



INSTALLATION MANUAL

CF SLATE ON PLY

This installation guide outlines the recommended installation method for Gerard's CF Slate product range on a plywood substrate. While this guide covers the majority of commonly referred-to roof details, it does not cover all areas of each individual roof. If uncertain of any roof detail, please contact us.

Please note that local building codes may have additional requirements not outlined in this document and will supersede these installation recommendations.

To get the best performance from your roof we recommend referring to our Roof Maintenance Guide and Gerard Warranty documents.



W: www.gerardroofs.co.nz

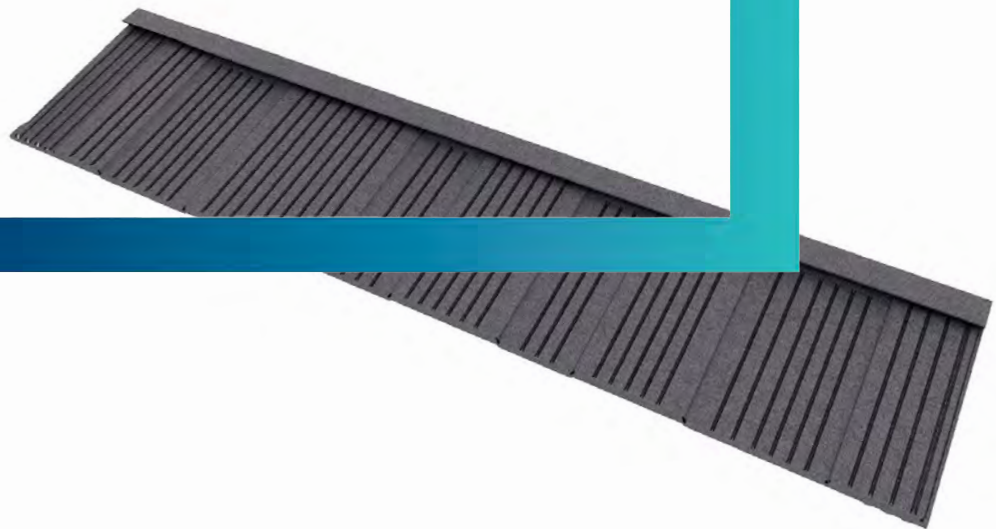
E: customerservice@gerardroofs.co.nz

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01. PRODUCT INFORMATION



INSTALLATION MANUAL
CF SLATE ON PLY

PRODUCT SPECIFICATION

CF SLATE



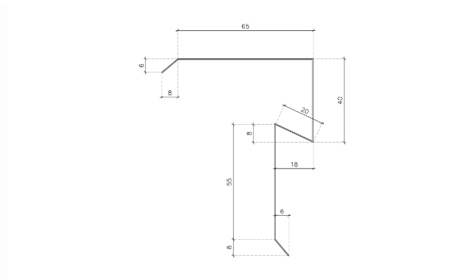
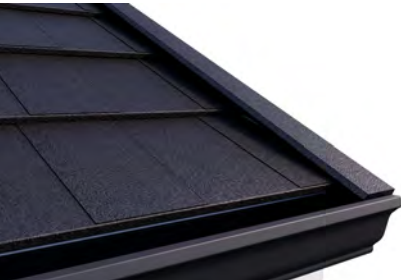
Overall Length	Cover Length	Width	Cover Width	Panels/sqm	Weight	Minimum Roof Pitch
1340mm	1250mm	295mm	250mm	3.2	6.4kg/sqm	15 °

FASTENING REQUIREMENTS

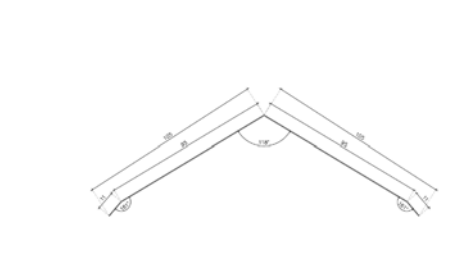
INSTALLATION OVER PLYWOOD		
Panel fastenings in Wind Zone up to and including High	8 nails/panel or 5 screws/panel	25mm x 3.05mm coil nails, ring galvanised or #10 1-1/2 inch screws
Panel fastenings in Wind Zone up to and including Extra High	10 nails/panels or 5 screws/panel	25mm x 3.05mm coil nails, ring galvanised or #10 1-1/2 inch screws

ACCESSORY OVERVIEW

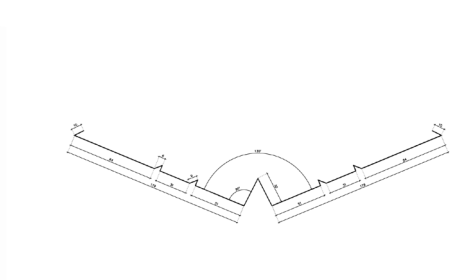
401 CF SLATE BARGE COVER



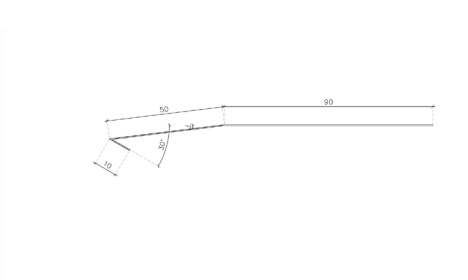
400 CF SLATE ANGLE TRIM



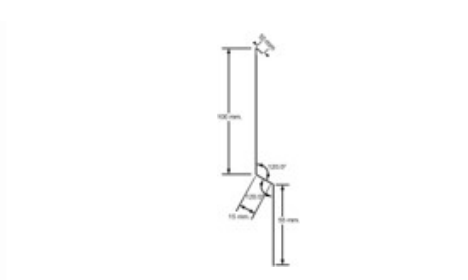
412 CF SLATE VALLEY



402 CF SLATE EAVES FLASHING

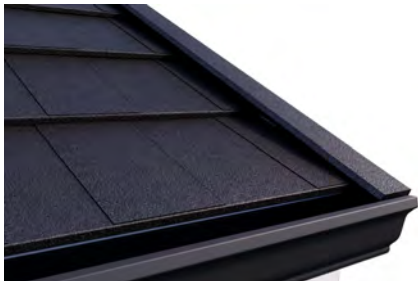


104 SIDE FLASHING



FASTENER DETAILS

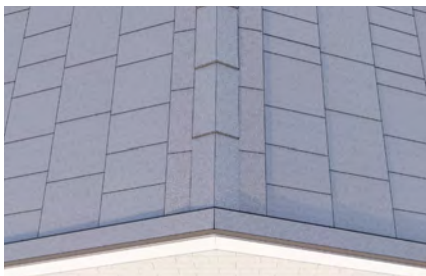
401 CF SLATE BARGE COVER



10G x 40mm
long hex
head needle
point screws,
hot dipped
galvanised

5x @ 300mm
centres

400 CF SLATE ANGLE TRIM



10G x 40mm
long hex
head needle
point screws,
hot dipped
galvanised

1x each side

412 CF SLATE VALLEY



Valley is held in
place with clip or
nail bent over the
top of the valley

402 CF SLATE EAVES FLASHING



10G x 40mm
long hex
head needle
point screws,
hot dipped
galvanised

9x @ 200mm
centres

104 SIDE FLASHING

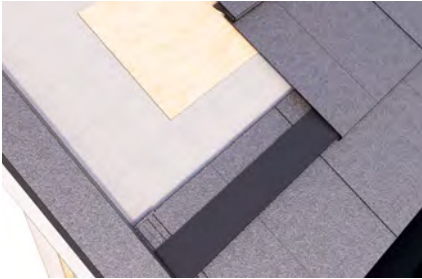


10G x 40mm
long hex
head needle
point screws,
hot dipped
galvanised

4x @ 500mm
centres

FASTENER DETAILS

417 CF SLATE SHORTCOURSE



10G x 40mm
long hex
head needle
point screws,
hot dipped
galvanized

9x @ 200mm
centres

904 CF HIP UNDER CHANNEL



10G x 40mm
long hex
head needle
point screws,
hot dipped
galvanized

5x @ 300mm
centres each side

RECOMMENDED TOOLS



Tape Measure



Silicone Gun



Nail Gun



Hammer



Impact Driver or Drill



Soapstone



Snips



Bender

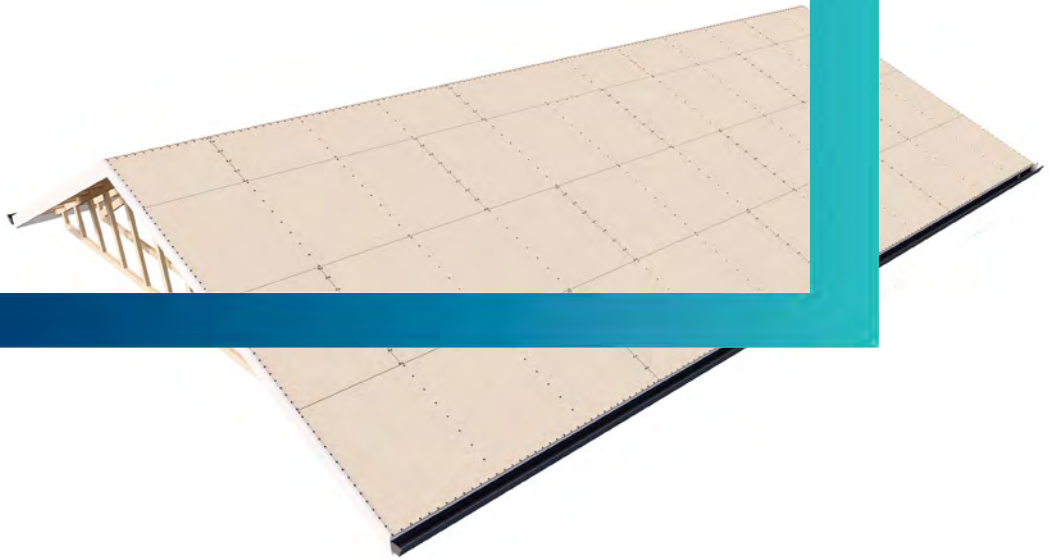


Handbender



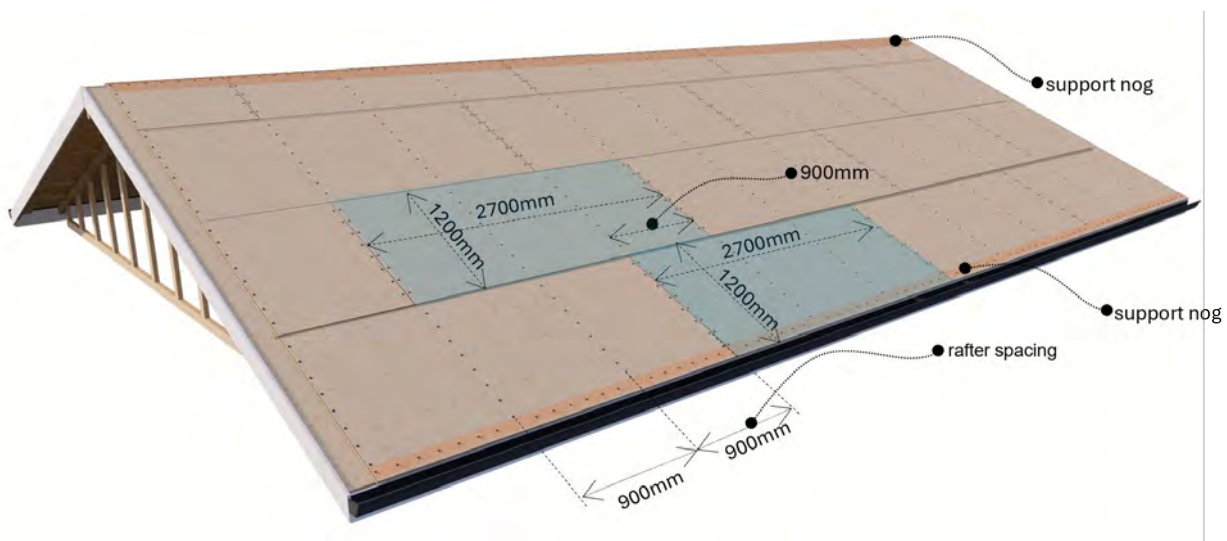
Guillotine

02. BUILDER'S SCOPE



INSTALLATION MANUAL
CF SLATE ON PLY

PLYWOOD GUIDELINES

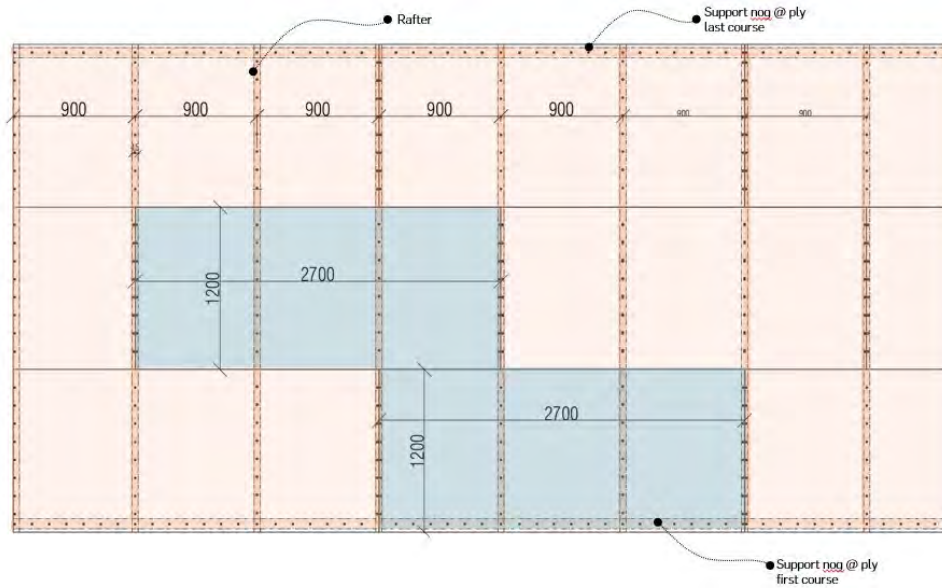


This set of guidelines and requirements is related to the installation of structural grade plywood for roofing purposes.

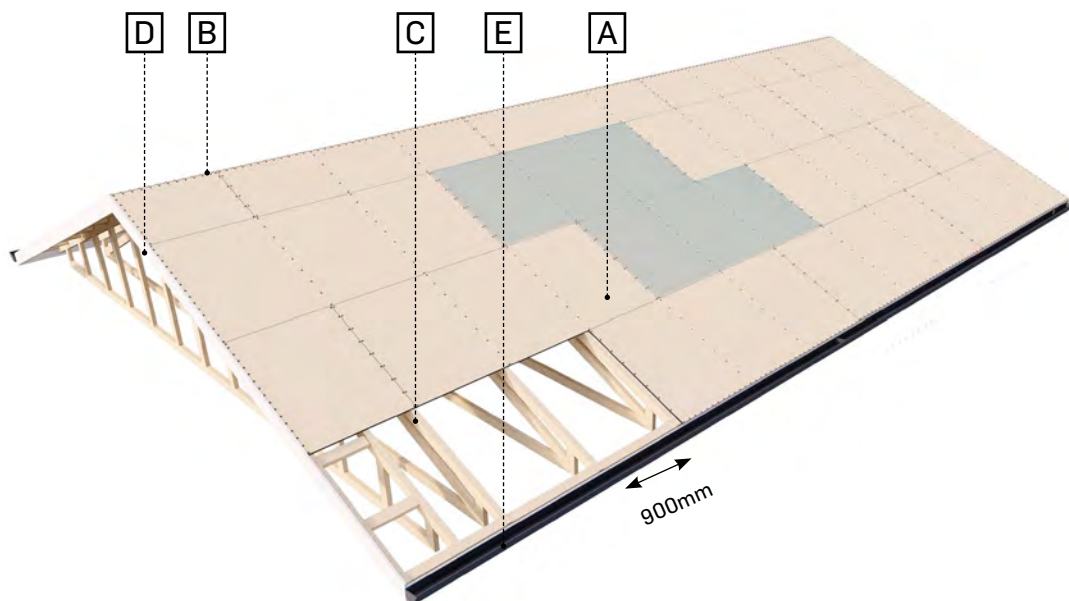
Thickness and Fastening	The structural grade plywood used for roofing must be at least 15mm thick. It should be fastened to the rafters using 65mm ring shank nails placed at 150mm intervals along the plywood
Flush Installation	The plywood must be installed in such a way that it sits flush with the fascia board, ensuring a seamless and even surface
Plywood	15mm thick, untreated, tongue and groove structural plywood complying with AS/NZS 2269.
Sheathing Nails	The sheathing must be nail fixed using Sheathing Nails (60x2.87mm flat head hot dip galvanised ring shank nails). Fixings must be positioned no closer than 10mm to the sheet edges. Any sheet end edges greater than 120mm from framing support must be supported by framing.
Truss Spacing	The trusses (rafters) must be spaced at a maximum of 900mm centres for the plywood to be installed. Depending on the spans and wind zones, closer rafter spacings may be required. These spacing requirements should be determined by NZS 3604, specifically table 10.1.
Butt Joint Installation	When joining plywood sheets end to end, a 2-3mm cap should be applied over the timber framing to ensure a secure and stable connection
Plywood Face Grain and Joint Pattern	The face grain of the plywood sheets must be laid at the right angle to provide adequate support. The sheets must be applied in a staggered brick bond pattern, which helps distribute the loads more evenly
Tongue and Groove Edges	When using tongue and groove plywood, the edges should be butt-jointed, leaving no gaps between the sheet edges. On the other hand, square plywood edges should have a 2-3mm gap between the sheet edges, allowing for expansion and contraction due to environmental changes

These guidelines are essential to ensure a proper and safe installation of structural grade plywood for roofing. Always follow the manufacturer's recommendations and local building codes when carrying out any construction work.

