



**Abodo CodeMark**  
Weatherboard Cladding System



**CodeMark**»»  
(CMNZ70046)

Carefully Crafted Timber

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# 1.Scope

## 1.1. Intended Use

The Abodo CodeMark weatherboard system is designed for use as cladding for residential and small commercial buildings. It is only suitable for buildings with a 'Risk Score' of 20 or below as per the 'Weather Tightness Risk Matrix' outlined in E2/AS1. Refer to the Department of Building and Housing's booklet titled 'External moisture - a guide to using the risk matrix' for more information.

This is an Alternative Solution in terms of NZBC compliance.

## 1.2. Performance

When installed and maintained as specified by a qualified tradesman using accepted trade practices it will meet the following requirements of the NZBC (New Zealand Building Code as contained in the Building Regulations Act 1992):

- B1 Structure
- B2 Durability
- E2 External Moisture
- F2 Hazardous Building Material

## 1.3. Wind Zones

This solution is only acceptable for wind zones up to and including 'Very High' as defined in NZS 3604. Extra High wind zones will require a rigid underlay and larger flashings.

## 1.4. Mass

All products are approximately 12 kg/m<sup>2</sup> – classed as a 'light weight cladding' under NZS3604.

## 1.5. Minimum Life

All weatherboards have minimum 15-year durability as required by NZS 3602, given normal maintenance.

## 1.6. Serviceable Life

In addition to the above minimum life, this cladding system is expected to have a serviceable life of at least:

Sand Primed	H3.2 treated, paint finish	50 years
Sand	H3.2 treated, stain finish	40 years
Vulcan Primed	Thermally Modified, paint finish	40 years
Vulcan	Thermally Modified, stain finish	30 years
Stratos Primed	H3.1 Azole treated, paint finish	30 years
Stratos	H3.1 Azole treated, stain finish	25 years
Tundra	Stain finish	25 years

This serviceable life is subject to the installation, Paint, Coating and Maintenance requirements specified in this manual.

### 1.6.1. Coating and priming

Although these are generally factory-coated products, on-site finish coating will be required to achieve serviceable life span.

All coating is to be done according to coating manufacturer's instructions in a well-ventilated area. Refer to the coating/primer supplier for all matters relating to health and safety. All relevant sections of standard AS/NZS 2311:2009 (Guide to the painting of buildings) shall be adhered to.

#### 1.6.1.1. Stain finish weatherboards

To achieve the above serviceable life:

- All cut, notched and/or timber-exposed areas must be coated with 2 coats of oil or stain or Abodo end seal.
- All exposed faces must be coated with at least 2 coats of quality stain or penetrating wood oil, non-exposed faces must have at least 1 coat.
- Refer Coating section on stained weatherboards for further details

#### 1.6.1.2. Paint finish weatherboards

To achieve the above serviceable life:

- All cut, notched and/or timber-exposed areas must be coated with primer.
- All exposed faces must be coated with 2 coats of alkyd or 100 percent acrylic exterior paint top coat.
- Refer Coating section on paint finish weatherboards for further details.

### 1.6.2. Maintenance

The life spans specified above apply to structural performance and weather tightness only. Appearance will degrade over time if maintenance requirements are not adhered to in accordance with the maintenance section of this manual.

## 1.7. Handling

- Weatherboards and accessories must be kept clean dry, under cover and out of the weather prior to installation.
- Timber must be stored horizontally on bearers at least 100mm off the ground.
- Wear dust mask, gloves, ear and eye protection when working with timber.

## 1.8. Resource and forestry certification

All timber for Abodo CodeMark weatherboards is sourced from plantation forests in New Zealand. Generally the products are supplied as FSC (Forest Stewardship Council) Mixed Credit CoC certified. FSC Pure certification is available on request. FSC No. SGS-COC-004944.

## 1.9. Limitations

- Abodo CodeMark weatherboards must be installed by a Licensed Building Practitioner.
- This document is not exhaustive in its scope. Responsibility for design lies with the specifier or responsible party for the project to ensure the final design meets the requirements of the intended application and the NZBC
- For designs outside the scope of this technical specification, specific design must be undertaken by the architect or designer. Advice on this is available from Abodo.

# 2. Critical System Components

All critical system components must be supplied or approved by Abodo. Using non-approved components will invalidate the CodeMark certification.

Critical components are:

### i. Timber substrates

- i.1. Sand – H3.2 treated radiata pine
- i.2. Vulcan – Thermally Modified radiata pine
- i.3. Stratos – Azole treated radiata pine
- i.4. Tundra – Douglas fir heart wood

### ii. Sand weatherboards

### iii. Vulcan weatherboards

### iv. Stratos weatherboards

### v. Tundra weatherboards

### vi. Cavity Battens

- vi.1. Cavity batten
- vi.2. Castellated cavity batten

### vii. Wall underlay

### viii. Mouldings

### ix. Flashings

### x. Fixings

## 2.1. Timber Substrate Types

### 2.1.1. Sand and Sand Primed

#### 2.1.1.1. Material

New Zealand Radiata pine treated to H3.2 hazard class according to NZS3640 with ACQ (alkaline copper quat) or MCA (micronized copper azole). Both treatments are low human toxicity, non-chrome, non-arsenic preservative systems.

**Sand** features vertical or 'quarter sawn' grain orientation in all boards that creates enhanced stability and reduces surface checking (cracking) in service.

#### 2.1.1.2. Lamination

**Sand** weatherboards may be supplied in laminated form with vertical grain orientation on the face of the board. The laminations are made according to NZS1328 with Type 1 polyurethane adhesive that is approved for Service Class 3 applications (exterior exposed to the weather). No added formaldehyde.

#### 2.1.1.3. Grade

Generally supplied as Clears, Select or Premium grade according to Abodo appearance grade rules.

#### 2.1.1.4. Durability

Expected serviceable life- above ground

**Sand Primed** H3.2 treated paint finish – above-ground durability 50 years

**Sand** H3.2 treated stain or oil finish – above-ground durability 40 years

**Warranty** 30 years against fungal decay and insect attack (subject to terms and conditions - warranty documentation is available on request).

#### 2.1.1.5. Coating

**Sand Primed** must have alkyd or acrylic primer applied all sides and 2 coats of alkyd or 100 percent acrylic exterior top coat applied to front face and edges. Then it must be maintained periodically as described in the maintenance section of this manual as required.



**Sand** must be coated with at least 1 coat of stain (eg Resene Woodsman) or oil (eg: Abodo Protector) all sides and 2 coats on the front face and edges. Then maintained every 2-3 summers as appropriate in the maintenance section of this manual.

All cut ends and notches must be sealed with a coat of paint, stain or oil, or wax end sealer as appropriate to the product being used

Colours with an LRV of 45% or more shall be used to reduce the chance of timber warping in service. Dark colors such as black are not recommended, especially in heavy sun-exposed situations.

All coating is to be done according to coating manufacturer's instructions in a well ventilated area. Refer to the coating/ primer supplier for all matters regarding application.

#### **2.1.1.6. Resource and forestry certification**

Sourced from plantation forests in the North Island of New Zealand. Generally supplied as FSC Mixed Credit CoC certified FSC No. SGS-COC-004944 (FSC Pure certification is available on request).

Living Building Challenge- 'Red List' free

#### **2.1.1.7. Technology**

The technology behind Sand weatherboards is covered by NZ patent 601245.

#### **2.1.1.8. Corrosivity**

ACQ preserved timber shall be isolated from contact with metal and requires stainless steel, silicone bronze or copper fixings. MCA preserved timber has been shown to have very low corrosivity on metals- similar to untreated timber. Therefore it can be placed in contact with most materials and regular fixings can be used.

### **2.1.2. Vulcan and Vulcan Primed**

#### **2.1.2.1. Material**

New Zealand radiata pine thermally modified to a minimum TM230 degrees schedule. The thermal modification process uses high temperature and steam to drive out resin and permanently modify the cell structure of the timber. This creates a natural timber product that is chemical free, non-toxic and that has very low resin content, increased stability, high durability, enhanced thermal properties and a homogenous brown colour through out the timber.

**Vulcan** stain finish cladding features engineered vertical or 'quarter sawn' grain orientation in all boards that creates enhanced stability and reduces surface checking (cracking) in service.

#### **2.1.2.2. Colour**

The colour of Vulcan is a rich chocolate brown. The colour will fade quickly with exposure to the weather if left uncoated.

#### **2.1.2.3. Timber Strength**

The thermal modification process leads to some reduction in stiffness (MOR) of around 30%, however bending strength (MOE) is reduced slightly and compression strength is maintained.

#### **2.1.2.4. Fixings holding strength**

Nail holding strength remains the same as for radiata pine. Screw hold strength is 20% less than radiata pine.

#### **2.1.2.5. Thermal Performance**

Thermal conductivity of thermally modified wood is reduced by 20-25% compared with normal softwood timber. Approximately 0.099W/(mk)

#### **2.1.2.6. Moisture Content**

Approximately 7% when packed at the factory

#### **2.1.2.7. Density**

Approximately 430 kg/ m<sup>3</sup>

#### **2.1.2.8. Hardness**

Low-medium

#### **2.1.2.9. Lamination**

Vulcan weather boards may be supplied in laminated form with vertical grain orientation on the face of the board. The laminations are made according to NZS1328 with Type 1 polyurethane adhesive that is approved for Service Class 3 applications (exterior exposed to the weather). No added formaldehyde.

#### **2.1.2.10. Grade**

Generally supplied as Select grade or fingerjointed clear according to Abodo appearance grade rules.

#### **2.1.2.11. Durability**

Minimum expected serviceable life- above ground

**Vulcan Primed** paint finish – 40 years

**Vulcan** stain or oil finish – 30 years

Extensive testing has been made on thermally modified timber at SCION, Rotorua, NZ showing excellent durability and

stability over extended periods of exposure testing. Suitable for uses described in NZS3602:2003 Table 2A 'Requirements for wood-based building to achieve a 15 year durability performance Members exposed to exterior weather conditions and dampness'. Durability Class 1 (EN350-1), Class 2 above ground (AS5604).

**Warranty** 15 years against fungal decay (subject to terms and conditions- warranty documentation is available on request).

#### 2.1.2.12. Coating

**Vulcan Primed** must have alkyd primer only applied all sides and 2 coats of 100 percent acrylic exterior top coat applied to front face and edges. Then it must be maintained periodically as described in the maintenance section of this manual.

**Vulcan Charred** is generally supplied as factory pre-finished solid timber with heavy char to face and edges and one coat of Char Oil all sides. Refer to Vulcan Charred data sheet for specific information on this product.

**Vulcan** must be coated with at least 1 coat of stain or oil (eg: Abodo Protector) all sides and 2 coats on the front face and edges. Then maintained every 2-3 summers as appropriate in the maintenance section of this manual.

All cut ends and notches must be sealed with paint, stain/oil or wax end grain sealer as appropriate - Protector – End Seal is recommended for best results.

Dark colours are allowed for both Vulcan and Vulcan Primed. For Vulcan Primed paint finish, Resene CoolColour system is recommended when using dark colours (<45% LRV) to reduce the chance of timber warping in service.

All coating is to be done according to coating manufacturer's instructions in a well-ventilated area. Refer to the coating/ primer supplier for all matters relating to health and safety. All relevant sections of standard AS/NZS 2311:2009 (Guide to the painting of buildings) shall be adhered to.

#### 2.1.2.13. Resource and forestry certification

Sourced from plantation forests in the North Island of New Zealand. Generally supplied as FSC Mixed Credit CoC certified FSC No. SGS-COC-004944.

Living Building Challenge- Declare Certified- 'Red List' free

#### 2.1.2.14. Technology

The technology behind **Vulcan** weatherboards is covered by NZ patent no. 601245

#### 2.1.2.15. Corrosivity

Thermally modified timber has been shown to have very low corrosivity on metals- similar to untreated timber. Therefore it can be placed in contact with most materials including aluminium and regular hot dipped galvanised and stainless steel fixings can be used.

### 2.1.3. Stratos and Stratos Primed

#### 2.1.3.1. Material

New Zealand Radiata pine treated to H3.1 level according to NZS3640 and H3 AS1604 using azole, insecticide, water repellent and anti-mould preservative system.

The treatment is a low toxicity, metal free, non-chrome, non-arsenic system developed by Abodo specifically for exterior above ground timber products.

**Stratos** stain finish features vertical or 'quarter sawn' grain orientation in all boards that creates enhanced stability and reduces surface checking (cracking) in service.

#### 2.1.3.2. Lamination

**Stratos** weatherboards may be supplied in laminated form with vertical grain orientation on the face of the board. The laminations are made according to NZS1328 with Type 1 Purbond adhesive that is approved for Service Class 3 applications (exterior exposed to the weather).

#### 2.1.3.3. Grade

Generally supplied as Clears, Select or Premium grade according to Abodo appearance grade rules.

#### 2.1.3.4. Durability

Expected serviceable life- above ground

Stratos Primed H3.1 treated, paint finish – above-ground durability 35 years+

Stratos H3.1 treated, stain or oil finish – above-ground durability 25 years+

**Warranty** 25 years against fungal decay and insect attack (subject to terms and conditions- warranty documentation is available on request).

#### 2.1.3.5. Coating

**Stratos Primed** must have alkyd or acrylic primer applied all sides and 2 coats of alkyd or 100 percent acrylic exterior top coat applied to front face and edges. Then it must be maintained periodically as described in the maintenance section pg21 as required.

**Stratos** must be coated with at least 1 coat of stain (eg Resene Woodsman) or oil (eg: Abodo Protector) all sides and 2 coats on the front face and edges. Then maintained every 2-3 summers as appropriate in the maintenance section of this manual.

All cut ends and notches must be sealed with paint, stain or oil, or wax end sealer as appropriate to the product being used

Colours with an LRV of 45% or more are recommended to reduce the chance of timber warping in service. Dark colors such as black are not recommended, especially in heavy sun-exposed situations

All coating is to be done according to coating manufacturer's instructions in a well ventilated area. Refer to the coating/ primer supplier for all matters relating to health and safety. All relevant sections of standard AS/NZS 2311:2009 (Guide to the painting of buildings) shall be adhered to.

#### 2.1.3.6. Resource and forestry certification

Sourced from plantation forests in the North Island of New Zealand. Generally supplied as FSC Mixed Credit CoC certified FSC No. SGS-COC-004944 (FSC Pure certification is available on request).

Living Building Challenge- 'Red List' free

#### 2.1.3.7. Technology

The technology behind Stratos weatherboards is covered by NZ patent app no. 601245

#### 2.1.3.8. Corrosivity

Azole preserved timber has been shown to have very low corrosivity on metals- similar to untreated timber. Therefore it can be placed in contact with most materials including aluminium and regular fixings can be used.

### 2.1.4. Tundra

#### 2.1.4.1. Material

New Zealand heart wood Douglas Fir, graded to ensure that only the durable heart wood timber is present in the finished product.

Douglas fir heart wood is chemical free, non-toxic material with good stability and durability.

#### 2.1.4.2. Grade

Standard Grade- Generally a rustic knotty grade, with sound knots and defects allowed accentuating the natural timber characteristics.

Note- A range of natural and machine defects are allowed. As this is a visually graded product up to 5% of the volume may be supplied as 'out of grade', allowing for variation in grade interpretation.

Some grading and cutting out of defects may be required to meet customer expectations and/or requirements of the NZBC

#### 2.1.4.3. Durability

**Tundra** stain or oil finish – above-ground durability minimum 25 years

Extensive testing has been made on douglas fir timber at SCION, Rotorua, NZ showing excellent durability and stability of heart wood timber for over 20 years in an exterior above ground application. Suitable for uses described in NZ3602:2003 Table 2A 'Requirements for wood-based building to achieve a 15 year durability performance Members exposed to exterior weather conditions and dampness'.

Douglas fir has a long history of successfully application in cladding and decking in Europe.

Tundra is a rustic product that may experience some surface cracking and board movement as part of the natural weathering process

#### 2.1.4.4. Coating

**Tundra** must be coated with at least 1 coat of waterborne stain (eg: Protector – Water Borne) all sides and 2 coats on the front face and edges. Then maintained every 2-3 summers as appropriate in the maintenance section of this manual. Plant based wood oils are not recommended for coating due to possible staining issues in service.

Speciality finishes such as Iron Vitriol, Charred/ Burnt and Brushed and Sioo:x are generally supplied factory pre-finished. Refer to relevant data sheets for specific information on these products including maintenance.

All cut ends and notches must be sealed with paint, stain/oil or wax end grain sealer as appropriate - Protector – End Seal is recommended for best results.

Light colours are recommended to reduce the chance of timber warping in service.

All coating is to be done according to coating manufacturer's instructions in a well-ventilated area. Refer to the coating/ primer supplier for all matters relating to health and safety. All relevant sections of standard AS/NZS 2311:2009 (Guide to the painting of buildings) shall be adhered to.

#### 2.1.4.5. Resource and forestry certification

Sourced from plantation forests in the North Island of New Zealand.

Generally supplied as FSC Mixed Credit CoC certified FSC No. SGS-COC-004944 (FSC Pure certification is available on request).

Living Building Challenge- 'Red List' free

#### 2.1.4.6. Corrosivity

Tundra has very low corrosivity on metals as with untreated timber. Therefore it can be placed in contact with most materials including aluminium and regular fixings can be used. The timber should however not be put into contact with zinc.

## 2.2 Abodo Weatherboard Profiles

### 2.2.1. Stain finish weatherboards

Timber substrates: Sand, Stratos, Vulcan, Tundra\*

Surface Finish: Light band sawn only

\*Tundra is available in ex-150x25mm profiles only.

Profile availability may vary depending on substrate.

For stock profiles please see page 23.

#### 2.2.1.1. Horizontal Bevel back

All profiles must have minimum 32mm overlap, with matching opposed 8x6mm weather grooves 10mm from the edge of each edge.

Profiles: **AW61, AW62**

Refer Abodo Cladding Architectural Profile Drawings

#### 2.2.1.2. Horizontal Rusticated

All profiles must have minimum 25mm overlap, with matching opposed 6x3mm weather grooves 10mm from the edge of each edge, and allowing for a minimum 2mm expansion gap between boards.

Profiles: **AW67, AW68, AW700, AW701, AW702, AW703, AW704, AW705, AW706**

Refer Abodo Cladding Architectural Profiles Drawings

#### 2.2.1.3. Vertical Shiplap

All profiles must have minimum 25mm overlap, with matching opposed 6x3mm weather grooves 10mm from the edge of each edge, and allowing for a minimum 2mm expansion gap between boards.

Profiles: **AW50, AW51, AW52, AW53, AW54, AW55, AW56, AW57, AW58, AW59, AW60, AW507**

Refer Abodo Cladding Architectural Profile Drawings

#### 2.2.1.4. Horizontal and Vertical WB10 Secret Fix

All profiles must have a 20mm deep tongue and groove secret nail positioning groove 12mm from the tongue edge and allowing for a minimum 2mm expansion gap between boards.

Profiles: **WB10 - 145x20mm, WB10 - 180x20mm**

#### 2.2.1.5. Vertical WB12 Secret Fix

All profiles must have a 20mm deep tongue and groove secret nail positioning groove 12mm from the tongue edge and allowing for a minimum 2mm expansion gap between boards.

Profiles: **WB12 - 138x20mm, WB12 - 180x20mm, WB12 - 90x40mm, WB12 - 90x60mm, WB12F - 180x20mm**

### 2.2.2. Paint Finish Weatherboards

Substrates: Sand Primed, Stratos Primed, Finish: Vulcan Primed Smooth dressed face

Profile availability may vary depending on substrate.

For stock profiles please see page 23.

#### 2.2.2.1. Horizontal Bevel back

All profiles must have minimum 32mm overlap, with matching opposed 8x6mm weather grooves 10mm from the edge of each edge. The exposed leading edge may optionally have a 3mm pencil round finish for better paint adhesion.

Profiles: **AW61P - 140x18mm, AW62P - 180x18mm**

Refer Abodo Cladding Architectural Profile Drawings

#### 2.2.2.2. Horizontal Rusticated

All profiles must have minimum 25mm overlap, with matching opposed 6x3mm weather grooves 10mm from the edge of each edge, and allowing for a minimum 2mm expansion gap between boards. The exposed leading edge may optionally have a 3mm pencil round finish for better paint adhesion.

Profiles: **AW67P - 138x18mm, AW68P - 180x18mm**

Refer Abodo Cladding Architectural Profile Drawings

#### 2.2.2.3. Vertical Shiplap

All profiles must have minimum 25mm overlap, with matching opposed 6x3mm weather grooves 10mm from the edge of each edge, and allowing for a minimum 2mm expansion gap between boards. The exposed leading edge may optionally have a 3mm pencil round finish for better paint adhesion.

Profiles: **AW51P - 135x18mm, AW52P - 180x18mm**

Refer Abodo Cladding Architectural Profile Drawings

#### 2.2.2.4. Horizontal and Vertical WB10 Secret Fix

All profiles must have a 20mm deep tongue and groove secret nail positioning groove 12mm from the tongue edge and allowing for a minimum 2mm expansion gap between boards.

Profiles: **WB10P - 135x18mm, 180x18mm**

Refer Abodo Cladding Architectural Profile Drawings

## 2.3. Cavity Battens

- Cavities must comply with E2/AS1 of the NZBC paragraphs 9.1.8 to 9.1.9.4
- Timber cavity battens shall be minimum 45mm x 18mm to match height of framing and be minimum H3.1 treated according to NZS3640. Structurally fixed cavity battens shall be H3.2 treated.
- Cavity battens shall be supplied by Abodo or shall be approved by Abodo prior to construction.

### 2.3.1. Horizontal weatherboard systems

Shall use solid vertical cavity battens as follows:

**CB-V-20x45 or CB-V-45x45**

### 2.3.2. Vertical weatherboard systems

Shall use castellated (notched) and beveled horizontal cavity battens as follows:

**CB-H-20x45 or CB-H-45x45**

Horizontal cavity battens shall be castellated type with 20mm x 7mm notches spaced at approximately 100mm centers alternating on either side of the batten, and with the top edge of the batten to be beveled at an 18-20 degree angle to allow for water run-off.

## 2.4. Rigid Wall Underlays

A Rigid Wall Under Lays shall be included as part of the cladding system:

- In locations defined as Extra High Wind Zones according to Table 3 E2/AS1.
- Where interior walls are not lined or for external walls of attached garages that are unlined and shall be installed according to Table 23 E2/AS1.
- Where additional weather tightness of the building envelope is desired.

Approved Rigid Wall Underlays are as follows:

- Fiber cement sheet (eg: James Hardie, BGC).
- Minimum 6.5mm H3.2 DD Plywood manufactured to AS/ NZS2269 and tested in accordance with AS/ NZS4284 (eg: CHH Ecoply).

Rigid Wall Underlays shall be fixed in accordance with the manufacturer's installation instructions and/ or Clause 9.1.7.2 E2/AS1.

Other Rigid Wall Underlays may be used subject to approval and shall be independently appraised by an IANZ or similarly approved accreditation agency or testing facility.

## 2.5. Finishing Mouldings

- Abodo exterior mouldings must be supplied by Abodo and shall be specified to match the relevant timber substrate and weatherboard system.
- Mouldings shall generally be fixed with nails at maximum 450mm centers positioned so as not to penetrate through flashings. Mouldings shall have a continuous bead of sealant applied where they meet weatherboards, neighbouring mouldings or joinery.

### 2.5.1. Mouldings options

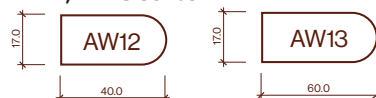
The **chart above** shows mouldings that can be used for each weatherboard system.

### Profile

Bevelback Rusticated Vertical Shiplap WB10/WB12

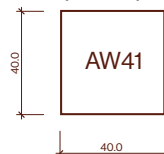
**AW12, AW13 Scriber**

**X X X X**



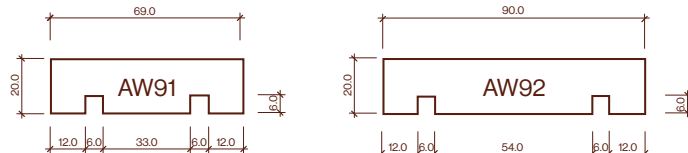
**AW41, 40mm, 20mm D4S**

**X X X X**



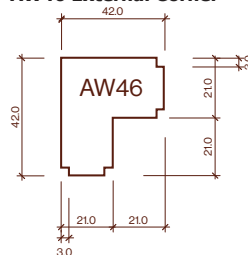
**AW91, AW92 Cover Board**

**X X X X**



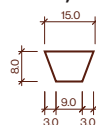
**AW46 External Corner**

**X X X**



**AW48, WB10 Plug**

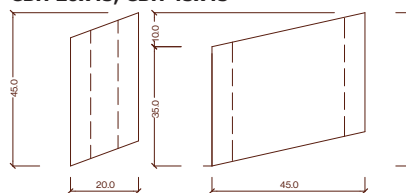
**X**



**AW72 FASCIA**



**CBH 20x45, CBH 45x45**



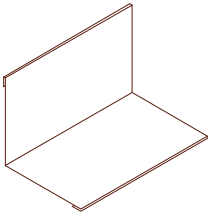
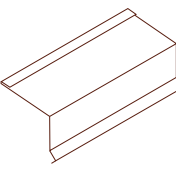
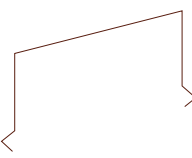
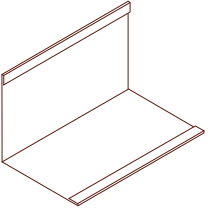
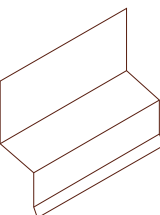
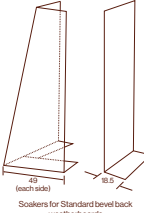
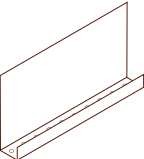
Note: Oil finish profiles have bandsawn faces.  
Primed profiles are generally finished to 18mm thickness and have eased edges.

## 2.6. Flashings

- Flashings shall be made from Stainless Steel, Galvanised Steel, UPVC or Aluminium.
- Soakers for bevel back weather board may also be made from copper.
- All flashing materials shall be compatible with neighboring materials and comply with Tables 20, 21, 22 of E2/AS1 NZBC.
- Flashings can be supplied by Abodo or by the builder according to this specification.
- Unhemmed corner flashings may be used for flat profile weatherboard systems (eg WB10, Rusticated) provided flashing provides minimum 75mm cover behind weatherboard cladding.
- Extra high wind zones and above require 75mm cover as well as folded hem.

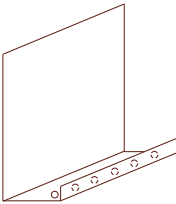
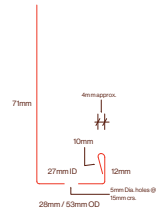
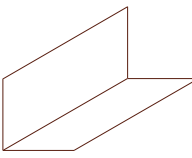
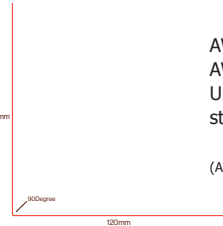
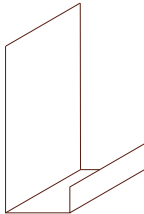

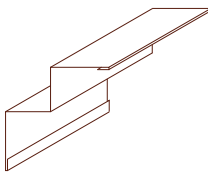
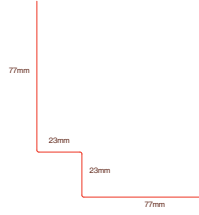


## Flashings – Supplied by others

Flashing	Description
	Hemmed External Corner Flashing <b>14</b> - 50mm, <b>4</b> - 90mm  (Code 04 shown)
	<b>23</b> - Sill flashing
	<b>107, 108</b> , Parapet Saddle Capping
	Hemmed Internal Corner Flashing <b>3</b> - 50mm, <b>40</b> - 70mm, <b>3</b> - 90mm  (Code 03 shown)
	<b>22</b> - 40mm interstory Z flashing
	Bevel Back Corner and Flat Soakers  <small>40 (each side) Soakers for Standard bevel back weatherboards</small>
	<b>06</b> – 20mm Cavity Closer

Note: Flashings and codes shown above are by quickflash.co.nz as example only.  
Other flashings may be used provided they are in conformance with E2/AS1 and this manual.

## Flashings Range – Supplied by Abodo

Flashing	Line Drawing	Description
		AWF1 WB10 20mm Cavity Closer AWF6 WB10 45mm Cavity Closer Stainless steel, 3.0m length  (For use with horizontally fixed WB10 cladding only) (WB10 45mm closer is a non-stock made to order item)
		AWF2 100x100mm, AWF4 120x120mm Unhemmed corner flashing, stainless steel, 3.0m length  (AWF2 shown)
		AWF3 Window/Door Jamb Flashing Stainless steel, 3.0m length  (For Rusticated and WB10 Horizontal Profiles)
		AWF5 100x100 Unhemmed Internal Corner W-Flashing Stainless steel, 3.0m length

## 2.7. Fixings

- Shall be in accordance with table 24 of NZBC E2/AS1 and NZS3604 unless otherwise advised below.
- Fixings can be supplied by Abodo or by the builder according to this specification.
- For buildings located in sea spray 'Zone D' Exposure) conditions according to NZS3604, stainless 316 fixings must be used.
- **For ACQ or CUAZ treated timber (eg: Sand) stainless steel, copper or silicone bronze fixings must be used.**

### 2.7.1. Fixings for stain finish weatherboards

Shall be of the following specification:

- Pentagon or Rose Head nail.
- Annular grooved.
- Stainless steel or silicone bronze or copper. (Note: Silicone bronze and copper fixings can be subject to oxidation during weathering, resulting in discolouration and weeping around fixing head).
- To allow minimum 30mm penetration into the framing (when using packer cavity battens) or 30mm penetration into the batten and framing combined (when using structural cavity battens).



- Screw fix method is allowed allowing minimum 30mm into batten and/or stud, subject to pre-approval.

Fixings guide	Minimum Required Fixing Sizes		
Profile	Packer Cavity Batten	Structural Cavity Batten	Packer Cavity with Rigid Wall Underlay
Bevelback	85x3.15mm	65x3.15mm	
Rusticated	70x3.15mm	50x2.80mm	85x3.15mm
Vertical Shiplap	70x3.15mm	50x2.80mm	85x3.15mm
Mouldings	40x2.80mm	40x2.80mm	40x2.80mm

### 2.7.2. Fixings for paint finish weatherboards

Shall be of the following specification:

- Jolt head nail
- Stainless steel, silicone bronze or hot dip galvanized.
- To allow minimum **35mm penetration into the framing** (when using packer cavity battens) or 35mm penetration into the batten and framing combined (when using structural cavity battens).
- Screw fix method is allowed subject to pre-approval from Abodo.
- Fixings must be punched, puttied and primed prior to painting.

Fixings guide	Minimum Required Fixing Sizes		
Profile	Packer Cavity Batten	Structural Cavity Batten	Packer Cavity with Rigid Wall Underlay
Bevelback	90x4.0mm	75x3.15mm	
Rusticated	75x3.15mm	60x2.80mm	90x3.15mm
Vertical Shiplap	75x3.15mm	60x2.80mm	90x3.15mm
Mouldings	40x2.80mm	40x2.80mm	40x2.80mm

### 2.7.3. Fixings for WB10, WB12 Secret fix weatherboards - stain and paint finish

Shall be of the following specification:

- Flat Round head**
- Annular grooved/ ring shank nail power or hand driven**
- Or self-countersinking head, self-drilling screw
- Stainless steel
- To allow minimum **30mm penetration into the framing** (when using packer cavity battens) or 30mm penetration into the batten and framing combined (when using structural cavity battens).
- For power driven nails a protective rubber attachment (eg Paslode No Mar tip) must be used on the nail gun tip to prevent damage to the timber.

- Fixing must be driven so head is flush with timber surface.
- If face-fix method is preferred, then the fixing specification for Vertical Shiplap (refer 2.7.1) shall be used.
- Tip: Screw fixing method is recommended for easiest installation.

Fixings guide	Minimum Required Fixing Sizes		
Profile	Packer Cavity Batten	Structural Cavity Batten	Packer Cavity with Rigid Wall Underlay
WB10/WB12 Secret Fix	60x3.15mm Flat Head or 6gx50mm self c/s head screw or power driven 65x2.87mm Ring R-drive	40x2.80mm Flat Head or 6gx40mm self c/s head screw or power driven 55x2.87mm Ring R-drive	75x3.15mm Flat Head or 8gx60mm self c/s head screw or power driven 75x3.06mm Ring R-drive
Mouldings	40x2.80mm	40x2.80mm	40x2.80mm

### 2.7.4. Fixings into steel framing – paint finish weatherboards

Shall be of the following specification:

- Self-tapping wing-tek screws
- Hot dip galvanized
- To allow minimum **20mm penetration through the steel stud**
- Face fixing must be countersunk below timber surface, puttied, primed and painted

Refer to NASH <http://nashnz.org.nz/> for further information on compatibility of stainless steel with galvanized steel framing.

Fixings guide	Minimum Required Fixing Sizes	
Profile	Packer Cavity Batten	Packer Cavity with Rigid Wall Underlay
Bevelback	10gx90mm	
Rusticated	10gx70mm	10gx80mm
Vertical Shiplap	10gx70mm	10gx80mm
WB10 Secret Fix	10gx60mm	10gx70mm
Mouldings	10gx40mm	10gx40mm

### 2.7.5. Fixings into steel framing – stain finish weatherboards

All profiles shall be fixed into a 45x45mm structurally fixed cavity batten.

Shall be of the following specification:


- Pentagon or Rose Head nail.
- Annular grooved.

- Stainless steel or silicone bronze or copper.
- To allow minimum **30mm penetration into 45mm structural cavity batten**

Fixings guide	Minimum Required Fixing Sizes
Profile	Structural Cavity Batten
Bevelback	65x3.15mm
Rusticated	50x2.80mm
Vertical Shiplap	50x2.80mm
Mouldings	40x2.80mm

Fixings for **WB10/WB12 secret fix** shall be of the following specification:

- **Flat Round head**
- **Annular grooved/ ring shank nail power or hand driven**
- Or self-countersinking head, self-drilling screw
- Stainless steel or silicone bronze or hot dip galvanised.
- To allow minimum **30mm penetration into 45mm structural cavity batten**
- For power driven nails a protective rubber attachment (eg Paslode No Mar tip) must be used on the nail gun tip to prevent damage to the timber.
- Fixing must be driven so head is flush with timber surface.

Fixings guide	Minimum Required Fixing Sizes
Profile	Structural Cavity Batten
WB10 Secret Fix	40x2.80mm Fat round head or 6gx40mm self c/s head screw or power driven 40x2.87mm Ring R-drive
Mouldings	40x2.80mm
Cladding Screw 	Abodo Cladding Screw 6g x 45mm stainless steel 304 for use with WB10/ WB12 profiles using structurally fixed cavity battens.

## 3. Proprietary System Components

These items are not supplied by Abodo. They shall be sourced and supplied by the builder to a specification that conforms to NZBC requirements and are deemed fit for use in the end use application.

- 3.1. Flexible Sealant** – modified exterior type- SikaFlex 11FC or equivalent
- 3.2. Epoxy adhesive** – two pot exterior eg: Holdfast or equivalent
- 3.3. Flexible Wall Underlay (Building wrap) or Rigid Wall Underlay** - to conform with Table 23 of E2/ AS1
- 3.4. PEF Backing Rod** – closed cell type designed for use as a backing rod, sized 25% larger than the gap it is to fill
- 3.5. Flashing tape** – compatible with other components in the system including the building wrap
- 3.6. Thermal break** – for steel framing, compatible with other components in the system including the timber treatments
- 3.7. Flashings** – in accordance with E2/AS1.

## 4. Installation Preparation

### 4.1. Framing

- Generally, timber framing must comply with NZS 3604 (Timber-Framed Buildings), however where specific engineering design is required the framing shall be at least of equivalent stiffness to the framing provisions of NZS 3604.
- The moisture content of the framing must not exceed 18% at the time of fixing the weatherboard (problems may occur later due to excessive timber movement if framing is too wet).
- Additional framing may be required at soffits, corners, window and door openings.
- Cladding must be in dry condition (less than 16% moisture content) prior to installation.

