



**JamesHardie™**

jameshardie.co.nz

# Stria™ Cladding Smooth

## Vertical Installation

## To Hardie™ 40mm Structural Horizontal Cavity Batten

Technical Specification

**April 2026** New Zealand





## We value your feedback!

To continue with the development of our products and systems, we value your input. Please send any suggestions, including your name, contact details, and relevant sketches to:

**Ask James Hardie™**  
[literaturefeedback@jameshardie.co.nz](mailto:literaturefeedback@jameshardie.co.nz)

### Make sure your information is up to date

When specifying or installing Hardie™ fibre cement products, ensure that you have the current manual. Additional installation information, warranties and warnings are available at [www.jameshardie.co.nz](http://www.jameshardie.co.nz) or **Ask James Hardie™ on 0800 808 868.**

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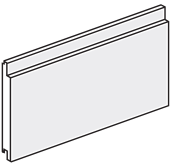
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# 1 Product Overview

## 1.1 Product Information

Stria™ Cladding Smooth installed as per this specification gives a vertical panelised appearance. Stria™ Cladding Smooth can be fixed to timber-framed external walls. A wide range of colours can be used, varying from light to dark.

**Table 1**

Stria™ Cladding Smooth information					
Product	Description	Size (mm)			Code
		Thickness	Length	Width	
	<b>Stria™ Cladding Smooth</b> A 14mm profiled panel for expressed jointed residential facades. Factory sealed on all six sides. Each panel has a manila white colour primer applied on its face, which accepts a wide range of paint finishes.	14	4200	405 325	<b>404263</b> <b>404063</b>
		14	3000	405 325	<b>405505</b> <b>405504</b>

**Note:** All dimensions and masses provided are approximate only and subject to manufacturing tolerances. Stria™ Cladding Smooth is manufactured in 14.0mm thickness and has a mass of 16kg/m<sup>2</sup> at EMC. Stria™ Cladding Smooth is defined as a Light Weight Wall Cladding (not exceeding 30kg/m<sup>2</sup>) as per the NZS 3604.

## 1.2 Manufacturing and Classification

Stria™ Cladding Smooth is an advanced lightweight cement composite cladding, manufactured using James Hardie formulation. Basic composition is Portland cement, ground sand, cellulose fibre, water and proprietary additives. The product is easily identified by the name 'Stria™ Cladding Smooth'.


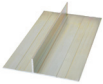







Stria™ Cladding Smooth is manufactured in Australia to the Australian/New Zealand Standard AS/NZS 2908.2 'Cellulose-Cement Products' (ISO 8336 'Fibre-Cement Flat Sheet').

Stria™ Cladding Smooth is classified Type A, Category 3 in accordance with the AS/NZS 2908.2 "Cellulose-Cement Products".

For Safety Data Sheets (SDS) visit [www.jameshardie.co.nz](http://www.jameshardie.co.nz) or Ask James Hardie on **0800 808 868**.

## 1.3 Components and Accessories

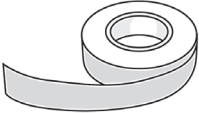







Table 2

Accessories/Tools supplied by James Hardie			
Accessories	Description	Size	Code
	<b>Hardie™ 40mm Structural Horizontal Cavity Batten</b> H3.1 LOSP Timber treated batten the cladding is fixed to.	2700mm long	<b>306077</b>
	<b>Hardie™ 14mm Trimline Joint Flashing</b> Aluminium extrusion used behind cladding at horizontal joints.	3000mm long	<b>305827</b>
	<b>Hardie™ 14mm Internal Corner Flashing</b> Anodised aluminum extrusion used to create internal corners.	3000mm long	<b>304871</b>
	<b>Hardie™ 14mm External Box Corner</b> Anodised aluminium extrusion used to create external corners.	3000mm long 4000mm long	<b>306261</b> <b>305823</b>
	<b>Hardie™ 9mm Panel Aluminium External Box Corner</b> A box corner mould to form the external joints. 9mm etch primed.	2450mm long 2750mm long 3000mm long 4000mm long	<b>304509</b> <b>304510</b> <b>305150</b> <b>305808</b>
	<b>Trimline Horizontal Jointer</b> A jointer to cover the butt joint of Hardie™ 14mm Trimline Joint Flashing	100mm long	<b>305871</b>
	<b>Trimline External Corner Jointer</b> Joins Hardie™ 14mm Trimline Joint Flashing at an external corner		<b>305870</b>
	<b>Trimline Internal Corner Jointer</b> Joins Hardie™ 14mm Trimline Joint Flashing at an internal corner		<b>305872</b>
<b>Tools</b>			
	<b>Hardie™ Blade Saw Blade</b> Diamond tip fibre cement circular saw blade. Spacers not included.	184mm 254mm	<b>300660</b> <b>303375</b>

**Table 3**

**Accessories/Tools not supplied by James Hardie**

James Hardie recommends the following products for use in conjunction with Stria™ Cladding Smooth. James Hardie does not supply these products and does not provide a warranty for their use. Please contact component manufacturer for information on their warranties and further information on their products.

Product	Description
	<p><b>Flexible window opening flashing tape</b>                      A flexible self-adhesive tape used in preparation of a window. Refer to the window installation section in this manual for more information.</p> <p>e.g. Protecto® or Super-stick building tape® by Marshall Innovation or 3M™ All Weather Flashing Tape 8067 by 3M™                      Marshall Innovation: 0800 776 9727                      3M™: 0800 474 787</p>
	<p><b>Flexible sealant</b>                      Bostik® Seal N' Flex® 1, Sikaflex® AT Facade, Sikaflex® MS or similar.</p>
	<p><b>40mm Vent Strip</b>                      Moulding used as vermin proofing.</p>
	<p><b>50 x 2.87mm 'D' head nail or 50 x 2.87 RoundDrive nail</b>                      (ring shank hot dipped galvanised/stainless steel)                      For fixing Stria™ Cladding Smooth into structural cavity batten.</p>
	<p><b>75 x 3.06mm RoundDrive ring shank galv/ss nail</b>                      (hot dipped galvanised or ring shank stainless steel)                      For fixing Hardie™ 40mm structural horizontal cavity battens to timber frame.</p>
	<p><b>80mm x 10g screw</b>                      For fixing Hardie™ 40mm structural horizontal cavity battens to timber frame.</p>
	<p><b>Exterior grade filler</b>                      CRC® ADOS® Builders Fill or similar                      two part filler to fill over nail holes</p>
	<p><b>Penetration Seals</b>                      Thermakraft™: 0800 806 595                      Marshall Innovations: 0800 776 9727</p>

# 2 Application and Scope

## 2.1 Application

Stria™ Cladding Smooth can be fixed to timber framed external walls.

### Specifiers

If you are a specifier or other responsible party for a project ensure that the information in this document is appropriate for the application you are planning and that you undertake specific design and detailing for areas which fall outside the scope of these specifications.

### Installers

If you are an installer ensure that you follow the design, moisture management principles, associated figures and material selection provided by the designer and this Technical Specification by James Hardie. All of the details provided in this document must be read in conjunction with the project specification.

### Make sure your information is up to date

When specifying or installing products from James Hardie, ensure that you have the current manual. Additional installation information, warranties and warnings are available at [www.jameshardie.co.nz](http://www.jameshardie.co.nz) or Ask James Hardie™ on 0800 808 868.

## 2.2 Scope

This specification covers the installation of Stria™ Cladding Smooth fixed vertically over Hardie™ 40mm structural horizontal cavity battens on buildings that fall within the scope limitation of the NZS 3604 and E2/AS1 of the New Zealand Building Code (NZBC).

## 2.3 Details

Various typical Stria™ Cladding Smooth construction details are provided within this document. These details are available in dwg, dxf, jpg and pdf file format and can be downloaded from our website at [www.jameshardie.co.nz](http://www.jameshardie.co.nz).

All dimensions shown are in millimetres unless noted otherwise.

## 2.4 Specific Design

For use of Stria™ Cladding Smooth on a specific design project that is outside the scope of this literature, the designer, architect or engineer must ensure that applicable clauses of the NZBC have been considered and a specific design has been undertaken.

# 3 Compliance

## 3.1 Compliance

Stria™ Cladding Smooth installed vertically in accordance with this specification has been tested/assessed to demonstrate compliance E2, B1,B2 and F2 of the NZBC.

Stria™ Cladding Smooth Vertical Installation to Hardie™ 40mm structural cavity batten has a BRANZ Appraisal number 1225 (2022) to demonstrate compliance with the requirements of the NZBC. Please refer to our web site [www.jameshardie.co.nz](http://www.jameshardie.co.nz) for a copy of the BRANZ appraisal.



# 4 Design

## 4.1 Responsibility

The specifier or other party responsible for the project must ensure that the information and details in this specification are appropriate for the intended application and that additional detailing is performed for specific design or any areas that fall outside the scope of this technical specification. For applications outside the scope of this literature and details, which are not provided herein, the architect, designer or engineer must undertake specific design and it should be ensured that the intent of their design meets the requirements of the NZBC.

All New Zealand Standards referenced in this document are current editions and must be complied with.

**James Hardie conducts stringent quality checks to ensure that any product manufactured falls within our quality spectrum. It is the responsibility of the builder to ensure that the product meets aesthetic requirements before installation. James Hardie will not be responsible for rectifying obvious aesthetic surface variations following installation.**

## 4.2 Site and Foundation

The site on which the building is situated must comply with the NZBC Acceptable Solution E1/AS1 'Surface Water'. Foundation design must comply with the requirements of the NZS 3604 'Timber-framed Buildings' or be as per specific engineering design. The grade of adjacent finished ground must slope away from the building to avoid any possibility of water accumulation in accordance with the NZBC requirements.

## 4.3 Clearances

The clearance between the bottom edge of the cladding and paved/unpaved ground must comply with Subsection 9.1.2 of E2/AS1. The finished floor level must also comply with these requirements. These clearances must be maintained throughout the life of the building.

Stria™ Cladding Smooth must overhang the bottom plate by a minimum of 50mm as per Table 9.1.2.1, and for timber sub floor framing as per Paragraph 9.1.2.8 of NZBC Acceptable Solution E2/AS1.

Stria™ Cladding Smooth must maintain a minimum clearance of 100mm from paved ground, and 175mm from unpaved ground.

On roofs and decks, the minimum clearance must be 50mm.

## 4.4 Moisture Management

It is the responsibility of the specifier to identify moisture related risks associated with any particular building design.

Wall construction design must effectively manage moisture, considering both interior and exterior environments of the building, particularly in buildings that have a higher risk of wind driven rain penetration. The building should also be ventilated sufficiently to control moisture accumulation due to condensation, especially in artificially cooled/heated buildings.

Walls must include those provisions as required by the NZBC Acceptable Solution Clause E2/AS1. In addition, all wall openings, penetrations, junctions, connections, window sills, heads and jambs must incorporate appropriate flashings for waterproofing. The other materials, components and installation methods used to manage moisture in external walls, must comply with the requirements of relevant standards and the NZBC. For further guidance on designing for weathertightness, refer to BRANZ Ltd. and the Ministry of Business, Innovation and Employment (MBIE) updates on the following websites respectively, [www.branz.co.nz](http://www.branz.co.nz) and [www.building.govt.nz](http://www.building.govt.nz).

In addition, the following issues must also be considered:

- Sealant must be installed where detailed in this literature
- Where the walls are higher than two storeys, it is necessary to provide a horizontal flashing at the second floor level to drain the cavity
- The installation of smoke chimneys, pipe penetrations and other fixtures etc. must not track moisture into the wall or restrict the drainage of moisture to the exterior

## 4.5 Structure

### 4.5.1 Timber Framing

Timber framed buildings must either be in accordance with the NZS 3604 (Timber-framed buildings) or designed as per specific engineering design (SED).

The information published in this specification has been assessed for a timber structural grade SG8 at minimum. Refer to the NZS 3604 for further information on structural grades and their application.

## 4.6 Wind Pressures

Stria™ Cladding Smooth is suitable for use in wind zones up to and including EH as defined in the NZS 3604.

## 4.7 Bracing

Stria™ Cladding Smooth installed as per this specification cannot be used to achieve any structural bracing. However, bracing can be achieved by using RAB™ Board or HomeRAB™ Pre-Cladding installed direct to framing instead of a flexible underlay or by using the Villaboard™ Lining or Hardie™ Groove Lining bracing system on the internal face of the wall. Refer to the Bracing Design Manual by James Hardie for further information.

## 4.8 Energy Efficiency

External walls constructed as per this technical specification, using Stria™ Cladding Smooth must use suitable bulk insulation to meet the minimum thermal insulation requirements as per Clause H1/AS1 'Energy Efficiency' of the NZBC.

## 4.9 Fire Rated Walls

A fire rating up to 60 minutes can be achieved when Stria™ Cladding Smooth is used in conjunction with RAB™ Board and Stria™ Cladding Smooth is installed to Hardie™ 40mm structural horizontal cavity batten.

Nogs in fire rated walls must be at 800mm centres maximum.

Refer to the Fire and Acoustic Design Manual by James Hardie for further guidance on achieving fire ratings.

## 4.10 Control of External Fire Spread

Stria™ Cladding Smooth is classified as 'Type-A' material when tested to the requirements of Section 8.4 of Building Product Specification (BPS) of the NZBC and is suitable for use where 'Non-Combustible Material' or ' Limited Combustibility Material' is required for use on external walls close to boundary as per the requirements of Clause C/AS1 and C/AS2 of the NZBC.

## 4.11 Durability

Stria™ Cladding Smooth is resistant to moisture induced deterioration (rotting) and meets the requirements of the following tests in accordance with the AS/NZS 2908.2:

- Heat Rain (Clause 6.5)
- Water Permeability (Clause 8.2.2)
- Warm Water (Clause 8.2.4)
- Soak Dry (Clause 8.2.5)

## 4.12 Alpine Regions

In regions subject to freeze/thaw conditions, Stria™ Cladding Smooth, HomeRAB™ Pre-Cladding and RAB™ Board must not be in direct contact with snow or ice build up for extended periods, e.g. external walls in alpine regions must be protected where snowdrifts over winter are expected.

These products meet the requirements of the AS/NZS 2908.2 Clause 8.2.3.

# 5 Safe Working Practices

## **WARNING - DO NOT BREATHE DUST AND CUT ONLY IN WELL VENTILATED AREA**

**Hardie™ fibre cement products contain sand, a source of respirable crystalline silica**

**May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product.**

Intact fibre cement products are not expected to result in any adverse toxic effects. The hazard associated with fibre cement arises from the respirable crystalline silica present in dust generated by activities such as cutting, rebating, drilling, routing, sawing, crushing, or otherwise abrading fibre cement, and when cleaning up, disposing of or moving dust.

When doing any of these activities in a manner that generates dust, follow James Hardie instructions and best practices to reduce or limit the release of dust.

If using a dust mask or respirator, use an AS/NZS 1716 P1 filter and refer to Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment for more extensive guidance and more options for selecting respirators for workplaces. For further information, refer to our installation instructions and Safety Data Sheets available at [www.jameshardie.co.nz](http://www.jameshardie.co.nz).

## **FAILURE TO ADHERE TO OUR WARNINGS, SAFETY DATA SHEETS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.**

### **Crystalline Silica is**

- Commonly known as sand or quartz
- Found in many building products e.g. concrete, bricks, grout, wallboard, ceramic tiles, and all fibre cement materials

### **Why is Crystalline Silica a health hazard?**

- Silica can be breathed deep into the lungs when present in the air as a very fine (respirable) dust
- Exposure to silica dust without taking the appropriate safety measures to minimise the amount being breathed in, can lead to a potentially fatal lung disease – silicosis – and has also been linked with other diseases including cancer. Some studies suggest that smoking may increase these risks
- The most hazardous dust is the dust you cannot see!

### **When is Crystalline Silica a health hazard?**

- It's dangerous to health if safety protocols to control dust are not followed when cutting, drilling or rebating a product containing crystalline silica and when cleaning up
- Products containing silica are harmless if intact (e.g. an un-cut sheet of wall board)

## **Avoid breathing in crystalline silica dust**

### **Safe working practices**

- ✗ NEVER use a power saw indoors or in a poorly ventilated area
- ✗ NEVER dry sweep
- ✓ ALWAYS use M Class or higher vacuum or damp down dust before sweeping up
- ✗ NEVER use grinders
- ✓ ALWAYS use a dust reducing circular saw equipped with a sawblade specifically designed to minimise dust creation when cutting fibre cement – preferably a sawblade that carries the Hardie™ Blade name or one with at least equivalent performance – connected to an M Class or higher vacuum
- ✓ Before cutting warn others in the area to avoid dust
- ✓ ALWAYS follow tool manufacturers' safety recommendations
- ✓ ALWAYS expose only the minimum required depth of blade for the thickness of fibre cement to be cut
- ✓ ALWAYS wear a properly-fitted, approved dust mask or respirator P1 or higher in accordance with applicable government regulations and manufacturer instructions
- ✓ Consider rotating personnel across cutting tasks to further limit respirable silica exposures.

### **When cutting Stria™ Cladding Smooth:**

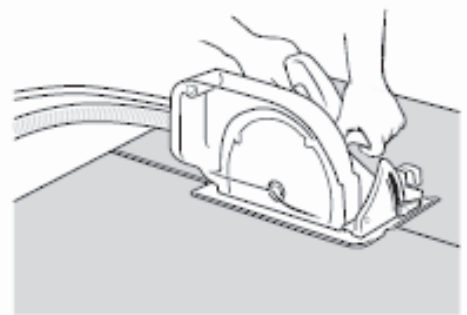
- ✓ Work outdoors only
- ✓ Make sure you work in a well ventilated area
- ✓ Position cutting station so wind will blow dust away from yourself and others in the working area
- ✓ Rotate employees across cutting task over duration of shift
- ✓ Cut products with a Hardie™ Blade Saw Blade (or equivalent) and a dust reducing circular saw connected to a M Class or higher vacuum
- ✓ When sawing, sanding, rebating, drilling or machining fibre cement products, always:
  - Wear your P1 or higher (correctly fitted in accordance with manufacturers' instructions), ask others to do the same.
  - Keep persons on site at least 2 metres and as far as practicable away from the cutting station while the saw is in operation
  - If you are not clean shaven, then use a powered air respirator with a loose fitting head top
  - Wear safety glasses
  - Wear hearing protection
- ✓ Make sure you clean up BUT never dry sweep. Always hose down with water/wet wipe or use an M Class or higher vacuum

**If concern still exists about exposure levels or you do not comply with the above practices, you should always consult a qualified industrial hygienist or contact James Hardie for further information.**

## Working Instructions

### Hardie™ Blade Saw Blade

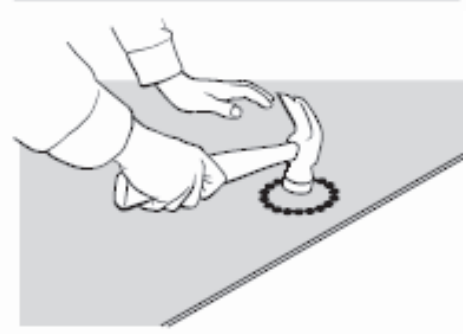
The Hardie™ Blade Saw Blade used with a dust-reducing saw is ideal for fast, clean cutting of Hardie™ fibre cement products. A dust-reducing saw uses a dust collector connected to a M Class or higher vacuum. When sawing, clamp a straight edge to the sheet as a guide and run the saw base plate along the straight edge when making the cut.



