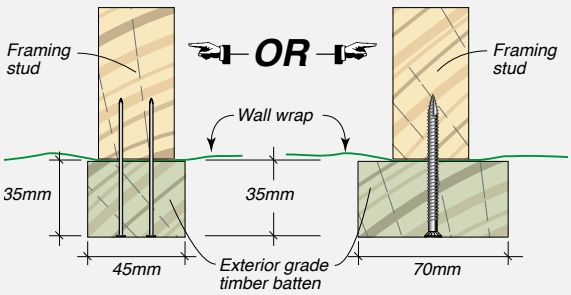


FIGURE 7.07 Off-stud Sheet Joint Location (NOTE: Design of off-stud batten support framing is the responsibility of the frame designer)

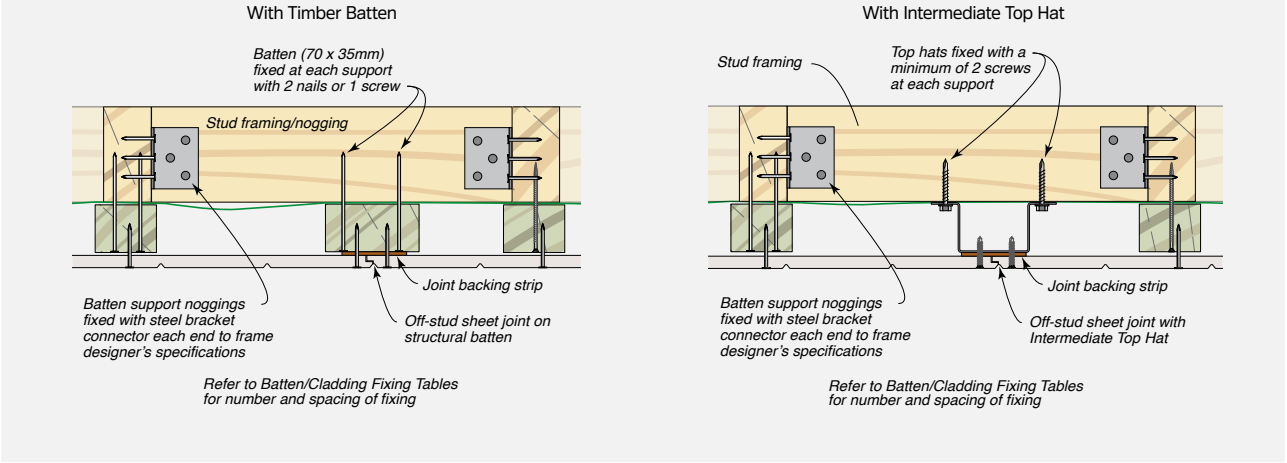
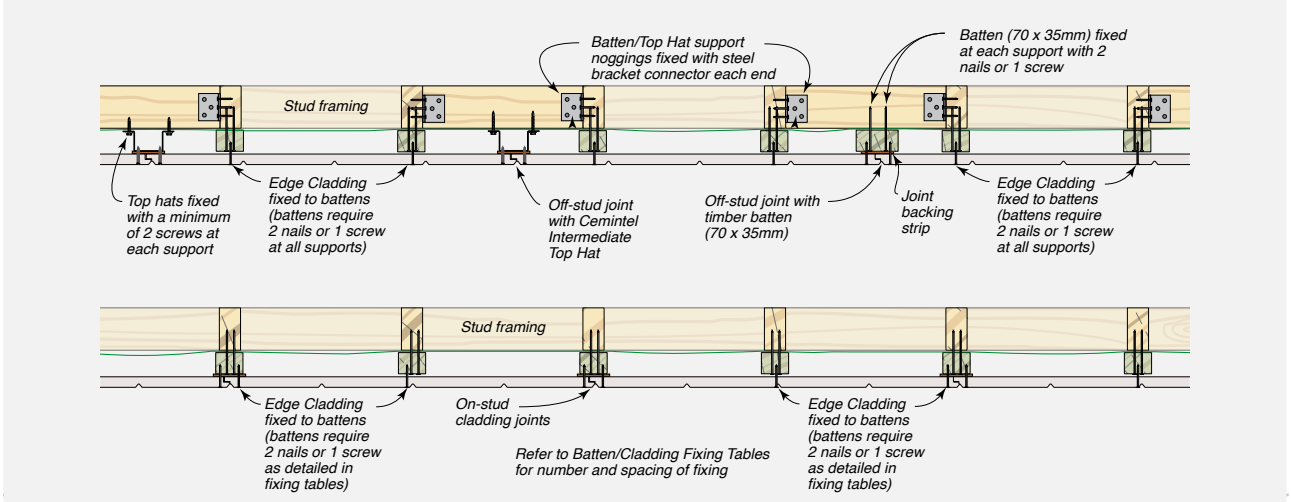


FIGURE 7.08 Sheet Joint Location & Support (NOTE: Design of off-stud batten support framing is the responsibility of the frame designer)

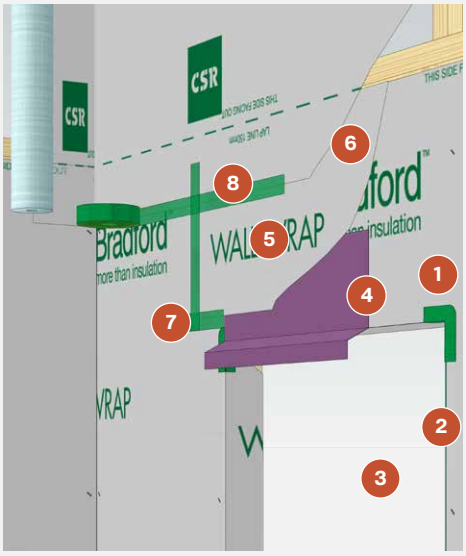


07 INSTALLATION

Installation of Wall Wrap

Whilst the requirement to seal joins and penetrations of the wall wrap may vary depending upon BCA and/or state requirements, CSR recommends sealing the external wall wrap/sarking to maintain vapour performance and draught proofing effectiveness, as well as to ensure water barrier integrity. If the membrane is used to provide a continuous air tight layer, all overlaps should be sealed, and membrane installed in accordance with the construction detailing in the Cemintel Air Barriers Design Guide.

FIGURE 7.09 Typical Double Layer Wall Wrap Over Openings – Direct Fix System



1. Install wall wrap membrane to outside face of wall framing.
2. At the opening, cut and wall wrap around the framing and apply reinforcing tape at corners.
3. Install window frame (not shown here).
4. Install window head flashing.
5. Install additional layer of wall wrap above opening, extending 200mm minimum each side of opening.
6. Extend wall wrap up to soffit, or up and under next lap above with at least 150mm overlap.
7. Tape wall wrap laps at side of opening as shown.
8. Tape wall wrap laps at the bottom of each overlapping layer.

FIGURE 7.10 Typical Wall Wrap Layout for Two-Storey Framing

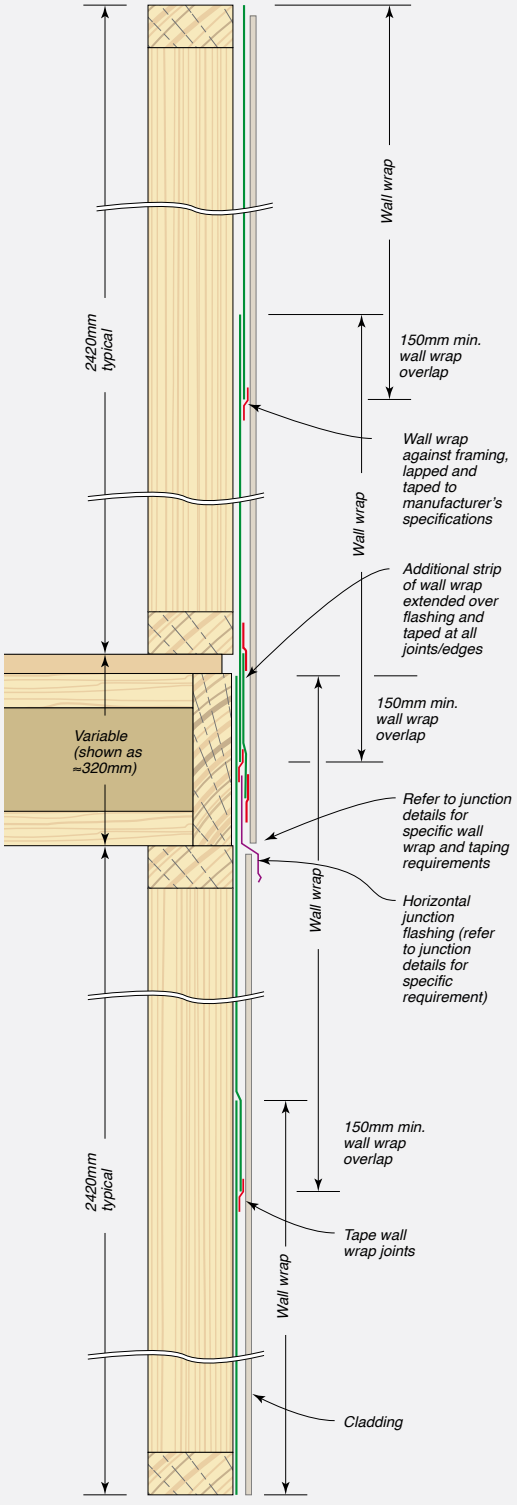
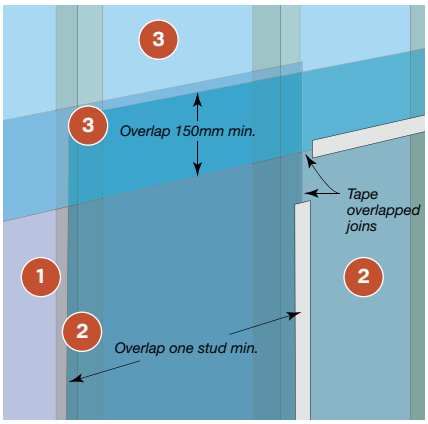
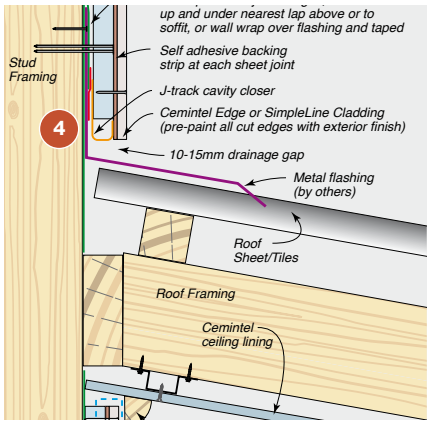
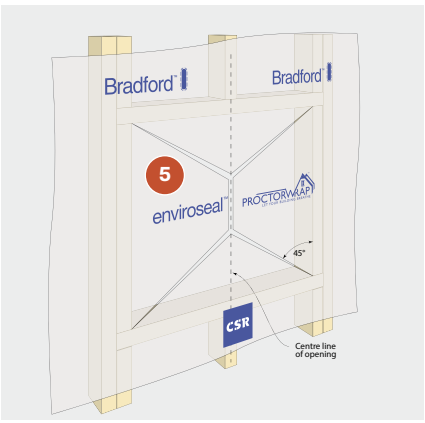


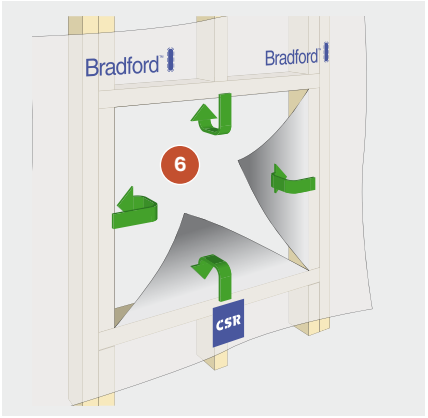
FIGURE 7.11 Typical Wall Wrap Installation

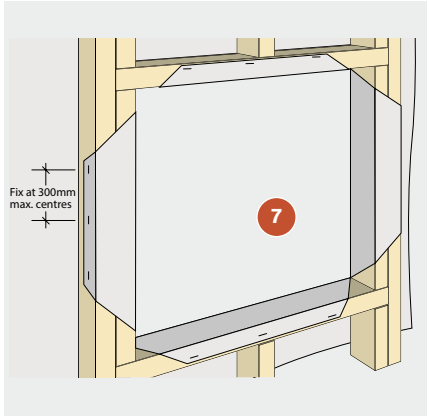
1. Install wall wrap/sarking membrane to outside face of wall framing. Temporary fixing of wall wrap to framing may be by double sided tapes or other approved methods. Refer to the wall wrap manufacturer's specifications.
2. Vertical laps (including corners) should overlap by one stud spacing minimum and should be staggered between adjacent layers.
3. Upper layers should overlap lower layers by 150mm minimum to ensure that water is always shed towards the outside of the membrane and building.
4. Horizontal flashings such as at the head of doors and windows, horizontal storey junctions and at the wall base (when used) require special treatment to ensure water is always shed towards the outside. Refer to appropriate junction details for specific requirements.
5. At openings, slit the wall wrap at 45 degrees from each corner to the centreline. Slit the centreline to open the wrap.
6. Wrap the tabs around the framing.
7. Fix wall wrap to the rear of the framing with staples at 300mm maximum centres.
8. Apply Enviroseal ProctorWrap tape to the corners of openings.
9. Wipe tape over the frame edge onto the face of the wall wrap.

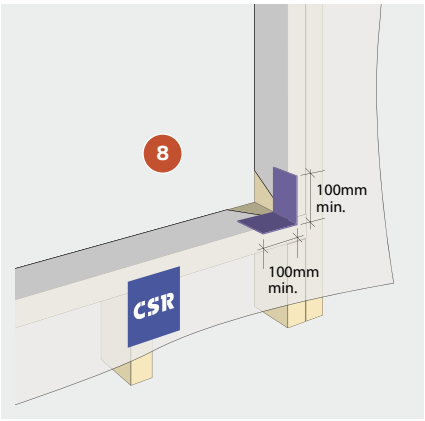


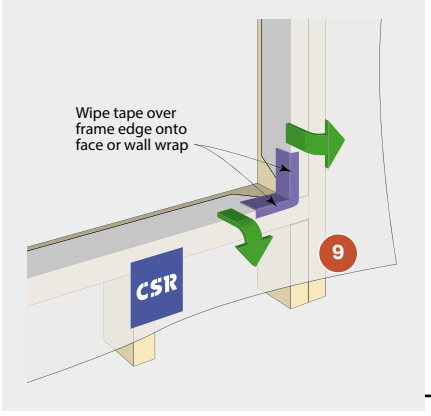












07 INSTALLATION

Installation – Direct Fix System

Installation CHECKLIST – Direct Fix System

- ☐ All joints must be supported by a framing member, and all edges must be supported at openings and perimeters. Add extra framing members as required.
- ☐ Correct set-out of the framework can minimise the amount of additional framing at the sheet joins.
- ☐ For narrow studs (steel and timber face widths less than 45mm) at cladding joints provide an additional stud or trimmer to achieve the minimum support width.
- ☐ Sheets must not be fastened directly to hot rolled steel sections or purlin/girt sections, as this may result in joint failure. Refer to “Design + Aesthetic Considerations” section.
- ☐ For steel framing, add a thermal break to all framing and battens that support the cladding sheets.
- ☐ Control Joints are to be constructed with double studs to allow for expansion and contraction of the framing and the cladding.
- ☐ **IMPORTANT** – The joint configuration must be confirmed with the coating system manufacturer/installer prior to sheet installation.