#### 4.1.1. For Horizontal Weatherboards:

- Studs must be at a spaced at a maximum of 600mm between centres.
- Dwangs (noggins) must be spaced at a maximum of 800mm between centres or other wise as specified where a proprietary wall system is being used.
- Studs and dwangs must form a flush plane for cavity battens and weatherboards to be fixed to.

#### 4.1.2. For Vertical Weatherboards:

- Studs must be at a spaced at a maximum of 600mm between centres.
- Dwangs (noggins) must be spaced at a maximum of 480mm between centres, or 800mm between centres if using structurally fixed 45x45 cavity battens or other wise as specified where a proprietary wall system is being used with structural 45x45 cavity battens.

- Studs and dwangs must form a flush plane for cavity battens and weatherboards to be fixed to.

## 4.2. Steel Framing

Steel framing may be used, provided it is designed in accordance with NZS3604 Steel Framed Buildings and B1/AS, or by specific design.

Spacing of studs and nogs shall be as specified above in 4.1.1 and 4.1.2

### 4.2.1. Thermal Break

- Shall cover all exposed steel framing and be minimum R-value 0.25 and comply with NZBC clauses E3 and H1.
- Shall be compatible with surrounding materials and timber treatments.
- Shall have building wrap installed on the outside in accordance with 4.3 below and/or E2/ AS1
- It is recommended to use full thermal break panels (eg: R-Board or R-Board+) positioned underneath building wrap and with cavity battens fixed over top into studs or nogs as appropriate as per Figure 5 below

Recommended best practice installation method- cavity onto steel frame:

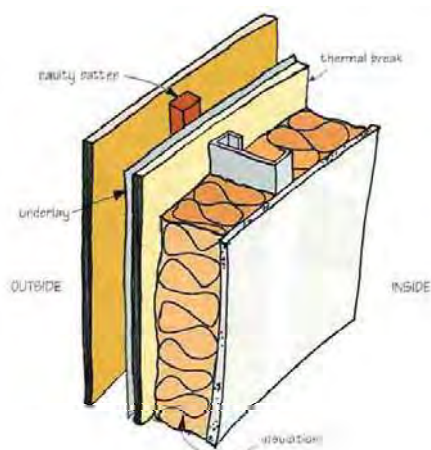


Fig. 5 Thermal break sheath inside underlay

Drawing used courtesy of NASH, from NASH N-11 Home insulation guide <http://nashnz.org.nz/wp-content/uploads/2014/05/Download-N-11-House-Insulation-Guide.pdf>

## 4.3. Flexible Wall Underlay (Building wrap)

A waterproof, breathable building wrap

must be fixed underneath battens and weatherboards in accordance with Table 23 of E2/AS1 NZBC.

Flexible wall underlays shall also be:

- Fixed in accordance with 9.1.7.1 E2/AS1. Cut and dressed into openings in accordance with figure 72A and 72B E2/AS1.
- Have compliant and compatible flexible flashing tape applied to head and sill framing in accordance with E2/AS1.
- Have polypropylene strap or wire applied to prevent bulging of wrap into cavity in accordance with 9.1.8.5 E2/AS1.
- Extend minimum 35mm over bottom plate.

## 4.4. Rigid Wall Underlay

- Rigid Wall Underlays are required in Extra High wind zones according to Table 3 and 23 E2/ ES1.
- Rigid Wall Underlays shall be fixed in accordance with the manufacturer's installation instructions and Clause 9.1.7.2 E2/AS1 including:
  - a Sheet edges shall be fixed over solid framing with a 1-2mm expansion gap between sheets for fiber cement and 2-3mm gap for plywood. This may vary and must be verified with manufacturer's specification prior to installation.
  - b Shall have flexible underlay folded into opening reveals as per 9.1.5 a) E2/AS1
  - c Shall be over-fixed with flexible wall underlay from Table 23 and installed in accordance with 9.1.7.1 E2/ AS1 (note: some proprietary systems may not require this)
  - d Shall have flexible flashing tape applied to head, sill framing openings and all sheet joints including corners with a minimum 50mm lap to the RAB. Flexible tape must be compatible with the wall underlay and other surrounding materials.
  - e Shall extend past the bottom plate 15-25mm – this shall be confirmed with the manufacturer prior to installation.
  - f Shall have flexible flashing tape to the rigid wall underlay and overlapping the cavity closer at the bottom of the cavity.
- Flashing tapes may be substituted with BEP Blue Barrier system <http://www.abep.co.nz/our-products/building-envelope-protection-bep/> subject to approval by the respective RAB manufacturer and provided it is installed according to Blue Barrier Codemark Installation manual.

## 4.5. Drained Cavity Construction

- All systems shall be installed onto a drained cavity. Cavities shall comply with E2/AS1 of the NZBC paragraphs 9.1.8 to 9.1.9.4.
- Horizontal timber cavity battens shall be Abodo castellated (notched) and beveled at 18-20 degrees. The batten shall be installed with the top bevelled edge falling away from the wall underlay towards the back of the weatherboards.

### 4.5.1. Packer cavity batten fixing method

#### 4.5.1.1. 20mm thickness cavity batten

Temporarily fix x 20x45mm timber battens to the framing (if running vertically) or nogs (if running horizontally) at 800mm centres with:

- 40 x 2.5mm flat head, hot dipped galvanised nails; or
- 50 x 2.8mm 'D' flat head, power-driven, galvanised nails

### 4.5.2. Structural cavity batten fixing method

#### 4.5.2.1. 20mm thickness cavity batten

Fix battens to the framing (if running vertically) or nogs (if running horizontally) at 300mm centres with fixings staggered 12mm either side of the batten centerline with:

- 60 x 2.8mm flat head, ring shank stainless steel nails; or
- Paslode Impulse (or equivalent) 65 x 2.87mm 'D' flat head, power-driven, stainless steel nails
- 8g x 50mm stainless steel c/s head screws

#### 4.5.2.2. 45mm thickness cavity batten

Fix battens to the framing maximum 600mm centres with fixings staggered 12mm either side of the batten centerline with:

- 90 x 3.2mm flat head, ring shank stainless steel nails; or
- Paslode Impulse (or equivalent) 90 x 3.15mm 'D' flat head, power-driven, stainless steel nails
- 8g x 75mm stainless steel c/s head screws

### 4.5.3. Cavities onto masonry fixing method

If fixing to masonry, structurally fix 45x45mm cavity battens at 600mm centers staggered 12mm either side of the batten center line with:

- Ramset (or similar) M6x75mm 316 stainless steel countersunk head split drive masonry anchor

### 4.5.4. Cavities onto steel framing fixing method

#### 4.5.4.1. 20mm packer cavity batten method

- Shall be used for **paint finish** weatherboards only.
- Temporarily fix 20x45mm battens into the framing (if running vertically) or nogs (if running horizontally), fix at 800mm centres with:
  - a 50x2.8mm flat or jolt head bullet tip, power driven HDG nails; or
  - b 10gx50mm self-tapping wing-tek HD Galv screws

#### 4.5.4.2. 45mm structural cavity batten

- May be used for **stain and paint finish** weatherboards.
- Fix battens to the framing at maximum 600mm centres, with fixings staggered 12mm either side of the batten centerline with:
  - a 10g x 80mm self-tapping wing-tek HD Galv screws

### 4.5.5. Inter-story Junctions

- An inter-story junction shall be used for continuous cavities over two stories or 7 meters.
- A 'Z' flashing shall be used with at least 35mm cover over the weatherboard and with a minimum 15 degree fall and allowing 5mm minimum gap between flashing and weatherboard in accordance with E2/ AS1.

### 4.5.6. Base of wall cavity

The base of walls including above window heads and inter-story flashings:

- Shall have a cavity base closer with minimum ventilation area 1000mm<sup>2</sup> per meter length.
- The cavity closer shall be positioned to allow at least 10mm drip edge to wall cladding or 15mm above window and door head flashings, in accordance with 9.1.8.3 E2/AS1.
- For WB10 horizontal cladding, Abodo AWF1 horizontal cavity closer may be used with the bottom groove of the profile sitting into the flashing up turn. This avoids need for face fixing of the base board.

#### 4.5.7. Top of wall cavity

Shall be sealed off from the roof space using a solid (non-castellated) vertical cavity batten running horizontally.

- Top-vented cavities may be allowed subject to design approval from Abodo and provided that the roof space is sealed off from the wall cavity.

#### 4.5.8. Internal and external corners

- Shall have vertical cavity battens fixed with at least 10mm gap between battens.

#### 4.6. Head Flashings

- Shall be fixed with a flashing up stand of minimum 35mm cover with tape or underlay lapped over the flashing.
- Extra High Wind Zones shall have minimum 75mm cover flashing to head flashing up-stand and extend minimum 60mm over the weatherboard.
- Shall have a minimum 15 degree fall with 5mm gap between head flashing and weatherboard in accordance with E2/ AS1.
- Shall be fixed with stop-ends, with 30mm cover and, if scribes are used, extend 20mm past the scribe in accordance with E2/ AS1.
- Shall have air seals between reveal or frame in accordance with 9.1.6 E2/ AS1, installed with self-expanding polyurethane foam over PEF backing rod.

#### 4.7. Window and Door Joinery

- May be timber, aluminium or uPVC.
- Shall meet the requirements of NZS4211.
- Shall be designed in accordance with the relevant Wind Zone.
- Shall meet the requirements of E2/AS1.
- Shall have sill support bars installed in accordance with E2/AS1 and where possible sill trays are recommended.
- Shall have flexible flashing tape around openings and over cavity closer above joinery head.
- Jambs shall be scribed with AW12 with scribe or plugs sealed to weatherboards and be made weather tight with a foam bond break and a continuous bead of sealant along the jamb line.
- Where flat horizontal profiles (Rusticated, WB10 horizontal) meet the jamb, boards shall butt into Abodo folded jamb flashing.

- Shall have flexible air seal all sides of joinery penetration, comprising self-expanding polyurethane foam or sealant installed over closed PEF backing rod
- For Very High and Extra High wind zones, the head flashing shall be sealed to the window flange in accordance with E2/AS1
- Recessed windows may be allowed provided they are flashed as per E2/AS1 and subject to approval by Abodo.

#### 4.8. Ground Clearance

Ground clearance between bottom of cladding and the ground shall be in accordance with 9.1.3 and Table 18 E2/AS1. The base of the cladding shall:

- overlap the concrete slab/ base of wall by minimum 50mm.
- finish 100mm above a paved surface.
- finish 175mm above an unpaved surface.

The ground shall have a slope of at least 1:30 to allow water to flow away from the building.

#### 4.9. Decking

Refer to E2/AS1 for requirements specific to the type of deck being used.

- Where cladding finishes above a deck it shall finish minimum 35mm above a decking surface and have a 10mm drip edge.
- Where cladding finishes next to slatted decking there shall be at least a 12mm gap between the decking and the cladding wall surface.

#### 4.10. Meter Boxes

- Shall be manufactured from durable, UV resistant, non-combustible material with minimum 20 year service life expectation.
- Shall be designed with sills so as to allow water to easily drain away from possible entry points.
- Shall have flashing tape around the entire opening.
- Shall have the building wrap over lapping the 'Z' head flashing, and with the flashing to be riveted and sealed to the top meter box flashing with a minimum 10mm overlap.
- Shall be sealed around all sides with self-expanding polyurethane foam over PEF backing rod.

#### 4.11. Pipe Penetrations

- Shall be in accordance with 9.1.9, 9.1.9.1, 9.1.9.3 and figure 68 E2/AS1.



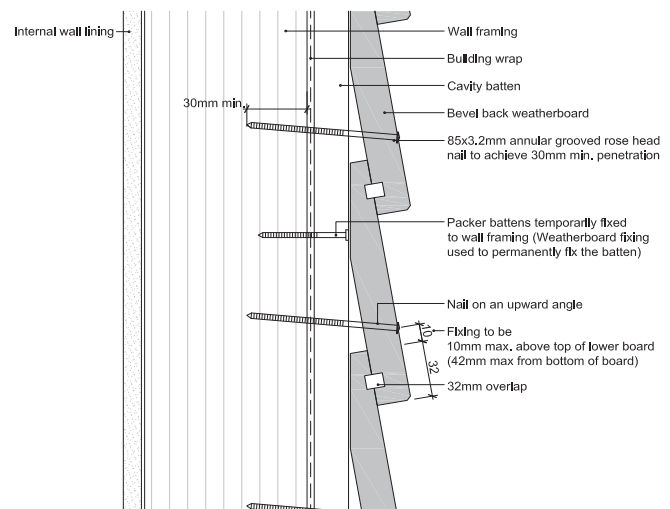
- Pipes shall be installed with a 5 degree fall, with appropriate support nogging underneath.
- Shall use an appropriate pipe flashing approved by Abodo or flashing tape to seal the pipe to the building wrap or RAB in accordance with E2/AS1.
- Shall have sealant applied over PEF rod to make the penetrations through both weatherboard and interior lining weather tight.

#### 4.12. Parapets/ Enclosed Balustrade

- Capping shall have minimum 50 year durability and shall have 'birds beak' style drip edge.
- Fixing penetrations through the capping shall be made through the side of the only.
- Capping shall be separated from timber by roof underlay or other suitable material
- The slope of the cap shall be minimum of 5 degrees.
- The capping shall overlap the weatherboards by:
  - 50mm – Low to High Wind Zones
  - 70mm – Very High Wind Zones
  - 90mm – Extra High Wind Zones
- Expansion joints may be required for lengths over 8m- refer to E2/ AS1.

- Nails should be applied at an upward angle so as to reduce water ingress through the fixing point.
- Weatherboards shall be fixed to framing at maximum 600mm centres.
- Weatherboard fixings shall not penetrate through the flashings under any circumstances as this may jeopardize the weather tightness of the cladding system.

Refer to Abodo Architectural drawings for further Bevel Back fixing details.



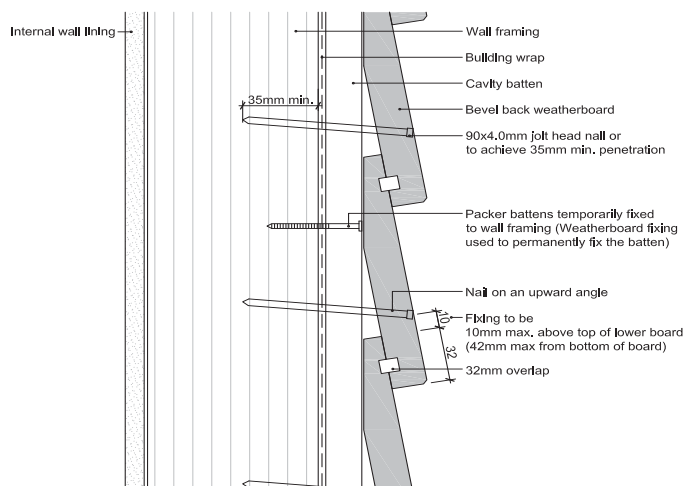
**Fig 1- Bevel back fixing- Stain finish packer cavity batten**

## 5. Installation Fixing Details

### 5.1. Bevel Back

Fixings shall be a driven through the wall underlay and in the framing in accordance with Table 24 E2/AS1

- Fixings shall be hand driven
- Weatherboards shall be predrilled prior to application of fixing with a drill bit slightly smaller than the fixing.
- Nail placement shall be 10mm above the lap.
- The lap between boards shall be 32mm
- Opposing weathergrooves shall be lined up to form an 8x10mm weathergroove.



**Fig 2- Bevel back fixing- Paint finish packer cavity batten**

#### 5.1.1. Joins

- Scarf joins shall be mitered at 35 degrees and made over battens only with one nail applied either side of the join predrilled at least 12mm from the ends.



- The join shall have a continuous bead of sealant applied eg: Sikaflex 11FC or equivalent and optionally be covered with a corrosive resistant flat soaker.
- Joins shall be staggered by at least 600mm.

## 5.1.2. Corners

### 5.1.2.1. Internal corners

- Shall be made weather tight with folded flashings according to the type of corner being used and the Wind Zone.

Shall be either:

- Scribed and notched with 90x90mm hem folded corner flashing; or
  - Butted to AW41 40x40mm internal corner mould with 90x90mm hem folded corner flashing .
- A continuous bead of sealant eg: SikaFlex 11FC or equivalent shall be applied where mouldings meet weatherboards and neighbouring mouldings or joinery.

### 5.1.2.2. External Corners

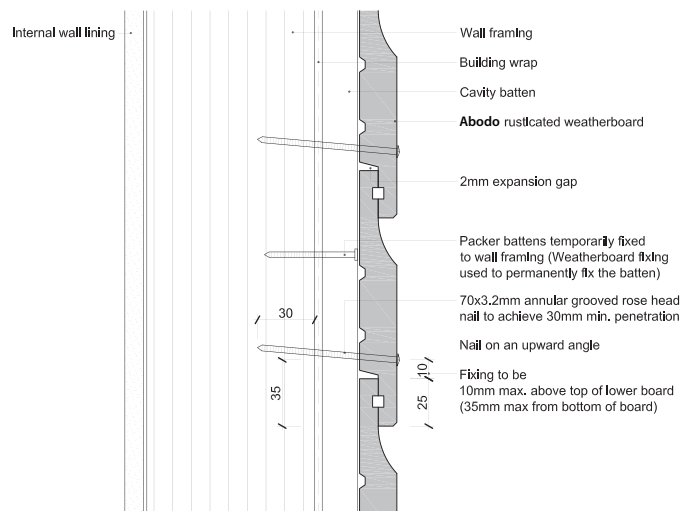
- Shall be made weather tight with hem folded 50x50 or 70x70 flashings.
- Shall be either:
  - Mitered and covered with corrosion resistant soakers with 50x50 hem folded flashing; or
  - Covered with external cover boards AW91, AW92 in conjunction with AW11 scribes.
- A continuous bead of sealant eg: SikaFlex 11FC or equivalent shall be applied where mouldings meet weatherboards and neighbouring mouldings or joinery.

## 5.2. Rusticated

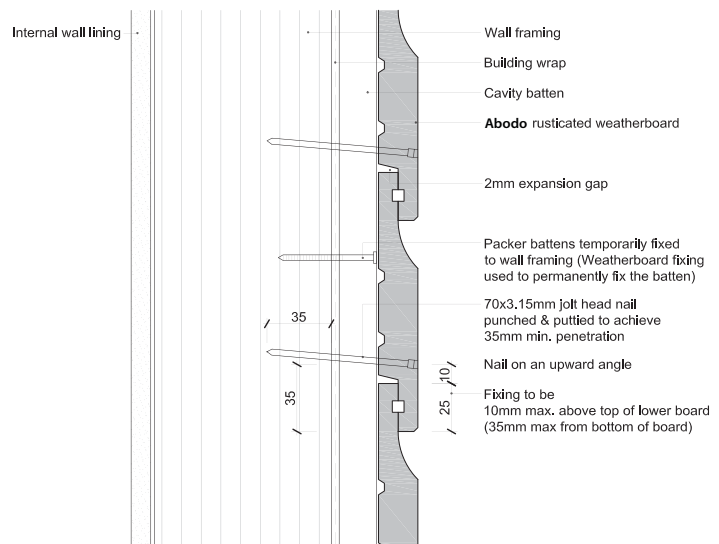
- Fixings shall be a driven through the wall underlay and in the framing in accordance with Table 24 E2/ AS1
- Fixings shall be hand driven.
- Weatherboards shall be predrilled prior to application of fixing with a drill bit slightly smaller than the fixing.
- Nail placement shall be 35mm from the edge of the weatherboard and/ or 10mm from the side of the lap.

- The lap between boards shall be 25mm with a minimum 2mm expansion gap between boards.
- Weathergrooves shall be lined up to form a 6x6mm weathergroove.
- Nails should be applied at an upward angle so as to reduce water ingress through the fixing point.

Refer to Abodo Architectural drawings for further Rusticated fixing details.



**Fig 3 - Rusticated fixing- Stain finish packer cavity batten**



**Fig 4 - Rusticated fixing- Paint finish packer cavity batten**

### 5.2.1. Joins

- Scarf joins shall be mitered at 35 degrees and made over battens with one nail on each side of the join predrilled at least 12mm from the ends.

- The join shall have flashing tape applied to the back of the board, shall have sealant e.g. SikaFlex 11FC or equivalent applied to the join and be optionally covered with a corrosive resistant flat soakers.
- Joins shall be staggered by at least 600mm.

### 5.2.2. Corners

#### 5.2.2.1. Internal corners

- Shall be made weather tight with flashings according to the type of corner being used and the wind zone.

Shall be either:

- Boards butted evenly into a folded 'W' flashing; or
  - Boards butted with AW41 D4S corner mould into corner.
  - Boards butted with AW46 corner mould;
- A continuous bead of sealant eg: SikaFlex 11FC or equivalent shall be applied where mouldings meet weatherboards and neighbouring mouldings or joinery.

#### 5.2.2.2. External Corners

- Shall be made weather tight with folded flashings according to the type of corner being used and the wind zone.

Shall use either:

- AW46 corner mould; or
- Covered with external cover boards AW91, AW92 and scribed or plugged.

(Note: only b) corner detail is suitable for Extra High Wind Zones)

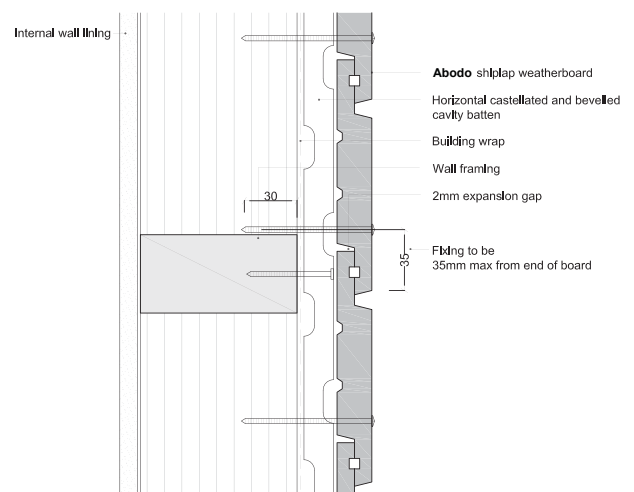
- A continuous bead of sealant eg: SikaFlex 11FC or equivalent shall be applied where mouldings meet weatherboards and neighbouring mouldings or joinery.

### 5.3. Vertical Shiplap

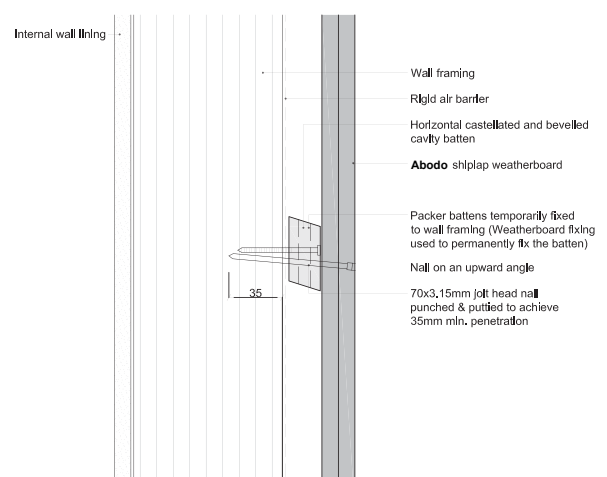
- Fixings shall be a driven through the wall underlay and in the framing in accordance with Table 24 E2/AS1
- Fixings shall be hand driven.
- Weatherboards shall be predrilled prior to application of fixing with a drill bit slightly smaller than the fixing.

- Nail placement shall be 35mm from the edge of the weatherboard and/ or 10mm from the side of the lap.
- The lap between boards shall be 25mm with a minimum 2mm expansion gap between boards.
- Weathergrooves shall be lined up to form a 6x6mm weathergroove.
- Nails should be applied at an upward angle so as to reduce water ingress through the fixing point.
- Weatherboard fixings shall not penetrate through the flashings under any circumstances as this may jeopardize the weather tightness of the cladding system.

Refer to Abodo Architectural drawings for further Vertical Shiplap fixing details.



**Fig 5 – Birds eye view - Vertical shiplap fixing- Stain finish packer cavity batten**



**Fig 6 – Side View- Vertical shiplap fixing- Paint finish packer cavity batten**

### 5.3.1. Joins

- Scarf joins shall be mitered 35 degrees so as to allow water run off down the face of the cladding and be made over battens with one nail on each side of the join predrilled at least 12mm from the ends.
- The join shall have flashing tape applied to the back of the board, shall have sealant eg: SikaFlex 11FC or equivalent applied to the join and be optionally covered with a corrosive resistant flat soakers.
- Joins shall be staggered by at least 450mm.

### 5.3.2. Corners

#### 5.3.2.1. Internal corners

- Shall be made weather tight with flashings according to the type of corner being used and the Wind Zone.

Shall be either:

- a Boards butted evenly into a 70x70 hem folded 'W' flashing; or
  - b Boards butted, with (optional) AW41 D4S corner mould on top.
  - c Boards butted to AW46 corner mould.
- A continuous bead of sealant eg: SikaFlex 11FC or equivalent shall be applied where mouldings meet weatherboards and neighbouring mouldings or joinery.

#### 5.3.2.2. External Corners

- Shall be made weather tight with flashings according to the type of corner being used and the wind zone.

Shall use either:

- a AW46 corner mould; or
- b Routed and notched together and sealed with construction adhesive; or
- c Be covered with external cover boards AW91, AW92.

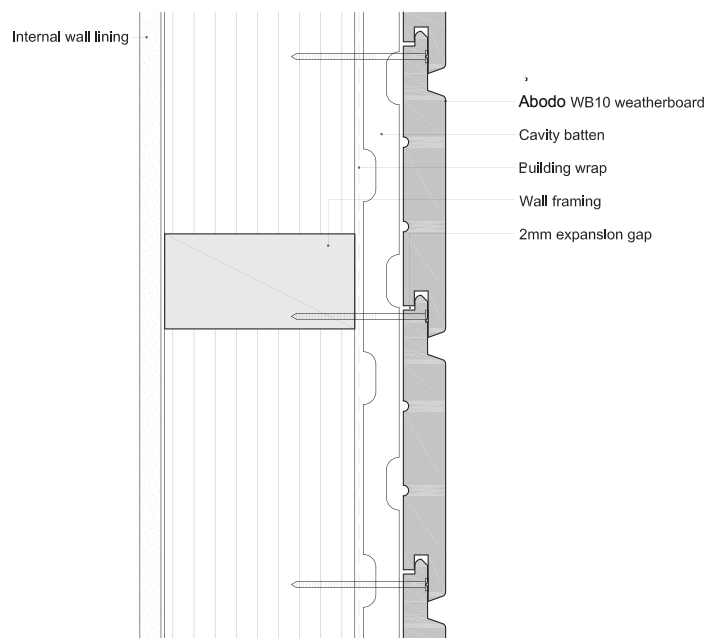
(Note: only b and c) corner detail is suitable for Extra High Wind Zones)

A continuous bead of sealant eg: SikaFlex 11FC or equivalent shall be applied where mouldings meet weatherboards and neighbouring mouldings or joinery.

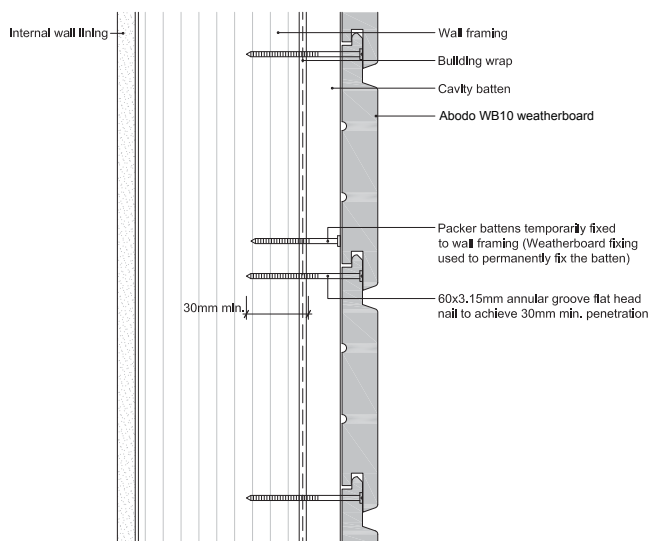
### 5.4. WB10/WB12 Secret Fix

- WB12 shall be installed vertically only. WB10 may be installed vertically or horizontally.
- Fixings shall be driven through the wall underlay and into the framing.
- Fixings shall be hand driven or power driven (eg: Paslode).
- Fixings at ends of boards shall be minimum 12mm from end and predrilled prior to application of fixing with a drill bit slightly smaller than the fixing.
- For power driven nails a protective rubber attachment (eg: Paslode No Mar tip) must be used on the nail gun tip to prevent damage to the timber.
- Fixing must be driven so head is flush with timber surface only.
- Nail or screw placement shall be into the positioning groove 12mm from the edge of the tongue.
- There shall be a 2mm expansion gap between boards.
- If face-fix method is preferred, then the fixing specification for Vertical Shiplap (refer 2.7.1) shall be used.
- Tip: Screw fixing method is recommended for easiest installation.

Refer to Abodo Architectural drawings for further fixing details.



**Fig 7 - WB10/ WB12 Vertical fixing**



**Fig 8- WB10 Horizontal fixing**

#### 5.4.1.1. Joins

- Scarf joins shall be mitered 35 degrees and made over battens with one secret nail predrilled at least 12mm from each side of the join.
- End-matched boards may be joined off-batten by way of the tongue and groove profile.
- The join shall have flashing tape applied to the back of the board, shall have sealant eg: SikaFlex 11FC or equivalent applied to the join and be optionally covered with corrosive resistant flat soakers.
- Joins shall be staggered by at least 450mm.

#### 5.4.1.2. Corners

##### 5.4.1.2.1. Internal Corners

- Shall be made weather tight with folded flashings according to the type of corner being used and the wind zone.

Shall be either:

Vertical and Horizontal weatherboards-

- Boards butted evenly into 'W' flashing; or
- Boards butted to AW46 corner mould with moulding screw fixed from back into Abodo 120x120 unhemmed metal flashing; or

Horizontal weatherboards only-

- Boards butted to AW41 corner mould with Abodo 120x120 unhemmed metal flashing; or

Vertical weatherboards only-

- Boards butted into corner with optional AW41 D4S corner mould fixed on top, over back-flashing.
- A continuous bead of sealant eg: SikaFlex 11FC or equivalent shall be applied where mouldings meet weatherboards and neighbouring mouldings or joinery.

#### 5.4.1.3. External Corners

Shall be made weather tight with folded flashings according to the type of corner being used and the wind zone.

- Shall use either:

Vertical and Horizontal weatherboards-

- Boards butted to AW46 corner mould with mould screw fixed from back into Abodo 120x120 unhemmed metal flashing; or
- Be covered with external cover boards AW91, AW92 and plugged or scribed (required for horizontally fixed boards only) over back-flashing.

Vertical weatherboards only-

- 'T&G' Routed and notched together, pinned and sealed together with construction adhesive over back-flashing; or
- A continuous bead of sealant eg: SikaFlex 11FC or equivalent shall be applied where mouldings meet weatherboards and neighbouring mouldings or joinery.

(Note: only option b and c) corner detail is suitable for Extra High Wind Zones)

#### 5.4.1.4. Base of Wall

- WB10 horizontal cladding only shall have either:
  - Abodo AWF1 horizontal cavity closer with the bottom groove of the weather board profile sitting into the flashing up turn. This avoids the need for face-fixing of the base board.
  - Regular cavity closer and face-fix the starter board with flat or rose head nail approximately 75mm above the edge bottom.

## 6. Coating

- For specialist finishes not covered below such as Sioo:x, Iron Vitrol and Charred please refer to specific data sheets for application and maintenance details.
- All relevant sections of standard AS/NZS 2311:2009 (Guide to the painting of buildings) shall be adhered to.
- Please refer to section 2.1 of this manual for specific coating requirements of each timber substrate.

### 6.1. Stain Finish

- For optimal coating performance, especially for dark colours, a third coat is recommended during the following summer after cleaning.
- All cut ends and notches must be sealed with 2 coats of stain or oil, or end sealer.
- Within 60 days installation minimum of 1 coat shall be applied to the front face and edges.
- Light colours are recommended for Sand, Tundra, Stratos to reduce the chance of timber warping in service. Dark colours may be used for Vulcan.
- The coating must be maintained every 2 summers as appropriate in the maintenance section of this manual.

### 6.2. Paint Finish

- Paint finish weatherboards must have 2 coats alkyd primer applied all sides prior to fixing. All cut ends and notches must be sealed with paint or primer.
- Within 60 days of installation, 2 coats of quality 100 percent acrylic exterior top coat shall be applied to front face and edges.
- Colours with an LRV of 45% or more are recommended to reduce the chance of timber warping in service.
- For Vulcan Primed only - Dark colours are permitted. For best results it is recommended to use Resene Cool Colour technology with white or Resene TruePrime blue primer.
- Tip: If using dark colours, apply the first coat of paint to the lap and/or full face of the weatherboard before fixing.
- The coating must be maintained periodically as described in the maintenance section.

## 7. Maintenance

### 7.1. Stain finish weatherboards

#### 7.1.1. Things to expect

- The wood will begin to go grey and pigment will fade or wear away after about 24 months of exposure to the weather if it is not re-coated
- Cladding in North facing (southern hemisphere) or heavy weather-exposed aspects will fade and age quicker than timber located in other aspects
- Grey pigment colours (eg: Protector Patina) will weather more gracefully over time allowing wood to weather naturally.
- Darker, heavy pigment colours (eg: Protector Walnut) will have longer fade resistance than lighter pigment colours (eg: Protector Teak)
- Some movement of timber as it expands and contracts
- Possible minor surface cracking (checking)
- Possible 'fibre pull' splitting at the lamination glue lines
- The surface may appear blotchy or dirty, this may be due to mould growth which can occur, especially in humid or wet environments.

#### 7.1.2. Minimum maintenance

- Cladding must be cleaned regularly (minimum every 12 months) with mild detergent and soft brush, rinse with water. Note: High pressure water blasting is not allowed.
- A maintenance assessment is required at least every two summers as follows:
  - a Clean the cladding
  - b Apply 1 or 2 coats of penetrating stain according to coating manufacturer's recommendation as colour starts to fade and timber becomes dry. Re-coat expectation between 2-5 years.

Note: The regularity of re-coat will depend on the aspect of timber to the weather and design of house eg: presence of eaves and overhangs.

- Check all weatherboards, junctions, flashings, mouldings and replace or remediate as required to maintain weather tightness of the cladding system.

### 7.1.3. In the case of light mould or discolouration

- Use Abodo Rejuvenator or other oxygenating type cleaner and a soft brush, rinse with water.
- Apply 1 or 2 coats of penetrating stain to dry wood according to coating manufacturer's recommendation colour starts to fade.

### 7.1.4. In the case of heavy and persistent mould

- Use a sodium hypochlorite based cleaner such as Resene Resene Moss and Mould Killer or 30 Seconds Outdoor Cleaner apply with a soft brush and leave for 10 minutes, then rinse thoroughly with water.
- Wait until wood is dry and then spray on a long acting mouldicide such as Resene Deep Clean or 30 seconds 'Spray and walk away'.
- Apply 2 coats of stain or oil onto dry timber.

## 7.2. Paint finish weatherboards

### 7.2.1. Things to expect

- Cladding in North facing (southern hemisphere) or south facing (northern hemisphere) or heavy weather-exposed aspects age quicker than timber located in other aspects
- Some movement of timber as it expands and contracts
- Possible minor surface cracking (checking)

### 7.2.2. Minimum maintenance

- Cladding must be cleaned regularly (minimum every 12 months) with mild detergent and soft brush, rinse with water. Note: High pressure water blasting is not allowed.
- A maintenance assessment is required at least every two summers as follows:
  - a Sand back areas of weatherboard where flaking or cracking is occurring- putty, sand as appropriate- then spot prime and apply two coats of exterior paint as required. Check all weatherboards, junctions, flashings, mouldings and replace or remediate parts as required to maintain weather tightness of the cladding system.
  - c Recoat the weatherboards with exterior paint as required by the coating manufacturer's recommendations (typically around 10 years).