### Hole-Forming

#### For smooth clean cut circular holes:

- Mark the centre of the hole on the sheet
- Pre-drill a 'pilot' hole
- Using the pilot hole as a guide, cut the hole to the appropriate diameter with a hole saw fitted to a heavy duty electric drill



#### For irregular holes:

- Small rectangular or circular holes can be cut by drilling a series of small holes around the perimeter of the hole then tapping out the waste piece from the sheet face
- Tap carefully to avoid damage to sheets, ensuring that the sheet edges are properly supported

## 5.1 Storage and Delivery

### Keeping products and people safe

#### Off loading

- ✓ Hardie™ fibre cement products should be off-loaded carefully by hand or by forklift
- ✓ Hardie™ fibre cement products should not be rolled or dumped off a truck during the delivery to the jobsite

#### Storage

##### Hardie™ fibre cement products should be stored:

- ✓ In their original packaging
- ✓ Under cover where possible or otherwise protected with a waterproof covering to keep products dry
- ✓ Off the ground – either on a pallet or adequately supported on timber or other spacers
- ✓ Flat so as to minimise bending

##### Hardie™ fibre cement products must not be stored:

- ✗ Directly on the ground
- ✗ In the open air exposed to the elements

**James Hardie is not responsible for damage due to improper storage and handling.**

## 5.2 Tips for Safe and Easy Handling of Stria™ Cladding Smooth

- ✗ Do not lift planked products flat and in the middle
- ✓ Carry the products on the edge
- ✓ If only one person is carrying the product, hold it in the middle and spread arms apart to better support the product
- ✓ If two people are carrying the plank, hold it near each end and on edge
- ✓ Exercise care when handling planked products to avoid damaging the edges/corners

# 6 Preparation

## 6.1 RAB™ Board

A rigid air barrier such as RAB™ Board by James Hardie must be used over the timber frame for the installation of Stria™ Cladding Smooth as per this technical specification.

To achieve temporary weathertightness using RAB™ Board, windows and doors must be installed and all joints taped. Refer to the HomeRAB™ Pre-Cladding and RAB™ Board installation manual for its installation information.

## 6.2 Cavity Closure/Vent Strip

A 40mm deep cavity closure must be provided at the bottom of cavity and above all door and window openings. It is important that the openings in the cavity closure/vent strip are kept clear and unobstructed to allow free drainage and ventilation of cavities. The cavity closure/vent strip must allow a ventilation area of 1000mm<sup>2</sup>/m length.

## 6.3 Hardie™ 40mm Structural Horizontal Cavity Batten

Hardie™ 40mm structural horizontal cavity battens are 40mm deep x 45mm high x 2.7m long with castellation to allow for ventilation/drainage and facilitate the installation of Stria™ Cladding Smooth into it. The Hardie™ 40mm structural horizontal cavity battens are H3.1 treated to comply with the durability requirements of B2/AS1.

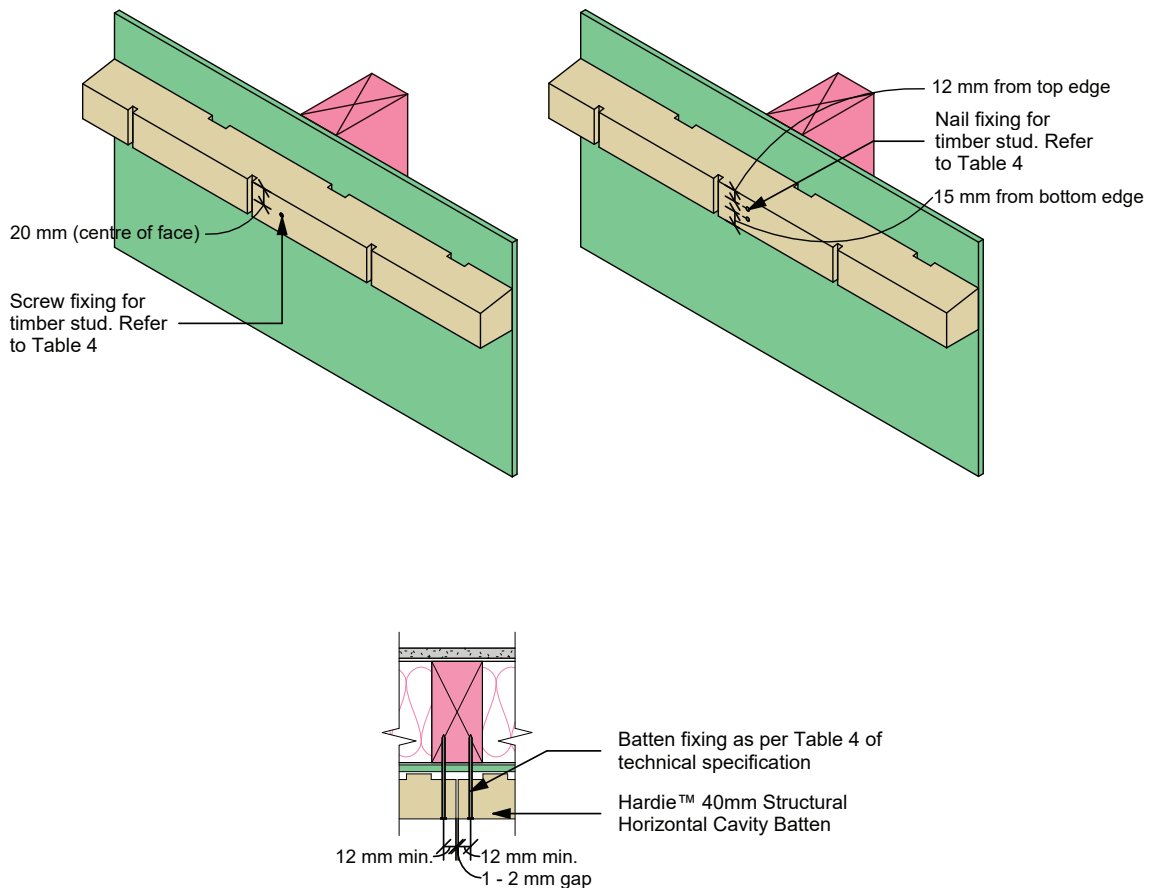
The Hardie™ 40mm structural horizontal cavity battens are to be fixed horizontally to the frame/substrate. Refer to Table 4 below regarding the batten spacing and its fixing to timber studs

**Table 4**

Framing	Wind Zone	Studs spacing centres max.	Hardie™ 40mm structural horizontal cavity batten spacing centres max.	Fixing into Stud
Timber	Up to and including VH	400mm	400mm	1 x 75 x 3.06mm RounDrive <b>ring shank</b> nail galv/ss, <b>Or</b> 80 x10g wood thread stainless steel screw
		400mm	600mm	2 x 75 x 3.06mm RounDrive <b>ring shank</b> nail galv/ss, <b>Or</b> 80 x10g wood thread stainless steel screw
		600mm	400mm	
	EH	400mm	450mm	2 x 75 x 3.06mm RounDrive <b>ring shank</b> nail galv/ss, <b>Or</b> 80 x10g wood thread stainless steel screw

**Note:** The nail lengths specified in Table 4 are also suitable when the battens are fixed over RAB™ Board.

## Hardie™ 40mm Structural Horizontal Cavity Batten fixing



## 6.4 Flashings

All wall openings, penetrations, intersections, connections, window sills, heads and jambs must be flashed prior to Stria™ Cladding Smooth installation. The rigid air barrier must be appropriately incorporated with penetration and junction flashings using flashing tapes. Ensure to check the compatibility of flashing tapes and sealants with their manufacturers. Refer to the HomeRAB™ Pre-Cladding and RAB™ Board installation manual for further information.

# 7 Installation

## 7.1 General

Stria™ Cladding Smooth is installed vertically using the cavity construction method as per the details and information published in this supplement.

Stria™ Cladding Smooth panels are 325 or 405mm wide and are installed with a 25mm nominal lap over the panel beside. Considering the installation and machining variations, the effective cover for Stria™ Cladding Smooth can vary between 300 to 302mm or 380 to 382mm respectively.

Stria™ Cladding Smooth must be kept under cover whilst in storage or at sites and they must be dry at the time of their installation. All site-cut board edges must be sealed with Dulux® 1 Step, Resene® Quick Dry, Taubmans® Underproof Acrylic Primer Undercoat or a similar sealer compatible with the finish coat before installation.

Stria™ Cladding Smooth must be fixed into Hardie™ 40mm structural horizontal cavity battens. Ensure that cladding is hard against the battens to avoid drumminess before fixing.

## 7.2 Fastener

Stria™ Cladding Smooth must be fixed vertically to Hardie™ 40mm structural horizontal cavity battens using fixings as specified in Table 5 below.

**Table 5**

Fixing Type	Fixing Spacing	Reference
50 x 2.87mm D head or RounDrive ring shank nails	Fix two nails into structural cavity batten each batten crossing.	Refer to Figure 5

When fixing the Stria™ Cladding Smooth using nail guns, refer to the nail gun manufacturer for information about nails and the type of nail gun to be used

- D head nails - finish nails 2mm below weatherboard surface
- RounDrive nails - finish nails flush with weatherboard surface

## 7.3 Fastener Durability

Fasteners must meet the minimum durability requirements of the NZBC. Refer to Table 6 for fixing materials requirements to be used in relation to the exposure conditions.

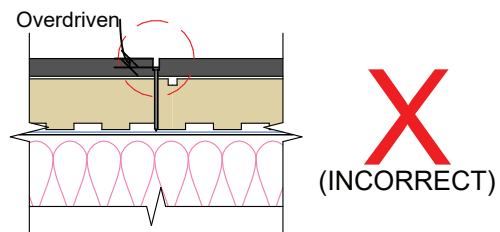
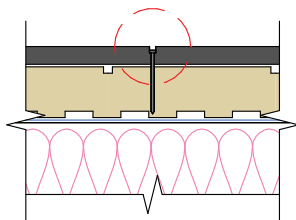
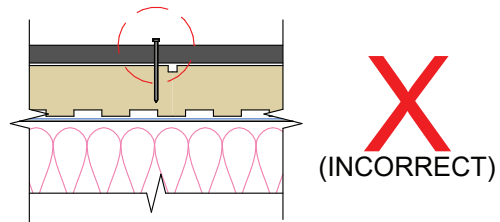
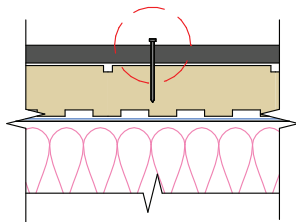
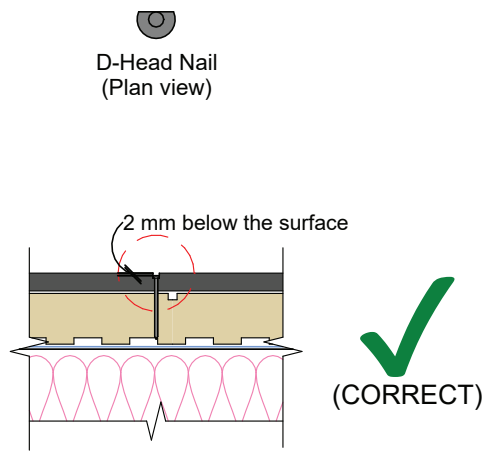
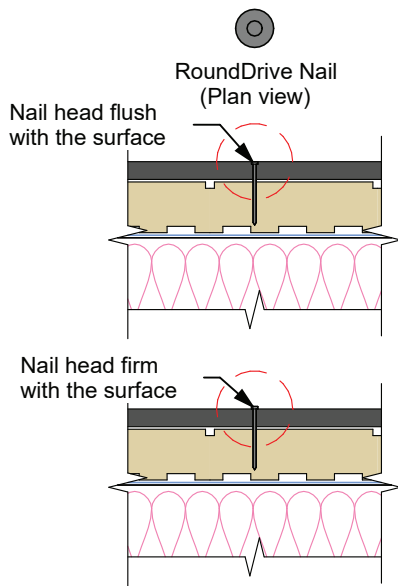
**Table 6**

Exposure conditions and nail selection prescribed by the NZS 3604		
Zone	Application	
D (sea spray) and geothermal hot spots	General	Stainless steel 304/316
	Fire	
C* and B	General	Hot dip galvanised
	Fire	Must comply with the AS/NZS 4680

\* Zone C areas where local knowledge dictates that increased durability is required, appropriate selection shall be made Microclimatic conditions as detailed in the NZS 3604, Paragraph 4.2.4 require SED.

Also refer to the NZBC Acceptable Solution E2/AS1 Table C.1.1.1A and C.1.1.1B for information regarding the selection of suitable fixing materials and their compatibility with other materials.

## Nailing depth



# 8 Joints

## 8.1 Vertical Joint

Stria™ Cladding Smooth vertical joint shall be formed using the ship lap edge of the Stria™ Cladding Smooth. Ensure that the Stria™ Cladding Smooth is securely interlocked before nailing. Refer to Figure 5.

## 8.2 Horizontal Joint

Stria™ Cladding Smooth can run continuously over floor joists without a flashed horizontal joint when LVL timber floor joists or engineered joists are used. Refer to Figure 19.

When using a solid timber joist, a horizontal joint or a movement joint must be formed at floor joist, refer to Figures 18 and 24.

## 8.3 Drainage Joint

After every two floors, a horizontal drainage joint flashing is required as per E2/AS1. Refer to Figure 24.

## 8.4 External Corner

A Hardie™ 14mm external box corner flashing is used to form the external corners, refer to Figure 6. Alternatively, a trim external boxed corner can also be formed, refer to Figure 7.

**Note:** All vertically installed joint mouldings to be fixed at 400mm centres both sides.

## 8.5 Internal Corner

A Hardie™ 14mm internal corner flashing is to be used to form an internal corner joint, refer to Figure 8. An extra stud is required in internal corners.

**Note:** All vertically installed joint mouldings to be fixed at 400mm centres both sides.

# 9 Finishes

## 9.1 Preparation

The D head nail must be finished 2mm below the cladding surface. The nail holes must be filled with an exterior grade two part builders fill, ie. CRC® ADOS® Builders Fill or similar two part external grade filler. The skimmed area must be primed prior to painting.

The RounDrive nail heads must finish flush with cladding surface.

It is not recommended to seal gap under the lap of cladding as it helps in circulation of air behind the cladding. However if sealing of the gaps is undertaken, the product warranty still applies.

## 9.2 Painting

Stria™ Cladding Smooth is pre-primed and is suitable for site applied acrylic paints.

In order to seal cut edges or sanded patches, Dulux® 1 Step, Resene® Quick Dry, Taubmans® Underproof Acrylic Primer Undercoat or a similar product should be applied. The primer should be compatible with the paint to be used.

Painting of Stria™ Cladding Smooth is mandatory to meet the durability requirements of the NZBC and 25 year James Hardie product warranty. Stria™ Cladding Smooth must be dry and free of any dust or grime before painting. The cladding must be painted within 90 days of installation. There is no restriction on the LRV of paint to be applied on the Stria™ Cladding Smooth.

James Hardie recommends a minimum of two coats of exterior grade acrylic paint. Follow the paint manufacturer's recommendations to prepare the surface and to adequately cover and conceal the cladding fixings.

For the best aesthetic results a low sheen paint is recommended.

## 9.3 Flexible Sealant

Sealant used must comply with the relevant requirements of the NZBC. Their application and usage must be in accordance with the manufacturer's instructions. Check with the sealant manufacturer prior to coating over sealant. Some sealant manufacturers do not recommend coating over their product.

# 10 Care and Maintenance

The extent and nature of maintenance required will depend on the geographical location and exposure of the building. Refer to Section 2.2 of E2/AS1 and Section 2.2 of B2/AS1 for essential maintenance requirements for claddings to achieve the required durability of materials and components etc.

As a guide, it is recommended that the basic normal maintenance tasks for Stria™ Cladding Smooth shall include, but not be limited to:

- Washing down your exterior every 6-12 months using low pressure water and a brush, and every 3-4 months in extreme coastal conditions (such as high winds and sea spray). Do not use a water blaster to wash down the cladding and always refer to your paint manufacturer for washing down requirements
- Clean out your gutters, downpipes and overflow pipes as required
- Pruning back vegetation close to or touching the Stria™ Cladding Smooth
- Re-applying exterior protective finishes. Always refer to the paint manufacturer for recoating requirements related to ongoing paint performance
- Regular inspection and repair if necessary of the cladding joints, sealants, fillers, flashings etc
- The clearances between the bottom edge of the Stria™ Cladding Smooth and the finished/unfinished ground must always be maintained eg. around concrete paths/driveways etc 100mm minimum and natural ground/pebbles etc 175mm minimum
- Remove any snow or ice build up that is in direct contact with the cladding for extended periods