Once wind loads have been determined, fastener type and spacings for the cladding fixing details may be selected from the appropriate tables in the “System Engineering” section of this guide.

Installation PROCEDURE – Direct Fix System

1. Ensure framing is installed and aligned to system specifications.
2. Install wall wrap. Refer to flashing requirements.
3. Prepare corner details to chosen specification.
4. Prepare head and base details to chosen specification.
5. Install backing strip tape to wall wrap at sheet joins.
6. Fix Edge and SimpleLine cladding sheets to system specifications.
7. Apply a bead of sealant down the ship-lap edge of each sheet join..
8. Install additional sheets, following the installation sequence.
9. Complete corner, head and soffit installation as per chosen details.
10. Prepare and apply external finish as per specification requirements.

Installation – Cavity Fix System

Installation CHECKLIST – Cavity Fix System

- ☐ All joints must be supported by a framing member. Vertical joints between sheets must always coincide with a supporting batten.
- ☐ Edge and SimpleLine cladding to be orientated vertically.
- ☐ Install vertical timber or fibre cement battens, or steel top hats to structural support framing (i.e., studs and structural noggings) where required for sheet fixing (Refer to tables in "System Engineering" section for fastener centres).
- ☐ Battens to be fixed with the specified fasteners. For off-stud batten/top hat locations suitably designed framing supports must be provided behind each fixing point of the batten.
- ☐ Install additional battens to support the free edges. Ensure adequate drainage is provided at horizontal surfaces to prevent moisture ponding.
- ☐ Continue with Edge and SimpleLine cladding installation as for direct fix system details for fixing the Edge and SimpleLine cladding.
- ☐ Refer to the "Systems Engineering" section for screw spacing information.

Once wind loads have been determined, fastener type and spacings for the batten and cladding fixing details may be selected from the appropriate tables in the "System Engineering" section of this guide.

Installation PROCEDURE – Cavity Fix System

1. Ensure framing is installed and aligned to system specifications and appropriate framing is in-place to accept on-stud and/or off-stud battens.
2. Install wall wrap. Refer to flashing requirements.
3. Install J-Track at the base of the cavity.
4. Install non-structural battens to the face of studs, or structural battens/top hats to structural framing.
5. Prepare corner details to chosen specification.
6. Prepare head detail to chosen specification.
7. Install backing strip tape to battens at sheet joins.
8. Fix Edge and SimpleLine cladding sheets to system specifications.
9. Apply a bead of sealant down the ship-lap edge of each sheet join.
10. Install additional sheets, following the installation sequence.
11. Complete corner, head and soffit details as required.
12. Prepare and apply external finish as per specification requirements.

07 INSTALLATION

BUILDER'S INSTALLATION CHECKLIST

The following checklist can assist in making the Cemintel Edge and SimpleLine installation process run smoothly.

	ACTION	COMPLETED
	Pre-Cladding Checklist	
1	Confirm that studs are located in accordance with project specifications.	
2	Confirm additional framing is appropriately located for fixing of off-stud battens when used.	
3	Confirm timber framing alignment is in accordance with AS1684, or steel framing is in accordance with AS/NZS4600, and correct if necessary.	
4	Confirm bracing is in place.	
5	Confirm ground clearance to the bottom of the Edge and SimpleLine sheets will be accordance with Australian Standards and Cemintel requirements of minimum 20mm to paved surface or 100mm to unpaved surface.	
6	Confirm that the wall wrap/sarking has been fully and correctly installed, and overlapped and taped at joints and flashings.	
7	Confirm windows are front draining type.	
8	Confirm all window and door flashings are correctly installed and taped where appropriate.	
9	Confirm that window placement/reveal depth provides the appropriate clearance for board installation.	
10	Confirm adequate structural support for fixtures such as pergolas and decks has been provided. No loads may be carried by the cladding.	
11	Confirm membranes and flashings for deck areas have been installed in accordance with manufacturer's specifications.	
12	**CAVITY FIX WALL SYSTEMS** – Confirm batten spacing and fixing methods.	
13	Arrange for a pre-cladding inspection by the appropriate local building authority.	

	ACTION	COMPLETED
	Post-Cladding Checklist	
1	Confirm all appropriate joints have been neatly filled with recommended sealant.	
2	Confirm all fastener heads have been finished flush with the surface.	
3	Confirm sealant has been applied to gaps at openings (where appropriate).	
4	Confirm all trims at corners and soffit have been completed correctly.	
5	Confirm appropriate painting of cladding and all exposed edges.	

CONSTRUCTION DRAWINGS AND DETAILS 08

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08 CONSTRUCTION DRAWINGS AND DETAILS

Direct Fix

FIGURE 8.01 Typical Cemintel Edge or SimpleLine Installation – Direct Fixed to Framing

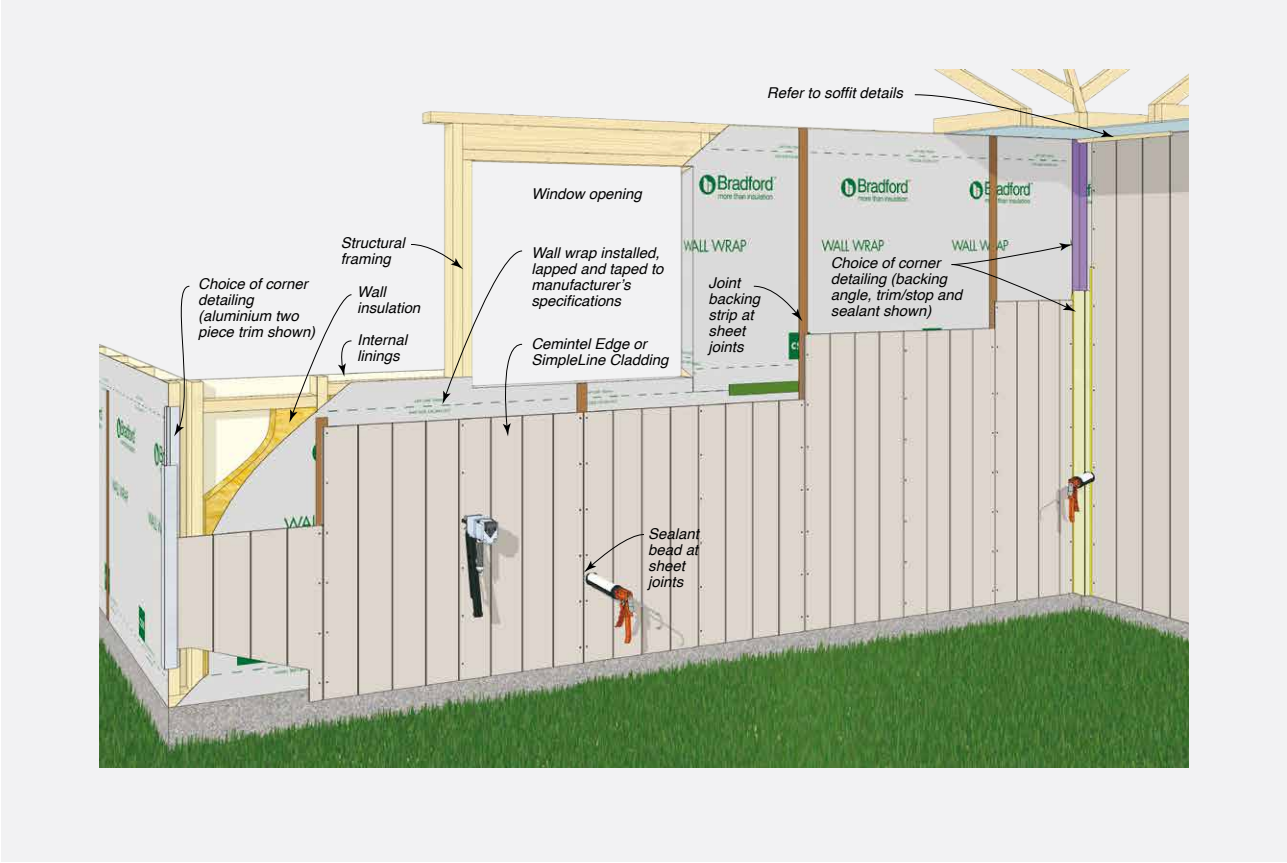


FIGURE 8.02 Typical Nail Fixing Direct to 45mm min. Stud Framing – Edge Ribbon-Groove

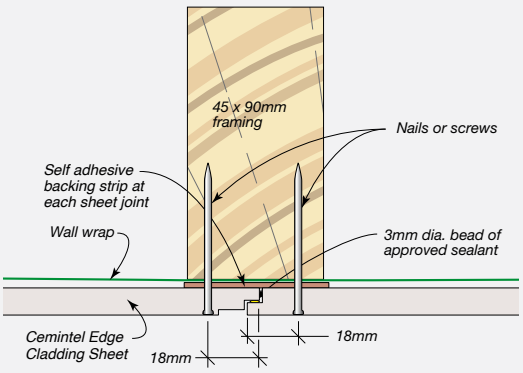
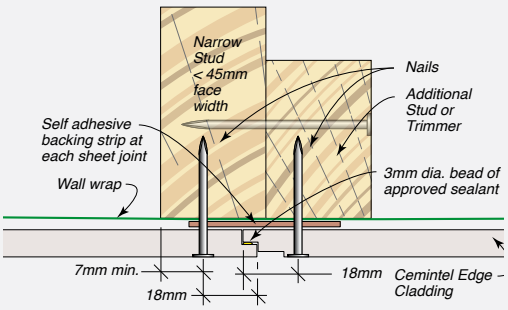


FIGURE 8.03 Typical Nail Fixing Direct to Narrow Stud and Trimmer/Double Studs – Edge Ribbon-Groove



Direct Fix

FIGURE 8.04 Typical Nail Fixing Direct to 45mm min. Stud – Edge V-Groove

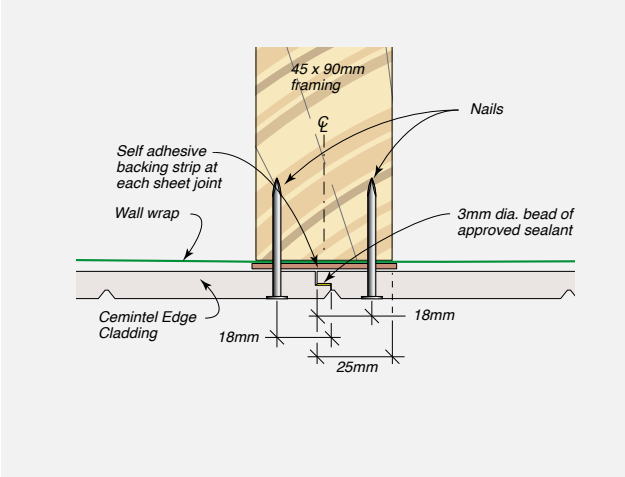


FIGURE 8.05 Typical Nail Fixing Direct to Narrow Stud and Trimmer/Double Studs – Edge V-Groove

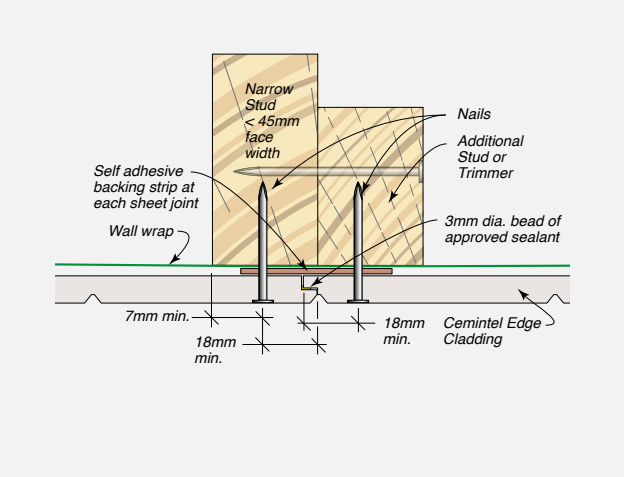


FIGURE 8.06 Typical Nail Fixing Direct to 45mm Stud – SimpleLine

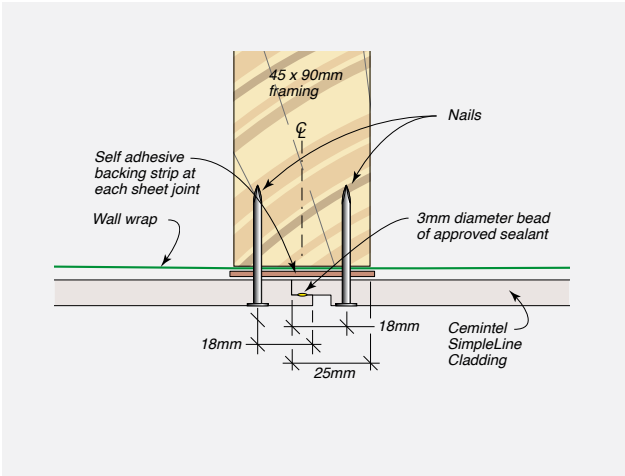
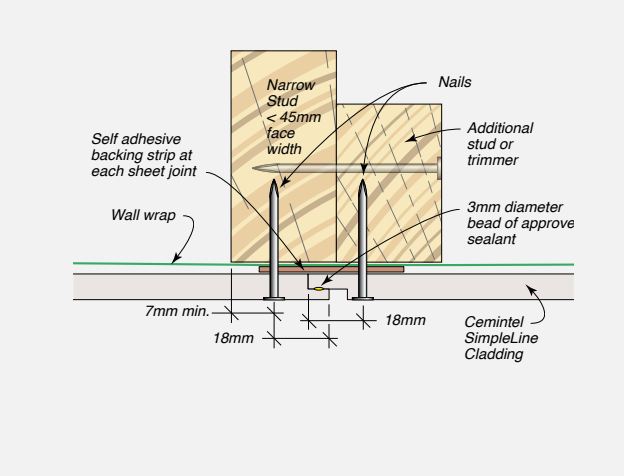


FIGURE 8.07 Typical Nail Fixing Direct to Narrow Stud and Trimmer/Double Studs – SimpleLine



08 CONSTRUCTION DRAWINGS AND DETAILS

Direct Fix

FIGURE 8.08 Typical Screw Fixing Direct to Steel Stud and Trimmer/Double Studs – Edge Ribbon-Groove

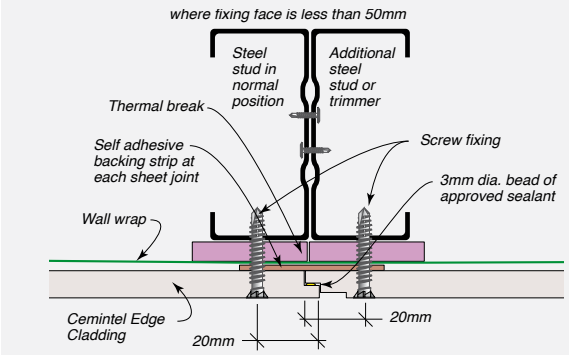


FIGURE 8.09 Typical Screw Fixing Direct to Steel Stud and Trimmer/Double Studs – Edge V-Groove

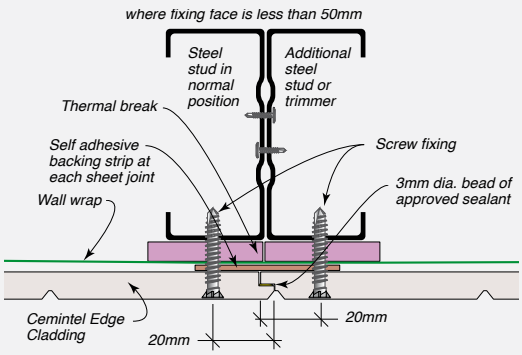


FIGURE 8.10 Typical Screw Fixing Direct to Steel Stud and Trimmer/Double Studs – SimpleLine

