



CF SHINGLE

CF SHAKE

## Installation Guide

**CF SHINGLE & CF SHAKE**  
DIRECT TO DECK

## Introduction

Thank you for choosing Tilcor Roofing Systems for your project. The following installation guide is specifically intended for the Tilcor CF (Concealed Fastener) product range featuring a direct to deck application. The installation guide is designed to assist design & building professionals on Tilcor's recommended installation guideline for each roof detail. This guide does not cover all areas of each individual roof. The guide covers the majority of commonly referred-to roof details. Local building codes always supersede the manufacturer's recommendations. We highly recommended using a licensed & insured roofing contractor to install any roofing system. Please contact Tilcor Roofing Systems at any time through the installation should a detail not be covered in the installation guide. Also refer to the Tilcor warranty for helpful tips on maintaining your roof's performance. Thank you again for choosing Tilcor.

# Table of Contents

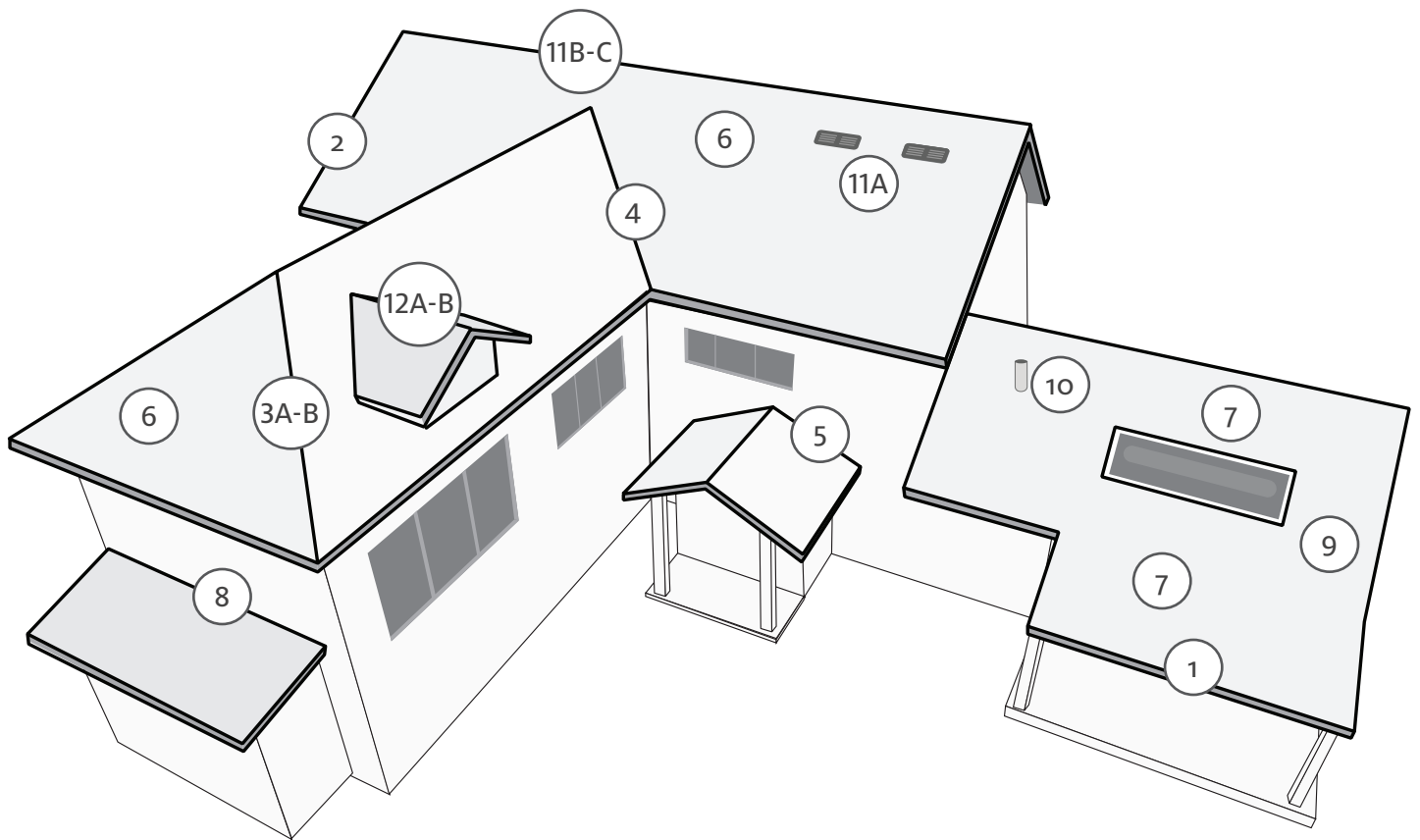
|   |    |
|---|----|
| Roof Overview .....                             | 01 |
| Tools required .....                            | 03 |
| Safety Statement .....                          | 04 |
| CF Panel & Tilcor Roof System Components .....  | 05 |
| Construction Details .....                      | 07 |
| Eave Treatment .....                            | 09 |
| Rake / Gable Treatment / Barge .....            | 11 |
| Hip / CF Shingle .....                          | 15 |
| Hip / CF Shake .....                            | 16 |
| Valley .....                                    | 17 |
| Side-wall flashing .....                        | 18 |
| Panel Installation .....                        | 19 |
| Short Course .....                              | 21 |
| Pitch Change .....                              | 23 |
| Headwall / Roof to Wall .....                   | 25 |
| Specialty: Skylights, Dormiers & Chimneys ..... | 27 |
| Roof Penetrations .....                         | 29 |
| Off Ridge Ventilation .....                     | 31 |
| Ridge Ventilation / CF Shingle .....            | 33 |
| Ridge Ventilation / CF Shake .....              | 34 |
| Ridge / CF Shingle .....                        | 36 |
| Ridge / CF Shake .....                          | 38 |
| Walking Instructions .....                      | 39 |

**NOTE** | These details are specific to the following Tilcor profiles:  
**CF SHINGLE** or **CF SHAKE** Panels

| REFER TO THE FOLLOWING LIST TO VIEW DETAILS |   |            |   |
|---|---|------------|---|
| DETAIL                                      | DETAIL AREA                             | PROFILE    | TILCOR ROOFING SYSTEM COMPONENTS  |
| 1   | Eave Treatment                          | Both       | 902 CF Fascia Starter   |
| 2   | Rake / Gable / Barge                    | Both       | 905 Barge Channel<br>903 CF Barge Cover   |
| 3A  | Hip                                     | CF Shingle | 904 Hip under Channel<br>CF Shingle Trim 400  |
| 3B  | Hip                                     | CF Shake   | 708 Universal Channel both sides<br>V-ridge Trim<br>V-ridge End Cap                 |
| 4   | Valley                                  | Both       | 906 CF Valley<br>RRG Ridge Vent<br>Debris Blocker<br>Valley Cap                     |
| 5   | Side Wall                               | Both       | 904 Universal Channel<br>715 Side Flashing  |
| 6   | Tilcor Panel                            | Both       | CF Shingle<br>CF Shake  |
| 7   | Short Course & Pitch Change             | Both       | 901 CF Short Course   |
| 8   | Headwall / Roof to wall                 | Both       | Head wall provided by others<br>708 Universal Channel<br>715 Side Flashing          |
| 9   | Specialty: Skylights, Dormers, Chimneys | Both       | 904 Universal Channel<br>715 Side Flashing (only on components)<br>901 Short Course |
| 10  | Roof Penetrations                       | Both       | 907 CF Underpan   |
| 11A   | Off Ridge Ventilation                   | Both       | 901 short course  |
| 11B   | Ridge Ventilation                       | CF Shingle | CF Shingle Trim 400<br>RRG Ridge Vent   |
| 11C   | Ridge Ventilation                       | CF Shake   | V-ridge Trim Cap<br>RRG Ridge Vent<br>2x2 Batten                                    |
| 12A   | Ridge                                   | CF Shingle | CF Shingle Trim 400   |
| 12B   | Ridge                                   | CF Shake   | V-ridge Trim cap<br>2x2 Batten  |

# Detail Map

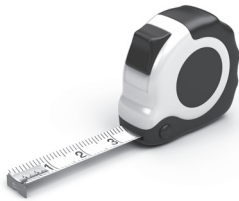
## Complete Part Overview



Ross Roof Group stone coated steel roofing systems are manufactured in accordance with ACC-166.