PLYWOOD FRAMING DETAIL



Plywood setting out in relation to rafters



- A. Structural grade 15mm thick plywood
- B. Support nog for plywood nosing and head/top course
- C. Rafter
- D. Fascia board
- E. Gutter

PLYWOOD INSTALLATION

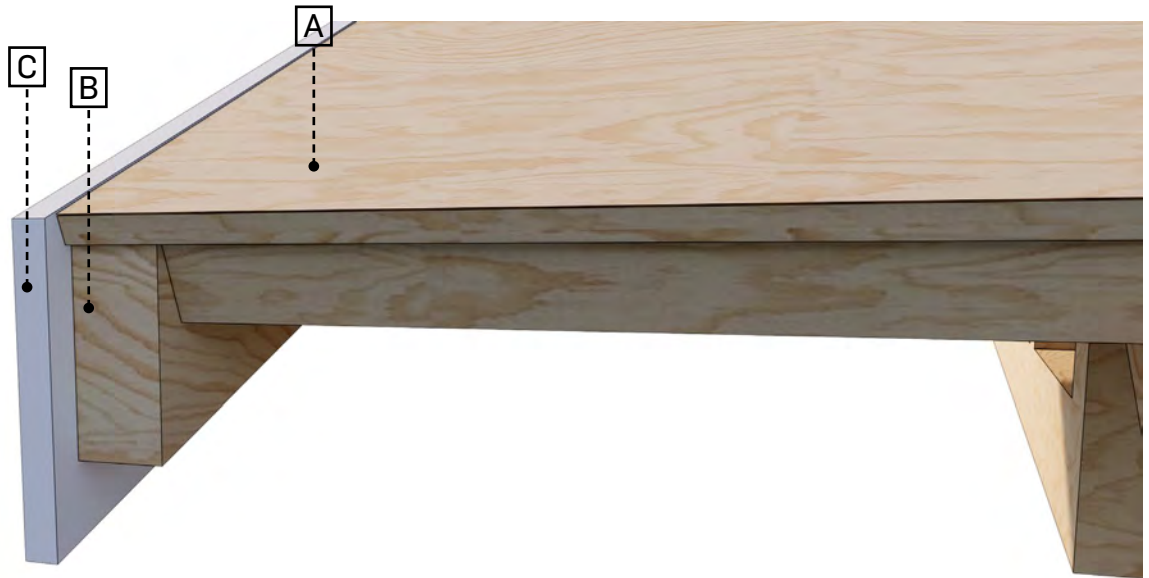
Erect the roof framing complete with fascia board and gutter.



Install 15mm thick structural grade plywood.

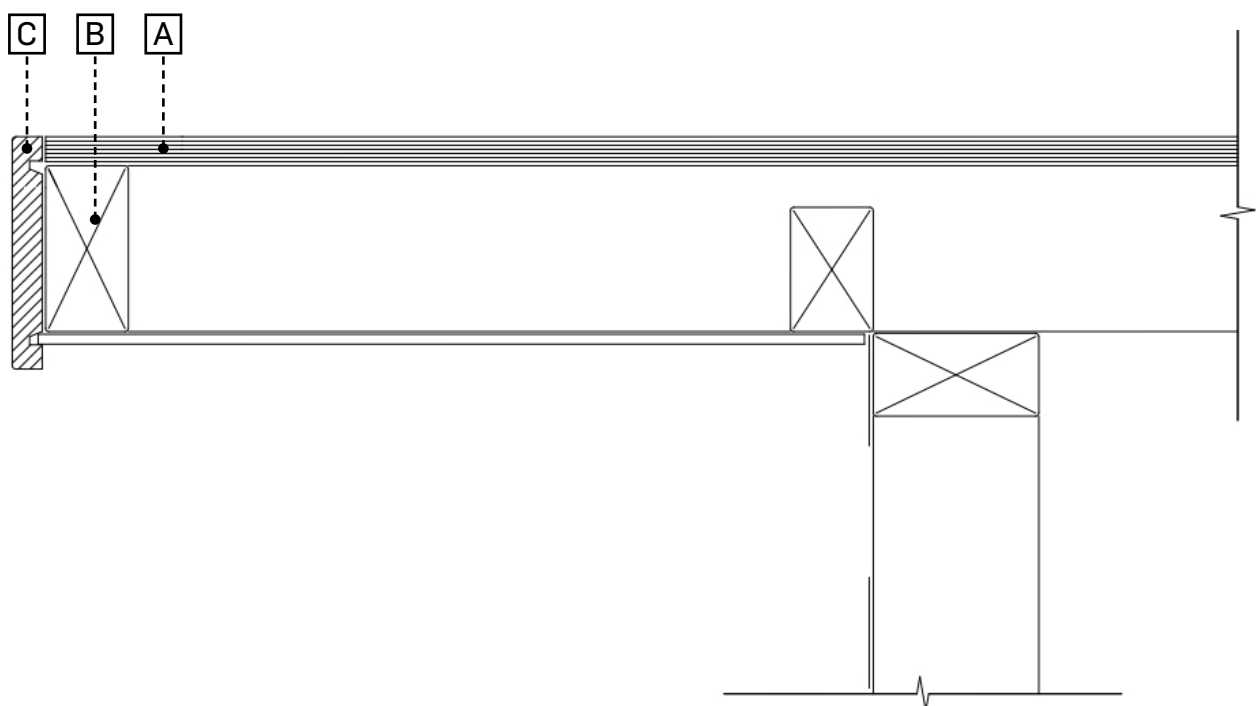


BARGE BOARD DETAIL

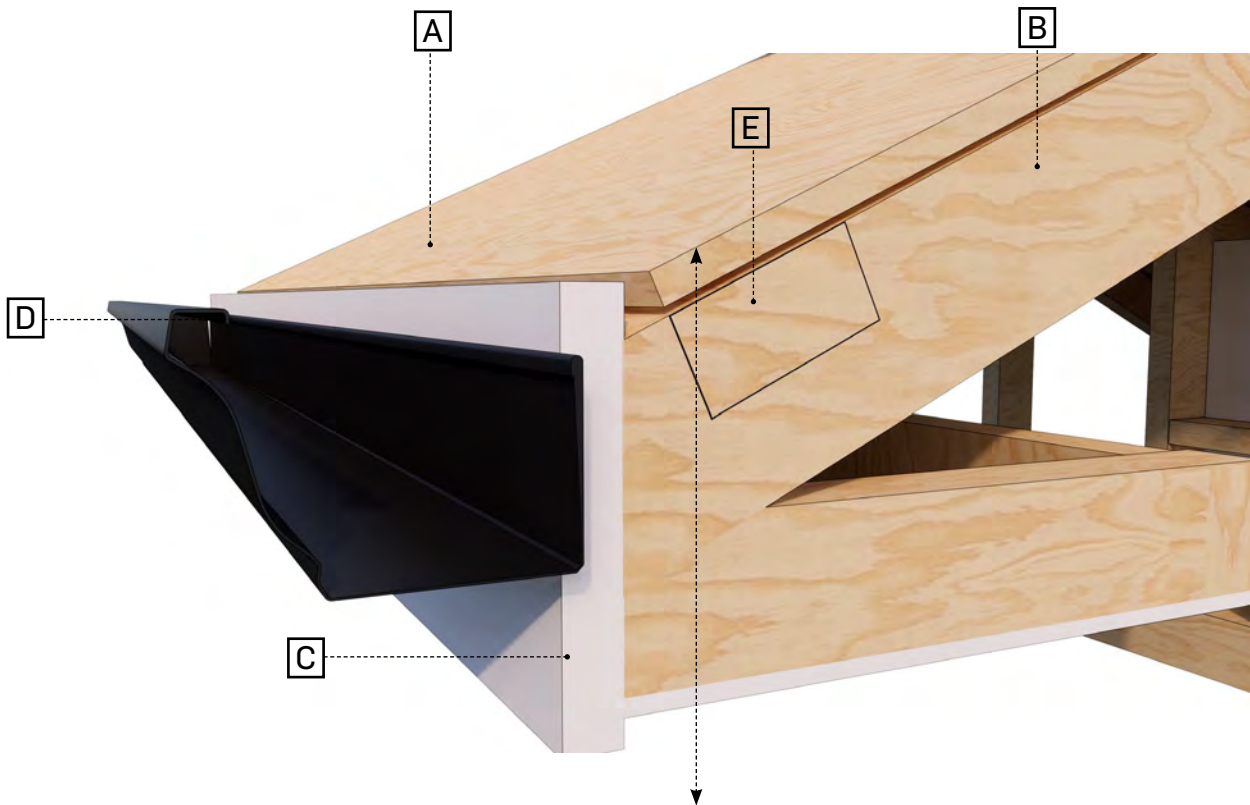


COMPONENTS

- A. Structural grade 15mm thick plywood
- B. Flying rafter
- C. Fascia board



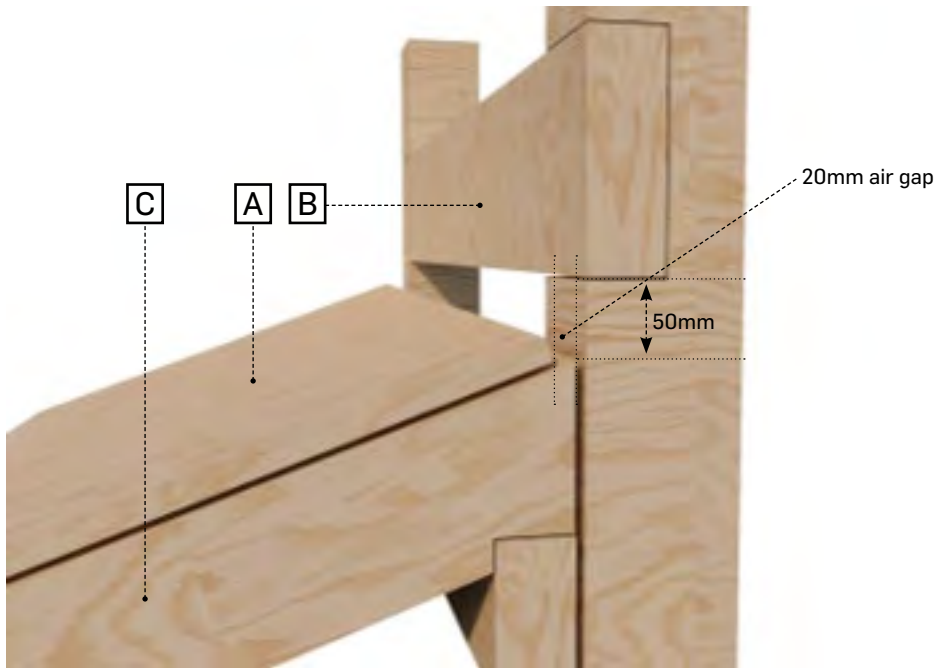
EAVES DETAIL



COMPONENTS

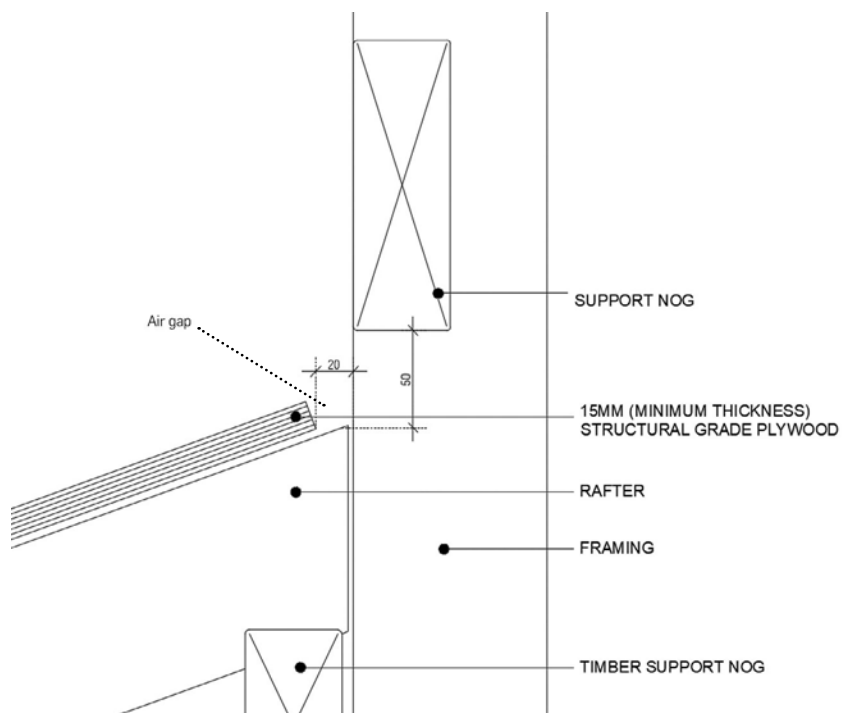
- A. Structural grade 15mm thick plywood
- B. Rafter
- C. Fascia board
- D. Gutter
- E. Support nog

