

# Pineclad

## PINECLAD INSTALLATION MANUAL

JUNE 2016



**HUME PINE**  **(NZ) Ltd**



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# 1. Scope

Hume Pine (NZ) Ltd produces Pineclad Weatherboards, Fascia and Moulding Profiles. These products are manufactured accordingly to NZS3604:2011 and acceptable solution E2/AS1, NZS 3602:2003, NZS 3617:1979.

## Fascia Profiles

- 135 x 18mm and 180 x 29mm Fascia Boards
- 180 x 18mm and 135 x 29mm Fascia Boards
- 230 x 18mm and 230 x 29mm Fascia Boards
- 280 x 18mm and 280 x 29mm Fascia Boards

## Weatherboard Profiles

- 135 x 18mm and 180 x 18mm Rusticated Weatherboards
- 135 x 18mm and 142 x 18mm Bevelback Weatherboards
- 180 x 18mm and 187 x 18mm Bevelback Weatherboards
- 135 x 18mm and 180 x 18mm Shiplap Weatherboards
- 135 x 18mm Bevel Rustic Weatherboards
- 135 x 18mm Rebated Bevelback Weatherboard

## Moulding Profiles

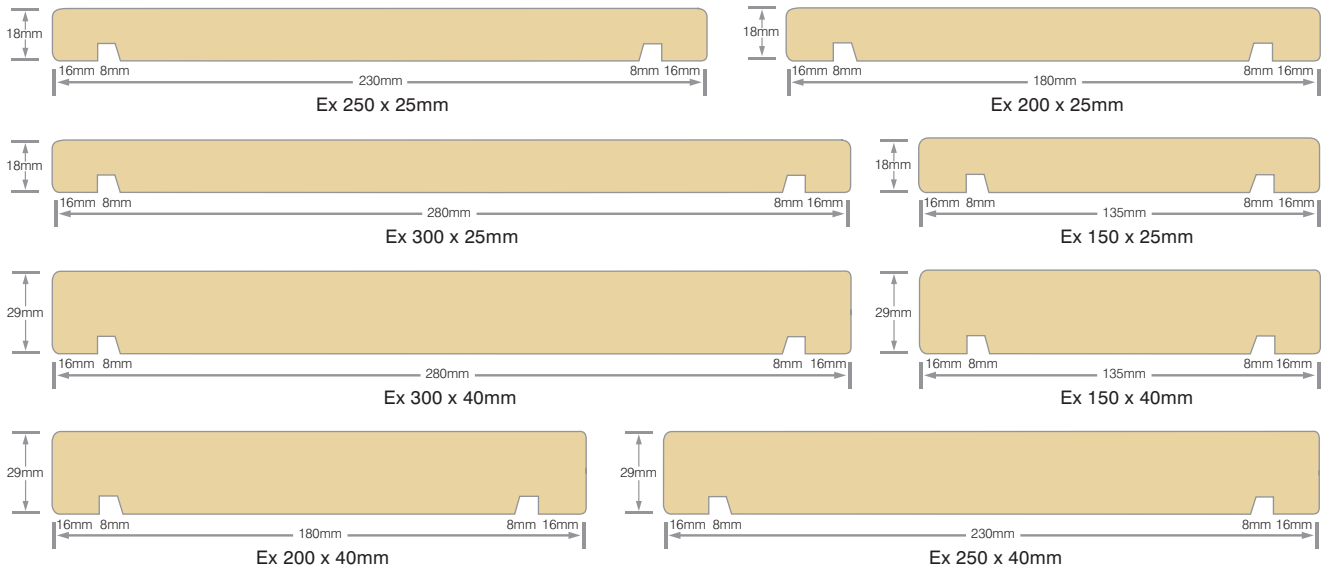
- 30 x 18mm, 40 x 18mm Bevelled Cornice
- 12mm, 18mm Quad
- 28mm, 35mm Scotia
- 60 x 18mm, 40 x 18mm, 30 x 15mm, 40 x 10mm Scriber
- 18 x 18mm, 24 x 24mm D4S
- 18 x 18mm, 24 x 19mm, 40 x 27mm Eaves Mould (with arised edge ) D4S
- 40, 65, 90, 115, 140, 180, 230 x 18mm D4S
- 100 x 18mm Weather Grooved Internal Boxed Corner
- 100 x 18mm Weather Grooved External Boxed Corner
- 83 x 18mm Weather Grooved Universal Boxed Corner
- 65 x 37mm, 35 x 33mm Sill
- 25 x 9mm Rustic Plug
- 25mm Cant Strip
- 135, 142, 180, 187 x 18mm Pro-Scriber
- 135, 150, 180 x 18mm Fibre Cement Pro-Scriber

All Hume Pine Pineclad products have been treated with LOSP timber treatment to an H3.1 hazard class and are supplied pre-primed.

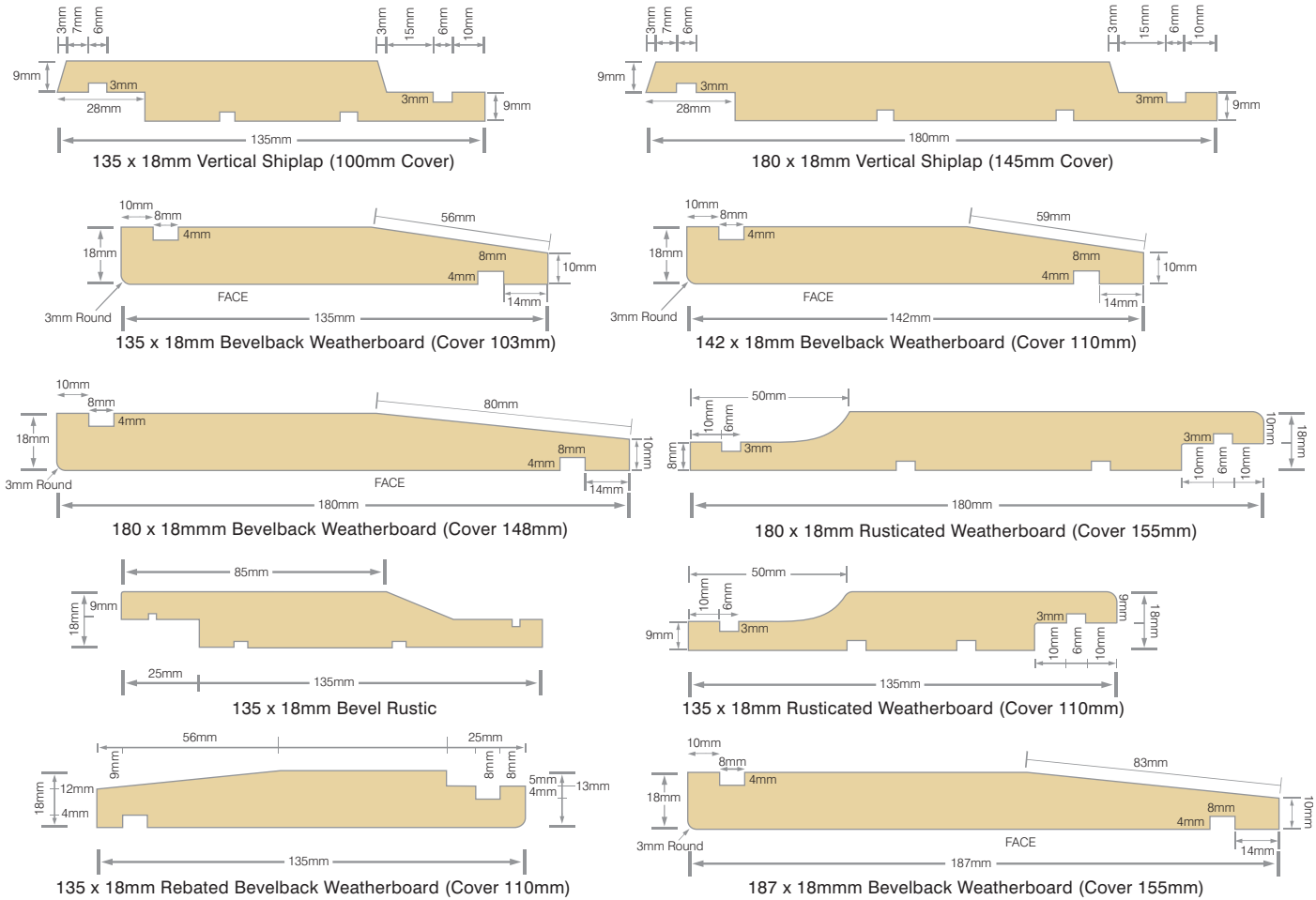


1.1 Pineclad Profiles

Pineclad Fascia Profiles

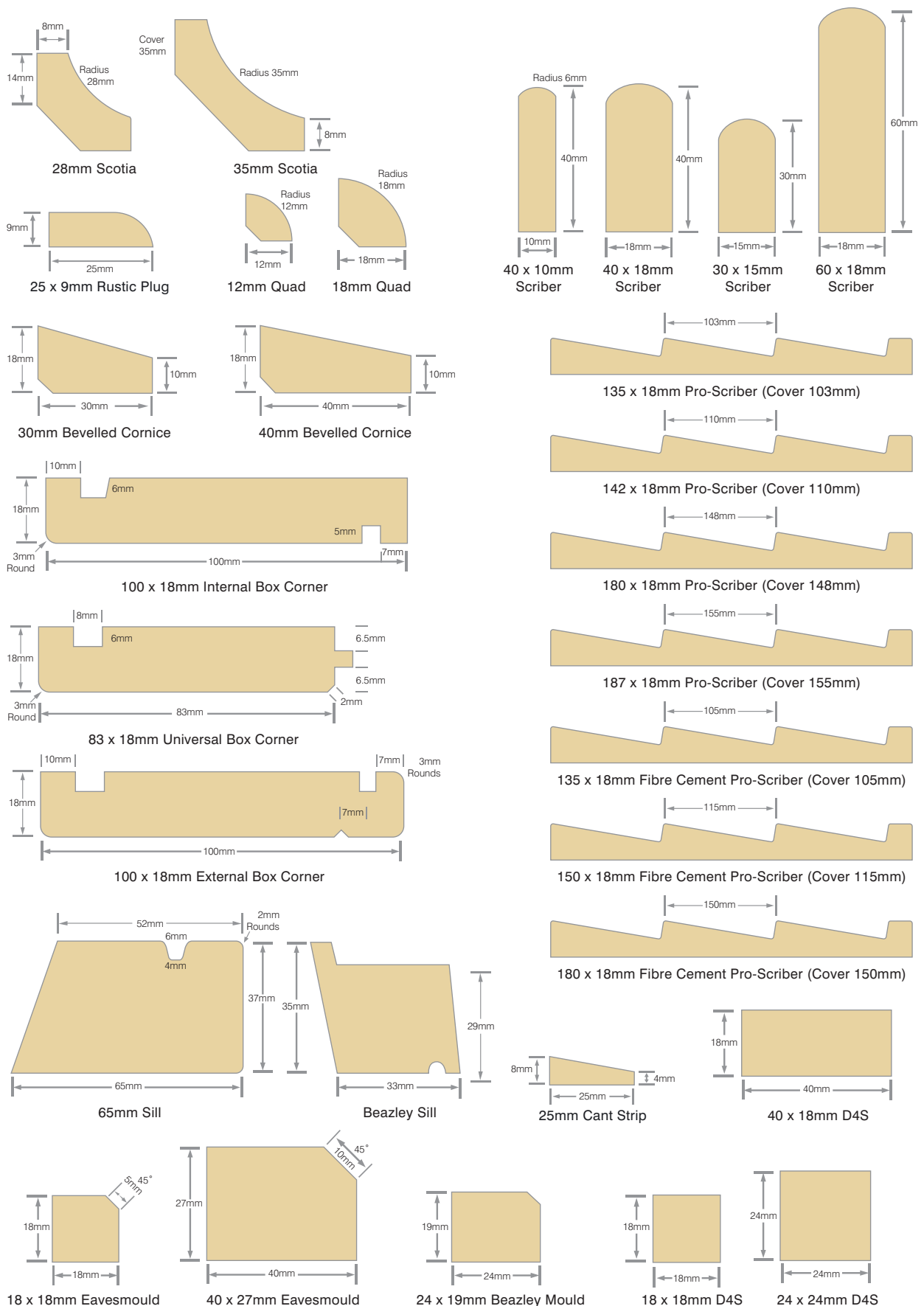


Pineclad Weatherboard Profiles





## Pineclad Exterior Profiles





## 2. Use of Hume Pine (NZ) Pineclad

The Hume Pine (NZ) Ltd Pineclad Weatherboard system has been designed for use in residential and small commercial building applications.

Pineclad weatherboards are available in a number of profiles including Bevelback, Rusticated and Vertical Shiplap.

Pineclad weatherboards shall be either direct-fixed to framing over a wall underlay or fixed to a drained cavity as described in the Acceptable Solution E2/AS1 paragraph 9.1.8.

Vertical weatherboards are not to be used over a cavity system and can only be used direct-fixed to framing over a wall underlay.

Pineclad weatherboards are limited to use in buildings with a risk matrix as outlined in E2/AS1 paragraphs 3.4.1 to 3.4.3.

Table 2.3 shows the risk matrix for weatherboards as follows:

- Over nominal 20mm cavity Bevelbacked and Rusticated weatherboard profiles up to 20.
- Direct-fixed weatherboards in all profiles up to 12.

Weatherboard cladding systems are an alternative solution under the terms of the New Zealand Building Code E2/AS1.