# Tools

## Overview



Tape Measure



Caulk gun



Nail gun



Hammer



Impact drill 1/4" drive



Soapstone



Aviation tin snips  
(Right and Left)



Skillsaw with  
min 24 carbide tooth  
(corded or cordless)



Handbenders

## SAFETY STATEMENT

In any roofing installation, safety is priority #1. Review and follow local, state and federal safety guidelines.

## ESTIMATING SHEET

Estimating sheets for every Tilcor product are available. Please contact your local sales representative.

## ROOF SLOPE

Tilcor CF roofing systems should be installed on roof deck slopes 3:12 / 14° or greater (optional vertical application). Roof decks having slopes less than 3:12 / 14° are considered decorative and require a permanent roofing membrane, which meets local building codes requirements.

## COLOR MATCHING

Ensure that only tiles of the same **color code** are dispatched for every roof lot. Where possible, use tiles from the same date of manufacturing. (Date noted on the back of tiles)

## STORAGE

Store in a dry place at all times before installation.

## CAUTION

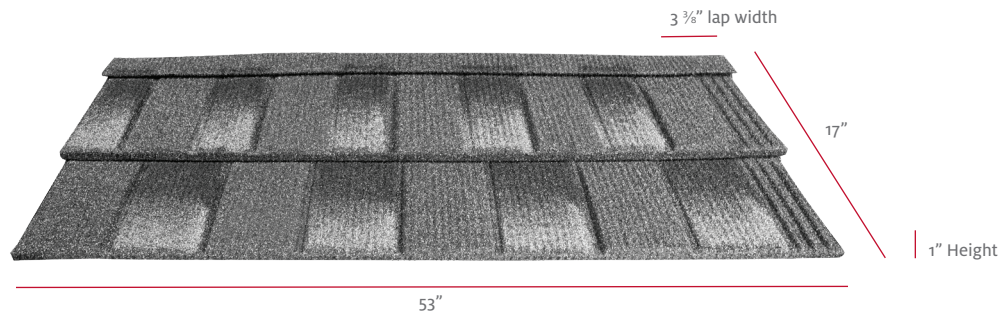
- **Dissimilar metals:** LEAD and COPPER and any other dissimilar metals are not compatible shall (1) not come in contact with and / or (2) leach onto Tilcor's products.
- **Treated lumber:** Do not use pressure treated lumber i.e. decking or battens in conjunction with Tilcor products.
- Fire treated decking and battens with copper or silver nitrates cannot be used.

## CODE APPROVALS

Visit [www.tilcorroofingusa.com](http://www.tilcorroofingusa.com) and download installation guides and evaluation reports. Check with your local AHJ (Authority Having Jurisdiction) to verify local building codes and any additional requirements.

# CF PANELS

## Tilcor Concealed Fastener (CF) Installation Guide



### CF SHINGLE

CF Shingle metal roofing panels are nominally 53" long by 17" wide, having an exposure area of 48 5/8" by 14 1/2" wide. Each tile is nominally 6.61 lbs with an installed weight of 132 lbs. per square / 1.32 psf.

Minimum roof pitch: 3:12 / 14°

Cover dim: 49 5/8 x 14 1/2

Panels per square: 20

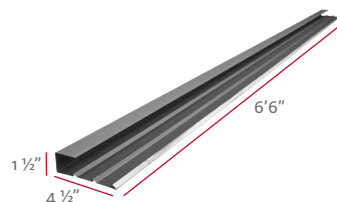
Installed weight: 132 lbs. per square / 1.32 psf.

Gauge: 26

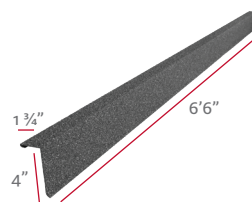
### TILCOR CF ROOFING SYSTEMS COMPONENTS



**902 CF Fascia Starter**  
4" on Deck, 3" Down



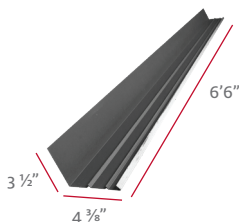
**905 Barge Channel**  
1 1/2" Over Panel



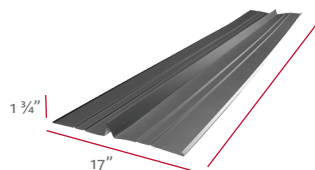
**903 CF Barge Cover**



**901 CF Short Course**  
5/8" height



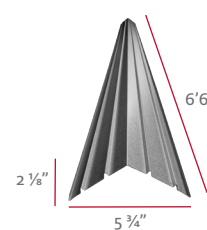
**708 Universal Channel**



**906 CF Valley**  
1 3/4" Center Rib Height



**Valley Cap**



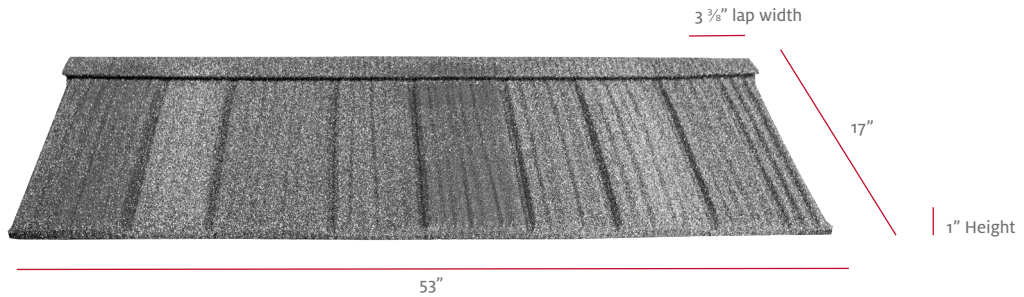
**904 Hip Channel**



**RRG Debris Blocker**

# CF PANELS CONTINUED

Tilcor Concealed Fastener (CF) Installation Guide



## CF SHAKE

CF Shake metal roofing panels are nominally 53" long by 17" wide, having an exposure area of 49 5/8" by 14 1/2" wide. Each tile is nominally 6.61 lbs with an installed weight of 132 lbs. per square / 1.32 psf.

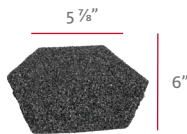
Minimum roof pitch: 3:12 / 14°

Cover dim: 49 5/8 x 14 1/2

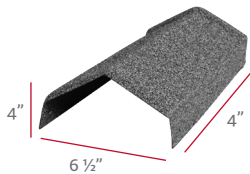
Panels per square: 20

Installed weight: 132 lbs. per square / 1.32 psf.

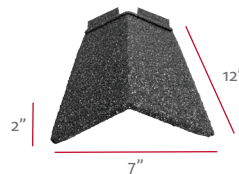
Gauge: 26



106 V-Ridge End Cap



101 V-Ridge Trim Cap



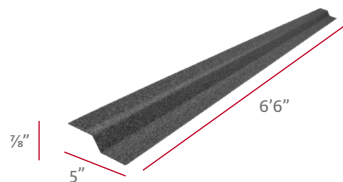
400 CF Shingle Cap



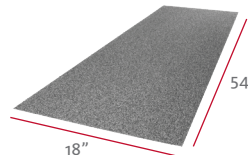
Touch Up Kit



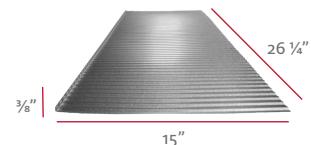
RRG Ridge Vent



715 Side Flashing  
5" x 7/8" Z Bar



201 Flat Sheet



907 CF Underpan  
3/8" Nose Height

# Construction Details

## DECK PREPARATION

Tilcor products shall be applied to a solid or closely fitted deck. The sheathing must be structurally sound and adequately fastened to resist wind loads.