## 8. Disclaimer

The recommendations contained in this document are based on good building practice, but are not an exhaustive statement of all relevant information. The successful performance of the system relies on many factors outside the control of Abodo Wood Ltd such as quality of workmanship and design. Abodo Wood Ltd shall not be liable for the recommendations made in its literature and the performance of the system including conformance with the NZBC, regulations and standards. It is the responsibility of the building designer to ensure that the details and recommendations provided are suitable for the intended project and that the design is executed appropriately.

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# Appendix 1 - Standard Profiles

## Standard Profiles - Vulcan Cladding



WB10 145x20 (125mm cover)



WB10 180x20mm (160mm cover)



WB12 138x20 (118mm cover)



WB12 180x20mm (160mm cover)



WB12 90x60mm (70mm cover)



WB12 90x40mm (70mm cover)



Fineline WB12F 180x20mm (160mm cover)



Bevelback AW62 180x20mm (148mm cover)

## Standard Profiles - Vulcan Primed Cladding



WB10P 135x18 (115mm cover)



WB10P 180x18mm (160mm cover)



Bevelback AW62P 187x18mm (155mm cover)



WB10FP-180x18 (160mm cover)

## Standard Profiles - Tundra Cladding



Bevelback AW61 140x20mm (108mm cover)



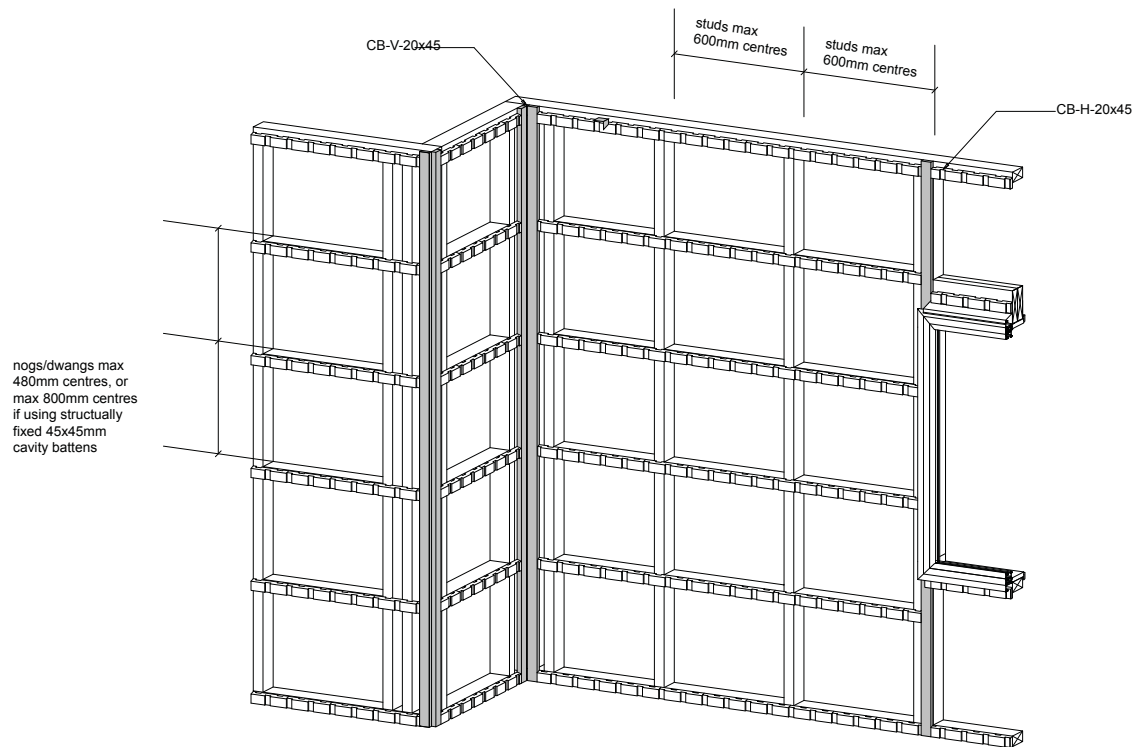
Rusticated AW702 140x20mm (115mm cover)



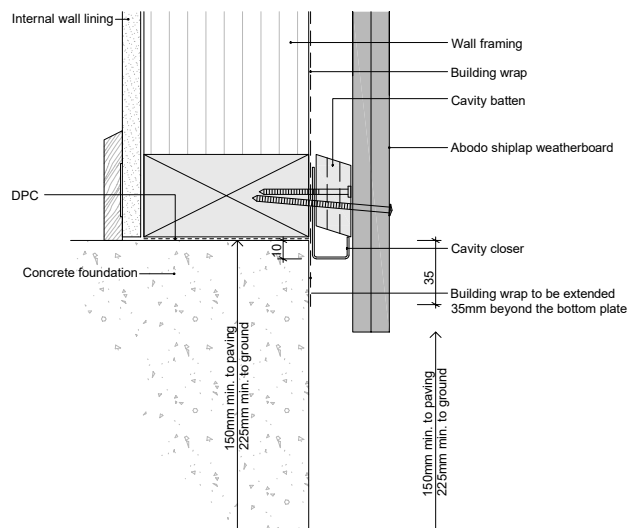
Vertical Shiplap AW51 135x20 (110mm cover)

# Appendix 2 - Detail Drawings

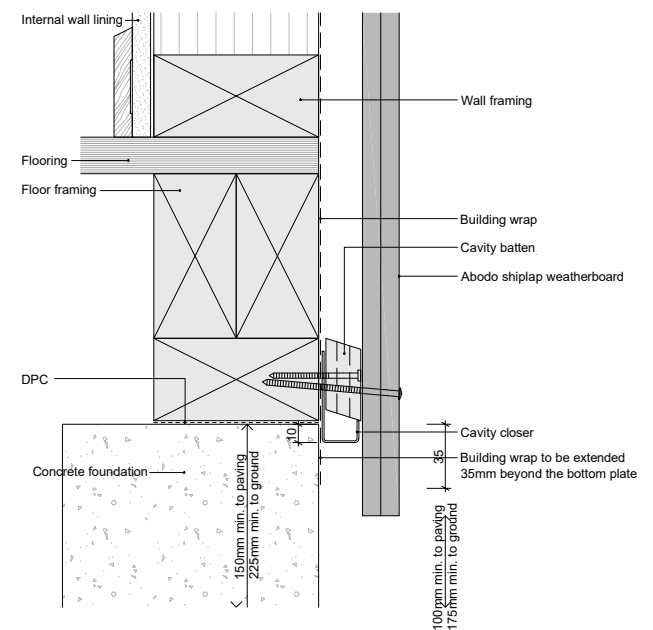
## Vertical Shiplap- Horizontal Batten Fix - Layout



### Vertical Shiplap Weatherboard Base of Wall - Concrete Floor

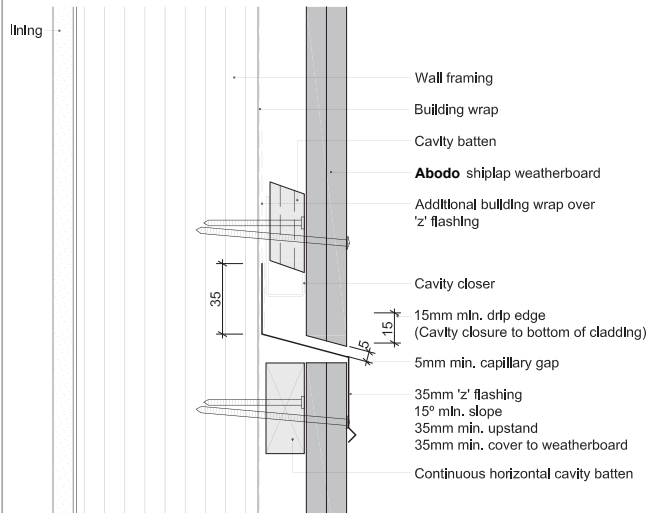


### Vertical Shiplap Weatherboard Base of Wall - Timber Floor



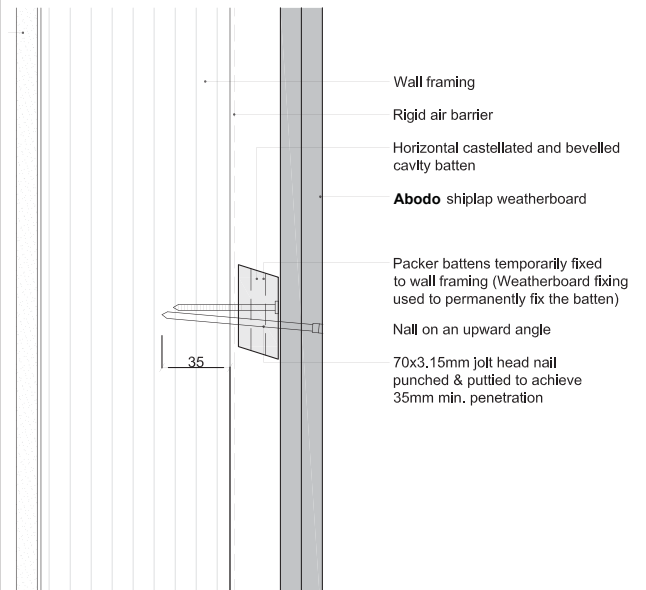
## Vertical Shiplap Weatherboard

### Inter-Storey Cavity Junction



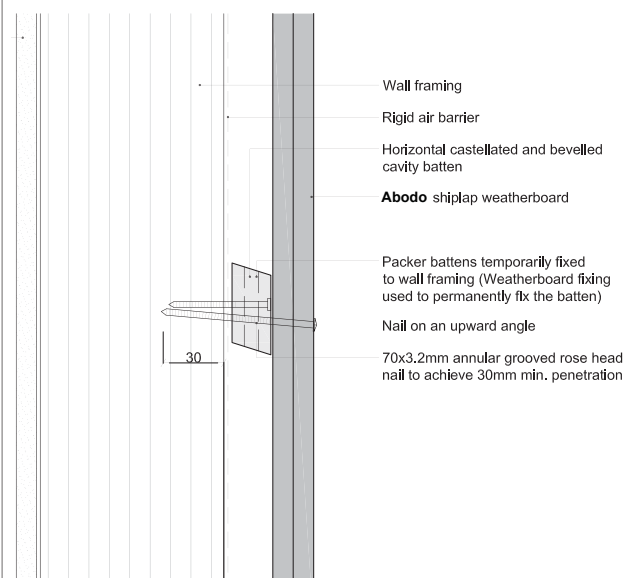
## Vertical Shiplap Weatherboard

### Packer Cavity Batten - Painted



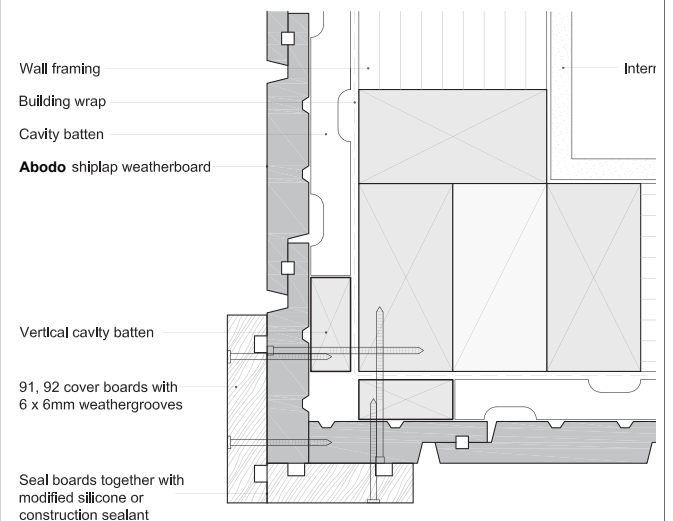
## Vertical Shiplap Weatherboard

### Packer Cavity Batten - Stained



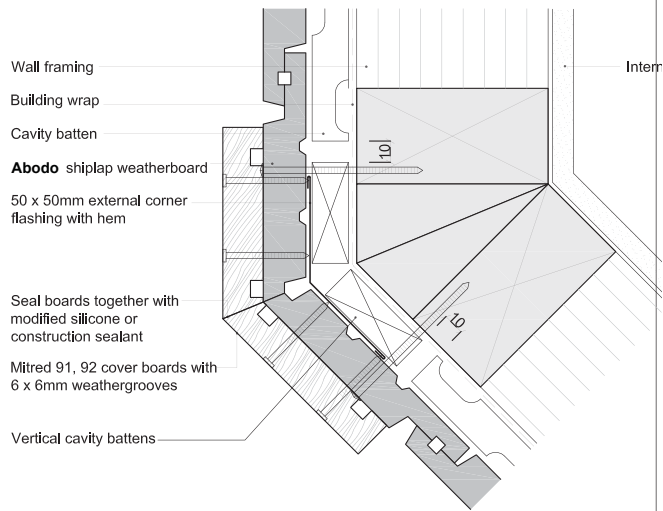
## Vertical Shiplap Weatherboard

### External 90° Corner - Boxed



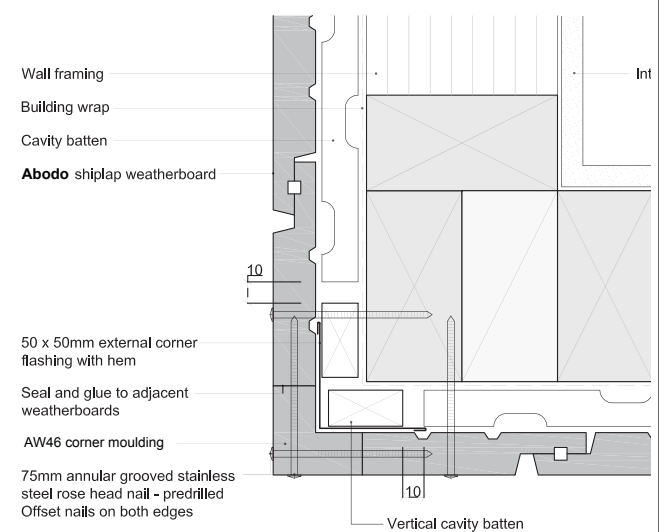
## Vertical Shiplap Weatherboard

External 135° Corner - Boxed



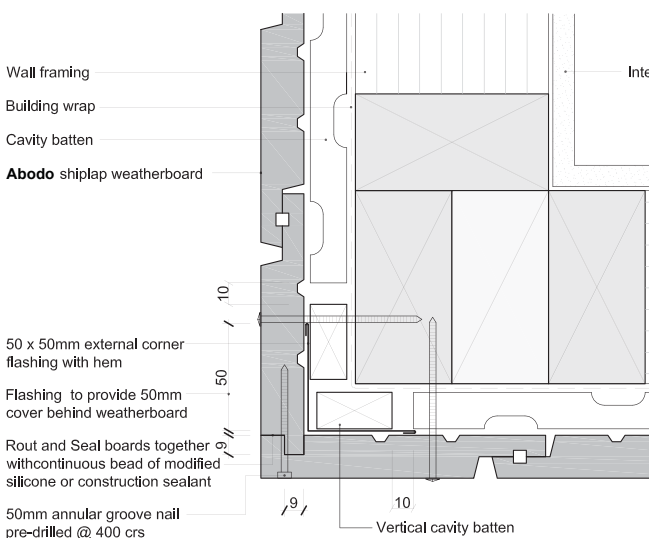
## Vertical Shiplap Weatherboard

External 90° Corner - AW46 Moulding



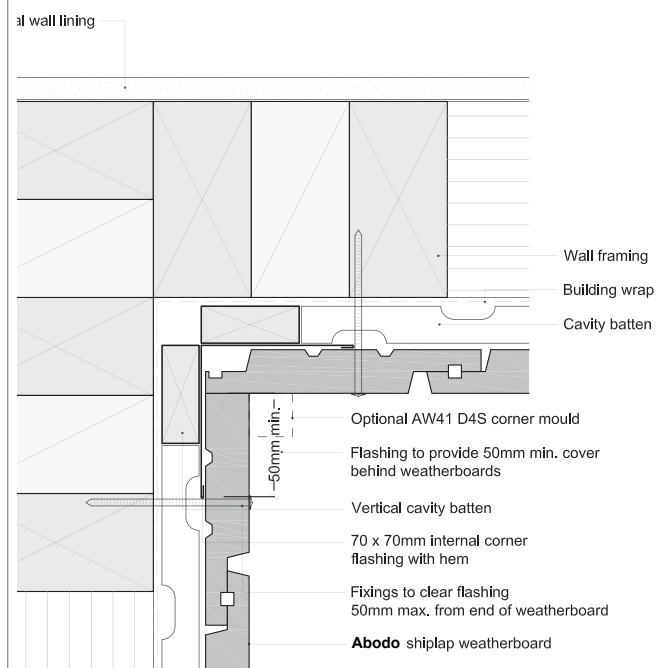
## Vertical Shiplap Weatherboard

External 90° Corner - Rebated

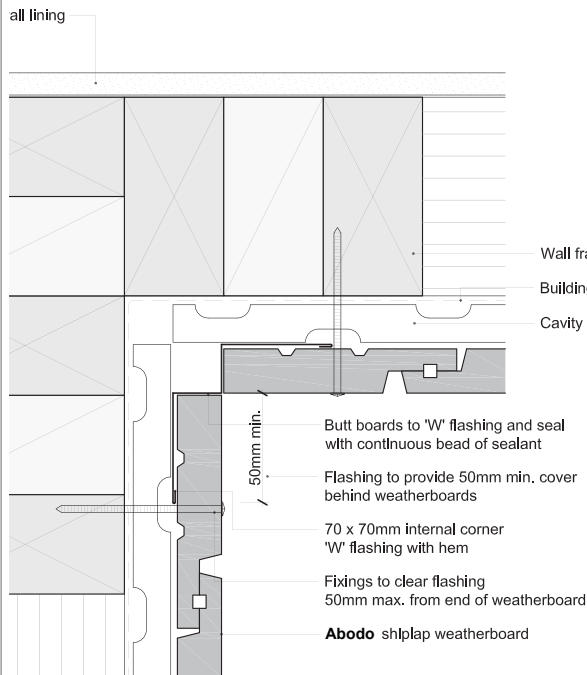


## Vertical Shiplap Weatherboard

Internal 90° Corner - Butted

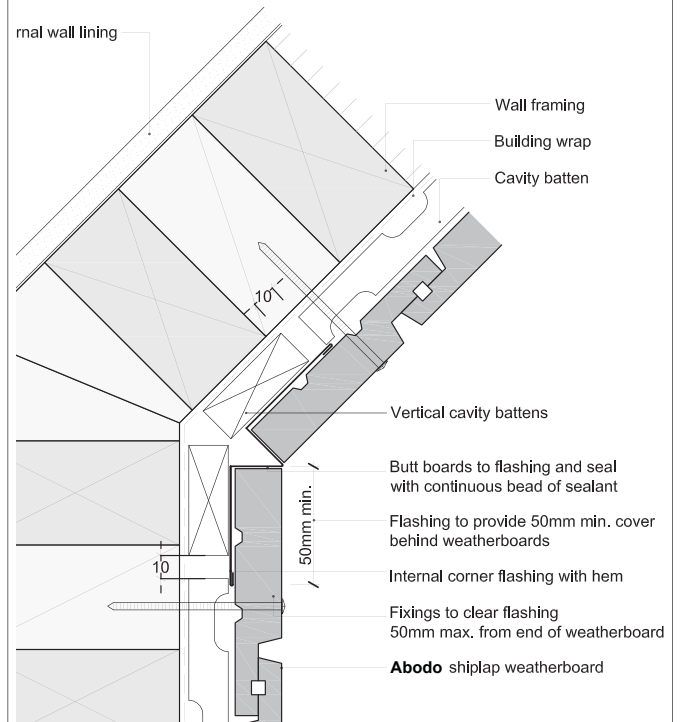


## Vertical Shiplap Weatherboard



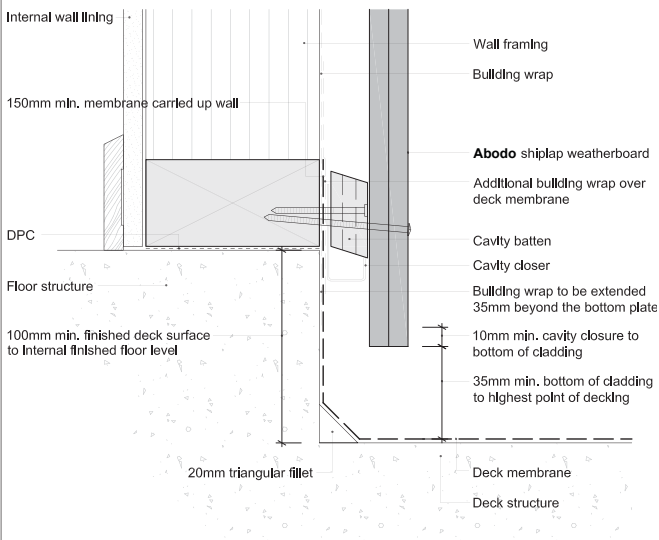
## Vertical Shiplap Weatherboard

### Internal 135° Corner - Flashing



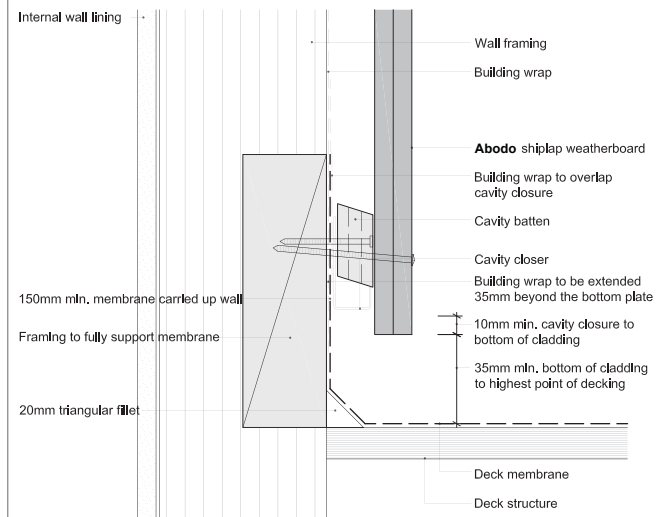
## Vertical Shiplap Weatherboard

### Enclosed Deck - Concrete Substrate



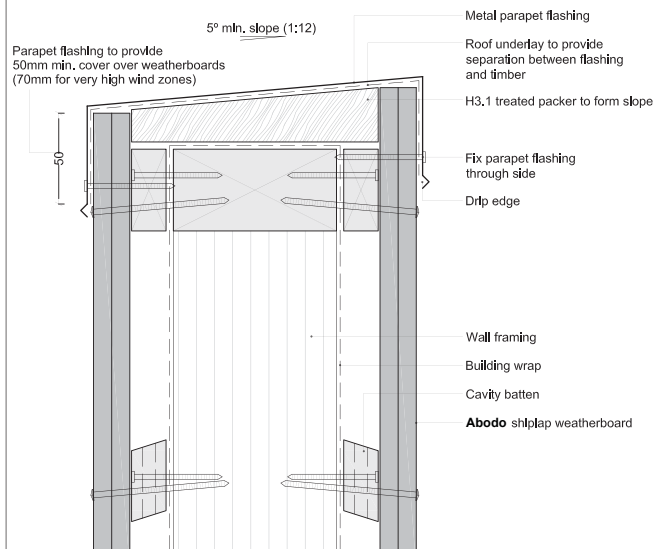
## Vertical Shiplap Weatherboard

### Enclosed Deck - Timber Substrate



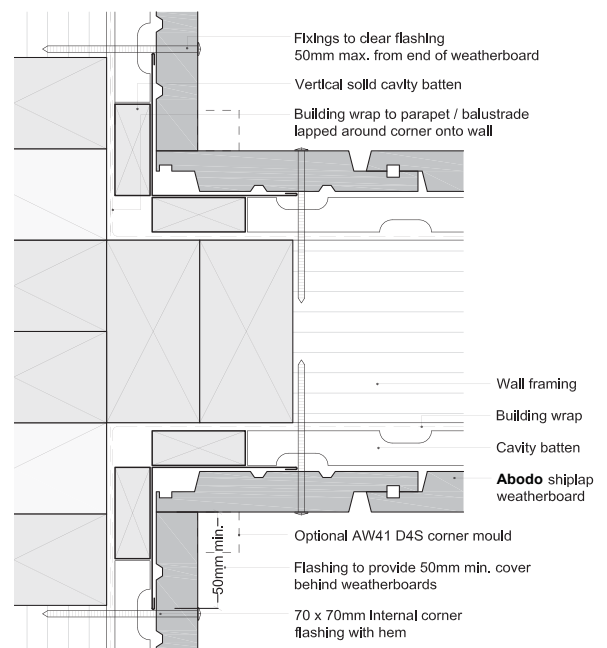
## Vertical Shiplap Weatherboard

### Parapet Balustrade Cap Flashing



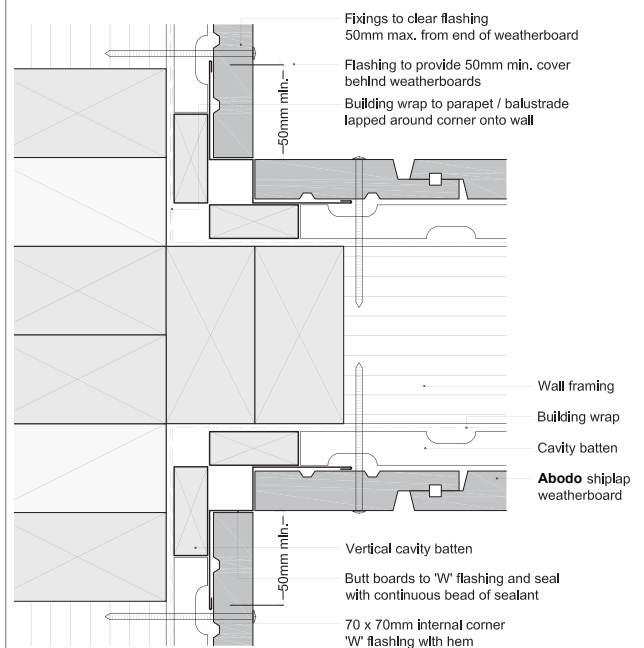
## Vertical Shiplap Weatherboard

### Parapet Balustrade Intersection With Wall - Butted



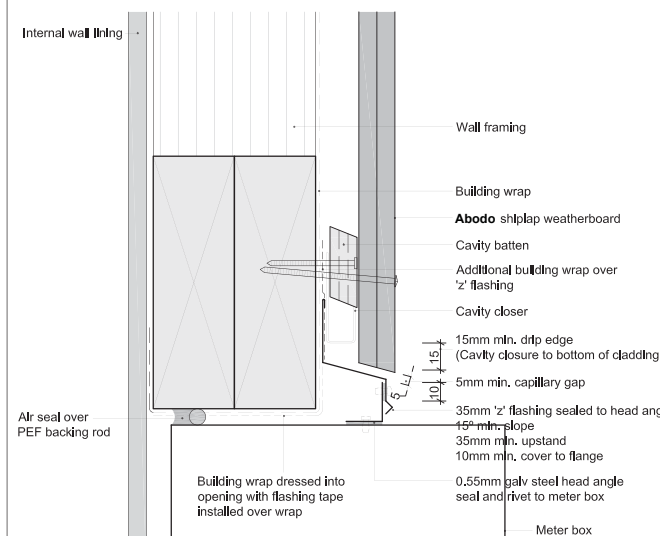
## Vertical Shiplap Weatherboard

### Parapet Balustrade Intersection with Wall - Flashing

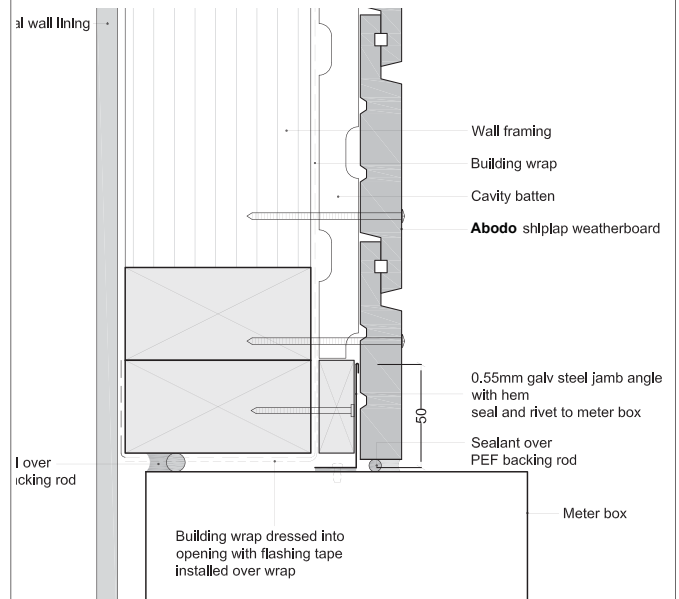




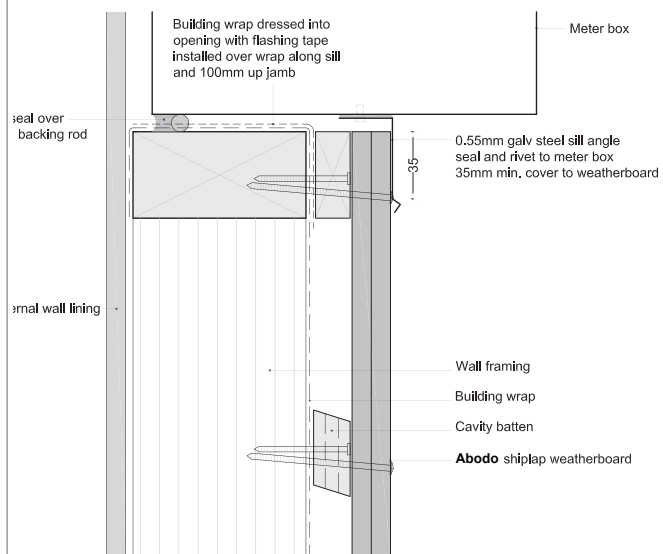
## Vertical Shiplap Weatherboard Meter Box Head



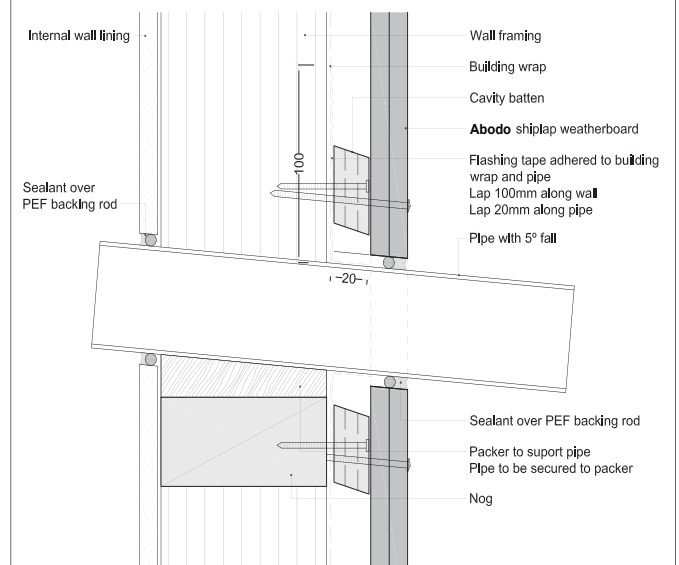
## Vertical Shiplap Weatherboard Meter Box Jamb