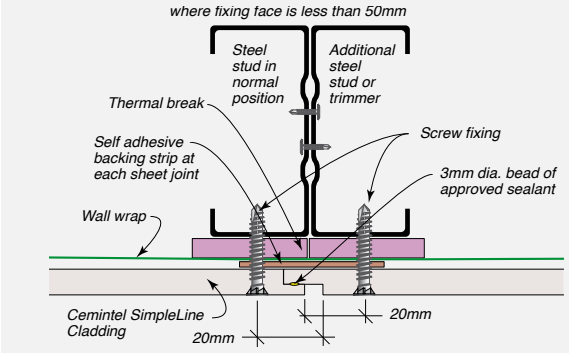
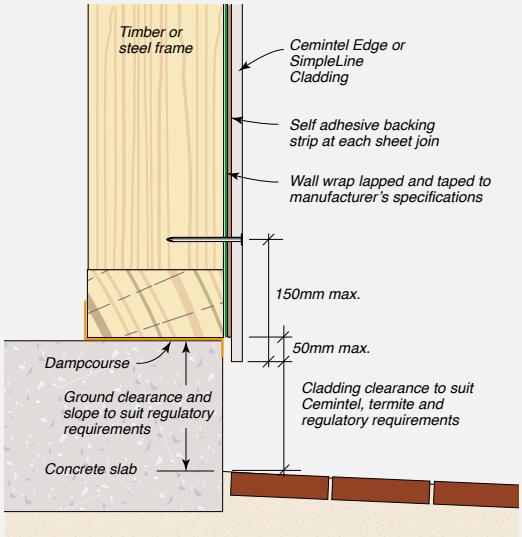


FIGURE 8.11 Base – Concrete Slab



Direct Fix

FIGURE 8.12 Base – Pier or Stub Wall

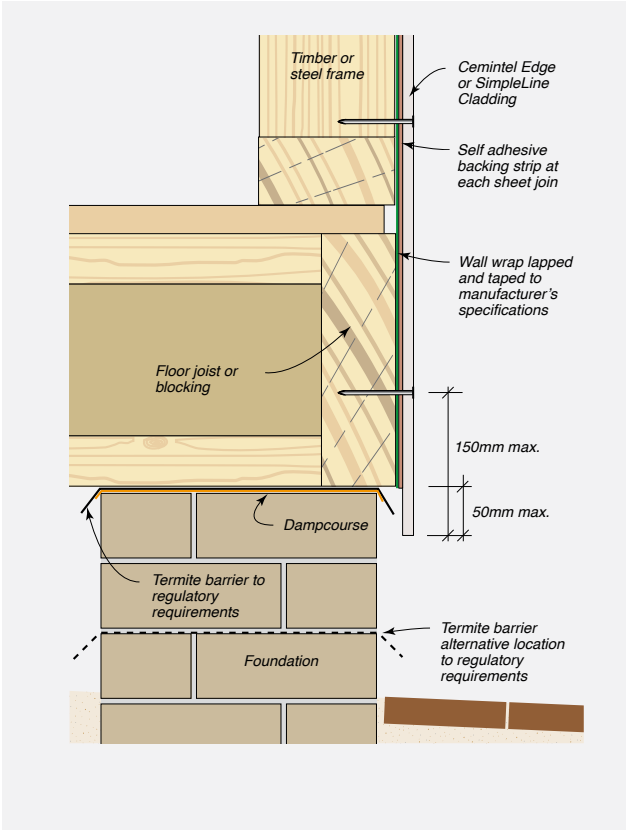


FIGURE 8.13 External Corner with Sealant

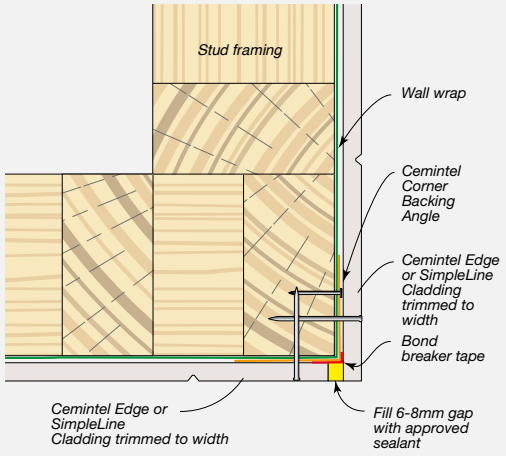


FIGURE 8.14 External Corner with Timber Trim

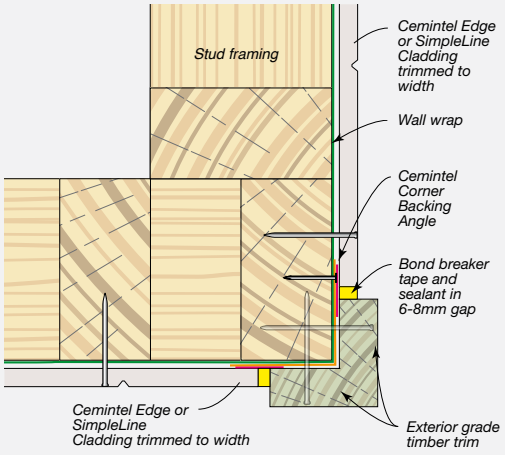


FIGURE 8.15 External Corner with Two-piece Aluminium Corner

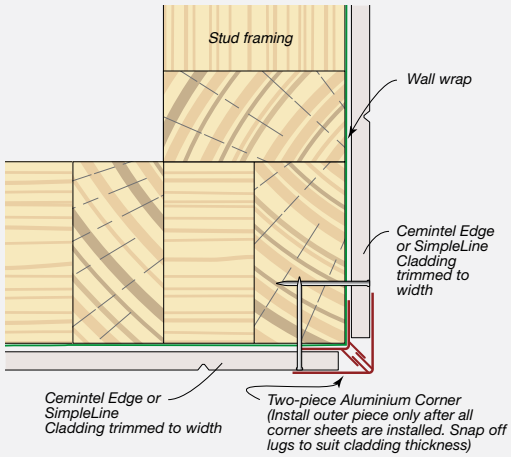


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FIGURE 8.16 Obtuse Angle Corner Detail – With Metal Flashing – Direct Fixed Sheets

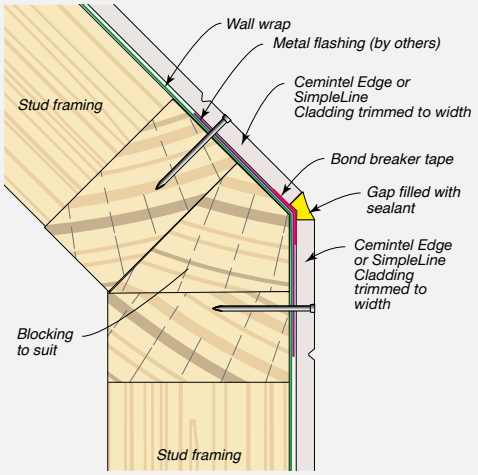

FIGURE 8.17 Internal Corner with Sealant

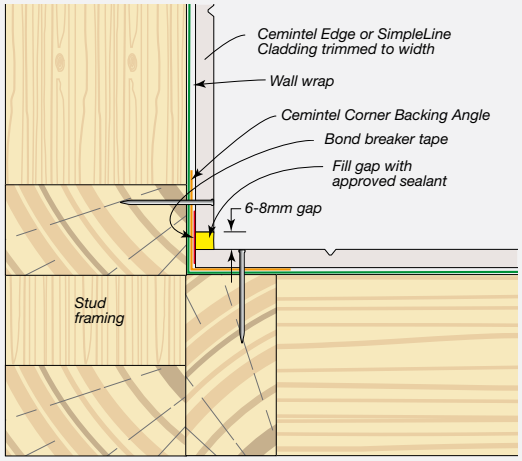

FIGURE 8.18 Internal Corner with Timber Trim

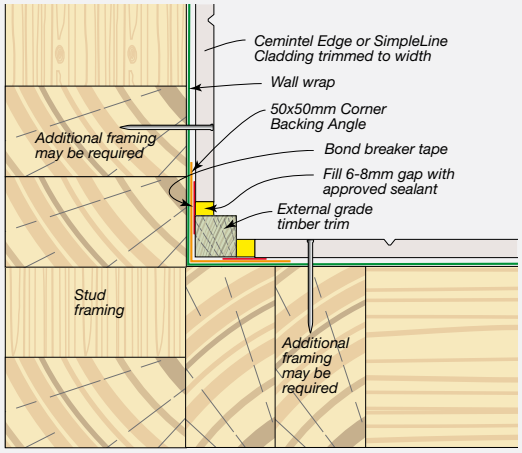

FIGURE 8.19 Internal Corner with Two-piece Aluminium Corner

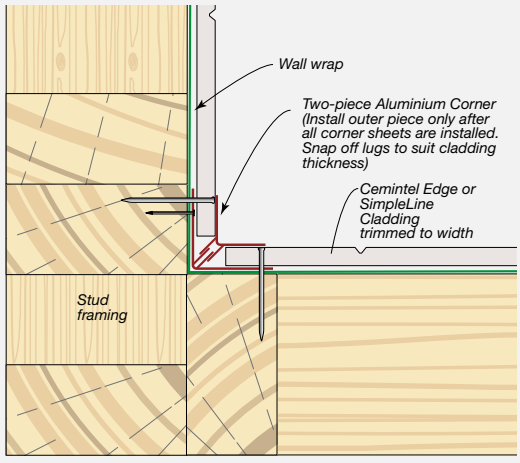

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FIGURE 8.20 Soffit Detail

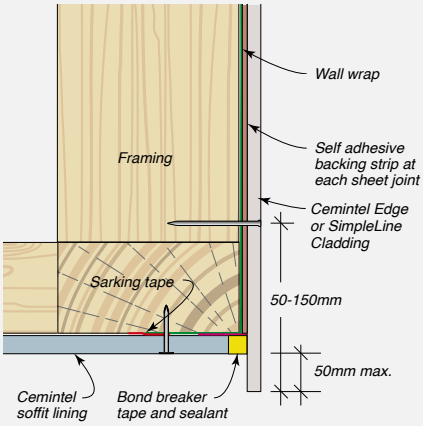

FIGURE 8.21 Head Detail – Eaves

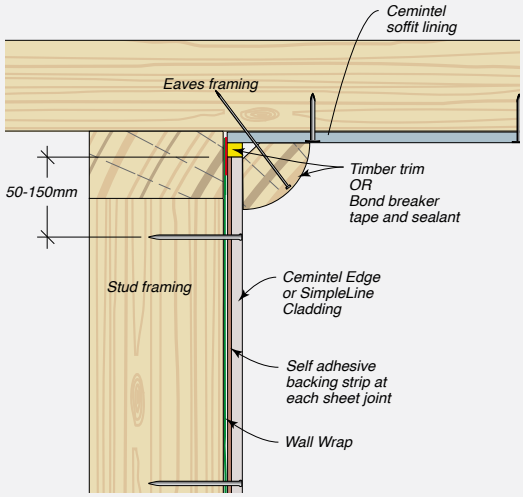

FIGURE 8.22 Second Storey Horizontal Junction

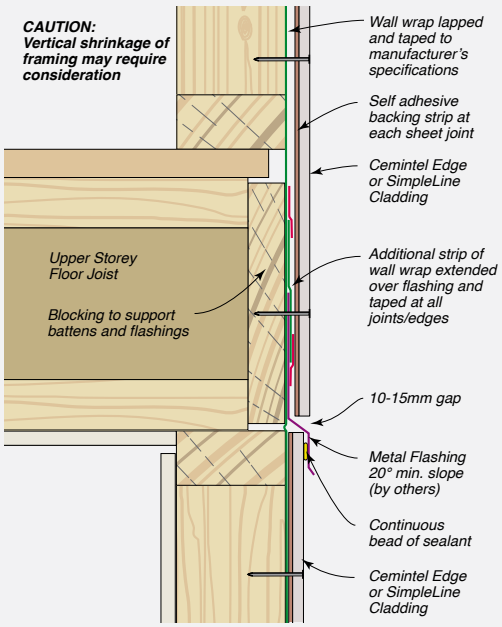

FIGURE 8.23 Typical Second Storey Junction with Hebel Panels, Brick Veneer or Masonry Wall – Cantilevered Framing

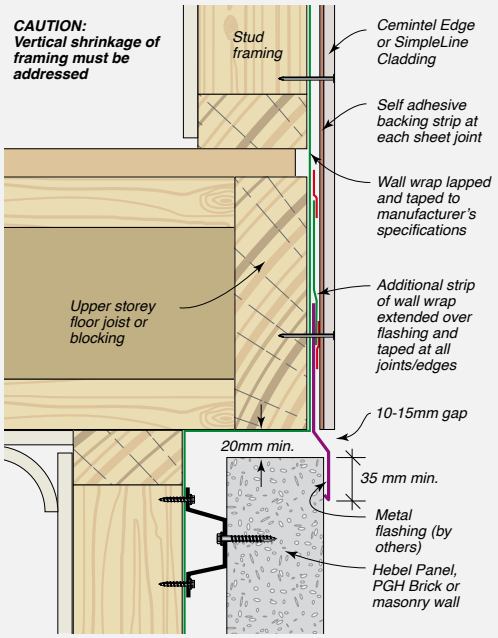

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FIGURE 8.24 Typical Second Storey Junction with Hebel Panels, Brick Veneer or Masonry – In-line Framing

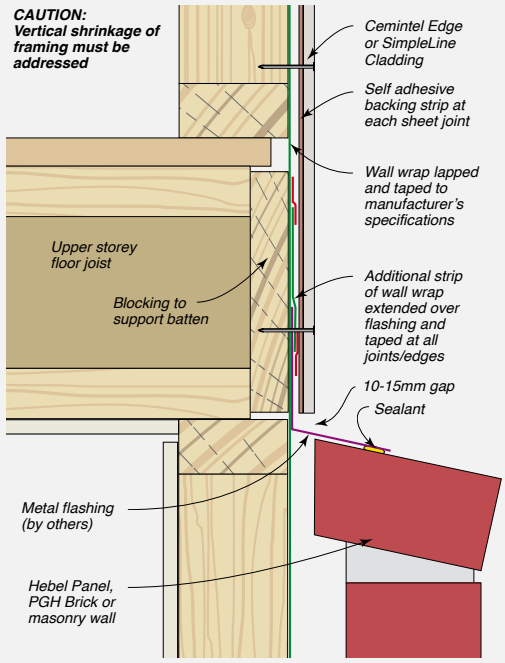

FIGURE 8.25 Junction of Edge Cladding System with Alternative Fibre Cement Cladding – Plan View

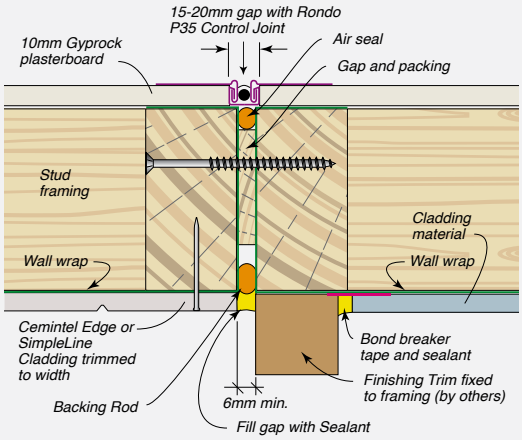

FIGURE 8.26 Junction of Edge Cladding System with Offset or In-line Masonry Wall – Plan View