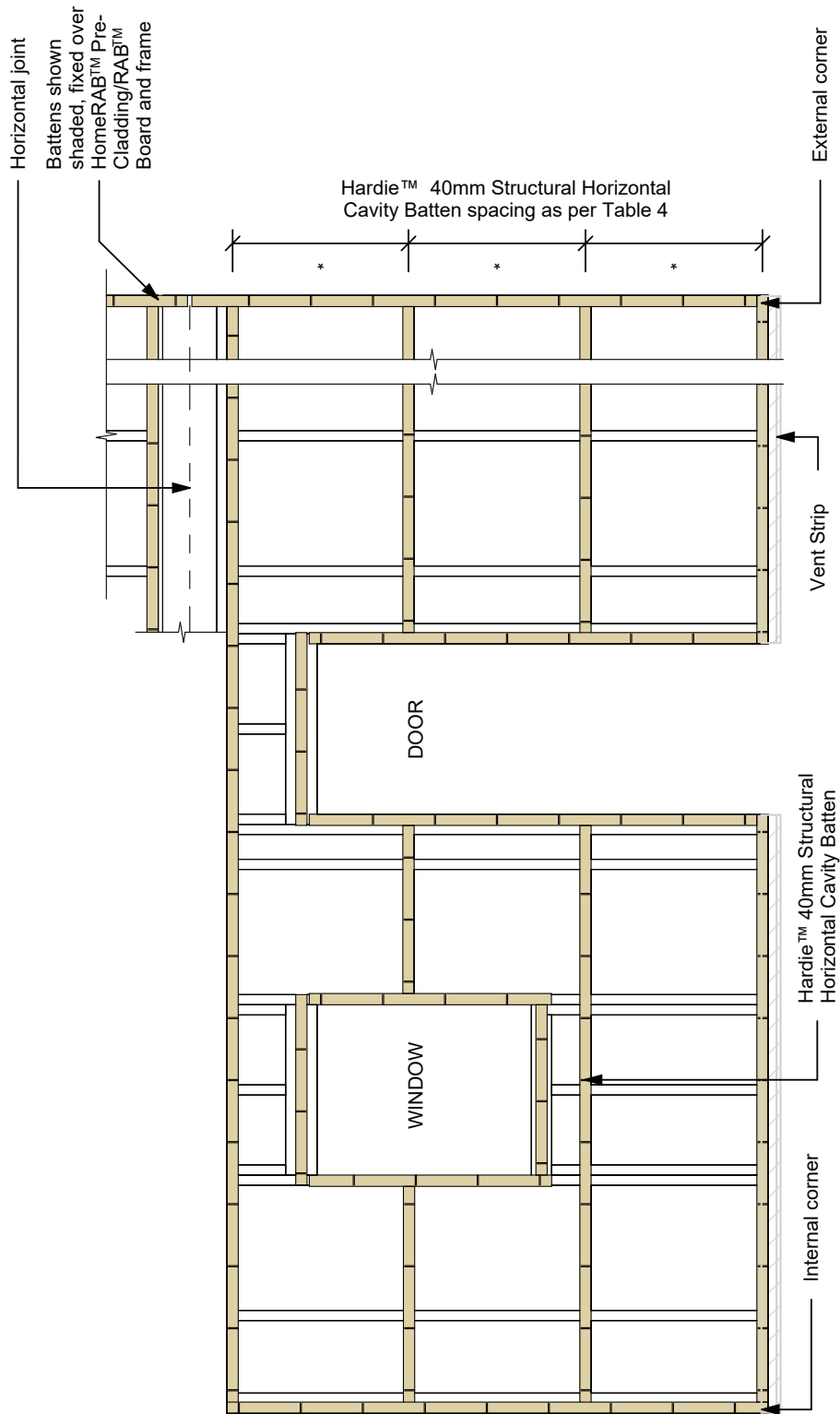
# 11 Details Section Index

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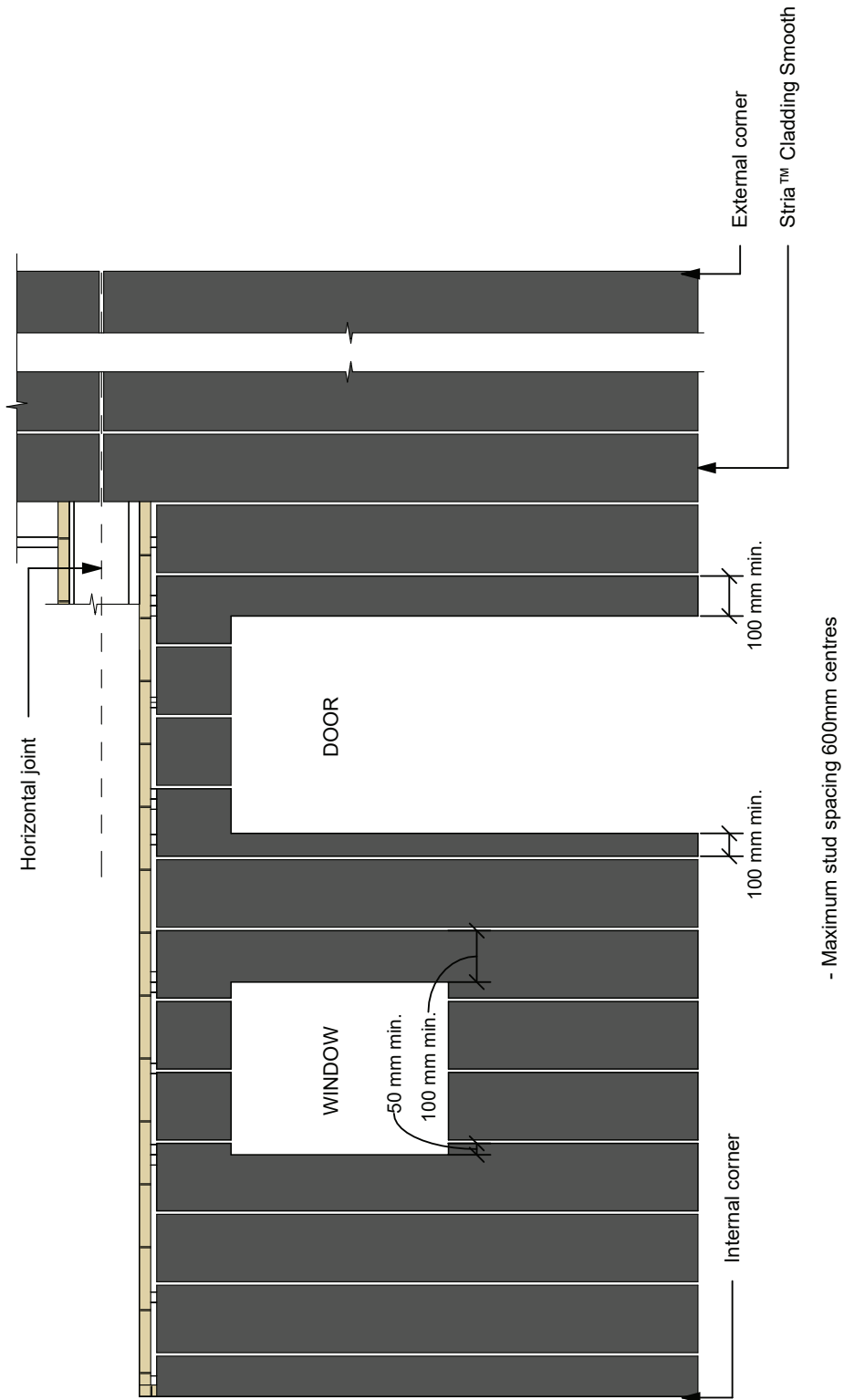
For more details please visit our website at [www.jameshardie.co.nz](http://www.jameshardie.co.nz) or Ask James Hardie on **0800 808 868**.

**Figure 1: Framing setout**

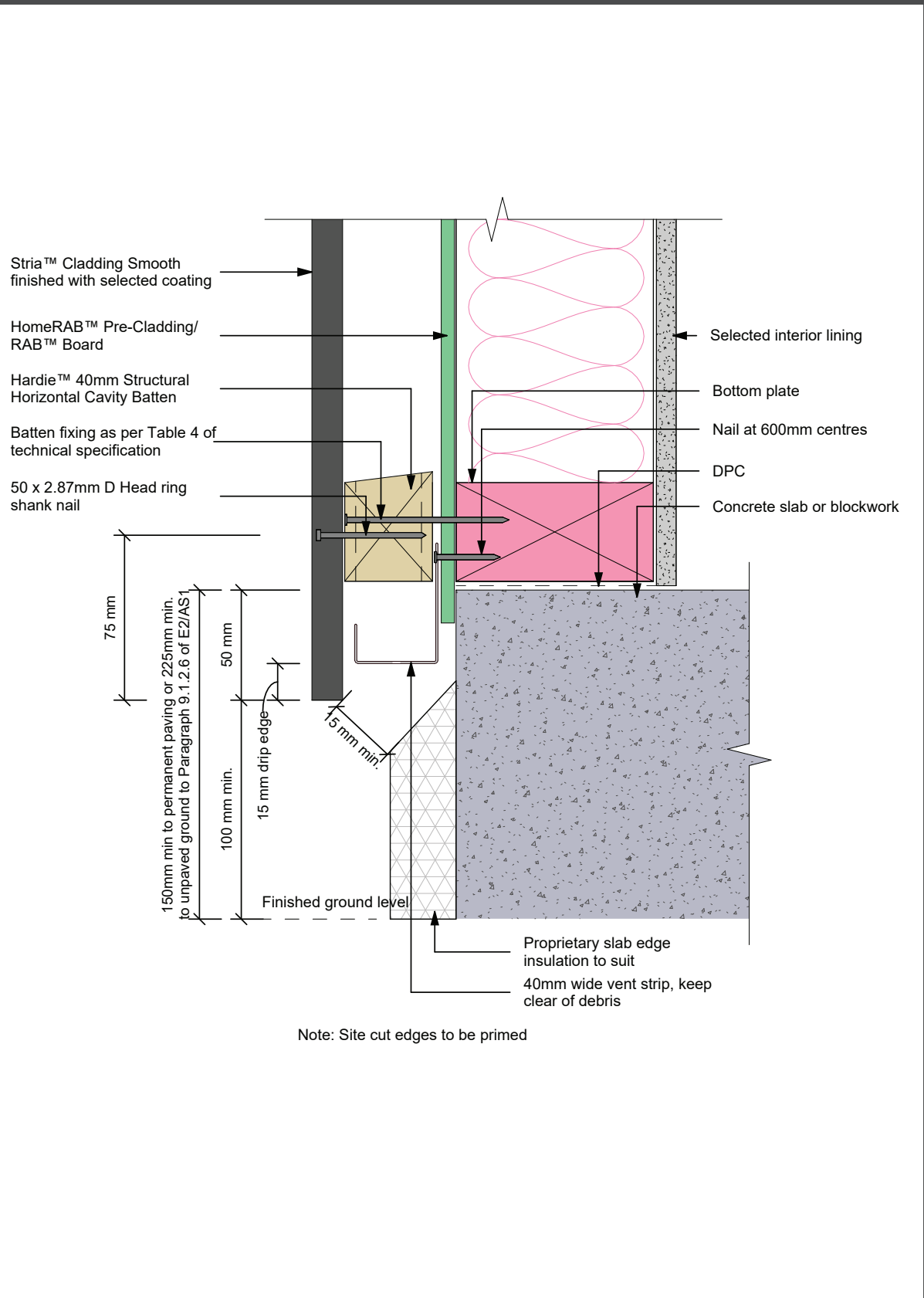


- Note:
- Maximum stud spacing 600mm centres
  - Cavity must not vent into roof space

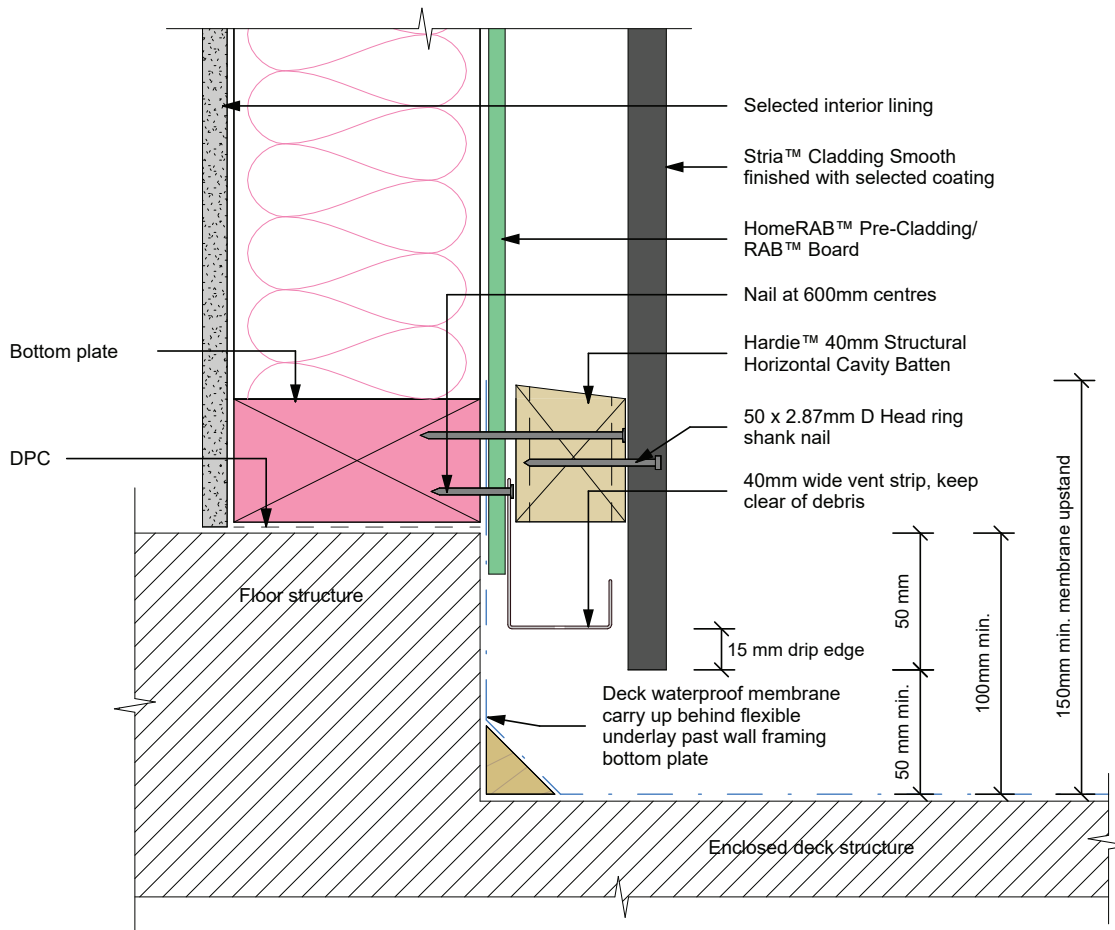
Figure 2: Cladding layout



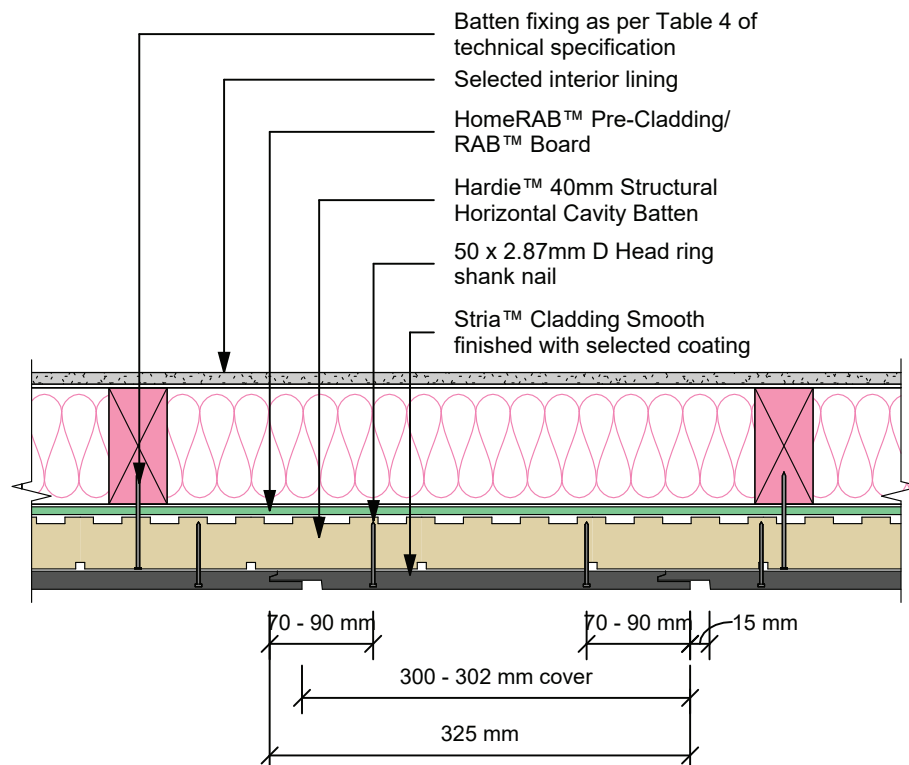
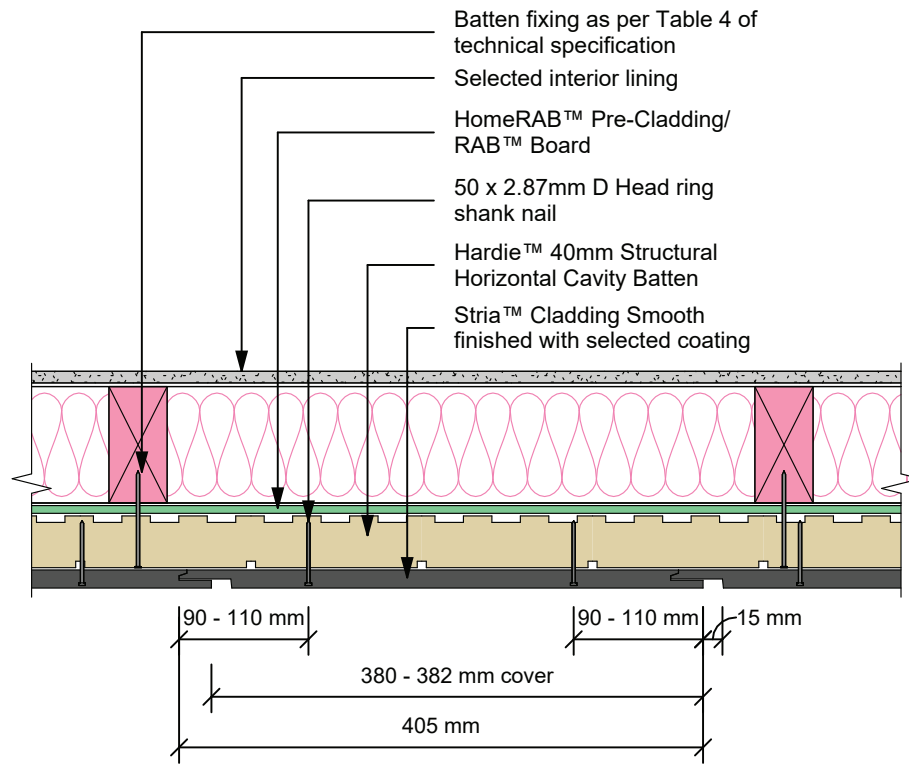
**Figure 3: Foundation detail**