## Vertical Shiplap Weatherboard Meter Box Sill

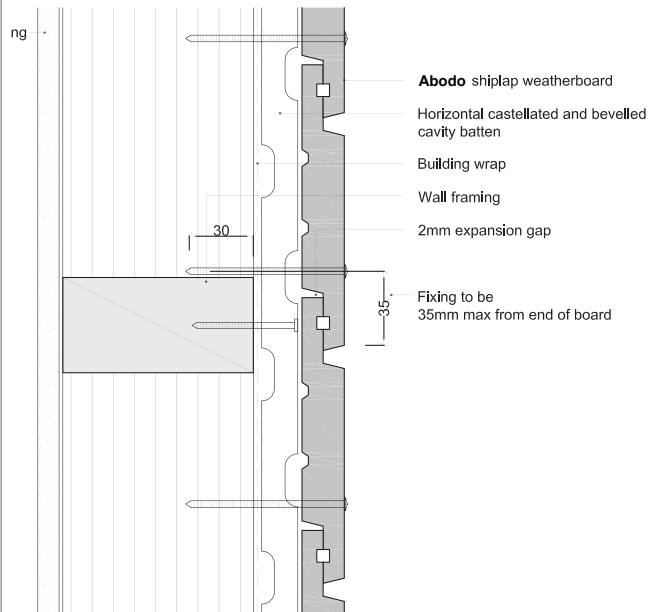


## Vertical Shiplap Weatherboard Pipe Penetration

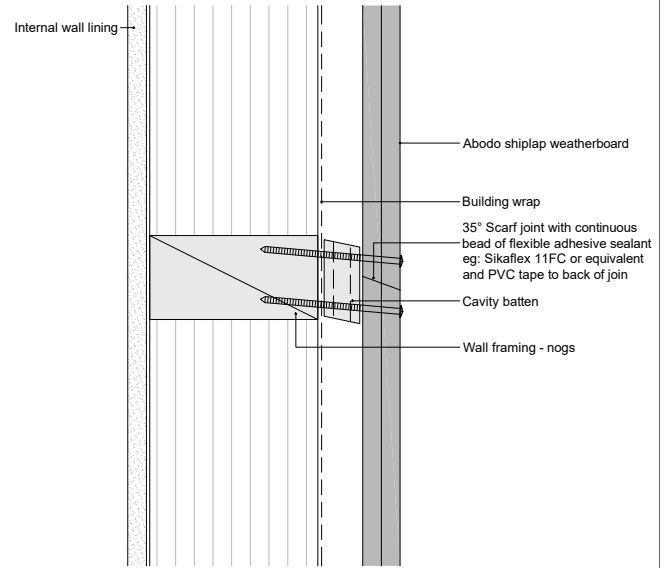


## Vertical Shiplap Weatherboard

### Weatherboard Join - Birdseye

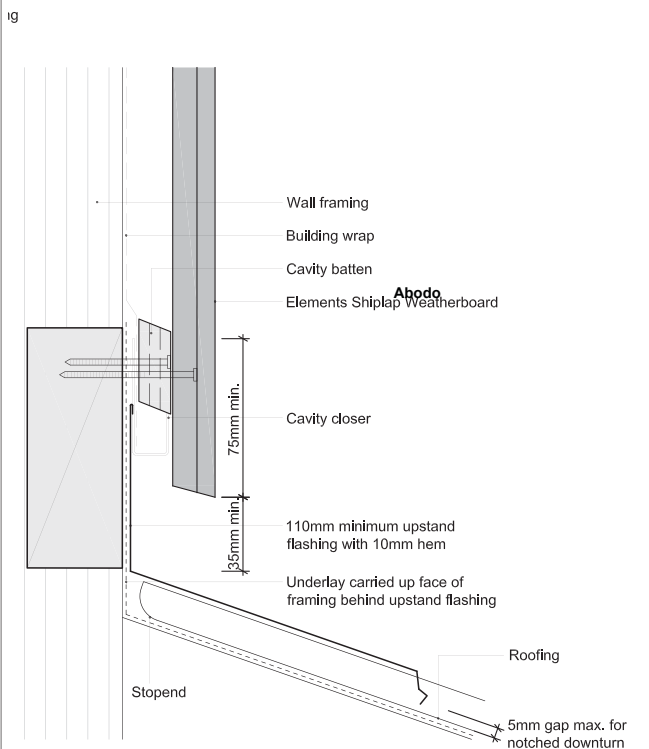


## Vertical Shiplap Weatherboard



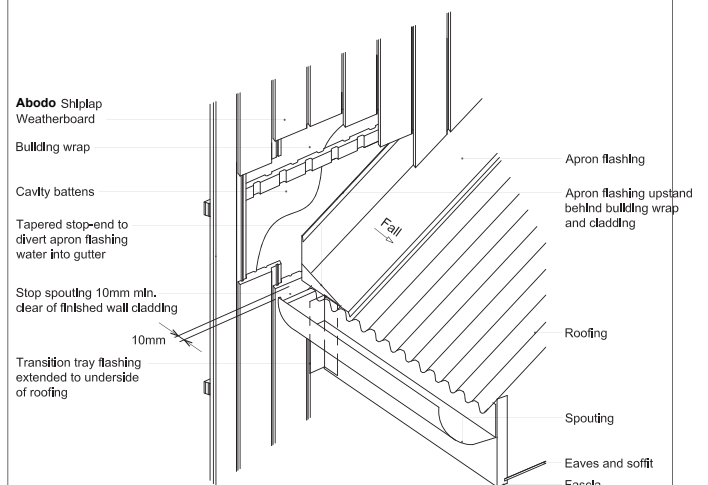
## Vertical Shiplap Weatherboard

### Apron Flashing



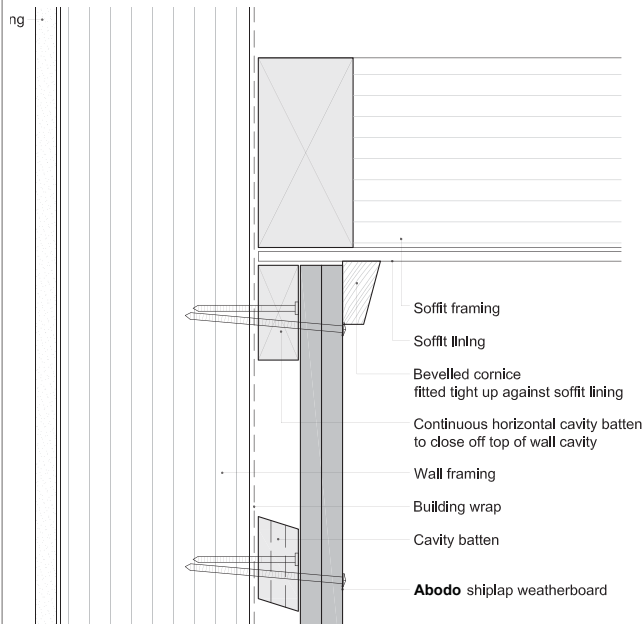
## Vertical Shiplap Weatherboard

### Roof Kick-out Flashing Cavity Detail



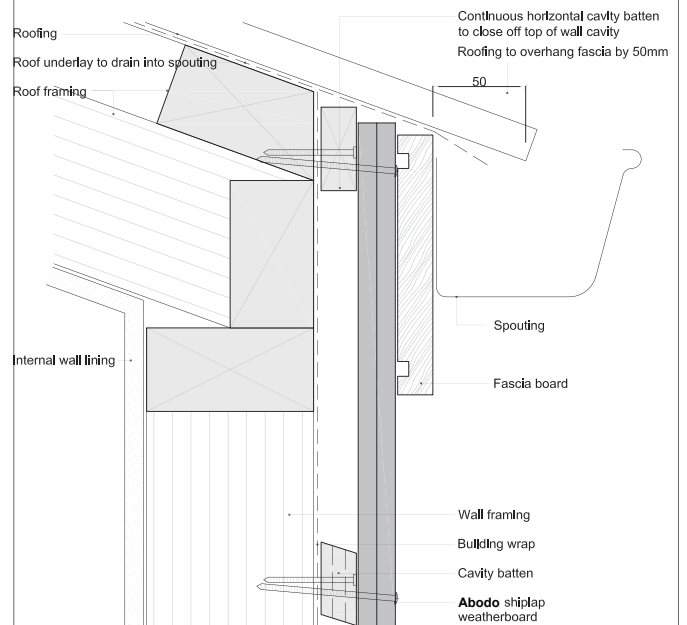
## Vertical Shiplap Weatherboard

Top of Wall - Flat Soffit



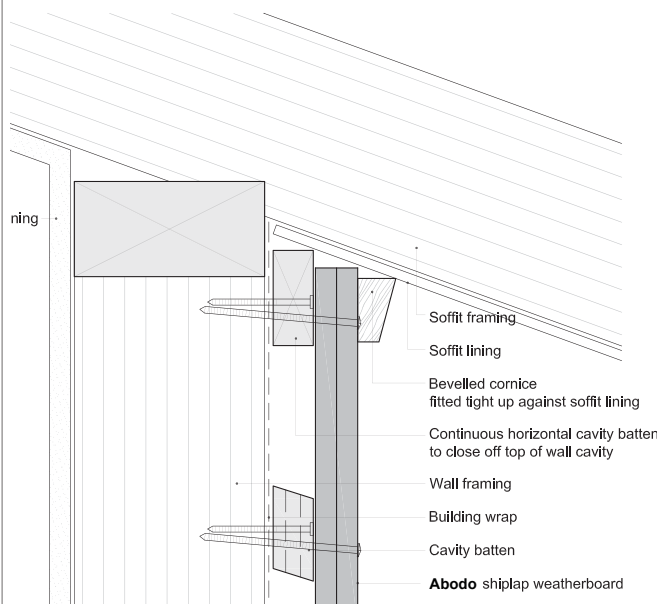
## Vertical Shiplap Weatherboard

Top of Wall - No Soffit



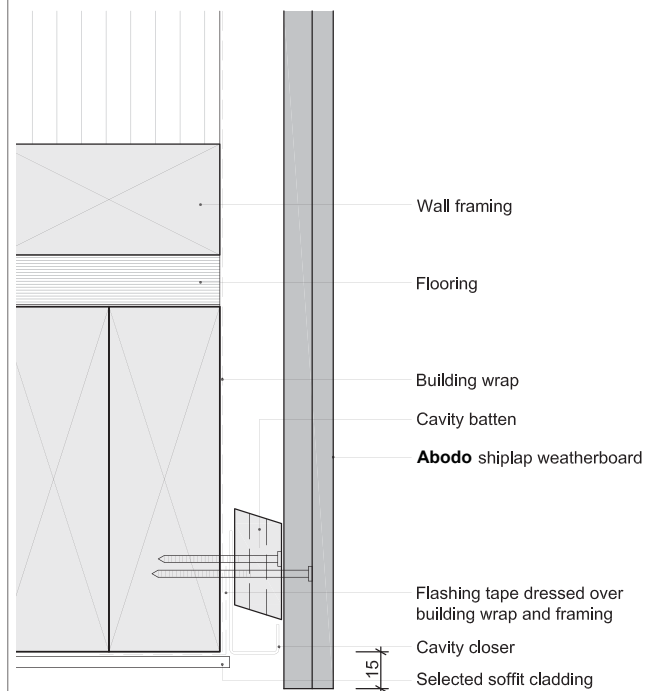
## Vertical Shiplap Weatherboard

Top of Wall - Sloping Soffit

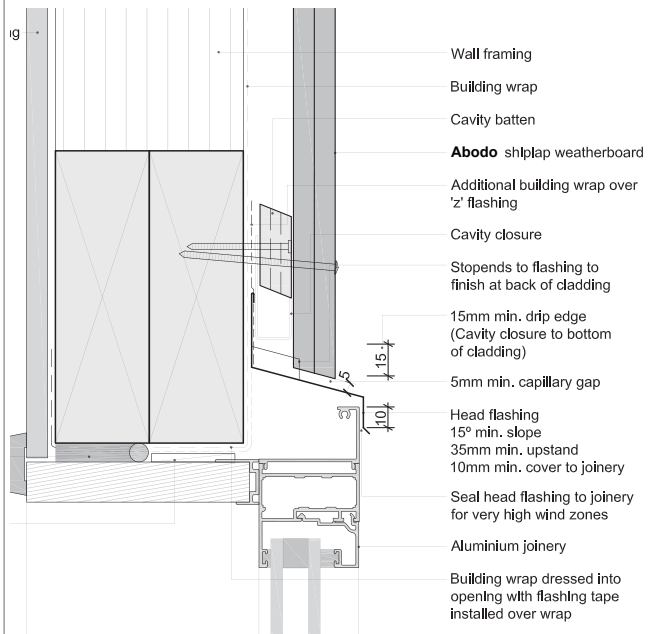


## Vertical Shiplap Weatherboard

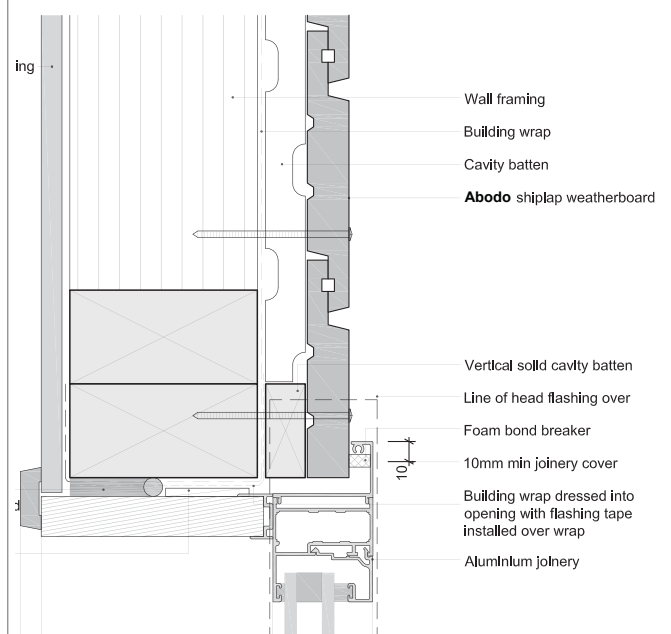
Soffit Detail



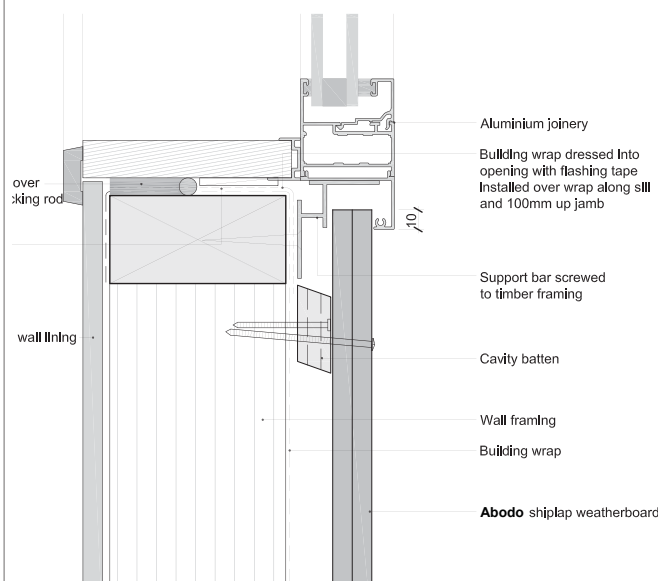
## Vertical Shiplap Weatherboard Window Head



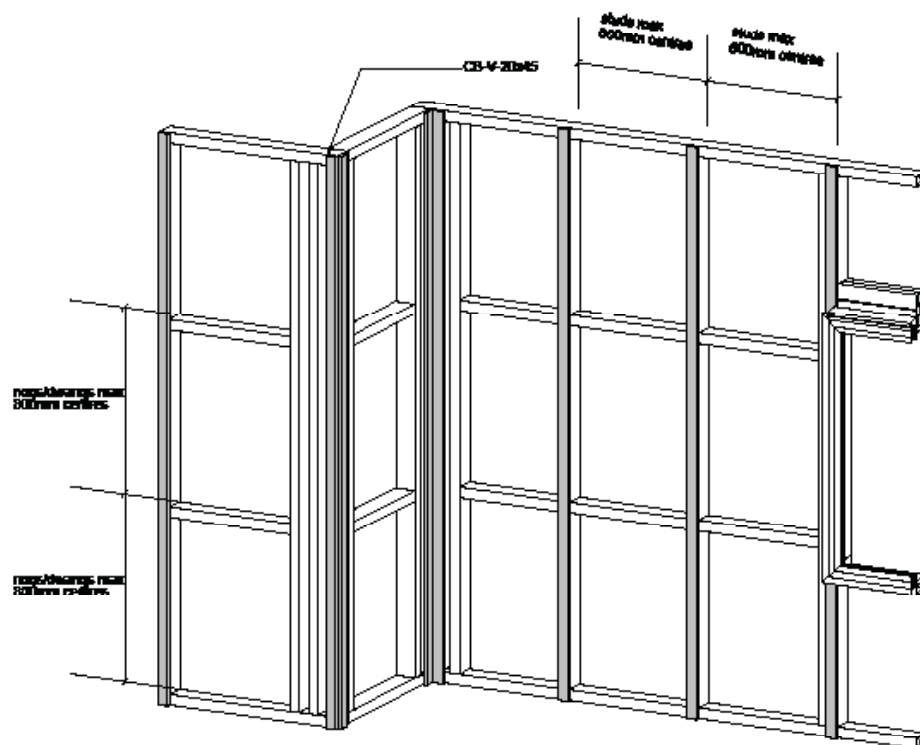
## Vertical Shiplap Weatherboard Window Jamb