*Reroof over asphalt shingles:* (Consult local building codes)

- Over existing asphalt shingles
- CF Shingle can be installed over one layer of asphalt shingles if allowed by local code.
- One layer of underlayment is recommended for ease of installation.
- Start by removing hip and ridge caps for all hips and ridges
- Cut back the asphalt shingles around the perimeter to create room for the channels and so the channels can fit flush against the fascia and barge rafters.
- Measure the eave to ridge measurements around the structure to make sure the eave and ridge are square.
- *New construction over solid sheathing*

## UNDERLAYMENT

- Minimum requirement is one layer minimum of ASTM D226 Type I or Type II; ASTM D 4869, Type I, II, III or IV.
- Optional underlayments: ASTM D 1970 (self adhered membrane or synthetic).
- Eave line application is optional or could be required by local building codes.
- However, check local building codes to be sure the underlayments are approved.

## SEALANT

Sealants shall be acceptable for exterior use and adhere to the materials to which they are applied. The sealants shall be covered with matching stone granules where applicable. Tilcor's Touch-Up Kit should be used on panel repairs for appropriate matching color/finish.

## VENTILATION GUIDELINES

Roof ventilation is a requirement in most building municipalities. For the Tilcor Ridge Vent system (RRG Ridge Vent) , prepare for ridge venting by cutting both sides of the plywood 3/4" from the center of the ridge or as specified by local building codes. See Panel Installation.

## CUTTING PANELS

Tilcor panels can be cut with a cold cutting circular saw.

## FASTENING REQUIREMENTS

- All fasteners are required in and/or thru decking min.  $\frac{3}{4}$ ".
- Minimum of 5 corrosion resistant fasteners are required per panel. For TRS Components, please refer to the roof detail section.
- **Screws:** Minimum requirement are galvanized or painted #12 x 1  $\frac{1}{2}$ " with a  $\frac{1}{4}$ " hex head
- **Nails:** Minimum requirement are galvanized 8D ringshank nails.
- High wind details (above 120 (mph)  $V_{ult}$  / 93 (mph)  $V_{ASD}$ , please refer to UL ER39401 for specific fastening requirements.

| Detail | Detail Area                                | Product  | Recommended Fastener   | # Fasteners/<br>Spacing/Pattern                                      |
|--------|--|--|--|--|
| 1      | Eave Treatment                             | 902 CF Fascia Starter  | #12 x 1 $\frac{1}{2}$ " screws   | 6-8" OC  |
| 2      | Rake / Gable / Barge                       | 905 Barge Channel  | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails   | 12" OC   |
| 3A     | Hip - CF Shingle                           | 904 Hip under Channel<br>Shingle Trim 400                      | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails<br>#8 x $\frac{3}{4}$ " screws  | 12" OC<br>#8 x $\frac{3}{4}$ " screws                                |
| 3B     | Hip - CF Shake                             | 708 Universal Channel both sides<br>V-Ridge                    | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails<br>#10 x $\frac{1}{2}$ " painted screws   | 12" OC<br>(on both sides of hip)                                     |
| 4      | Valley                                     | Both   | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails   | 12" OC   |
| 4      | Valley Cap                                 | Both   | 2' OC $\frac{3}{4}$ " stitch both sides with gromet<br>between valley cap and panel  | 2' OC  |
| 5      | Side Wall                                  | 904 Universal Channel<br>715 Side Flashing                     | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails<br>#10 x 1 $\frac{1}{2}$ " painted screws   | 12" OC<br>12" OC   |
| 6      | Tilcor Panel                               | Both   | #12 x 1 $\frac{1}{2}$ " screws or $\frac{3}{4}$ " screws or nails  | Min. 5 per panel   |
| 7      | Short Course & Pitch Change                | 901 CF Short Course  | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails   | 10" OC   |
| 8      | Headwall / Roof to Wall                    | 715 Side Flashing<br>708 Universal Channel                     | #10 x 1 $\frac{1}{2}$ " painted screws<br>#12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails   | 12" OC<br>12" OC   |
| 9      | Specialty: Skylights, Dormers,<br>Chimneys | 904 Universal Channel<br>715 Side Flashing<br>901 Short Course | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails<br>#10 x 1 $\frac{1}{2}$ " painted screws<br>#12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails | 12" OC<br>12" OC<br>10" OC   |
| 10     | Roof Penetrations                          | 907 CF Underpan  | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails   | 3 along top &<br>2 down both sides                                   |
| 11A    | Ridge - CF Shingle                         | CF Shingle Trim 400  | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails   | 1 in each fastening tab<br>2 per trim                                |
| 11B    | Ridge - CF Shake                           | V-Ridge Trim cap   | #10 x 1 $\frac{1}{2}$ " painted screws   | 2 exposed in nose  |
| 11C    | Off Ridge Ventilation                      | 907 CF Underpan  | #12 x 1 $\frac{1}{2}$ " screws or 8d ringshank nails   | 3 along top & 2 down<br>both sides                                   |
| 12A    | Ridge Ventilation - CF Shingle             | CF Shingle Trim 400  | #12 x 1 $\frac{1}{2}$ " screws   | 1 in each fastening tab<br>2 per trim<br>#8 x $\frac{3}{4}$ " screws |
| 12B    | Ridge Ventilation - CF Shake               | CF Shake V-Ridge Trim Cap                                      | #10 x 1 $\frac{1}{2}$ " painted screws   | 2 exposed in nose<br>#8 x $\frac{3}{4}$ " screws                     |

# DETAIL #1

## Eave Treatment

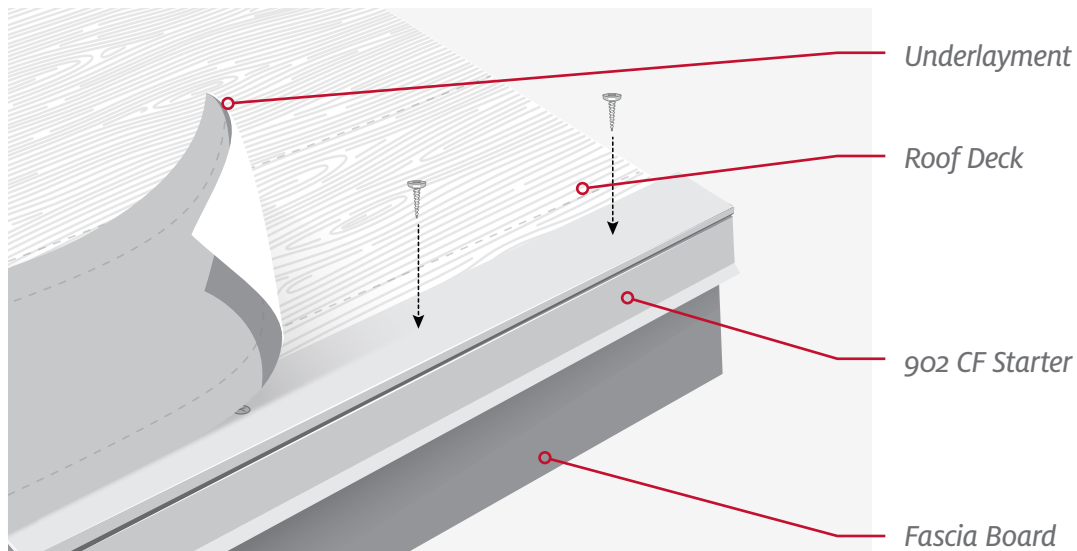


FIG. 01.A

### NOTES

1. Position 902 CF Starter flush with fascia (*Fig. 01.B*). Fasten 6-8" OC using #12 x 1 1/2" screws or 8d ring shank nails.
2. 902 CF Starter sits on top of the roof deck so the drip edge is flush with the fascia board.
3. Notch and overlap Starter pieces 1" when joining two pieces together (*Fig.02.C*).
4. At hips and valleys the starter shall be notched and mitred to fit corners.
5. Install underlayment on decking and flush with front edge of CF starter.
6. In high wind areas, fasten the 902 CF Starter 6-8" OC with #12 x 1 1/2" screws.