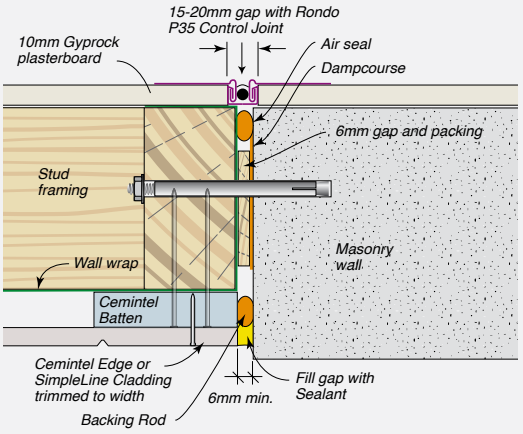

FIGURE 8.27 Junction of Cladding with External Parallel Roofing

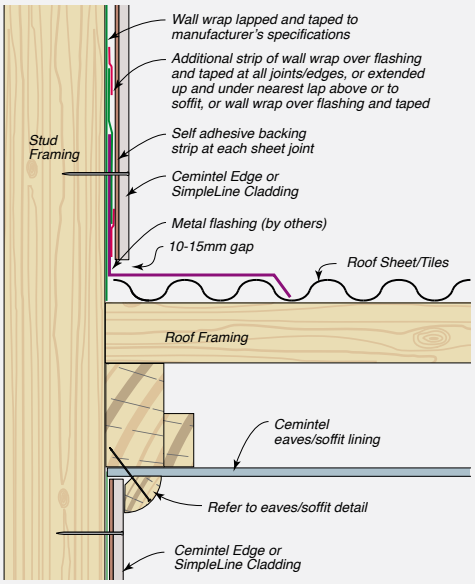

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FIGURE 8.28 Junction of Cladding with External Perpendicular Roofing

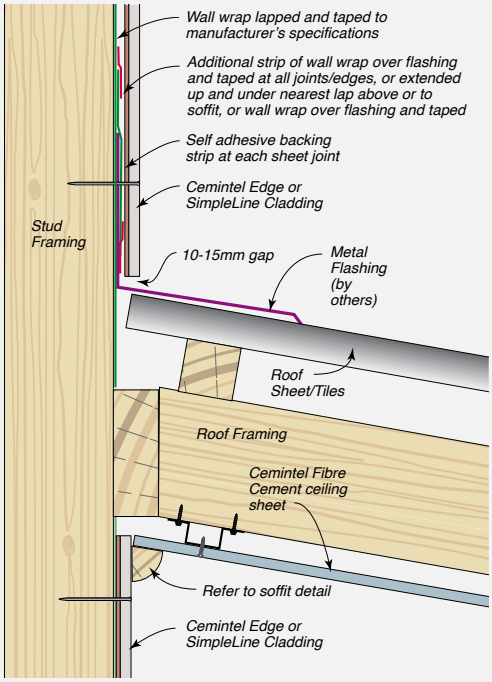

FIGURE 8.29 Horizontal Parapet – Elevation

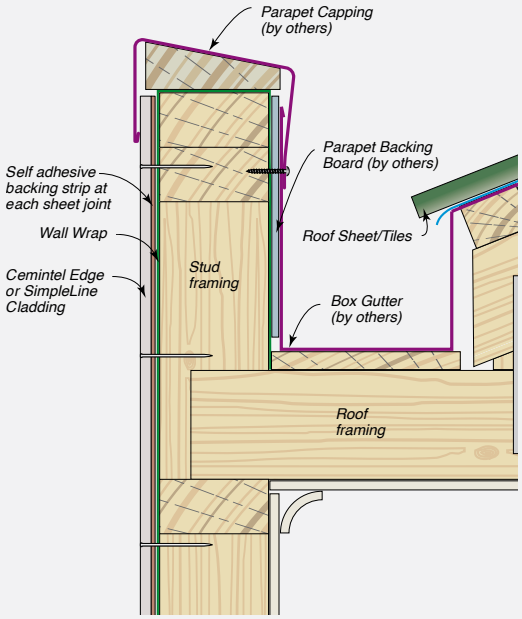

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FIGURE 8.30 Typical Window Installation

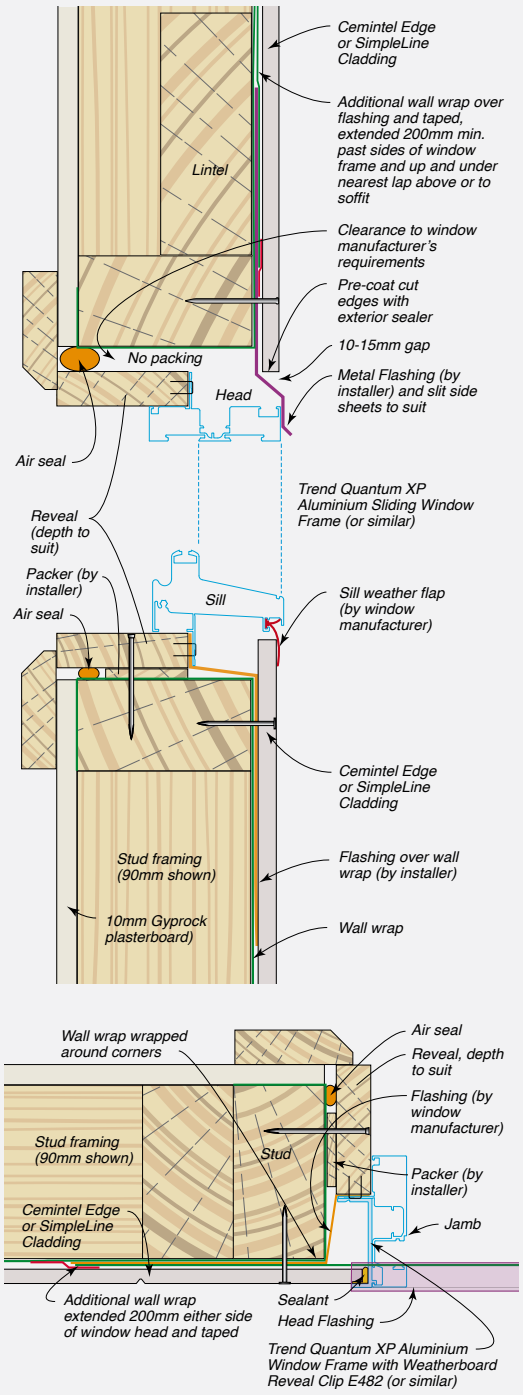

FIGURE 8.31 Typical Sliding Door Installation – 70mm Framing Shown

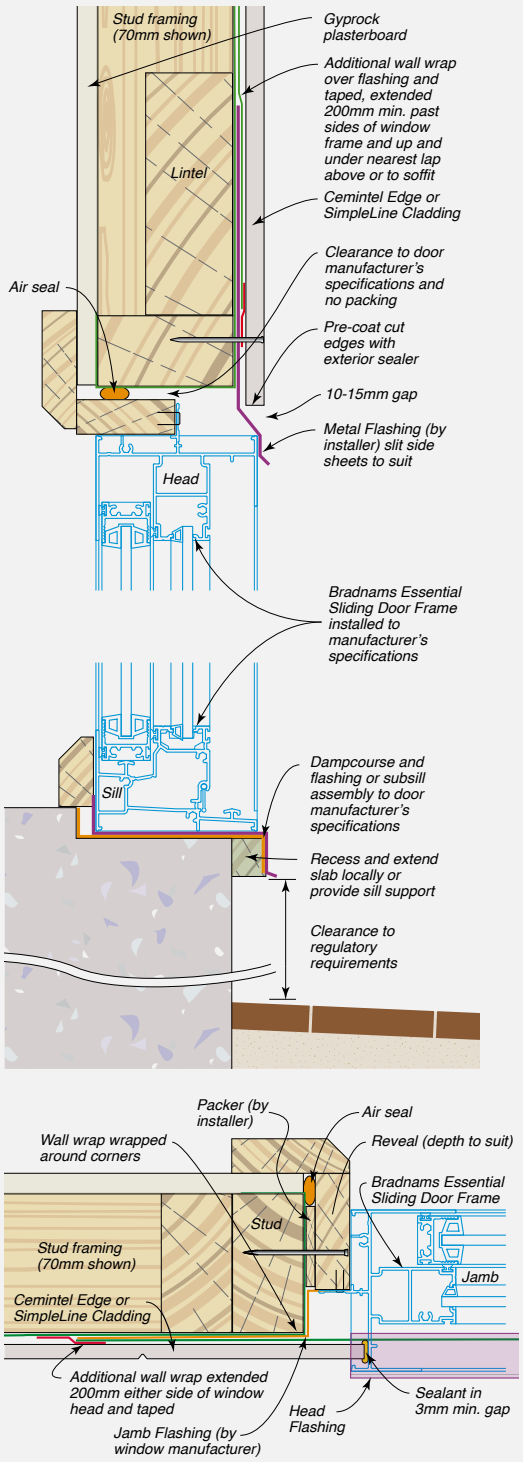

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FIGURE 8.32 Typical Power Meter Box – Recessed Installation

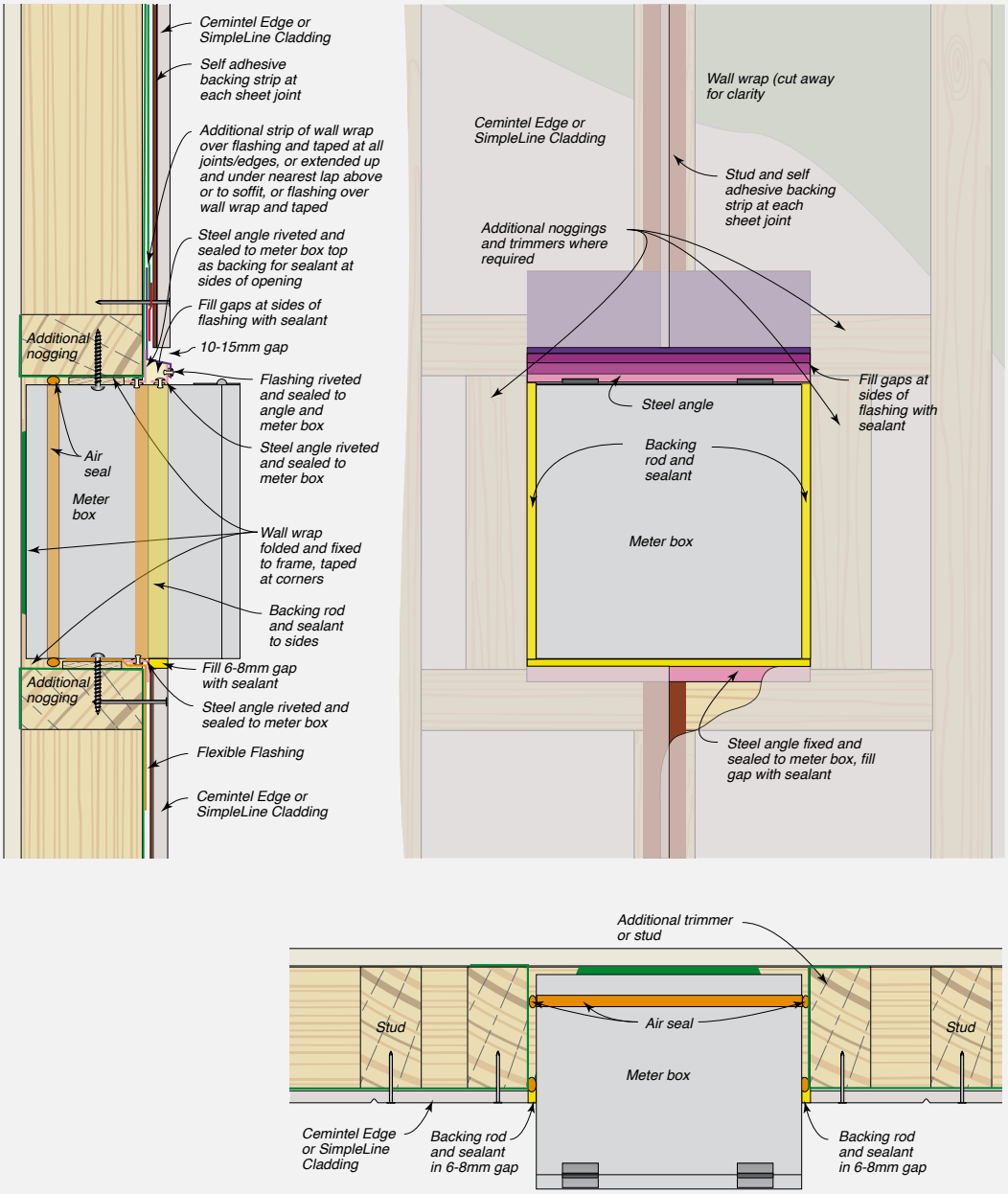

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FIGURE 8.33 Typical Power Meter Box – Face Mounted Installation