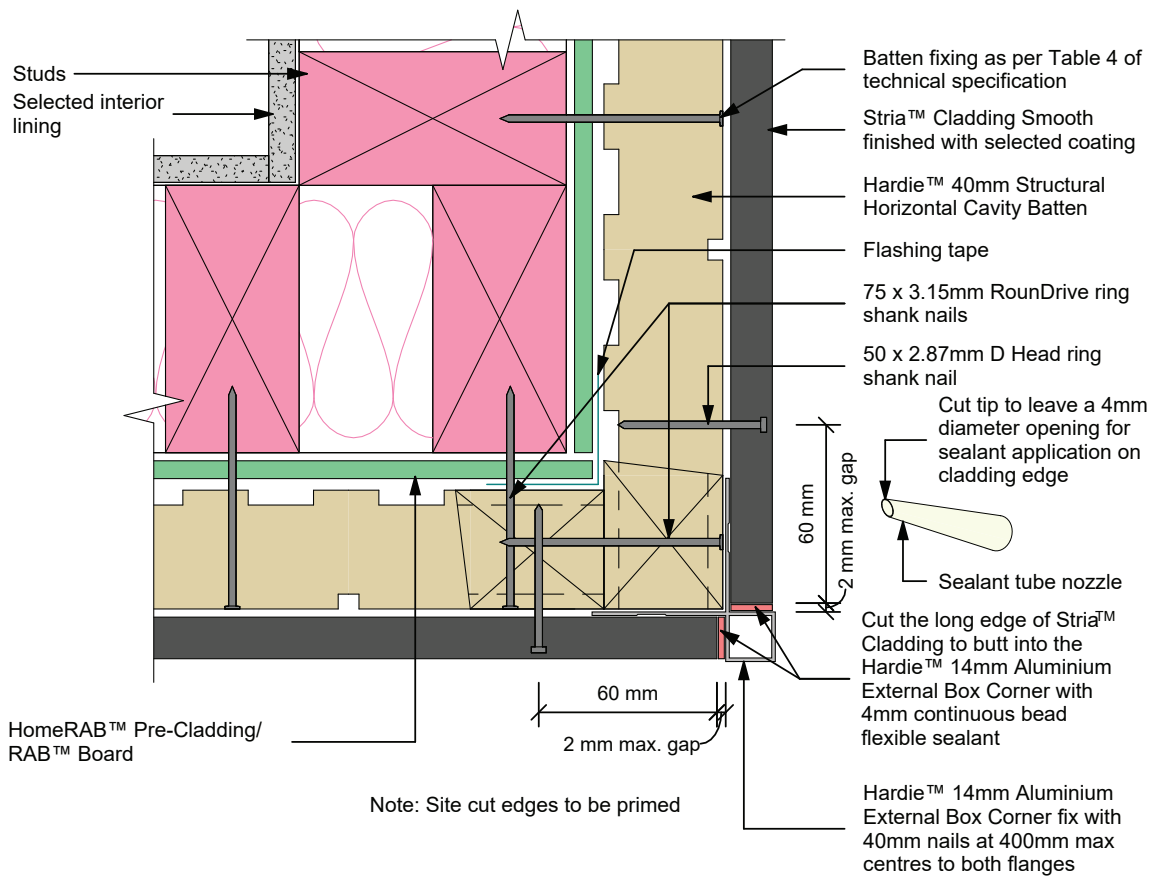
**Figure 4: Enclosed deck**



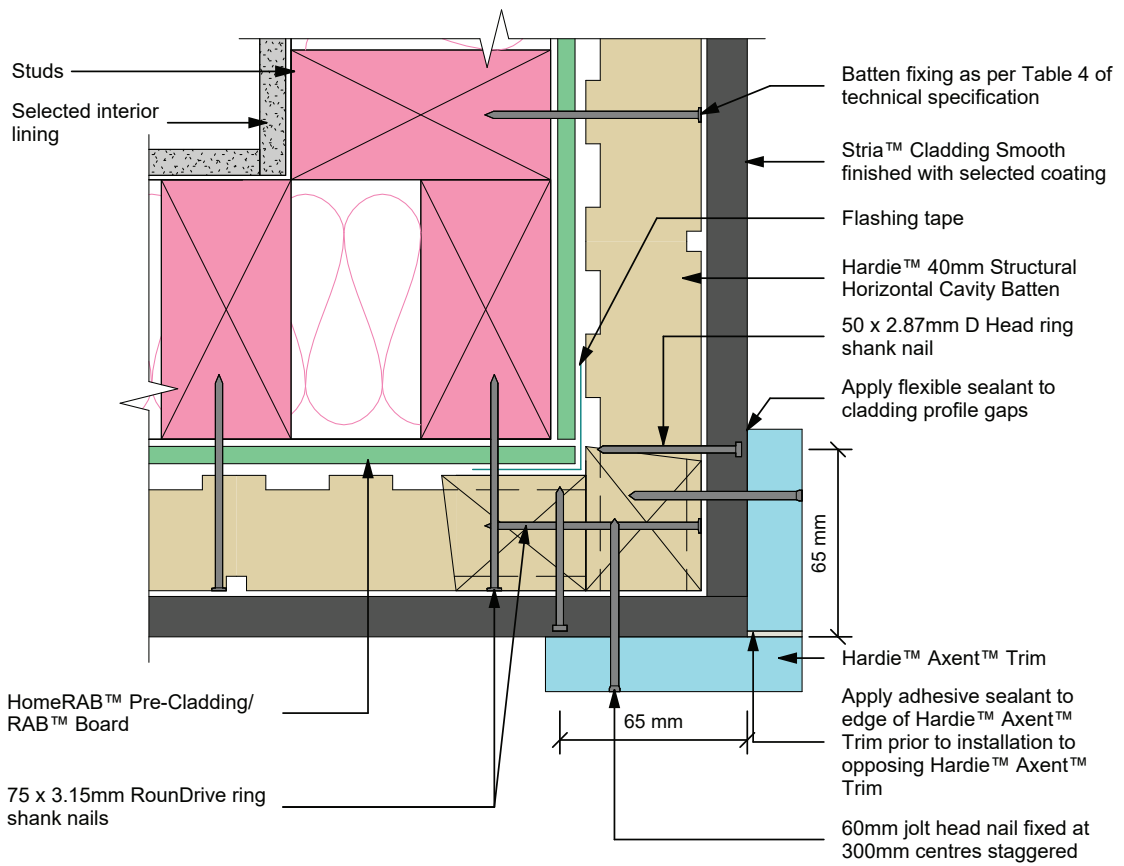
**Figure 5: Fixing detail**



**Figure 6: External aluminium box corner 14mm**

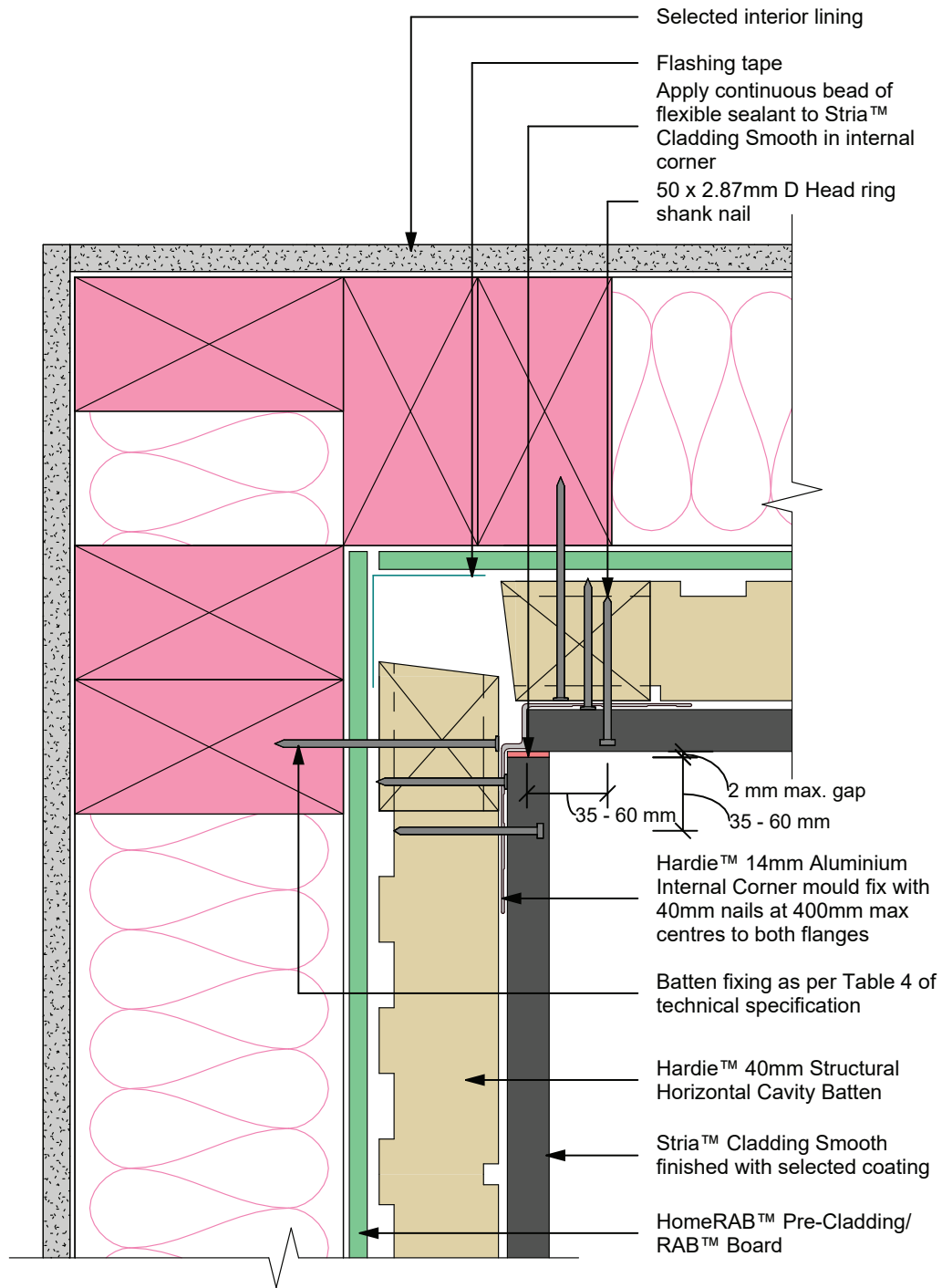


**Figure 7: External trim box corner**



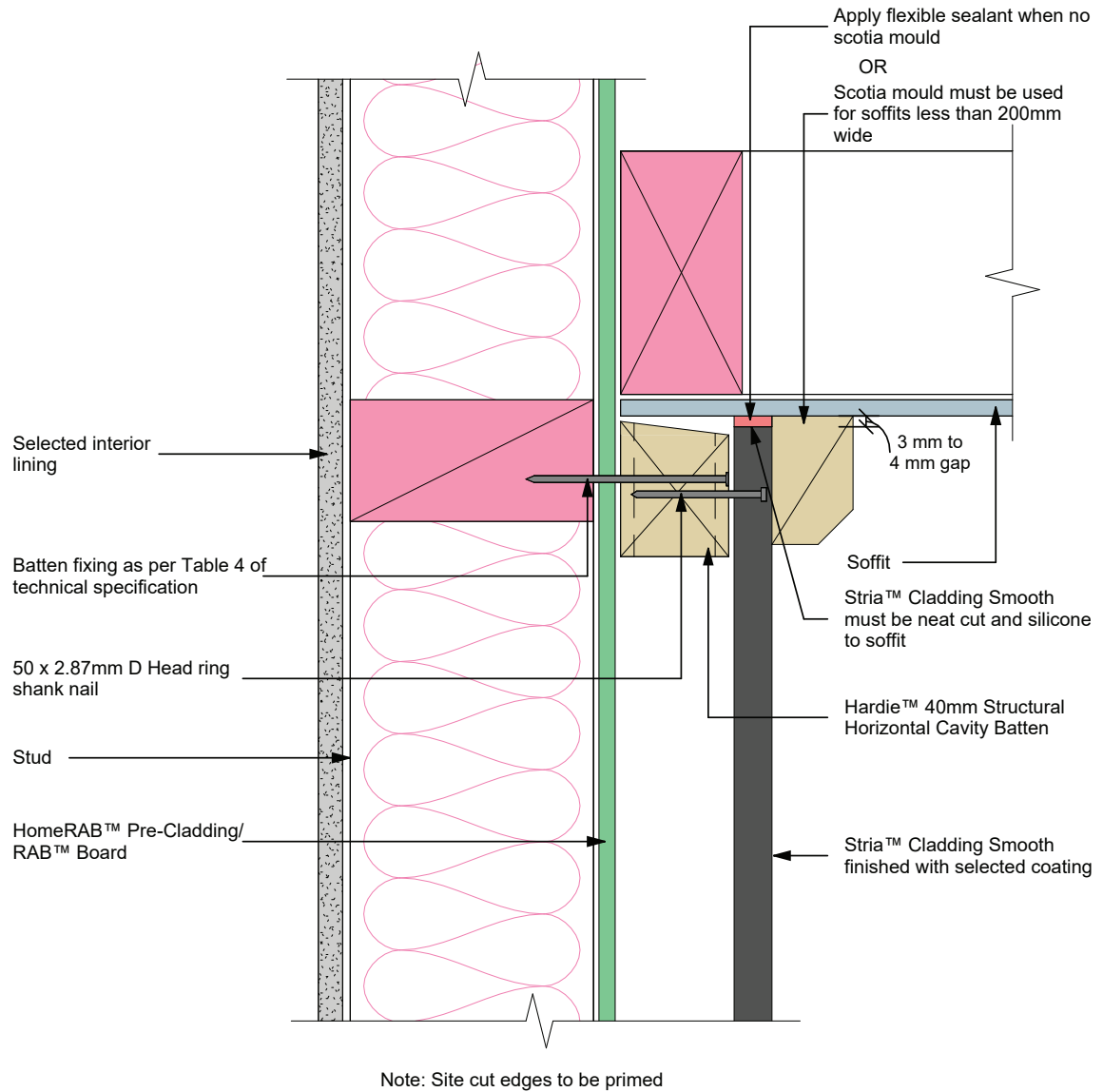
Note: Site cut edges to be primed

**Figure 8: Internal aluminium corner**

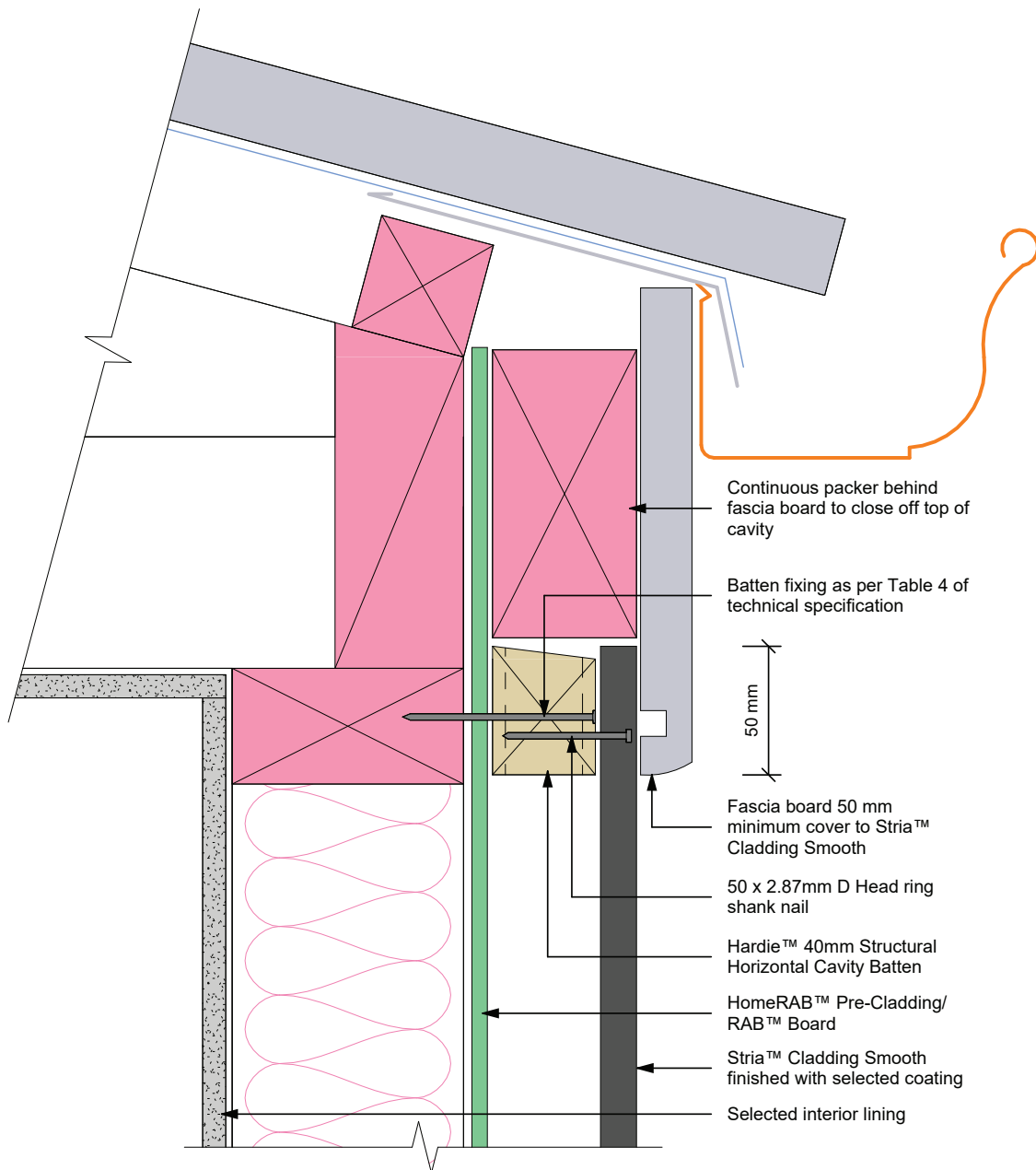


Note: Site cut edges to be primed

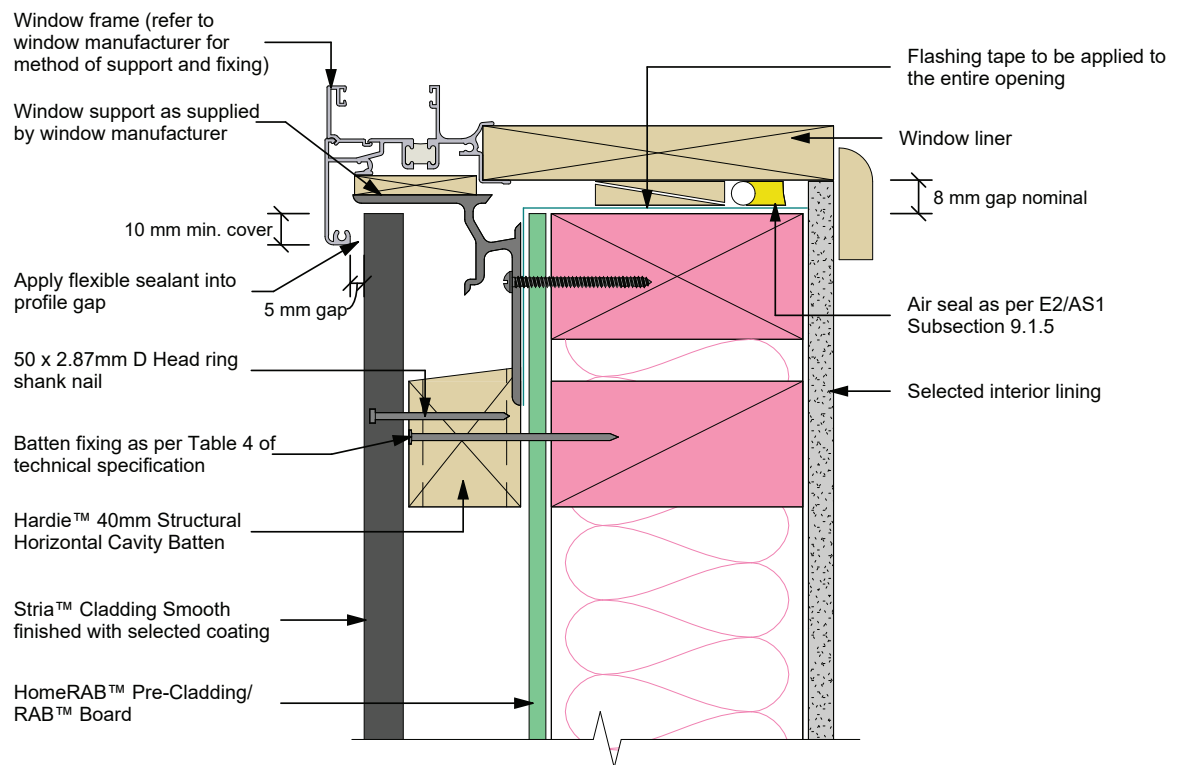
Figure 9: Soffit detail



**Figure 10: Nil soffit detail**



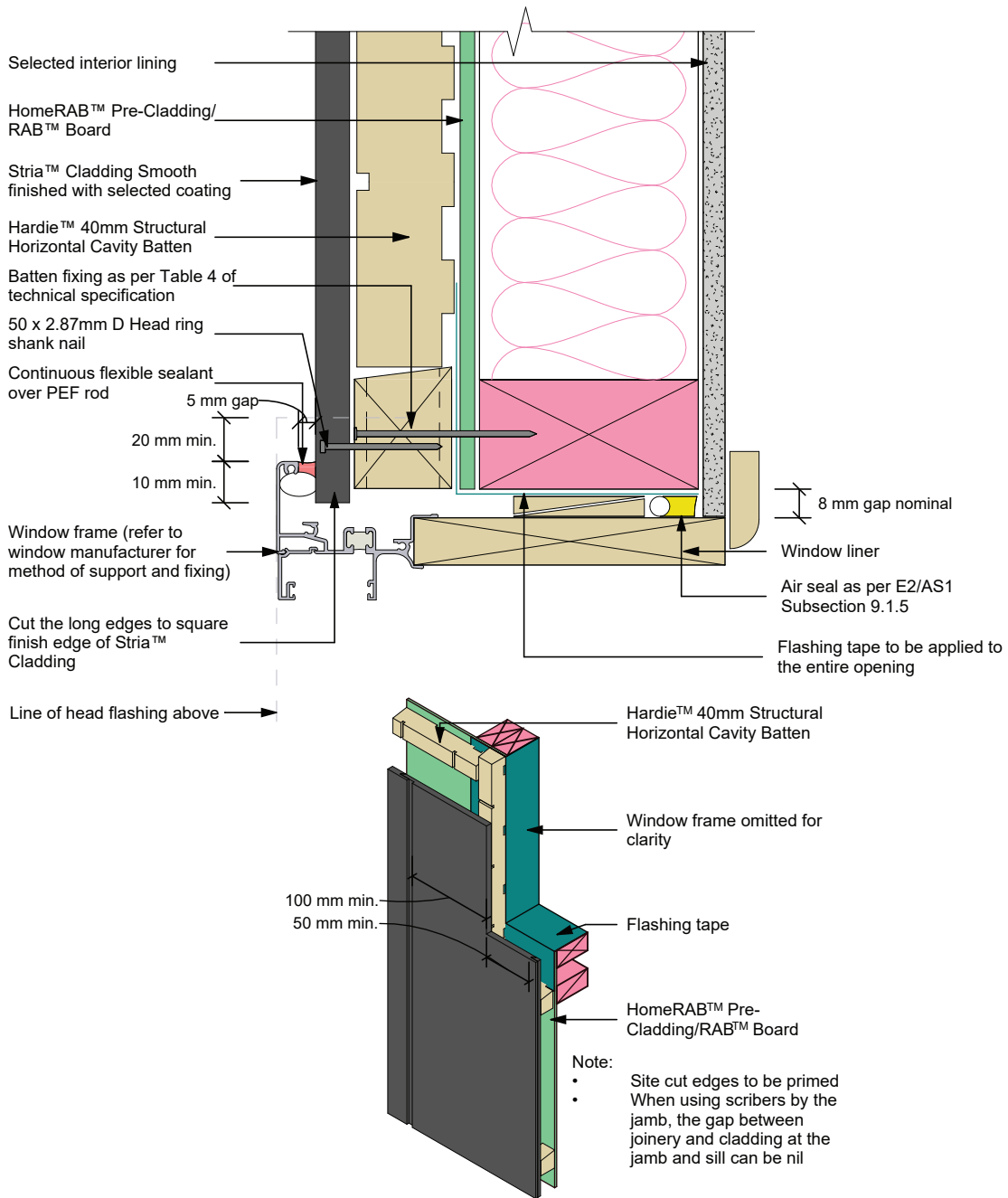
**Figure 11: Window sill**



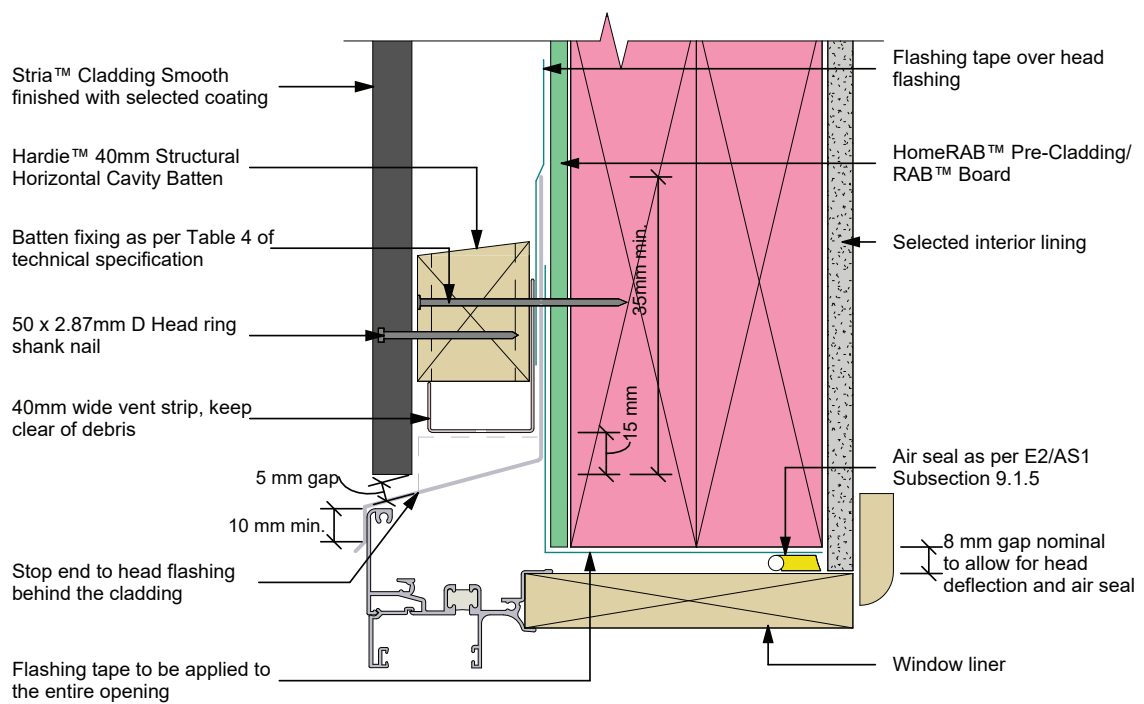
**Notes:**

- Site cut edges to be primed
- When using scribes by the jamb, the gap between joinery and cladding at the jamb and sill can be nil