NZBC E2/AS1 section 1.5 specifies that the design, installation and alteration of cladding is classed as restricted building work. Pineclad cladding products must be installed by a Licenced Building Practitioner (LBP).



| 2.1 Definitions of Risk Levels  |           |                 |  |
|---|-----------|-----------------|--|
| Risk Factor   | Score (5) | Risk Severity   | Comments   |
| A: Wind zone  | 0         | Low risk        | Low wind zone as described by NZS 3604.  |
|   | 0         | Medium risk     | Medium wind zone as described by NZS 3604.   |
|   | 1         | High risk       | High wind zone as described by NZS 3604.   |
|   | 2         | Very high risk  | Very high wind zone as described by NZS 3604.  |
|   | 2         | Extra high risk | Extra high wind zone as described in NZS 3604 (4).   |
| B: Number of storeys  | 0         | Low risk        | One storey.  |
|   | 1         | Medium risk     | Two storeys in part.   |
|   | 2         | High risk       | Two storeys.   |
|   | 4         | Very high risk  | More than two storeys.   |
| C: Roof/wall junctions  | 0         | Low risk        | Roof-to-wall intersection fully protected (e.g. hip and gable roof with no eaves).   |
|   | 1         | Medium risk     | Roof-to-wall intersection partly exposed (e.g. hip and gable roof with no eaves).  |
|   | 3         | High risk       | Roof-to-wall intersection fully exposed (e.g. parapets, enclosed balustrades or eaves at greater than 90° to vertical with soft lining).   |
|   | 5         | Very high risk  | Roof elements finishing within the boundaries formed by the exterior walls (e.g. lower ends of aprons, chimneys, dormers etc).             |
| D: Eaves width (1) (2)  | 0         | Low risk        | Greater than 600mm for single storey.  |
|   | 1         | Medium risk     | 451-600mm for single storey, or over 600mm for two storey.   |
|   | 2         | High risk       | 101-450mm for single storey, or 451-600mm for two storey, or greater than 600mm above two storey.  |
|   | 5         | Very high risk  | 0-100mm for single storey, or 0-450mm for two storey, or less than 600mm above two storey.   |
| E: Envelope complexity  | 0         | Low risk        | Simple rectangular, L, T or boomerang shape, with single cladding type.  |
|   | 1         | Medium risk     | Moderately complex, angular or curved shapes (e.g. Y or arrowhead) with no more than two cladding types.                                   |
|   | 3         | High risk       | Complex, angular or curved shapes (e.g. Y or arrowhead) with multiple cladding types.  |
|   | 6         | Very high risk  | As for High risk, but with junctions not covered in C or F of this table (e.g. box windows, pergolas, multi-storey re-entrant shapes etc). |
| F: Decks (3)  | 0         | Low risk        | None, timber slat deck or porch at ground floor level.   |
|   | 2         | Medium risk     | Fully covered in plan by roof, or timber slat deck attached at first or second floor level.  |
|   | 4         | High Risk       | Enclosed deck exposed in plan or cantilevered at first floor level.  |
|   | 6         | Very High Risk  | Enclosed deck exposed in plan or cantilevered at second floor level or above.  |
| NOTES:  |           |                 |  |
| 1. Eaves width measured horizontally from external face of wall cladding to outer edge of overhang, including fascias and external gutters/spoutings. |           |                 |  |
| 2. Balustrades and parapets count as 0mm eaves.   |           |                 |  |
| 3. The term deck includes balconies, as described in the Definitions.   |           |                 |  |
| 4. Buildings in Extra High wind zones require rigid underlays and drained cavities, refer to Table 2.3.   |           |                 |  |
| 5. Refer also to Table 2.2.   |           |                 |  |



2.2 Building Envelope Risk Scores

| Risk Severity  |     |       |        |       |      |       |               |       |  |
|--|-----|-------|--------|-------|------|-------|---------------|-------|--|
| Risk Factor  | LOW | Score | MEDIUM | Score | HIGH | Score | VERY HIGH (1) | Score | Subtotals for Each Risk Factor         |
| Wind zone (per NZS 3604) (1)   | 0   |       | 0      |       | 1    |       | 2             |       |  |
| Number of storeys  | 0   |       | 1      |       | 2    |       | 4             |       |  |
| Roof/wall intersection design  | 0   |       | 1      |       | 3    |       | 5             |       |  |
| Eaves width  | 0   |       | 1      |       | 2    |       | 5             |       |  |
| Envelope complexity  | 0   |       | 1      |       | 3    |       | 6             |       |  |
| Deck design  | 0   |       | 2      |       | 4    |       | 6             |       |  |
| (Enter the appropriate risk severity score for each risk factor in the score columns. Transfer these figures across to the right-hand column. Finally, add up the figures in the right-hand column to get the total risk score.) |     |       |        |       |      |       |               |       | Total risk score for use in Table 2.3: |
| NOTE:  |     |       |        |       |      |       |               |       |  |
| 1. For buildings in Extra High wind zones, refer to Tables 2.1 and 2.3 for rigid underlay and drained cavity requirements.   |     |       |        |       |      |       |               |       |  |





## 2.3 Suitable Wall Claddings

| Risk Score<br>From Table 2.2   |  |  |
|--|--|--|
| Suitable Wall Claddings (1)  |  |  |
|  | Direct-Fixed to Framing  | Over Nominal 20mm Drained Cavity<br>Claddings on parapets, enclosed balustrades, and in Extra High wind zones shall be installed over drained cavities. (5)(6)   |
| 0 – 6  | <ul style="list-style-type: none"><li>a. Timber weatherboards – all types</li><li>b. Fibre cement weatherboards</li><li>c. Vertical profiled metal – corrugated and symmetrical trapezoidal (3)</li><li>d. Fibre cement sheet (4) (Jointed finish)</li><li>e. Plywood sheet</li></ul>  | <ul style="list-style-type: none"><li>a. Masonry veneer (2)</li><li>b. Stucco</li><li>c. Horizontal profiled metal (3) – corrugated and trapezoidal only</li><li>d. Fibre cement – flush-finished</li><li>e. EIFS</li></ul>  |
| 7 – 12   | <ul style="list-style-type: none"><li>a. Bevelback timber weatherboards</li><li>b. Vertical timber board and batten</li><li>c. Vertical profiled metal – corrugated only (3)(6)</li></ul>  | <ul style="list-style-type: none"><li>a. Masonry veneer (2)</li><li>b. Stucco</li><li>c. Horizontal profiled metal – corrugated and trapezoidal only</li><li>d. Rusticated weatherboards</li><li>e. Fibre cement weatherboard</li><li>f. Fibre cement sheet – flush and jointed finish</li><li>g. Plywood sheet</li><li>h. EIFS</li></ul>                                    |
| 13 – 20  | <ul style="list-style-type: none"><li>a. Vertical profiled metal – Corrugated only (3)(6)</li></ul>  | <ul style="list-style-type: none"><li>a. Masonry veneer (2)</li><li>b. Stucco</li><li>c. Horizontal profiled metal – corrugated and trapezoidal only</li><li>d. Rusticated weatherboards</li><li>e. Fibre cement weatherboard</li><li>f. Fibre cement sheet – flush and jointed finish</li><li>g. Plywood sheet</li><li>h. EIFS</li><li>i. Bevelback weatherboards</li></ul> |
| Over 20  | <ul style="list-style-type: none"><li>a. Redesign the building to achieve a lower score, or</li><li>b. Specific design<ul style="list-style-type: none"><li>- The design may need changing to reduce the risk</li><li>- The building consent authority may require more comprehensive details and documentation providing evidence of weather tightness</li><li>- The building consent authority, designer or owner may require more inspections</li><li>- A third party audit of the design may be required</li></ul></li></ul> |  |
| NOTES:   |  |  |
| <ul style="list-style-type: none"><li>1. The wall claddings in this table are limited to those covered in this Acceptable Solution</li><li>2. Traditional masonry veneer as per SNZ HB 4236, with minimum 40mm cavity.</li><li>3. Refer Figure 38 for profiles.</li><li>4. Except stucco over a fibre cement backing.</li><li>5. Claddings in Extra High wind zones require rigid underlays.</li><li>6. Direct fix vertical corrugated steel is included as cavity construction.</li></ul> |  |  |



| 3. Performance Requirements |  |   |  |
|-----------------------------|--|---|--|
| Clause                      | Performance Requirements   | Evidence of Compliance  | Evidence   |
| B1.3.3(a)                   | Account shall be taken of all physical conditions likely to affect the stability of buildings, building elements and site work including self-weight.  | Acceptable Solution B1/AS1 (part 3.0)   | Meets requirements as detailed in acceptable solution.   |
| B2.3.1(b)                   | Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building if stated, or; 15 years if:<br>Those building elements that are moderately difficult to access or replace, or;<br>Failure of those building elements to comply with the building code would go undetected during normal use of the building, but would be easily detected during normal maintenance. | Acceptable Solution B2/AS1<br>3.2 Timber<br>3.2.1(b) NZS 3602 (2004)                        | Meets requirements of the acceptable solution NZS 3602 (2003) Timber a wood based product used in buildings. |
| E2.3.2                      | Roofs and exterior walls, must prevent the penetration of water that could cause undue dampness, damage to building elements or both.  | Acceptable Solution B2/AS1 (9.4)  | Meets requirements as detailed in acceptable solution.   |
| E2.3.7                      | Building elements must be constructed in a way that makes due allowance for the following:<br>The consequence of failure;<br>The effects of uncertainties resulting from construction or from the sequence in which different aspects of construction occur.   | Acceptable Solution E2/AS1 (9.4)  | Meets requirements as detailed in acceptable solution.   |
| F2.3.1                      | The quantities of gas, liquid, radiation and solid particles emitted by materials used in construction of buildings shall not give rise to harmful concentrations at the surface of the material where the material is exposed or in the atmosphere of any space.  | Flash off as prescribed in Code of Best Practice and Assure Quality Treatment Audit Program | Meets Industry requirements.   |

## 4. Service Lifespan

Hume Pine Pineclad weatherboards have a durability warranty based on the Treatment Manufacturer’s limited transferable warranty of 25 Years.

Under the New Zealand Standards NZS 3602:2003 Weatherboards and cladding products must have a minimum durability of 15 years.

When Hume Pine Pineclad weatherboards are installed according to the instructions contained in this manual and by a LBP or suitably qualified person, the service life can be expected to be considerably longer.

Service life is subject to correct installation, paint coating of the product, maintenance and care. Full details covering all the aspects of pre-installation care, installation, painting and maintenance are contained within this manual.



## 5. Pre-Installation Care & Site Preparation

It is important that the Hume Pine Pineclad profiles are well cared for prior to installation. Hume Pine Pineclad is manufactured to comply with all relevant New Zealand standards. To ensure compliance with the warranty, the instructions for care and installation as outlined in this document must be adhered with.

### 5.1 On Site Storage

If the products are stored on site prior to installation, they must be stored in the correct manner to avoid damage or exposure to moisture. While the products are pre-primed this does not prevent moisture uptake if the Hume Pine Pineclad is subject to elemental exposure.

Hume Pine Pineclad must be stored in a dry, well-ventilated area, which is out of direct sunlight and rain. The product must be stacked on a dry surface which, at least 150mm off the ground and must remain covered at all times.

The dunnage strapped to the bottom of the packet is for transport purposes only and is not suitable to use as on site storage, if placed directly onto the ground.

Hume Pine Pineclad Weatherboards, Fascia and Moulding profiles are manufactured from kiln dried Radiata Pine, which is a natural hygroscopic product that will absorb moisture in a damp environment. This may cause swelling and change the dimensions of the profiles, however the profile will return to the manufactured dimensions when it dries to its original moisture content. While the products are delivered with a factory primer coat applied, this is a preparatory coat and will not prevent moisture uptake.

Planning the storage of your Hume Pine Pineclad prior to delivery to site will avoid future issues.

### 5.2 Handling

- Care should be taken when unloading Hume Pine Pineclad. The profiles should be unloaded by hand or if unloaded by mechanical means, ensure that there is a minimum of 2 well-spaced load points to avoid excessive bending or sag during unloading.
- Always carry profiles products on their edge and avoid leaning against any vertical surface to avoid any bending.

### 5.3 Pre-installation Checks

There are a number of simple checks that should be carried out prior to installation which can avoid issues during installation.

- Where any Hume Pine Pineclad profile has been exposed to moisture prior to installation, the moisture content should be checked. If the moisture content is above 16% then the product should not be installed until it returns to 16%.
- When excessive moisture or swelling is found the profile should be put aside and allowed to dry. This is best done by placing the product in fillet and stored as outlined above.
- Check for any defects or damage caused during delivery or storage
- Remove any dirt, dust or stones which may be on the product.
- If there are any areas where primer coat has been removed or damaged, the effected area should be sanded smooth and a primer coat applied.
- This product is primed with a factory applied alkyd architectural coating and a similar oil-based undercoat or primer must be used for touch-up work.



## 6. Installation Guidelines

The product should be installed by a competent qualified person in accordance with the provisions of the Building Code E2/AS1 (sec 9.4) and NZS 3604 (2011). For further information visit BRANZ Good Practice Guide, Timber Cladding.

### 6.1 Fixing Detail

Nail placement for Bevelbacked Weatherboards is to be a maximum of 34mm above the bottom edge of the weatherboard to ensure that it is above the top of the board below. Nails must not penetrate the lap of the lower board.

Boards must be fixed to allow for seasonal movement, with an overlap of 32mm for Bevelbacked Profiles.

Rusticated profiles or profiles with a rebate must have a 25mm overlap with a minimum 2mm gap between the boards at the rebate to allow for seasonal movement.

Nail on an upward angle to prevent water movement down the nail into the wall space. All nails should be punched to a depth of no less than 2mm and suitable exterior filler used to fill the holes immediately.

Nail holes should be pre-drilled especially in areas around joins and the end of boards. This is to avoid splitting the product.

Weatherboards should be fixed so that the weather groove on the inwards face of the product matches the weather groove in the lap face of the board underneath.

There are a number of different fixing options for differing weatherboard applications. The details for these are contained in Table 6.2 (below).

| 6.2 Fixing Selection for Wall Claddings  |                                      |                             |   |  |
|--|--------------------------------------|-----------------------------|---|--|
| Refer to NZS 3604 for fixing types where claddings act as structural bracing. Minimum fixing materials for non-structural claddings, shall be galvanised (1) steel for climate zones B,C and D (as outlined in NZS 3604). Where the cladding is a corrosive timber, such as western red cedar or redwood, or is treated with copper based ACQ or CuAz preservatives, use stainless steel (2) |                                      |                             |   |  |
| <b>COMMENT:</b> Some manufactures may require more durable fixings than those stated below or in NZS 3604 to maintain product warranties.  |                                      |                             |   |  |
| Joint  | Length (mm) x Diameter (mm) & Type   | Minimum Framing Penetration | Fixing Pattern                                      | Requirements   |
| <b>Cavity Battens</b>  |                                      |                             |   |  |
| Battens to framing   | NA                                   | NA                          | NA  | Battens will be fixed by the cladding fixings, which will penetrate the wall framing. Battens will therefore need only temporary fixing until the cladding is fixed. |
| <b>Stucco Plaster</b>  |                                      |                             |   |  |
| Rigid backing to framing   | 60 x 2.5 FH nail                     | 35mm                        | 150mm centres to sides and 300mm centres to middle. |  |
| Metal lath to framing  | 40 x 2.5 FH nail or 40 x 2.8 FH nail | 35mm                        | 150mm centres.                                      |  |
| <b>LEGEND:</b> RH = rose head   JH = jolt head   FH = flat head  |                                      |                             |   |  |