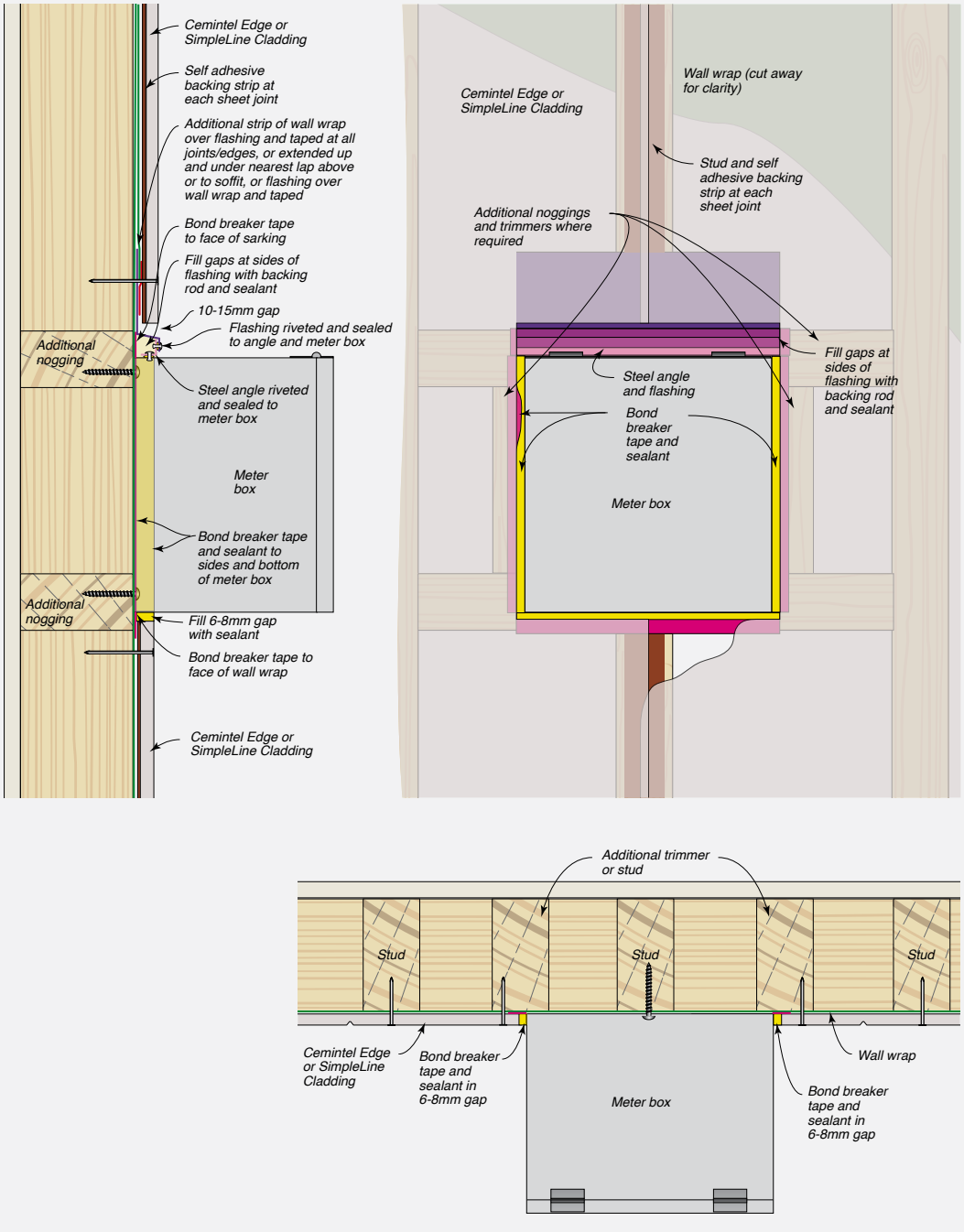

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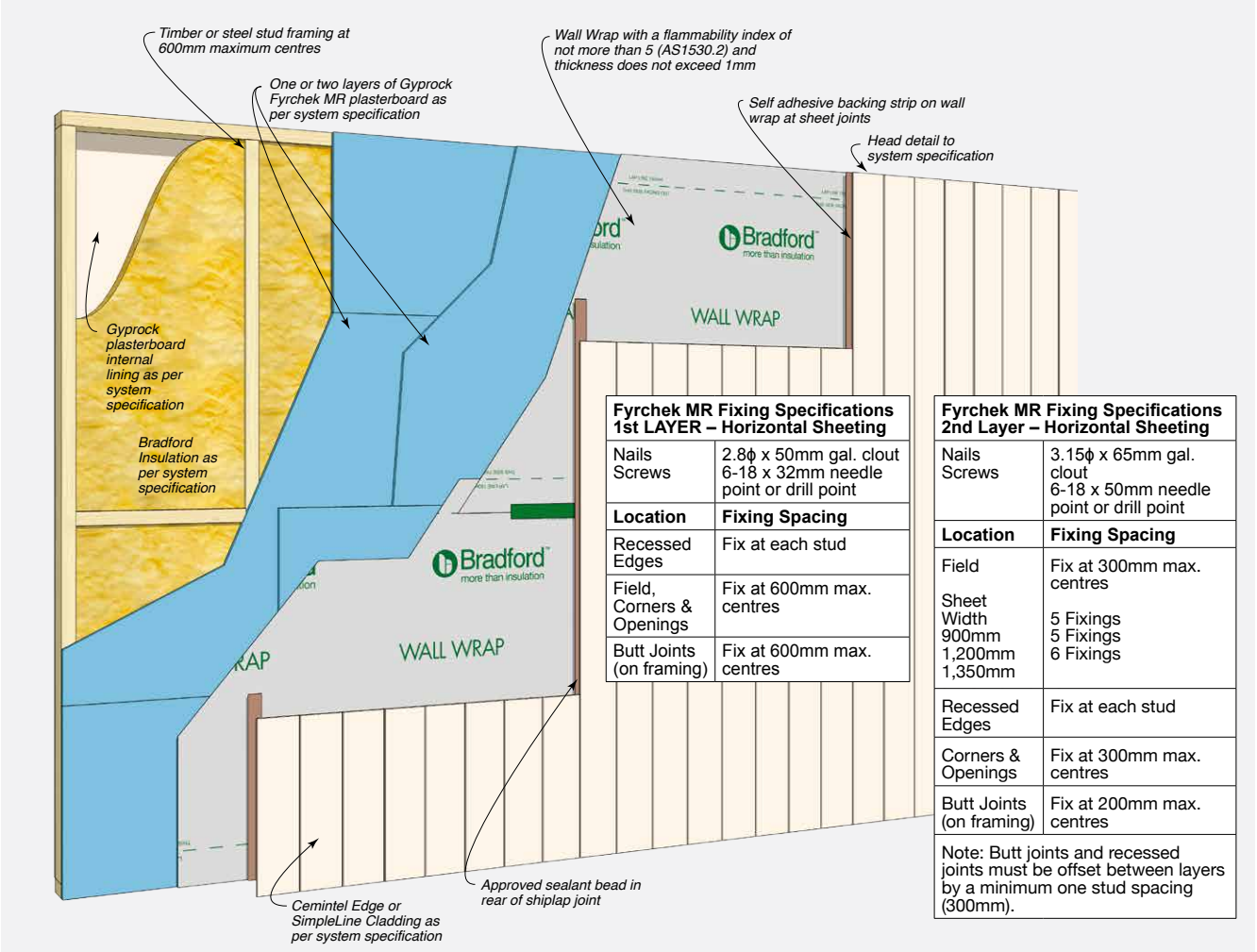
FIGURE 8.34 Typical Edge Cladding Fire Rated Direct Fix Wall System Layout



Fyrchek MR Fixing Specifications 1st LAYER – Horizontal Sheeting	
Nails Screws	2.8ϕ x 50mm gal. clout 6-18 x 32mm needle point or drill point
Location	**Fixing Spacing**
Recessed Edges	Fix at each stud
Field, Corners & Openings	Fix at 600mm max. centres
Butt Joints (on framing)	Fix at 600mm max. centres

Fyrchek MR Fixing Specifications 2nd Layer – Horizontal Sheeting	
Nails Screws	3.15ϕ x 65mm gal. clout 6-18 x 50mm needle point or drill point
Location	**Fixing Spacing**
Field Sheet Width 900mm 1,200mm 1,350mm	Fix at 300mm max. centres 5 Fixings 5 Fixings 6 Fixings
Recessed Edges	Fix at each stud
Corners & Openings	Fix at 300mm max. centres
Butt Joints (on framing)	Fix at 200mm max. centres
Note: Butt joints and recessed joints must be offset between layers by a minimum one stud spacing (300mm).	

NOTE: The length of the Cemintel cladding fixings will need to be increased to ensure the same or greater embedment depth for single and double fire-rated linings. Nail fixing through multiple layers can be difficult and screw fixings are the preferred method of construction.

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FIGURE 8.35 Typical Cemintel Edge or SimpleLine Installation – Cavity Fixed System

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FIGURE 8.36 Vertical Joint – Cladding Fixed to Structural Cemintel FC Batten – Edge RIBBON-Groove

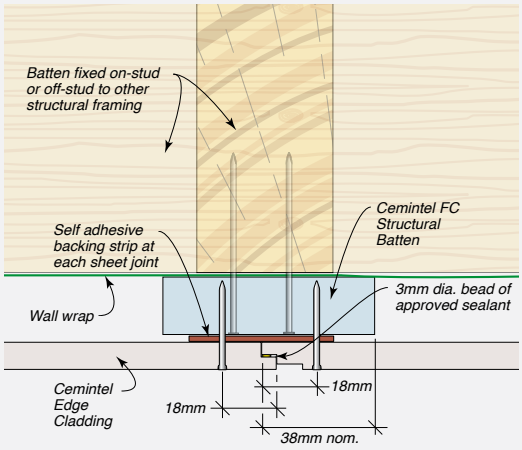

FIGURE 8.37 Vertical Joint – Cladding Fixed Through Non-structural Batten to Framing – Edge RIBBON-Groove

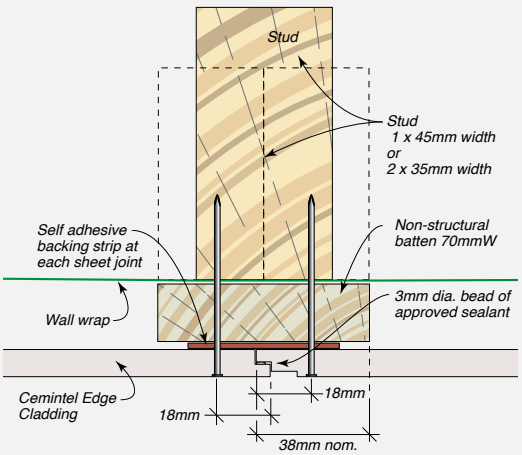

FIGURE 8.38 Vertical Joint – Cladding Fixed to Structural Cemintel FC Batten – Edge V-Groove

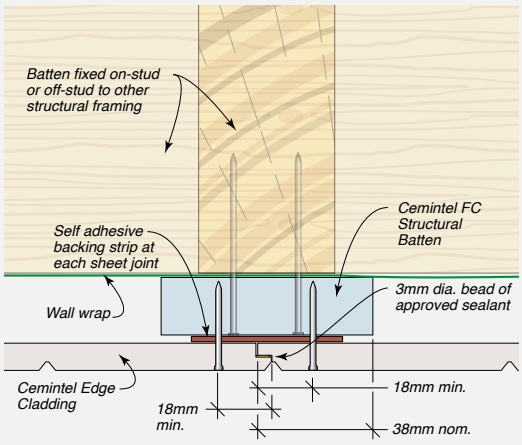

FIGURE 8.39 Vertical Joint – Cladding Fixed Through Non-structural Batten to Framing – Edge V-Groove

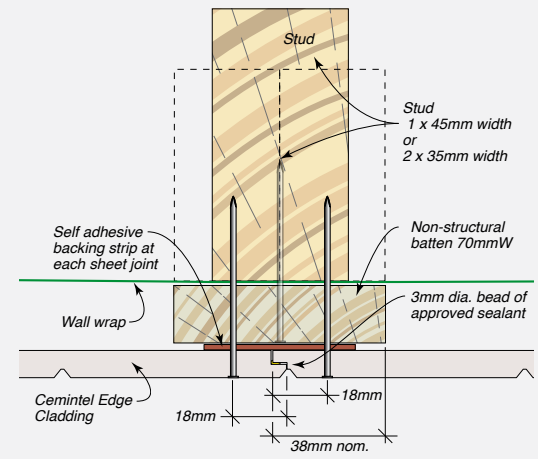

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FIGURE 8.40 Vertical Joint – Cladding Fixed to Structural Cemintel FC Batten – SimpleLine

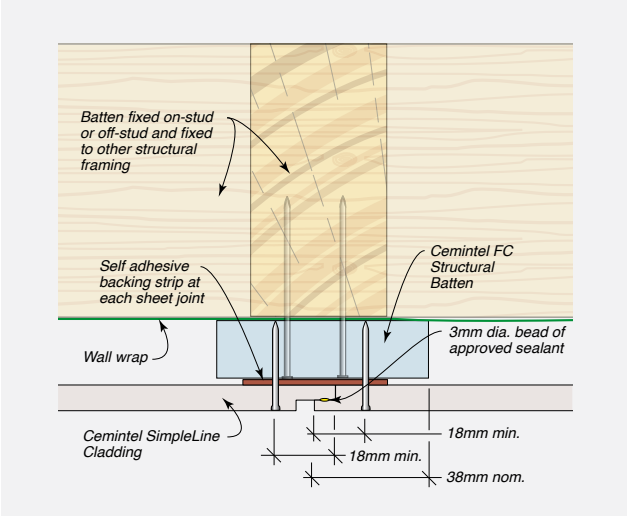

FIGURE 8.41 Vertical Joint – Cladding Fixed Through Non-structural Batten to Framing – SimpleLine

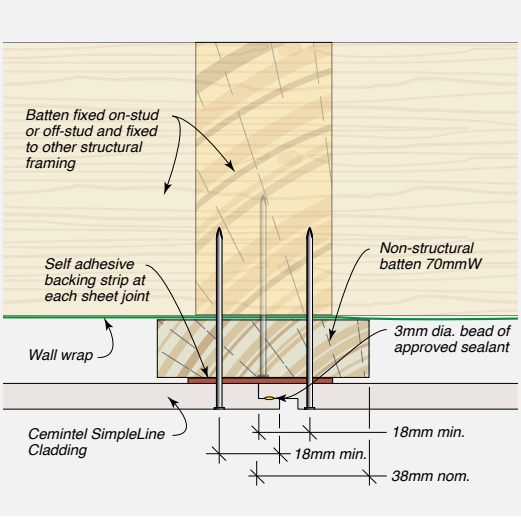

FIGURE 8.42 Vertical Joint – Cladding Fixed to Structural Cemintel FC Batten – Steel Framing – Edge RIBBON-Groove

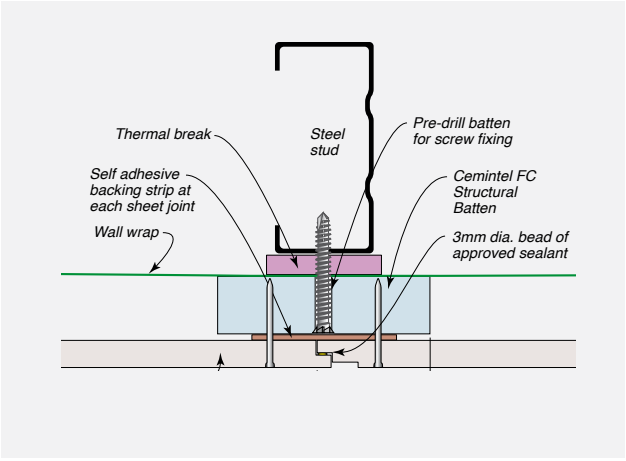

FIGURE 8.43 Vertical Joint – Cladding Fixed to Structural Cemintel FC Batten – Steel Framing – Edge V-Groove

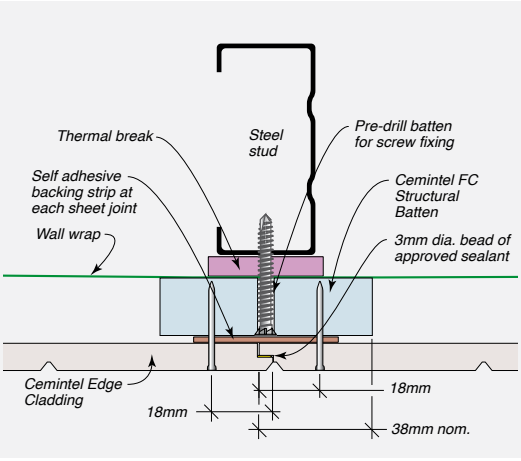

FIGURE 8.44 Vertical Joint – Cladding Fixed to Structural Cemintel FC Batten – Steel Framing – SimpleLine

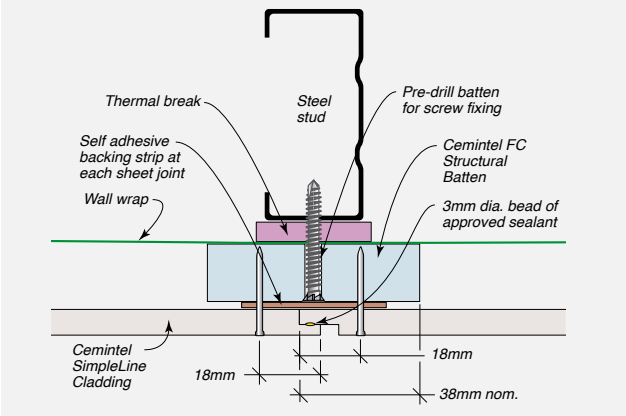

FIGURE 8.45 Vertical Joint – Cladding Fixed to Structural Top Hat Off Stud – Edge V-Groove