HEAD WALL DETAIL

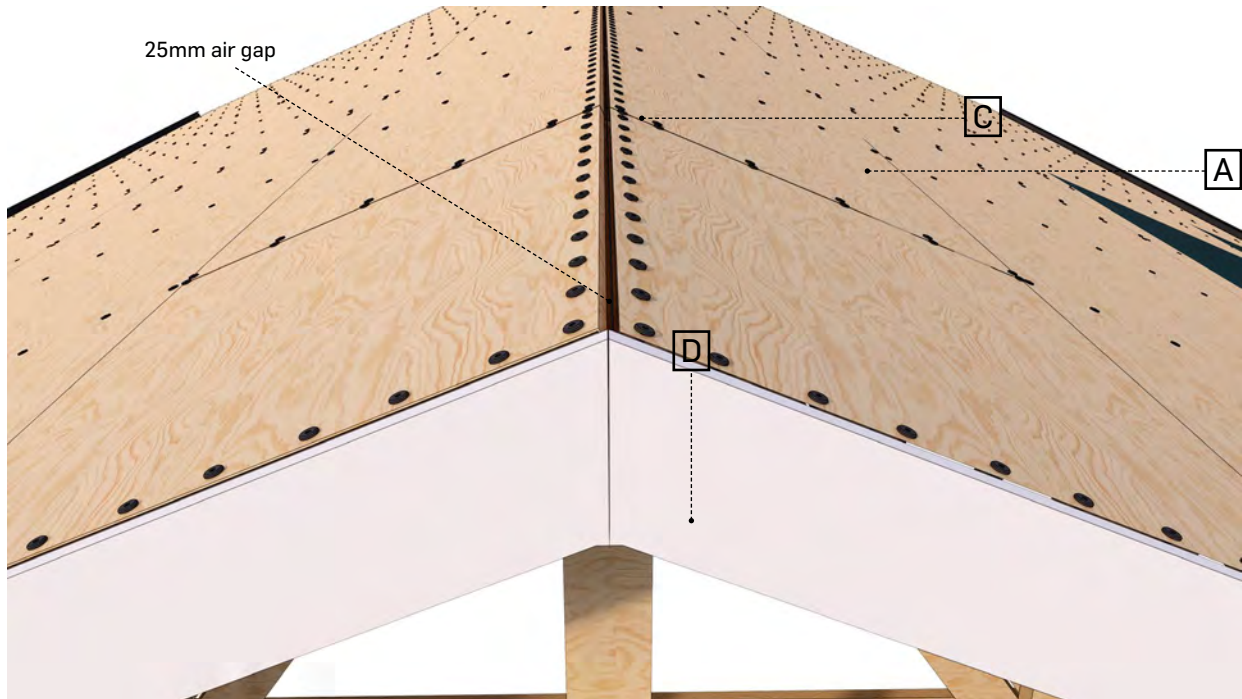


COMPONENTS

- A. Structural grade 15mm thick plywood
- B. Support nog
- C. Rafter

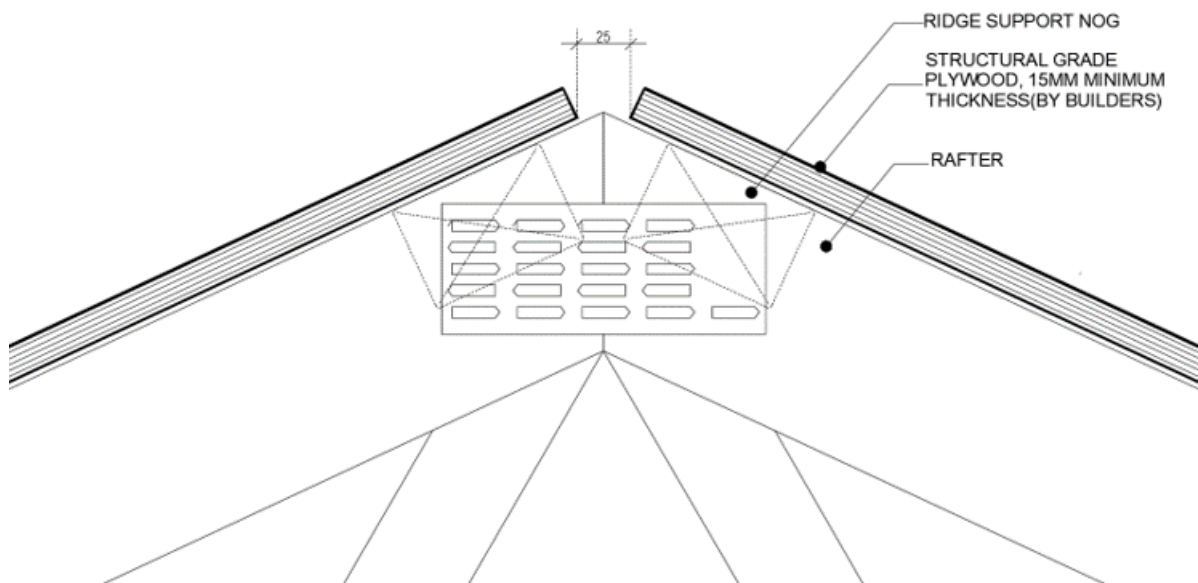


RIDGE GAP DETAIL

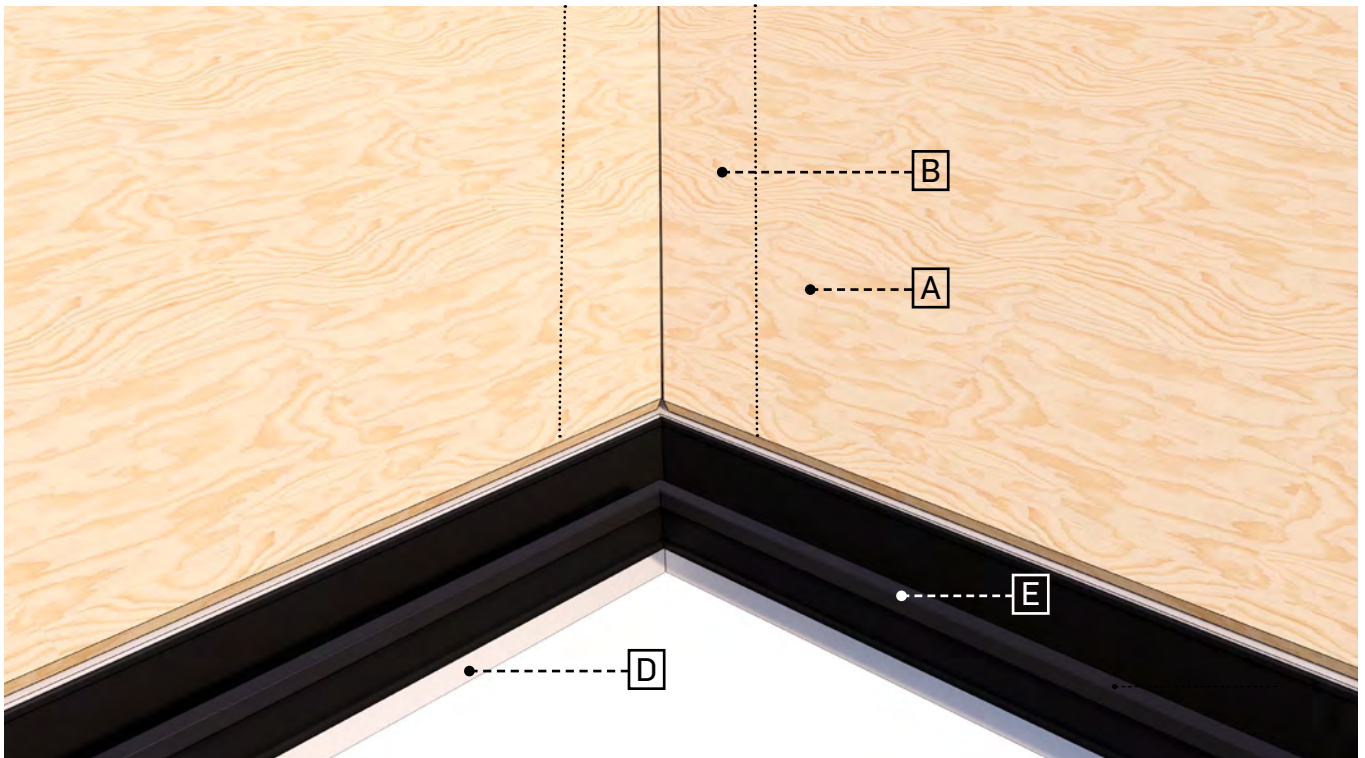


COMPONENTS

- A. Structural grade 15mm thick plywood
- B. Rafter
- C. Ridge support nog
- D. Fascia board

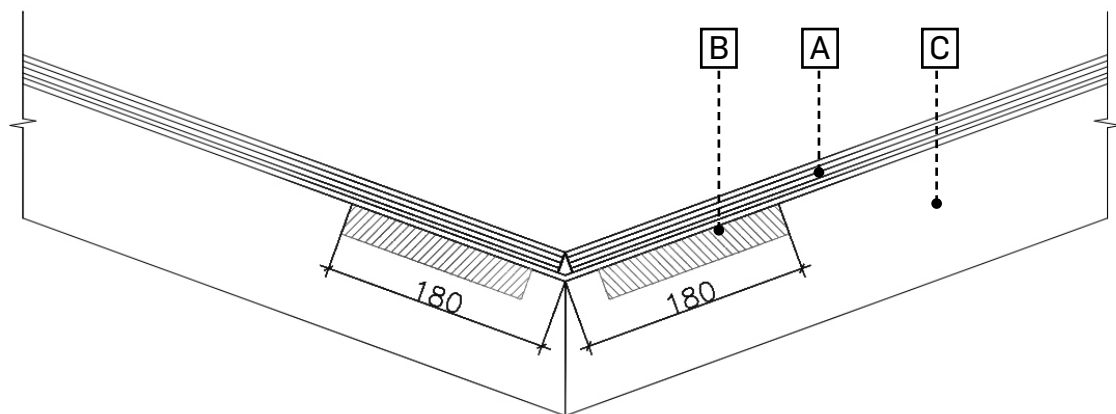


VALLEY BOARD DETAIL

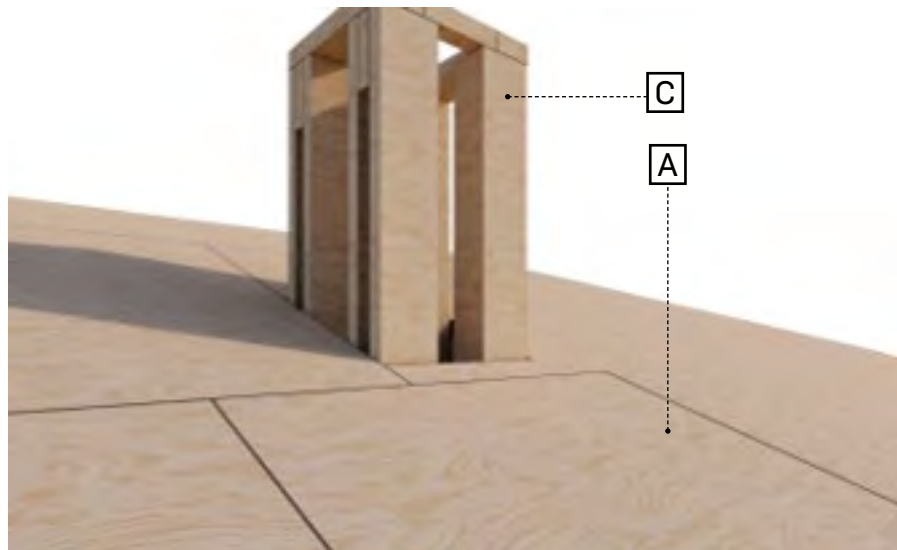
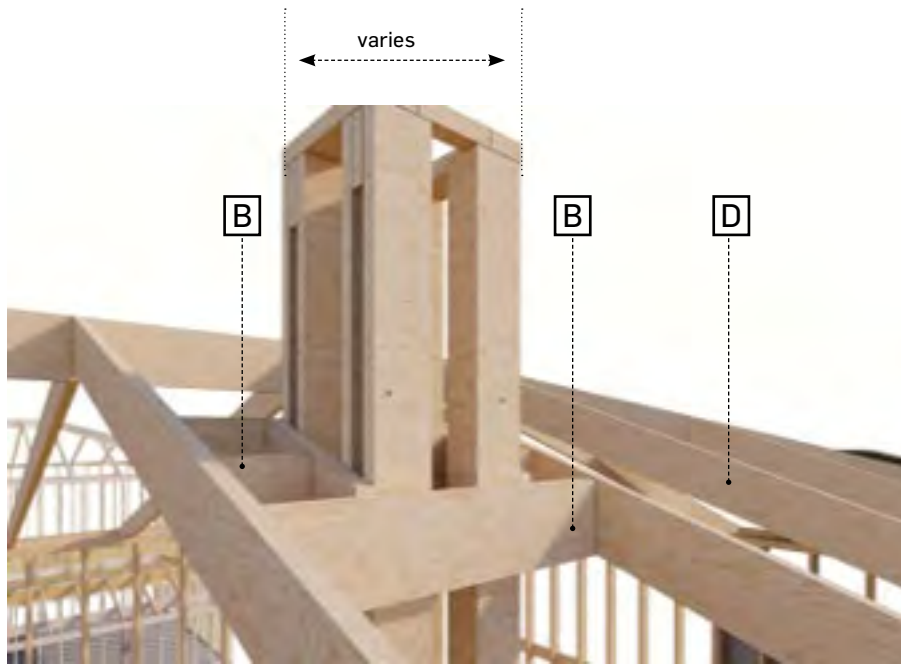


COMPONENTS

- A. Structural grade 15mm thick plywood
- B. 150x25mm valley board
- C. Rafter
- D. Fascia board
- E. Gutter



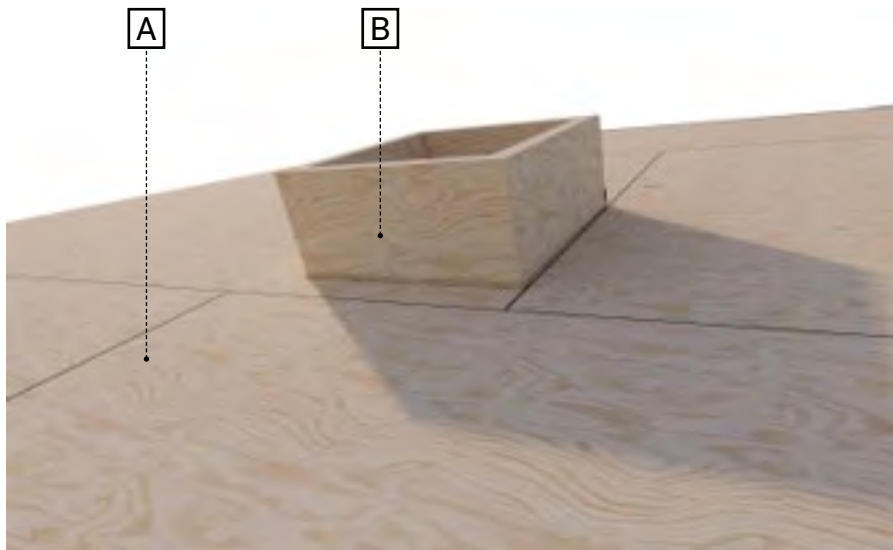
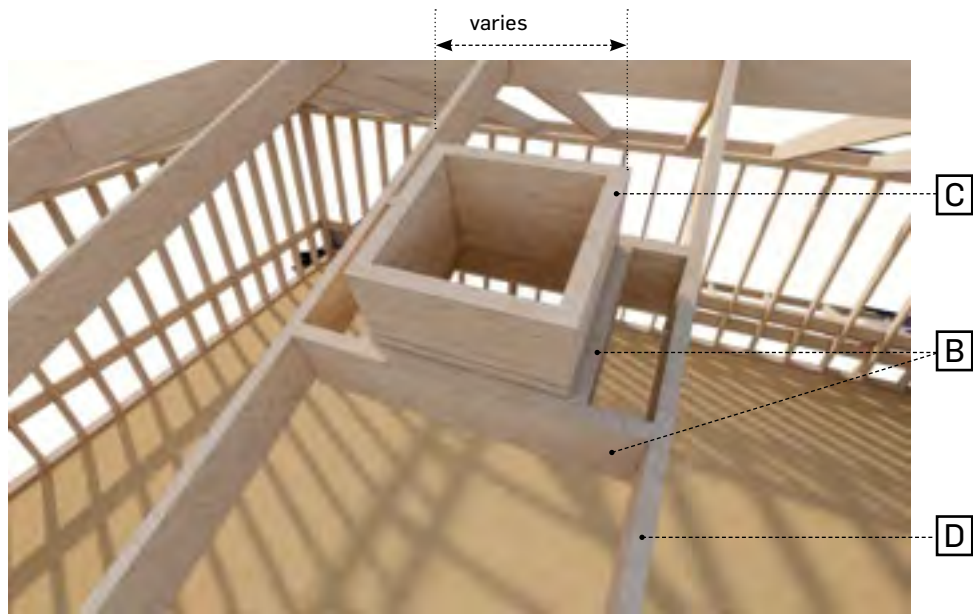
CHIMNEY FRAMEWORK DETAIL



COMPONENTS

- A. Structural grade 15mm thick plywood
- B. Support nog for chimney (actual design as per architect's detail/specification)
- C. Chimney framing (dimensions and design as per architect's detail/specification)
- D. Rafter

SKYLIGHT FRAMEWORK DETAIL



COMPONENTS

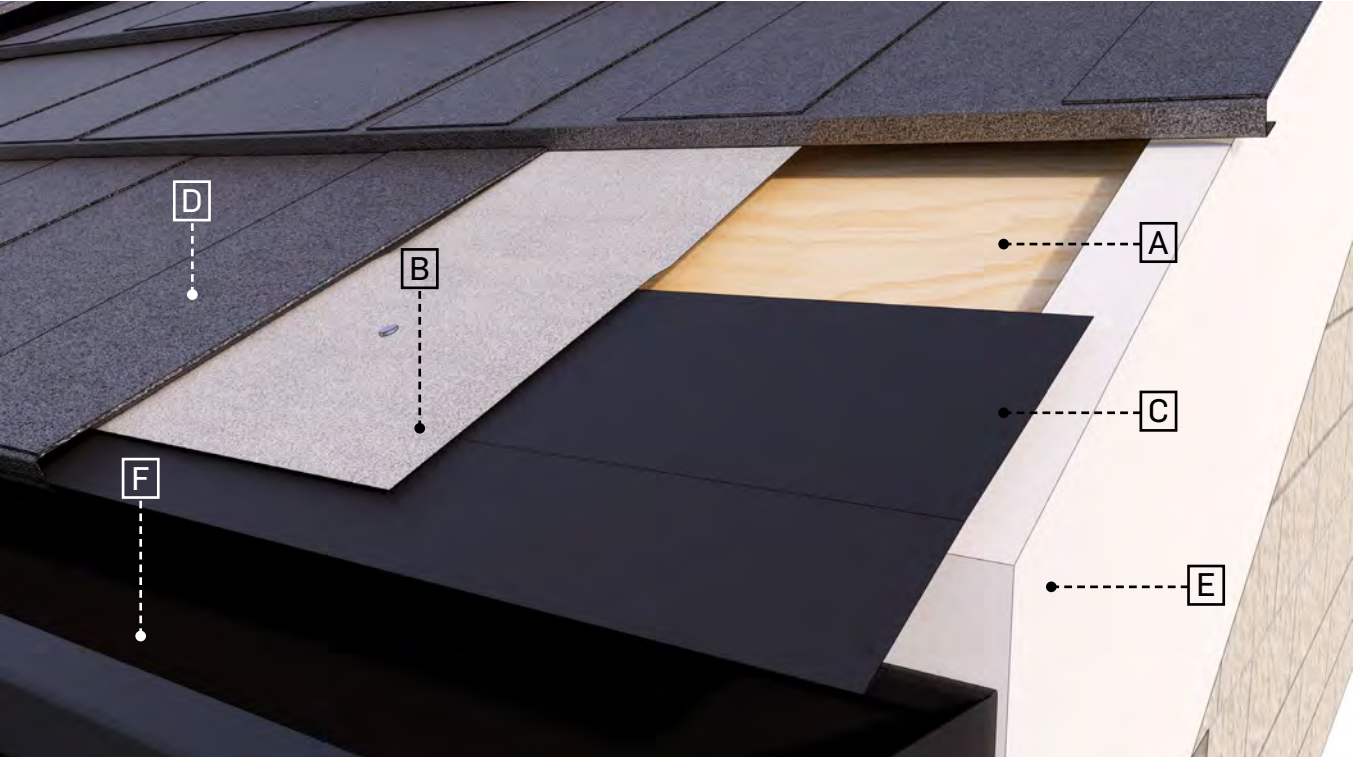
- A. Structural grade 15mm thick plywood
- B. Support nog for skylight (actual design as per architect's detail/specification)
- C. Skylight curb/framing (dimensions and design as per architect's detail/specification)
- D. Rafter