## DETAIL #1 CONTINUED

### Eave Treatment

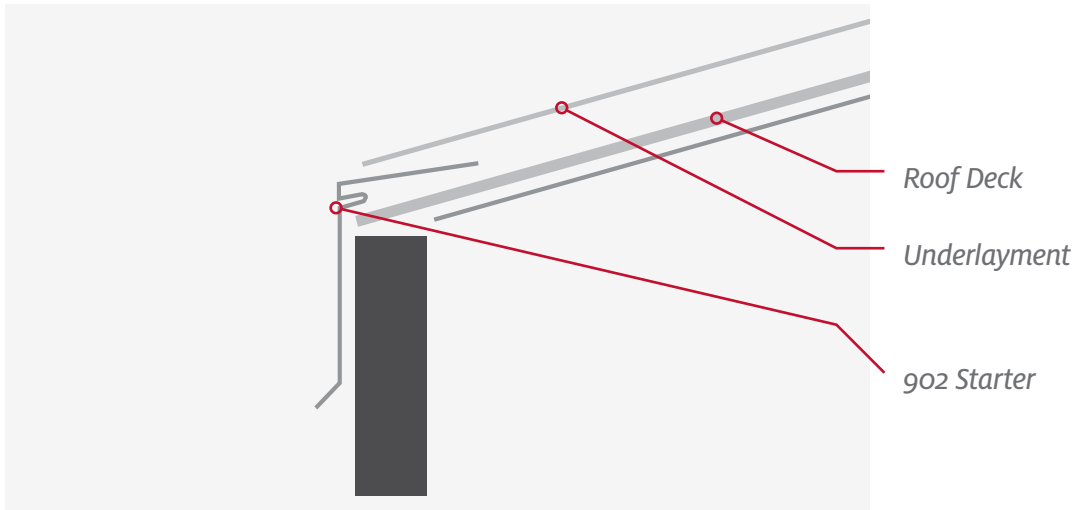


FIG. 01.B

Square up the eave if out of square by snapping a line and adjusting the starter as needed. If out of square more than a half inch use Tilcor Short course over the top of standard drip edge wide enough to square the roof.

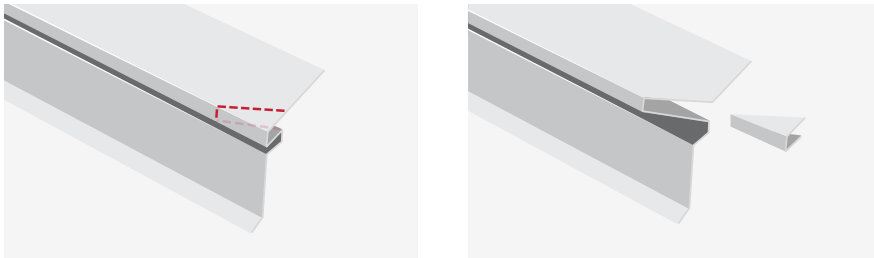


FIG. 01.C

## DETAIL #2

### Rake / Gable / Barge Treatment

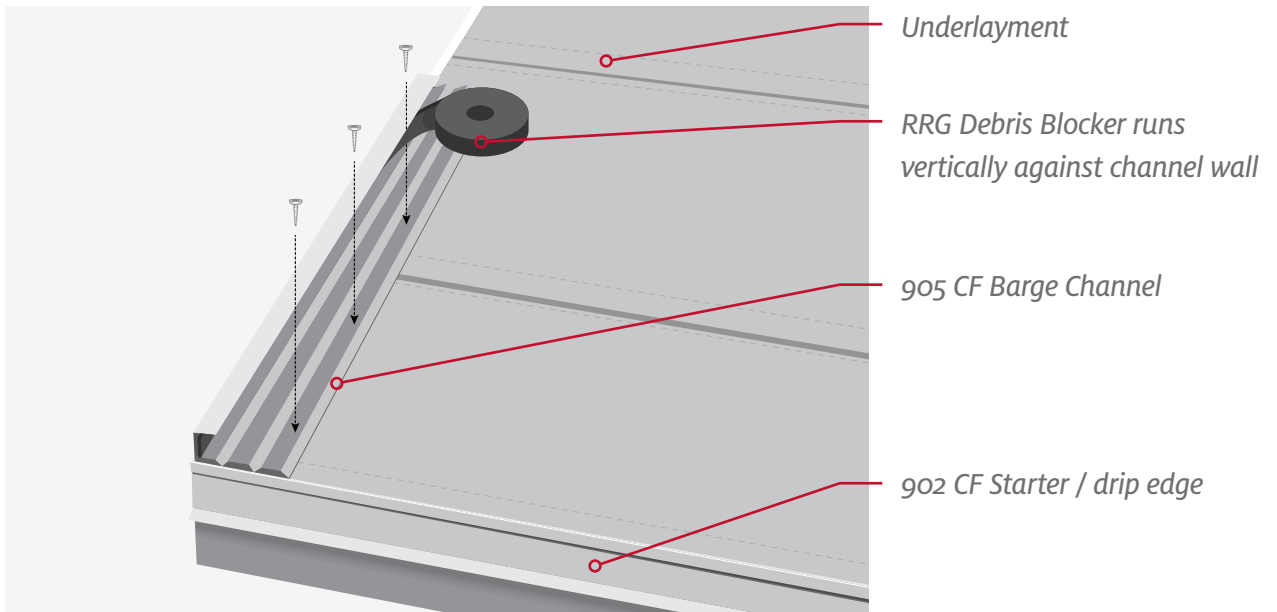


FIG. 02.A

#### NOTES

1. 905 CF Barge Channel shall be installed along all rake /gable edges.
2. Position outside edge of 905 CF Barge Channel to be flush with the barge rafter.
3. Position 905 CF Barge Channel over 902 CF Starter and flush with the leading edge at eave.
4. Install first fastener 6" from the leading edge of the 904 CF Starter with #12 screws.
5. Fasten 12" OC and in the outside channel nearest the hemmed edge. Notching the bottom of the adjoining 905 Barge Channel (min 2"). (Fig.02.B.)
6. For subsequent pieces, notch the bottom of the adjoining 905 Barge Channel min. 2" (Fig.02B)
7. Miter at ridge line – cut and fold min. 1" over the ridge line.
8. Optional: In heavily wooded areas, install Tilcor CF Debris blocker prior to installing Tilcor CF panel . Roll the Tilcor CF Debris Guard into the Tilcor CF Rake/Gable Channel.