**Figure 12: Window jamb**

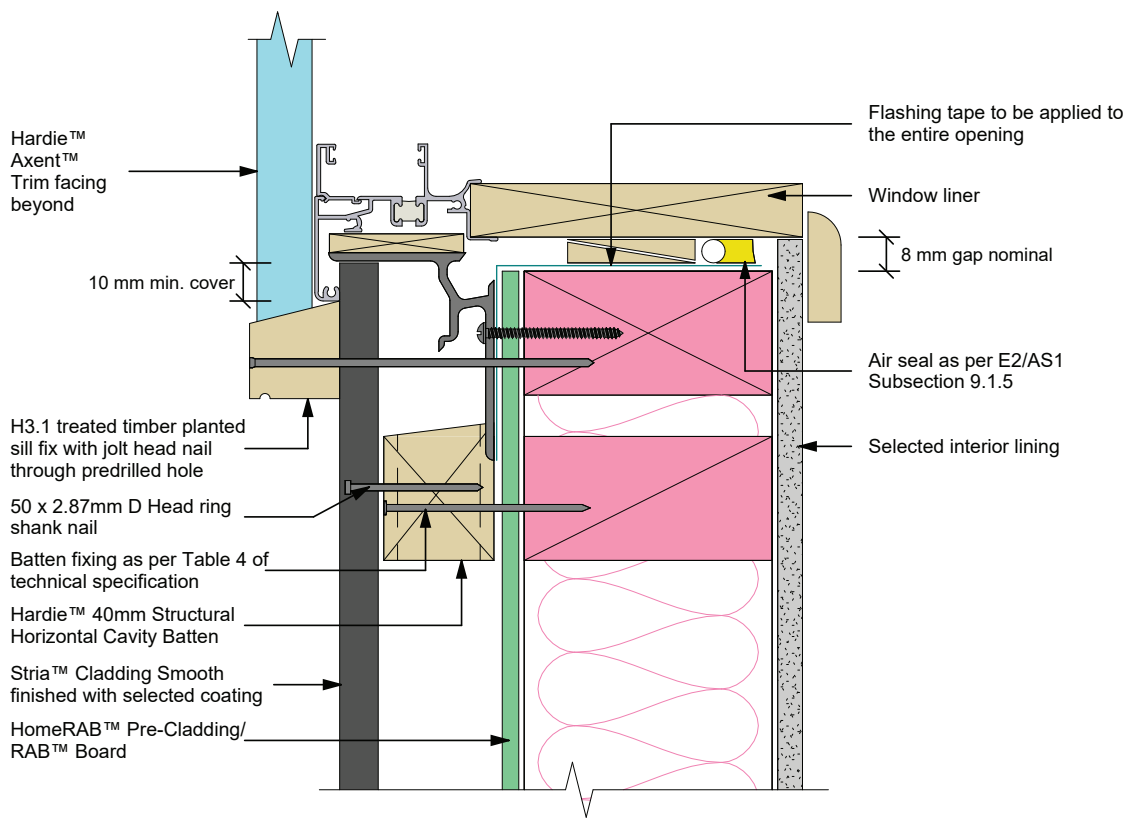


**Figure 13: Window head**



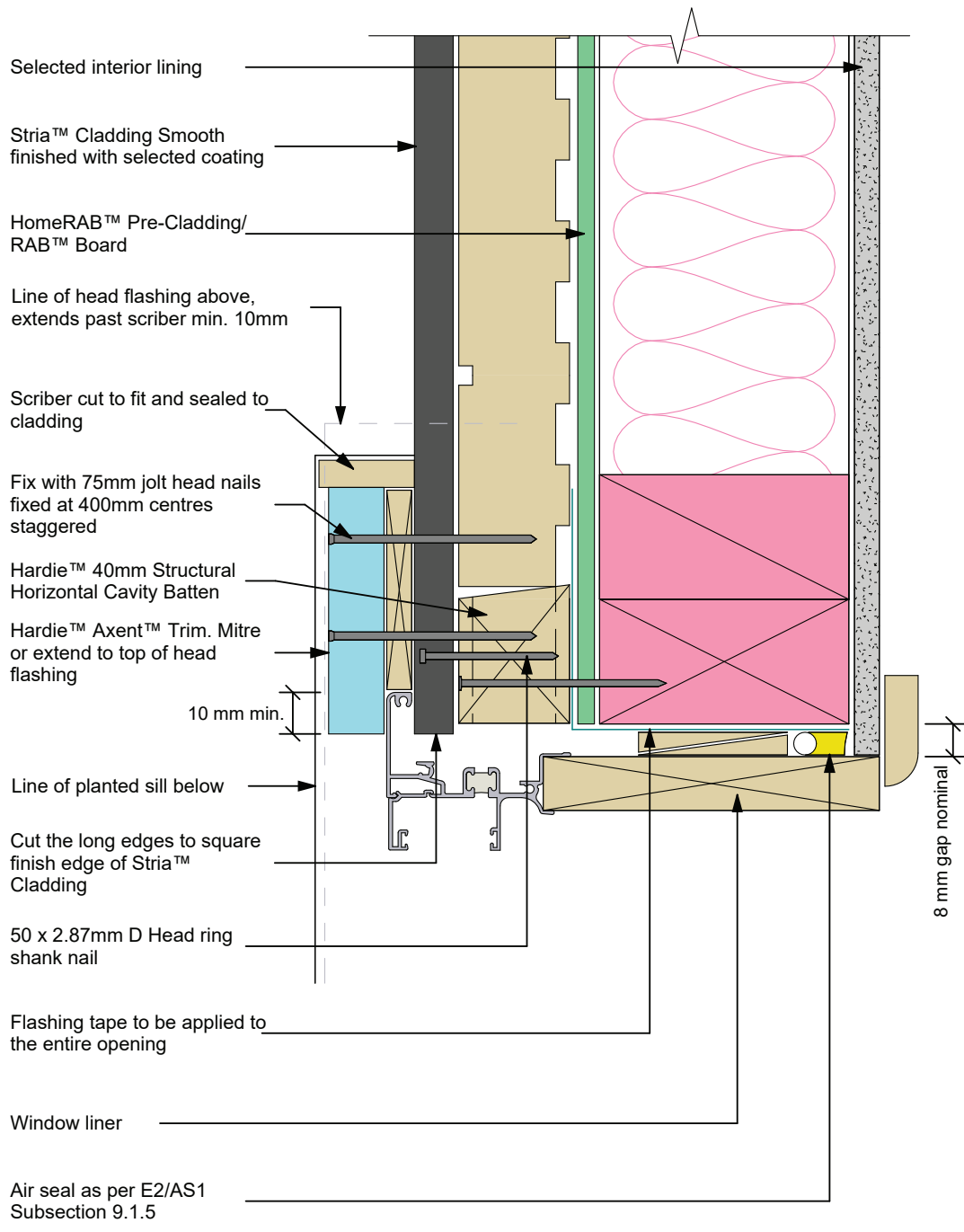
- Note:
1. Site cut edges to be primed
  2. Sealant must be installed between head flashing and window flange in VH and above wind zones. Refer to Figure 9.1.10.1 of E2/AS1

**Figure 14: window sill with facing**



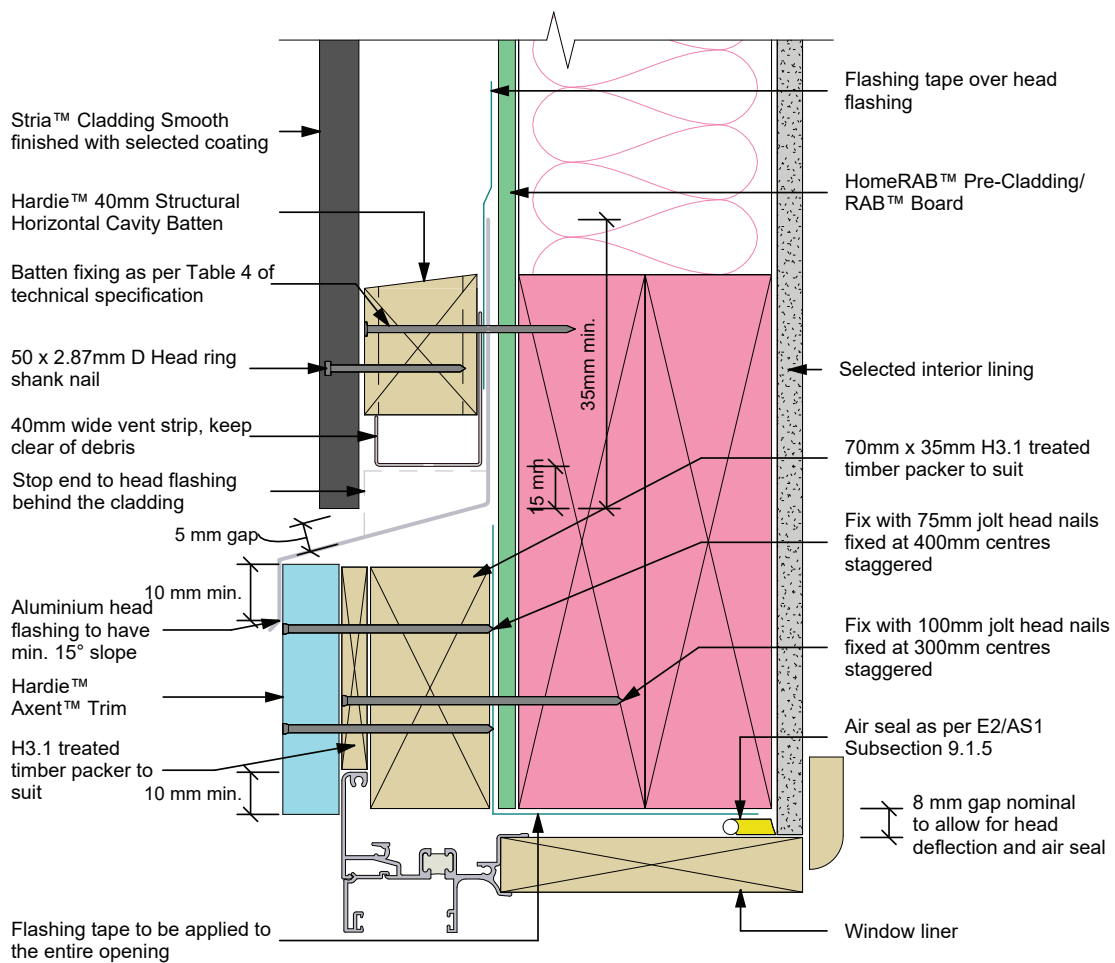
Note: Site cut edges to be primed

**Figure 15: Window jamb with facing**



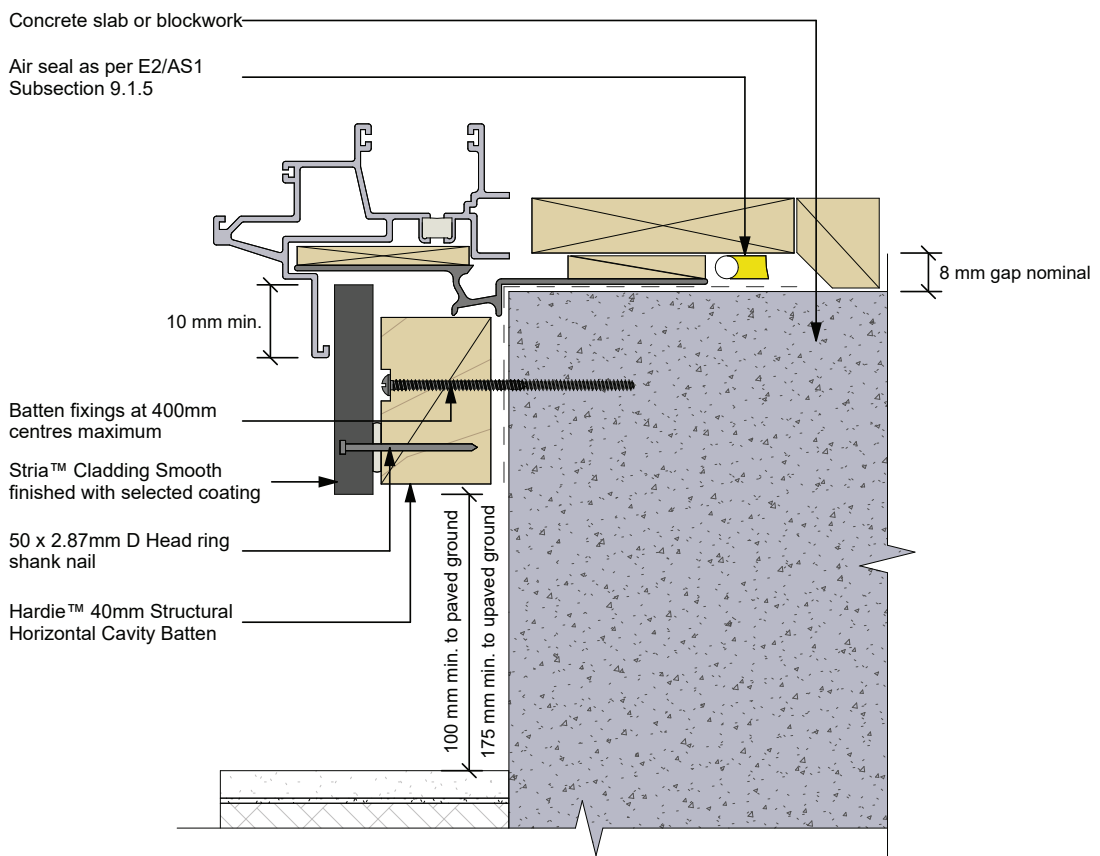
Note: Site cut edges to be primed

**Figure 16: Window head with facing**



**Note:**  
 1. Site cut edges to be primed  
 2. Sealant must be installed between head flashing and window flange in VH and above wind zones. Refer to Figure 9.1.10.1 of E2/AS1