03. EAVES INSTALLATION



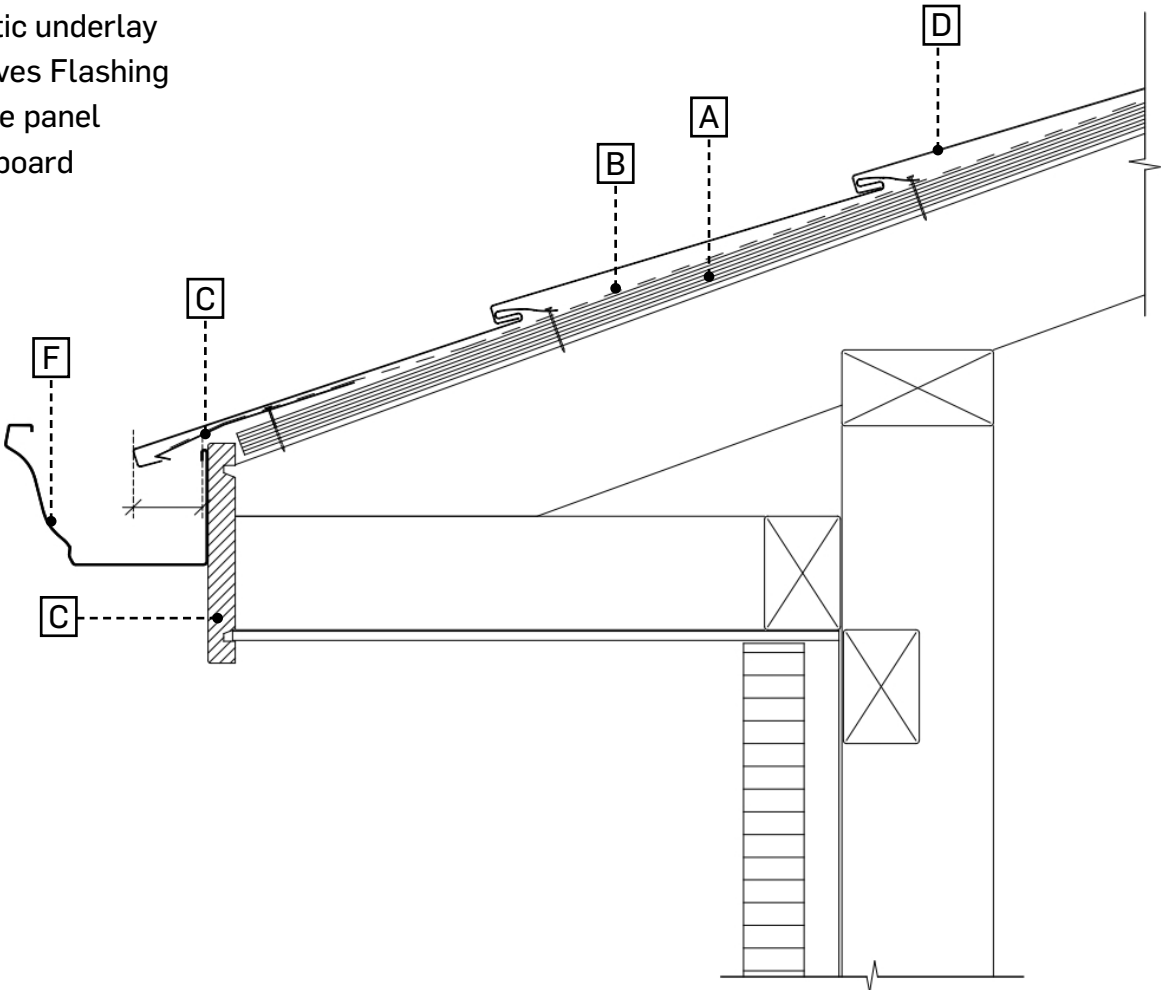
INSTALLATION MANUAL
CF SLATE ON PLY

EAVES DETAIL



COMPONENTS

- A. Structural grade 15mm thick plywood
- B. Synthetic underlay
- C. 402 Eaves Flashing
- D. CF Slate panel
- E. Fascia board
- F. Gutter



EAVES FLASHING INSTALLATION

INSTALLATION

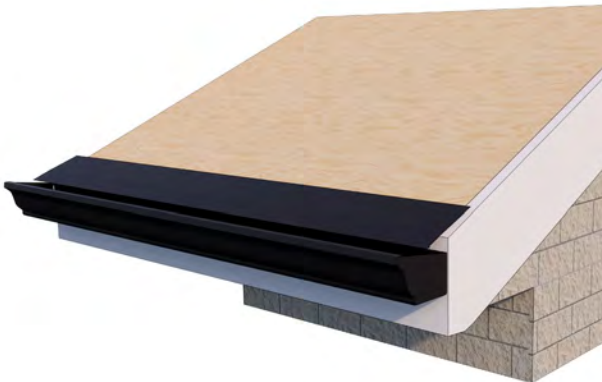
The builder should have installed the ply, ready for roofing.



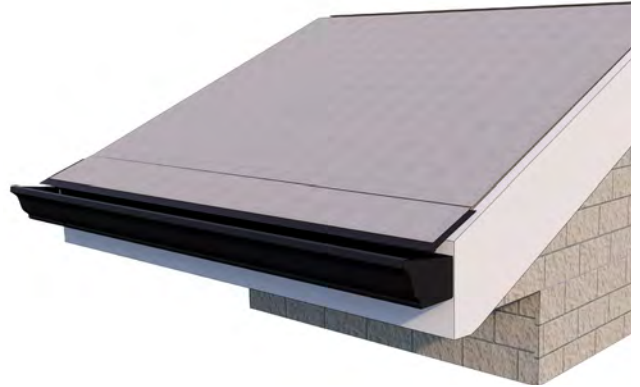
Position the Eaves Flashing so there is a minimum of 40mm overhang from the fascia to the farthest point of the flashing. This can be achieved by aligning the bend in the eaves flashing to the outside edge of the fascia.



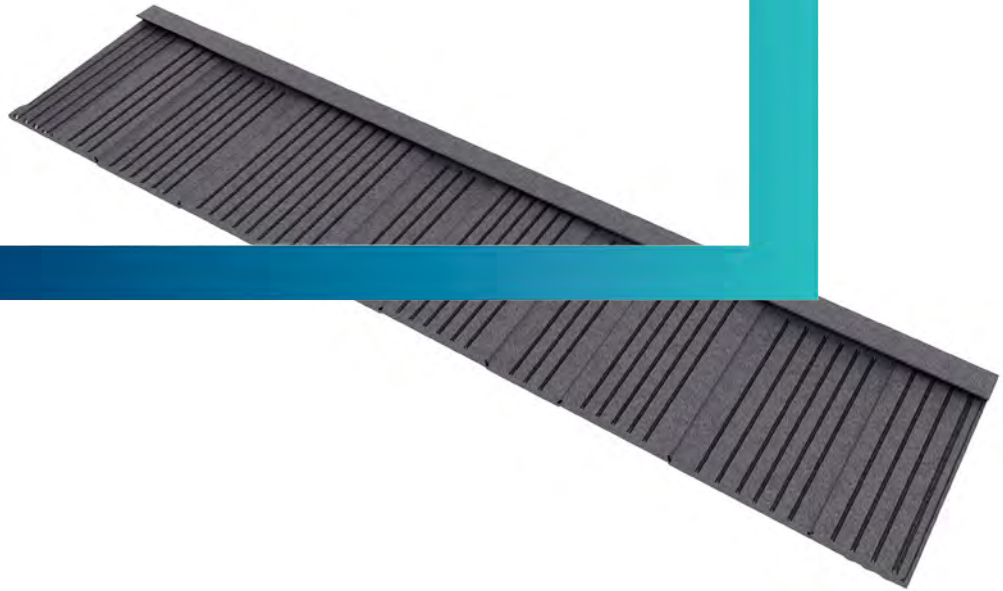
Fix with a fastener every 400mm across the eaves flashing.



Install the underlay across the plane of the roof. Underlay should finish 10mm short of the edge of the eaves flashing.



04. PANEL INSTALLATION



INSTALLATION MANUAL
CF SLATE ON PLY

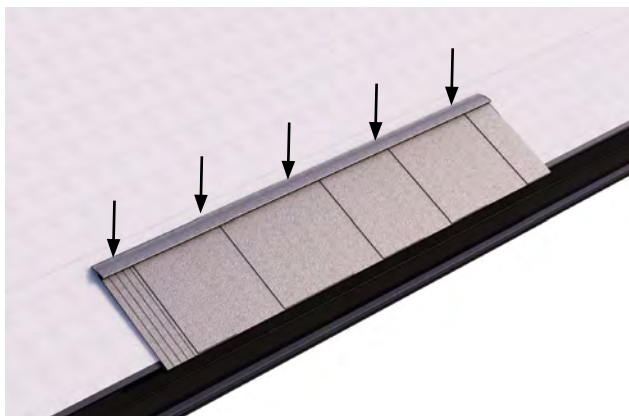
PANEL INSTALLATION

INSTALLATION

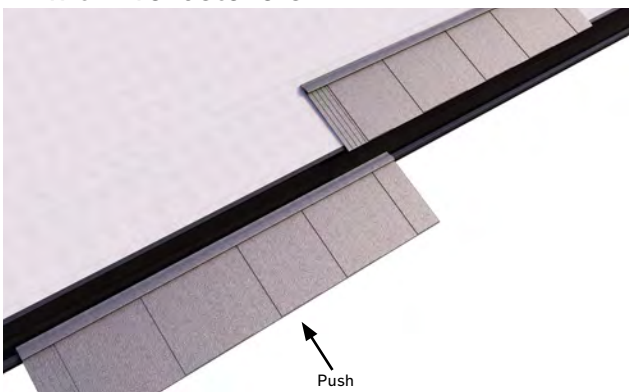
Hook the nose of the first panel to the already installed 402 CF Slate Eaves Flashing. Start from the right side of the course.



Secure the panel with five fasteners evenly spaced at the head of the panel.



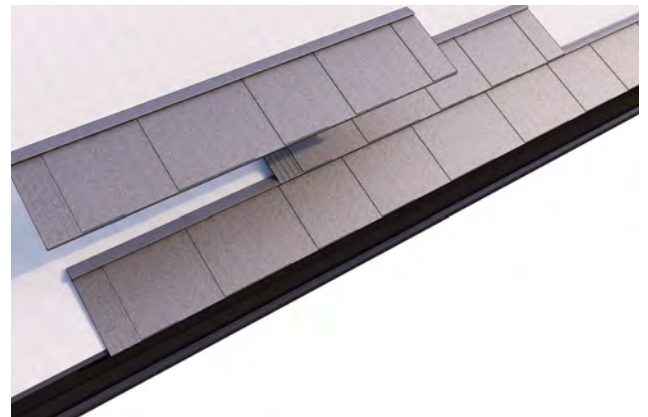
After installing the first panel, use the same method to fit the second panel over the first, overlapping at the weather channel. Push the panel upwards to secure in place, then fix with five fasteners.



After installing the first course, fit the second course by hooking the nose of the second course panel into the rear head check. Stagger the panels to give an irregular pattern across the roof.

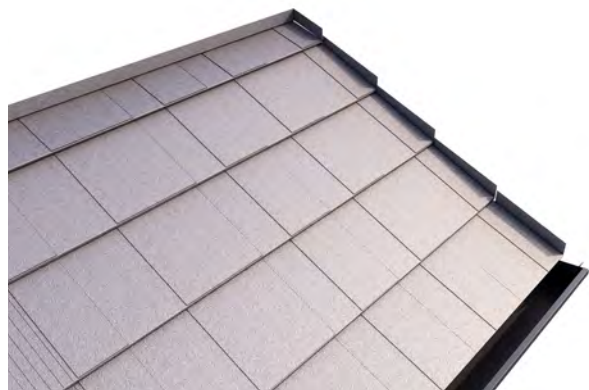
Push the panel upward to ensure full contact along the panel, then secure the panel with five fasteners.

Repeat across and up the plane of the roof.



UPSTAND

Turn up panels a minimum of 40mm at side walls and top course.

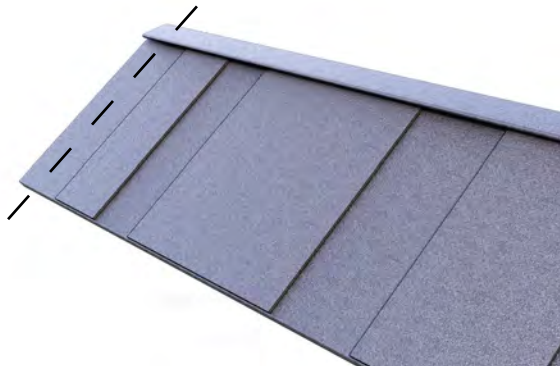


COMMON CUT GUIDE

SIDE BEND

Cutting correctly for side bends is critical as crushing will prevent the next course from being able to interlock into the head of the panel.

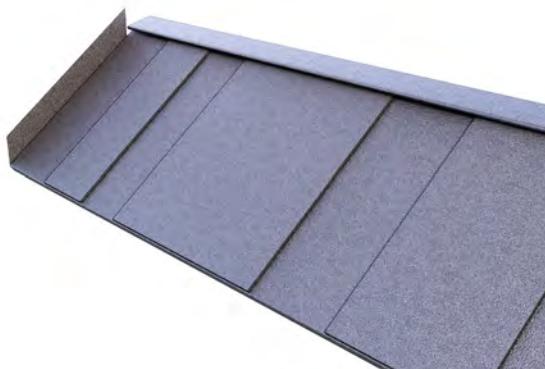
Measure your bend line from the edge of the panel nose and head. There should be a minimum of 40mm from the edge.



Cut the fold of the panel's nose, cutting the underside only, then snip the head fold partway through.

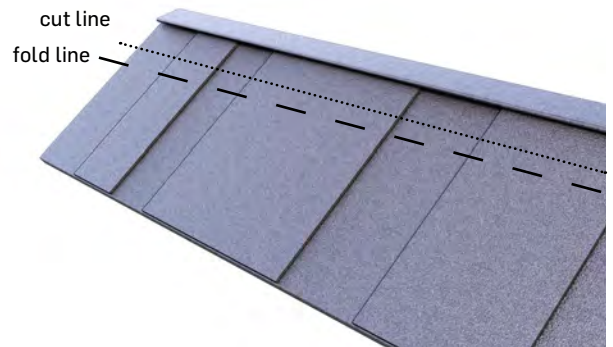


Then bend the side end of the panel to create a 40mm upstand. When installing the next course, add a bead of silicone to the join.

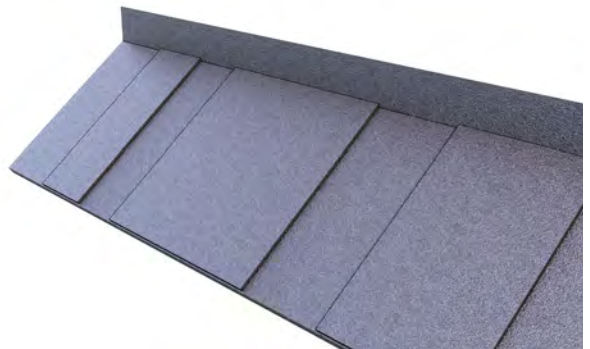


HEAD BEND

Measure your bend line from the nose of the panel up to the head of the panel. Mark out your cut line and your bend line. Your bend line should be a minimum of 40mm from the cut line.



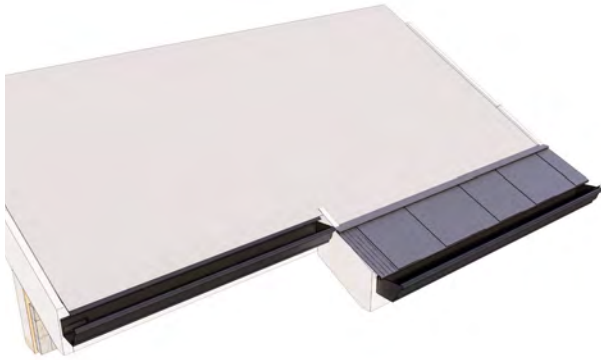
Cut your panel along the cut line. Then bend the head of the panel to create a minimum of 40mm upstand against the wall or support nog.



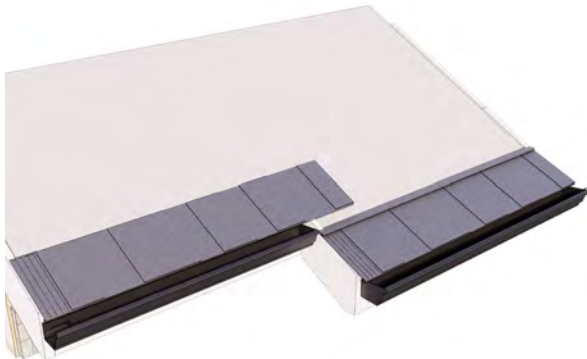
SHORT COURSE INSTALLATION

INSTALLATION

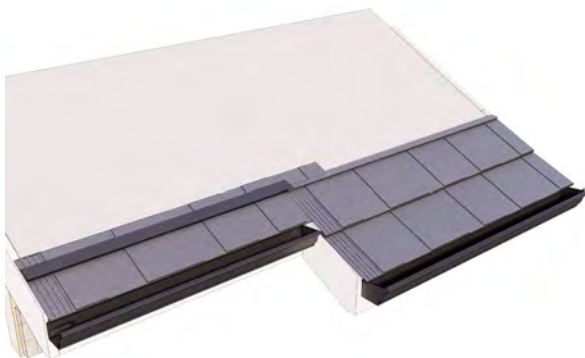
Prepare your roof area by installing underlay, fascia, gutter, and eaves flashing. Install full roof panels up to the change in roof eaves.



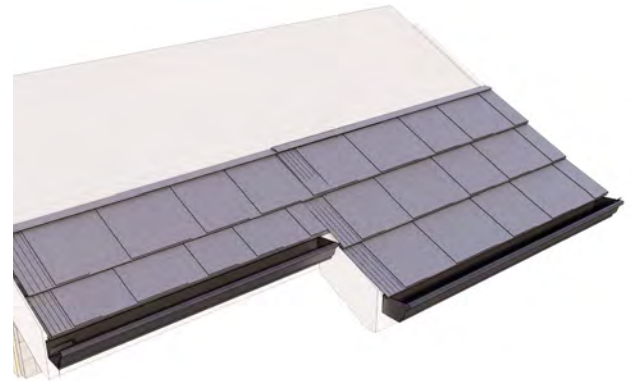
Measure and cut the head off the first course of panels at the short edge of the roof. The head should align with the head of the already-installed panels. Hook the nose over the starter flashing and fasten in place.



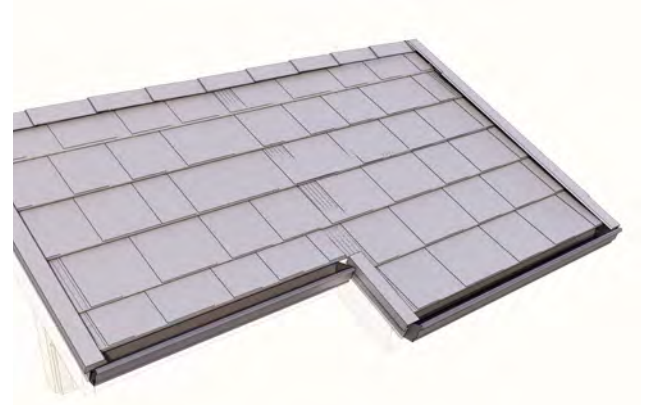
Fasten the shortcourse flashing in place, in alignment with the head check of the already-installed panels.