6.2 Fixing Selection for Wall Claddings *(continued)*

| Joint  | Length (mm)<br>x Diameter (mm)<br>& Type | Minimum<br>Framing<br>Penetration | Fixing Pattern   | Requirements                        |
|--|--|-----------------------------------|--|-------------------------------------|
| Fibre Cement Weatherboards                                 |  |                                   |  |                                     |
| Weatherboard<br>DIRECT-FIXED                               | 50 x 2.8 fibre cement<br>rail            | 35mm                              | Single fixing 20mm above lower board,<br>through both thicknesses.   |                                     |
| Weatherboard<br>OVER CAVITY                                | 75 x 3.15 fibre<br>cement rail           | 35mm                              | As above.  |                                     |
| Timber Weatherboards: Paint Finish — DIRECT-FIXED          |  |                                   |  |                                     |
| Horizontal<br>bevelback                                    | 75 x 3.15 JH nail                        | 35mm                              | Single fixing 10mm above top of lower board.                         |                                     |
| Horizontal<br>rebated<br>bevelback                         | 60 x 2.8 JH nail                         | 35mm                              | As above.  |                                     |
| Horizontal<br>rusticated                                   | 60 x 2.8 JH nail                         | 35mm                              | As above.  |                                     |
| Vertical shiplap   | 60 x 2.8 JH nail                         | 35mm                              | Single fixing 10mm from side lap (40mm from<br>edge of board).       | Dwangs at maximum<br>480mm centres. |
| Board and<br>batten board                                  | 60 x 2.8 JH nail                         | 35mm                              | Single fixing in centre or nails clenched over<br>each side.         | As above.                           |
| Board and<br>batten batten                                 | 75 x 3.15 JH nail                        | 35mm                              | Single fixing in centre of batten.                                   | As above.                           |
| Timber Weatherboards: Paint Finish — OVER CAVITY           |  |                                   |  |                                     |
| Horizontal<br>bevelback                                    | 90 x 4.0 JH nail                         | 35mm                              | Single fixing 10mm above top of lower board.                         |                                     |
|  | 75 x 3.15 annular<br>grooved nail        | 25mm                              | Single fixing 10mm above top of lower board.                         |                                     |
| Horizontal<br>rebated<br>bevelback                         | 75 x 3.15 JH nail                        | 35mm                              | As above.  |                                     |
| Horizontal<br>rusticated                                   | 75 x 3.15 JH nail                        | 35mm                              | Single fixing 10mm above top of lower board                          |                                     |
| Timber Weatherboards: Stained or Bare Finish — OVER CAVITY |  |                                   |  |                                     |
| Horizontal<br>Bevelback                                    | 85 x 3.2 RH                              | 30mm                              | Single fixing 10mm annular grooved nail above<br>top of lower board. |                                     |
| Horizontal<br>rebated<br>bevelback                         | 70 x 3.2 RH annular<br>grooved nail      | 30mm                              | As above.  |                                     |
| Horizontal<br>rusticated                                   | 70 x 3.2 RH annular<br>grooved nail      | 30mm                              | As above.  |                                     |

LEGEND: RH = rose head | JH = jolt head | FH = flat head



6.2 Fixing Selection for Wall Claddings *(continued)*

| Joint  | Length (mm)<br>x Diameter (mm)<br>& Type | Minimum<br>Framing<br>Penetration | Fixing Pattern   | Requirements                      |
|--|--|-----------------------------------|--|-----------------------------------|
| Timber Weatherboards: Stained or Bare Finish — DIRECT-FIXED                      |  |                                   |  |                                   |
| Horizontal bevelback   | 65 x 3.2 RH annular grooved nail         | 30mm                              | Single fixing 10mm above top of lower board.                 |                                   |
| Horizontal rebated bevelback   | 50 x 3.2 RH annular grooved nail         | 30mm                              | As above.  |                                   |
| Horizontal rusticated  | 50 x 2.8 fibre cement rail               | 30mm                              | As above.  |                                   |
| Vertical shiplap   | 50 x 3.2 RH annular grooved nail         | 30mm                              | Single fixing 10mm from side lap (40mm from edge of board).  | Dwangs at maximum 480 mm centres. |
| Board and batten   | 60 x 3.2 RH                              | 30mm                              | Single fixing in centre board annular grooved nail of board. | As above.                         |
| Board and batten Batten  | 75 x 3.2 RH                              | 30mm                              | As above.  | As above.                         |
| Vertical Profiled Metal — DIRECT-FIXED   Horizontal Profiled Metal — OVER CAVITY |  |                                   |  |                                   |
| Plywood Sheet: Paint Finish — DIRECT-FIXED                                       |  |                                   |  |                                   |
| Plywood to stud or batten  | 50 x 2.8 FH nail                         | 30mm                              | 150mm centres to sides, 300mm centres in middle.             |                                   |
| External cover batten  | 65 x 3.2 RH annular grooved nail         | 30mm                              | 300mm centres in centre of batten.                           |                                   |
| Plywood Sheet: Paint Finish — OVER CAVITY  |  |                                   |  |                                   |
| Plywood  | 60 x 2.8 FH nail                         | 30mm                              | 150mm centres to sides, 300mm centres in middle.             |                                   |
| Cover batten   | 60 x 2.8 JH nail                         | To cavity battens only            | 300mm centres battens only in centre of batten.              |                                   |
| Plywood Sheet: Stained or Bare Finish — DIRECT-FIXED                             |  |                                   |  |                                   |
| Plywood to stud or batten  | 50 x 2.8 FH nail                         | 30mm                              | 150mm centres to sides, 300mm centres in middle.             |                                   |
| External cover batten  | 65 x 3.2 RH annular grooved nail         | 30mm                              | 300mm centres in grooved nail centre of batten.              |                                   |
| Plywood Sheet: Stained Or Bare Finish — OVER CAVITY                              |  |                                   |  |                                   |
| Plywood  | 65 x 3.2 FH nail                         | 30mm                              | 150mm centres to sides, 300mm centres in middle.             |                                   |
| External cover batten  | 65 x 3.2 RH annular grooved nail         | To cavity battens only            | 300 centres in centre of batten.                             |                                   |

LEGEND: RH = rose head | JH = jolt head | FH = flat head



| 6.2 Fixing Selection for Wall Claddings <i>(continued)</i>  |  |                                   |   |              |
|---|--|-----------------------------------|---|--------------|
| Joint   | Length (mm)<br>x Diameter (mm)<br>& Type | Minimum<br>Framing<br>Penetration | Fixing Pattern  | Requirements |
| Fibre Cement Sheet: Jointed — DIRECT-FIXED  |  |                                   |   |              |
| Sheet   | 40 x 2.8 fibre<br>cement nail            | 30mm                              | 150mm centres to sides, 300mm centres<br>in middle.                   |              |
| External cover<br>batten  | 65 x 3.15 JH nail                        | 30mm                              | Single fixing in centre of batten.                                    |              |
| Fibre Cement Sheet: Jointed — OVER CAVITY   |  |                                   |   |              |
| Sheet   | 60 x 3.15 fibre<br>cement nail           | 30mm                              | 150mm centres to sides, 300mm centres<br>in middle.                   |              |
| External cover<br>batten  | 65 x 3.15 JH nail                        | To cavity<br>battens only         | Single fixing in centre of batten.                                    |              |
| Fibre Cement Sheet: Flush-Finish  |  |                                   |   |              |
| OVER CAVITY   | 65 x 3.15 fibre<br>cement nail           |                                   | As above.   |              |
| EIFS  |  |                                   |   |              |
| 40mm<br>polystyrene<br>sheet OVER<br>CAVITY   | 90 x 4.0 nail                            | 30mm                              | As above and with 40mm plastic washers<br>on external corner fixings. |              |
| <b>Notes:</b><br>1. Galvanised nails shall be hot-dipped galvanised; galvanised screws shall be mechanically zinc plated in accordance with AS 3566 Class 4.<br>2. Stainless steel nails shall have annular grooves to provide similar withdrawal resistance to hot-dip galvanised nails. |  |                                   |   |              |

**LEGEND:** RH = rose head | JH = jolt head | FH = flat head



## 6.3 Fixing Details for Installing Weatherboards Using Cavity Battens

Cavities must comply with E2/AS1 sections 9.1.8 to 9.1.9.4 There are 2 different cavity fixing systems:

- a. Cavity battens fixed by the cladding fixings to the wall frame.
- b. Claddings are fixed through the cavity battens into the wall frame.

Timber Weatherboard cladding with a drained cavity does not require venting at the top of the wall.

There must be a restriction of air movement between the cavity and:

- The floor, wall and roof framing.
- Attic roof space.
- Sub-floor space.

Cavities must be drained to the exterior of the building at the bottom of the cavities.

Where window penetrations are wider than cavity batten spaces allowance must be made for air flow between adjacent by leaving a minimum gap of 10mm between the bottom of the vertical batten and the flashing to the opening.

It is important to note that where a cavity batten is fixed through the cladding the nails used are required to have a minimum fixing penetration into the framing of 35mm, so a longer nail is required. The nail length shall be 35mm plus thickness of batten, plus thickness of cladding board.

When the cavity batten is fixed to the framing it is considered as part of the framing in respect to the fixing of weatherboards.

Cavity battens fixed by the cladding are required to be nailed at 800mm centres. Cavity battens fixed to the framing are required to be nailed at 300mm centres.

Drained cavity systems are required to be vermin-proofed. Vermin proofing is required above window and door heads and at the base of drained cavities.

Vermin proofing shall:

- Provide holes or slots between 3mm and 5mm.
- Provide an area of opening of 1000mm<sup>2</sup> per lineal meter of wall cladding.
- Be positioned to allow a minimum drip edge to the wall cladding of
- 10mm at the base of the wall
- 15mm above window and door head flashings.

Vermin proofing must be kept clear and unobstructed to maintain draining and venting of the cavity.





## 6.4 Fixing Detail for Direct Fix Weatherboards

Weatherboards can be directly fixed to the framing but the use of this is limited by section 3.3 of the NZBC.

All types of weatherboards can be used where the risk score is between 0 and 6. Where the building risk score is 7 to 12 only bevelbacked weatherboards can be used.

Where weatherboards are directly fixed to the framing a wall underlay complying with Table 23 of the NZBC sections 9.1.5-9.1.7 shall be installed prior to fixing.

## 6.5 Fixing Details for Vertical Shiplap Weatherboards

Vertical Shiplap Weatherboards are limited to direct fix options, therefore are limited to low risk applications.

They are only suitable for use buildings with a risk score between 0 and 6.

Products used in vertical cladding applications shall be in continuous lengths over a storey height.

Laps of vertical Shiplap Weatherboards shall be fitted with a minimum of a 2mm gap at the overlap between boards.

Vertical weatherboards shall be fixed to nogs or dwangs at 480mm maximum centres.

## 6.6 Bottom of Cladding

There are differing requirements for the clearance between cladding and floors.

Wall cladding and concrete slabs:

- Weatherboard cladding must finish a minimum clearance of 100mm on a paved surface or 175mm on a non-paved surface.
- Overlap the concrete slab by a minimum of 50mm.
- Direct fix cladding must have a minimum horizontal off-set of 6mm to prevent moisture capillary action.

Wall Cladding on suspended timber floors:

- Weatherboards and cladding must overlap the floor structure by no less than 50mm.
- With drained cavities there will be no direct connection between the sub floor spaces and the drained cavities.
- Direct fix cladding must have a minimum horizontal offset of 6mm to prevent moisture capillary action.
- With drained cavity systems care must be taken to ensure air from the sub-floor space cannot enter the cavity.



## 6.7 Wall Penetration

Prior to the installation of doors and windows the following must be completed:

- Flexible wall underlay shall be cut and dressed on all sides.
- Flexible flashing tape shall be applied to the head and sill framing.

Windows, doors and other penetration openings shall have a flexible air seal to minimise the risk of air flow carrying moisture into the building wall.

The air seal shall:

- Be between the reveal or the frame and the wrapped opening.
- Installed over closed cell polyurethane foam, backing rod or similar product.
- Be made of:
  - Self-expanding polyurethane foam
  - A sealant complying with Type F, class 20LM of ISO 11600 or a low modulus Type II Class A Federal Specification TT-S-00230C.

## 6.8 Window & Door Heads

When installed the flange forming the window, door facing must overlap the cladding material or the back flashing by a minimum of:

- 10mm on jambs
- 8mm on sills

Direct Fix Weatherboards:

When installing direct fix weatherboards, window and doors shall have a 5mm stand-off from the flange to the weatherboard to allow for air equalisation. The gap is to be sealed or trimmed down the jamb but left open along the sill.

Head flashings must have a 50mm bead of sealant installed between the weatherboard and each end of the head flashing.

Drained Cavity Weatherboard Systems:

There is no sill flashing used.

Weatherboard cladding requires a 5mm stand-off to allow for the use of sealant weather seals between the facings and the cladding head flashings must:

- Incorporate 10mm turn-ups to stop ends, which terminate at the inside face of the cladding.
- Permit ventilation of the drained cavity.
- In very high wind zones, they must have sealant installed between the underside of the head flashing and the top edge of the window head flange.



## 6.9 Cutting & End Sealing

All cut ends, drill holes, rebates and notches must be resealed immediately with a suitable approved product. End sealing can also be achieved by the application of 2 coats of a quality primer which are allowed to dry between coats.

When products are joined a scarf or splay joint is to be used. These must face away from the prevailing weather and corrosion-resistant soaker must be applied.

## 6.10 Nail Selection

Hume Pine Pineclad Profiles are all treated to an H3.1 Hazard class using Light Organic Solvent Preservative (LOSP).

Nails can be either Galvanised Steel, Silicone Bronze or Stainless Steel.

Note In sea-spray zones nails must be Stainless Steel.

Hand nailing is recommended as the use of nail guns can cause fibre damage to the face and back of the board.

## 6.11 Soakers & Flashings

Soakers and flashings can be Galvanised Steel, Aluminium, Stainless Steel (304) or Copper. All these materials are compatible with Hume Pine Pineclad profiles.

Soakers and flashing must be fixed in accordance with the NZS3604:2011 and Acceptable Solution E2/AS1. Soakers must have a minimum of 15mm overlap from the corner or joint.

NZS 3604:2011 section 4 and Table 6.12 outline durability for flashings.