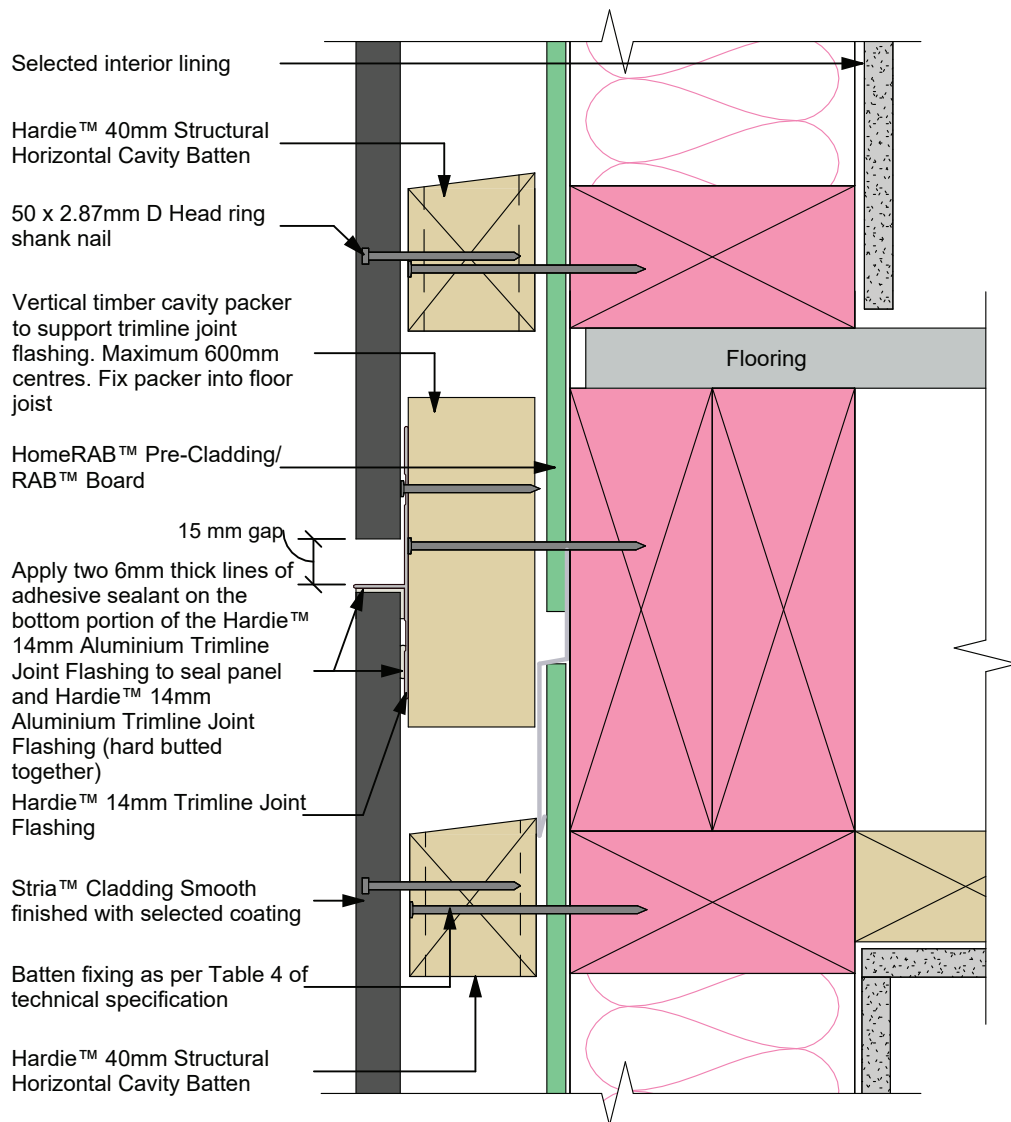
**Figure 17: Door sill support**



**Notes:**

- Site cut edges to be primed
- Flashing tape must have proven compatibility with the selected materials with which it comes into contact

**Figure 18: Trimline joint flashing at floor level - Option A**



**Notes:**

- The butt joint in Hardie™ 14mm Aluminium Trimline Joint Flashing to be sealed using Trimline Horizontal 'L' shaped Jointer
- Site cut edges to be primed
- The flashing to be placed in the centre of the floor joists
- Do not fix cladding into floor joists

**Figure 19: Continuous cladding over joist at floor level - Option B**

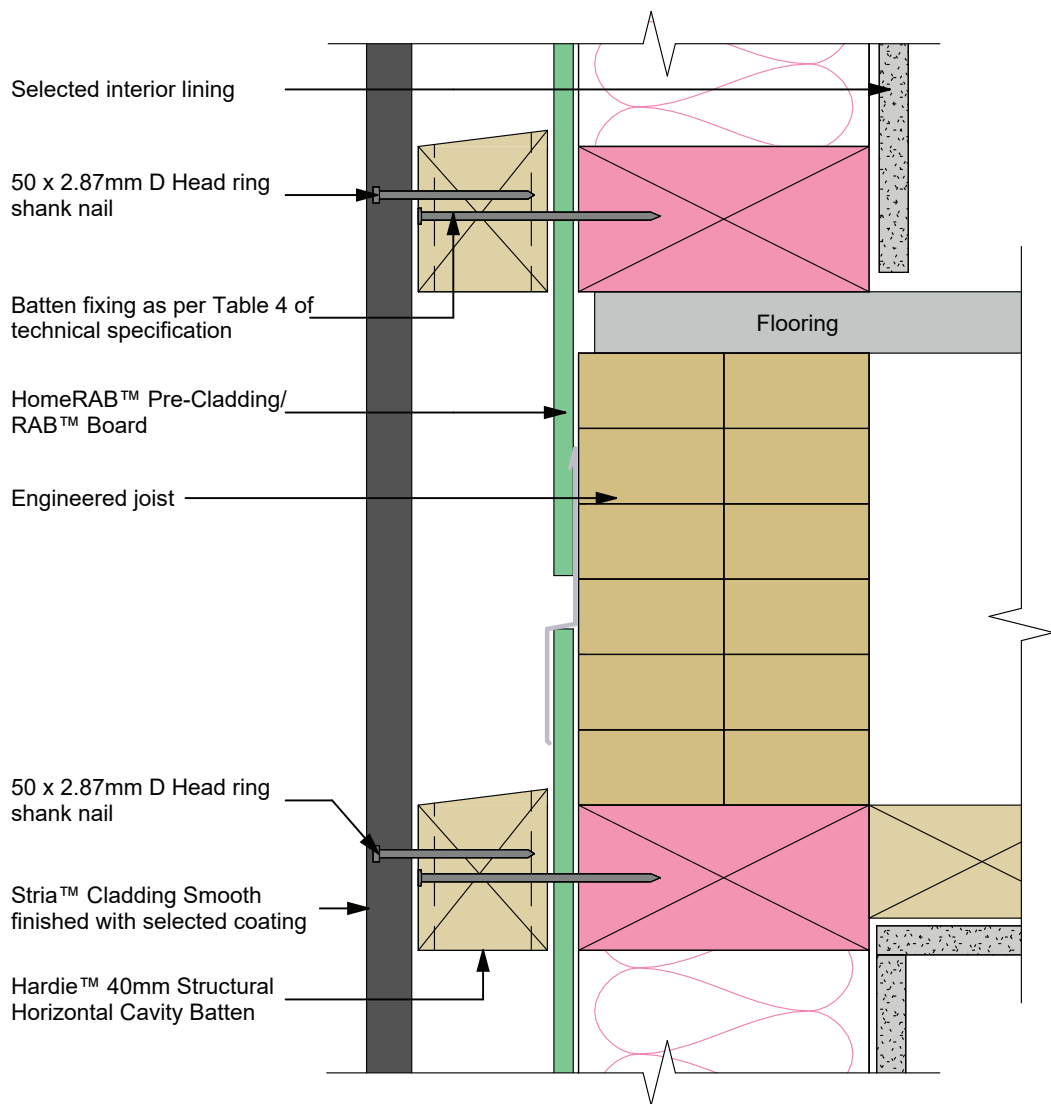
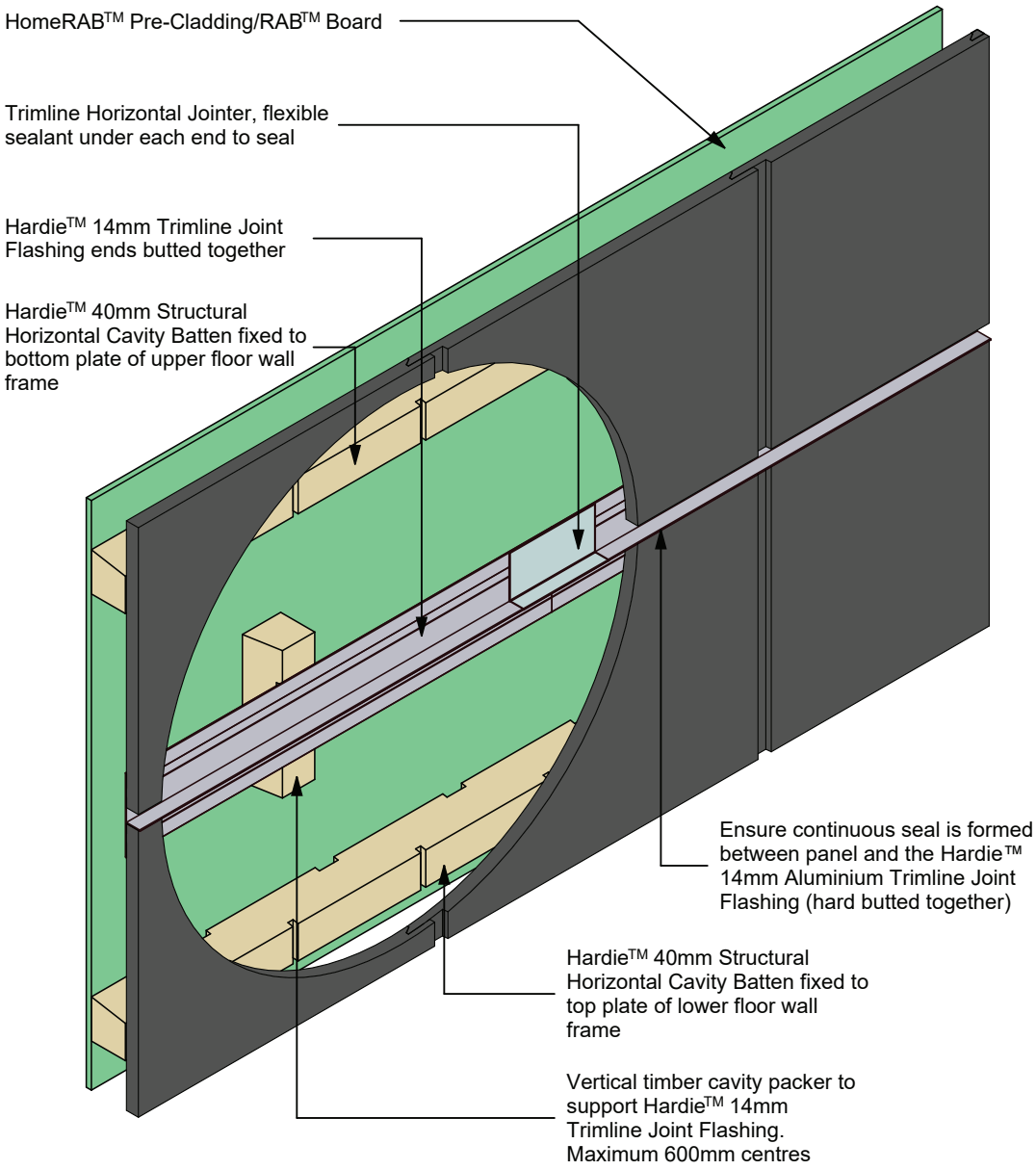
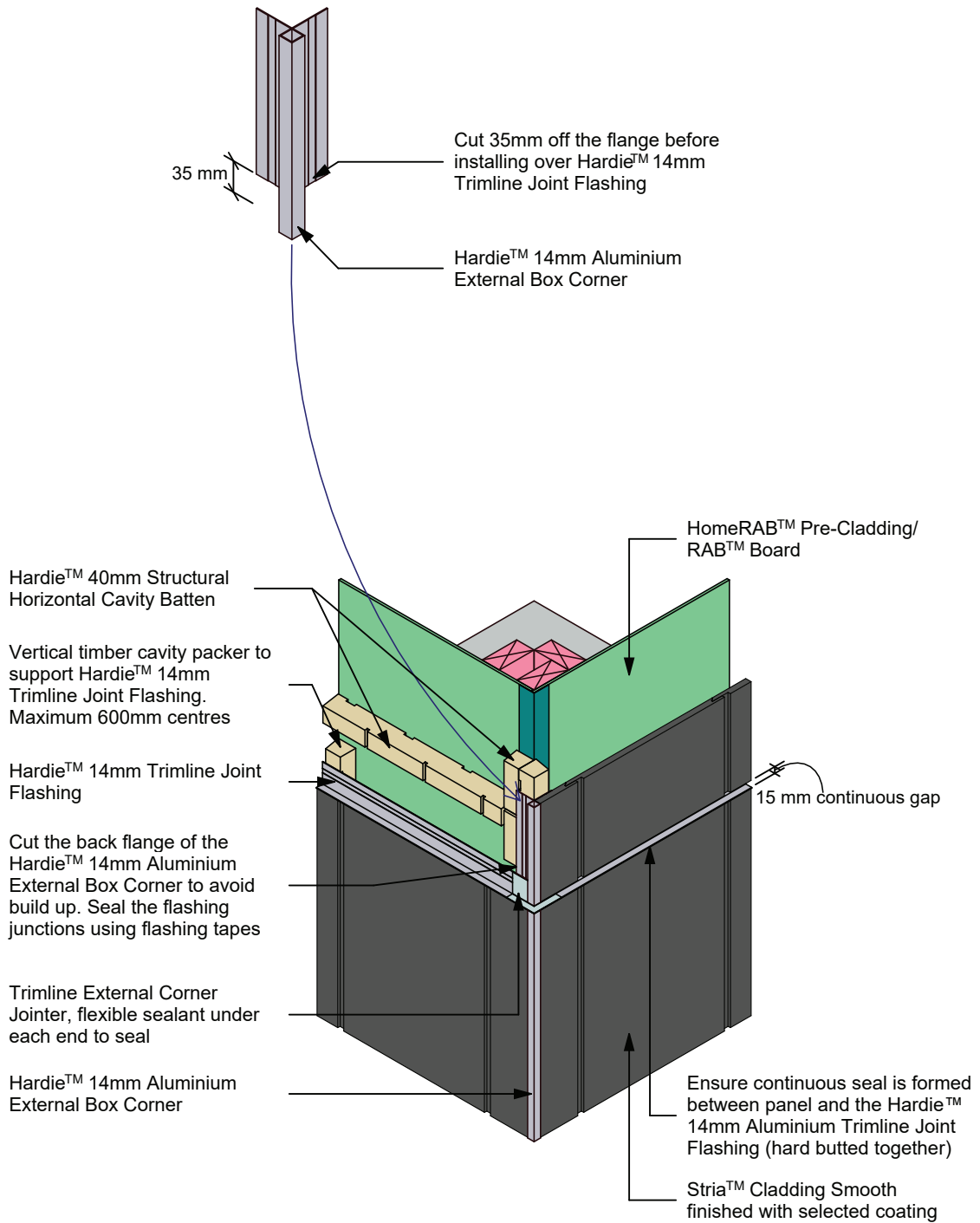