Install the second course of panels.



Install the rest of the panels and then finish with the barge cover and ridge trims.



See below for a cutaway of the shortcourse setup.

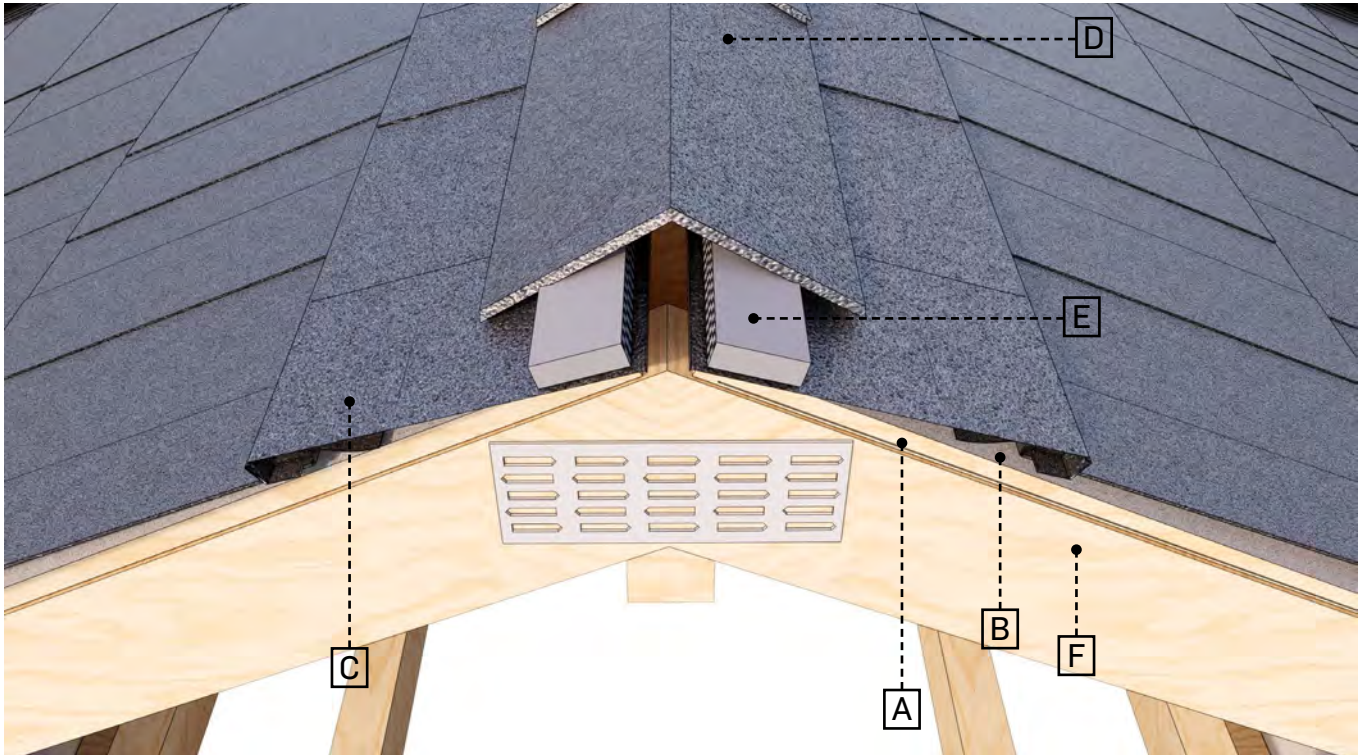


05. AREA SPECIFIC DETAILS



INSTALLATION MANUAL
CF SLATE ON PLY

VENTILATED RIDGE DETAIL



COMPONENTS

A. Structural plywood

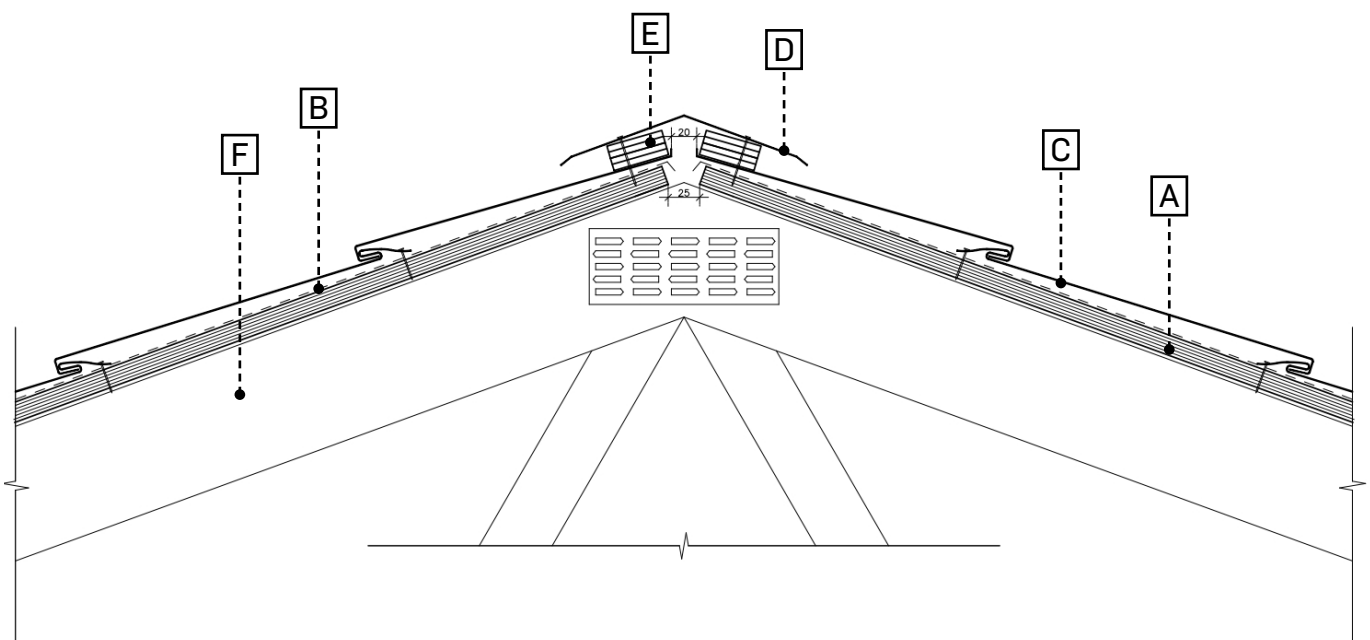
B. Underlay

C. CF Slate panel

D. 400 CF Slate Angle Trim

E. VB10 Ventilated Batten

F. Rafter



VENTILATED RIDGE INSTALLATION

SETTING OUT

Fix eaves flashings at the eaves, then install your underlay on top of the ply. Ensure there is a gap at the ridge between the two planes of the roof.



Install the barge covers, then install the trim over the ridge.



TILE INSTALLATION

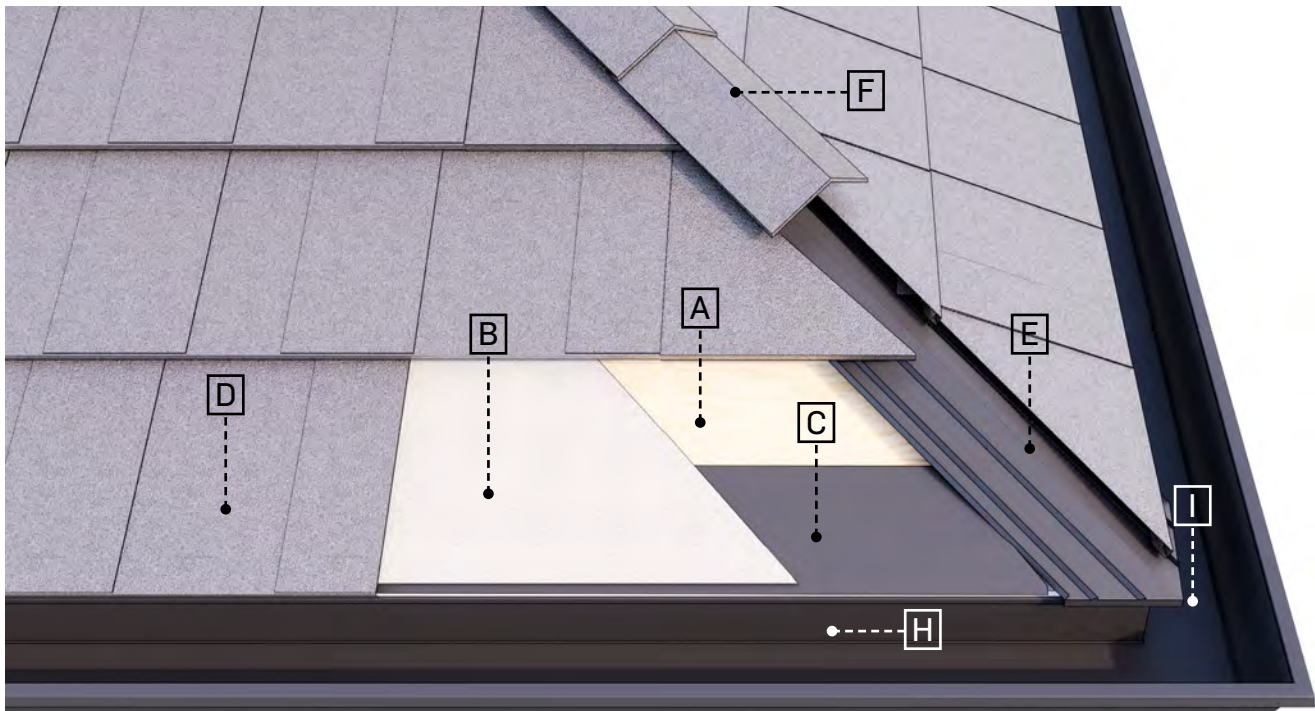
Install your panels, starting at the eaves. Work your way up to the ridge, leaving a 5 – 10mm gap between the panels from both planes of the roof. Turn the panels up by 5mm at the ridge.



Fix VB10 ventilated battens to either side of the gap in the ridge, ensuring there is a 20mm space between each side.



HIP DETAIL



COMPONENTS

A. Structural plywood

B. Underlay

C. 402 CF Slate Eaves Flashing

D. CF Slate panel

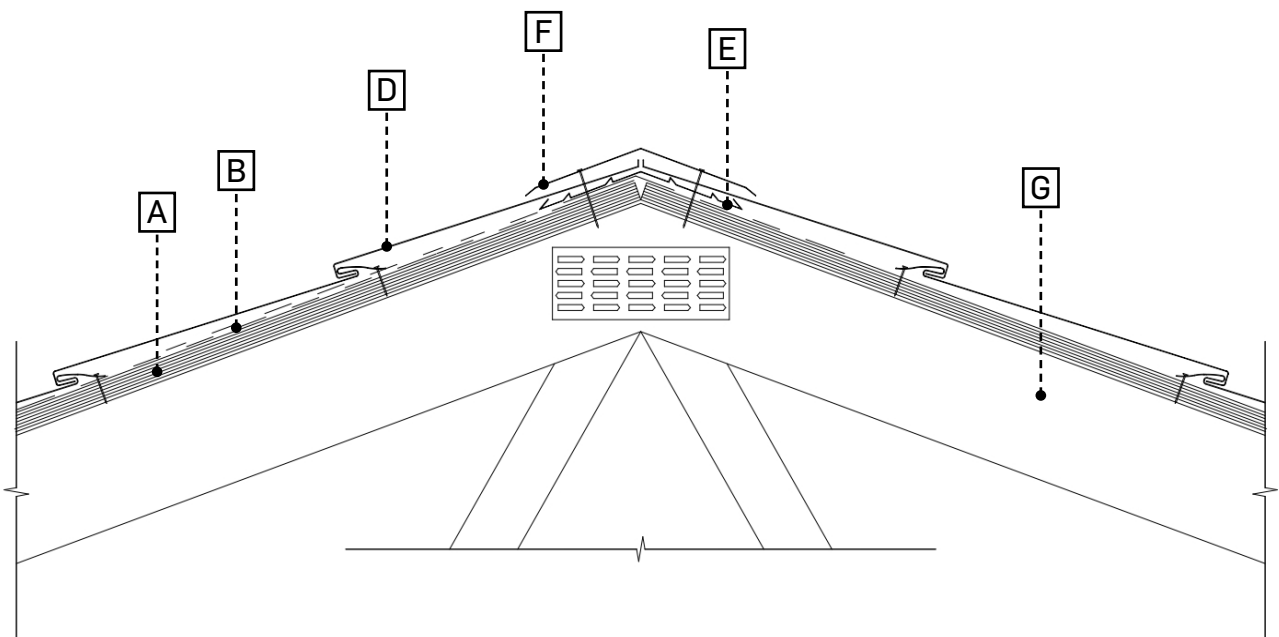
E. 904 CF Hip Under Channel

F. 400 CF Slate Angle Trim

G. Rafter

H. Fascia board (under gutter)

I. Gutter



HIP INSTALLATION

SETTING OUT

The ply should already be installed by the builders. Install the eaves flashing at the eaves. Then install underlay across the roof. Underlay should be draped over the top of the already-installed eaves flashings, finishing 10mm short of the edge.

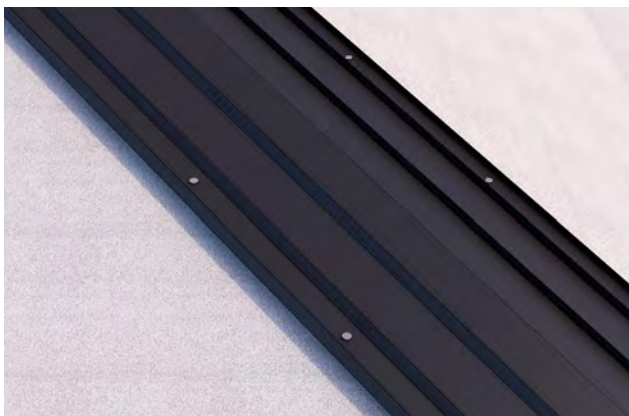


INSTALLATION

Starting at the eaves fix the hip under channel to the hip of the roof.



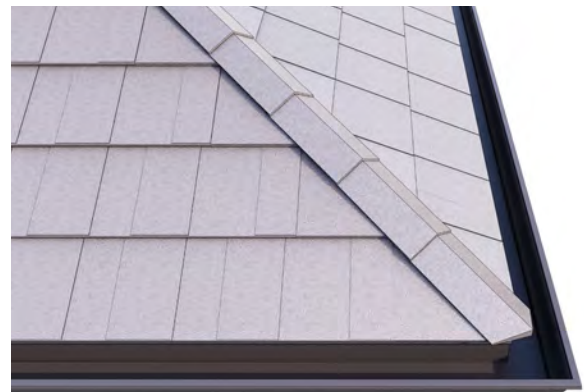
Screws or nails should be fixed to the battens through the farthest edge, avoiding the weather channels.



Install your panels, starting at the eaves.



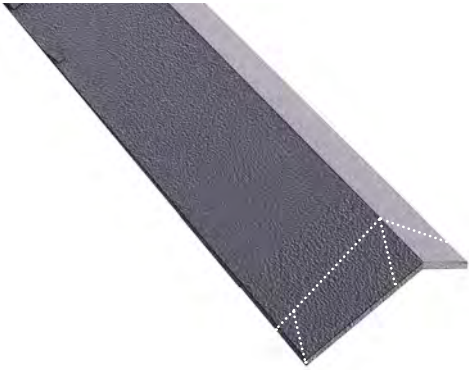
Install trim.



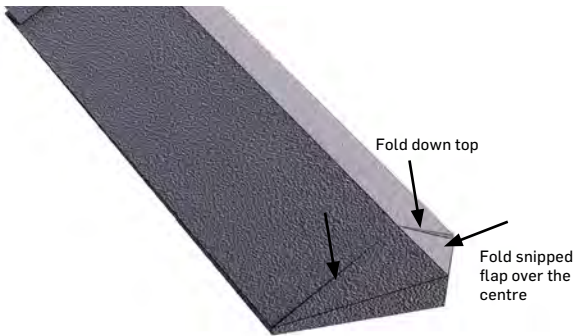
TRIM INSTALLATION

CUTTING AND FOLDING

Prepare your first trim for installation. Using a 400 CF Slate Angle Trim, cut the fold of the nose off. Then cut the in the middle, slightly off-centre, and on the sides of the nose.



Fold the top down, overlapping the centre point to create a clean front.



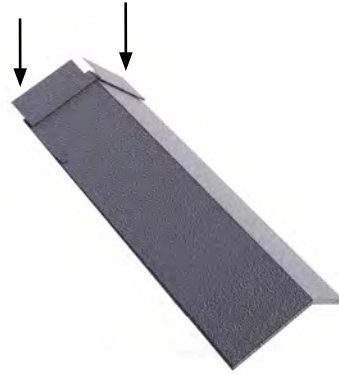
Fold in the edges if required. Trim off excess if required.

INSTALLATION - HIP

Cut and fold the first trim to fit into the corner of the roof. Fasten into the hip under channel with a fastener in each tab at the head of the trim.



Take care to fasten at the outside edge of the tabs to avoid penetrating the weather channels of the under channel.



Hook the next trim into the installed trim's head and fasten, making your way up the hip.