Section 9 of E2/AS1 outlines flashing design and fabrication details.



| 6.12 Material Selection   |   |        |  |  |
|---|---|--------|--|--|
| Material  | Exposure<br>(1) (2) (4) (6)<br><br>NOTE: Consider<br>all walls as<br>'Sheltered' for<br>steel based | Type   | Acceptable Exposure Zones as per<br>NZS 3604 – Section 4 (3) (4) (6)<br>Requirements |  |
|   |   |        | 15 Years   | 50 years for<br>hidden<br>elements (2) (9) |
| CLADDINGS & FLASHINGS   |   |        |  |  |
| Aluminium, zinc   | Hidden (2)  |        | B, C, D, E   | B, C, D, E                                 |
|   | Exposed   |        | B, C, D, E   |  |
|   | Sheltered   |        | B, C, D, E   |  |
| Copper, lead,<br>or stainless steel   | Hidden (2)  |        | B, C, D, E   | B, C, D, E                                 |
|   | Exposed   |        | B, C, D, E   |  |
|   | Sheltered   |        | B, C, D, E   |  |
| Factory Painted   |   |        |  |  |
| Aluminium-zinc coated or galvanised steel to AS/<br>NZS 2728 (includes pre-painted tiles)         | Hidden (9)  | Type 4 | B, C, D, E   | B, C, D                                    |
|   | Hidden (9)  | Type 6 | B, C, D, E   | B, C, D, E                                 |
|   | Exposed (8)   | Type 4 | B, C, D  |  |
|   | Exposed (8)   | Type 6 | B, C, D, E   |  |
|   | Sheltered   | Type 4 | B, C   |  |
|   | Sheltered   | Type 6 | B, C, D  |  |
| Pressed metal tiles aluminium-zinc coated AZ150<br>to AS/NZS 2728 With post-form factory painting | Exposed   | Type 6 | B, C, D, E   |  |
|   | Sheltered   | Type 6 | B, C, D  |  |
| Non-factory Painted   |   |        |  |  |
| Aluminium-zinc coated steel AZ150 to AS 1397  | Hidden (9)  |        | B, C, D, E   | B, C, D                                    |
|   | Exposed (8)   |        | B, C   |  |
|   | Sheltered   |        | B  |  |
| Galvanised steel Z450 to AS 1397  | Hidden (9)  |        | B, C, D  | B, C                                       |
|   | Exposed (8)   |        | B, C   |  |
|   | Sheltered   |        | B  |  |
| Non-metallic  |   |        |  |  |
| Bituminous material, or uPVC  | Hidden  |        | B, C, D, E   | B, C, D, E                                 |
|   | Exposed<br>(uPVC only)  |        | B, C, D, E   |  |
|   | Sheltered<br>(uPVC only)  |        | B, C, D, E   |  |
| Butyl rubber  | Hidden  |        | B, C, D, E   | B, C, D, E                                 |
|   | Exposed   |        | B, C, D, E   |  |
|   | Sheltered   |        | B, C, D, E   |  |

6.12 Material Selection *(continued)*

| 6.12 Material Selection (continued)                                    |   |         |  |            |
|--|---|---------|--|------------|
| Material   | Exposure<br>(1) (2) (4) (6)<br><br>NOTE: Consider<br>all walls as<br>'Sheltered' for<br>steel based | Type    | Acceptable Exposure Zones as per<br>NZS 3604 – Section 4 (3) (4) (6)<br>Requirements |            |
|  | 15 Years  |         | 50 years for<br>hidden<br>elements (2) (9)   |            |
| FIXINGS (7)  |   |         |  |            |
| Aluminium, bronze, and stainless steel<br>(Types 304 and 316)(10)      | Hidden  |         | B, C, D, E   | B, C, D, E |
|  | Exposed   |         | B, C, D, E   |            |
|  | Sheltered   |         | B, C, D, E   |            |
| Nails – Hot-dip galvanised steel to AS/NZS 4680                        | Hidden (5) (9)  |         | B, C, D  | B, C       |
|  | Exposed   |         | B, C   |            |
|  | Sheltered   |         | B  |            |
| Screws – galvanised steel, painted or unpainted,<br>to AS 3566: Part 2 | Hidden (5) (9)  | Class 3 | B, C, D, E (3) (4)   | B, C, D, E |
|  | Exposed   | Class 4 | B, C, D  |            |
|  | Sheltered   | Class 4 | B, C   |            |

**Note:**

- The term “hidden” means concealed behind another element such that no part is visible. Hidden elements require a 50 year durability under the NZBC. The term “exposed” means having surfaces exposed to rain washing. The term “sheltered” means being visible, but not rain washed. For diagrammatic outline, refer NZS 3604 Figure 4.3(a). Exposed and sheltered elements require a 15 year durability. Where an element can be categorised as both “sheltered” and “exposed”, the “sheltered” condition will apply.
- AS/NZS 2728 lists atmospheric classes derived from ISO 9223 for Australia and New Zealand, determined by exposure to wind-driven sea-spray. NZS 3604 references atmospheric classes B (Low), C (Medium) and D (High). E2/AS1 references atmospheric zones B,C,D,E. For the purposes of cladding selection, Zone E (Severe marine classified as breaking surf beach fronts) has been included. Designers must consult metal supplier's information for specific durability requirements of sites in Zone E.
- The geographic limits of atmospheric classes in NZS 3604 and AS/NZS 2728 may vary. Table 6.12 uses the limits outlined in NZS 3604.
- Includes fixings protected by putty and an exterior paint system of primer, undercoat and two top coats of paint.
- Micro climates based on evidence from adjacent structures of corrosion caused by industrial or geothermal atmospheres are outside the scope of this Acceptable Solution.
- Refer to Tables 21 and 22 for compatibility of fixings with metal claddings
- Roof only. Coated steel wall claddings must be considered as “sheltered”.
- Hidden steel coated elements in ventilated cavities in zones D and E (exposure to salt air) must be considered as “sheltered”.
- The use of stainless steel fixings is not recommended by steel manufacturers for use with coated steel in severe marine and industrial environments, as they are considered to cause deterioration.



Diagram 5: Flashings

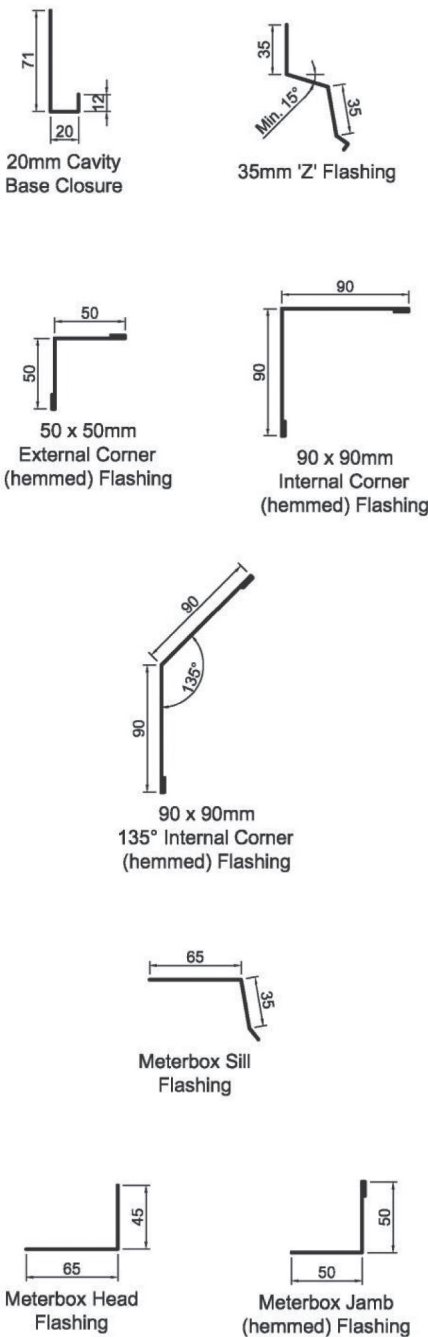
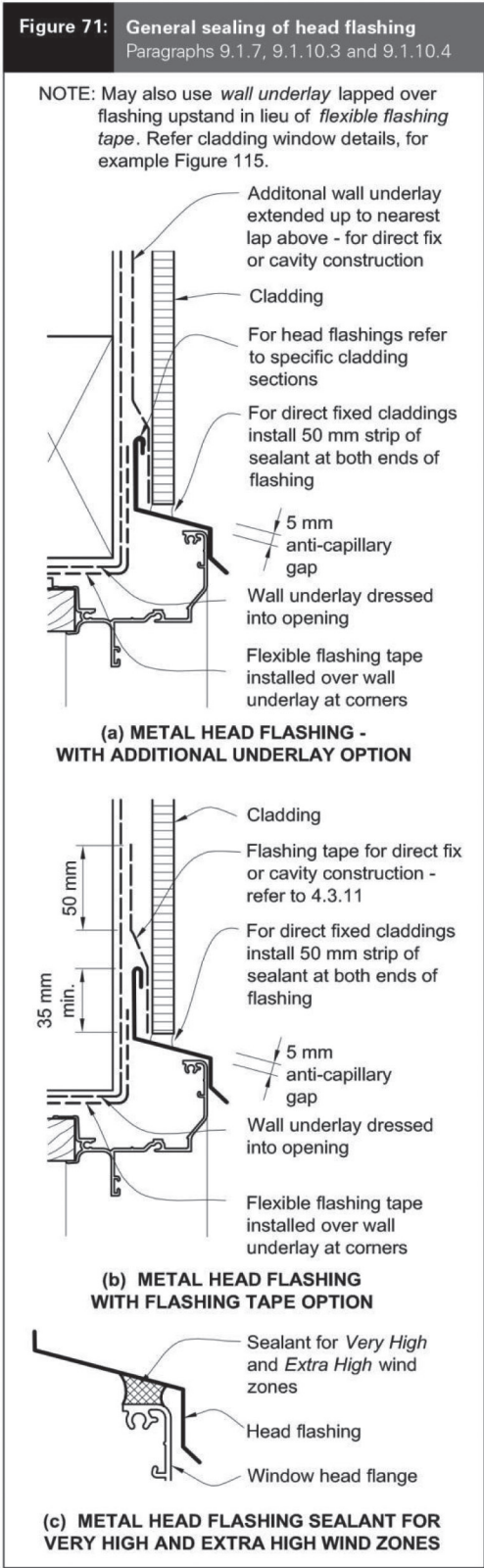


Figure 71:  
General Sealing of Head Flashing



Amend 5  
Aug 2011



### 6.13 Box Corners for External Corners

The Hume Pine Pineclad range includes a profile boxed corner product which is supplied in 2 parts. These products have weather grooves and are machined to size to ensure that when fitted the 2 parts form an even boxed corner profile.

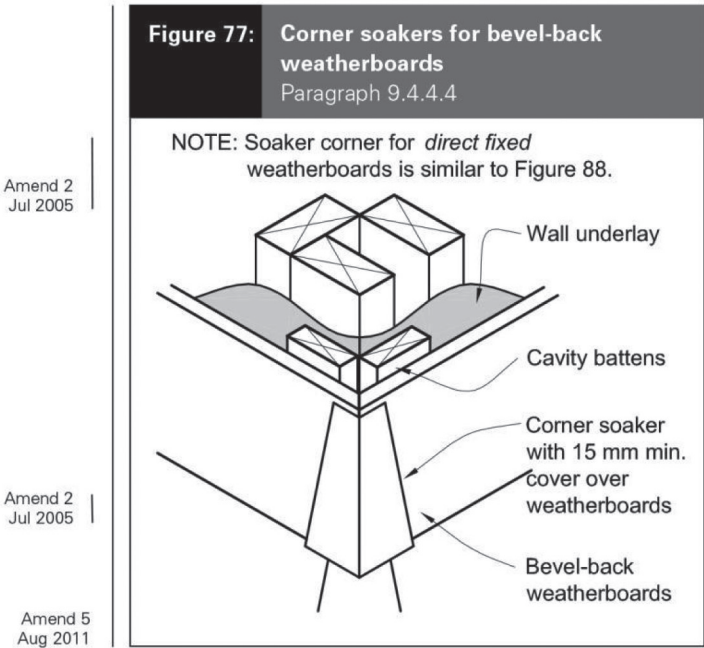
The boxed corner must provide a minimum cover of 50mm from the join or cut end of the weatherboards.

Boxed corners are made weather proof by one of the following methods:

- a. For Rusticated weatherboard profiles a plug or scriber can be used.
- b. For Bevelbacked profiles a scriber can be used.

There are boxed corner options for Rusticated, Bevelback and vertical Shiplap weatherboards as shown in the figure 77.

Figure 77: Corner Soakers For Bevelback Weatherboards



### 6.14 Internal Corners

Internal corners must be made water tight by the use of corrosion resistant flashings which shall be fitted behind the weatherboards on all internal corners.



## 6.15 General Inter-Storey Junctions

Inter-storey junctions in cladding over drained cavity systems shall be formed for walls over 2 storeys or 7 meters in Height.

Cavity battens used can run the full height of the wall, however wall over 7 meters or 2 storeys must have an Inter-Storey Junction. This is formed to allow for the management of moisture handled by the cavity to be directed to the outside of the building.

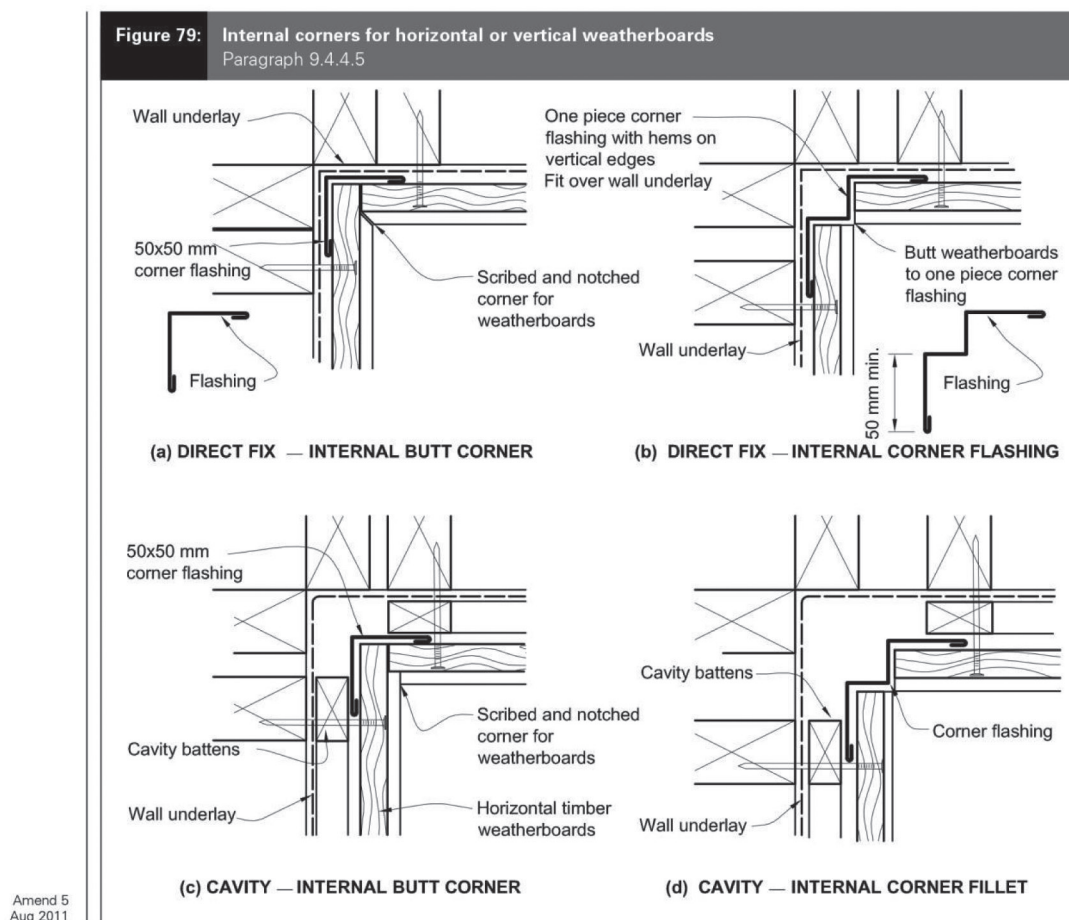
The Junction must have:

- A Minimum 15mm drip edge
- A minimum 5mm capillary gap

Flashing used must have:

- A Minimum 15 degree slope
- A minimum 35mm up stand
- A minimum 35mm cover over the weatherboard

Figure 79: Internal Corners for Horizontal or Vertical Weatherboards







## 7. Painting Requirements

Pineclad Weatherboards and cladding products are delivered to site coated with Dulux Ultraprime Machine Primer. This is an oil based primer which has been applied with a paint film which is a minimum of 75 microns thick.