Figure 20: Trimline joint flashing

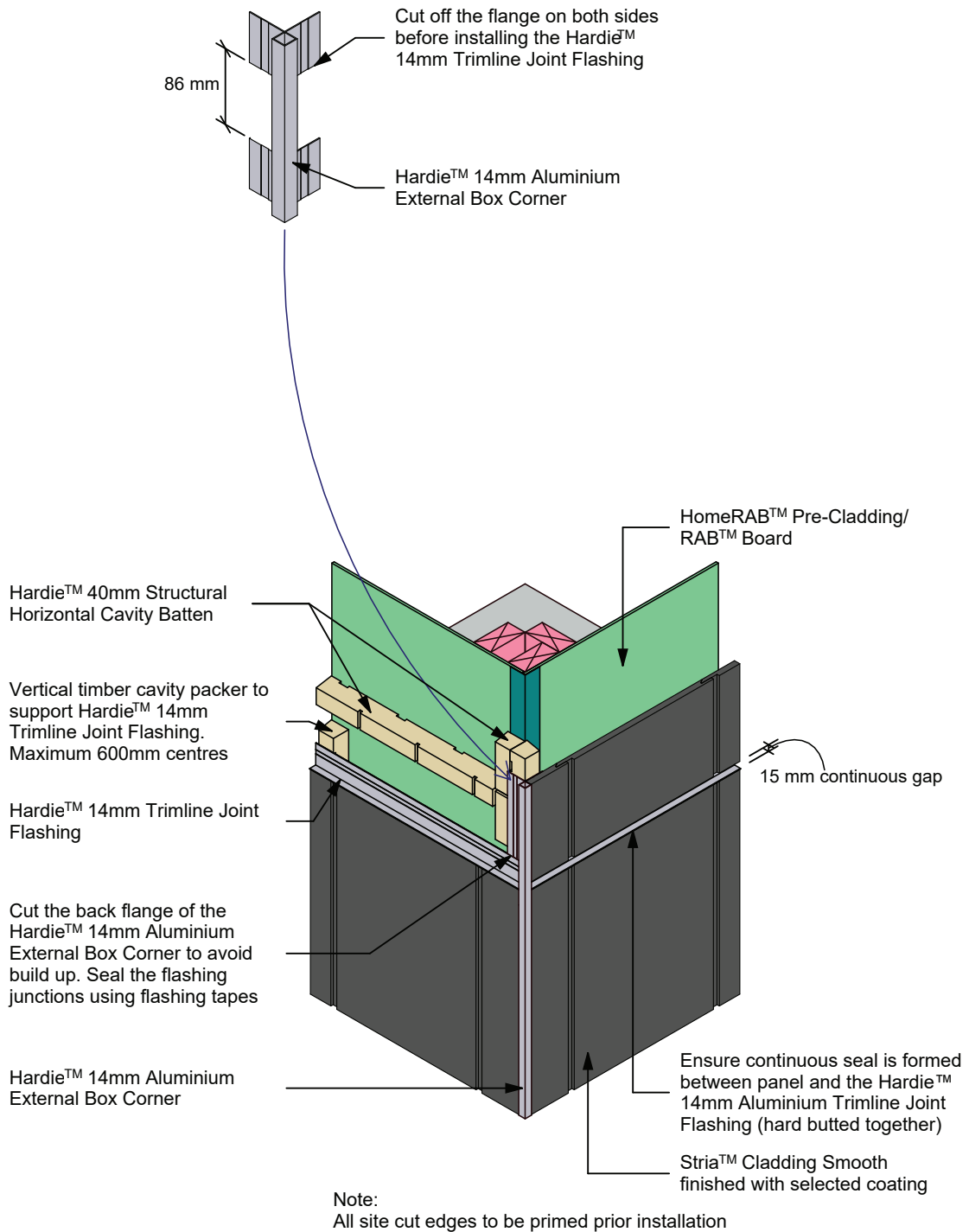


**Figure 21: Trimline joint flashing at external corner - Option A**

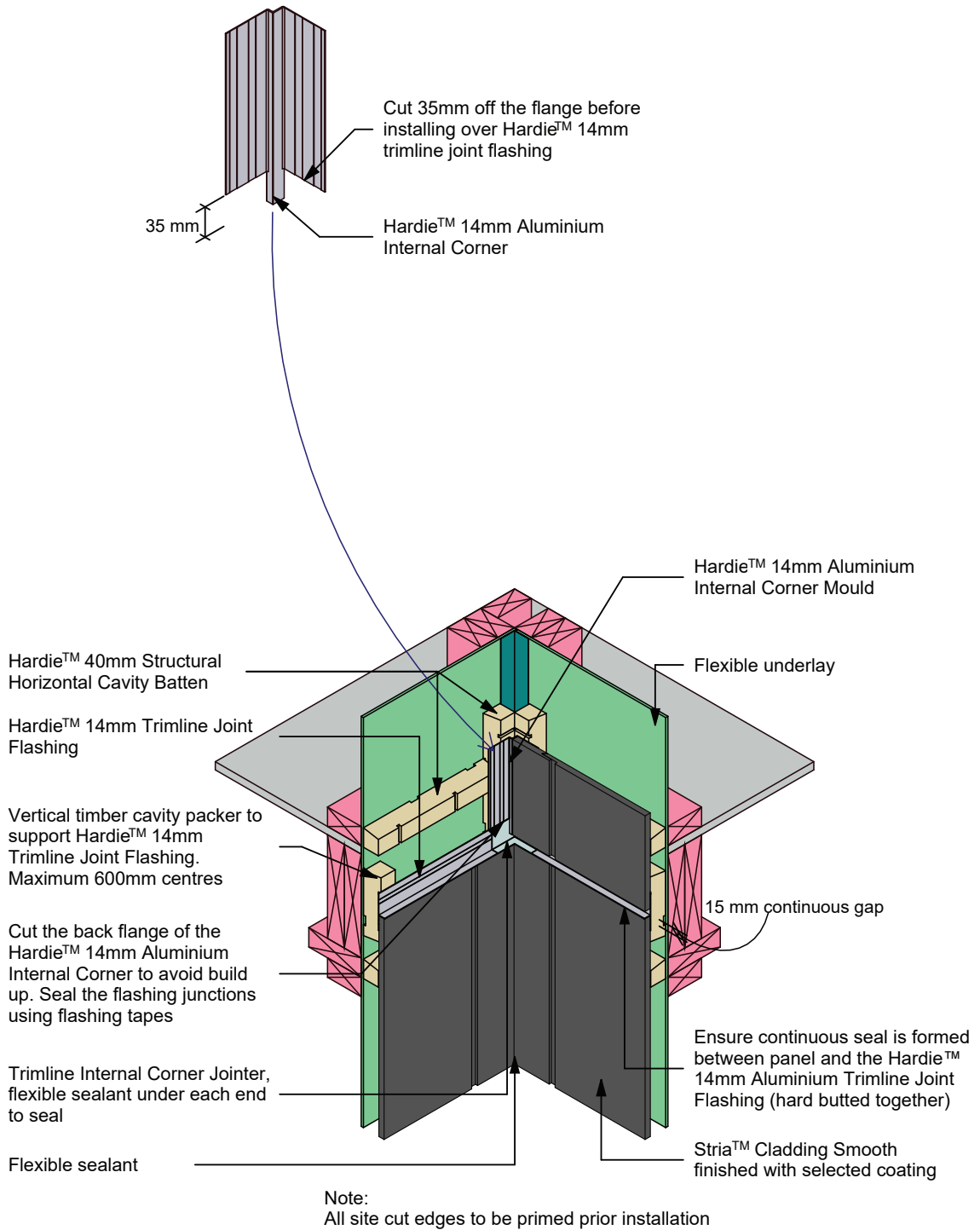


**Note:**  
All site cut edges to be primed prior installation

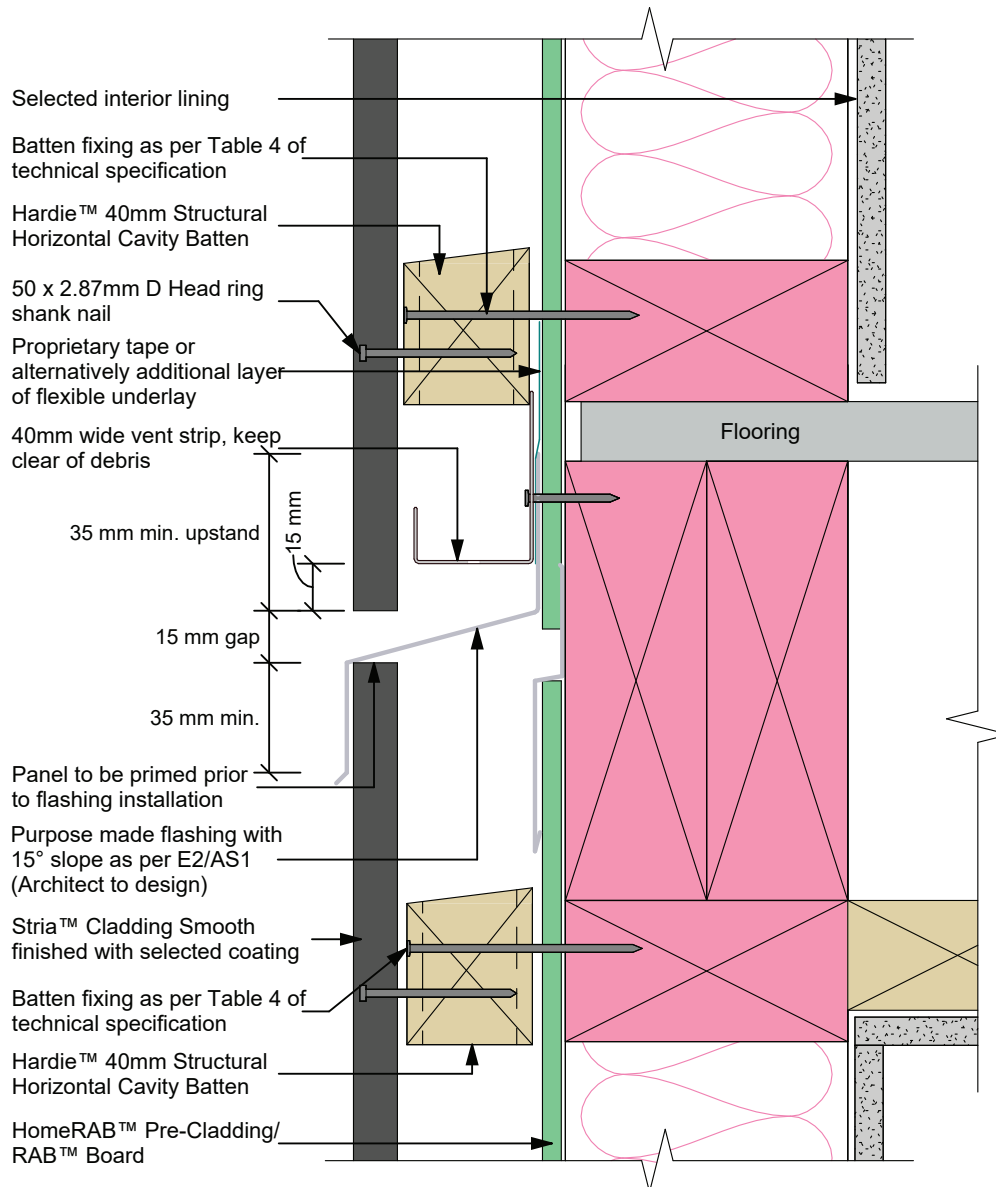
**Figure 22: Trimline joint flashing at external corner - Option B**



**Figure 23: Trimline joint flashing at internal corner**



**Figure 24: Drained flashing joint at floor level**

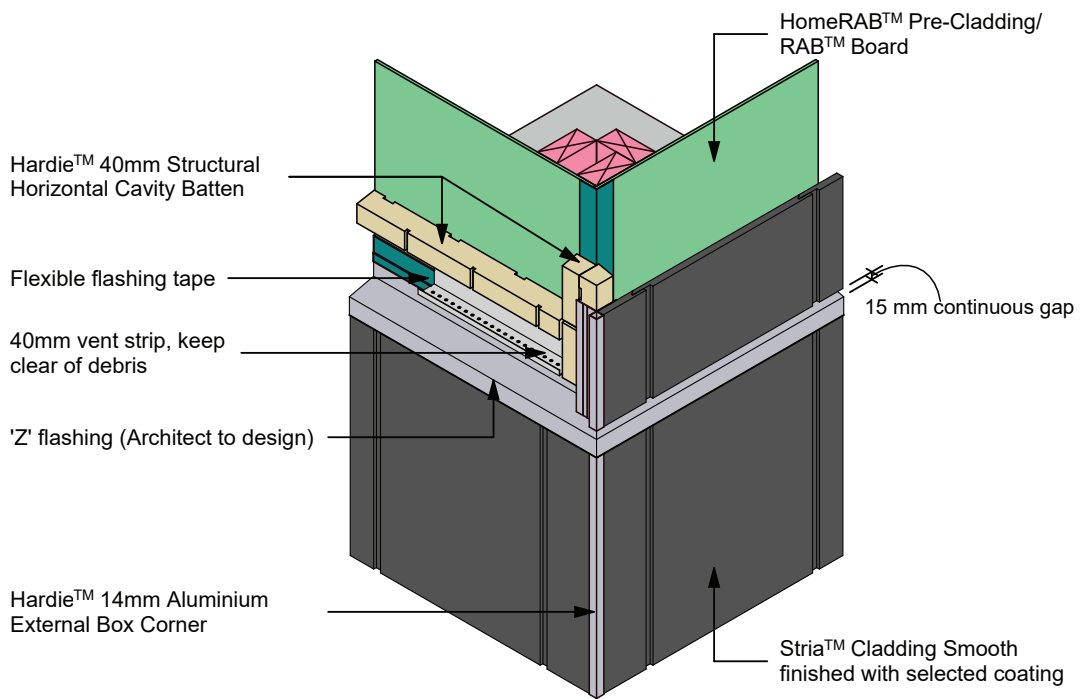


**Notes:**

This detail is required to limit cavities to a maximum of 2 stories or 7 metres.

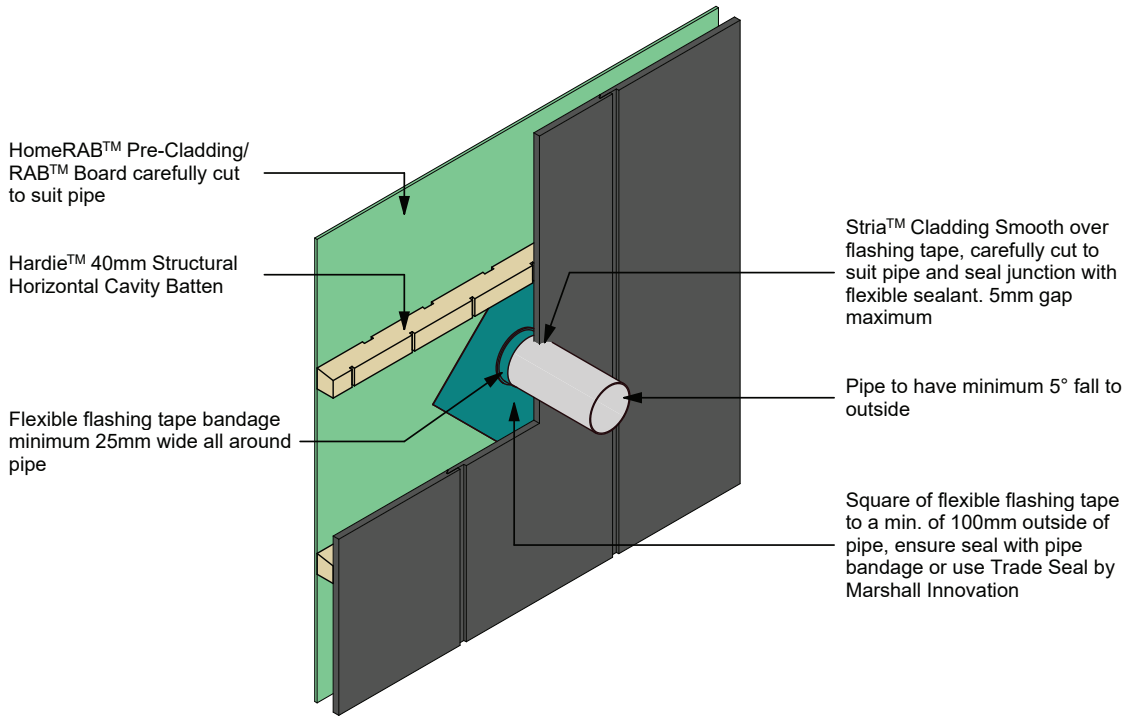
- Check architect's plans for the type of 'Z' flashing to be used
- Check fixing centres and edge distances
- Site cut edges need to be primed

**Figure 25: Drained flashing joint at external corner**



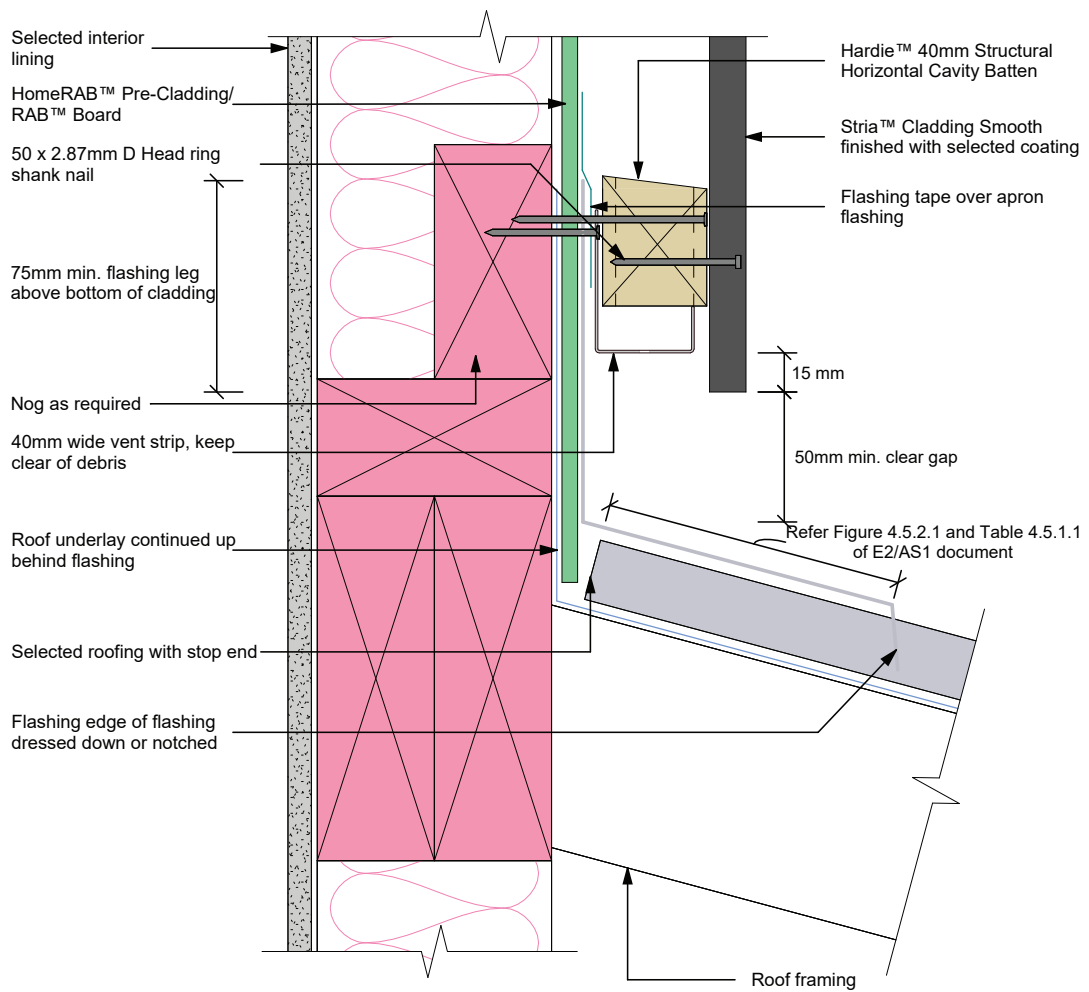
Note:  
All site cut edges to be primed prior installation