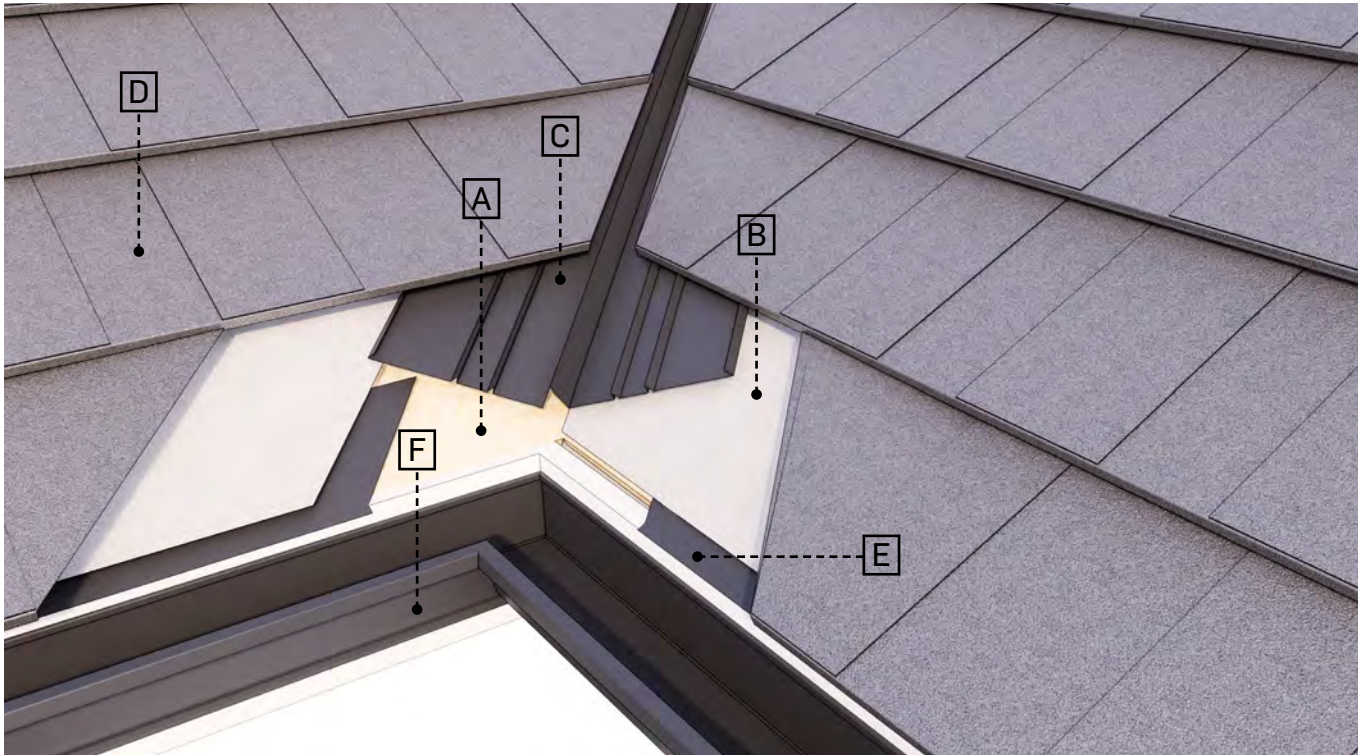
INSTALLATION - RIDGE

Starting at the barge, cut the nose off the trim. This allows for the trim to fit between the ridge and barge cover. Fit the nose under the barge cover. Fasten using the tabs at the head of the trim.



Hook the nose of the next trim into the head fold of the already-installed trim, then fasten at the ridge. Continue this method along the ridge.

VALLEY DETAIL



COMPONENTS

A. Structural plywood

B. Underlay

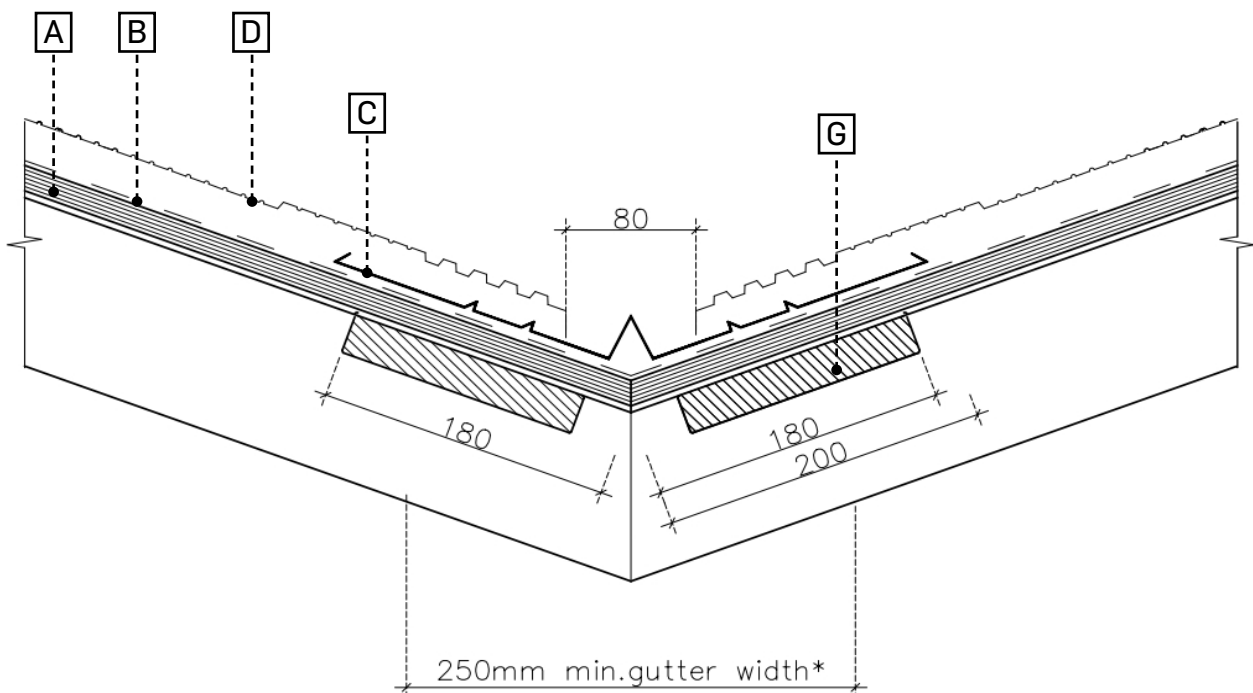
C. 412 CF Slate Valley

D. CF Slate panel

E. 402 CF Slate Eaves Flashing

F. Gutter

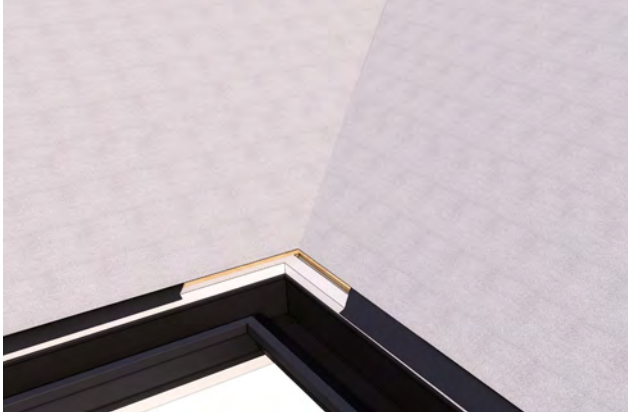
G. Valley board



VALLEY INSTALLATION

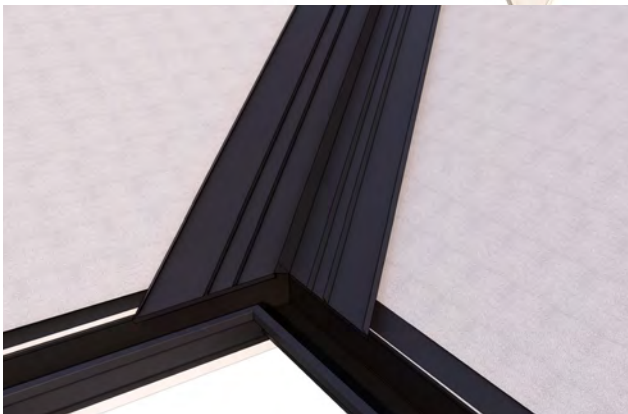
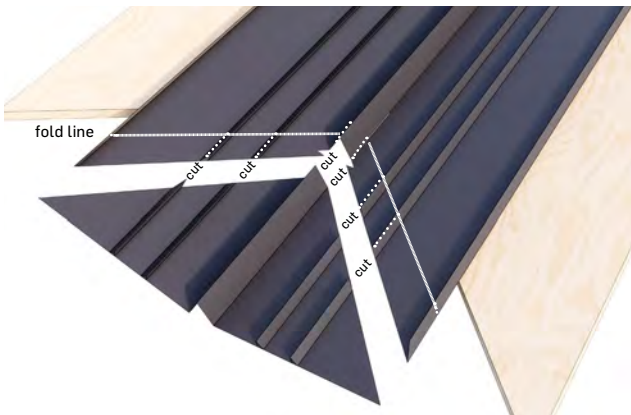
SETTING OUT

Once the valley boards and ply are installed by the builder, install the eaves flashings and lay underlay under the valley section.



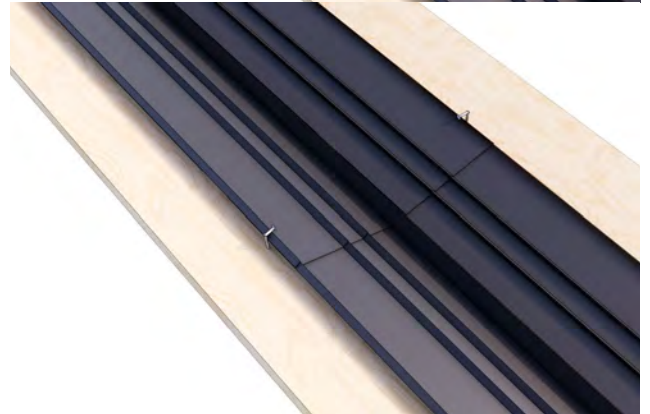
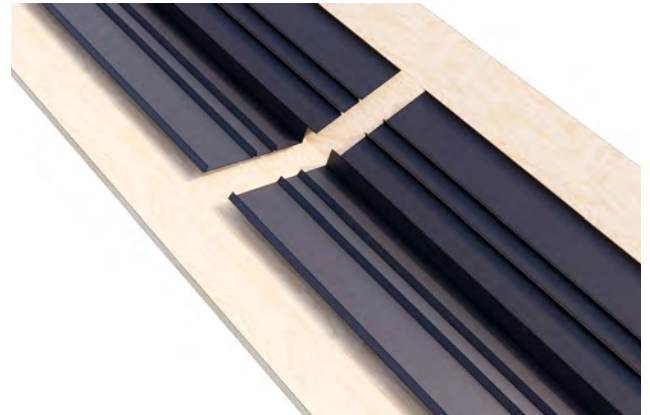
INSTALLATION

Prepare the first 412 Valley by cutting and folding the edge to turn down into the gutter. The valley should be positioned a minimum of 40mm from the edge of the fascia for sufficient overhang.



Using a nail, secure the valley tray into place. Ensure you do not penetrate the valley by bending nails over the rail, rather than penetrating through the valley.

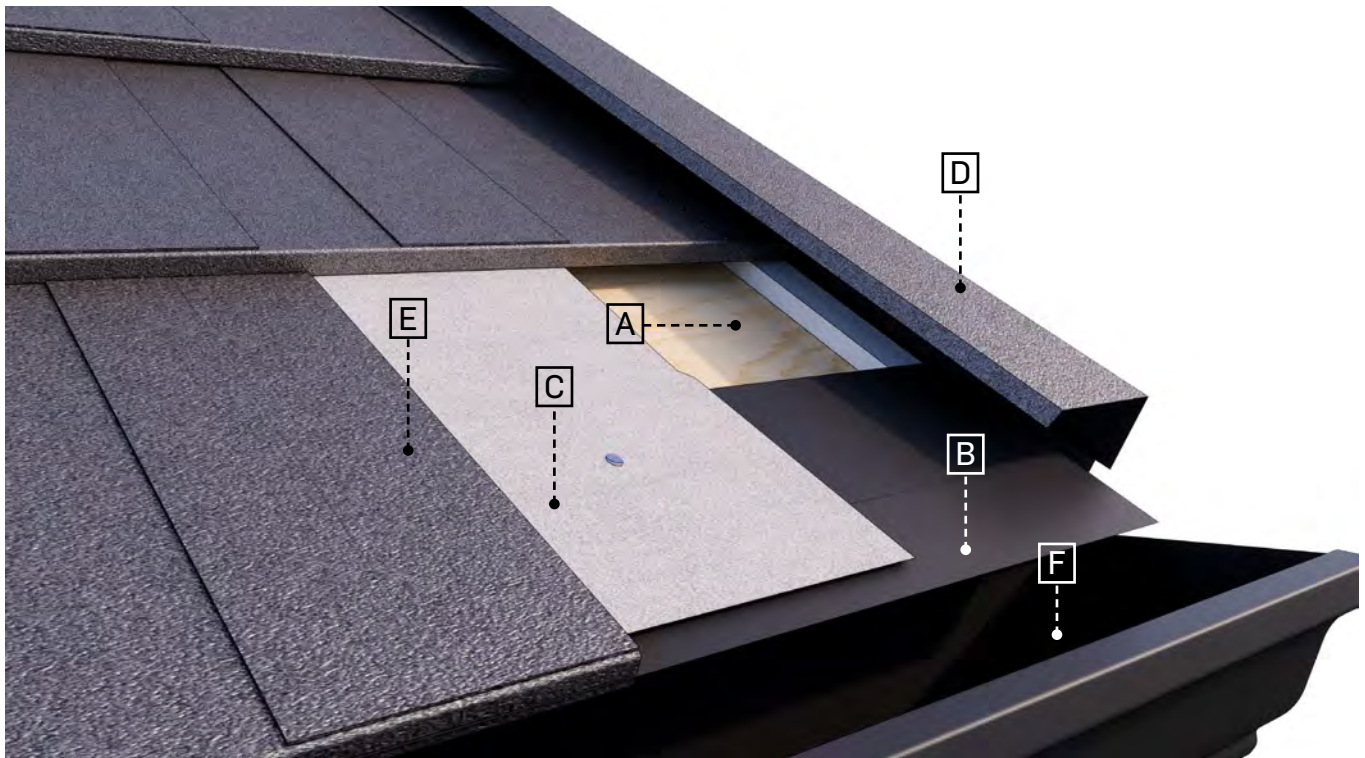
Slide the second valley tray into the first. Add silicone between the trays, across the entire width. The valley trays should overlap by 150mm. Continue installing valley trays up to the ridge.



Install CF Slate panels up the roof, starting at the eaves. Ensure there is a minimum of 80mm space between the panels on opposing sides of the valley. When the valley is reached, create a 10mm turn down into the valley at a 30-degree angle.

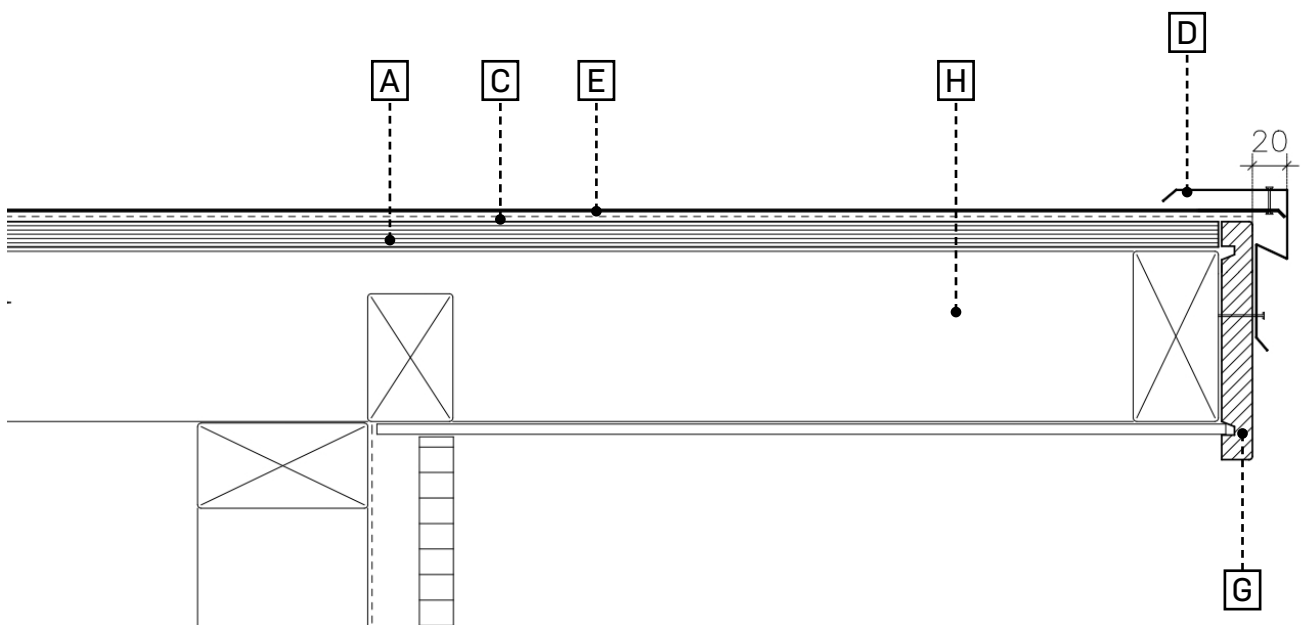


BARGE DETAIL



COMPONENTS

- A. Structural plywood
- B. 402 CF Slate Eaves Flashing
- C. Underlay
- D. 401 CF Slate Barge Cover
- E. CF Slate panel
- F. Gutter
- G. Fascia board
- H. Outrigger



BARGE INSTALLATION

CUTTING AN END

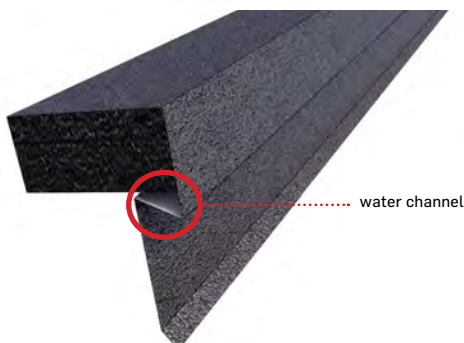
Measure 55mm (approx.) from the front of the barge cover. Cut up the long edge of the cover.