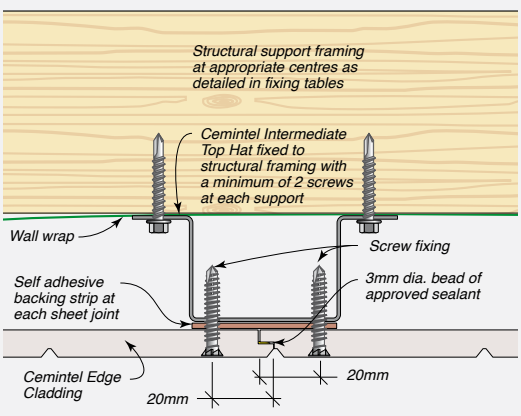

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FIGURE 8.46 Base – Concrete Slab Foundation

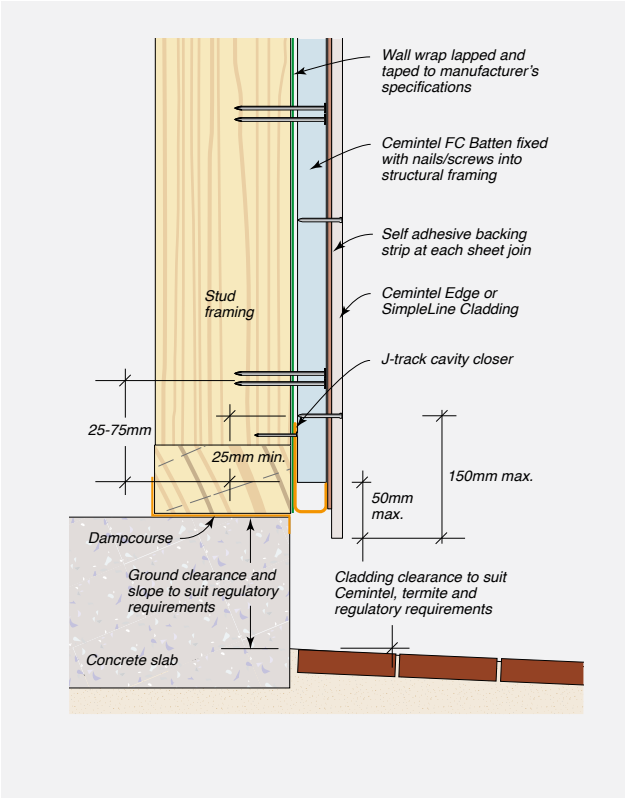

FIGURE 8.47 Base – Pier or Stub Wall Foundation

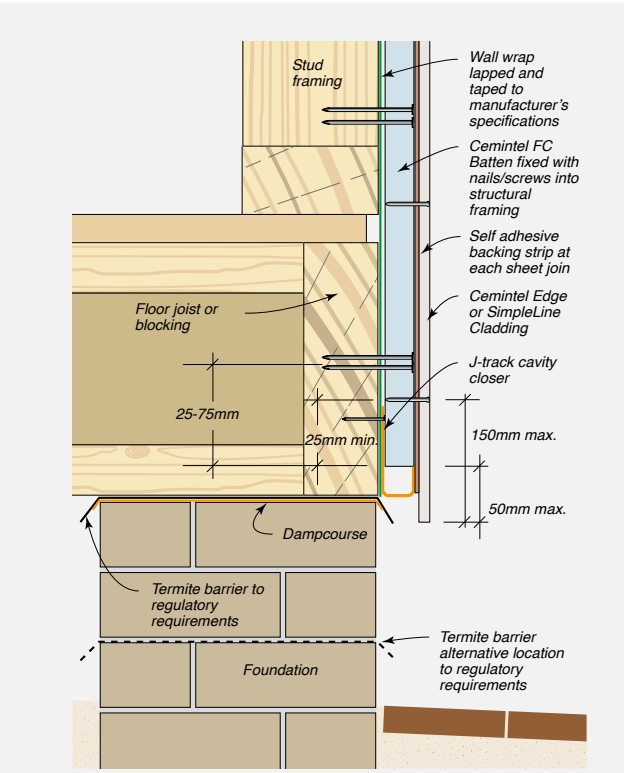

FIGURE 8.48 External Corner with Sealant and Optional Timber Moulding

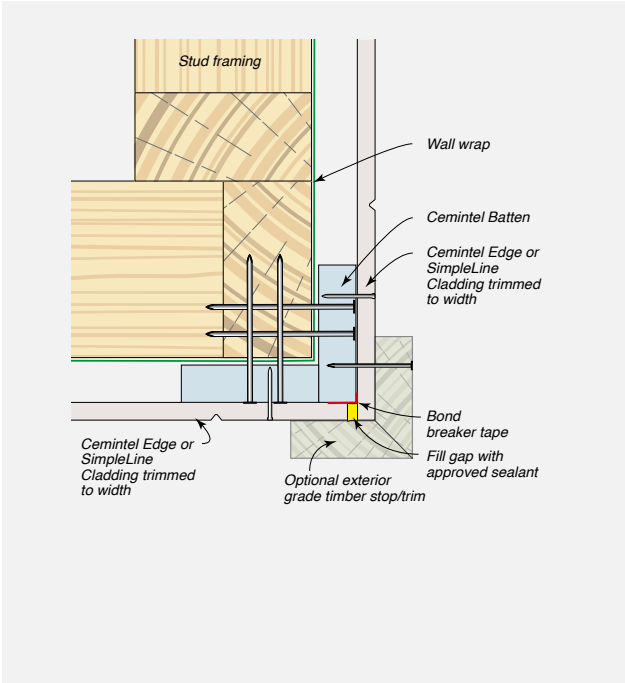

FIGURE 8.49 External Corner with Two-piece Aluminium Corner

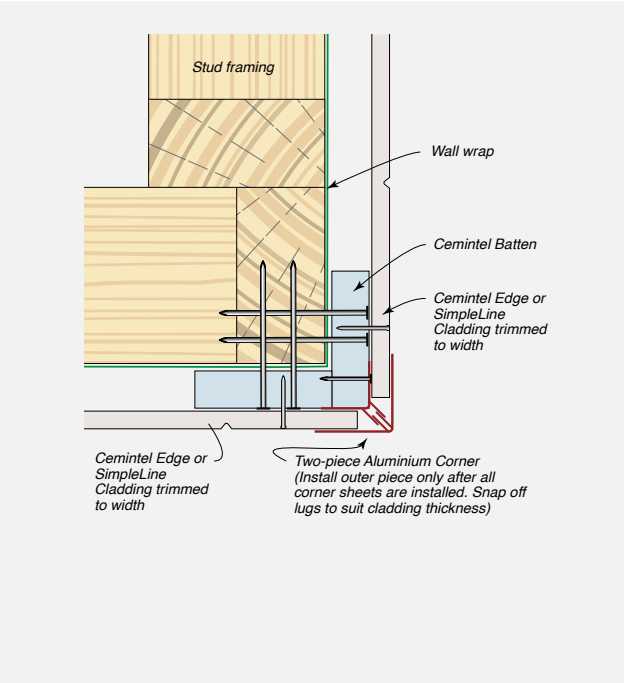

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FIGURE 8.50 Obtuse Angle Corner

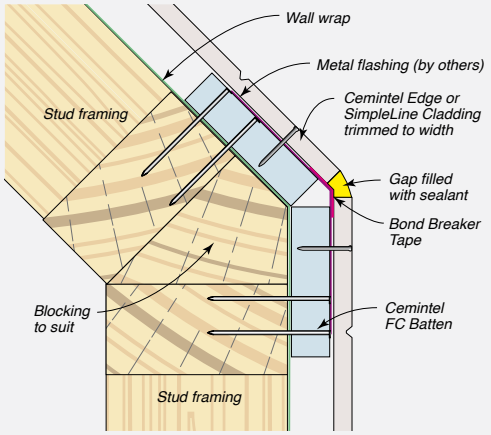

FIGURE 8.51 Internal Corner with Sealant and Optional Timber Moulding

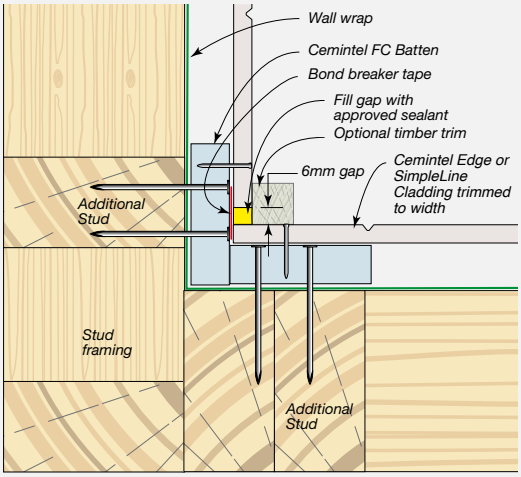

FIGURE 8.52 Internal Corner with Two-piece Aluminium Corner

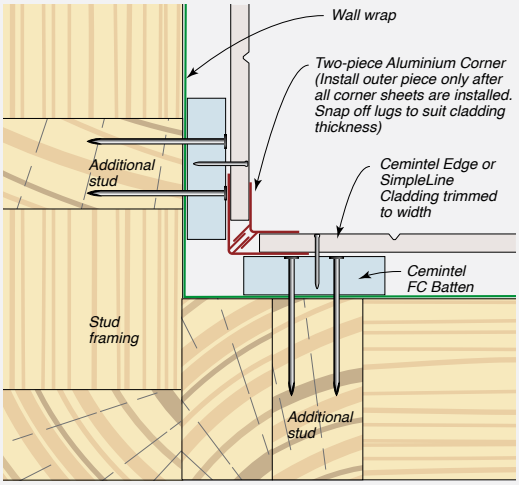

FIGURE 8.53 Soffit – With Soffit Trim

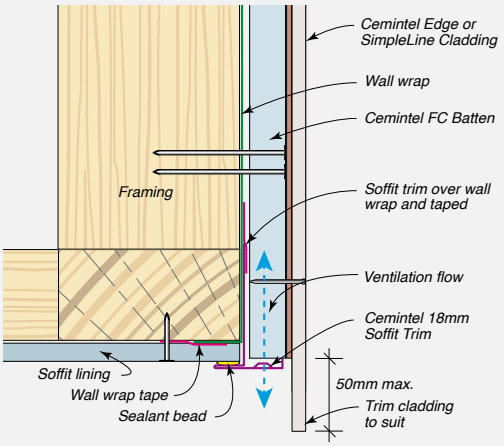

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FIGURE 8.54 Head – Eaves with Cemintel Trim

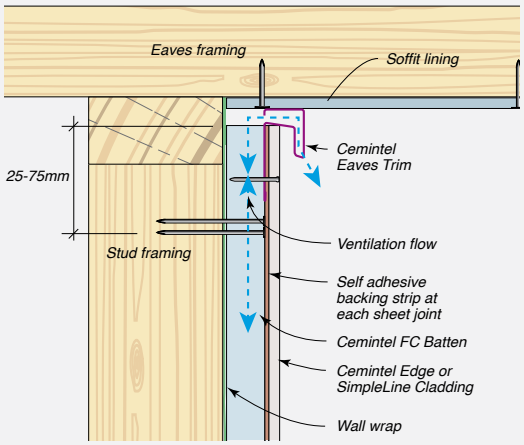

FIGURE 8.55 Head – Eaves with Timber Trim

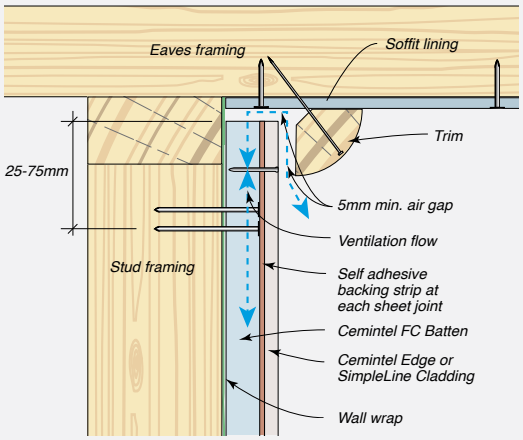

FIGURE 8.56 Second Storey Horizontal Junction

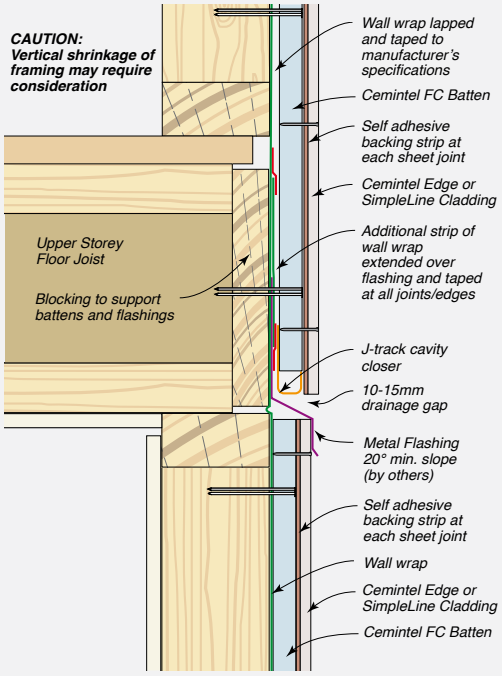

FIGURE 8.57 Second Storey Junction with Hebel Panels, Brick Veneer or Masonry Wall – Cantilevered Framing

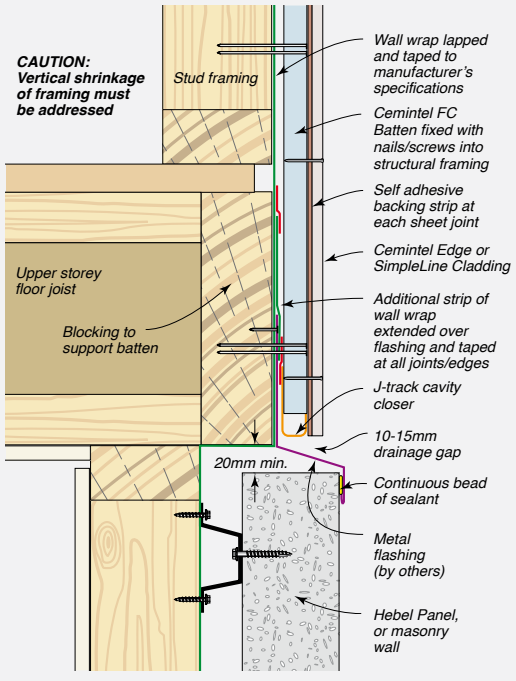

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FIGURE 8.58 Second Storey Junction with Masonry, Brick Veneer or Hebel Panels In-line Framing