The manufacturer, Dulux, recommend the following actions be taken prior to commencing painting:

1. To test if the surface primer is sound cut a small X through the existing paint using a sharp blade. Press cellulose tape firmly across the cut then rip off the tape. If the primer or paint lifts it is not sound and the primer must be removed and re-primed using Dulux oil based or acrylic primer.
2. If the test is sound, repeat it at random to test the surface, if sound complete the following steps
3. Fill and sand any nail holes or defects using an exterior grade sealant.
4. Clean off any dust or dirt.
5. Lightly sand the surface where necessary to an even flat finish to provide a key for the new coating (note) fill or sealant can cause a different surface finish on the boards which may show when painted. It is recommended to lightly sand the whole area to be painted to ensure an even finish.
6. Dust off the surfaces removing sanding dust.
7. Apply a single undercoat of a quality undercoat or primer.
8. Once the primer or undercoat is dry (see manufacturers specifications for dry times) coat the product with 2 top coats of quality paint.

### 7.1 Prior to Painting

It must be remembered that timber is a natural product and is hygroscopic which means it will absorb moisture if it has been exposed to moisture.

If there are concerns about exposure to moisture check the moisture content of the product before painting. Products that have been exposed to moisture can swell causing dimensional change. If in doubt do not paint the product.

BRANZ recommend that the moisture content of product to be painted should be 16% or below. If in doubt contact the manufacturer Hume Pine (NZ) Ltd on 0508 111 000.

### 7.2 Colour Selection

Dark colours absorb and transfer heat which can lead to movement in the timber. It is recommended that colours are selected from a range which of 45% light reflective value (LRV) or greater.

Weatherboards and cladding products should be painted in accordance with AS/NZS 2311:2009 as well as following the paint manufacturers recommendations and instructions.



## 8. Maintenance

To ensure you as a building owner enjoy the lasting benefits of the Hume Pine Pineclad cladding system, you have the responsibility to ensure regular maintenance is carried out.

Maintenance should be carried out every 12 months, dependant on the environment. Coastal, industrial and inner city environments can be especially hard on products and more regular maintenance may be required.

Maintenance checks should include the following actions.

1. Wash all exterior surfaces using a low pressure wash system to remove dust, dirt and other contaminants.

Attention should be given to sheltered areas of the building as these areas do not receive regular wetting by the elements.

Do not use high pressure washing systems such as water blasters

If the washing does not remove areas of mould or dirt use a soft brush or broom and an appropriate cleaning agent to remove these deposits. Check with the paint manufacturer and read the directions on the product prior to applying the cleaning agent.

2. Once the building is clean inspecting all surfaces for areas of damage, wear and tear and paint coating degrade. If paint surface coating is damaged or broken complete the following actions.

Remove all damaged paint, sand back if required.

Apply a quality primer on any bare timber.

Once the primer has dried apply 2 top coats of quality top cost paint.

3. If you are required to replace or repair any cladding items in order to maintain weather tightness the following actions should be taken.

For small areas of damage or rot, cut out the affected area and fill with a suitable exterior product. Sand back to a smooth even finish and prime and coat as per above.

For large areas of deterioration it may require the removal and replacement of a weatherboard or other cladding elements. Once this has been completed prime and coat as per the instructions.

Damaged flashings or soaker should be replaced rather than repaired.

4. It is a general rule that buildings should be repainted every 10 years if the initial coating product used was of good quality, delivering a good quality coating finish. In some cases the repainting may be required earlier depending on condition.