Make a horizontal cut to remove the bottom part of the newly-created flap.



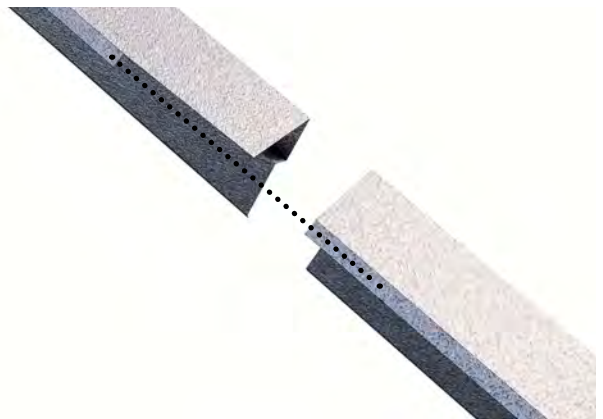
Fold the front down creating a box-end taking care to leave the face of the water channel open.



NOTCHING – BARGE COVER

Cut a 100mm notch from the end of the barge cover. Cut off the excess from the notch. This makes it easy to fit subsequent pieces into already installed barge cover pieces.

Slide inside the first barge cover with an overlap of 100mm.



INSTALLATION

Turn down the CF Slate panels 10mm at the barge. Align the barge cover to the edge of the fascia with the top covering the CF Slate panels. Fix horizontally at the bottom of the barge cover into the fascia, taking care to avoid the water channel.

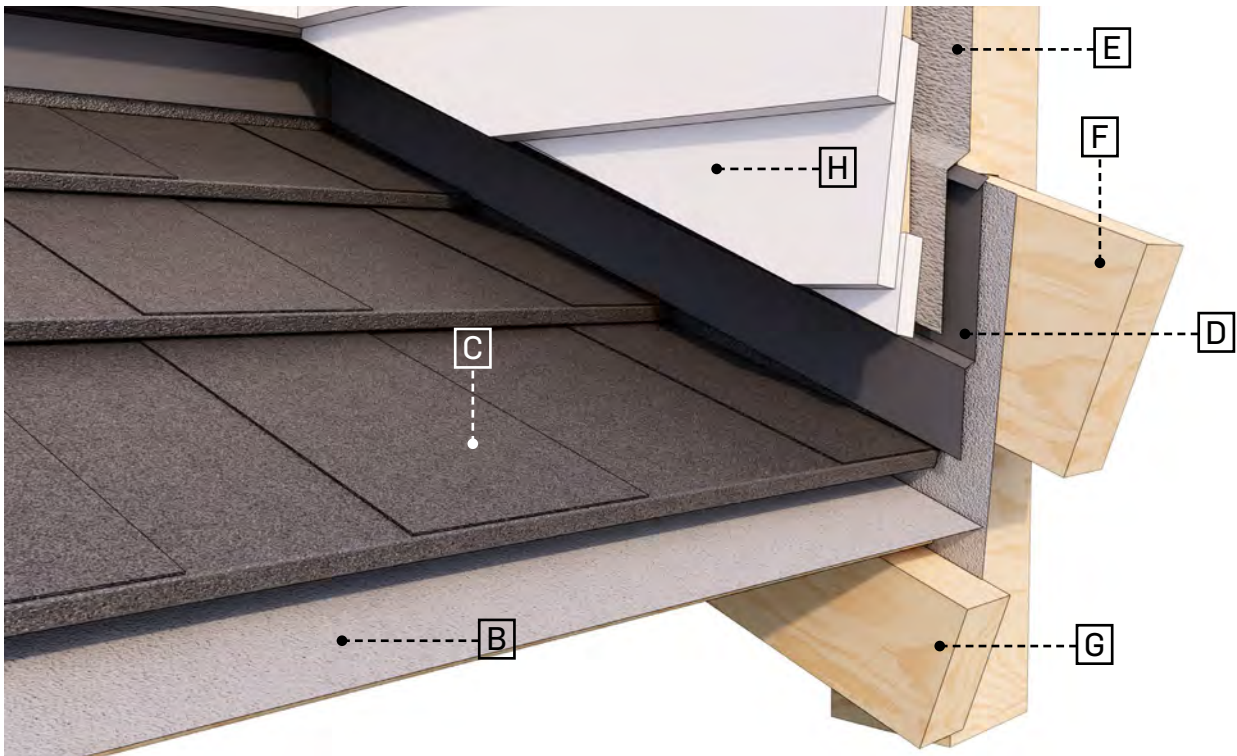
Rivet the top of the barge cover to the CF Slate panel above the water channel. Remove swarf and silicone the rivet. Use a touch up kit to apply colour and stone chip in a matching colour to the rivet.

06. WALL JUNCTIONS



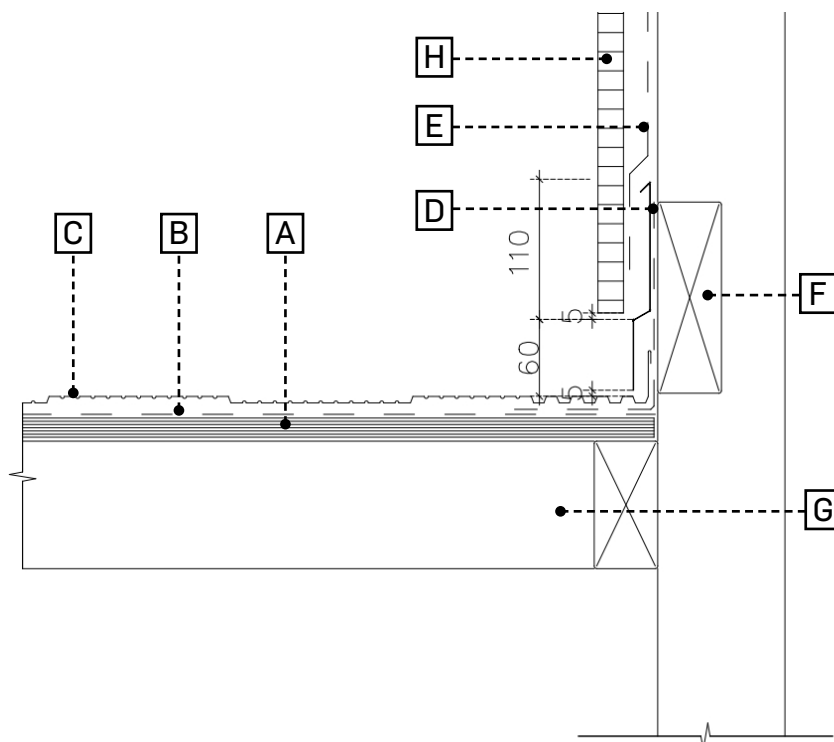
INSTALLATION MANUAL
CF SLATE ON PLY

SIDE WALL DETAIL



COMPONENTS

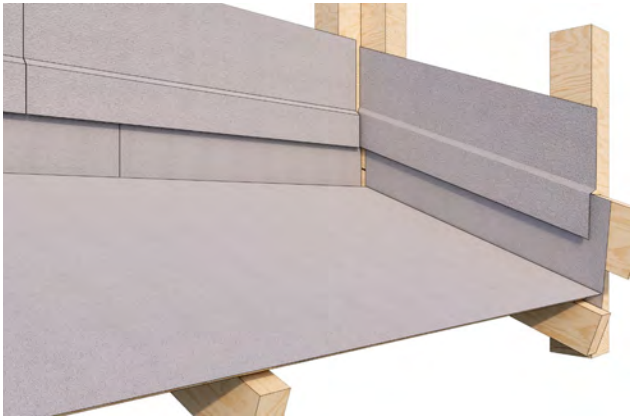
- A. Structural plywood
- B. Underlay
- C. CF Slate panel
- D. 104 Side Flashing
- E. Wall underlay (by builders)
- F. Support nog (by builders)
- G. Rafter (by builders)
- H. Wall cladding (by builders)



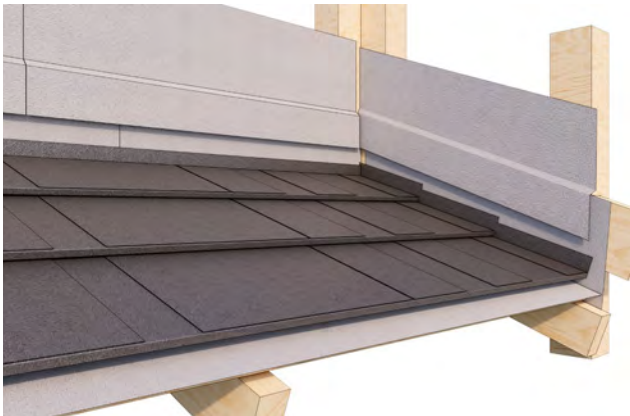
SIDE WALL INSTALLATION

INSTALLATION

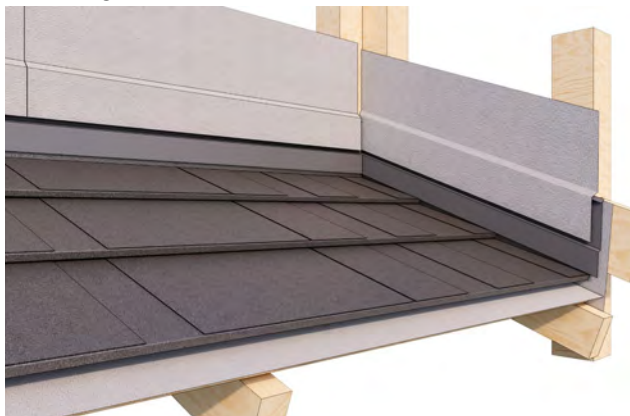
Roof framing, support nogs, wall underlay, and ply are installed by builders. Pin out roofing underlay, ensuring enough underlay is available to line the wall above the side flashings.



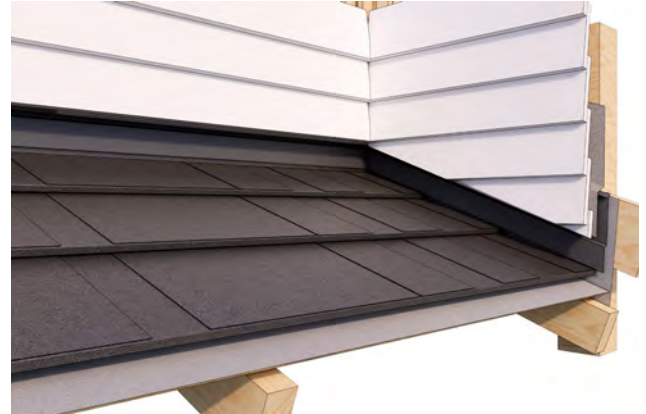
Install CF Slate panels up the roof, starting at the eaves. When a wall is met, create an upstand of at least 40mm.



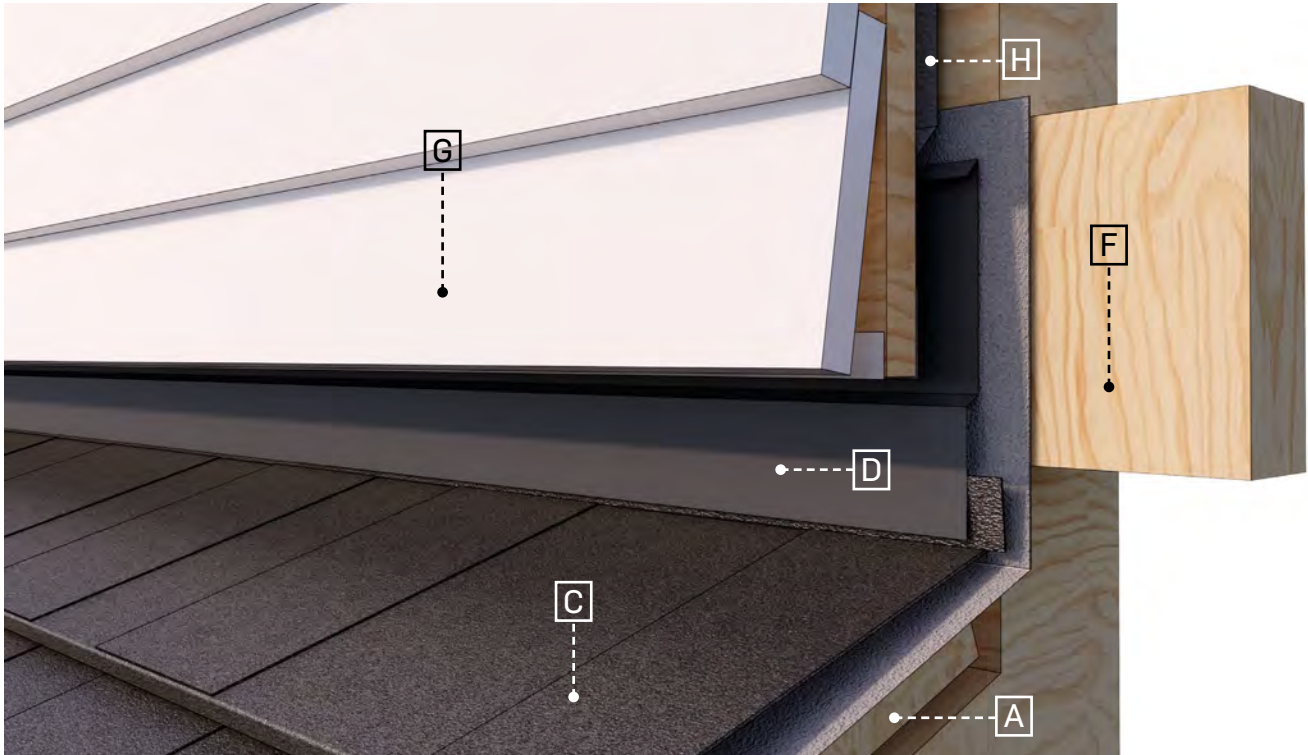
Fix the side flashing to the support nog in the wall. Wall underlay should lay over the top of the side flashing, while the roofing underlay should lie between the side flashing and the wall.



Once side flashings are installed, the builders can install the wall cladding.



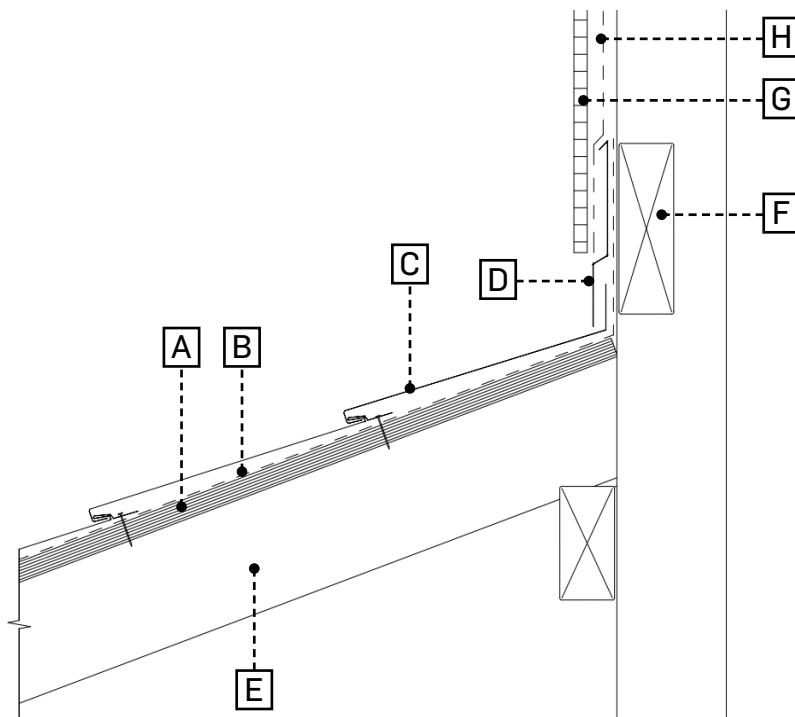
HEAD WALL DETAIL



COMPONENTS

- A. Structural plywood
- B. Underlay
- C. CF Slate panel
- D. 104 Side Flashing
- E. Rafter

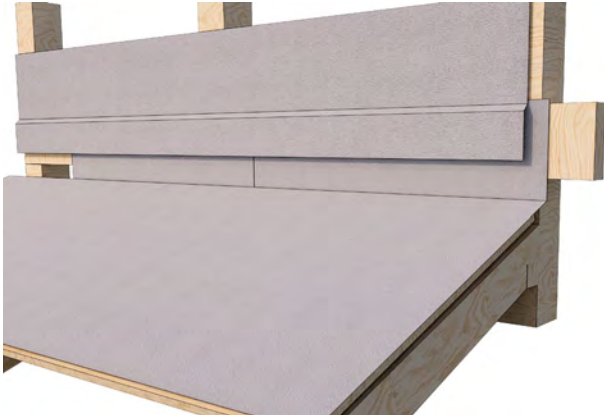
- F. Support nog
- G. Wall cladding/stucco/siding
- H. Wall underlay



HEAD WALL INSTALLATION

INSTALLATION

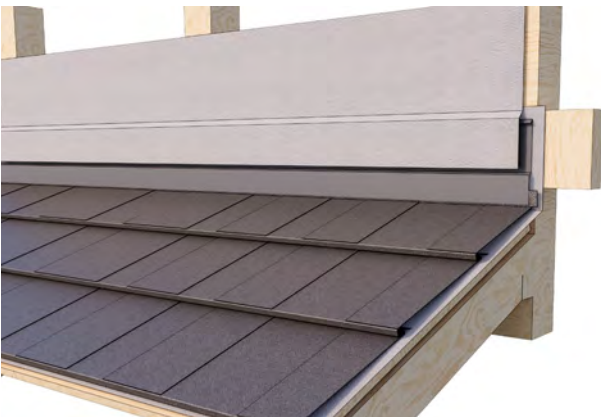
Roof framing, wall underlay, and ply are installed by builders. Install underlay, ensuring enough underlay is available to line the wall above the side flashings.