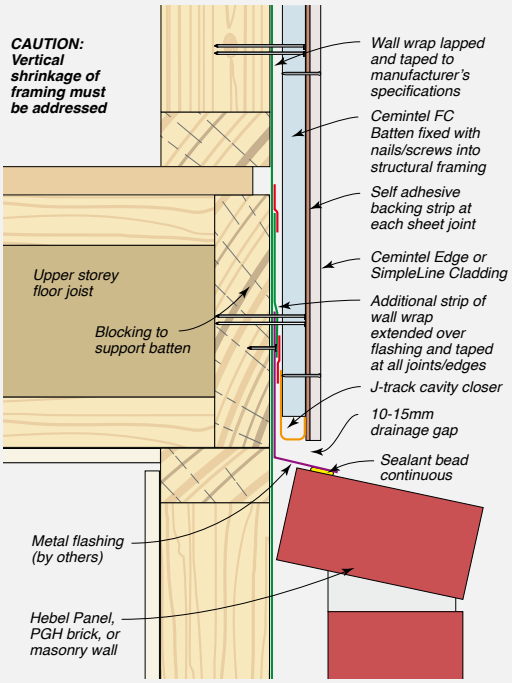


FIGURE 8.59 Junction of Cemintel Cladding with Alternative Cladding

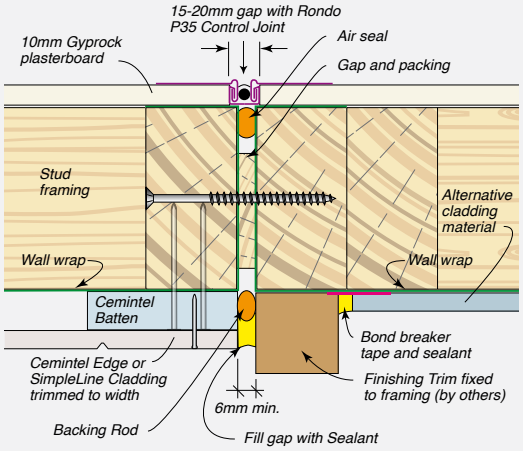


FIGURE 8.60 Junction of Cemintel Cladding with Masonry Wall

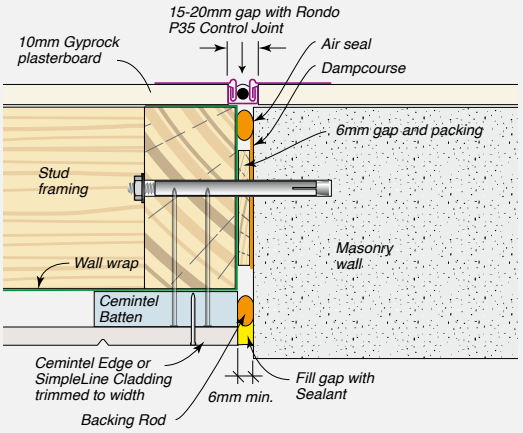
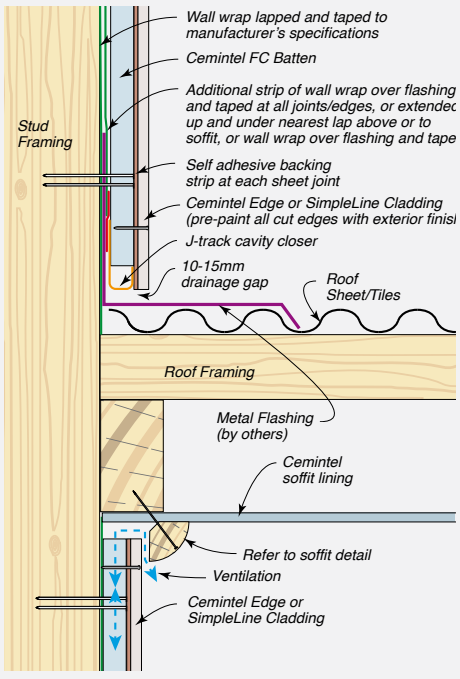


FIGURE 8.61 Junction of Edge Cladding with External Parallel Roofing



08 CONSTRUCTION DRAWINGS AND DETAILS

Cavity Fix

FIGURE 8.62 Junction of Edge Cladding with External Perpendicular Roofing

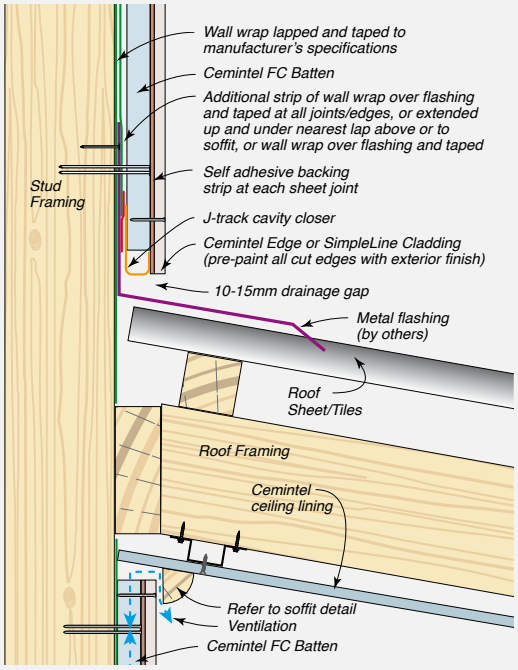
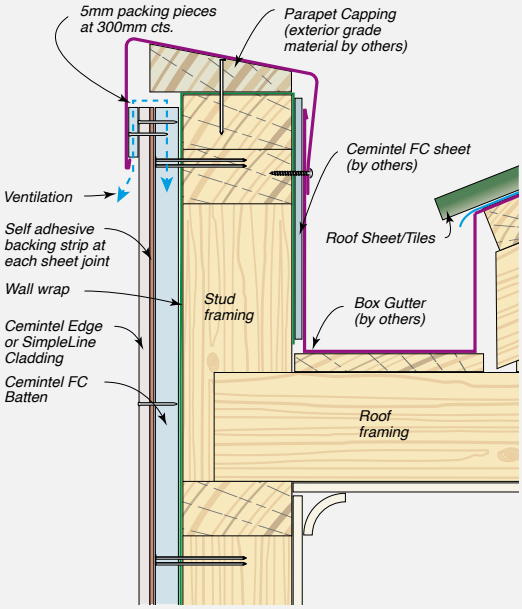


FIGURE 8.63 Horizontal Parapet Wall



Cavity Fix

FIGURE 8.64 Typical Sliding Window Installation

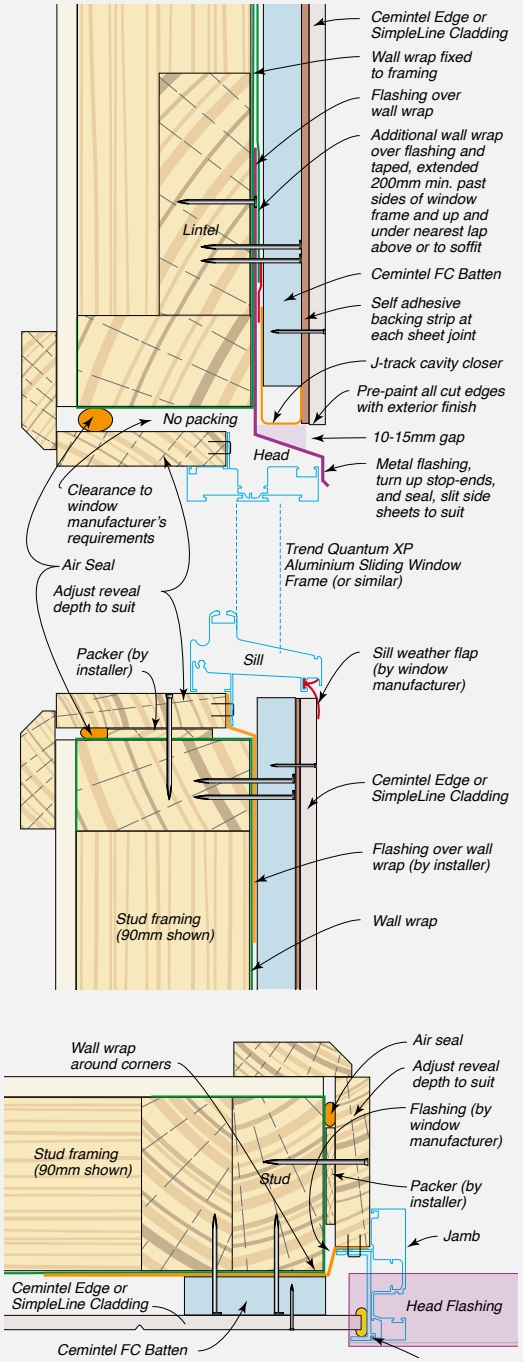
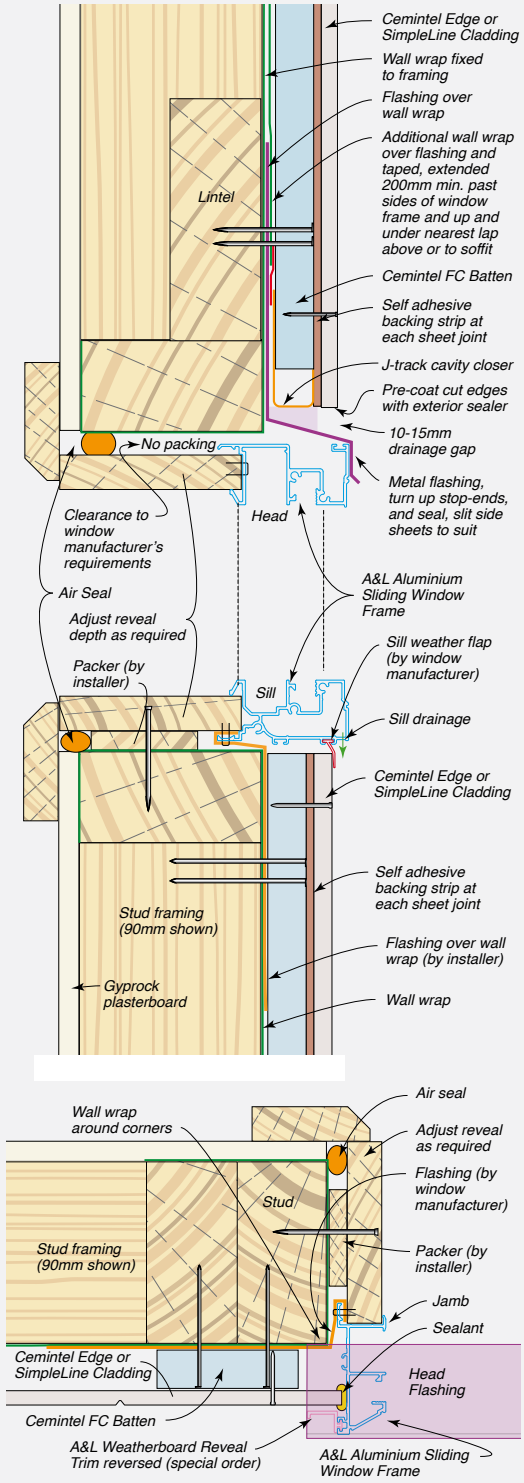


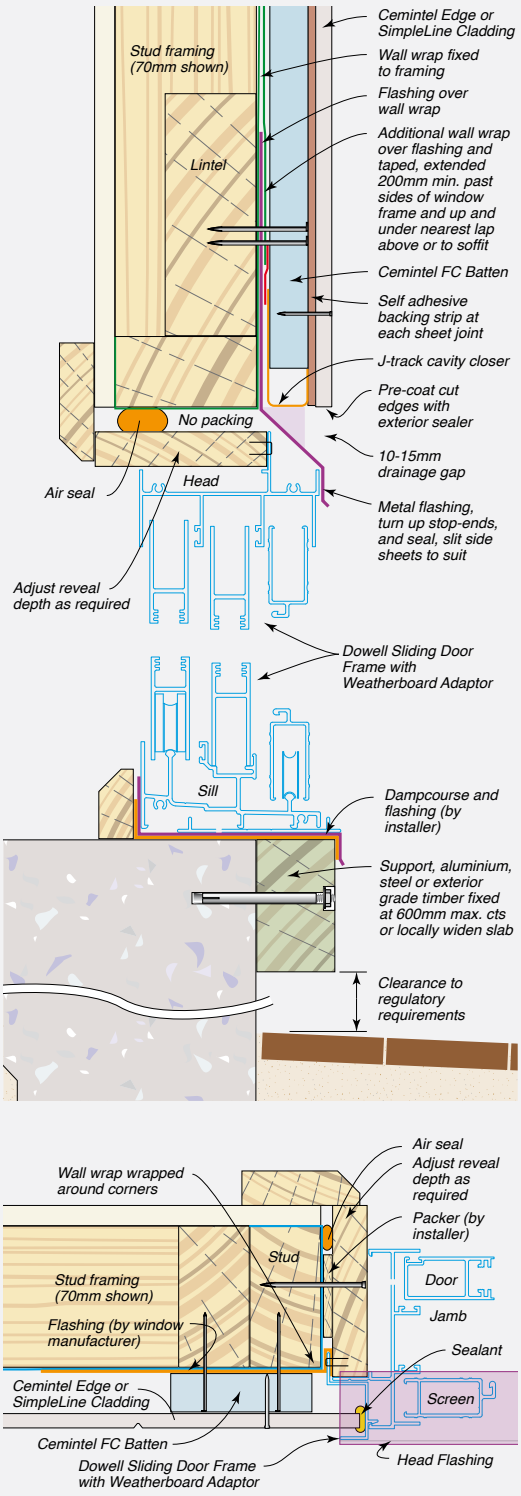
FIGURE 8.65 Typical Sliding Window Installation