## Vertical Shiplap Weatherboard Top of Wall - Sloping Soffit

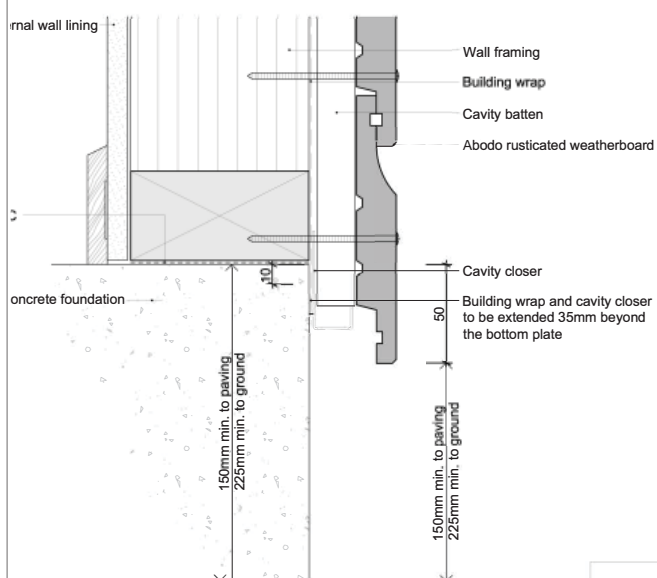


## Rusticated - Vertical Batten Fix - Layout



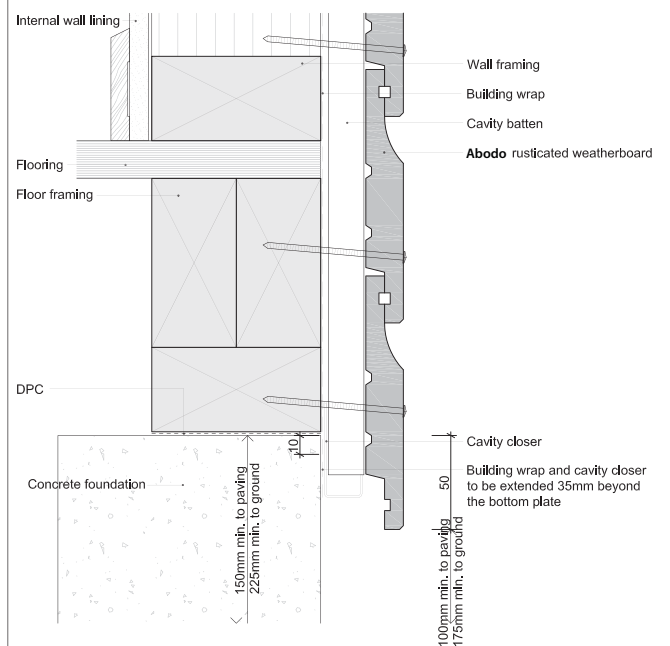
### Rusticated Weatherboard

Base of Wall - Concrete Floor



### Rusticated Weatherboard

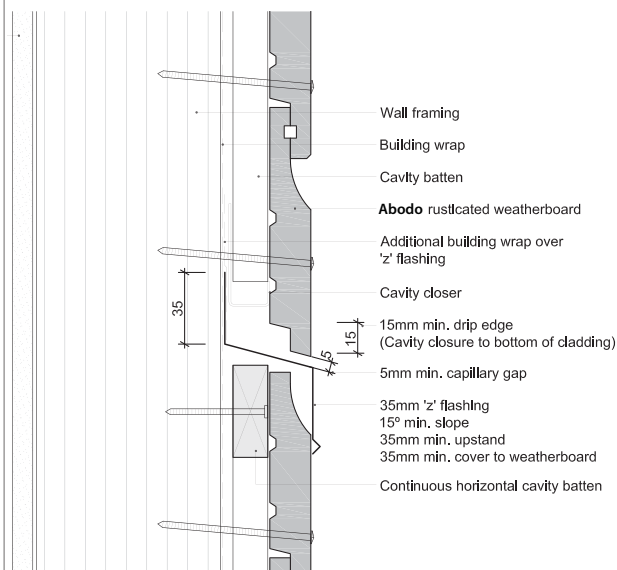
Base of Wall - Timber Floor





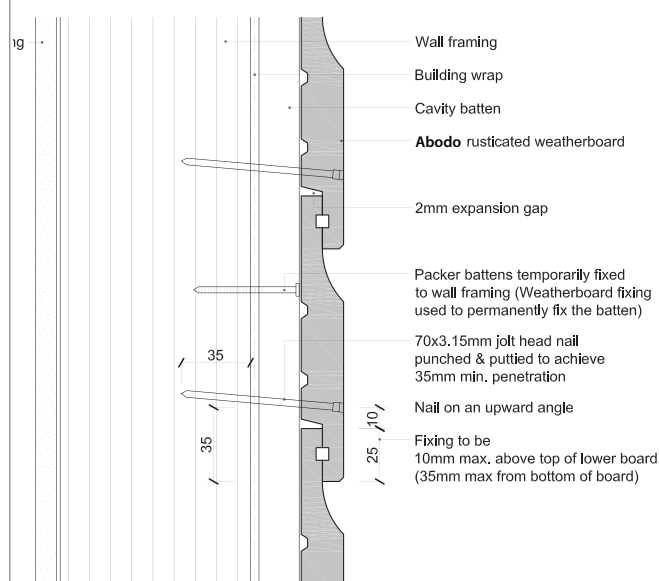
## Rusticated Weatherboard

### Inter-Storey Cavity Junction



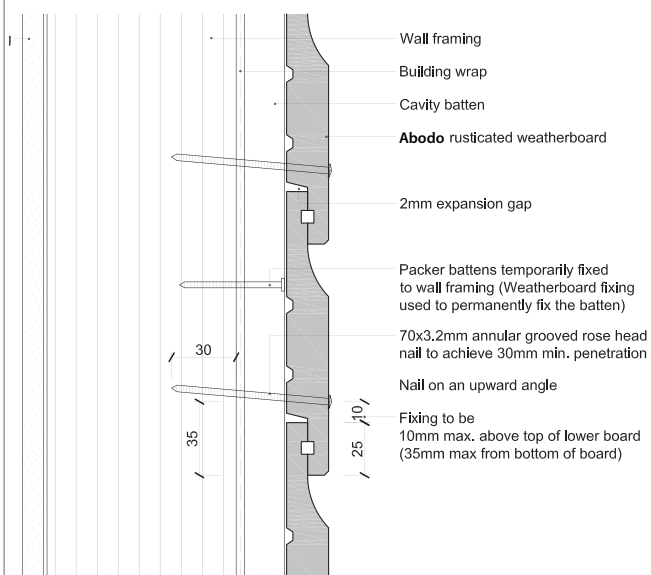
## Rusticated Weatherboard

### Packer Cavity Batten - Painted



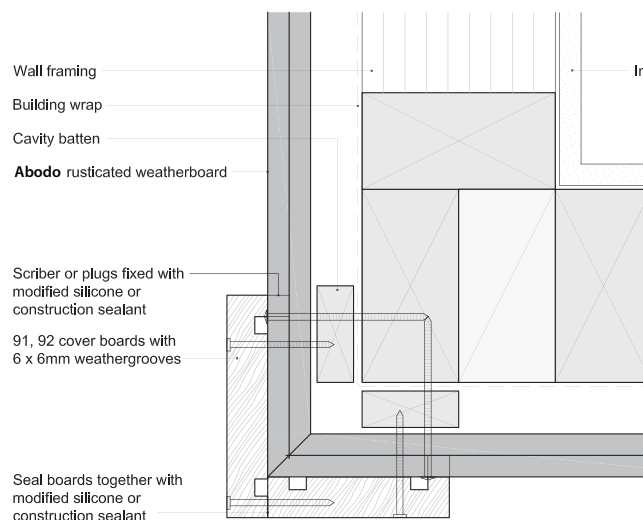
## Rusticated Weatherboard

### Packer Cavity Batten - Stained



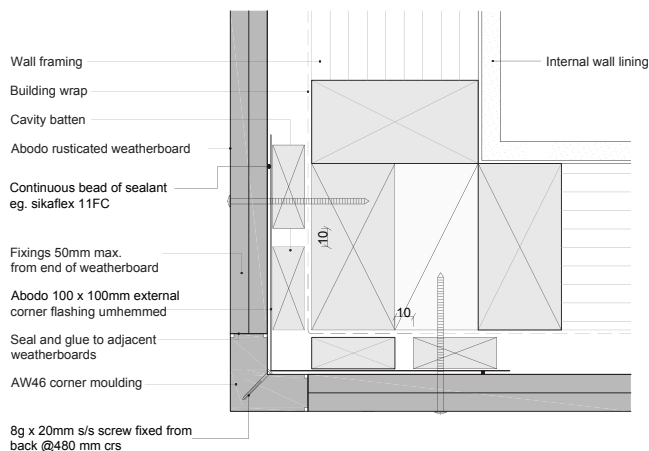
## Rusticated Weatherboard

### External 90° Corner- Boxed Cover Boards



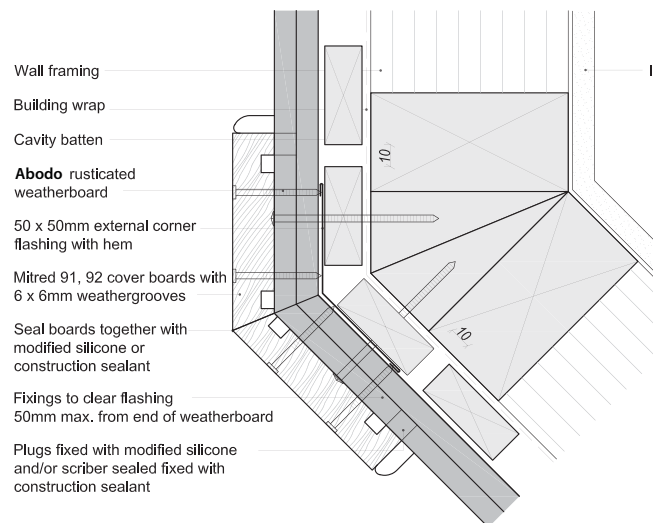
## Rusticated Weatherboard

### External 90° Corner- AW46



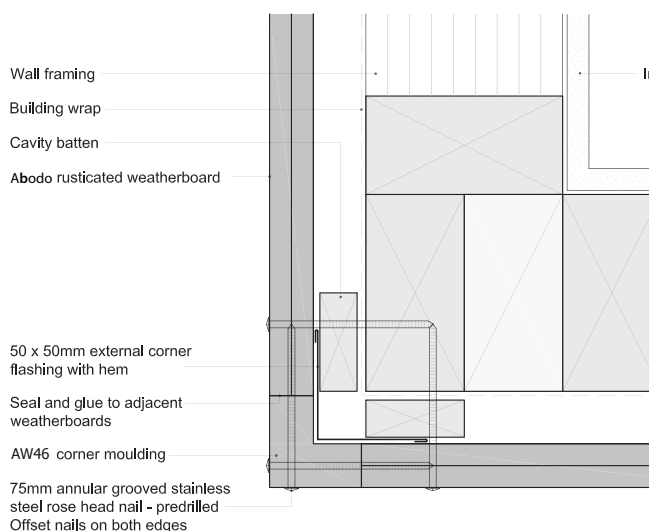
## Rusticated Weatherboard

### External 135° corner- Cover boards



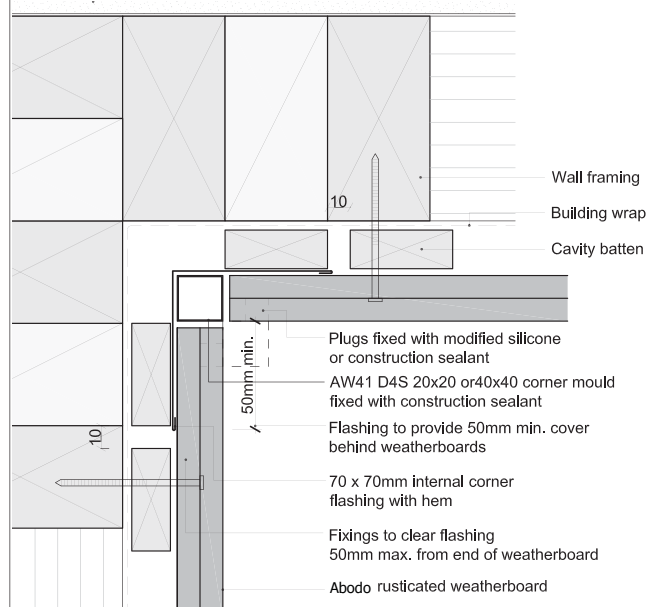
## Rusticated Weatherboard

### External 90° Corner - AW46 Moulding Face Fix



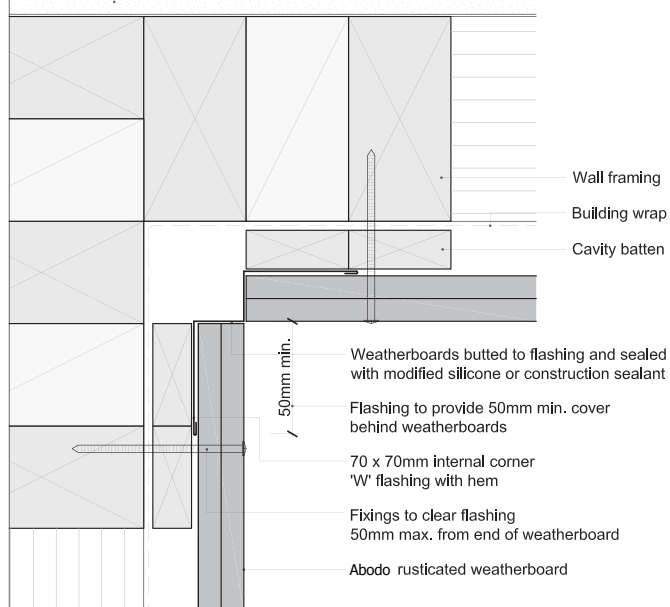
## Rusticated Weatherboard

### Internal 90° Corner - Butted



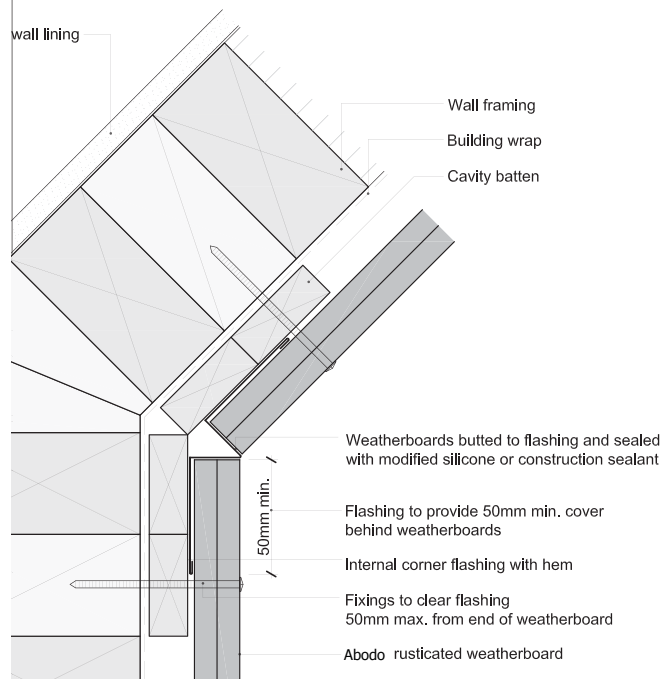
## Rusticated Weatherboard

### Internal 90° Corner - Flashing



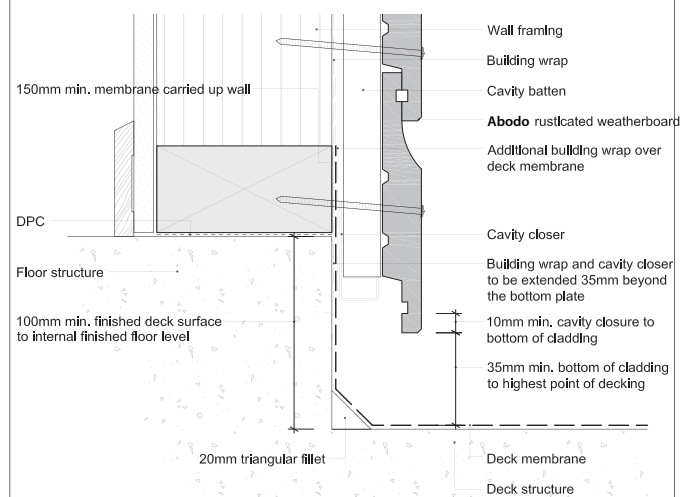
## Rusticated Weatherboard

### Internal 135° Corner - Flashing



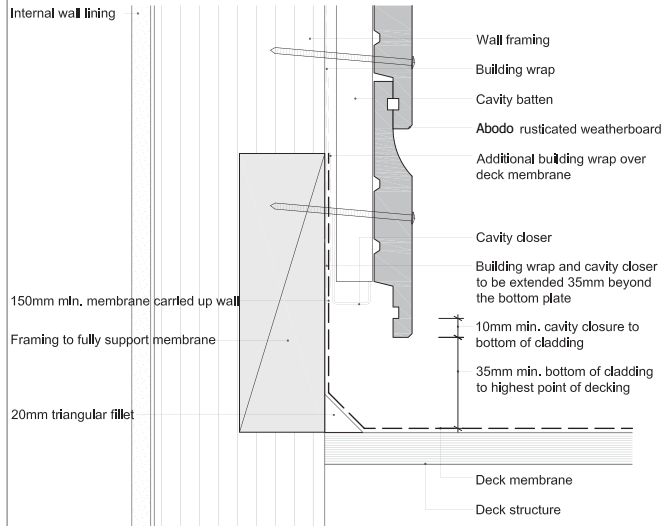
## Rusticated Weatherboard

### Enclosed Deck - Concrete Substrate



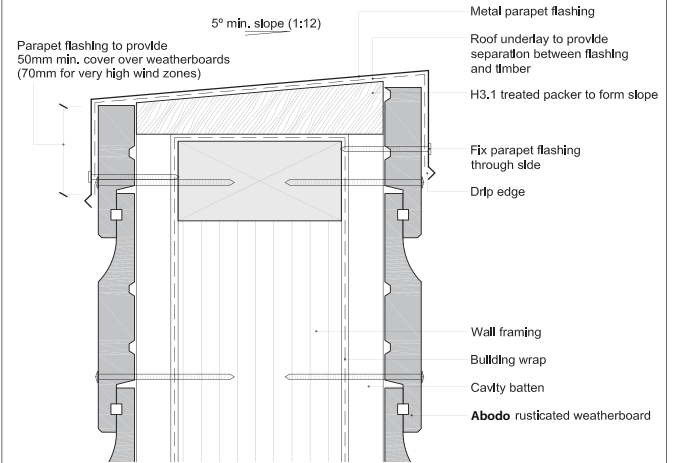
## Rusticated Weatherboard

### Enclosed Deck - Timber Substrate



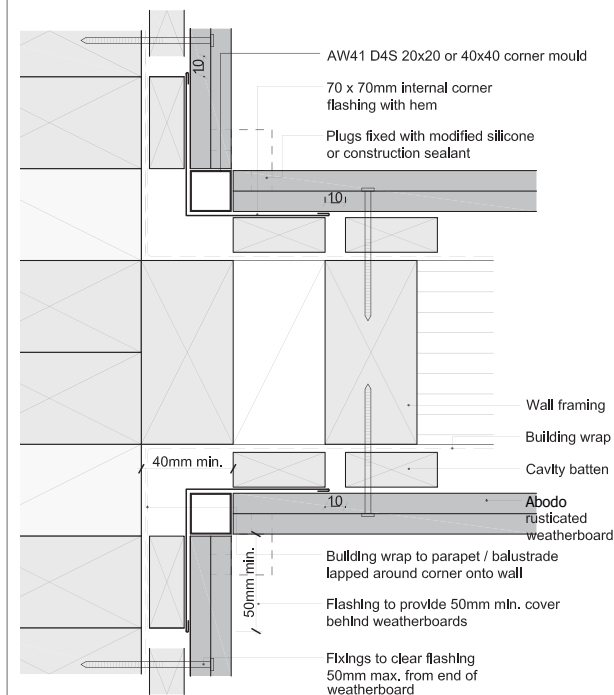
## Rusticated Weatherboard

### Parapet Balustrade Cap Flashing



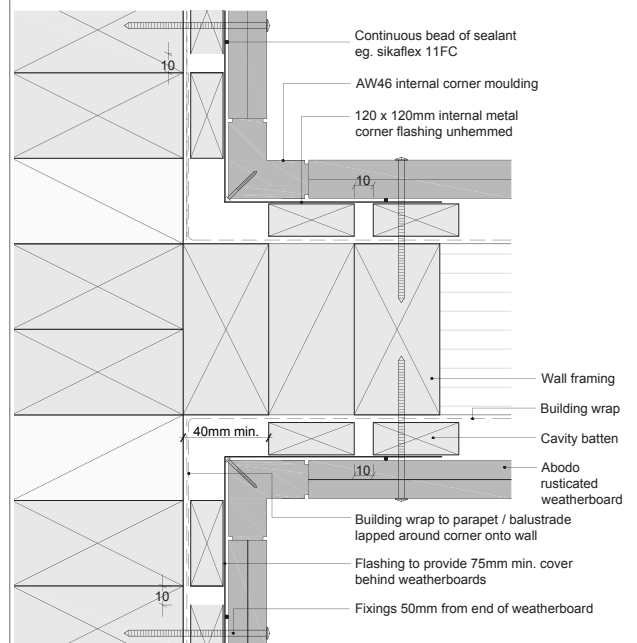
## Rusticated Weatherboard

### Parapet Balustrade Intersection with Wall - Butted



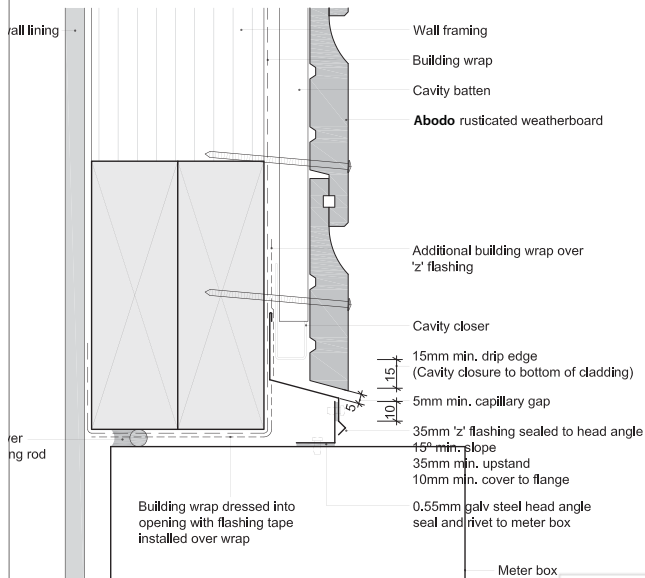
## Rusticated Weatherboard

### Parapet Balustrade Intersection with Wall - AW46 Moulding



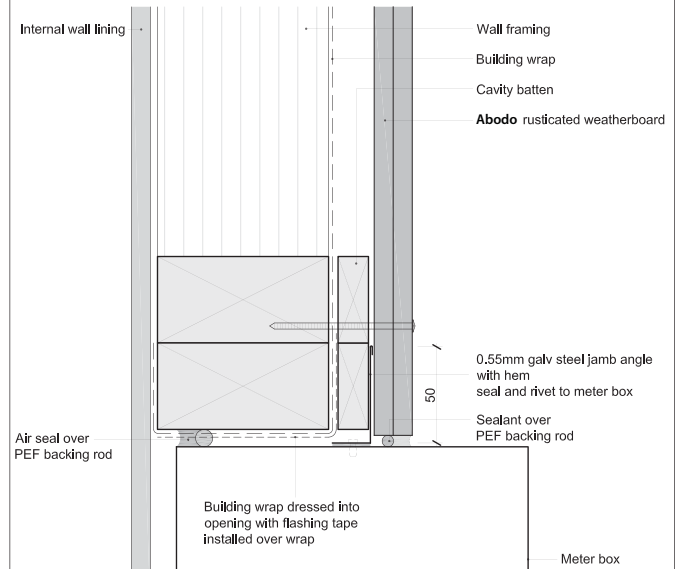
## Rusticated Weatherboard

### Meter Box Head



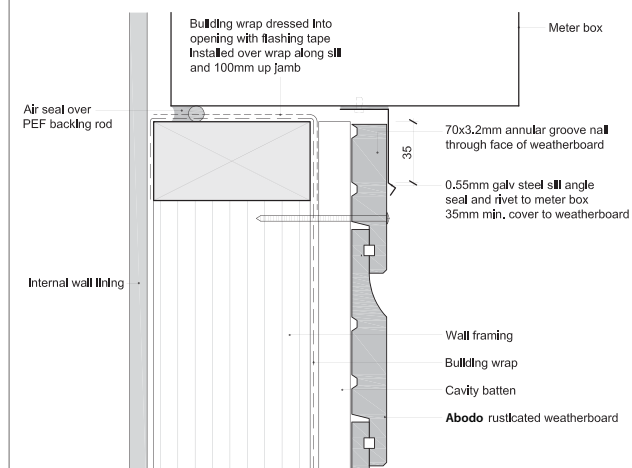
## Rusticated Weatherboard

### Meter Box Jamb



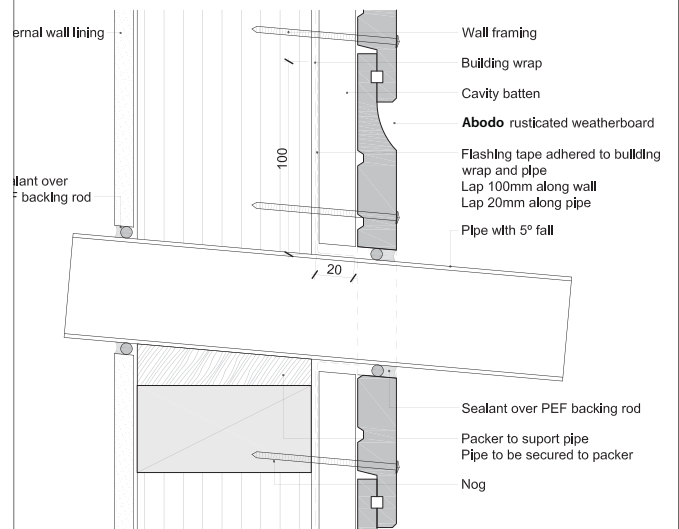
## Rusticated Weatherboard

### Meter Box Sill



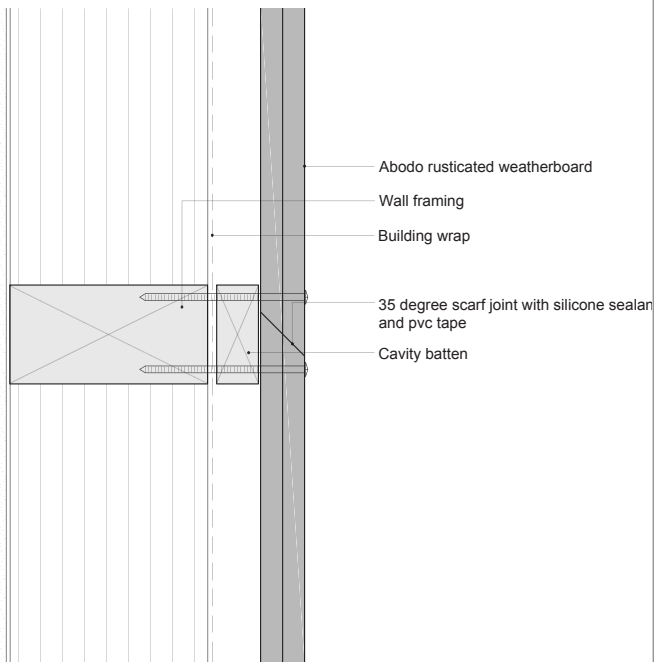
## Rusticated Weatherboard

### Pipe Penetration



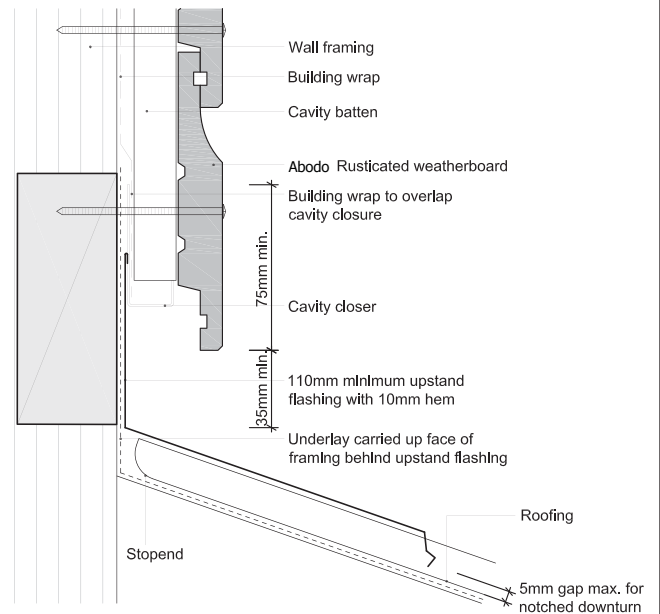


## Rusticated Weatherboard



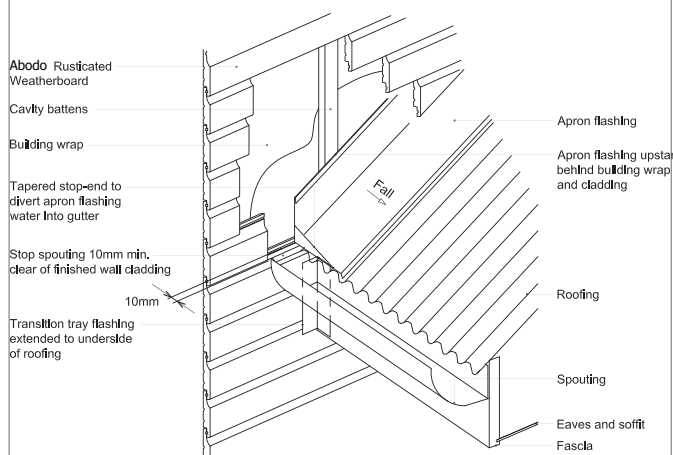
## Rusticated Weatherboard

### Apron Flashing



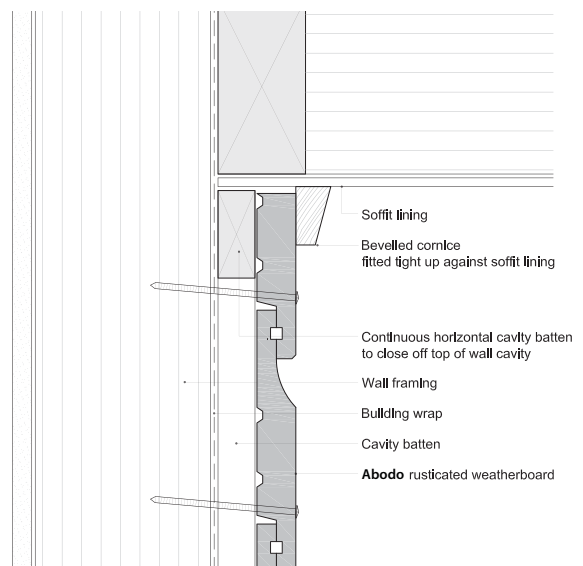
## Rusticated Weatherboard

### Roof Kick-out Flashing Cavity Detail



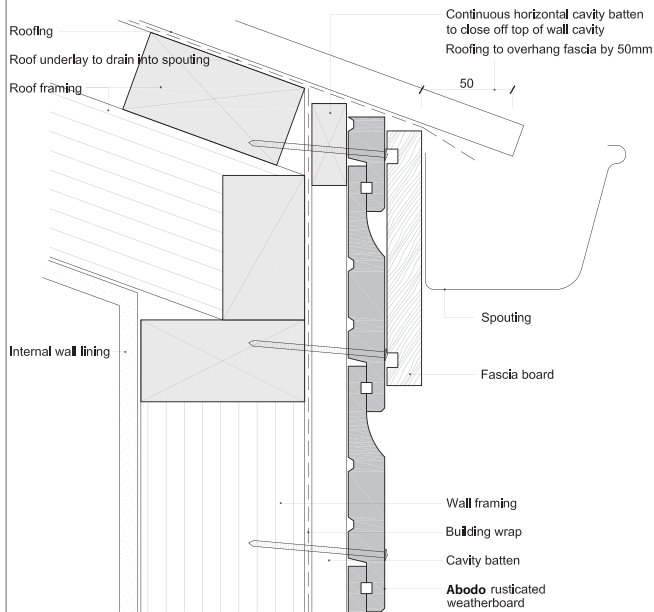
## Rusticated Weatherboard

### Top of Wall - Flat Soffit



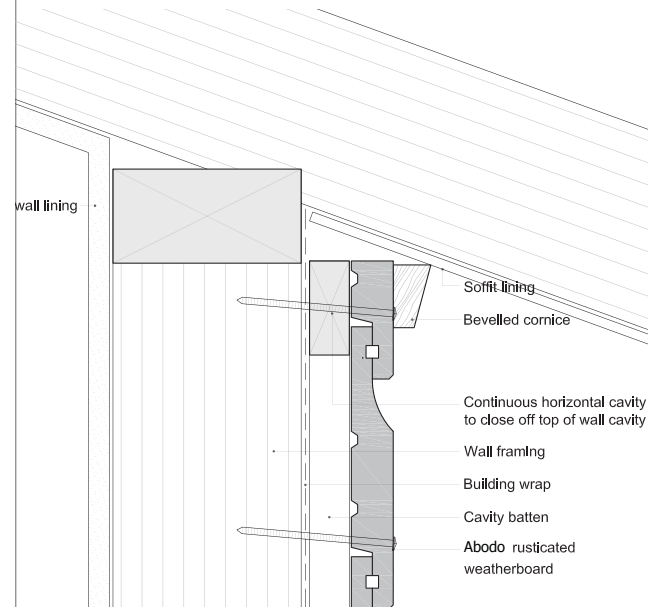
## Rusticated Weatherboard

### Top of Wall - No Soffit



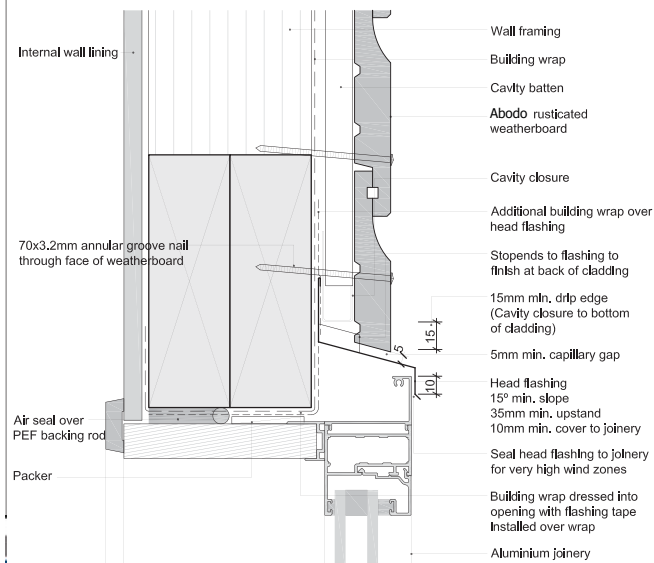
## Rusticated Weatherboard

### Top of Wall - Sloping Soffit

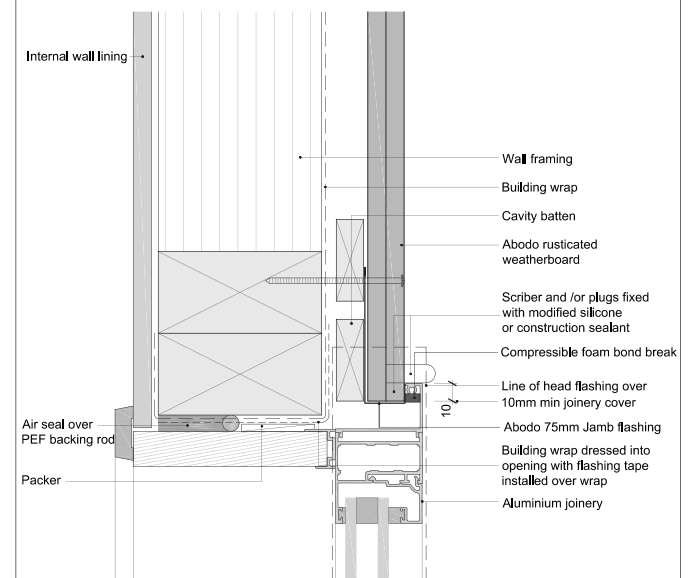


## Rusticated Weatherboard

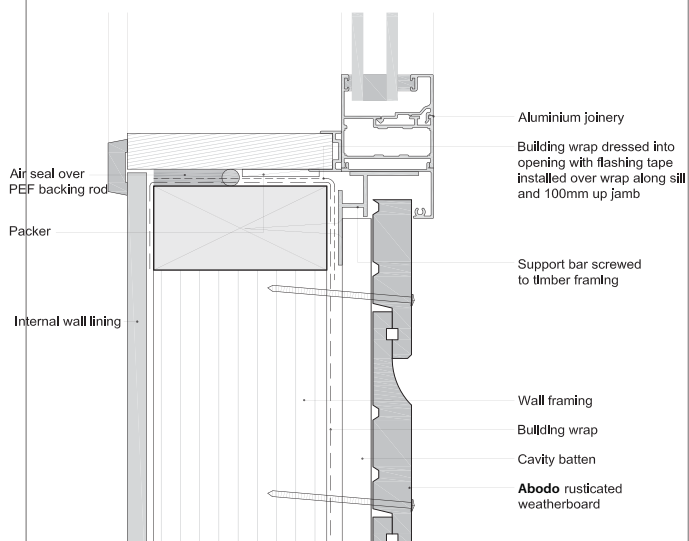
### Window Head



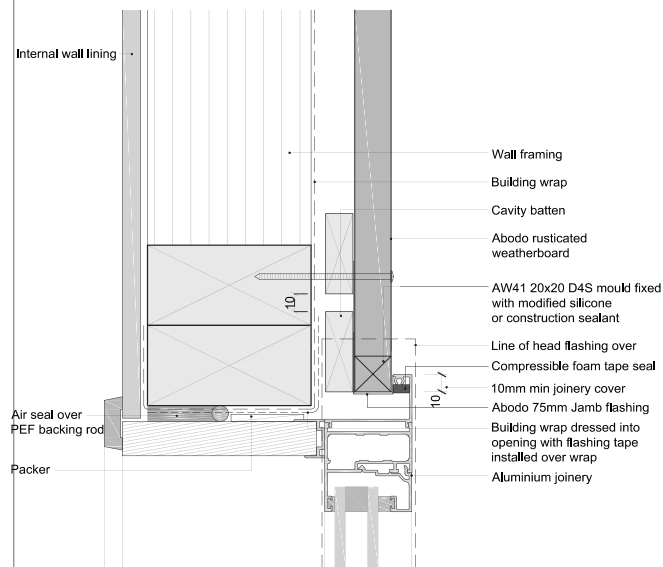
## Rusticated Weatherboard



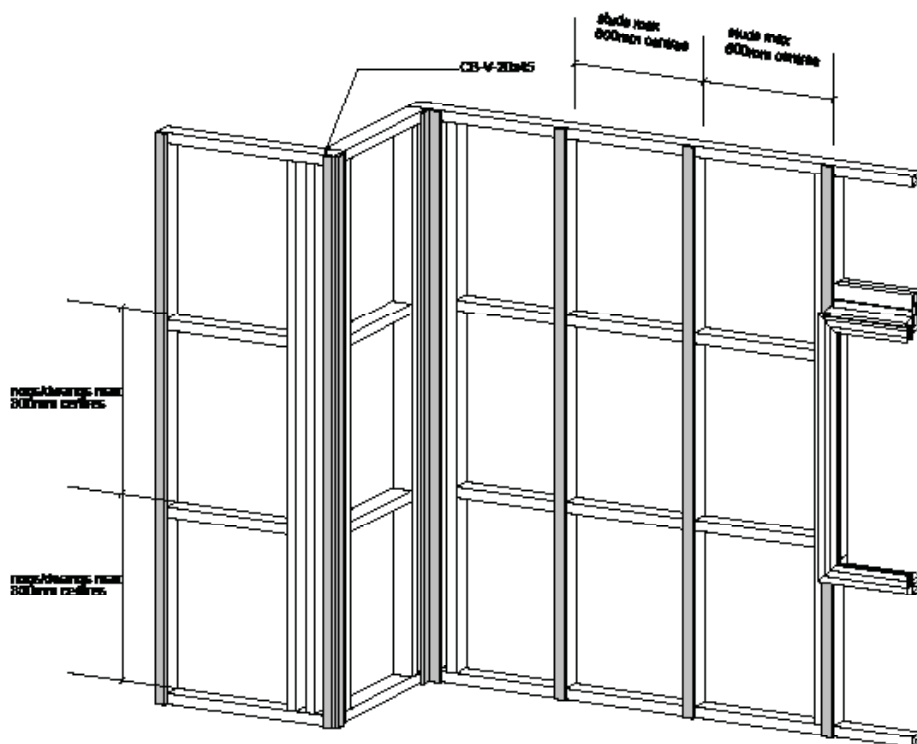
## Rusticated Weatherboard Window Sill



## Rusticated Weatherboard Window Jamb Option 2

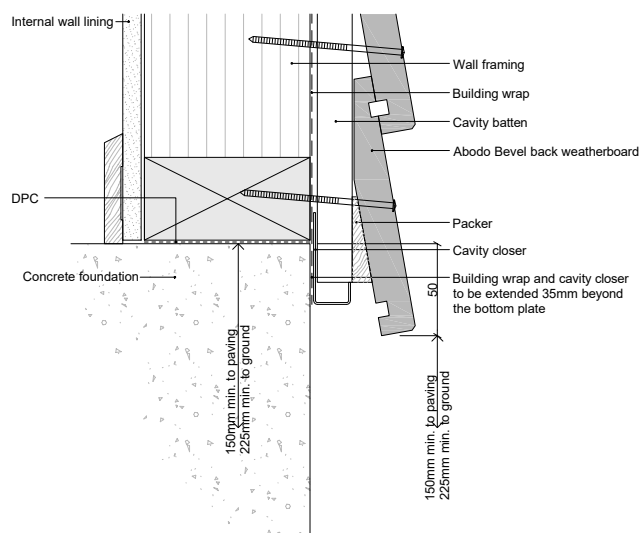


## Bevel Back - Vertical Batten Fix - Layout



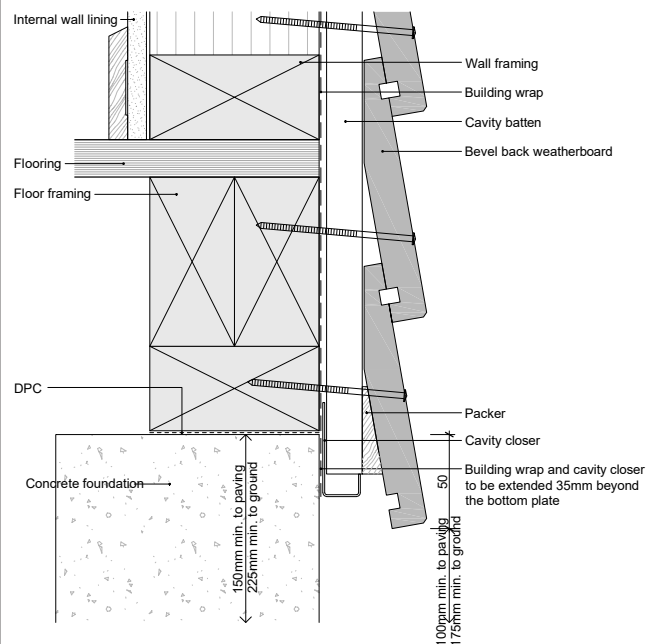
### Bevel Back Weatherboard

Base of Wall - Concrete Floor



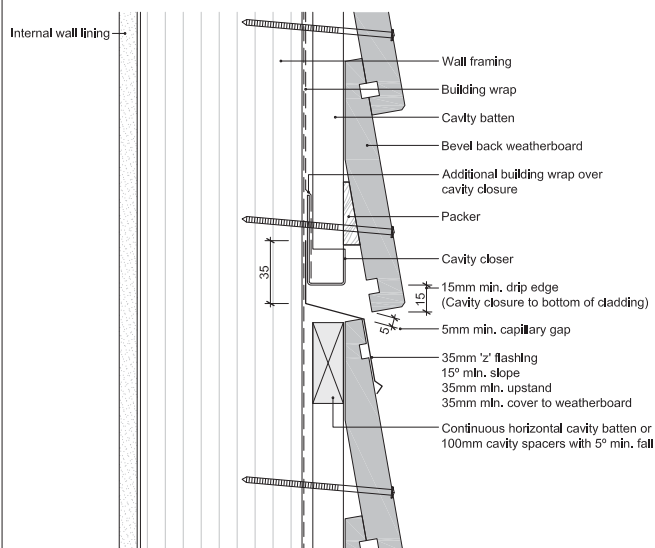
### Bevel Back Weatherboard

Base of Wall - Timber Floor



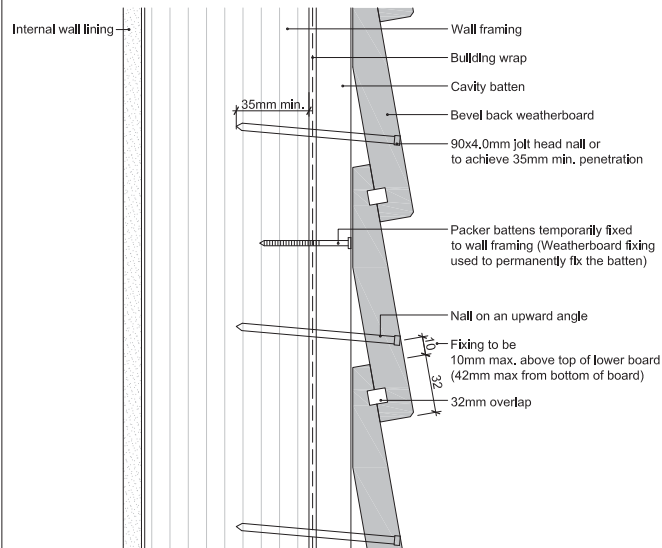
## Bevel Back Weatherboard

### Inter-Storey Cavity Junction



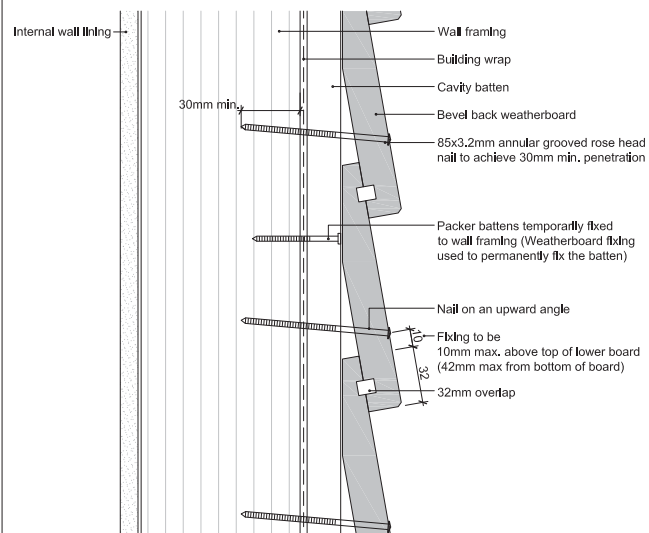
## Bevel Back Weatherboard

### Packer Cavity Batten - Painted



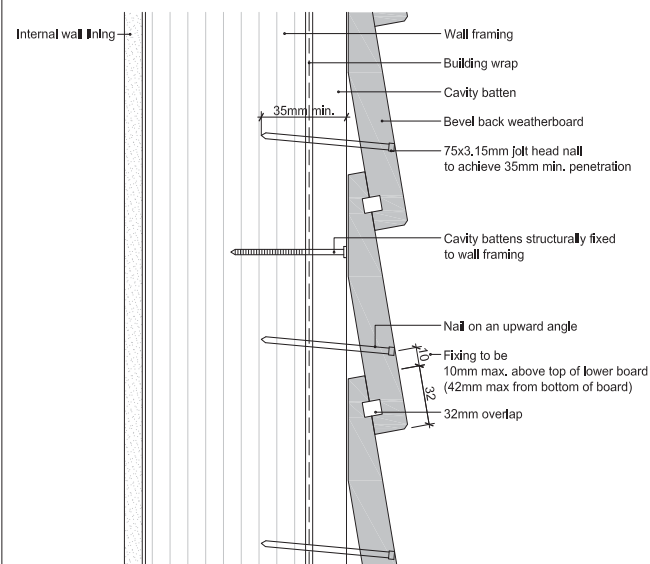
## Bevel Back Weatherboard

### Packer Cavity Batten - Stained



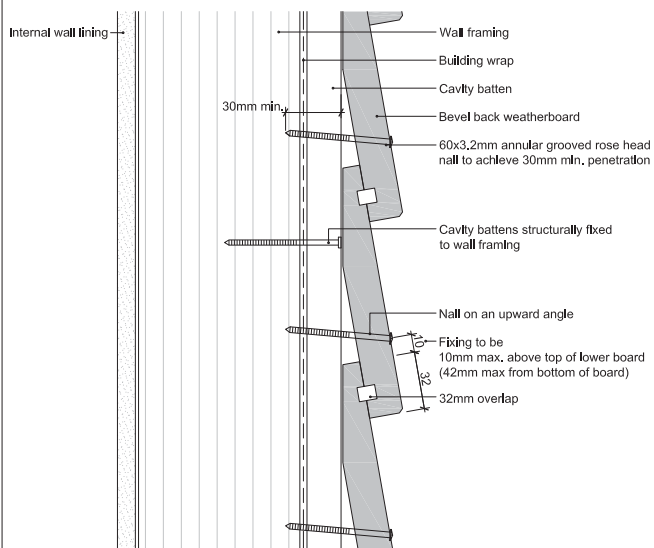
## Bevel Back Weatherboard

### Structural Cavity Batten - Painted



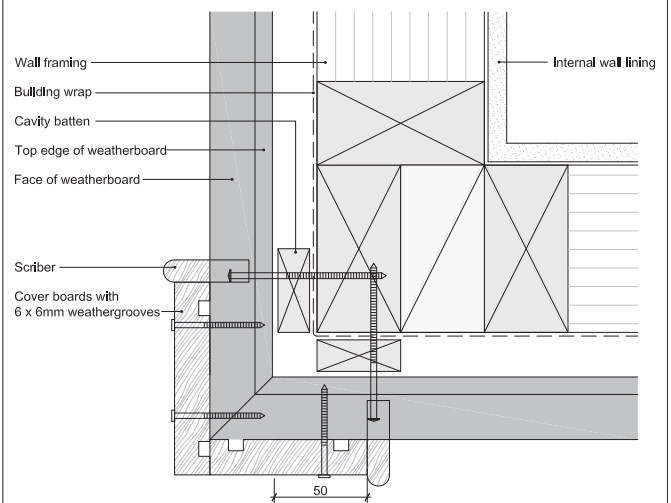
## Bevel Back Weatherboard

### Structural Cavity Batten - Stained



## Bevel Back Weatherboard

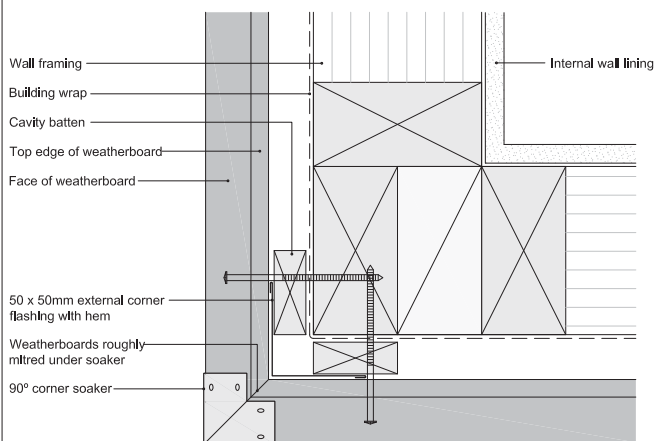
### External 90° Corner- Boxed Cover Boards



EXTERNAL 90° CORNER - BOXED

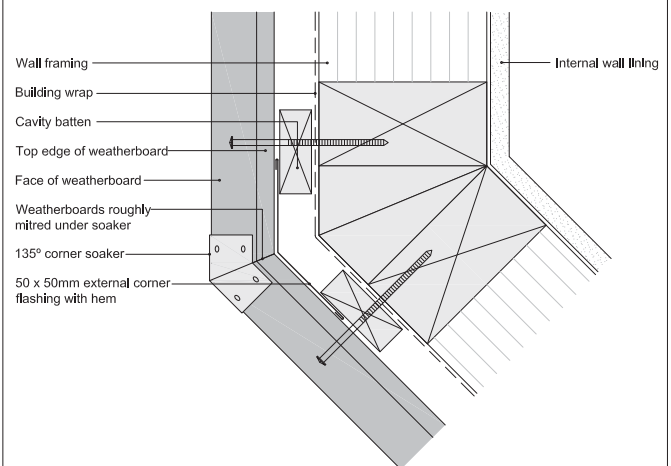
## Bevel Back Weatherboard

### External 90° Corner - Soakers



## Bevel Back Weatherboard

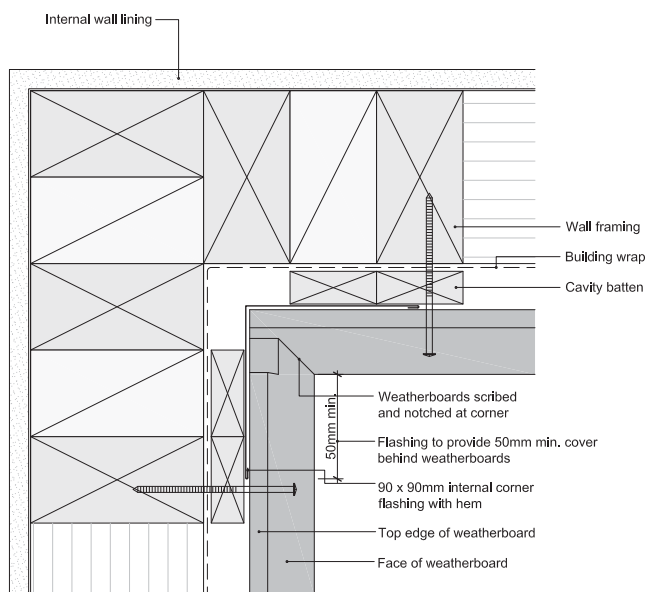
### External 135° Corner - Soakers





## Bevel Back Weatherboard

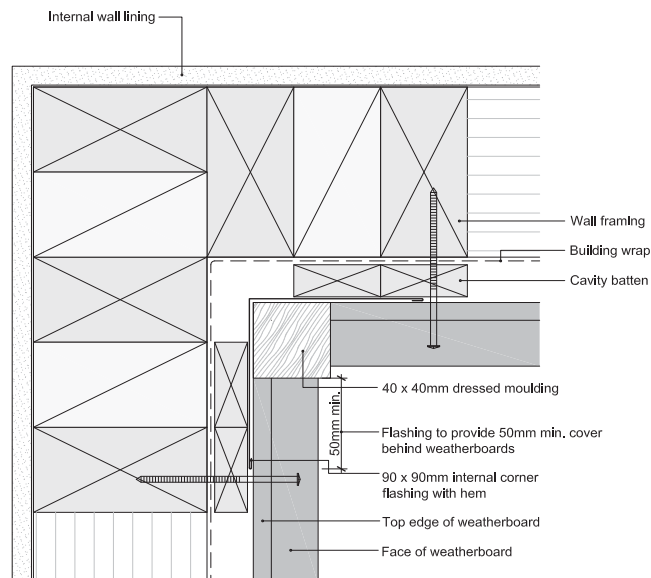
### Internal 90° Corner - Scribed & Notched