Figure 26: Pipe penetration



Note:  
All site cut edges to be primed prior installation

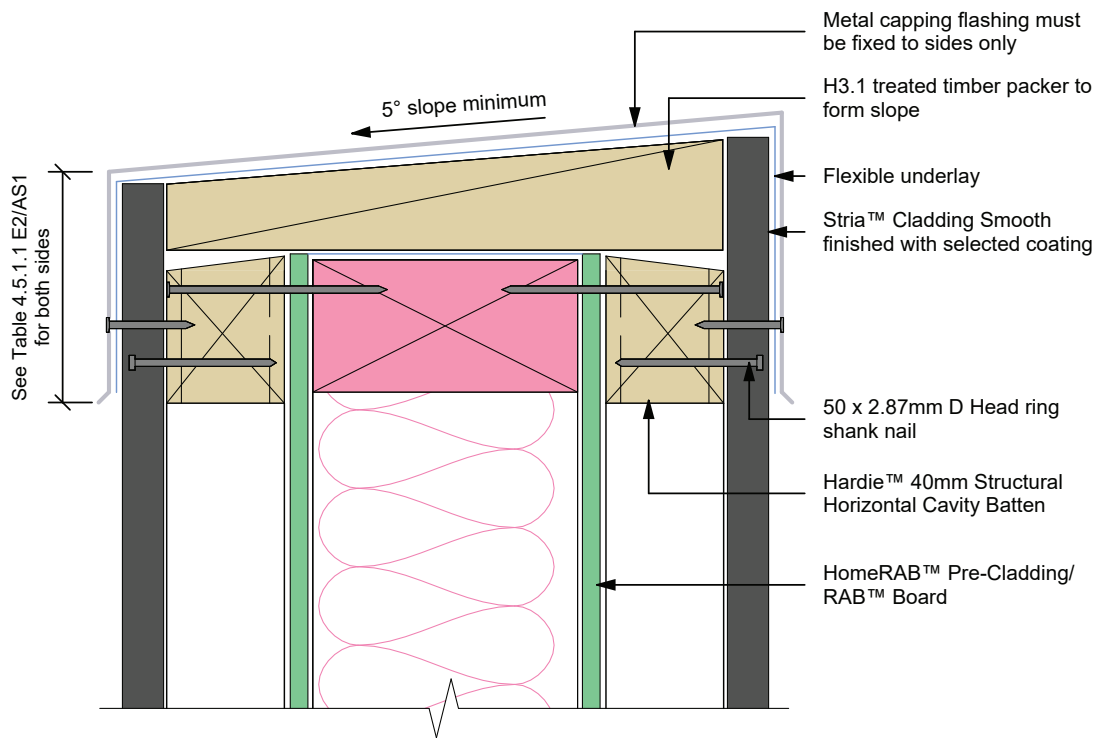
**Figure 27: Apron flashing detail**



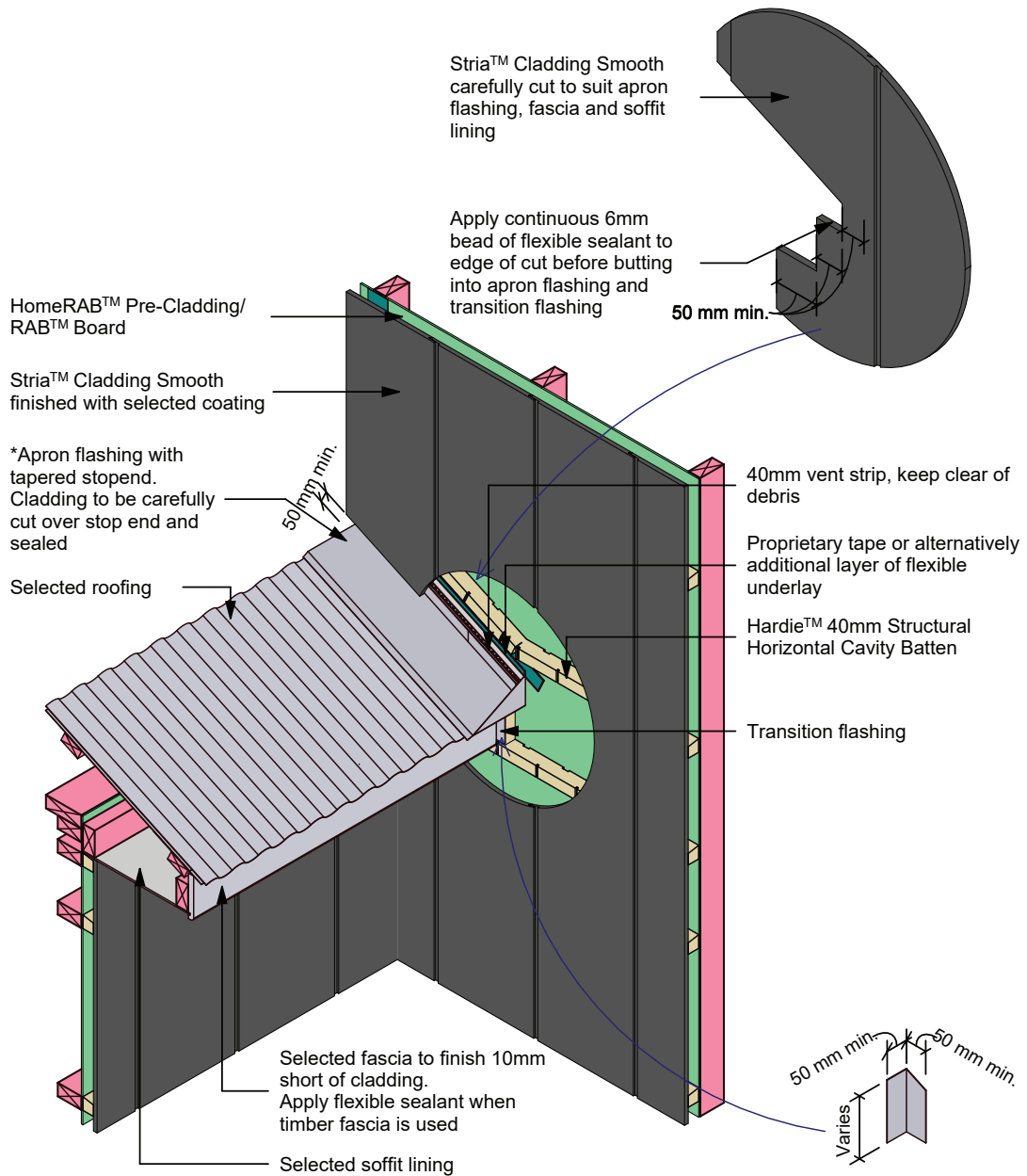
**Notes:**

- When 50 year durability for flashing is required refer to Table C.1.1.1A of the NZBC E2/AS1 document
- Site cut edges to be primed

Figure 28: Parapet flashing



**Figure 29: Roof to wall junction**



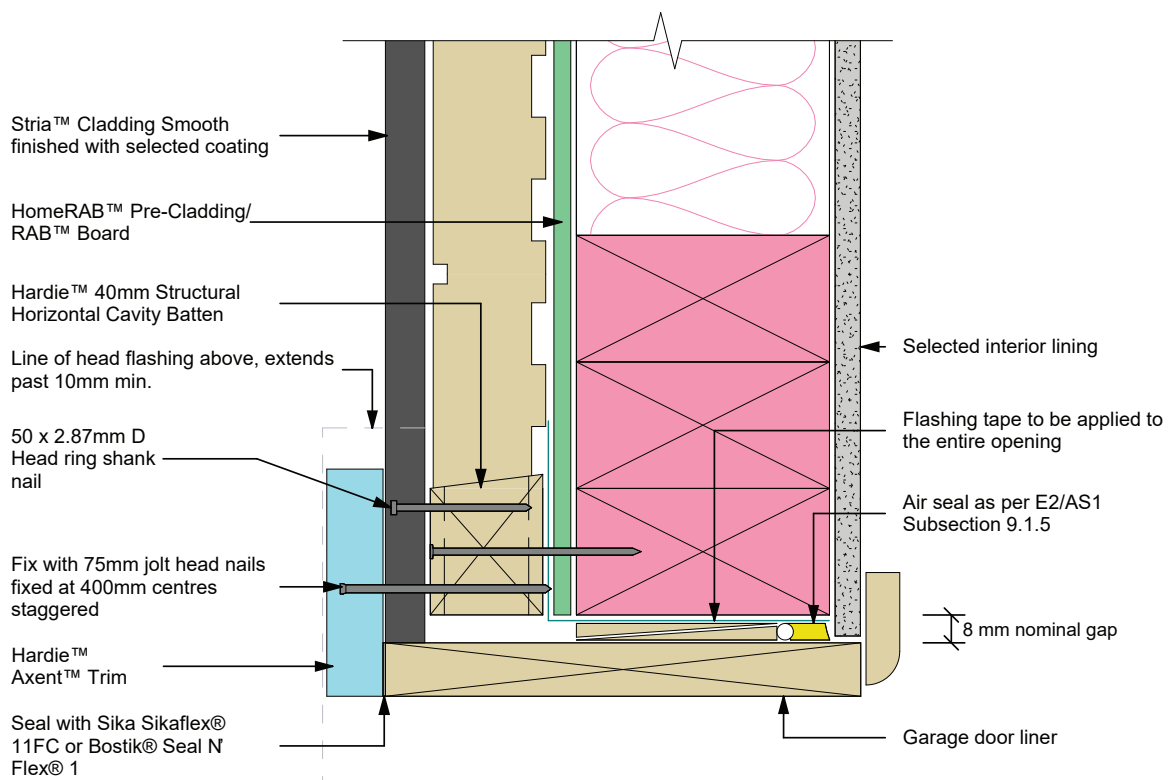
**Note:**

- Site cut edges to be primed
- Spouting omitted for clarity. End of spouting must be 10mm minimum clear of finished Stria™ Cladding Smooth
- Stria™ Cladding Smooth to be primed prior to fascia installation

\*When 50 year durability for flashing is required refer to Table C.1.1.1A of the NZBC E2/AS1 document

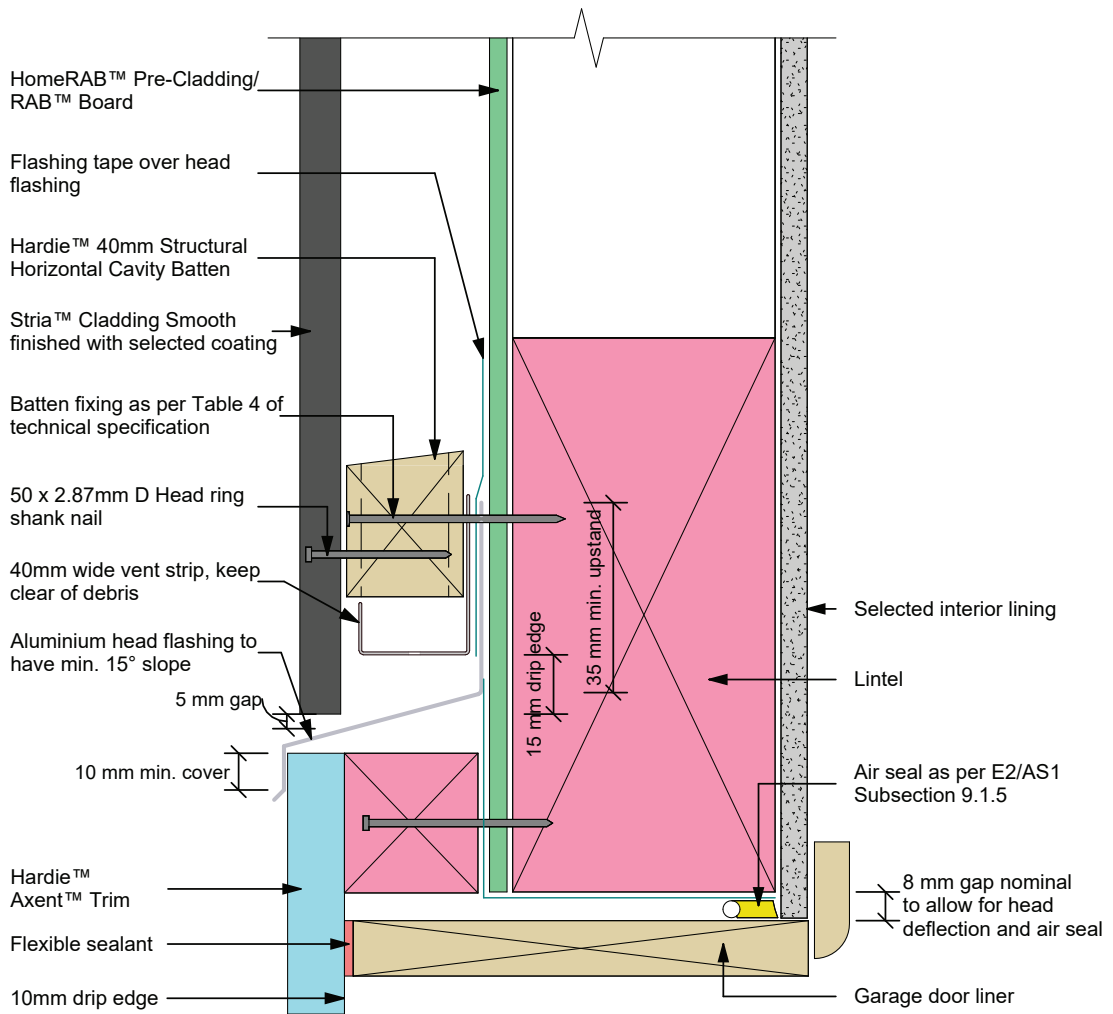
**Transition flashing Note:**  
Height of transition flashing from top of fascia to underside of soffit lining

**Figure 30: Garage door jamb**



Note: Site cut edges to be primed

**Figure 31: Garage door head**



- Sealant must be applied between head flashing and Hardie™ Axent™ Trim in VH wind zone
- Site cut edges to be primed

## Product Warranty

NEW ZEALAND | Effective August 2024

This warranty is given by James Hardie New Zealand Limited (“James Hardie”, “we”, “its” and “us”).

In this warranty:

- **“Consumer”** has the meaning given to it in the Consumer Guarantees Act;
- **“Product”** refers to the item listed below:

Stria™ Cladding

- **“Technical Literature”** means the Product specific installation guide published by James Hardie at the time of installation of the product (copies of the current installation instructions are available at jameshardie.co.nz or by calling Ask James Hardie™ on 0800 808 868); and
- **“Warranty Period”** means twenty five (25) years.

### Warranty

1. Subject to the conditions and limitations set out below, we warrant that for the Warranty Period from the date of purchase, the Product will be free from defects due to defective factory workmanship or materials.
2. James Hardie further warrants that for a period of 15 years from the date of purchase of the Product that any associated accessories supplied by us will be free from defects due to defective factory workmanship or materials.
3. James Hardie warrants that at the time of manufacture the Product will comply with AS/NZS 2908.2:2000 Cellulose-cement products - Flat sheet.
4. This warranty is not transferable and is only provided to and may only be relied upon by:
  - (a) the first purchaser of the Product or accessory from James Hardie; and
  - (b) the last purchaser of the Product or accessory prior to installation.
5. If a breach of this warranty occurs, we will (at our option) either: supply replacement Product or accessory; rectify the affected Product or accessory; or pay for the reasonable and substantiated cost of the replacement or rectification of the affected Product or accessory.

### Warranty Conditions

6. You may only claim under this warranty if:
  - (a) the Product was installed and maintained strictly in accordance with the Technical Literature including the components or products specified or recommended in the Technical Literature; and
  - (b) other products applied to or used in conjunction with the Product are applied or installed and maintained strictly in accordance with the relevant manufacturer’s instructions and good trade practice; and
  - (c) the Product is used in an application designed and constructed in strict compliance with all relevant provisions of the New Zealand Building Code (**“NZBC”**), applicable laws, regulations and standards; and
  - (d) we are given reasonable opportunity to inspect the Product **before** any attempt is made to repair or remove the Product once it has been installed; and
  - (e) the requirements for bringing a claim under the warranty as set out in clause 8 are complied with.

7. Subject to clauses 10 and 11:

- (a) to the fullest extent permitted by law, we exclude all:
  - (i) other warranties, conditions, liabilities and obligations which may otherwise apply in respect of the purchase or use of the Product and/or its Technical Literature, other than those specified in this warranty; and
  - (ii) liability for any loss or damage (whether direct or indirect) including property damage or personal injury, consequential loss, economic loss or loss of profits, the purchase or use of the Product and/or its Technical Literature whether arising in contract, tort (including negligence), statute or equity.
- (b) if or to the extent that it is not permitted by law to so limit our liability as set out in clause 7(a), then to the fullest extent permitted by law, we limit our liability at our option to:
  - (i) the replacement of the Product or accessory or the supply of equivalent Product or accessory;
  - (ii) the repair of the Product or accessory;
  - (iii) the payment of the reasonable and substantiated cost of replacing the Product or accessory, or of acquiring equivalent Product or accessory; or
  - (iv) the payment of the reasonable and substantiated cost of having the Product or accessory repaired;
- (c) this warranty does not cover defects which are not due to defective factory workmanship or materials, including but not limited to damage or defects caused by or arising from or attributable to:
  - (i) use of the Product in applications not recommended by us or in accordance with the Technical Literature;
  - (ii) the Product being subjected to abnormal treatment including impact, abrasion or mechanical action;
  - (iii) surface marking, scratches or stains arising during or after the installation of the Product;
  - (iv) poor workmanship or installation, poor design or detailing, settlement or structural movement and/or movement of materials to which the Product is attached;
  - (v) incorrect design of the structure;
  - (vi) acts of God including but not limited to earthquakes, fire, cyclones, floods or other severe weather conditions or unusual climatic conditions;
  - (vii) efflorescence, normal wear and tear, growth of mould, mildew, fungi, bacteria, or any organism on any Product surfaces or Product (whether on the exposed or unexposed surfaces);

- (viii) contact with chemicals such as solvents, detergents and pollutants, or exposure to a harsh chemical environment or an excessively salty environment;
- (ix) use of adhesive tapes, sealants or mastics on the Product, or recoating of the surface of the Product outside of the recommended maintenance guidelines in the Technical Literature; or
- (x) failure of third party coating systems, including but not limited to sealers and paints; and
- (xi) **this warranty does not cover** any variation in the look of the Product including but not limited to: any variation in colour or surface pattern; any variation between different batches of the Product; or any variation against any sample material provided. The architect/builder/installer must ensure **prior to specification** that variation in look between items of Product is acceptable and ensure that each item of Product meets all aesthetic requirements **prior to installation**. Subject to the terms of this warranty, after installation of the Product, **we are not liable** for claims arising from aesthetic variations or defects if such variations or defects were, or would upon reasonable inspection have been, **apparent prior to installation**.

## Making a Claim Under Warranty

If you are the property owner and did not purchase the product yourself, and you believe you have any issue with James Hardie product installed at your home, in the first instance you should contact the builder who purchased and installed the product. If you purchased the product yourself, you can make a claim under this warranty as detailed below.

8. In order to make a claim under this warranty, you must provide the following information in writing to us using the contact details below within 30 days after the alleged defect would have become reasonably apparent or, if the defect was reasonably apparent prior to installation, then the claim must be made prior to installation:
  - (a) proof of purchase;
  - (b) description of the defect and the issue;
  - (c) photographs of the defect; and
  - (d) your contact details.
9. Subject to New Zealand Consumer Law, you must bear any expenses you incur as a result of claiming under this warranty, except where you are entitled to recover such expenses under the New Zealand Consumer Law, in which case we will bear or otherwise reasonably compensate you for such expenses. All claims for such expenses are to be notified to us in writing within 21 days from the later of: when you make a claim under this warranty; or when we notify you that we, acting reasonably, accept responsibility for these expenses.

## New Zealand Consumer Law

10. If you acquire the Product or accessories manufactured or supplied by us as a Consumer, that Product or accessories may come with guarantees that cannot be excluded under the Consumer Guarantees Act. If so, and we are a supplier, you are entitled to a replacement or refund for a failure of a substantial character or a failure that cannot be remedied, and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality or fail to meet some other guarantee and can be remedied and the failure is not of a substantial character. Where we or a related entity are the manufacturer, then you will have the rights set out in the Consumer Guarantees Act if the goods do not comply with this warranty or the consumer guarantees under the Consumer Guarantees Act.
11. Other than as lawfully excluded or limited by the other terms of this warranty, any rights a Consumer may have under this warranty are in addition to other rights and remedies of a Consumer under a law in relation to the goods to which this warranty relates. Nothing in this warranty shall exclude or modify any legal rights a purchaser and/or Consumer may have under the Consumer Guarantees Act, Fair Trading Act or otherwise which cannot be excluded or modified at law.

## Disclaimer

The recommendations in James Hardie's literature are based on good building practice but are not an exhaustive statement of all relevant information. Further, as the successful performance of the relevant system depends on numerous factors outside the control of James Hardie (e.g. quality of workmanship and design) James Hardie shall not be liable for the recommendations made in that Technical Literature and the performance of the relevant system, including its suitability for any purpose or ability to satisfy the relevant provisions of the NZBC, laws, regulations and standards. It is the responsibility of the building designer to ensure that the details and recommendations provided in the relevant James Hardie Technical Literature are suitable for the intended project and that specific design is conducted where appropriate.

## Our Contact Details

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