08 CONSTRUCTION DRAWINGS AND DETAILS

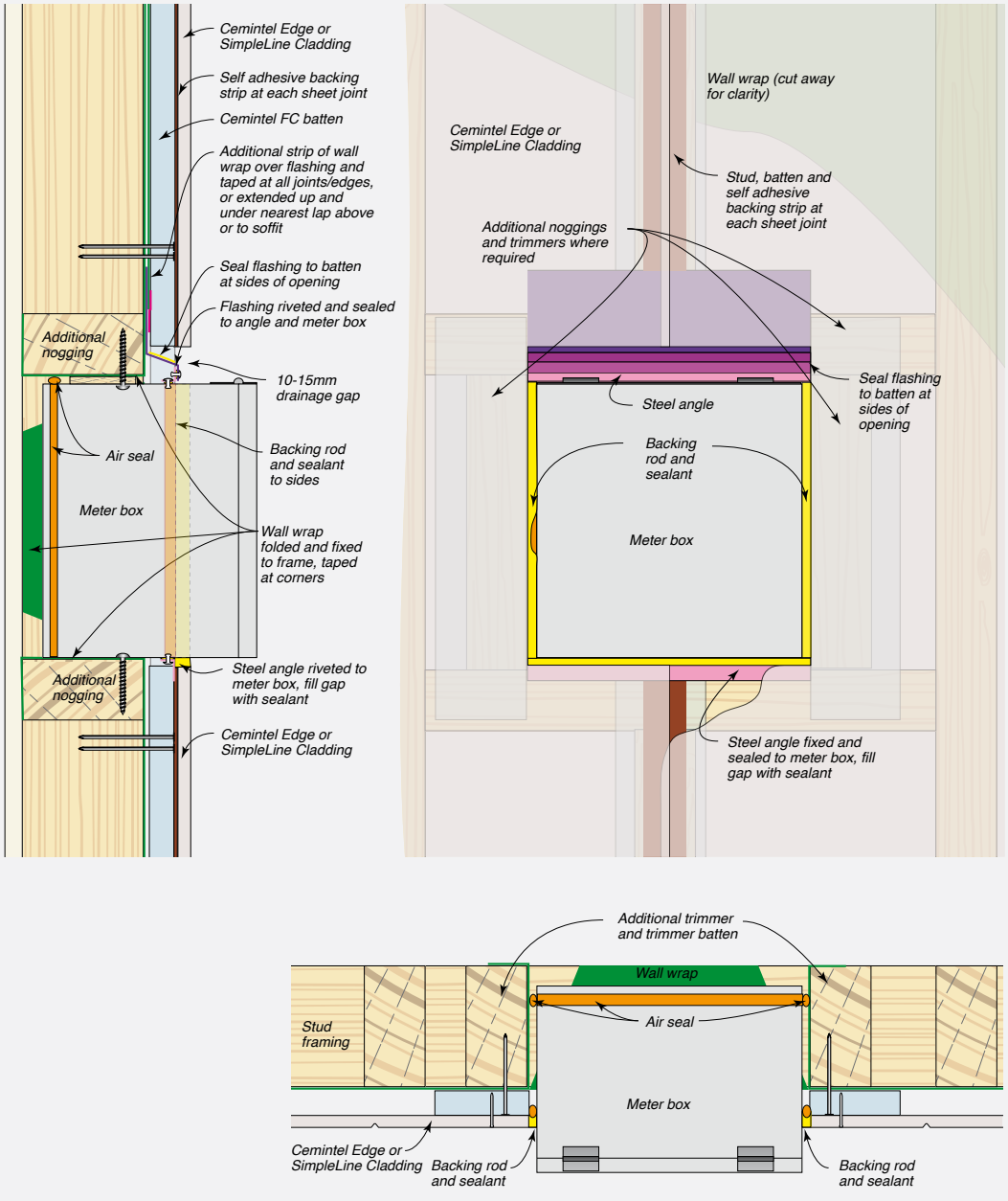
Cavity Fix

FIGURE 8.66 Typical Sliding Door Installation



Cavity Fix

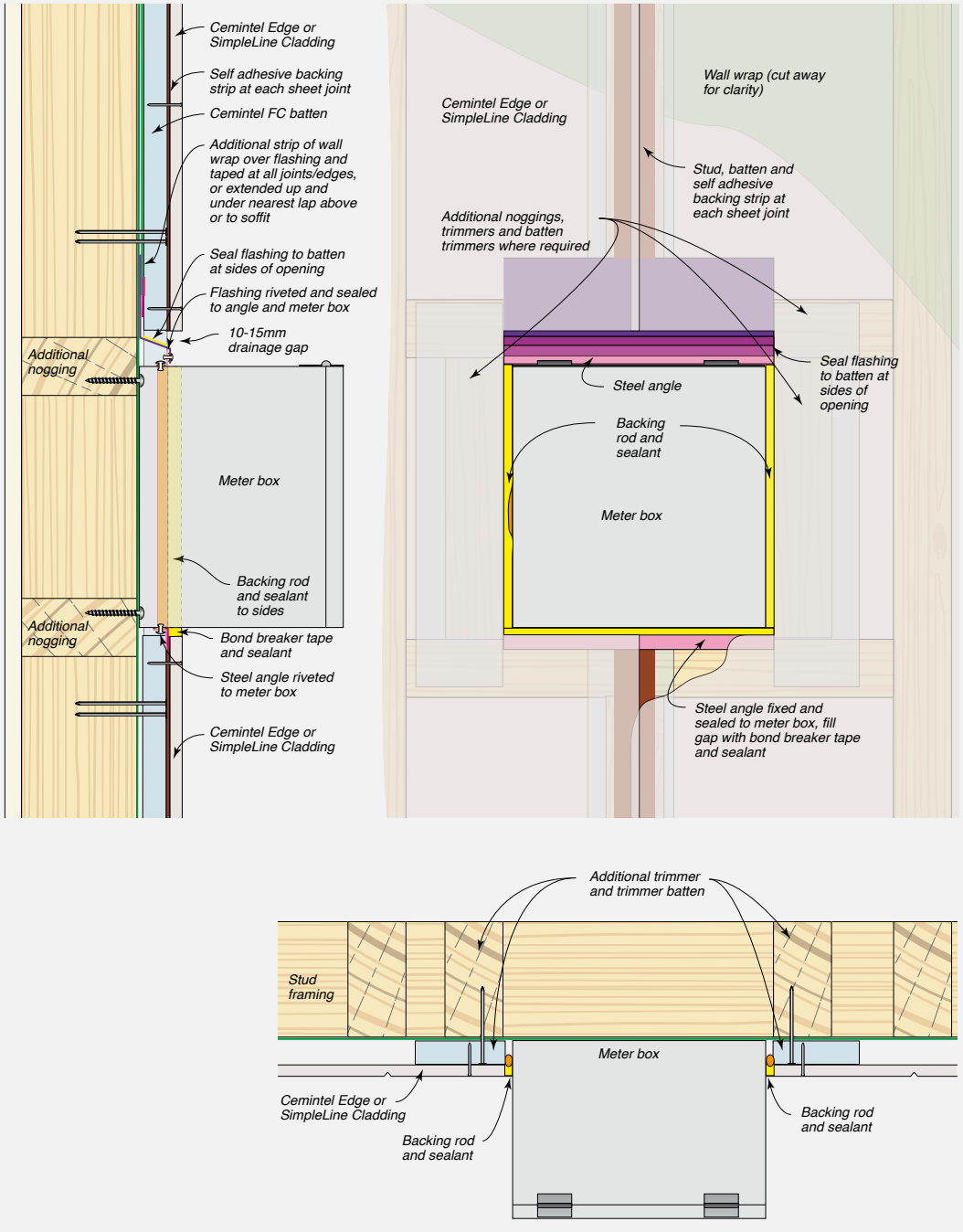
FIGURE 8.67 Typical Power Meter Box – Recessed Installation



08 CONSTRUCTION DRAWINGS AND DETAILS

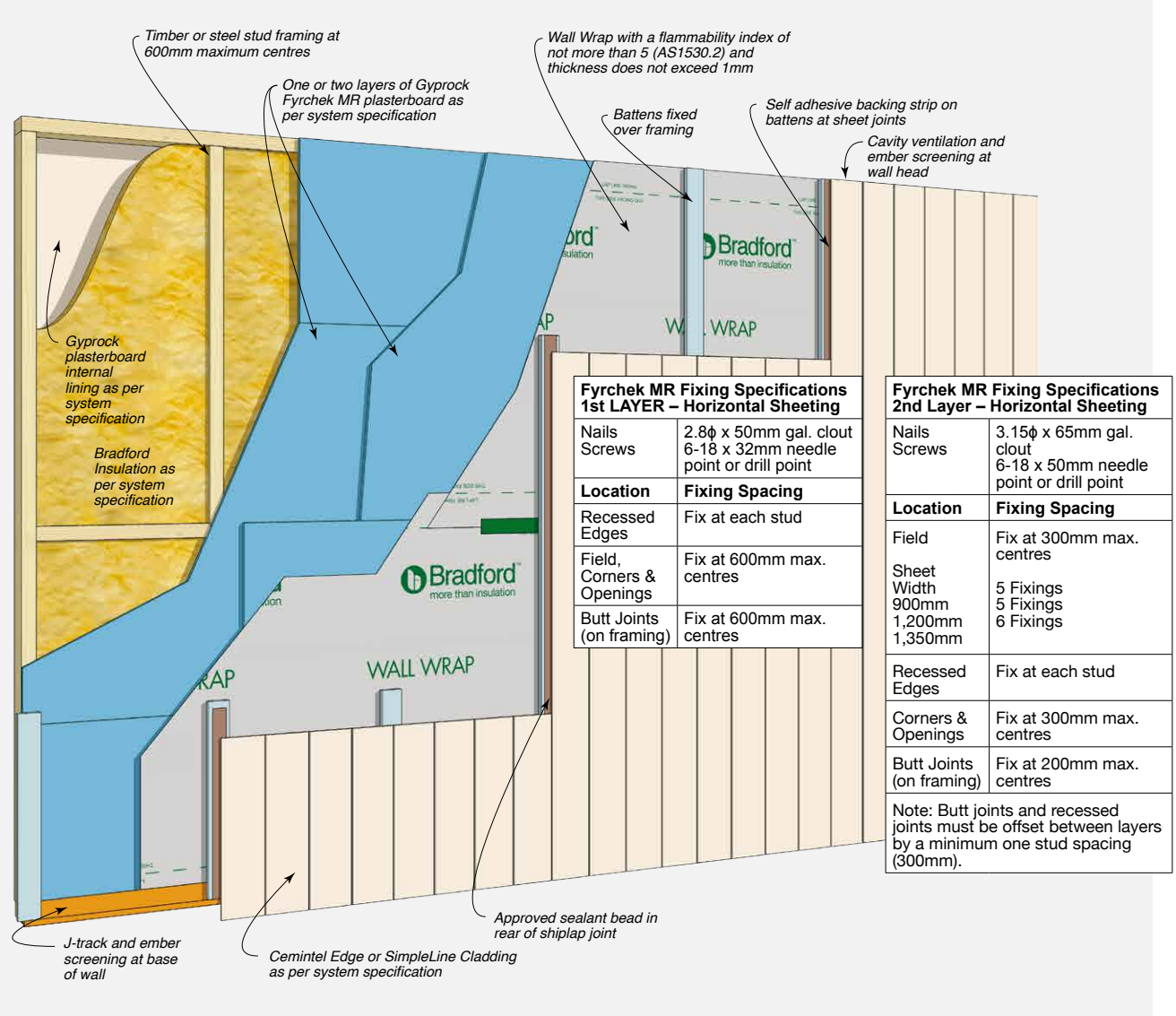
Cavity Fix

FIGURE 8.68 Typical Power Meter Box – Face Fix Installation



Cavity Fix

FIGURE 8.69 Typical Edge Cladding Fire Rated Cavity Fix Wall System Layout



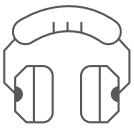
Fyrchek MR Fixing Specifications 1st LAYER – Horizontal Sheeting	
Nails Screws	2.8ϕ x 50mm gal. clout 6-18 x 32mm needle point or drill point
Location	**Fixing Spacing**
Recessed Edges	Fix at each stud
Field, Corners & Openings	Fix at 600mm max. centres
Butt Joints (on framing)	Fix at 600mm max. centres

Fyrchek MR Fixing Specifications 2nd Layer – Horizontal Sheeting	
Nails Screws	3.15ϕ x 65mm gal. clout 6-18 x 50mm needle point or drill point
Location	**Fixing Spacing**
Field Sheet Width 900mm 1,200mm 1,350mm	Fix at 300mm max. centres 5 Fixings 5 Fixings 6 Fixings
Recessed Edges	Fix at each stud
Corners & Openings	Fix at 300mm max. centres
Butt Joints (on framing)	Fix at 200mm max. centres
Note: Butt joints and recessed joints must be offset between layers by a minimum one stud spacing (300mm).	

NOTE: The length of the Cemintel cladding fixings will need to be increased to ensure the same or greater embedment depth for single and double fire-rated linings. Nail fixing through multiple layers can be difficult and screw fixings are the preferred method of construction.

09

SAFETY, HANDLING + GENERAL CARE



Health, Safety and Personal Protection Equipment (PPE)

Fibre cement sheets contain silicas that are harmful if inhaled. Protective clothing and breathing equipment should be worn when cutting products.
When cutting, drilling or grinding Edge and SimpleLine sheets using power tools, always ensure the work area is properly ventilated.

An approved dust mask (AS 1715 and AS 1716) and safety glass (AS 1337) must be worn. Cemintel recommends that hearing protection also be worn.

Safety Data Sheet information is available at www.cemintel.com.au

Managing Respirable Crystalline Silica dust

Crystalline Silica is everywhere. It is found naturally in stone, rocks, sand, gravel and clay. Sand is one of the raw materials in Fibre Cement. Respirable Crystalline Silica dust is the fine dust that's created when you use power tools to cut, drill, grind, chip or sand materials and products that contain crystalline silica. This dust is of concern due to its size as it gets caught deep in your lungs and can cause long term damage.

IF YOU USE THE CORRECT EQUIPMENT FIBRE CEMENT IS SAFE TO USE.

Cemintel Safety Requirements	
1 - Cut Outdoors*	The ventilation outdoors is greater than that indoors, and therefore should reduce exposure.
2 - Use On-Tool Dust Extraction	Use on-tool dust extraction when using power tools to drill and cut Fibre Cement, with a vacuum that contains a HEPA M Class filter.
3 - Correct Equipment	Use a plunge saw with a specifically designed Fibre Cement blade
4 - Don't Sweep, Vacuum instead	When completing your work vacuum with a HEPA M Class filter, rather than a broom as sweeping creates more dust.
5 - Use a Respirator	Use a half face P1 or P2 respirator. It is essential that the respirators are Fit Tested and workers are cleanly shaven to obtain a good sea

* Even though not recommended, indoor cutting can be completed when using an onsite cutting room with exhaust ventilation and a M class filter at a minimum, on-tool dust extraction with a vacuum with a HEPA M Class filter, a Full Face P2 respirator and conducting local occupational and static air monitoring to validate effectiveness of control measures.

Handling & General Care

Storage

All Edge and SimpleLine sheets must be stacked flat, clear of the ground and supported at 450mm maximum centres on a level platform. Sheets must be kept dry, preferably stored inside the building. Sheets must be dry prior to fixing, hence if they are to be stored outside, the sheets must be protected from the weather. Sheets exposed to moisture prior to installation may be subject to shrinkage, and voiding of warranty.

Handling

Edge and SimpleLine sheets and corners are treated products and must be handled with care during handling so as to avoid damage to edges and ends. Sheets should be carried horizontally on edge by at least two people.

Cutting

Sheets should be cut from the back using a power saw. Cemintel recommends using the Makita Plunge Saw Kit (1300kW) with guide rail and appropriate blade.

All exposed cut edges MUST BE SEALED TO PREVENT MOISTURE ABSORPTION. Refer to 'Components' table for appropriate materials.

Penetrations

Penetrations in sheets may be cut or drilled prior to installation. Cut from the back or drill from the front. Cut penetrations oversize by 8-10mm all around. Mask, prime and fill gaps with sealant in accordance with recommended methods and products.

WARRANTY, CLEANING + MAINTENANCE

10

Warranty

The Edge and SimpleLine cladding sheets has a product warranty of 10 years.

The full product warranty is available for download at **www.cemintel.com.au**

Wash Down Process

An external coating system must be applied and maintenance of the coating system shall be in accordance with coating manufacturer's recommendation. The following is recommended as a minimum maintenance regime:

- Where sufficiently exposed, rain can perform a natural wash down of the wall and ongoing maintenance should be limited to occasional rinse down or using a soft cloth or soft brush (like a dust pan brush).
- Walls which are protected by soffits above must be washed down twice per year to remove salt and debris build up particularly at joints.
- Normal dirt can be removed with a soft brush and warm water up to 50degrees, to which a small amount of dishwashing liquid or soap has been added. The sheets should be rinsed with clear water before they dry.
- Calcifications should be removed with a 5% sulfamic acid solution or with a commercial lime remover. The façade should be rinsed with clear water after cleaning.
- Sheets discoloured by algal growth should be treated with an algicide without bleaching agents. This application should be allowed to take effect for several days. Afterwards, clean the sheets using the 'normal dirt' procedure above.
- When rinsing down sheets, use no more than 700 psi (50kg/cm^2) of water pressure at a minimum of 3m to 3.5m distance from the face of the wall. Water pressure should be applied downward to avoid forcing water into joints and gaps.
- Use neutral detergent with a soft cloth or soft brush when removing dirty spots from a panel. When diluting the neutral detergent, follow the manufacturer's instructions and use the weakest solution possible.

Inspection, Repair and Maintenance

The durability of the Cemintel Edge and SimpleLine cladding system can be enhanced by periodic inspection and maintenance. Inspections should include examination of the coatings, flashings and seals. Any cracked or damaged finish or seals which would allow water ingress must be repaired immediately by resealing the affected area, or by removing the panel and replacing sealant. Any damaged flashings, sheets or sealant must be replaced as for new work.

Regularly inspect panel surfaces and follow washdown procedures when required.

Ensure ventilation and drainage gaps between sheets and flashings are clear of any debris.

It is recommended storing additional sheets in case any sheets are damaged in the future.

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