*Remaining steps continued on next page*

## DETAIL #2 CONTINUED

Rake / Gable / Barge Treatment

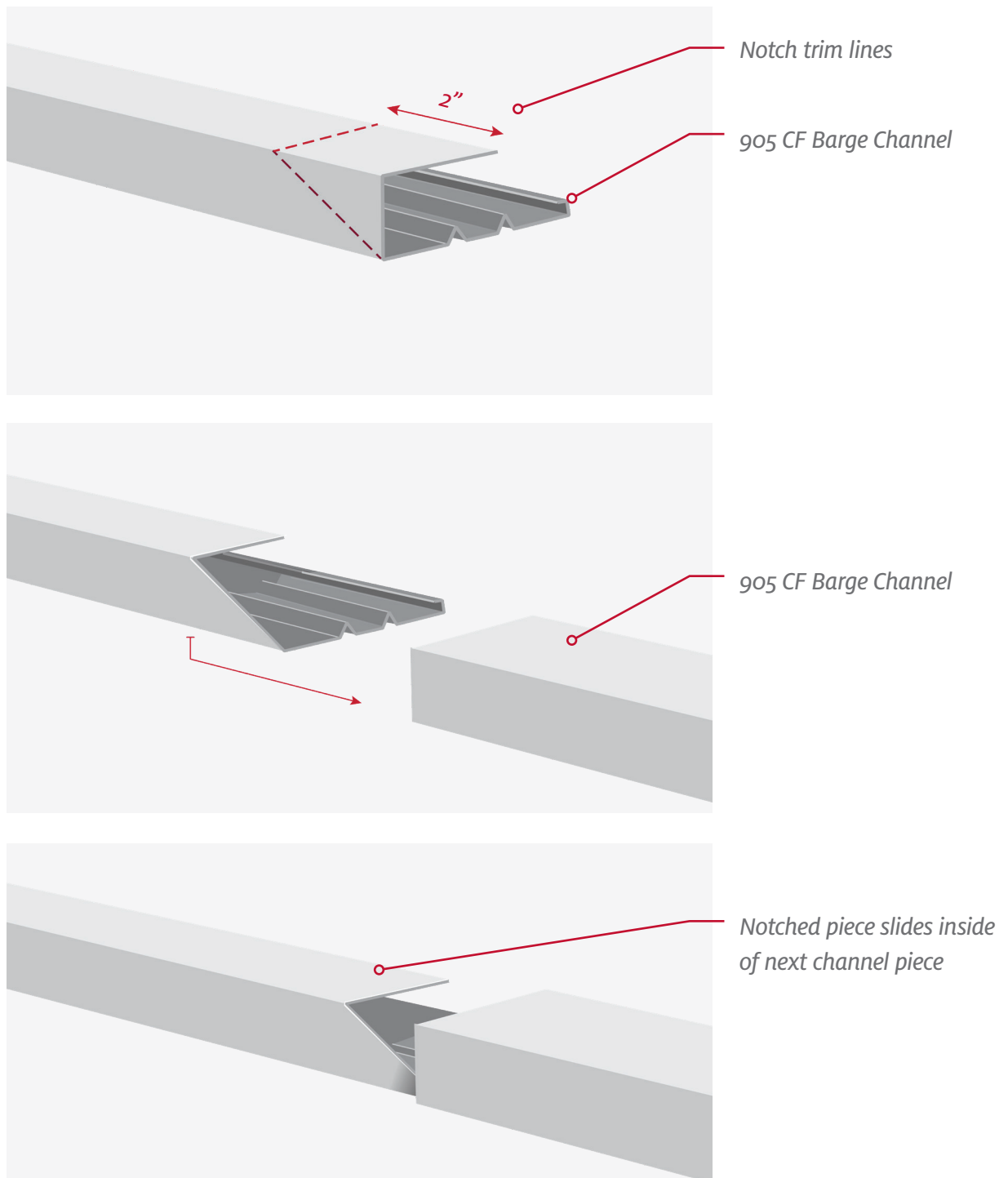


FIG. 02.B

**DETAIL #2 CONTINUED**

Eave Closure on Barge Cover

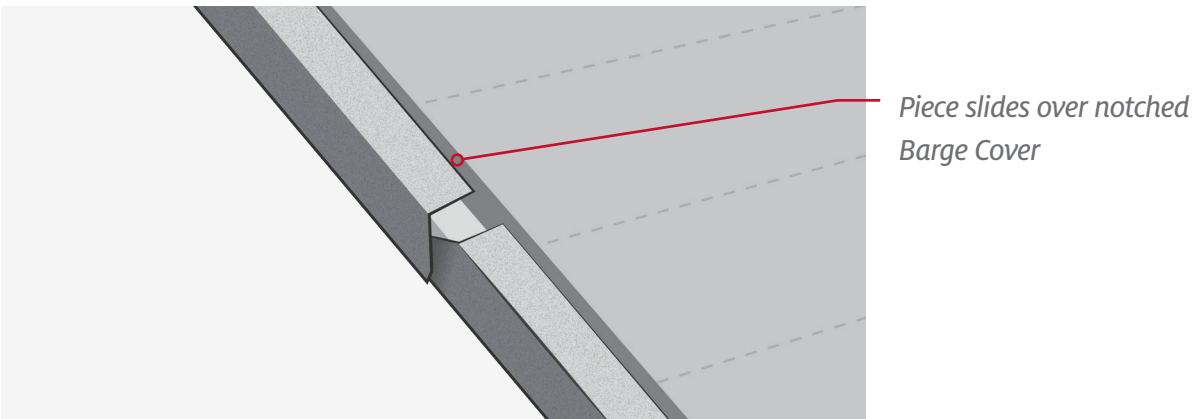
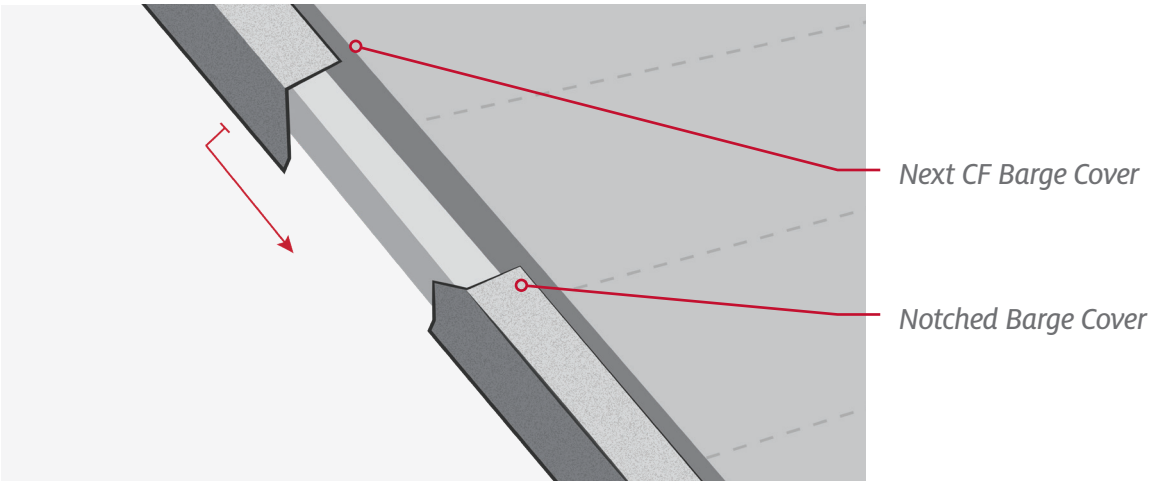
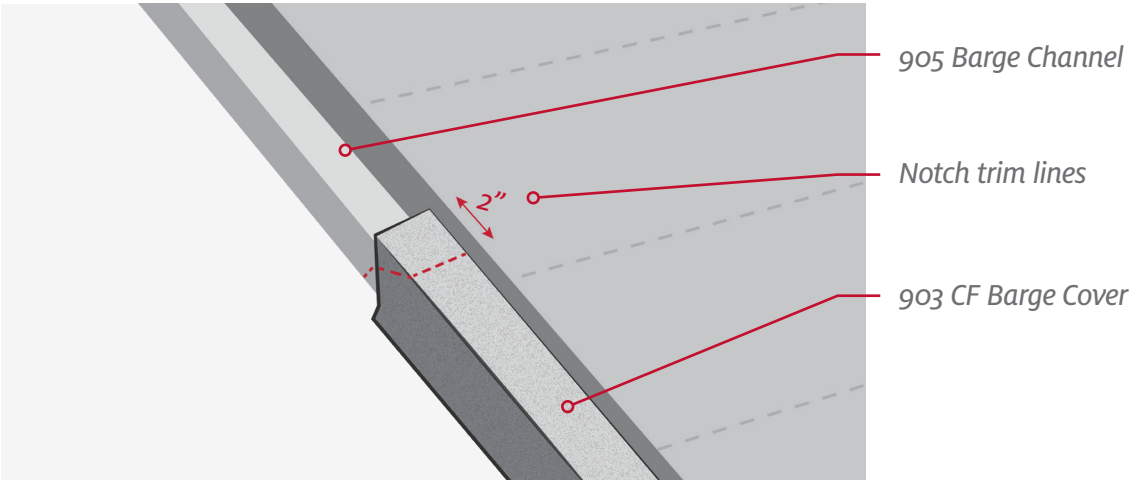