INTERNAL 90° CORNER - SCRIBED AND NOTCHED

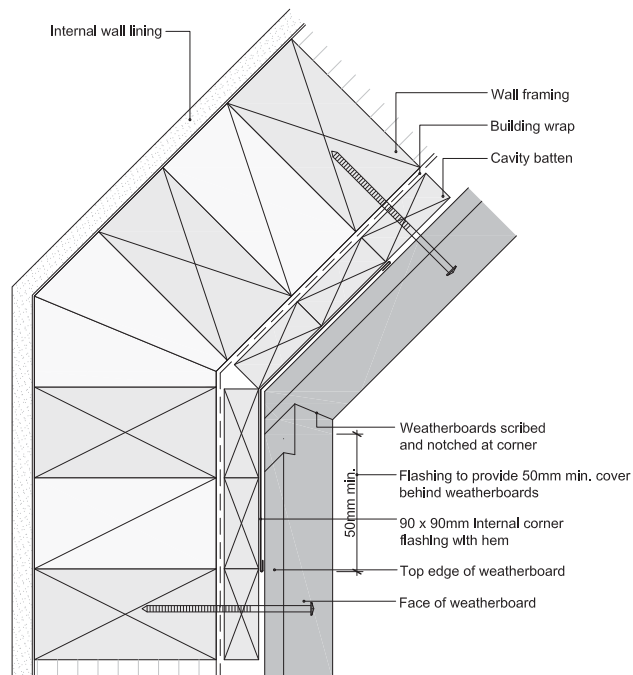
## Bevel Back Weatherboard

### Internal 90° Corner - With Moulding



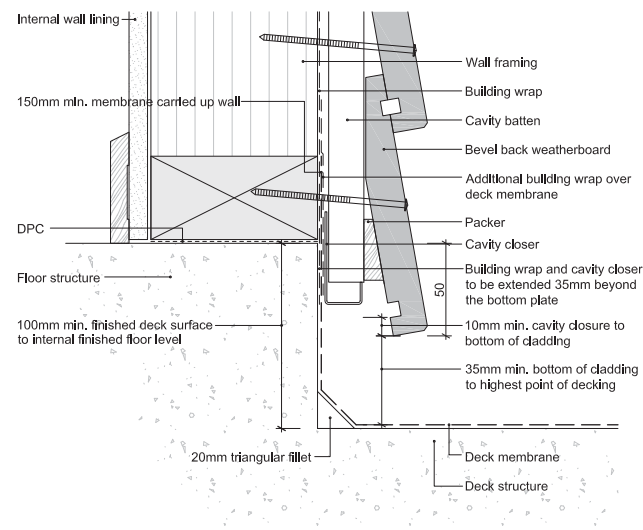
## Bevel Back Weatherboard

### Internal 135° Corner - Scribed & Notched



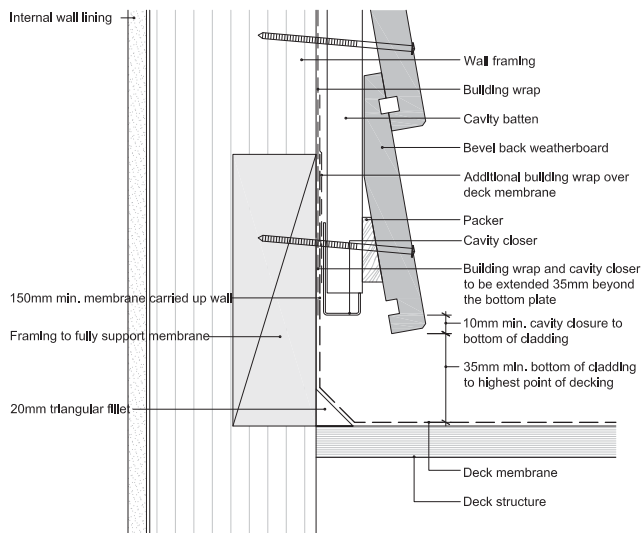
## Bevel Back Weatherboard

### Enclosed Deck - Concrete Substrate



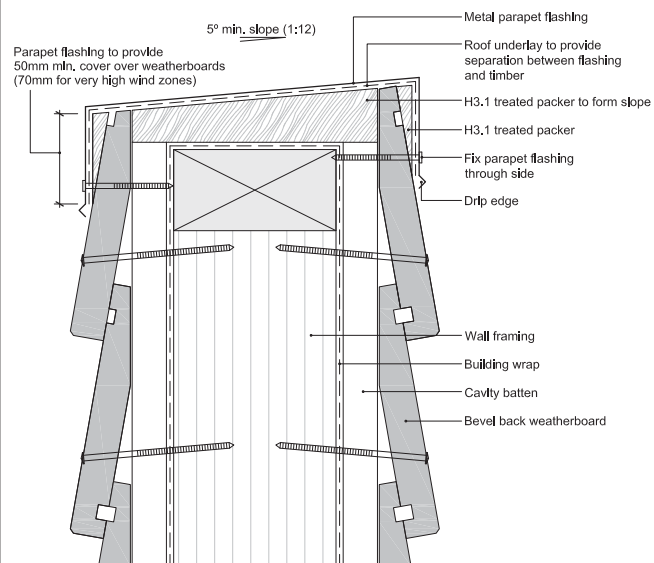
## Bevel Back Weatherboard

Enclosed Deck - Timber Substrate



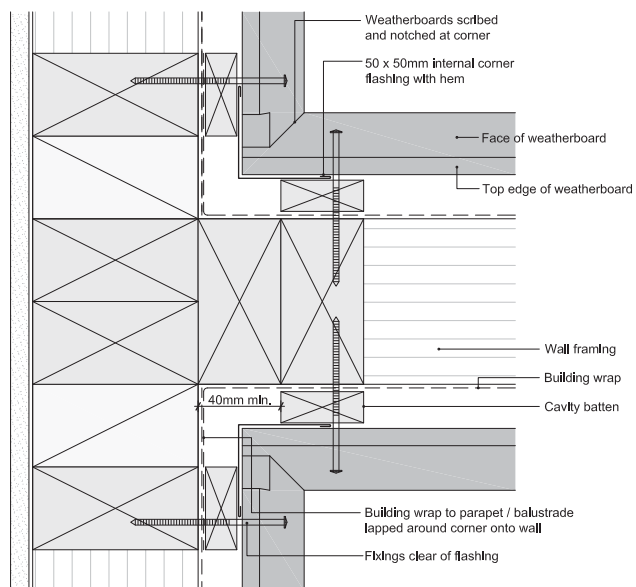
## Bevel Back Weatherboard

Parapet Balustrade Cap Flashing



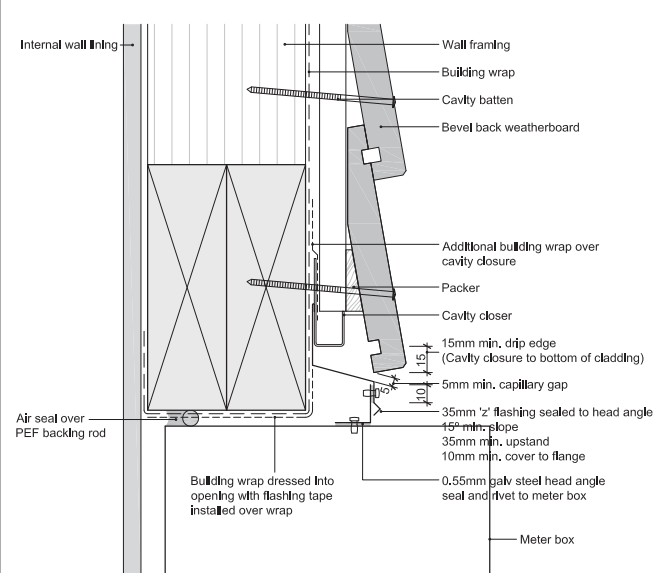
## Bevel Back Weatherboard

Parapet Balustrade Intersection with Wall



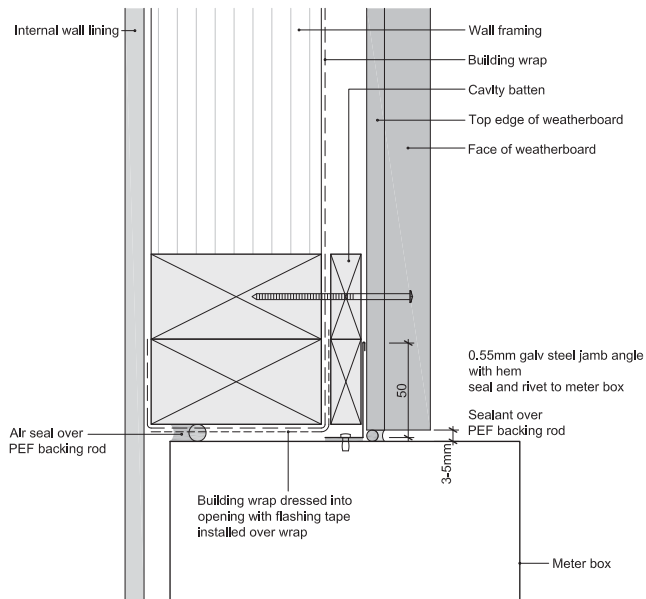
## Bevel Back Weatherboard

Meter Box Head



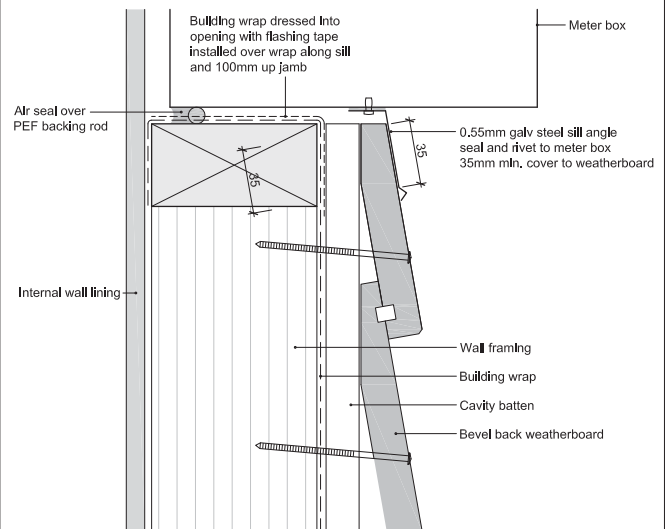
## Bevel Back Weatherboard

### Meter Box Jamb



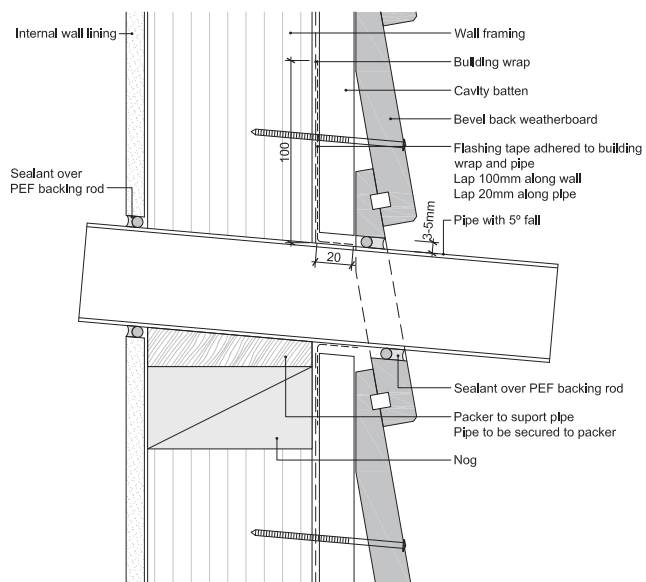
## Bevel Back Weatherboard

### Meter Box Sill

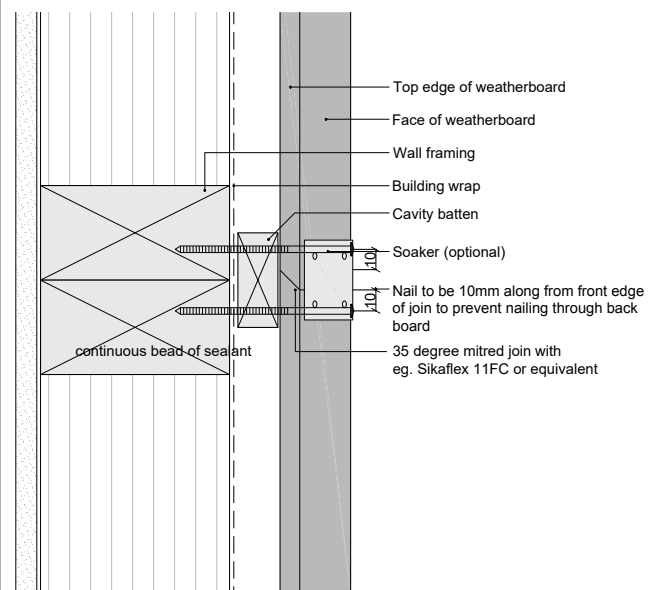


## Bevel Back Weatherboard

### Pipe Penetration

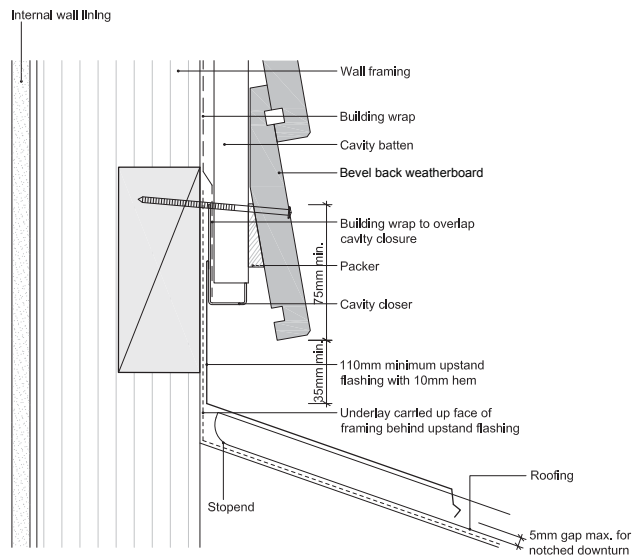


## Bevel Back Weatherboard



## Bevel Back Weatherboard

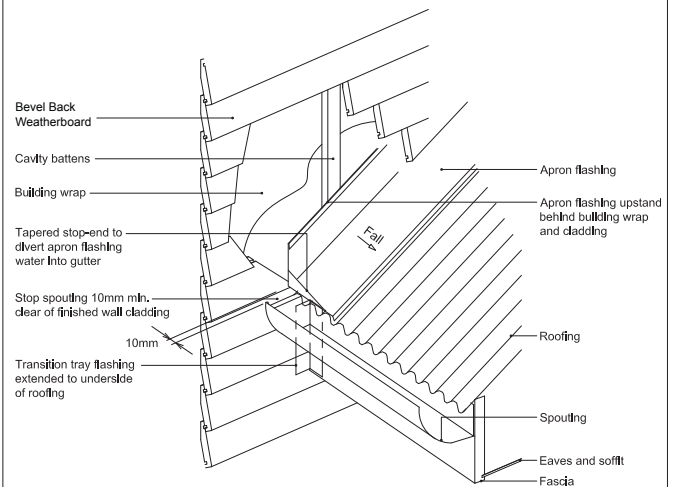
### Apron Flashing



Note: refer to NZBC E2/AS1 Table 7 for apron flashing cover over roofing

## Bevel Back Weatherboard

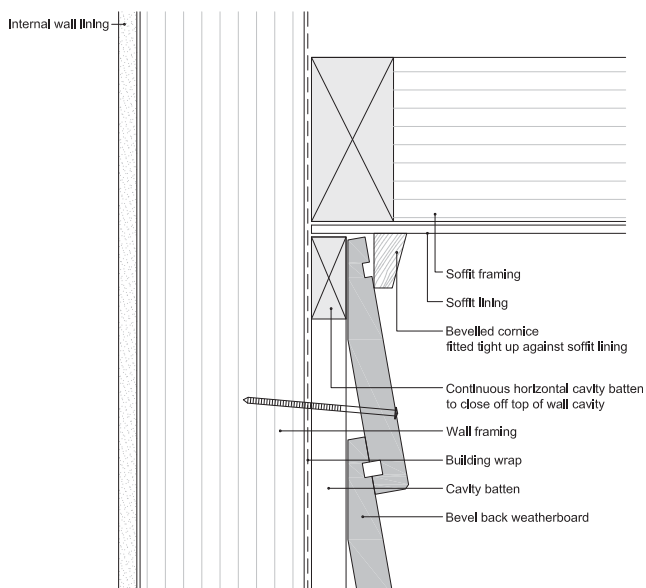
### Roof Kick-out Flashing Cavity Detail



Note: refer to NZBC E2/AS1 Table 7 for apron flashing cover over roofing

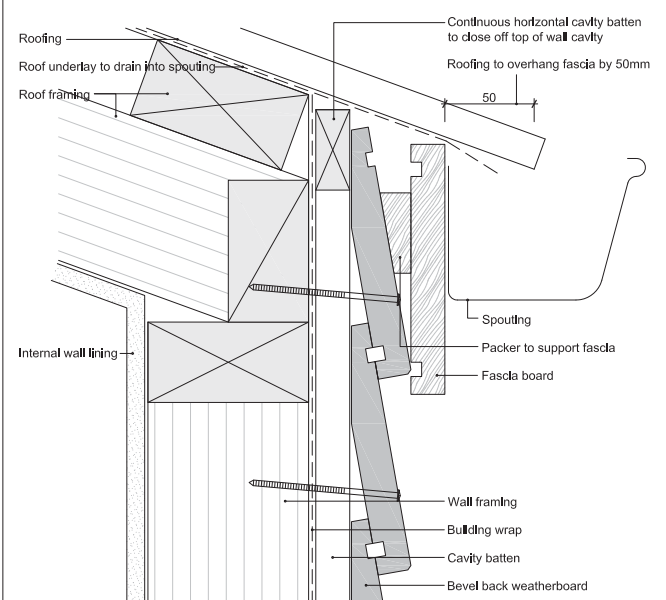
## Bevel Back Weatherboard

### Top of Wall - Flat Soffit



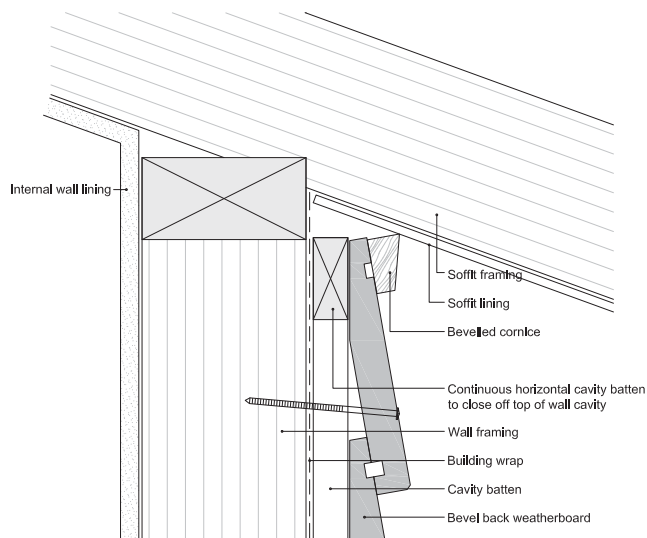
## Bevel Back Weatherboard

### Top of Wall - No Soffit



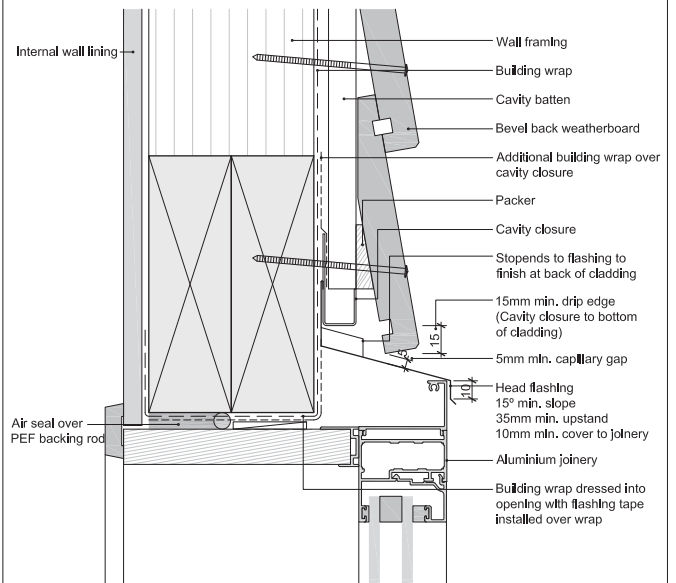
## Bevel Back Weatherboard

### Top of Wall - Sloping Soffit



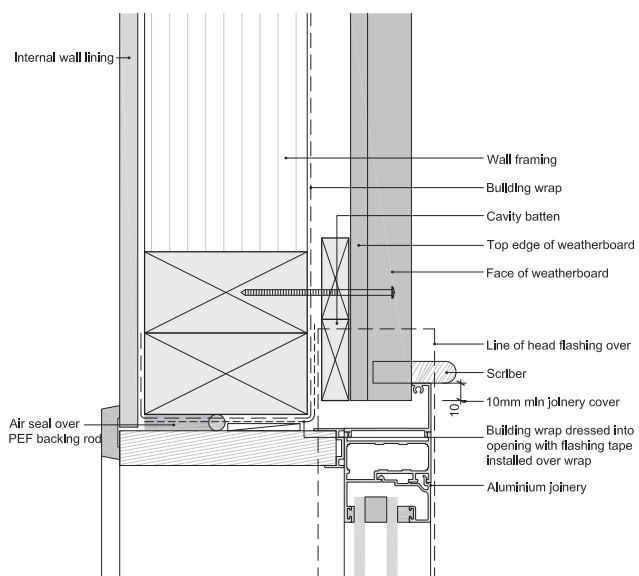
## Bevel Back Weatherboard

### Window Head



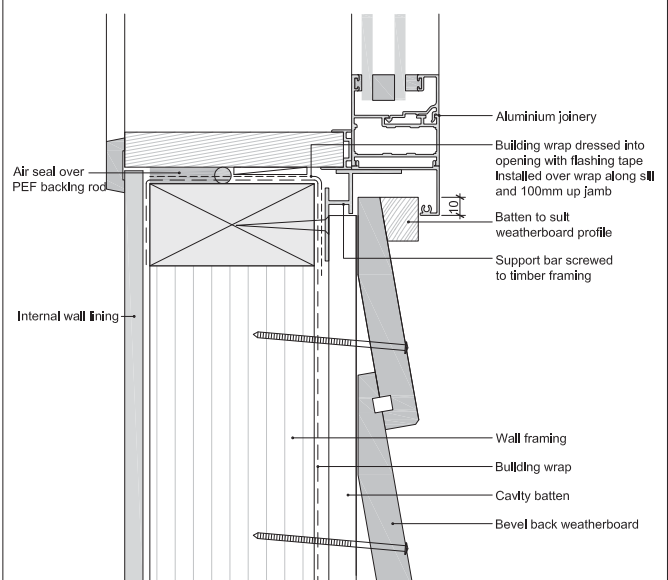
## Bevel Back Weatherboard

### Window Jamb

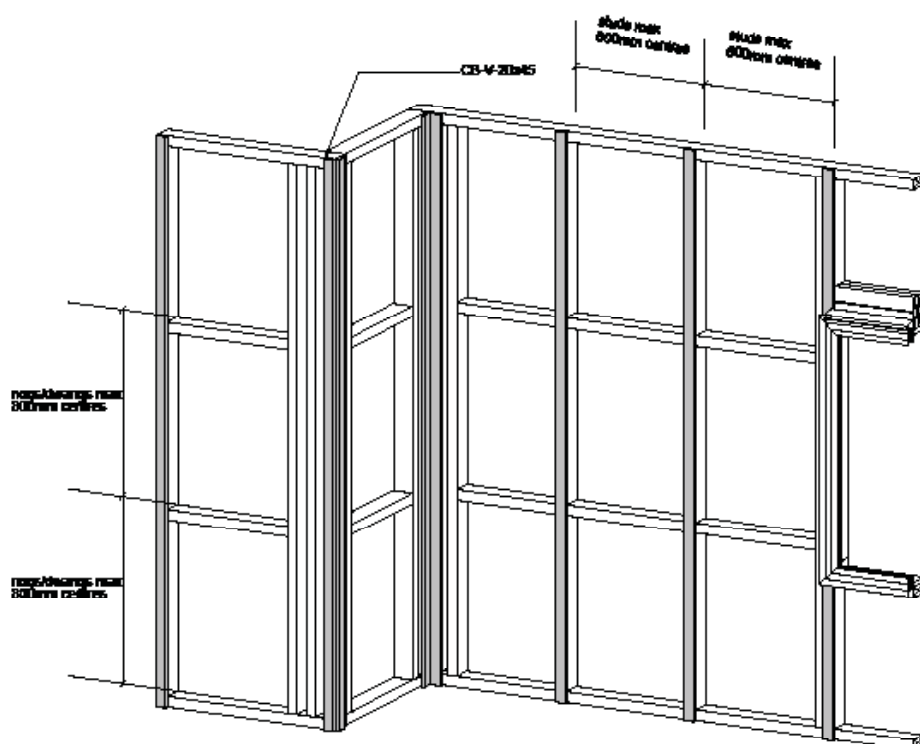


## Bevel Back Weatherboard

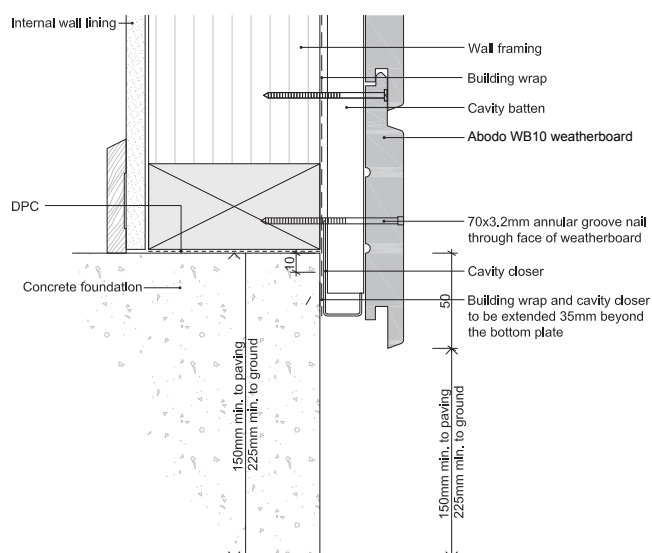
### Window Sill



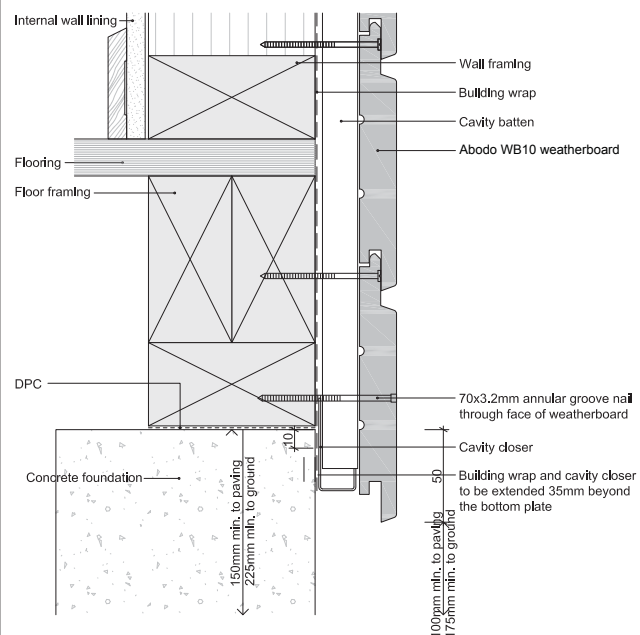
## WB10 Horizontal - Vertical Batten Fix - Layout



### WB10 Horizontal Weatherboard Base of Wall - Concrete Floor

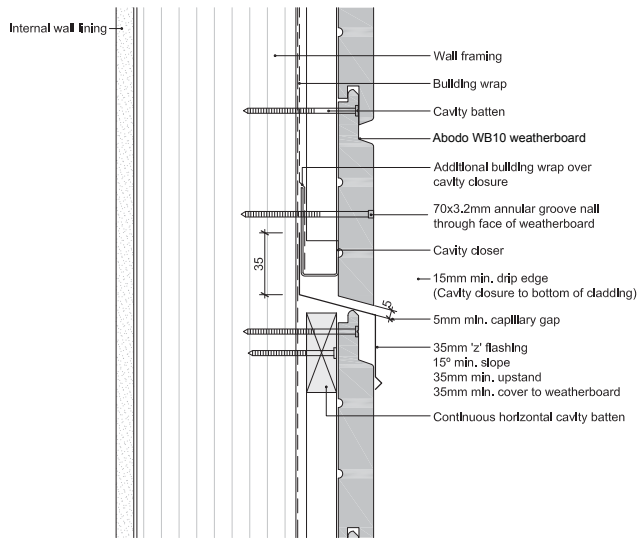


### WB10 Horizontal Weatherboard Base of Wall - Timber Floor



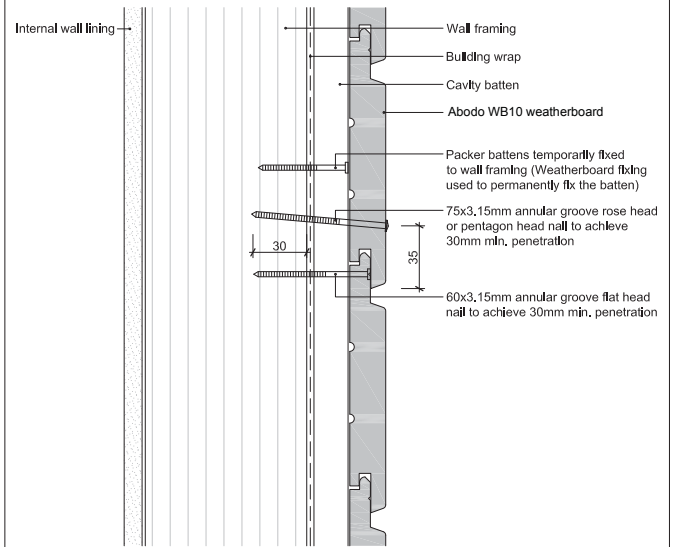


## WB10 Horizontal Weatherboard

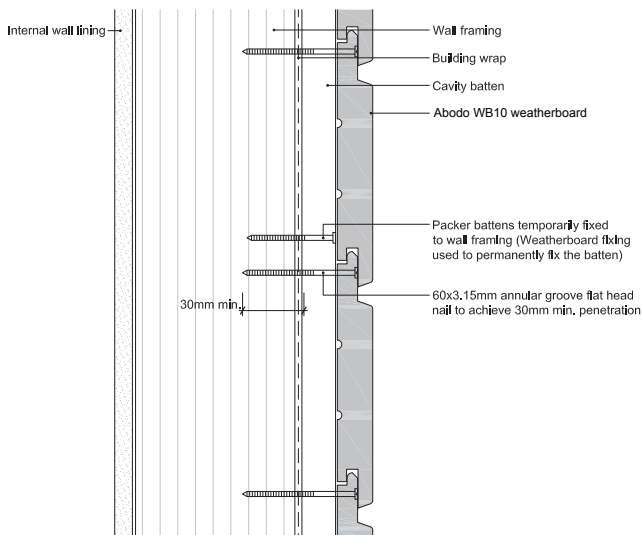


INTER-STOREY CAVITY JUNCTION

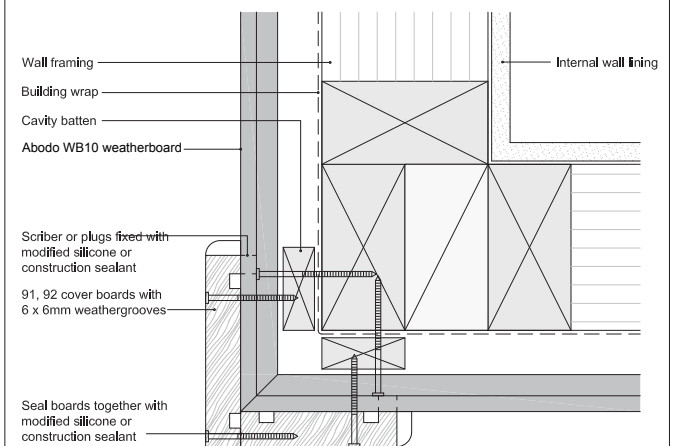
## WB10 Horizontal Weatherboard Packer Cavity Batten - Stained, Face Fixed