9. Appendix

Figure D-1.1 BB, DF Foundation Timber Floor | Scale 1:5

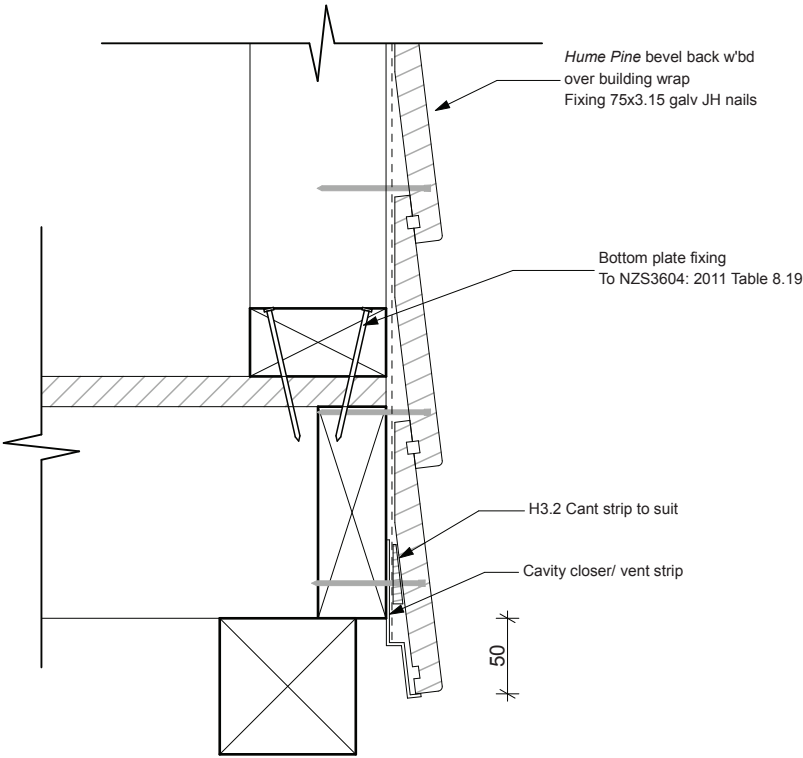


Figure D-1.2 BD, DF Foundation Conc Floor | Scale 1:5

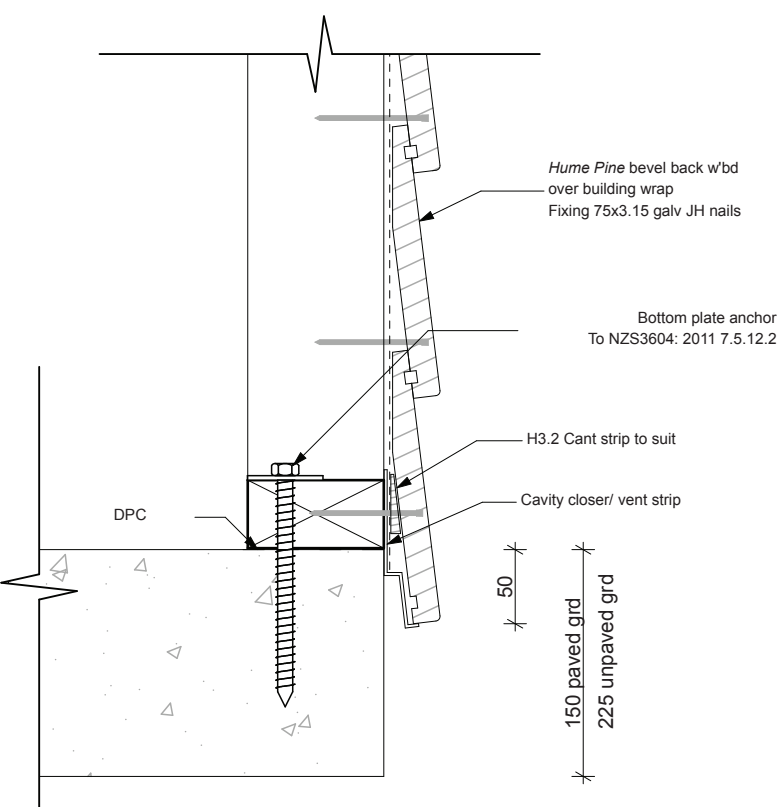




Figure D-1.3 BB, DF Sill Timber Floor | Scale 1:5

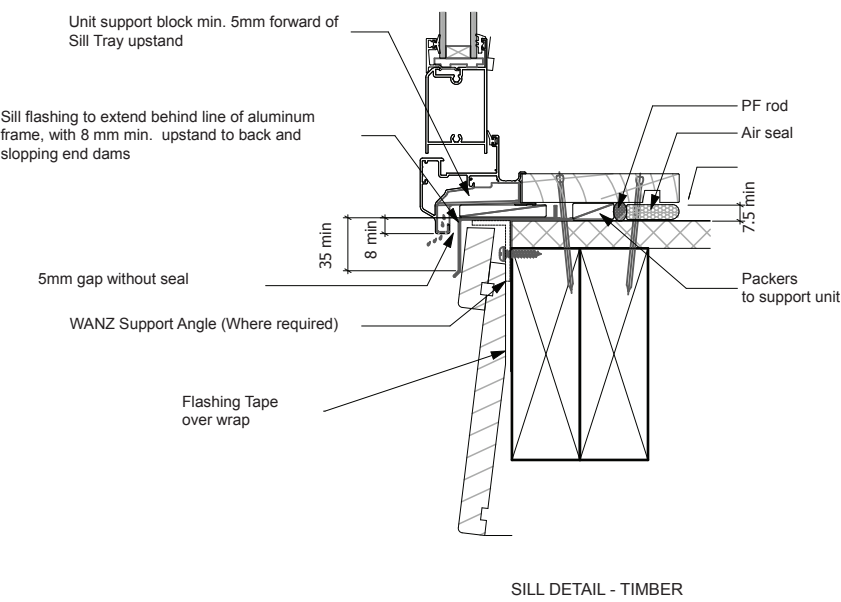


Figure D-1.4 BB, DF Door Sill Conc Floor | Scale 1:5

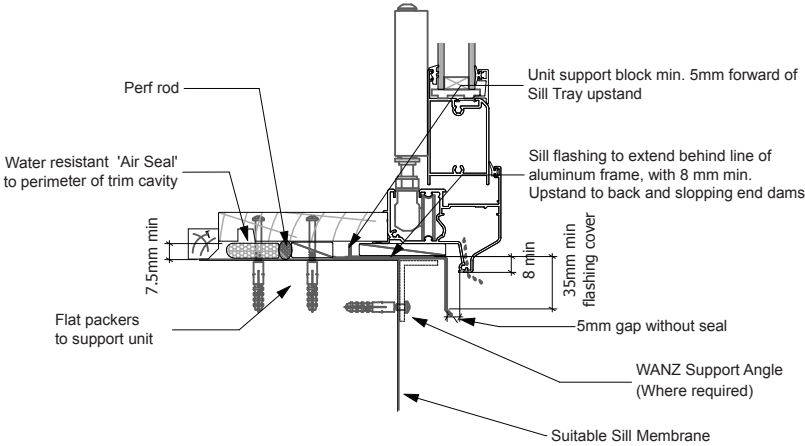




Figure D-1.5 BB, DF Win Head | Scale 1:5

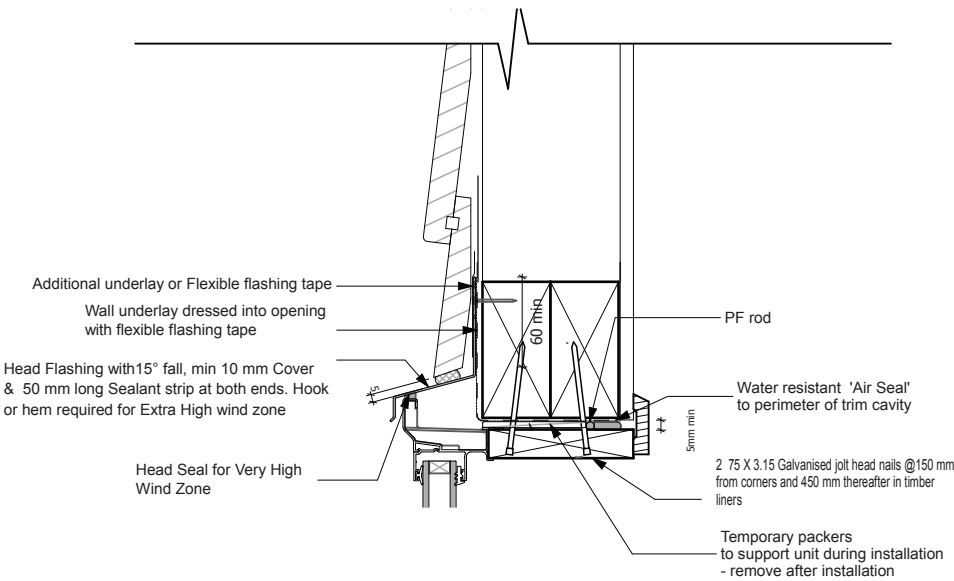


Figure D-1.6 BB, DF Door Jamb | Scale 1:5

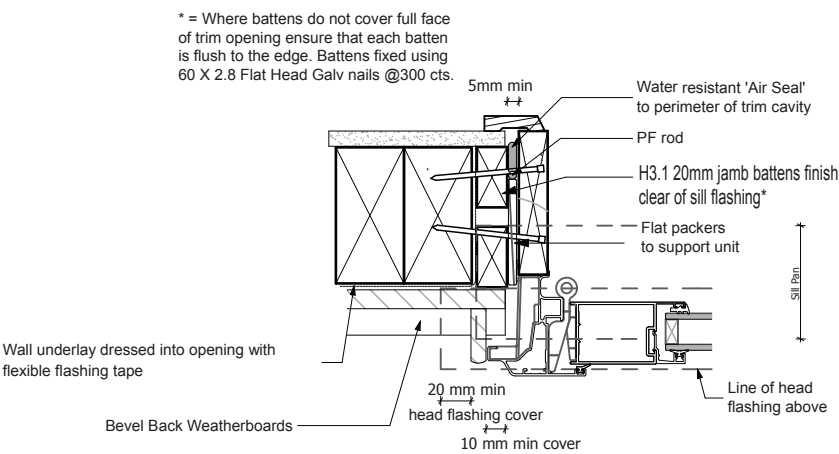




Figure D-1.7 BB, DF Window Sill 1:5

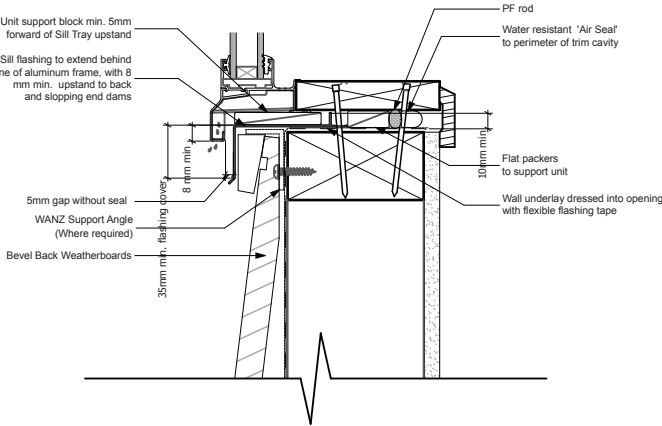


Figure D-1.8 BB, DF Jamb Detail | Scale 1:5

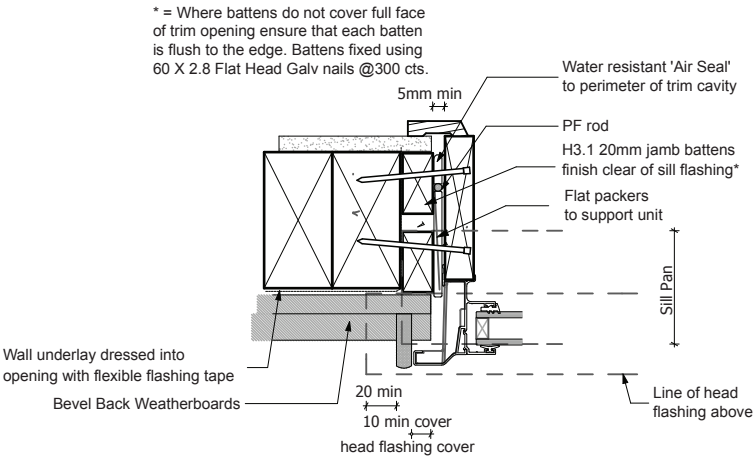




Figure D-1.9      BB, DF Soffit | Scale 1:5

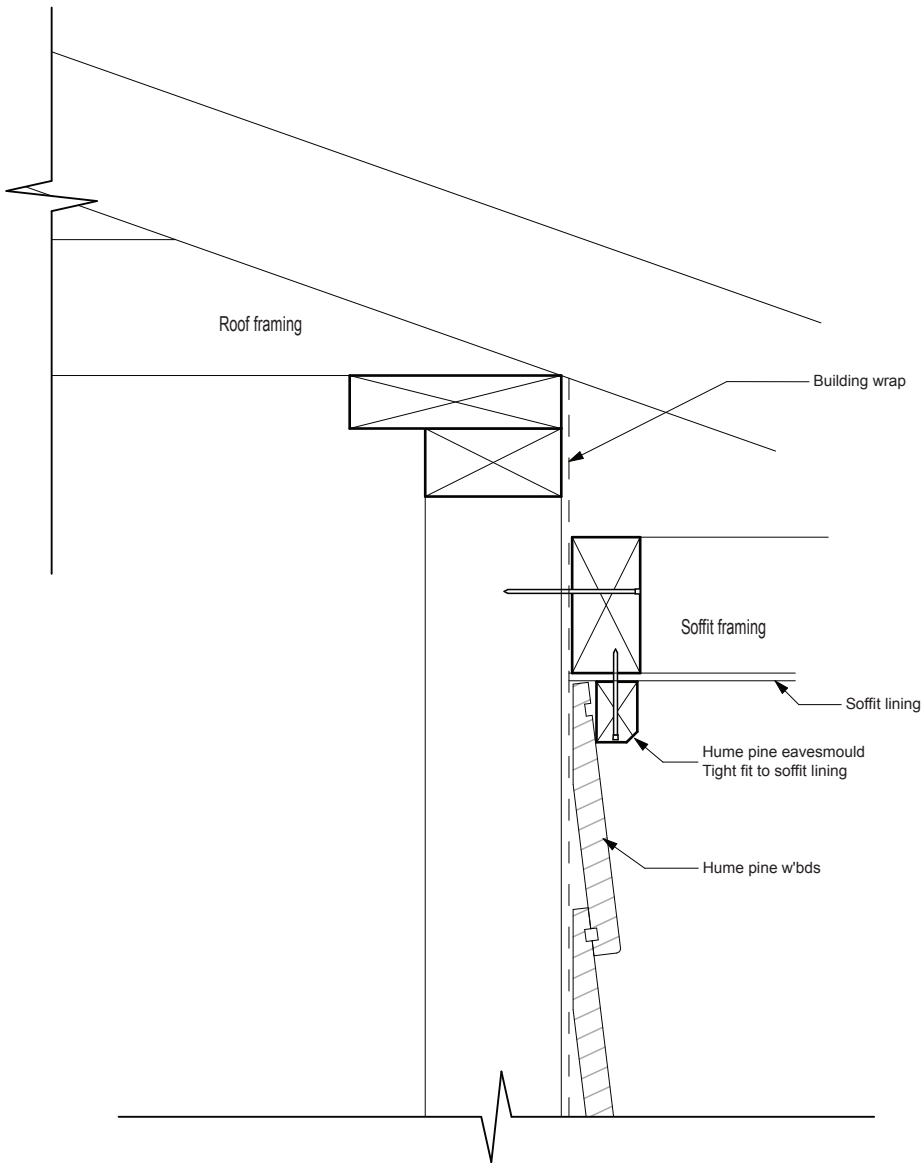




Figure D-1.10 BB' DF Ext Cnr | Scale 1:5

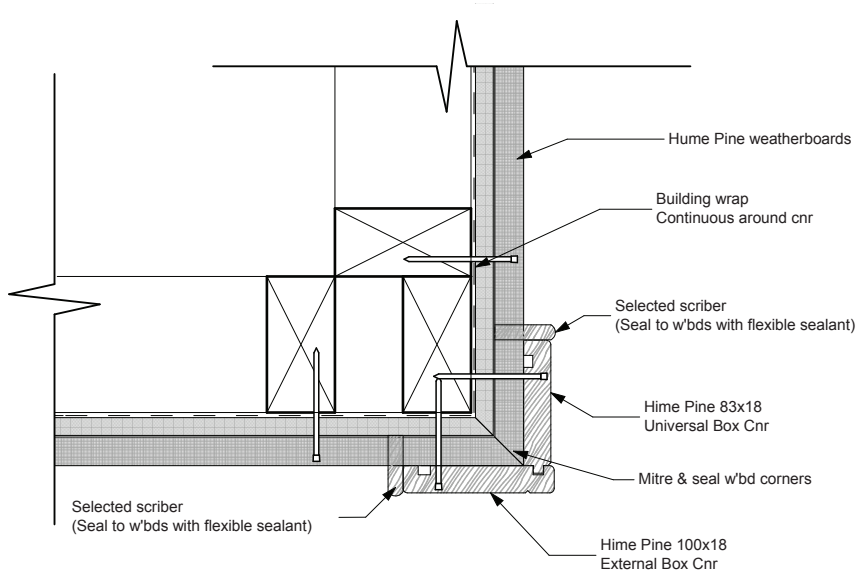


Figure D-1.11 BB, DF Int Cnr | Scale 1:5

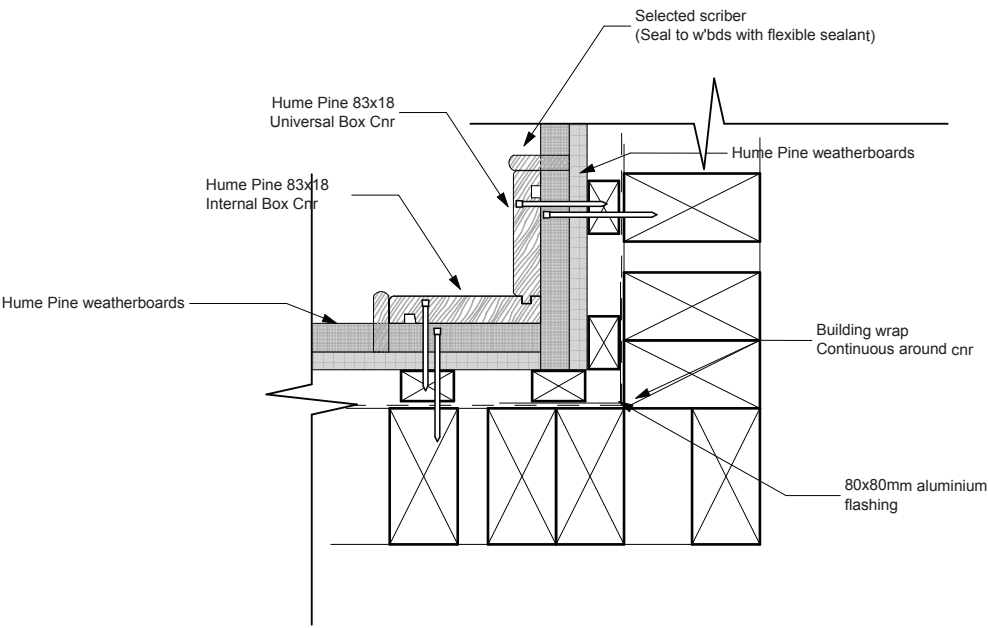






Figure DD-1.12 BB,DF Int Cnr | Scale 1:100

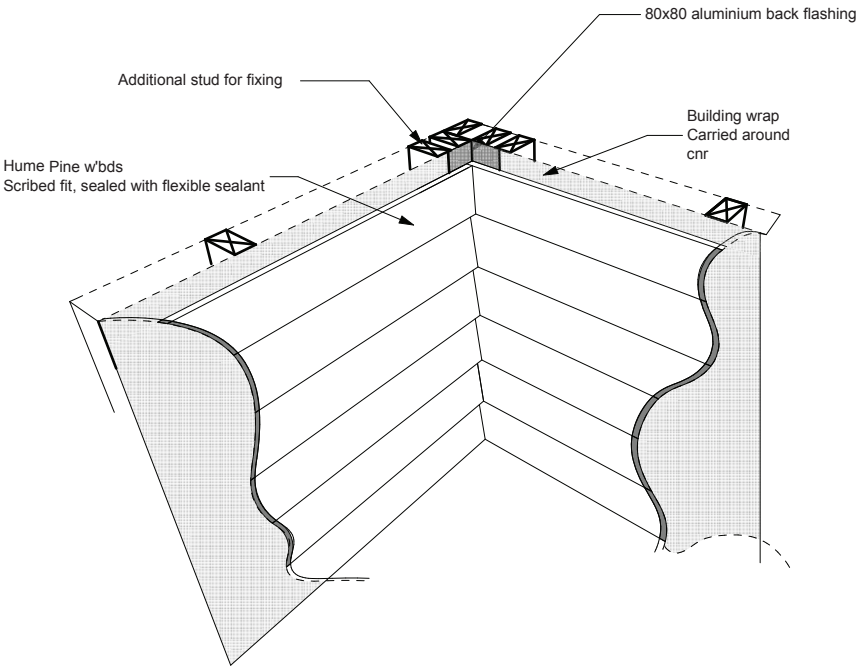


Figure D-1.13 BB, DF Meter Box Head | Scale 1:5

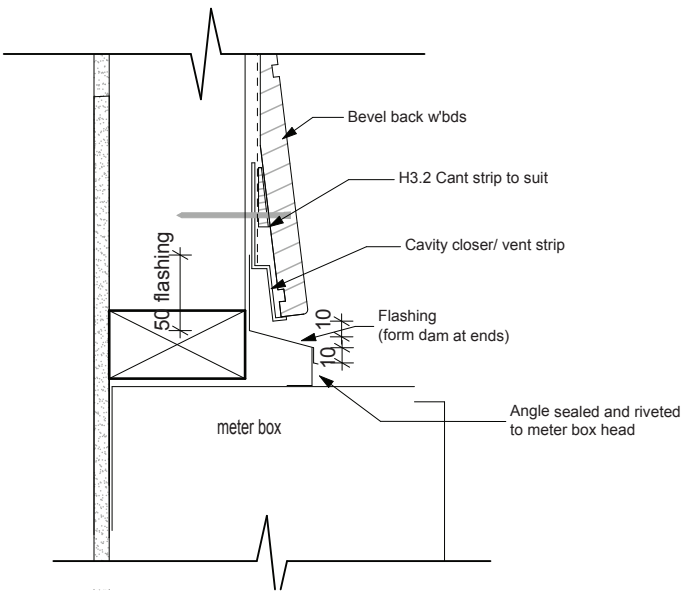




Figure D-1.14 BB, DF Meter Box Jamb | Scale 1:5

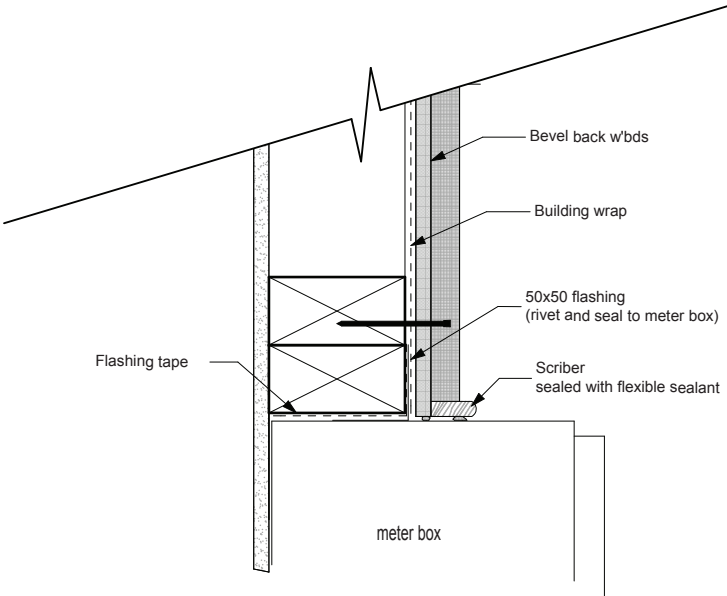


Figure D-1.15 BB, DF Meter Box Sill | Scale 1:5

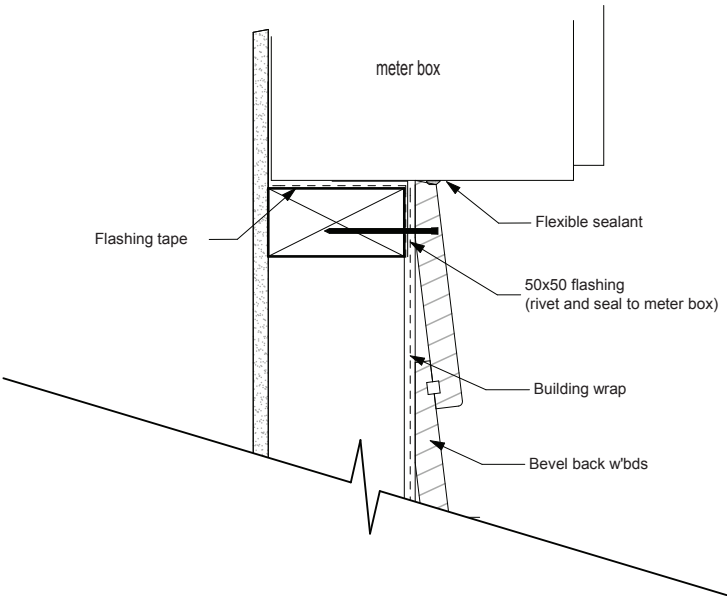




Figure D-1.16 BB, DF Pipe Penetration | Scale 1:5

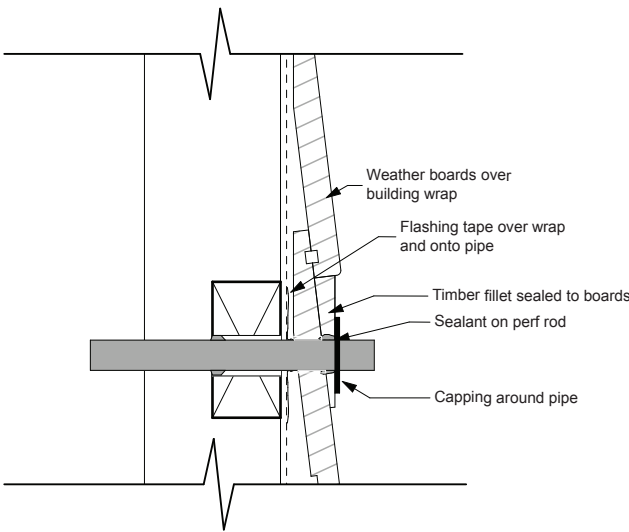


Figure D-1.17 BB, DF Apron | Scale 1:5

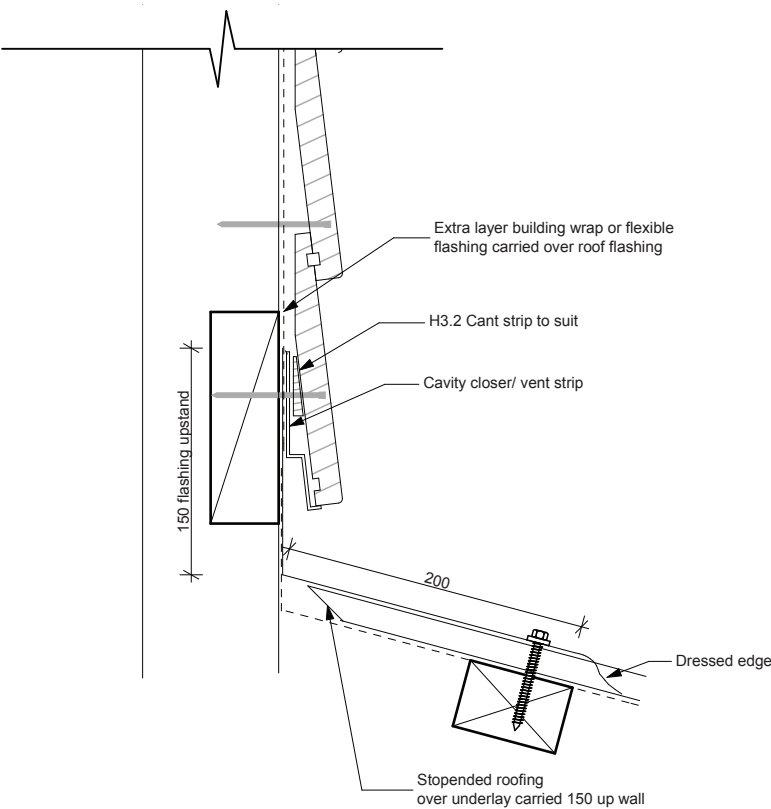




Figure D-1.18 BB, DF Parapete | Scale 1:5

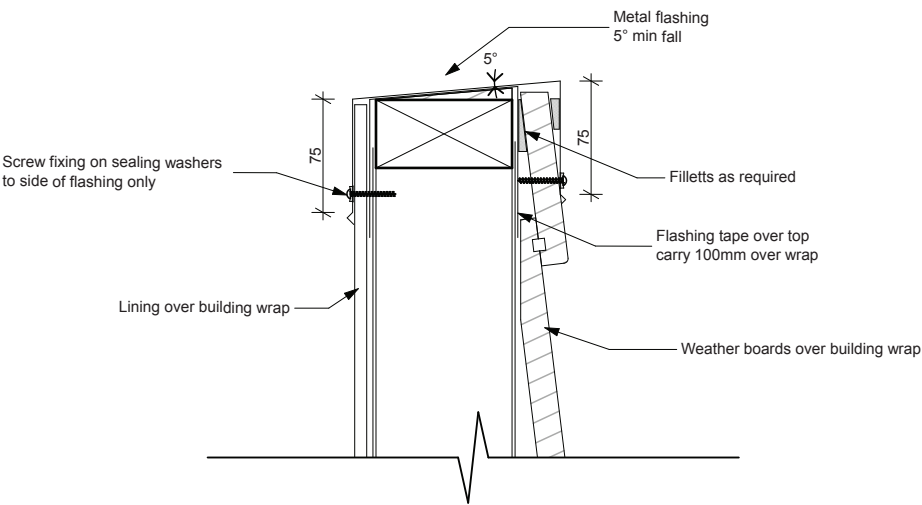




Figure D-2.1 Bevel Back Cavity Fix Foundation Timber Floor | Scale 1:5

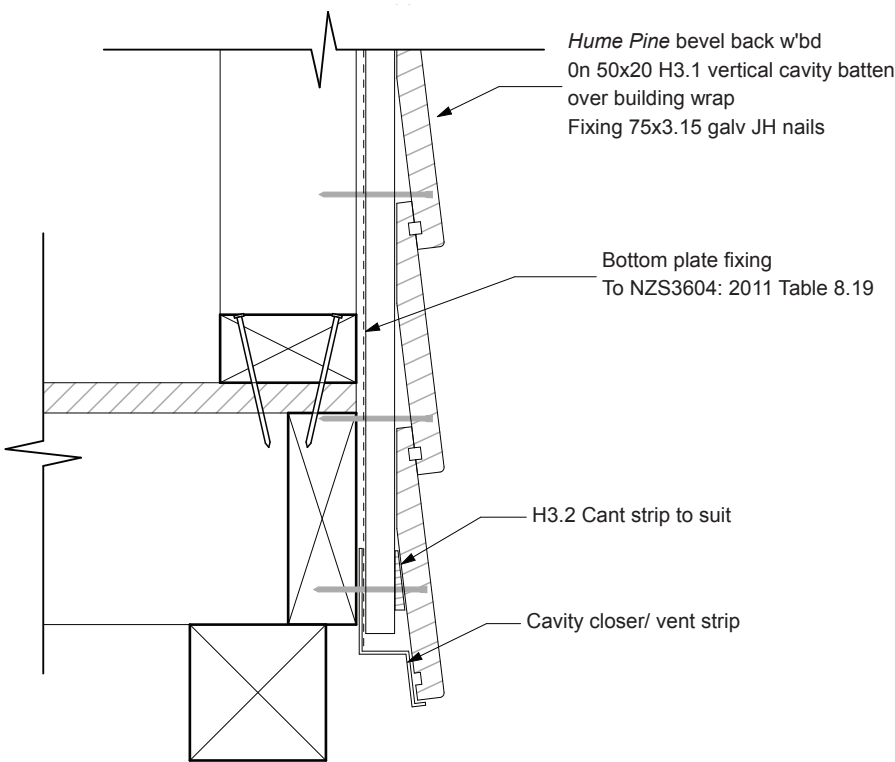


Figure D-2.2 Bevel Back Cavity Fix Foundation Conc Floor | Scale 1:5

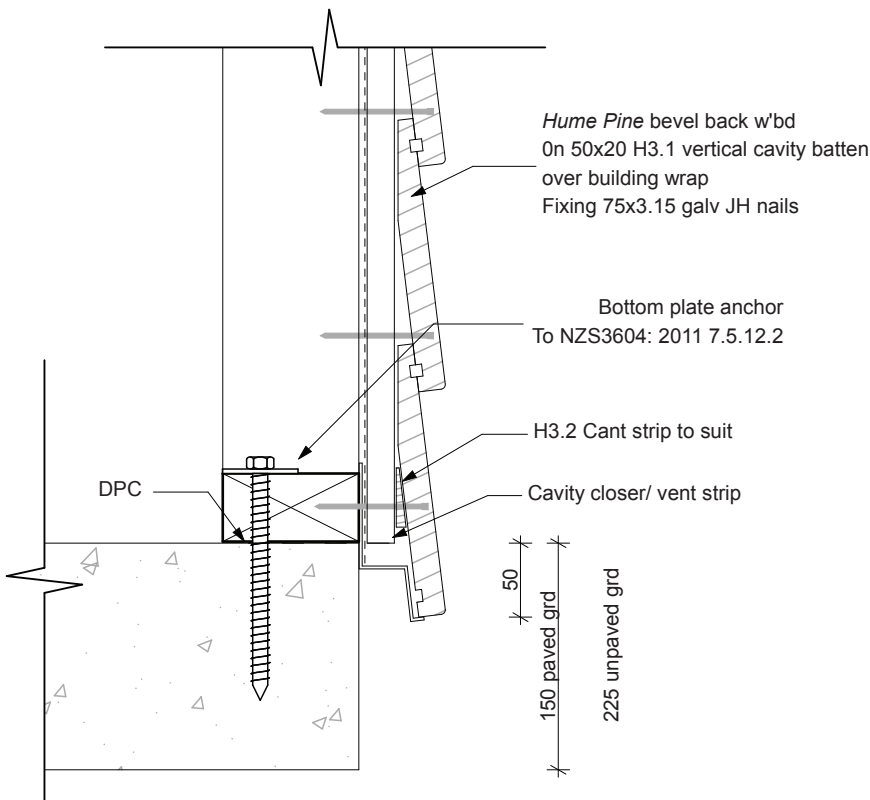




Figure D-2.3 BB, CF Sill Timber Floor | Scale 1:5

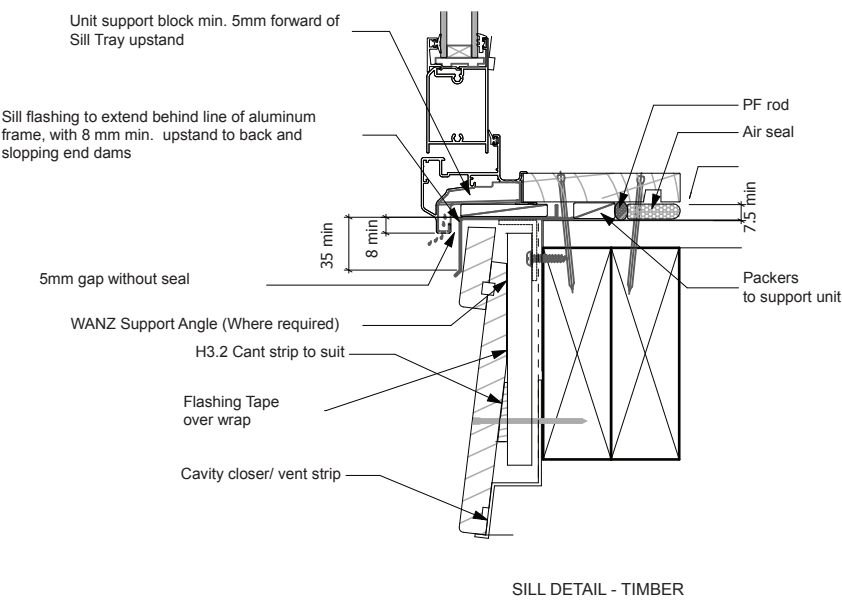


Figure D-2.4 BB, CF Door Sill Conc Floor | Scale 1:5

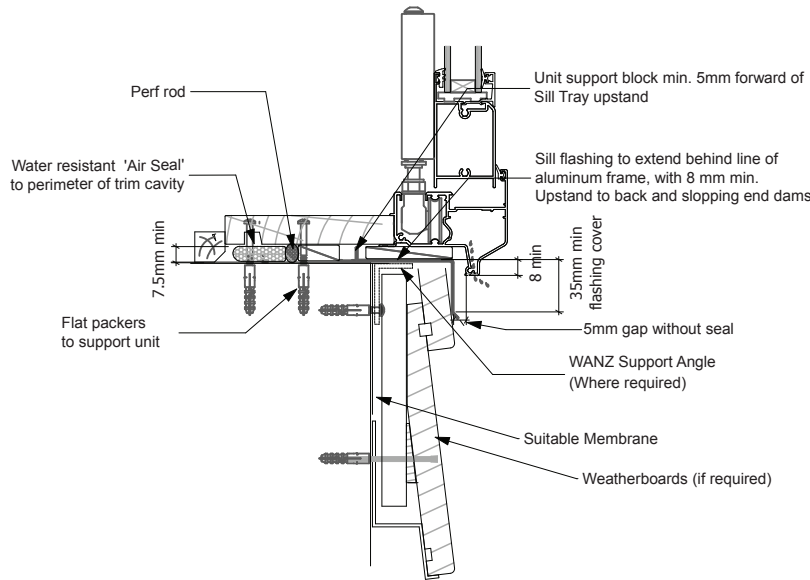




Figure D-2.5 BB, CF Window Head | Scale 1:5

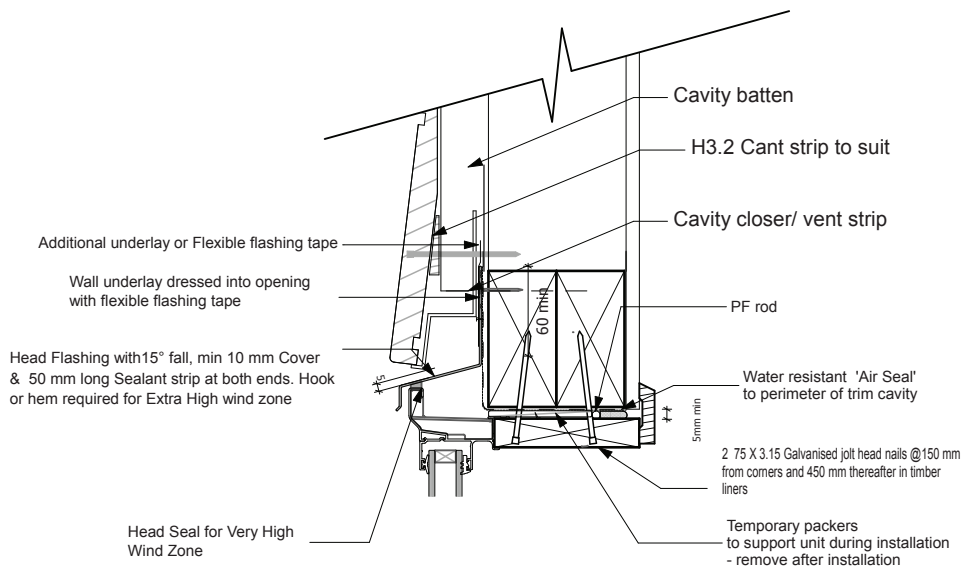


Figure D-2.6 BB, CF Window Jamb | Scale 1:5

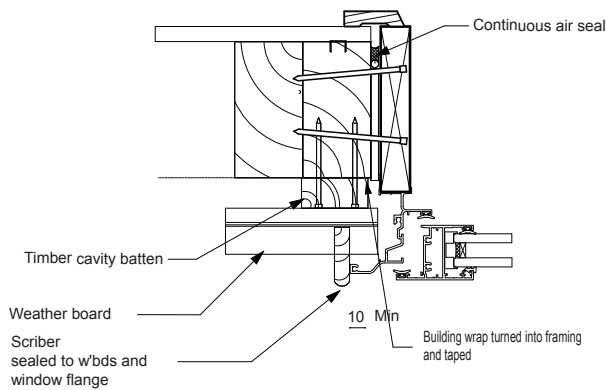




Figure D-2.7 BB, CF Window Sill | Scale 1:5

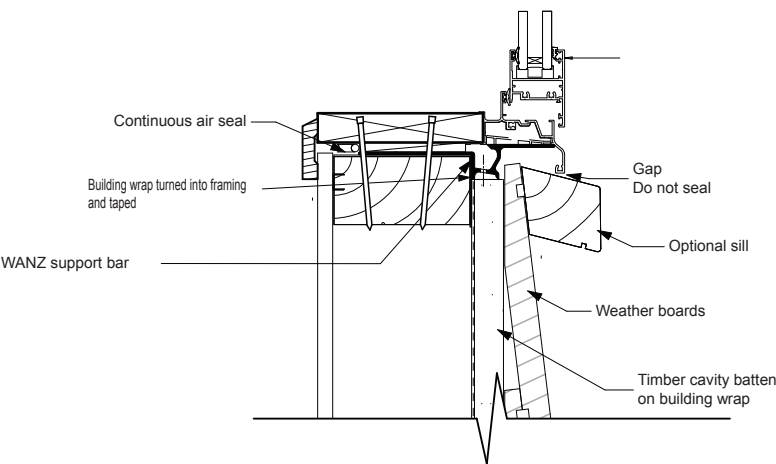


Figure D-2.8 BB, CF Soffit Detail | Scale 1:10

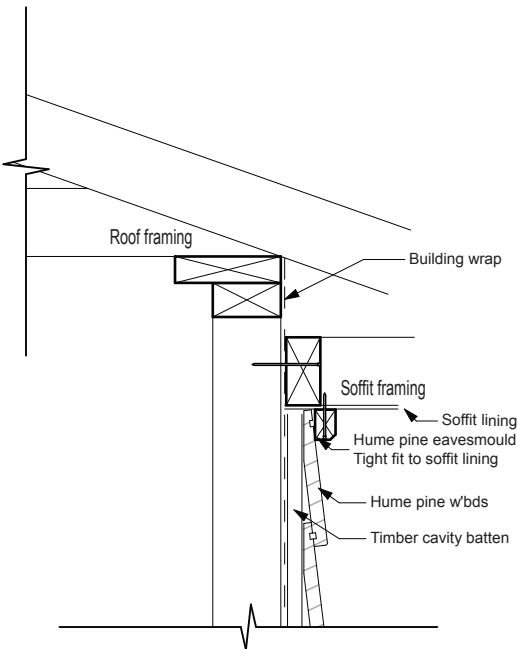






Figure D-2.9 BB, CF External Corner | Scale 1:10

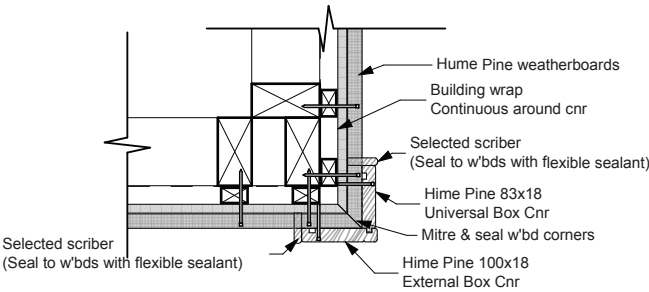


Figure D-2.10 BB, CF Internal Corner | Scale 1:5

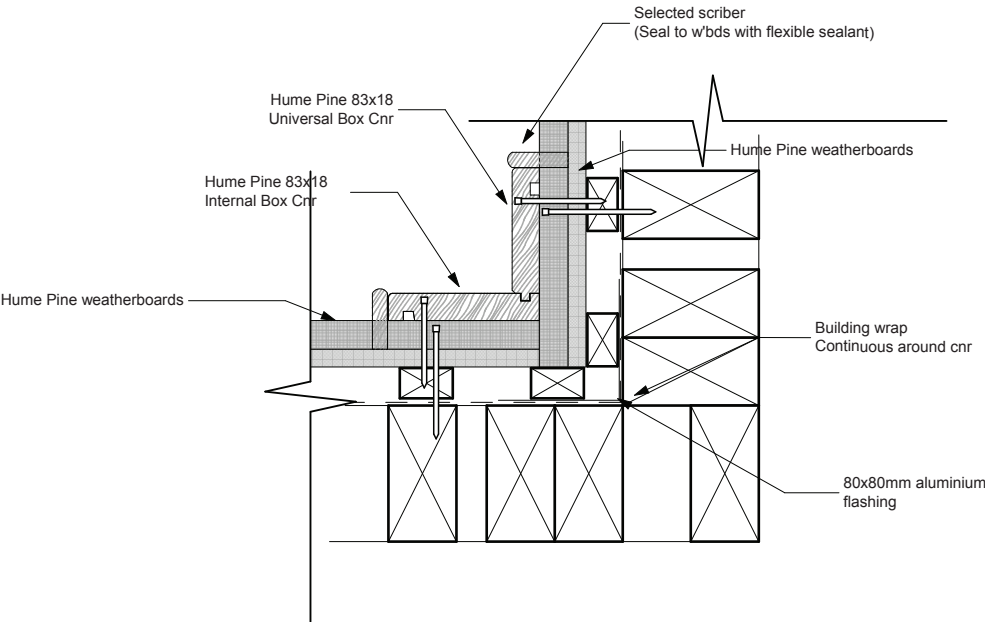