FIG. 02.C

## DETAIL #2 CONTINUED

### Eave Closure on Barge Cover

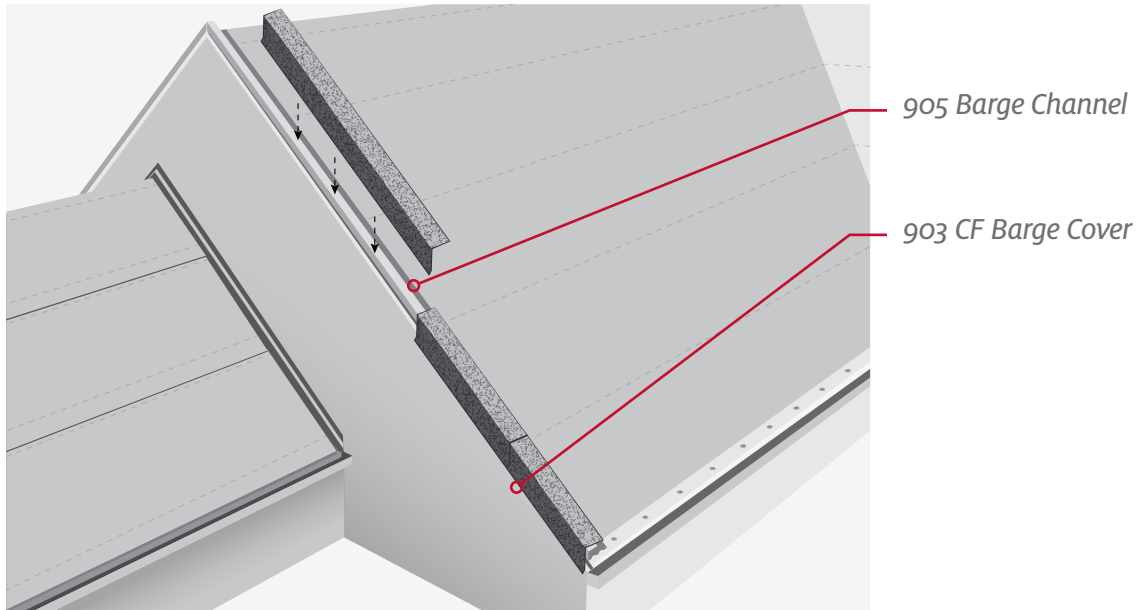
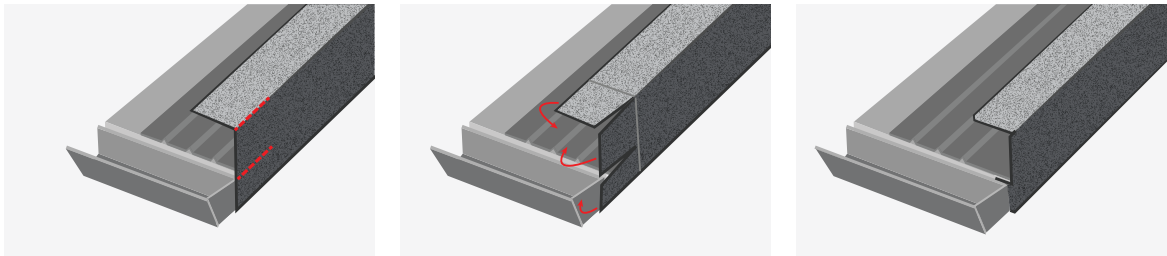


FIG. 02.D

#### NOTES

9. Install 905 barge cover aligning 2" past fascia. Install prior to installing panels.
10. Notching the top of the adjoining 903 barge cover min 2". (Fig. 02.C)
11. Fasten 905 barge cover with 3 fasteners; (2) on overlaps and (1) in the middle using #8 x  $\frac{3}{4}$ " screws.
12. Miter and cut at ridge overlapping 1".



Finishing Barge cover at the eave

## DETAIL #3A

### Hip – CF Shingle

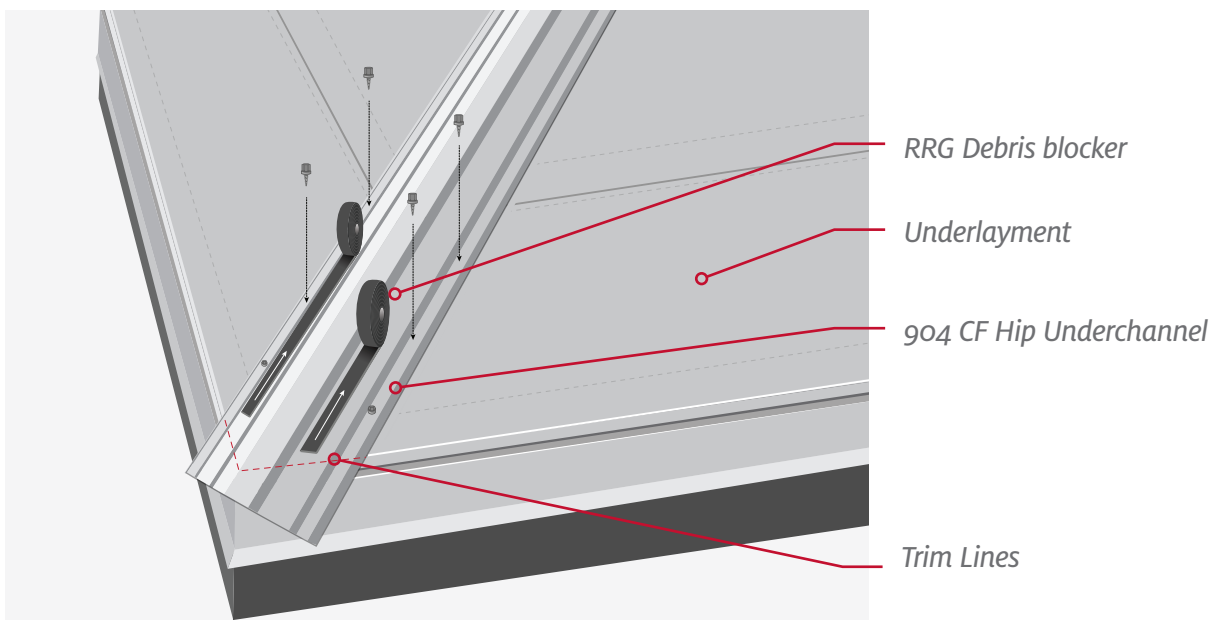


FIG. 03.A

#### NOTES

1. At the eave, position hip underchannel and cut flush with 902 CF Starter.
2. Install Tilcor 904 CF Hip underchannel and fasten to the deck using #12 x 1 1/2" screws and install 12" OC through both sides of outer channel near the hem.
3. Overlap pieces 6".
4. Optional: In wooded areas, install debris blocker in the middle groove of the underchannel.