## WB10 Horizontal Weatherboard Packer Cavity Batten - Stained

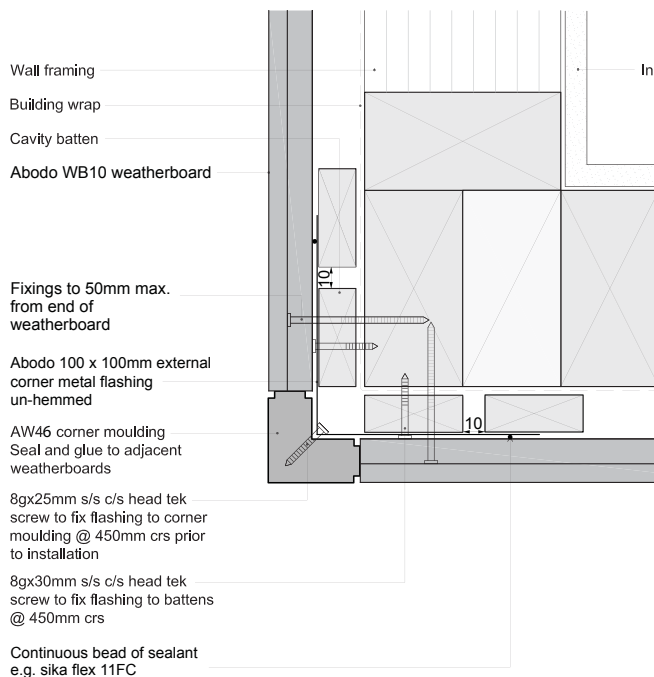


## WB10 Horizontal Weatherboard External 90° Corner - Boxed



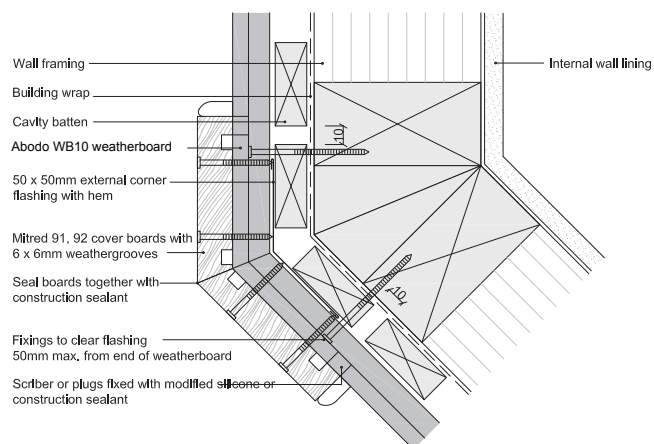
## WB10 Horizontal Weatherboard

External 90° Corner - AW46 Moulding



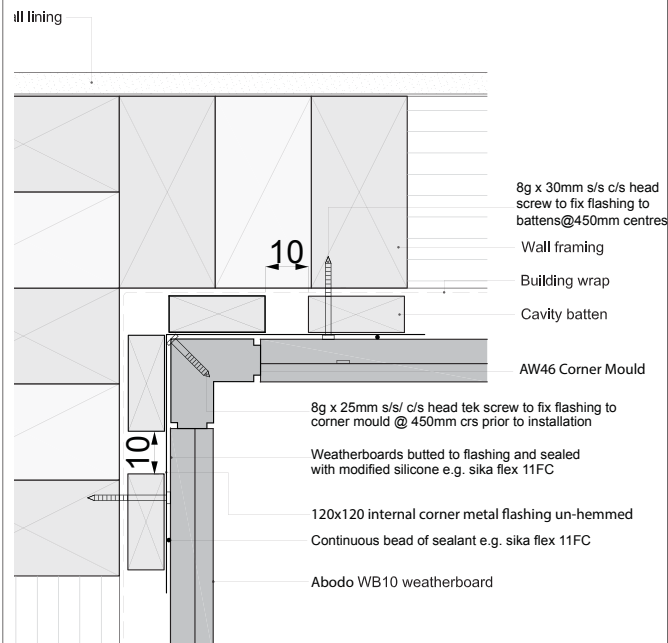
## WB10 Horizontal Weatherboard

External 135° Corner - Mitred & Boxed



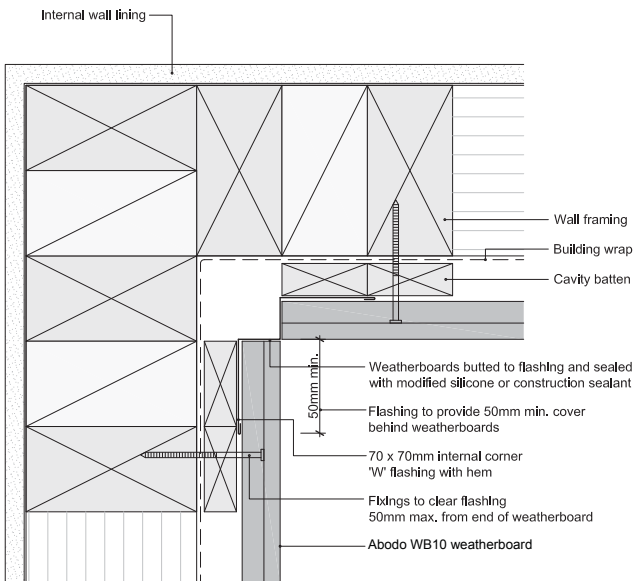
## WB10 Horizontal Weatherboard

Internal 90° Corner - AW46 Moulding



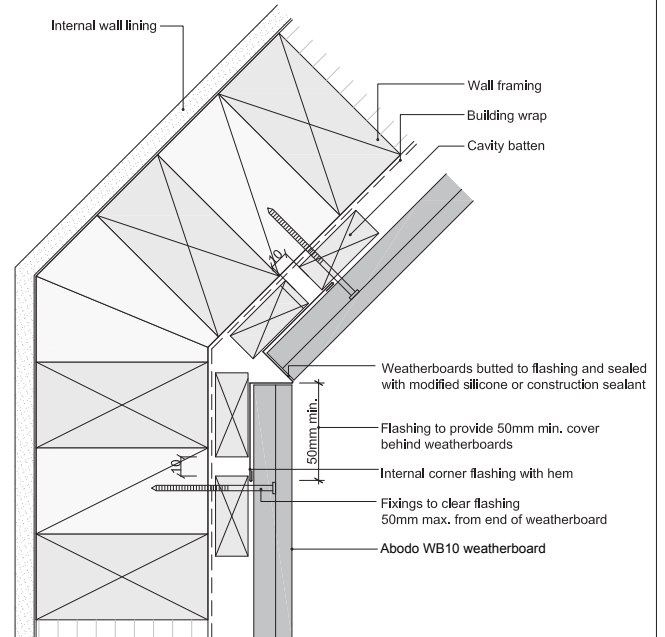
## WB10 Horizontal Weatherboard

Internal 90° Corner - W-Flashing



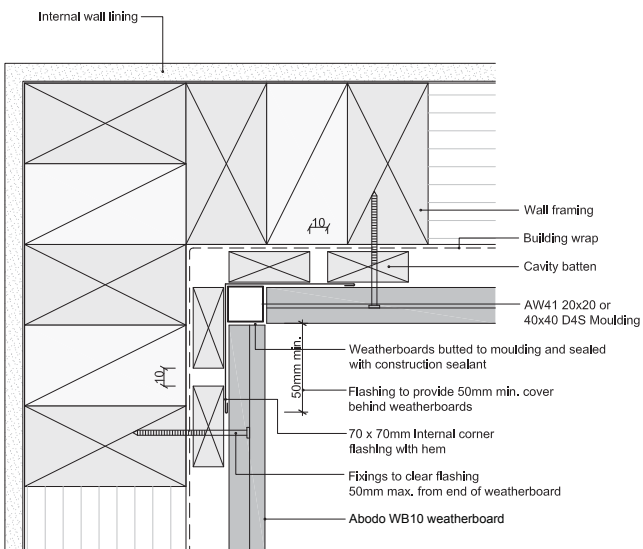
## WB10 Horizontal Weatherboard

Internal 135° Corner - W-Flashing



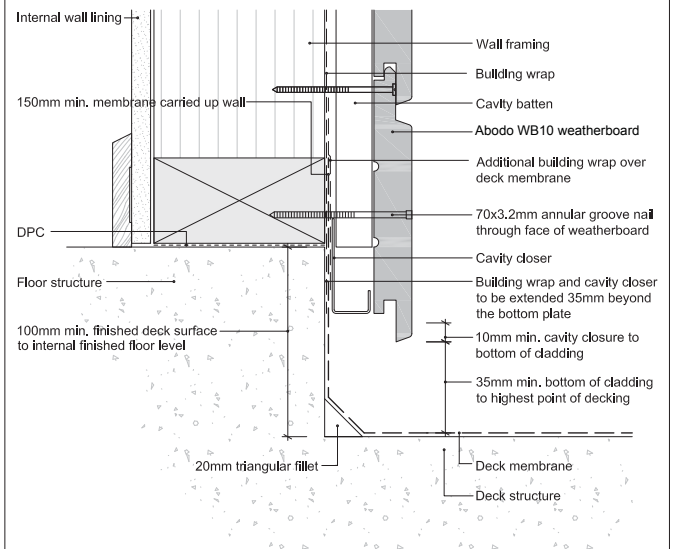
## WB10 Horizontal Weatherboard

Internal 90° Corner - AW41 Moulding

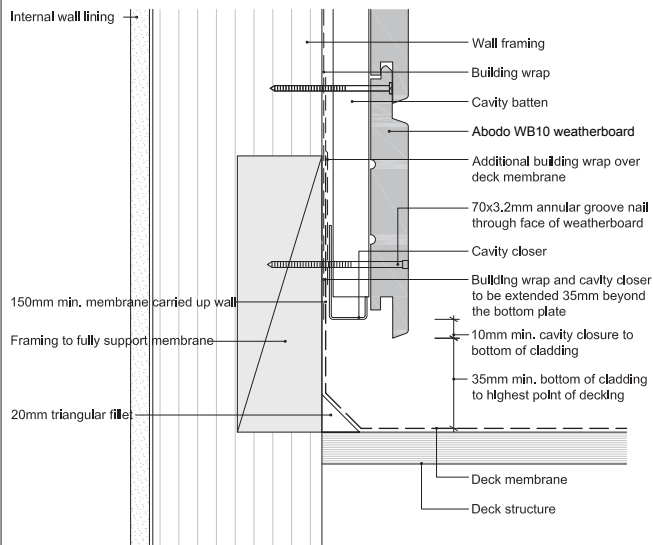


## WB10 Horizontal Weatherboard

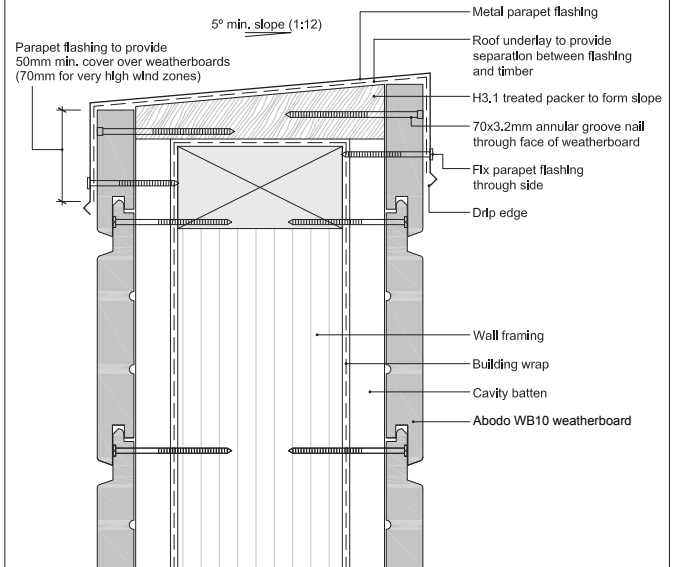
Enclosed Deck - Concrete Substrate



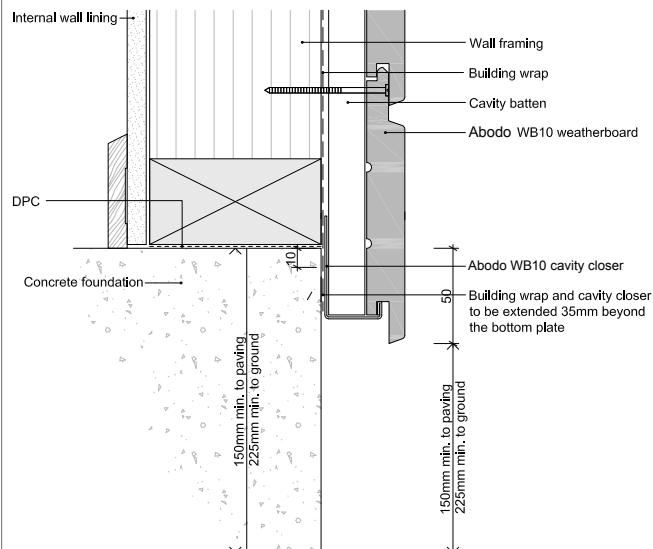
## WB10 Horizontal Weatherboard Enclosed Deck - Timber Substrate



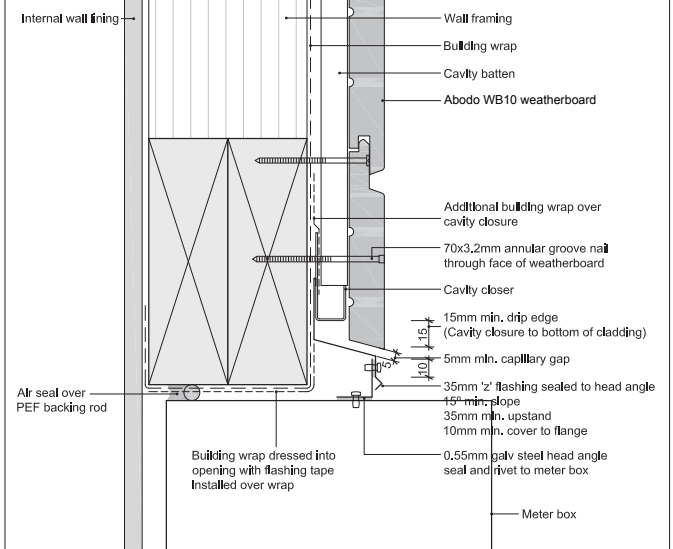
## WB10 Horizontal Weatherboard Parapet Balustrade Cap Flashing



## WB10 Horizontal Weatherboard Base of Wall - Concrete Floor

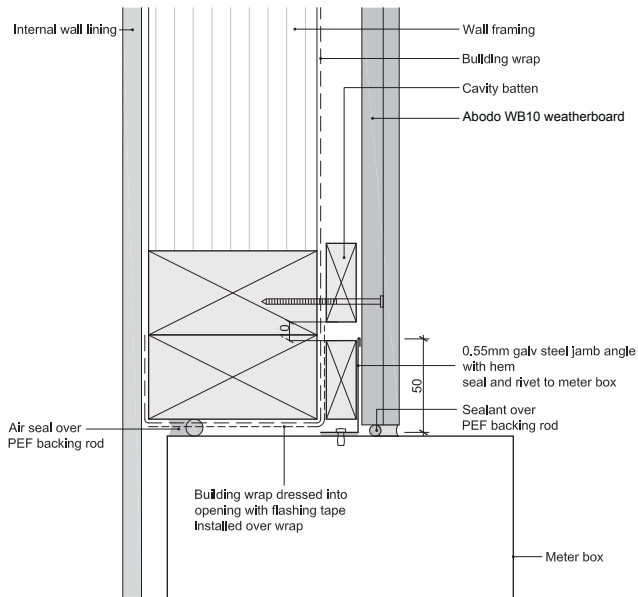


## WB10 Horizontal Weatherboard Meter Box Head Detail



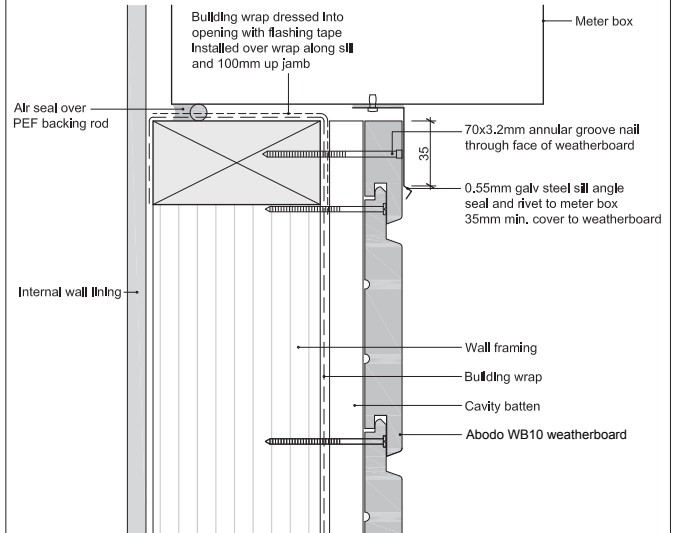
## WB10 Horizontal Weatherboard

### Meter Box Jamb Detail



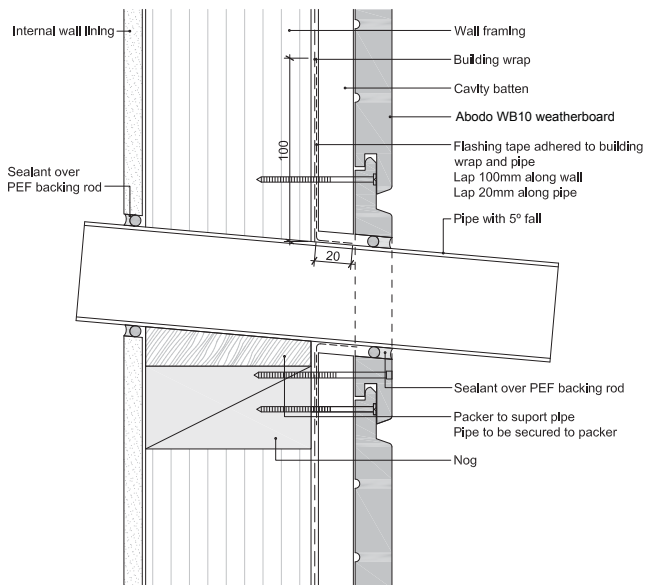
## WB10 Horizontal Weatherboard

### Meter Box Sill Detail



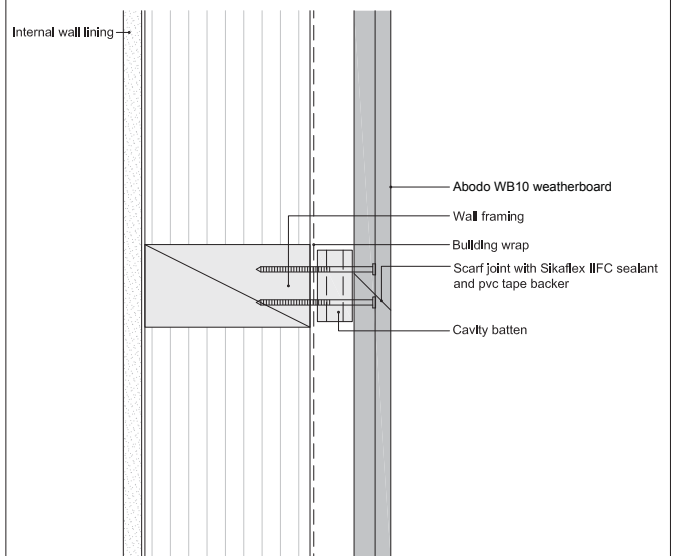
## WB10 Horizontal Weatherboard

### Pipe Penetration

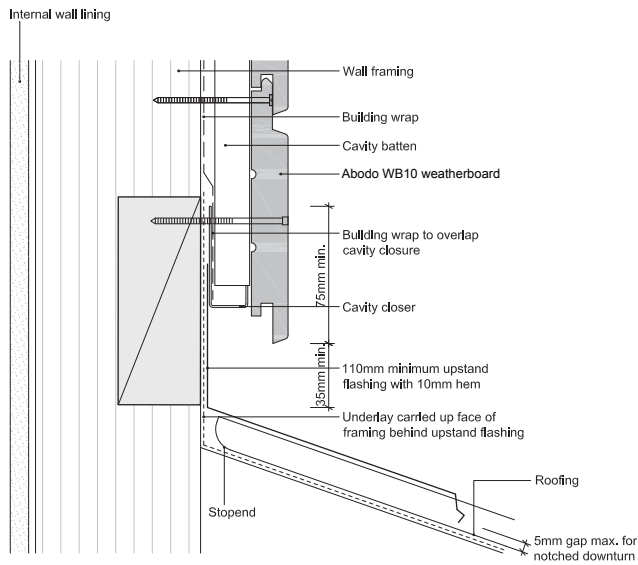


## WB10 Horizontal Weatherboard

### Weatherboard Join - Birdseye

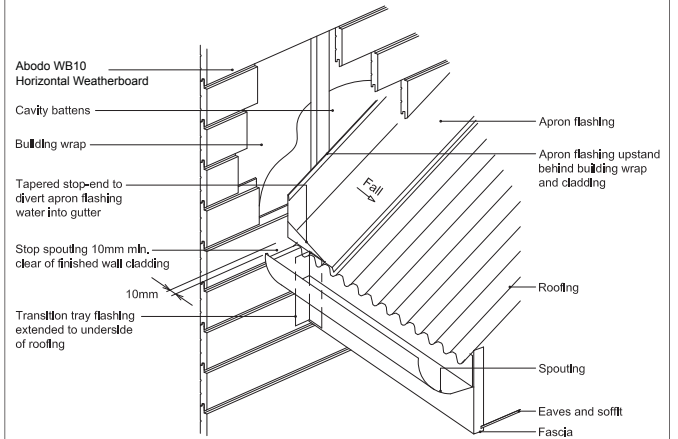


## WB10 Horizontal Weatherboard Apron Flashing

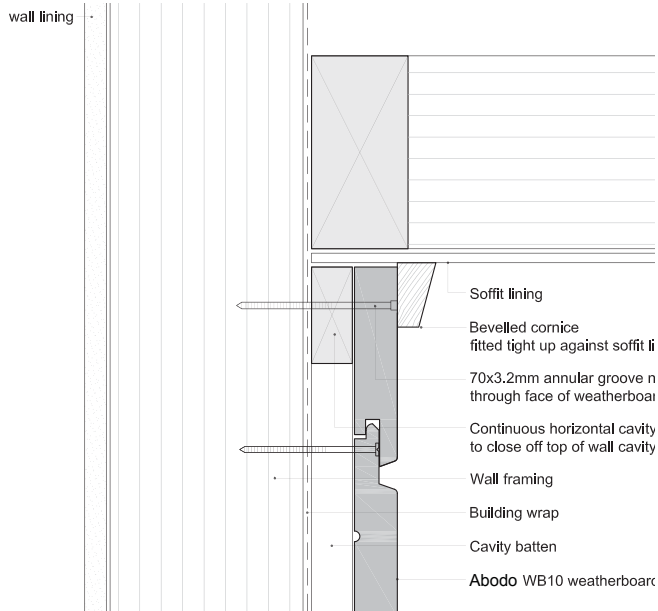


Note: refer to NZBC E2/AS1 Table 7 for apron flashing cover over roofing

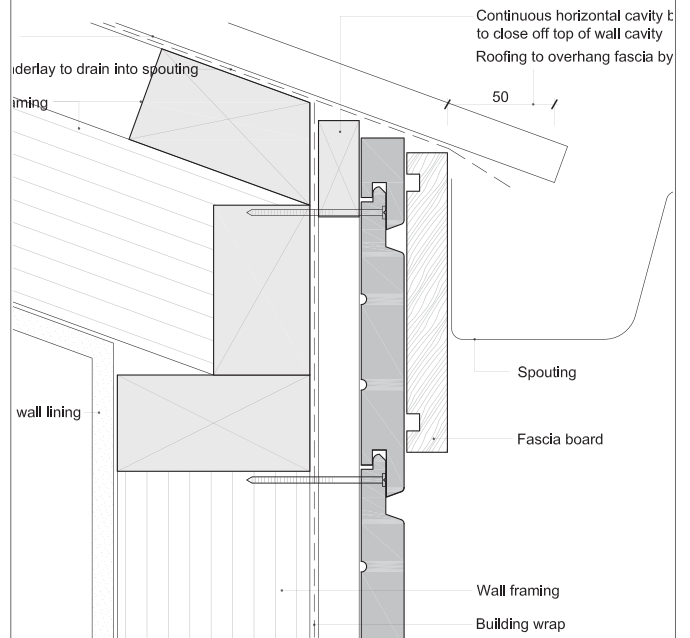
## WB10 Horizontal Weatherboard Roof Kick-out Flashing Cavity Detail



## WB10 Horizontal Weatherboard Top of Wall - Flat Soffit

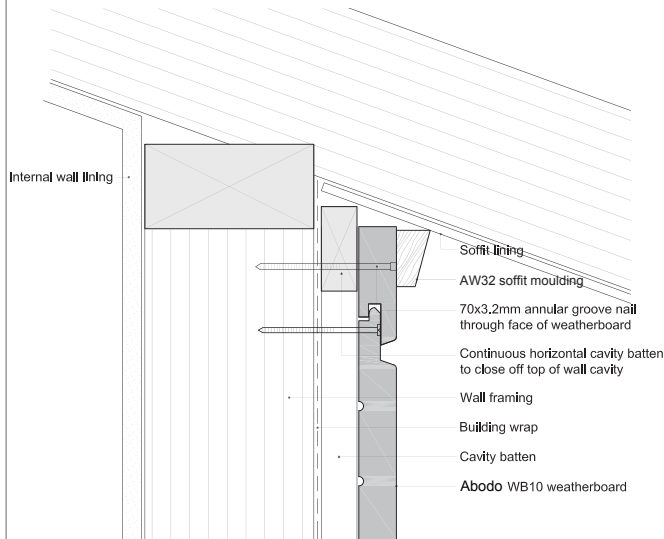


## WB10 Horizontal Weatherboard Top of Wall - No Soffit



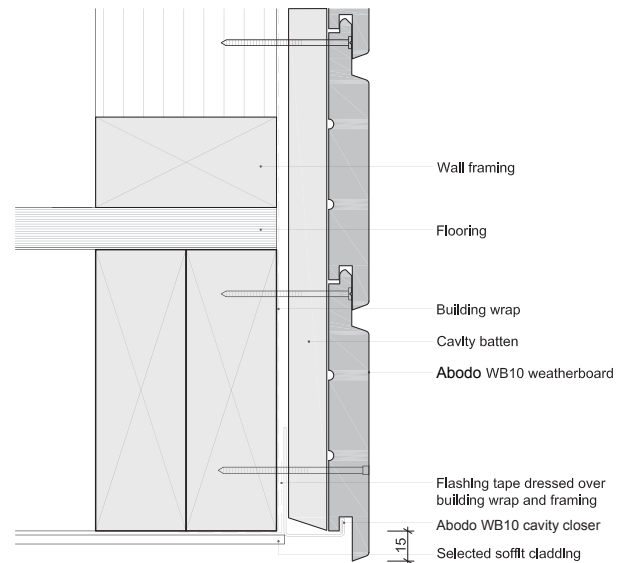
## WB10 Horizontal Weatherboard

### Top of Wall - Sloping Soffit



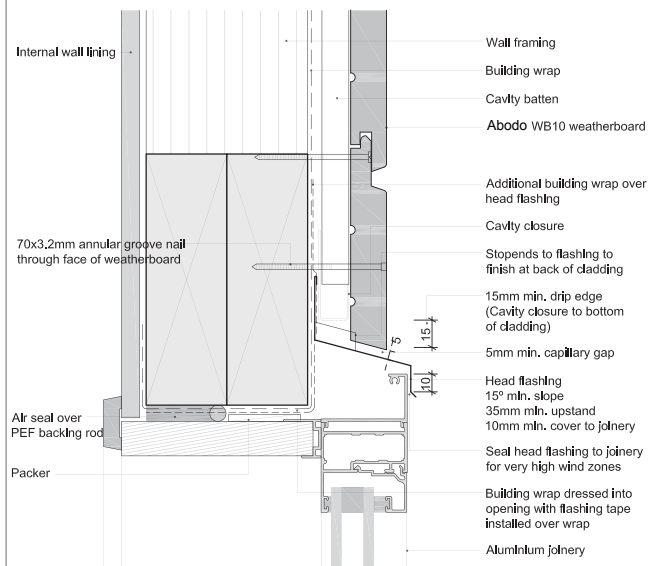
## WB10 Horizontal Weatherboard

### Soffit Detail



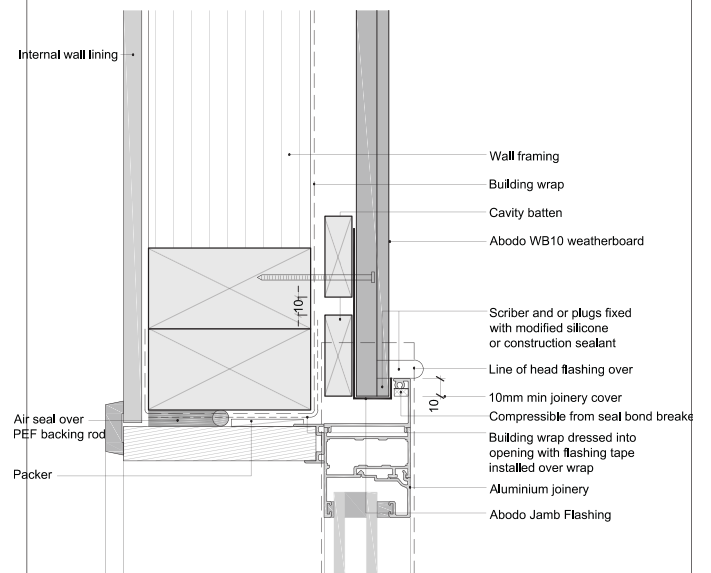
## WB10 Horizontal Weatherboard

### Window Head



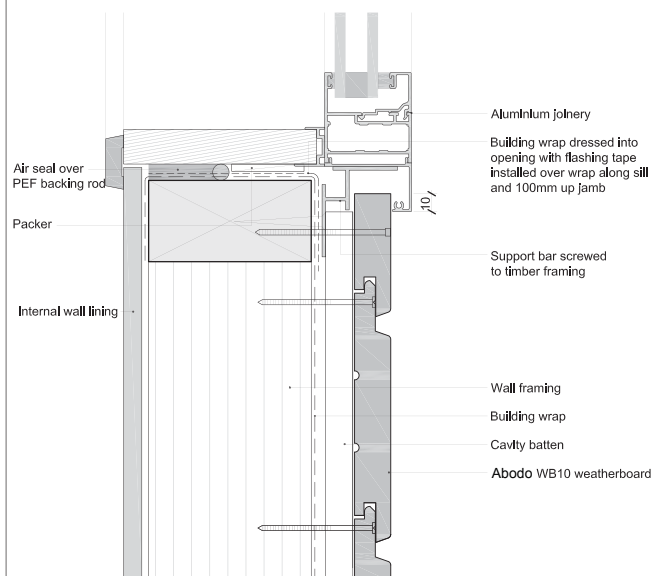
## WB10 Horizontal Weatherboard

### Window Jamb Option 1- Plugged/ Scribed

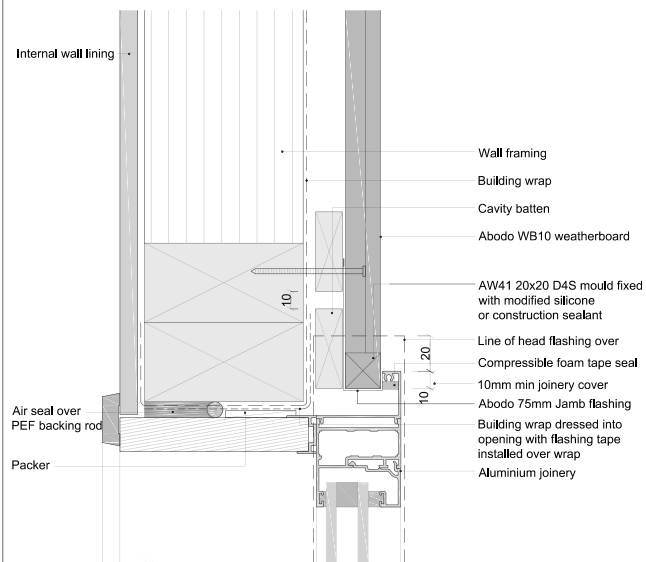




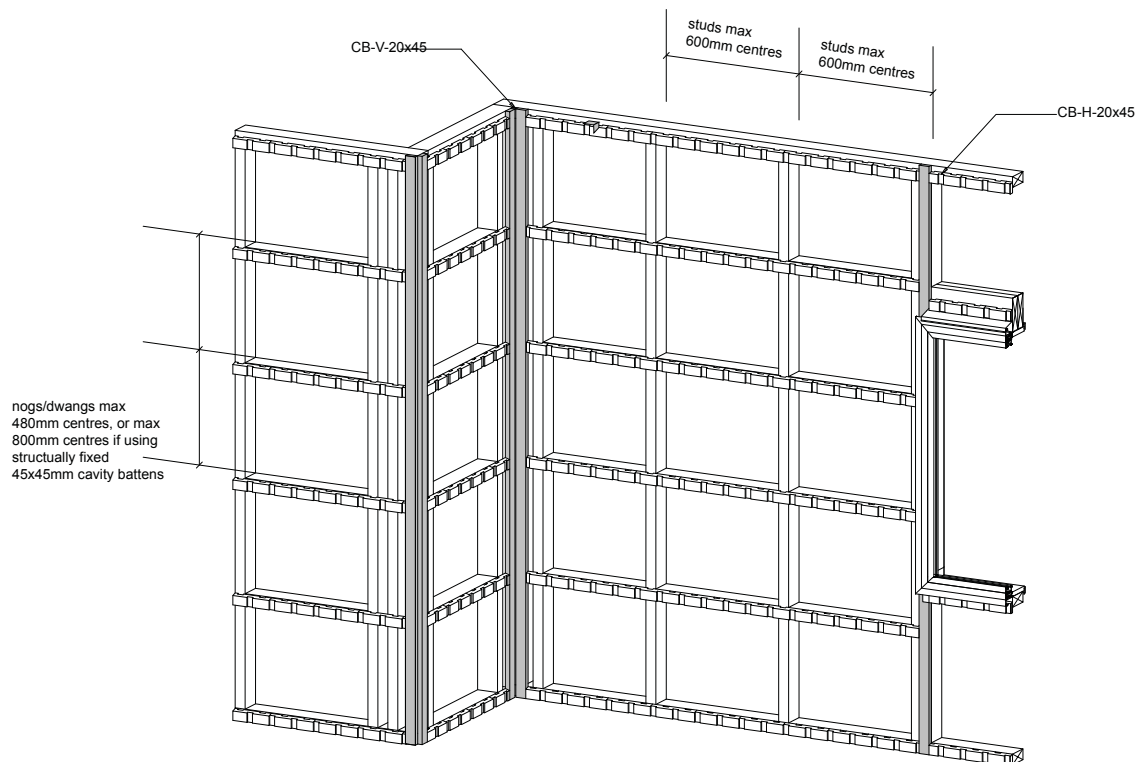
## WB10 Horizontal Weatherboard Window Sill