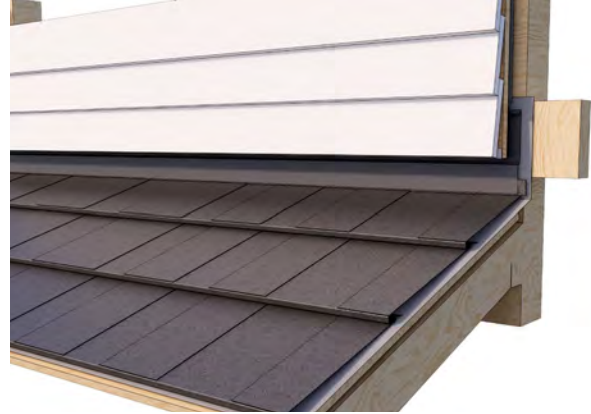
Install CF Slate panels up the roof, starting at the eaves. When a head wall is met, create an upstand of at least 40mm at the head of the panel.



Fix the side flashing to the support nog in the wall. Wall underlay should lay over the top of the side flashing.



Once side flashings are installed, the builders can install the wall cladding.



07. ROOF PENETRATIONS



INSTALLATION MANUAL
CF SLATE ON PLY

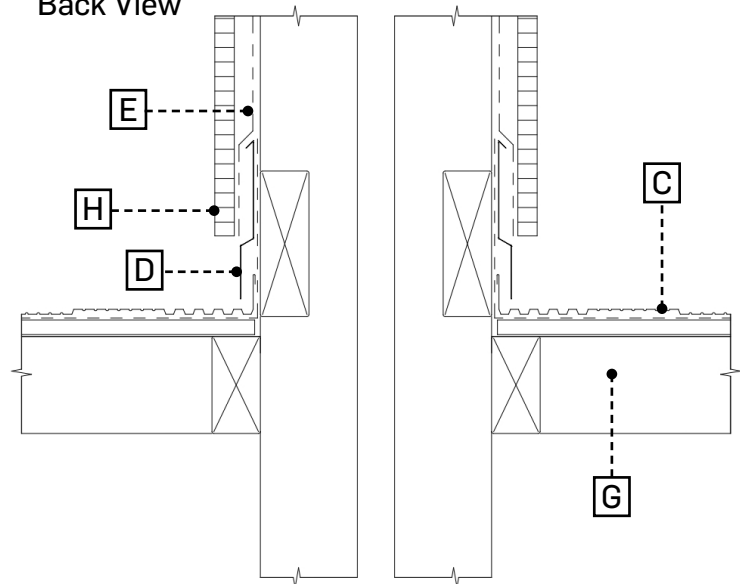
CHIMNEY PENETRATION DETAIL



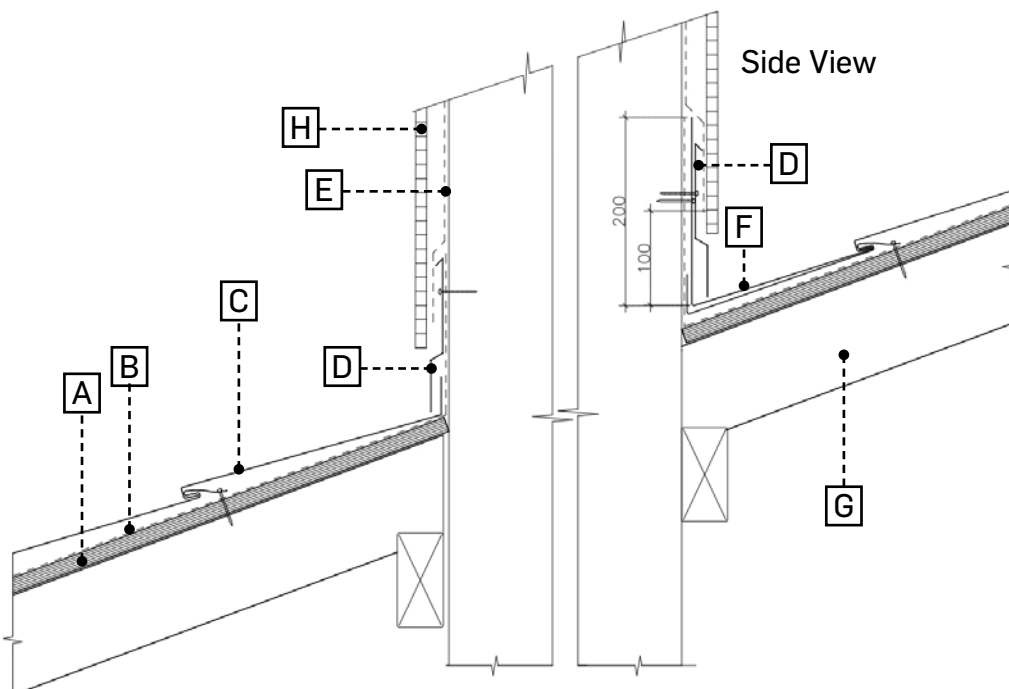
COMPONENTS

- A. Structural plywood
- B. Underlay
- C. CF Slate panel (40mm min turn up)
- D. 104 Side Flashing
- E. Wall underlay (by builders)
- F. Chimney back flashing
- G. Rafter (by builders)
- H. Wall cladding (by builders)

Back View



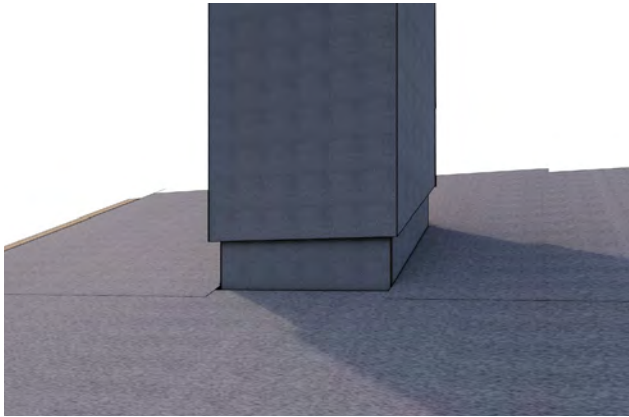
Side View



CHIMNEY PENETRATION INSTALLATION

INSTALLATION

For chimneys up to 1 metre in width.
Pin out and install roof underlay across the roof, working around the chimney. Ensure enough underlay is available to reach the wall above the side flashings.



Install CF Slate panels across the roof, starting at the eaves. At the penetration, turn up the panels by a minimum of 40mm on all sides.



Prepare your back flashing. The head should have a 10mm turn-back to allow the next panel to hook into it.



Install side flashings on the front and sides of the penetration. Then install the back flashing. The upstand on the back flashing should be a minimum of 250mm.



Finally, install a side flashing over the back flashing to align with the other already-installed side flashings.



Once completed, the builders can install wall cladding to the chimney.

DEKTITE PENETRATION

INSTALLATION

Cut through the underlay taking care to create a turn up around the pipe penetration.



Install CF Slate panels up the plane of the roof to the pipe. When the penetration is reached, pierce a hole in the panel at the centre of the pipe's location.

Cut to the circumference of the pipe and slide the panel over the pipe.



Install the next course of panels.



Cut the Dektite cone where indicated for the relevant pipe size.

Slide the Dektite flashing down over the pipe. Water can be used as a lubricant.

Apply neutral cure silicone or double-sided roofing membrane tape on the underside of the flange.

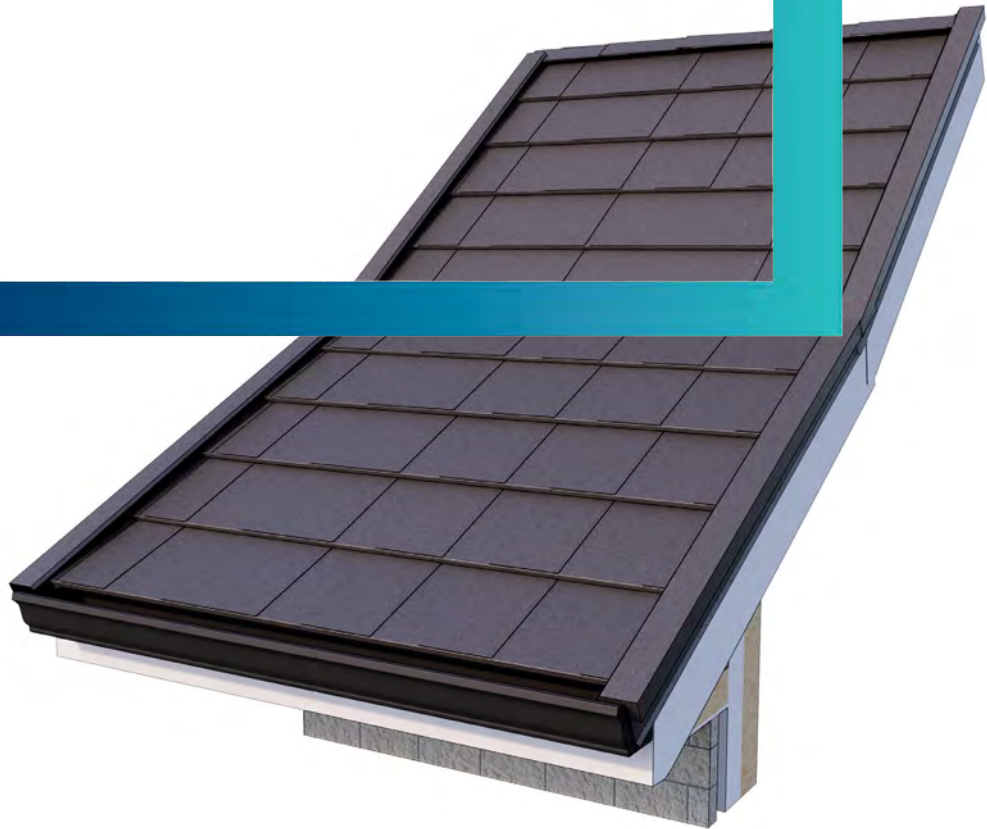
Press pipe flashing into contours of the roof panel.



Fasten with self-tapping or self-drilling screws, or selected pop rivets.



08. OTHER DETAILS



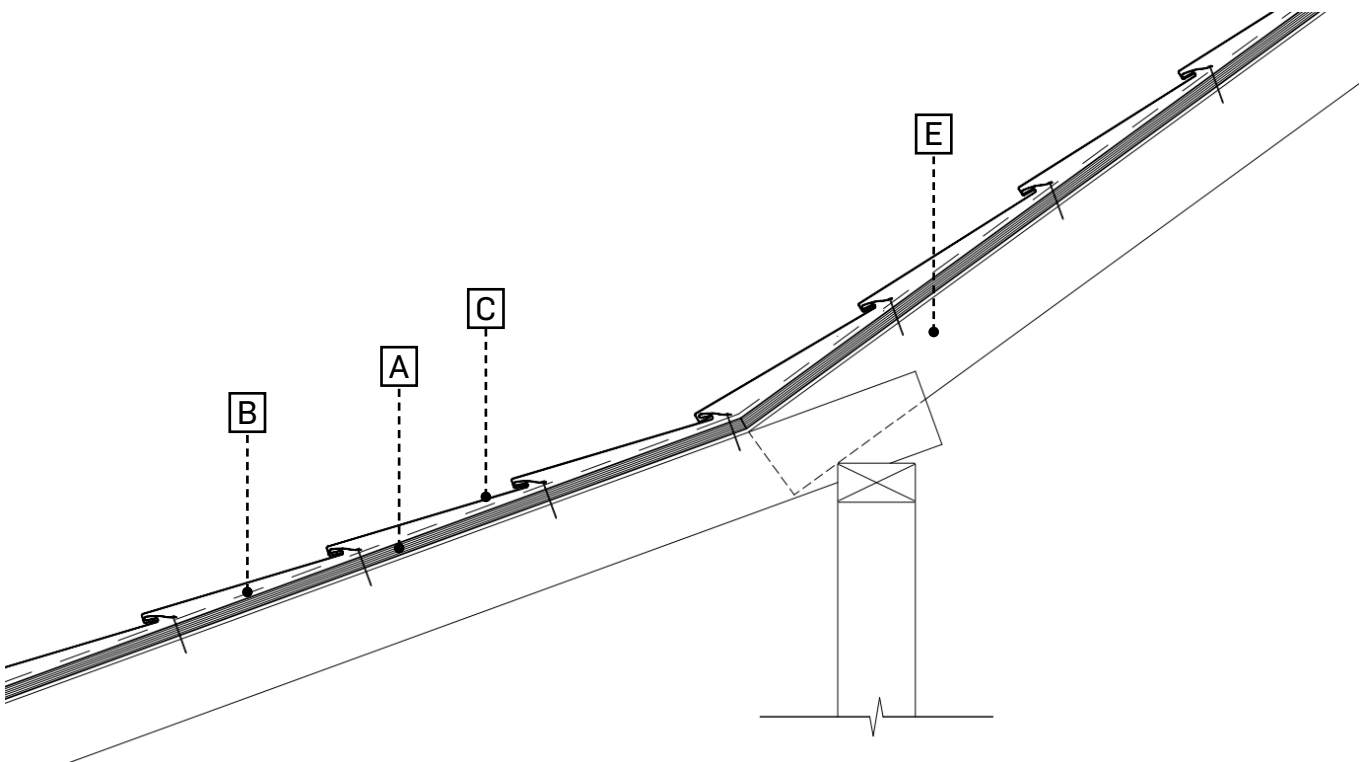
INSTALLATION MANUAL
CF SLATE ON PLY

CHANGE OF PITCH DETAIL



COMPONENTS

- A. Structural ply
- B. Underlay
- C. CF Slate panels
- D. 401 CF Slate Barge Cover
- E. Rafter

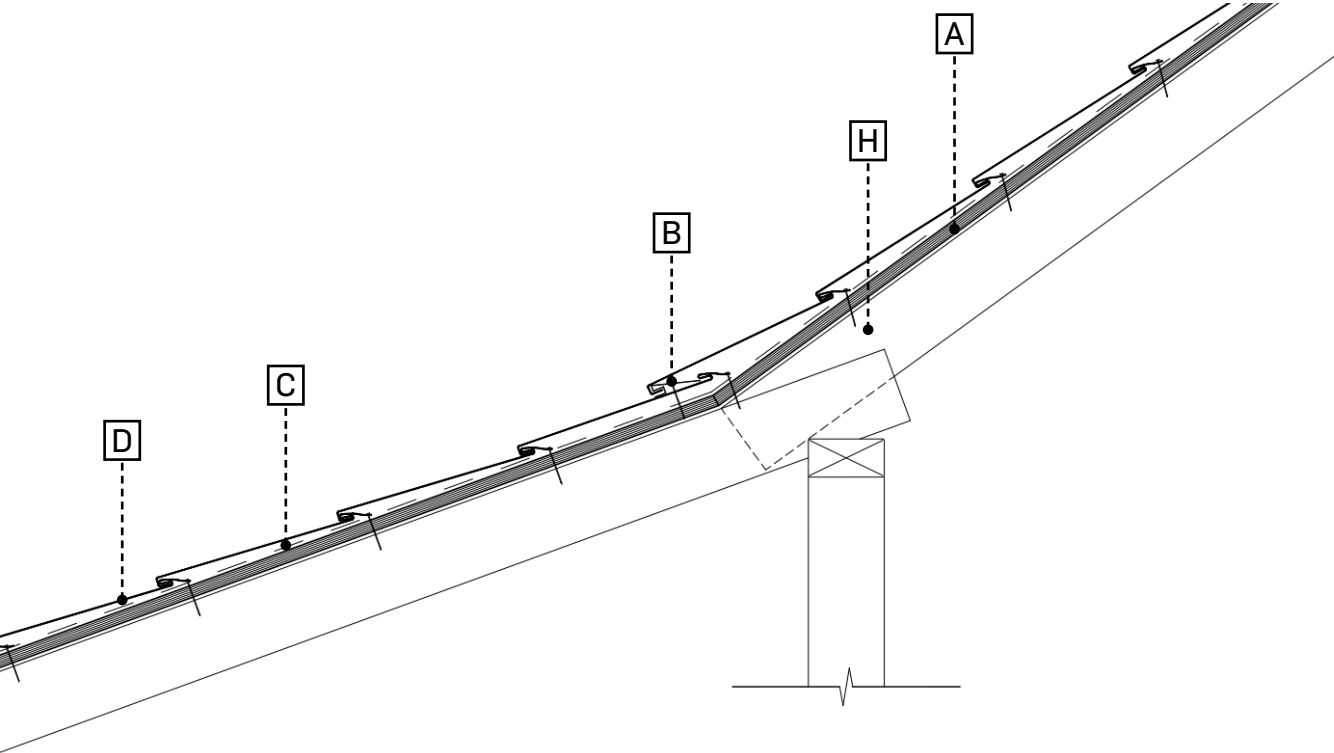


CHANGE OF PITCH DETAIL SHORTCOURSE METHOD



COMPONENTS

- A. Structural plywood
- B. 417 CF Slate Short Course
- C. Underlay
- D. CF Slate panel
- E. 401 CF Slate Barge Cover
- F. Gutter
- G. Fascia board
- H. Rafter



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