Figure D-2.11 BB, CF Meter Box Head | Scale 1:5

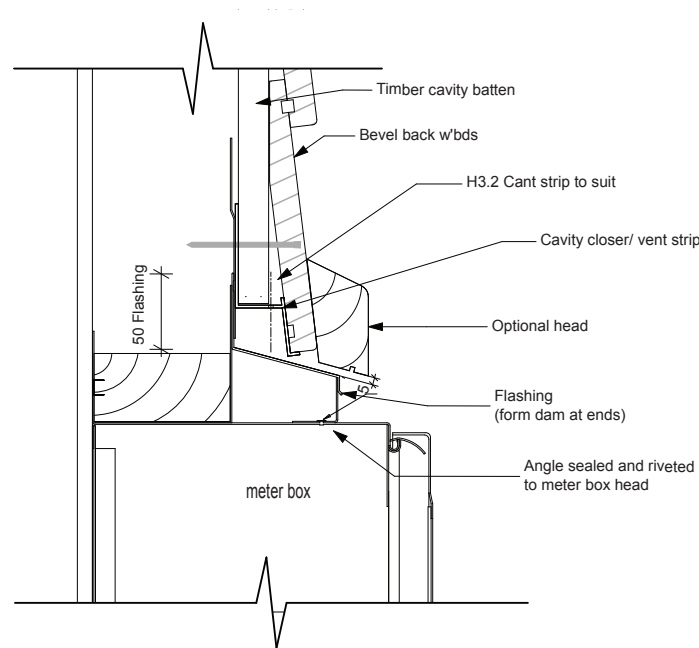


Figure D-2.12 BB, CF Meter Box Jamb | Scale 1:5

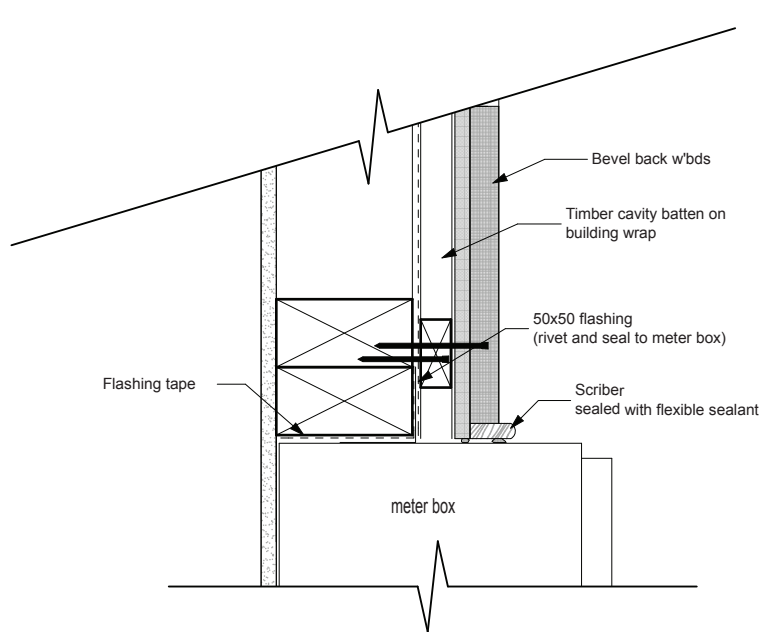
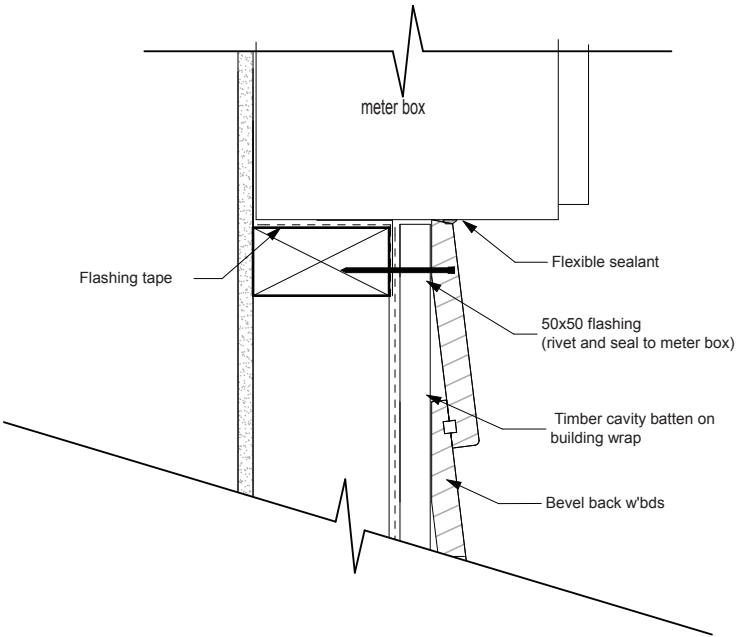




Figure D-2.13      BB, CF Meter Box Sill | Scale 1:5





## 10. Warranty

### 1. General: Hume Pine (NZ) Ltd Warranty

- 1.1 Hume Pine (NZ) Ltd warrants for a period of 15 years from the date of purchase that its Hume Pine Pineclad products will be free from production defects and will be resistant to cracking. HPNZ also warrants that Hume Pine Pineclad comes with a 25 year limited durability guarantee against decay and insect attacks, to the extent set out in Hume Pine (NZ) Ltd product literature current at the time of installation, subject always to the conditions and limits on liability below.
- 1.2 Hume Pine Pineclad is produced from Kiln Dried Radiata Pine and treated H3.1 LOSP to provide the 25 year limited warranty for decay and insect attack.

### 2. Conditions of Warranty

- 2.1 The Warranty is strictly subject to the following conditions:
  - 2.1.1 The Products must be coated with a quality three coat paint system, always stored in dry conditions on a flat surface and protected from direct sunlight prior to installation and must be installed by a competent and qualified licensed building practitioner (LBP), strictly in accordance with all relevant laws and regulations. Where the Hume Pine Pineclad Technical Manuals do not provide suitable detail for installation of the Products then installation must be in accordance with best trade practice determined in consultation with the relevant local or regional council or such other appropriate organisation or authority and the designer of the building works.
  - 2.1.2 The Warranty is for the benefit of the original owner of the building where Hume Pine Pineclad has been installed. The Warranty is not transferable to subsequent owners of the building.
  - 2.1.3 The Products must be maintained strictly in accordance with the Hume Pine Pineclad Technical Manuals. Further, all other products including coating and jointing systems applied to, or used in conjunction with, the Hume Pine Pineclad must be applied, installed and maintained strictly in accordance with the relevant manufacturer's instructions and best trade practice.
  - 2.1.4 The building works in which the Hume Pine Pineclad have been incorporated must be designed and constructed in strict compliance with all relevant provisions of the current New Zealand Building Code NZS3604:2011, regulations and standards, and the building consent relating to the building works.