## DETAIL #3A CONTINUED

Hip Caps - CF Shingle

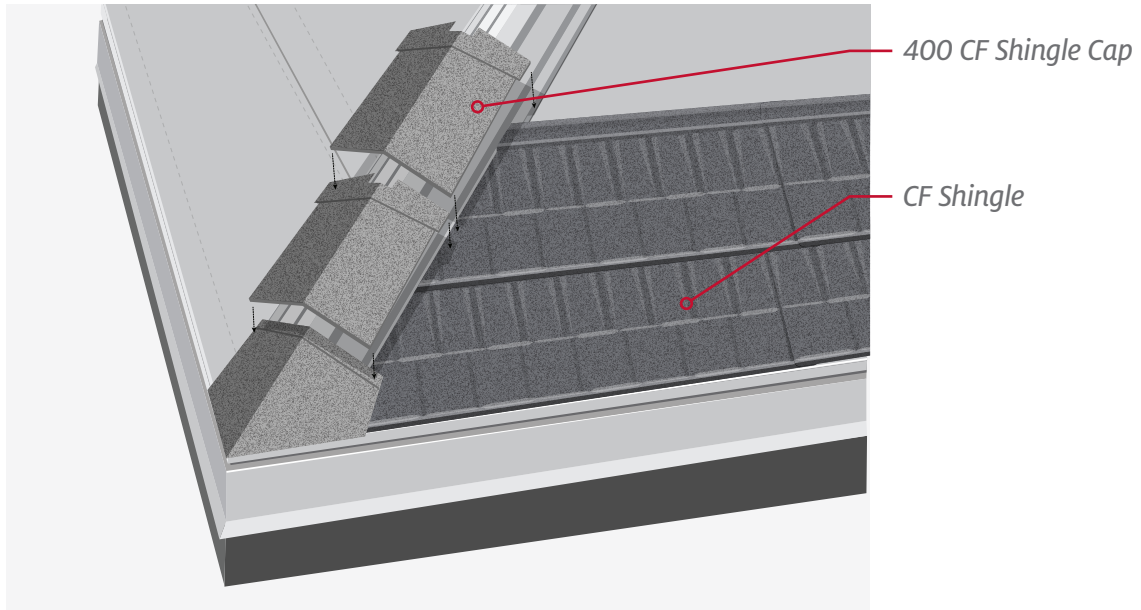


FIG. 03.B

## DETAIL #3B

### Hip – CF Shake

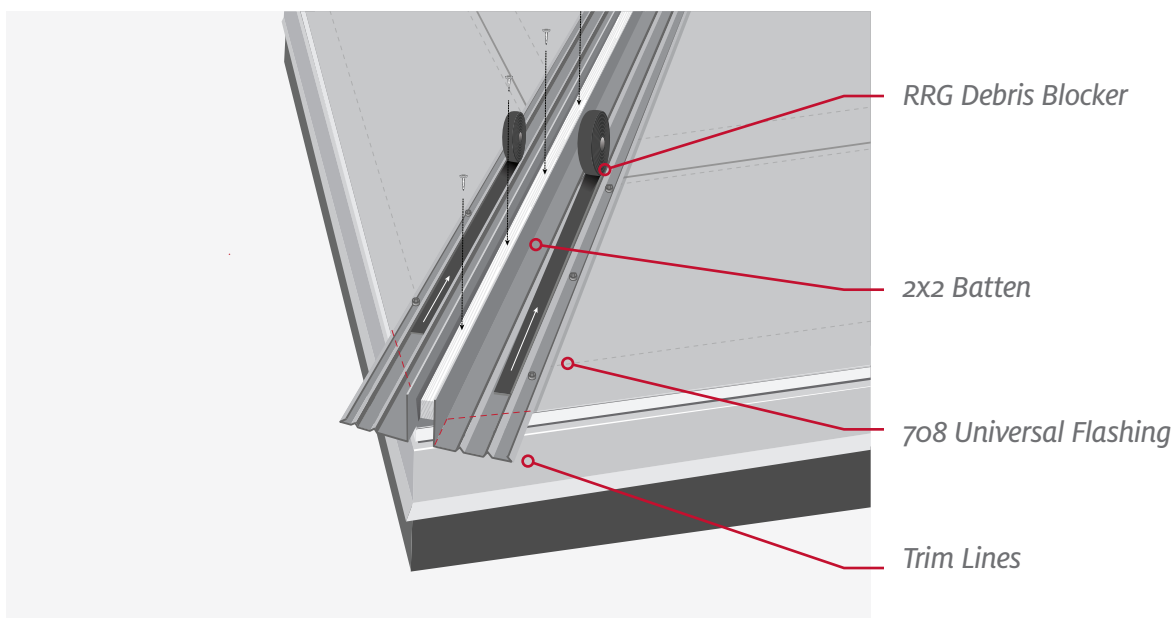


FIG. 03.C

#### NOTES

1. Install 2x2 batten up center of hip 1" from front edge of 902 CF Starter. Fasten batten using 16d nails 12" OC. Additional 2x2 Batten may be needed on lower pitched roofs to achieve proper height on V-Ridge trim.
2. Miter cut 708 Universal Flashing flush 902 CF Starter on both sides of 2x2 batten.
3. Fasten 708 Universal flashing with #12 x 1 1/2" screws 12" OC - one on each side.
4. Bend both sides of Universal Flashing around the 2x2 batten (Fig. 03.C).
5. After panels are installed, fasten Tilcor 101 V Ridge Trim Cap with #10 x 1 1/2" into each ridge piece.
6. Optional: In wooded areas, install debris blocker in the middle groove of the underchannel.

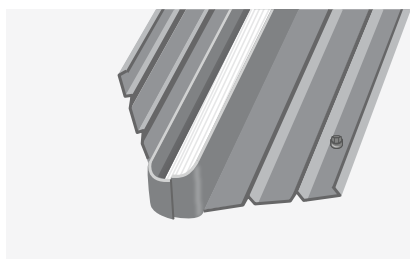
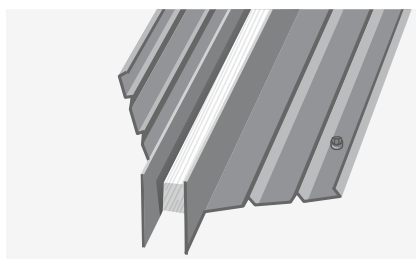