## WB10 Horizontal Weatherboard Window Jamb Option 2- AW41 moulding

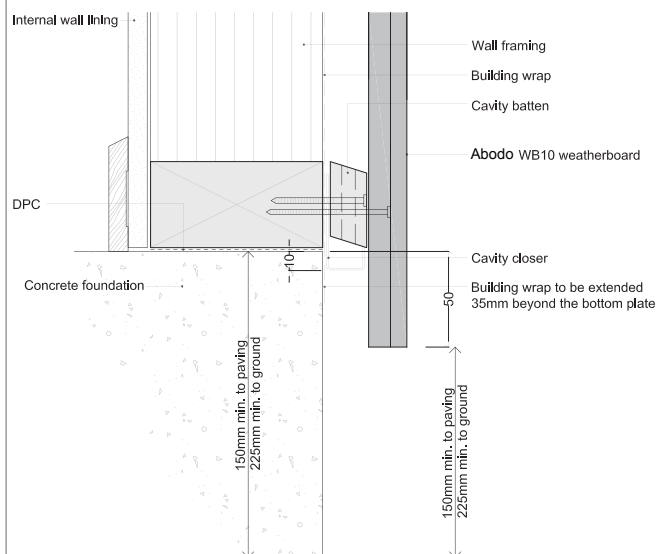


## WB10/ WB12 - Horizontal Batten Fix - Layout



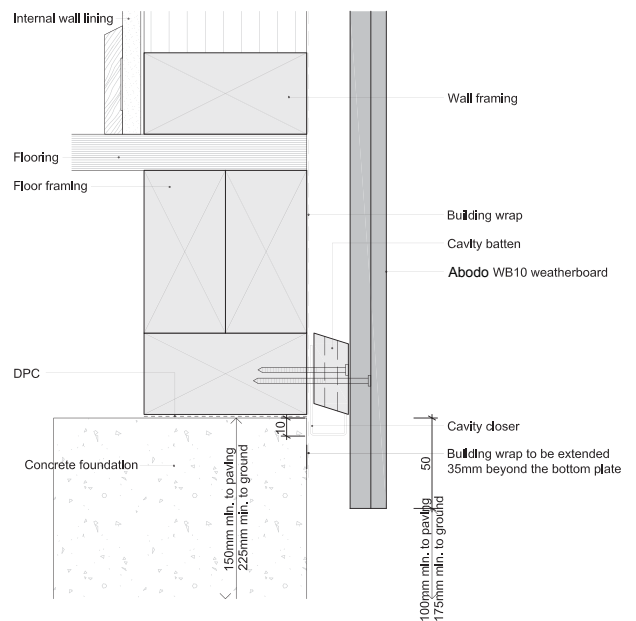
### Vertical Weatherboard

Base of Wall - Concrete Floor



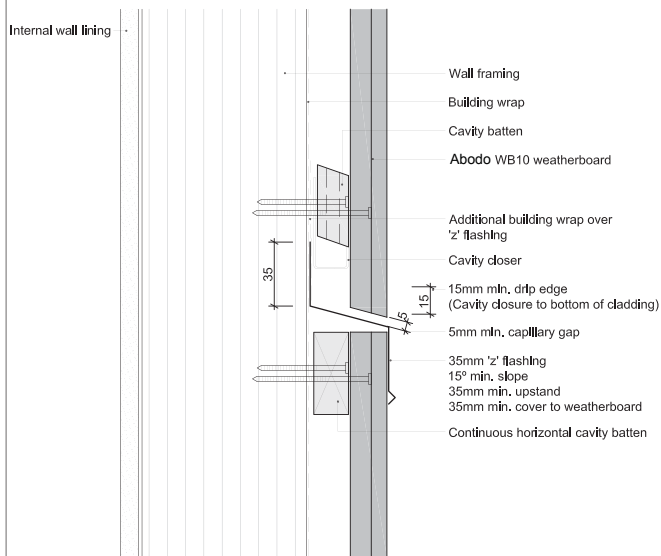
### Vertical Weatherboard

Base of Wall - Timber Floor



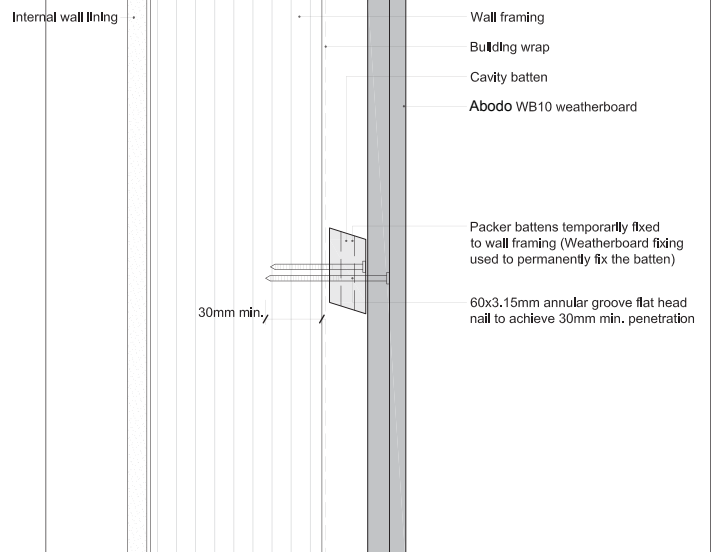
## WB10 Vertical Weatherboard

### Inter-Storey Cavity Junction



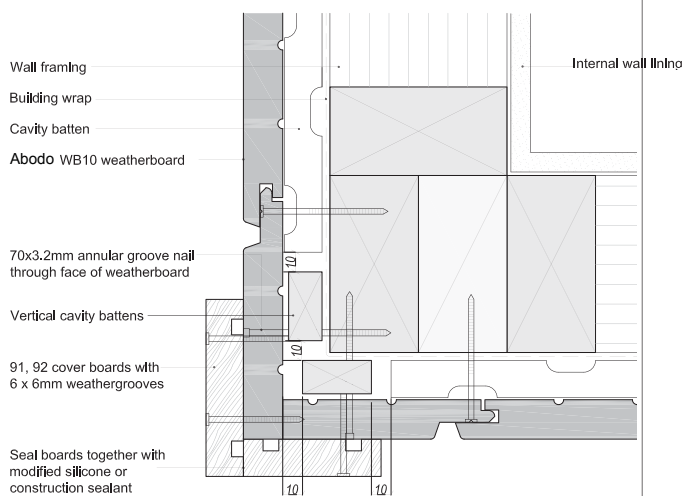
## WB10 Vertical Weatherboard

### Packer Cavity Batten - Stained



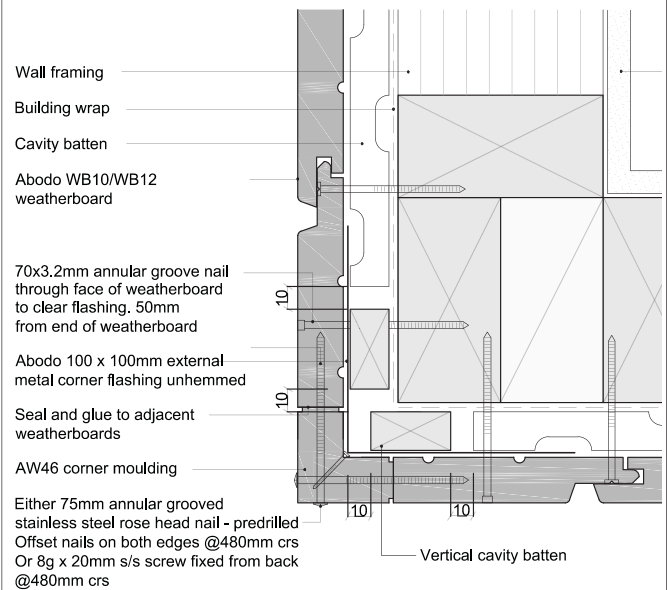
## WB10 Vertical Weatherboard

### External 90° Corner - Boxed

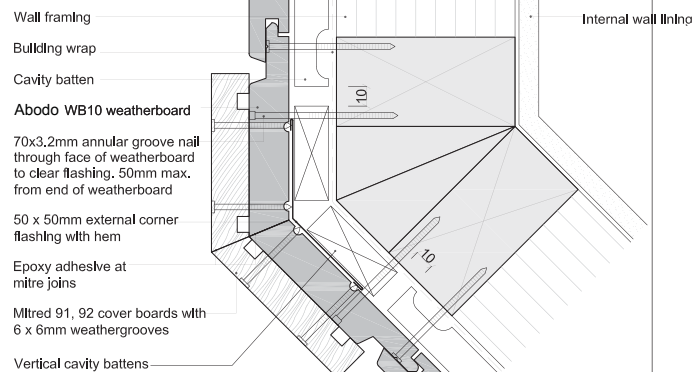


## WB10 Vertical Weatherboard

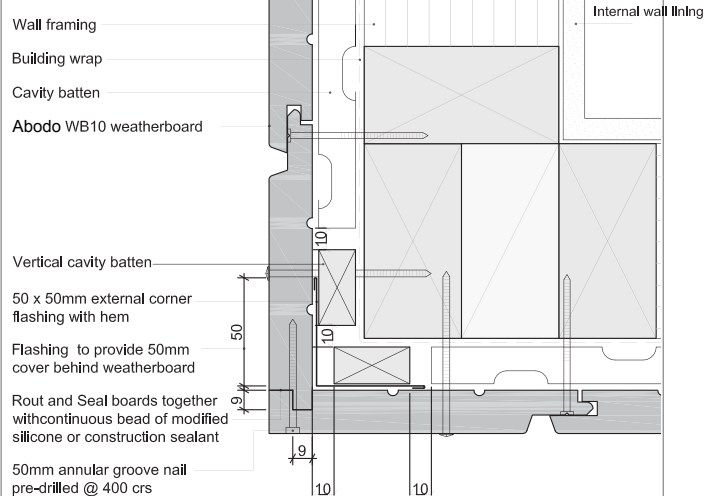
### External 90° Corner - AW46 Moulding



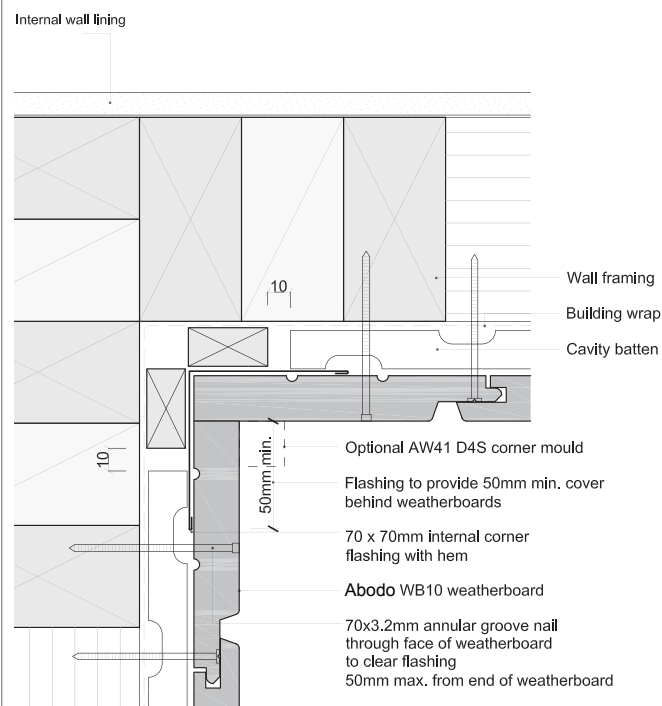
### External 135° Corner - Boxed



### External 90° Corner - Rebated

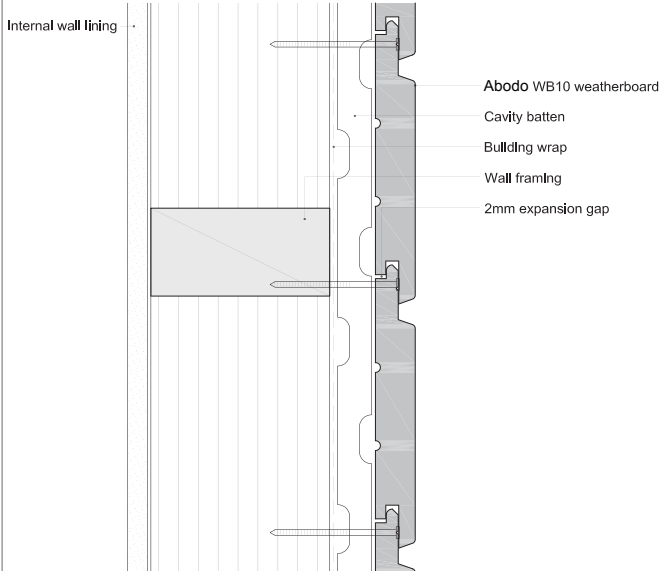


### Internal 90° Corner - Butted



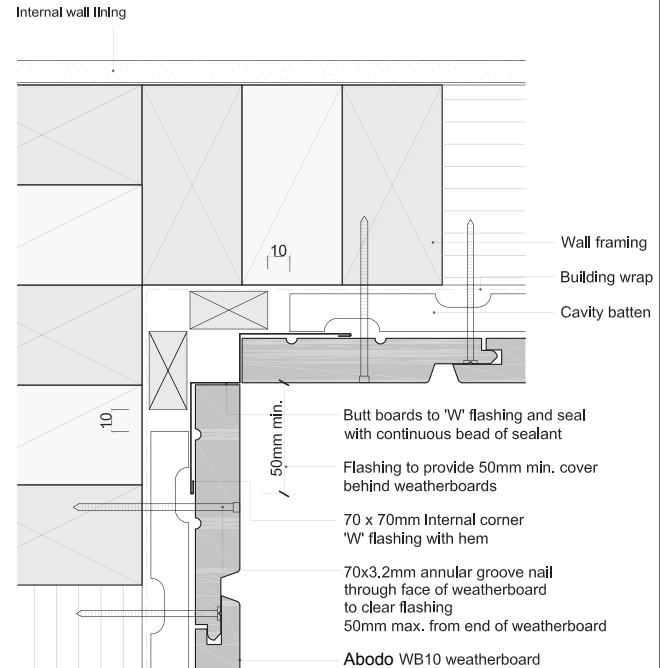
## WB10 Vertical Weatherboard

### Weatherboard Fix - Birdseye



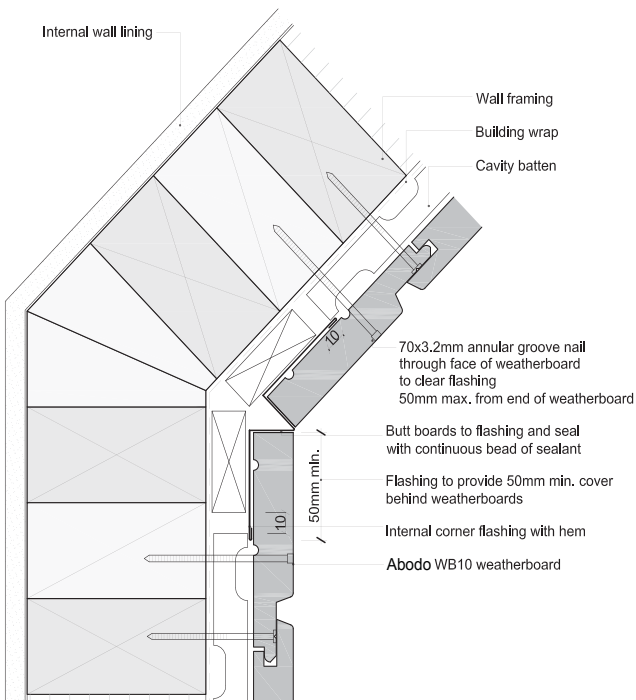
## WB10 Vertical Weatherboard

### Internal 90° Corner - Flashing



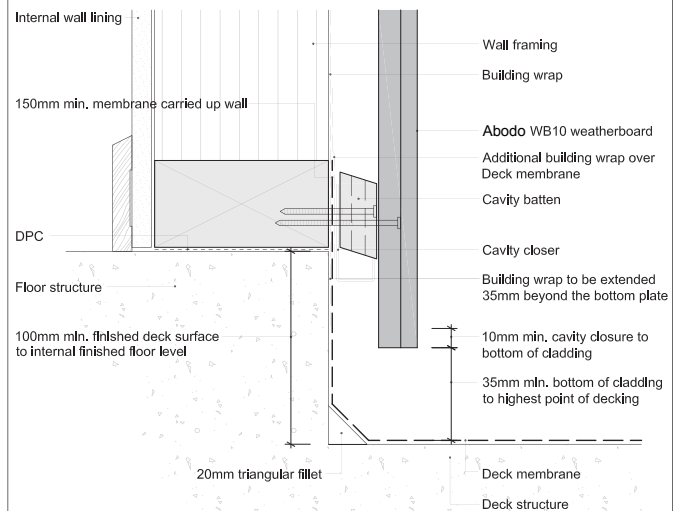
## WB10 Vertical Weatherboard

### Internal 135° Corner - Flashing



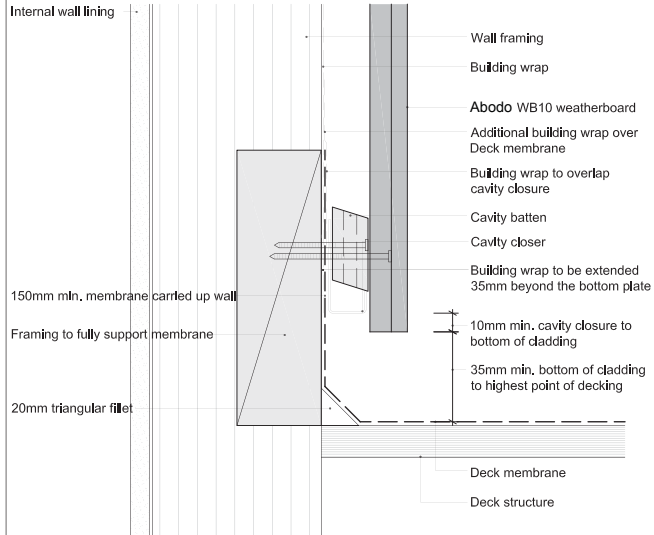
## WB10 Vertical Weatherboard

### Enclosed Deck - Concrete Substrate



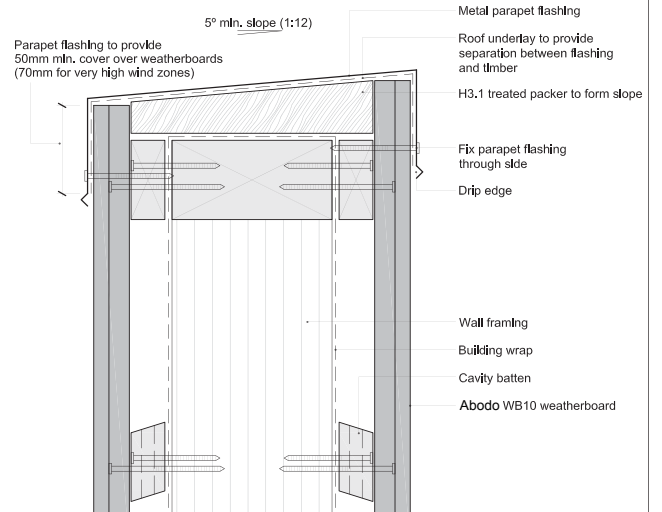
## WB10 Vertical Weatherboard

### Enclosed Deck - Timber Substrate



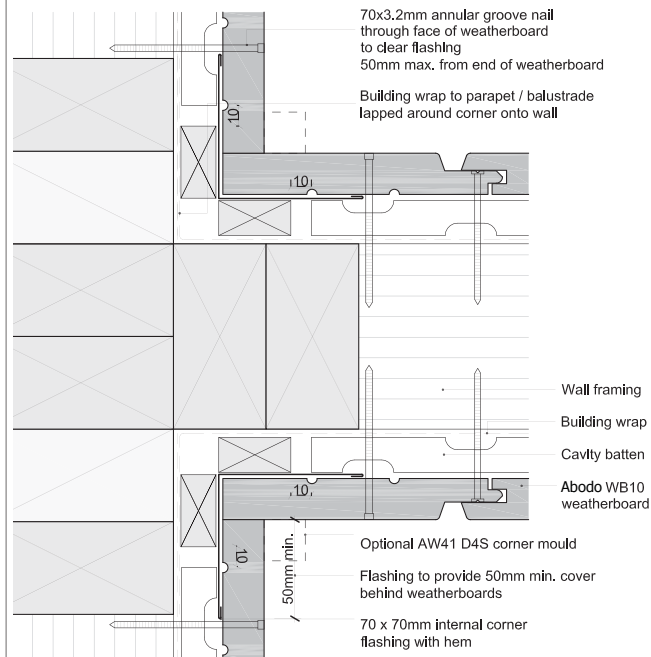
## WB10 Vertical Weatherboard

### Parapet Balustrade Cap Flashing



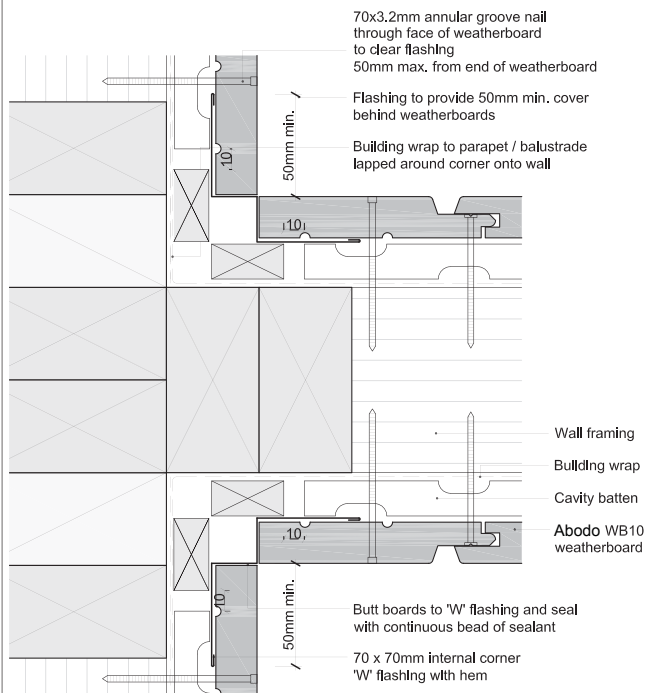
## WB10 Vertical Weatherboard

### Parapet Balustrade Intersection with Wall - Butted



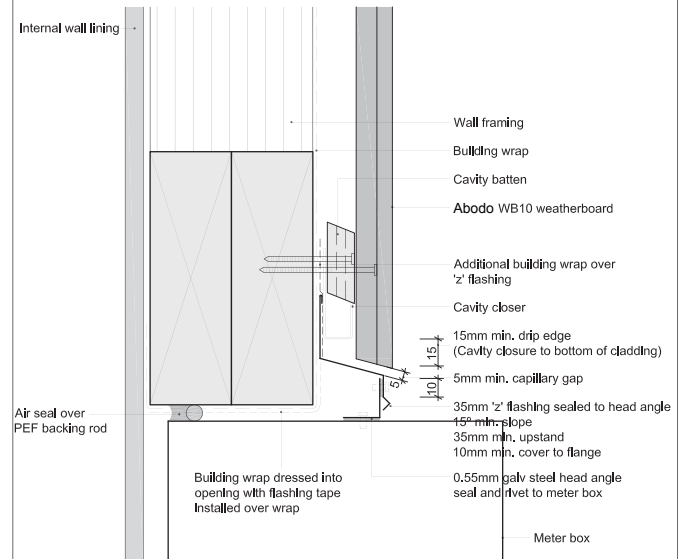
## WB10 Vertical Weatherboard

### Parapet Balustrade Intersection with Wall - Flashing



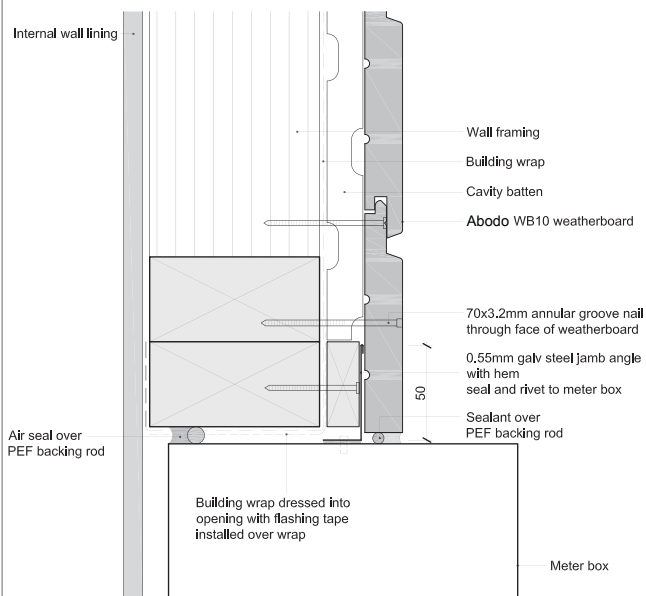
## WB10 Vertical Weatherboard

### Meter Box Head



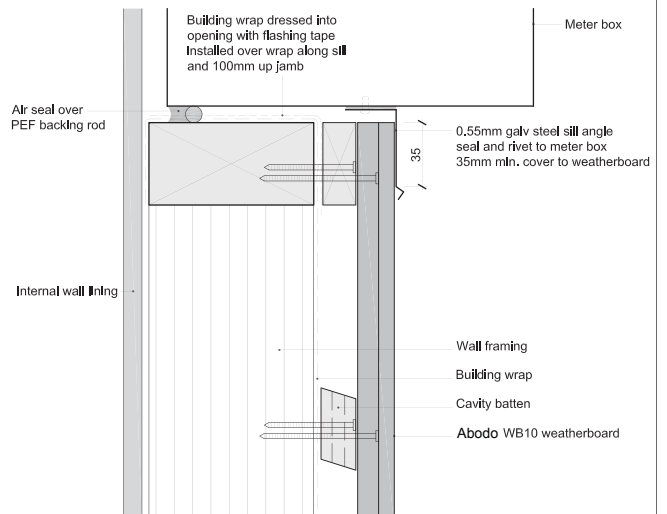
## WB10 Vertical Weatherboard

### Meter Box Jamb



## WB10 Vertical Weatherboard

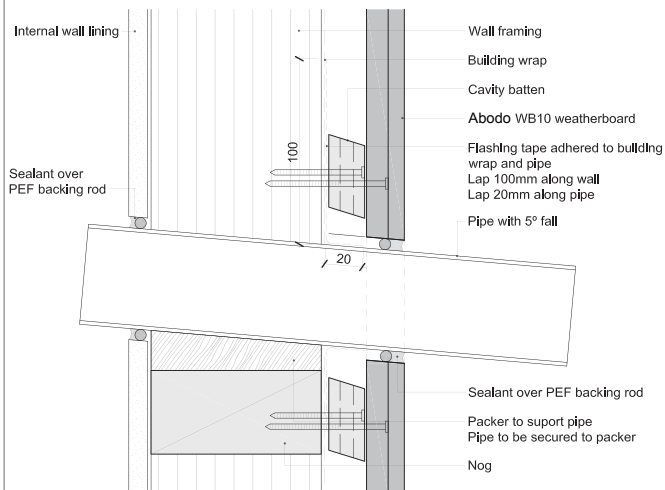
### Meter Box Sill





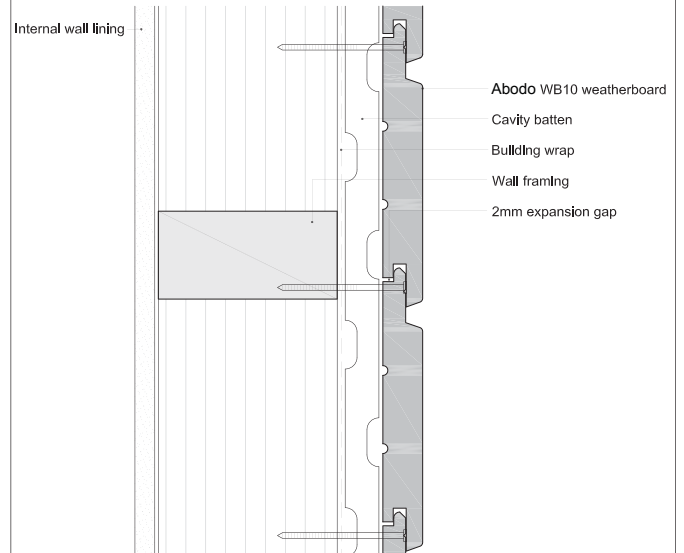
## WB10 Vertical Weatherboard

### Pipe Penetration



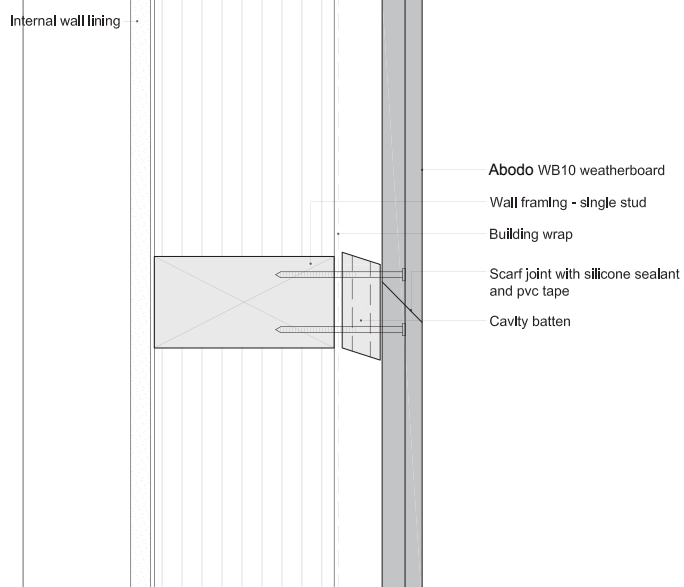
## WB10 Vertical Weatherboard

### Weatherboard Fix - Birdseye



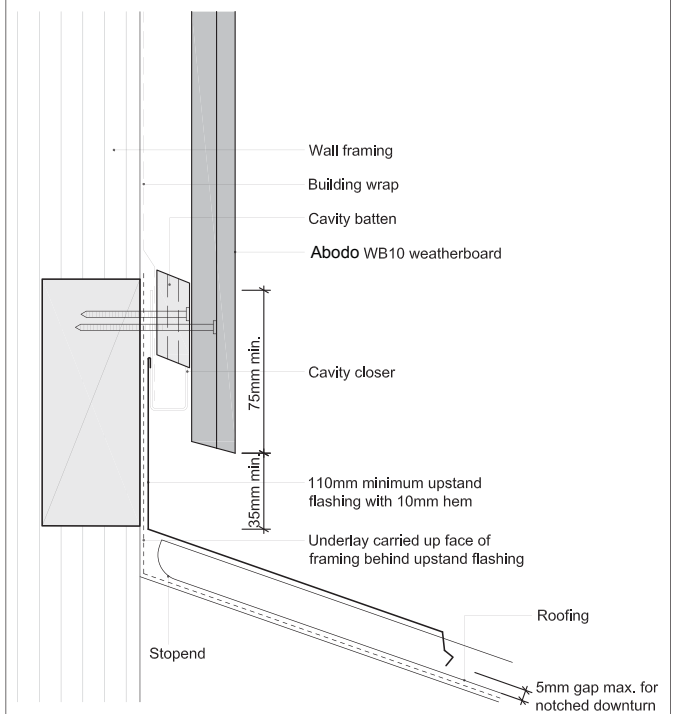
## WB10 Vertical Weatherboard

### Weatherboard Join - Vertical



## WB10 Vertical Weatherboard

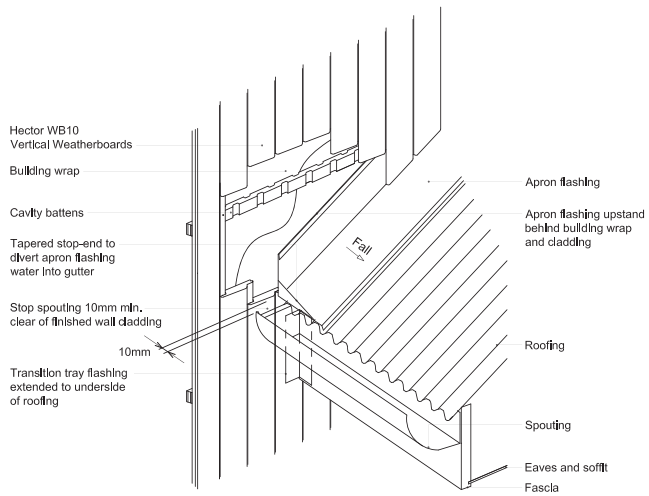
### Apron Flashing



Notes: refer to NZBC E2/AS1 Table 7 for apron flashing cover over roofing

## WB10 Vertical Weatherboard

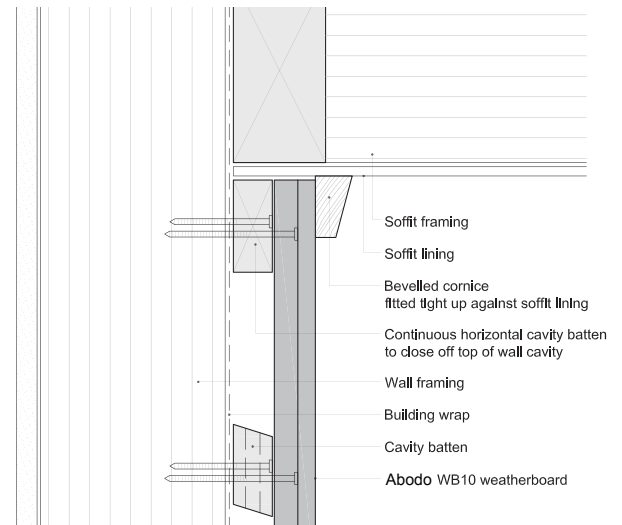
### Roof Kick-out Flashing Cavity Detail



Notes refer to NZBC E2/AS1 Table 7 for apron flashing cover over roofing

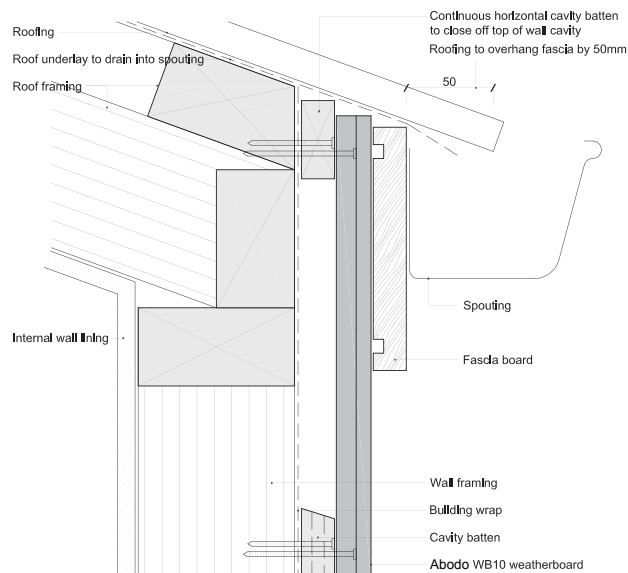
## WB10 Vertical Weatherboard

### Top of Wall - Flat Soffit



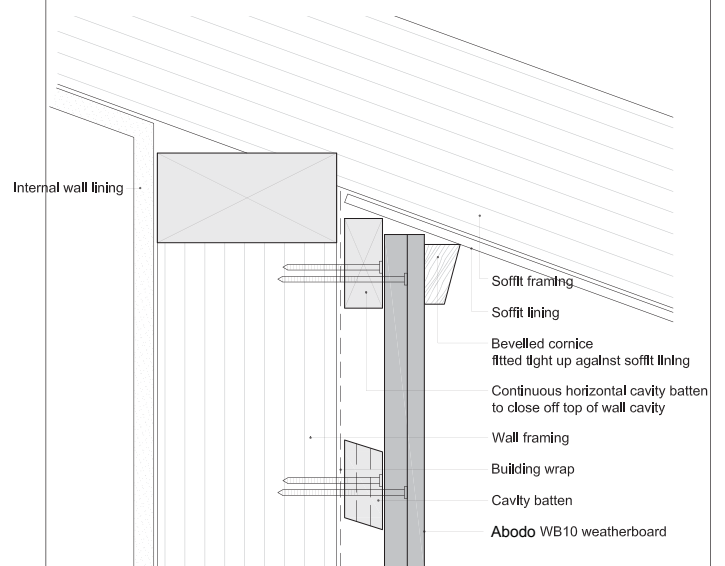
## WB10 Vertical Weatherboard

### Top of Wall - No Soffit

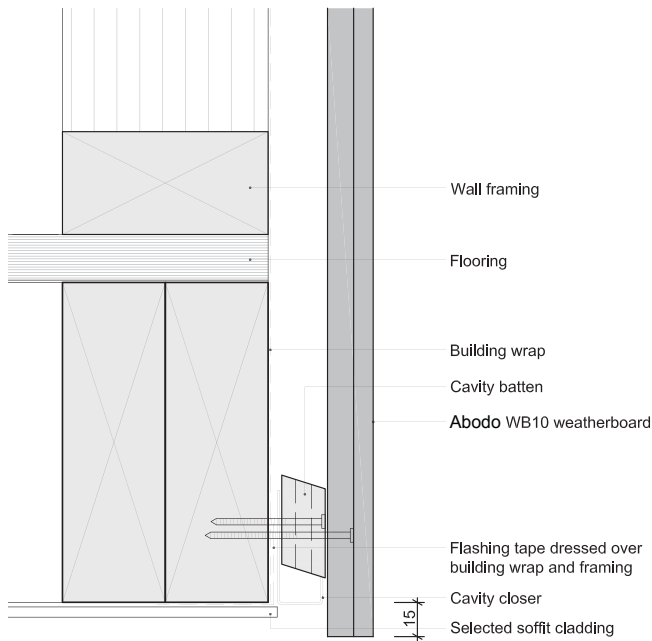


## WB10 Vertical Weatherboard

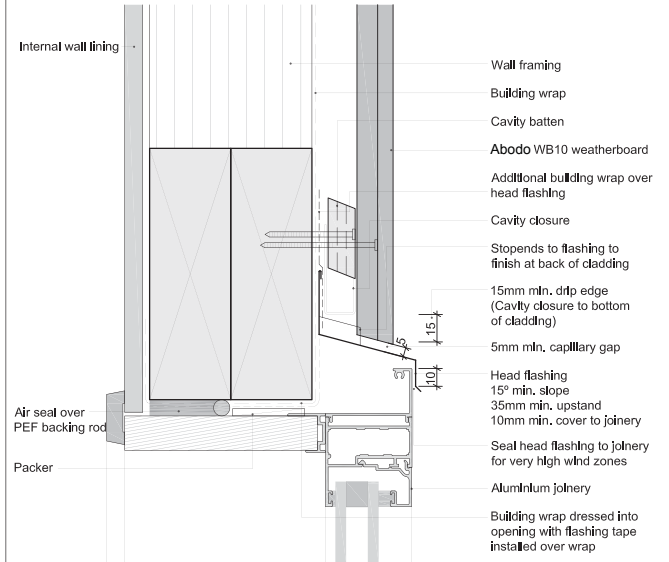
### Top of Wall - Sloping Soffit



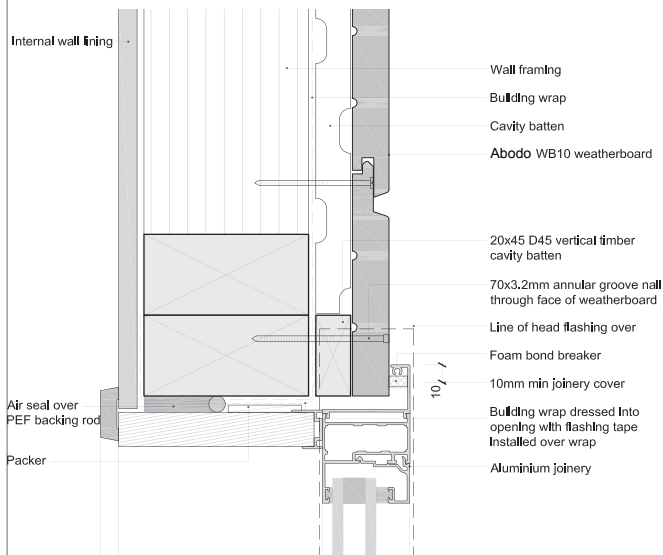
## WB10 Vertical Weatherboard Soffit Detail



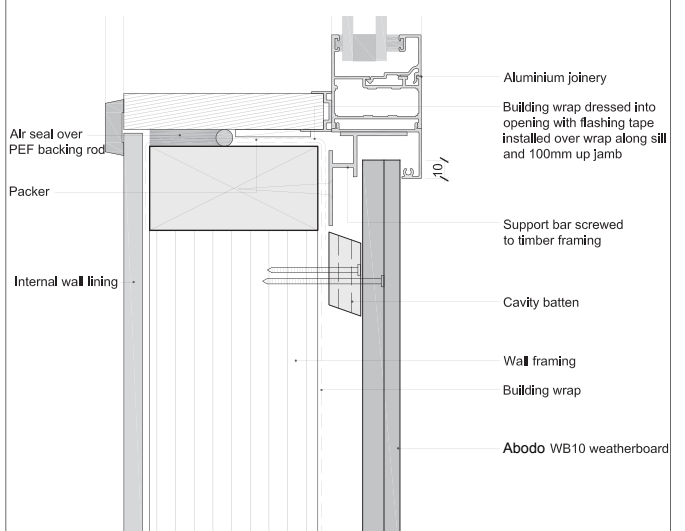
## WB10 Vertical Weatherboard Window Head



## WB10 Vertical Weatherboard Window Jamb

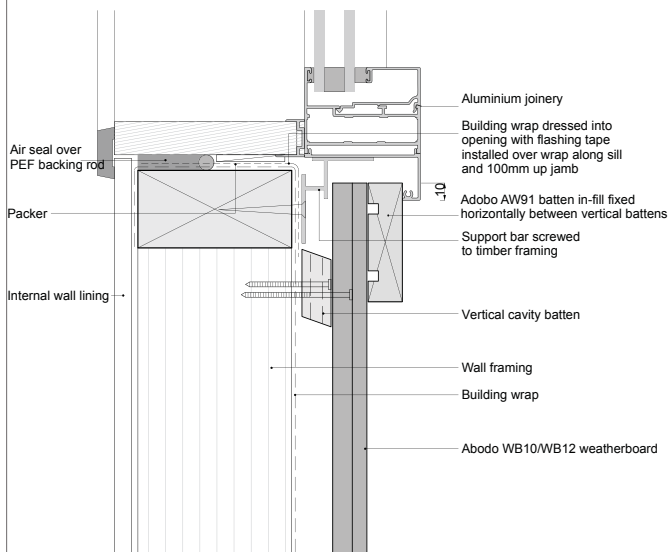


## WB10 Vertical Weatherboard Window Sill



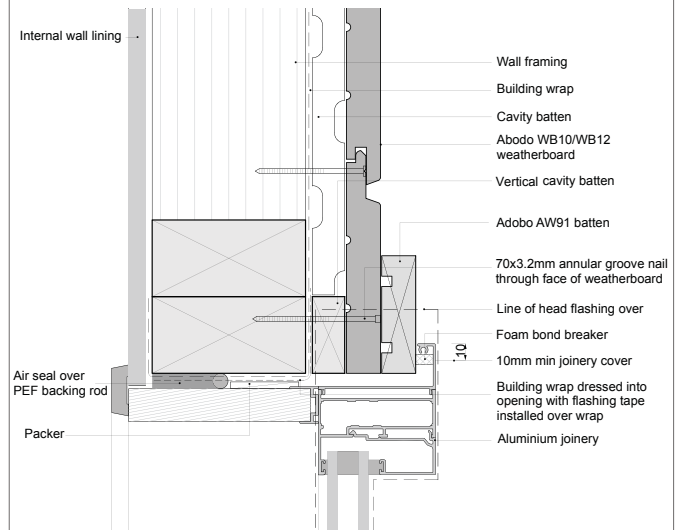
## WB12 Vertical Weatherboard

### Window Sill



## WB12 Vertical Weatherboard

### Window Jamb



## WB12 Vertical Weatherboard

### Window System Front



## WB12 Vertical Weatherboard

### Window System Isometric



**P** +64 9 249 0100  
**E** [info@abodo.co.nz](mailto:info@abodo.co.nz)  
**W** [abodo.co.nz](http://abodo.co.nz)

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