  - 2.1.5 If any remedial work undertaken in relation to the Warranty involves re-coating of the Products, the customer acknowledges and agrees that there may be slight colour differences between the original and replacement Products due to the effects of weathering and variations in materials over time.

### 3. Limits on Liability

- 3.1 Hume Pine (NZ) Ltd will not be liable to the customer for any breach of Warranty unless the customer gives Hume Pine (NZ) Ltd written notice of any claim for breach of Warranty within 30 days of the defect becoming reasonably apparent.
- 3.2 In any event, the customer's sole remedy under the Warranty is (at Hume Pine (NZ)'s discretion) that Hume Pine (NZ) Ltd will either supply replacement Products or rectify the affected Products where such Products are capable of rectification, or pay for the reasonable cost of the replacement or rectification of the affected Products.



- 3.3 Aside from the remedy described in clause 3.2, Hume Pine NZ (Ltd) will not be liable for any other losses or damages (whether direct or indirect) including property damage, personal injury, consequential loss, economic loss or loss of profits, whether arising under statute, contract, tort including negligence, or howsoever arising. Without limiting the foregoing, Hume Pine NZ (Ltd) will not be liable for any claims, damages or defects arising from, or in any way attributable to:
- 3.3.1 Poor workmanship;
  - 3.3.2 Poor design or detailing;
  - 3.3.3 Incorrect design of the structure;
  - 3.3.4 Settlement or structural movement and/or movement of materials to which the Products are attached;
  - 3.3.5 Acts of God including, but not limited to, earthquakes, cyclones, floods or other severe weather conditions or unusual climatic conditions;
  - 3.3.6 Efflorescence or performance of paint/coatings applied to the Products;
  - 3.3.7 Normal wear and tear; or
  - 3.3.8 Growth of mould, mildew, fungi, bacteria, or any organism on the surface of any Products (whether on the exposed or unexposed surfaces).
- 3.4 All warranties, conditions, liabilities and obligations other than those specified in this Warranty are excluded to the fullest extent permitted by law. The Warranty does not exclude or modify any legal rights a customer may have under the Consumer Guarantees Act 1993. Unless otherwise specified in writing at the time of sale, Hume Pine (NZ) Ltd assumes no liability for the Products being fit for any particular purpose under the Building Act 2004, other legislation or at common law.