FIG. 03.C

## DETAIL #3B CONTINUED

Hip Caps - CF Shake

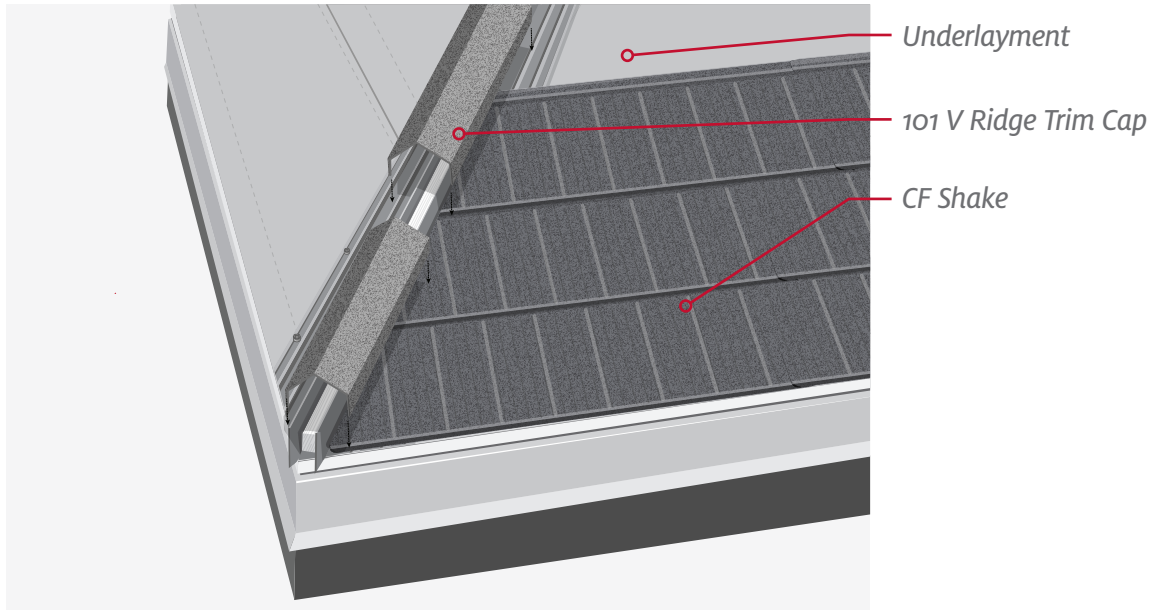


FIG. 03.D

## DETAIL #4

### Valley

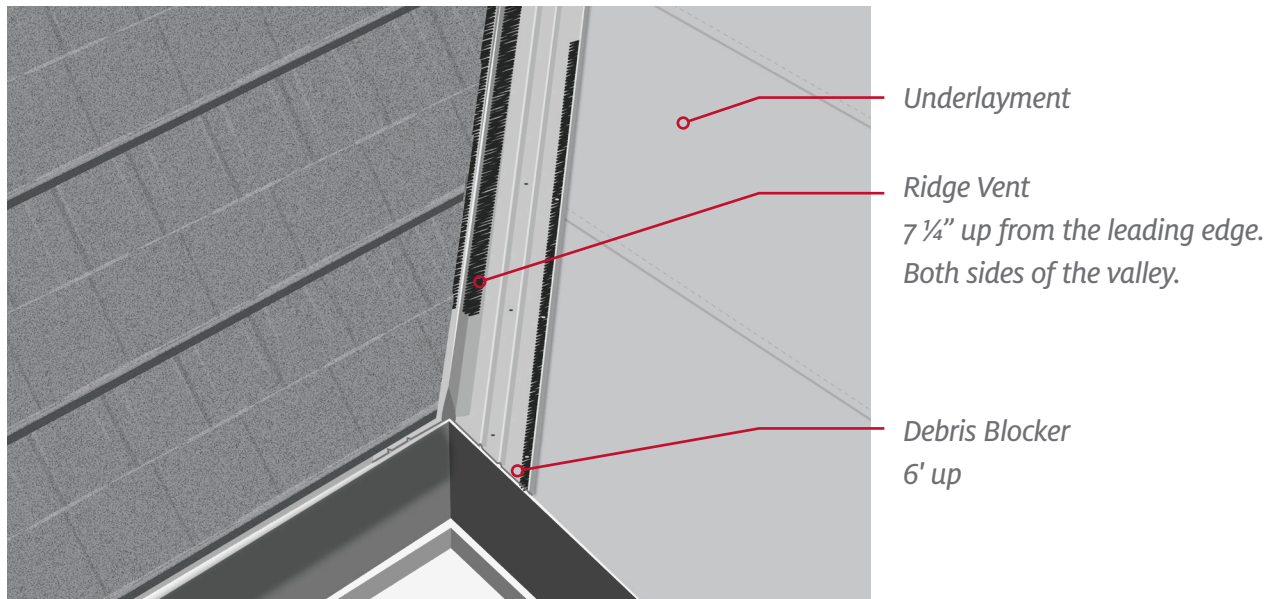


FIG. 04.A

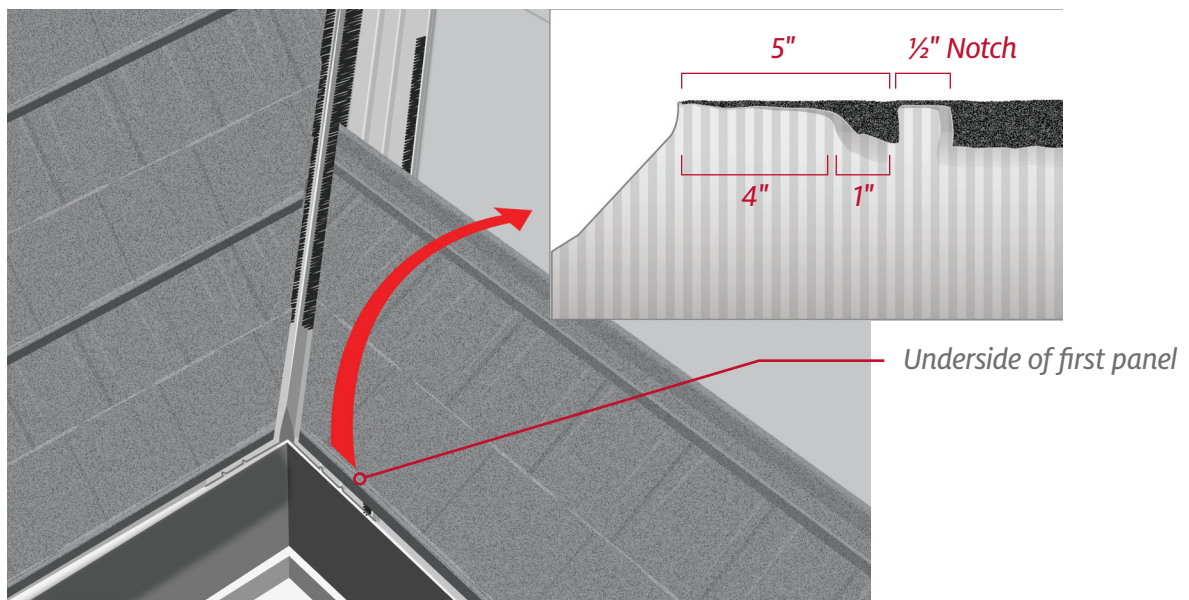


FIG. 04.B

#### NOTES

1. Ridge Vent material starts 7 1/4" up from the leading edge of the valley.
2. Debris blocker installs inside the hem on the outside edge of the valley starting at the leading edge up 6'. (Fig. 04.A)
3. **On the First Panel Only:** Cut underside of the interlock 4" and then a 1/2" notch 5" from the edge. (Fig. 04.B)

## DETAIL #4 CONTINUED

### Valley

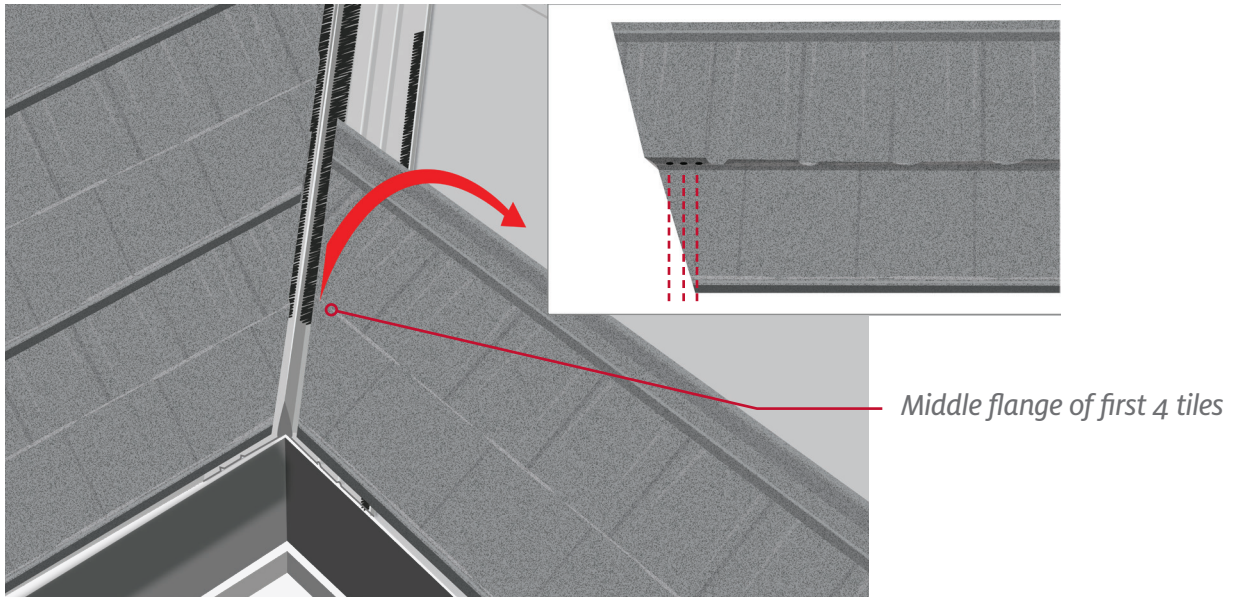


FIG. 04.C

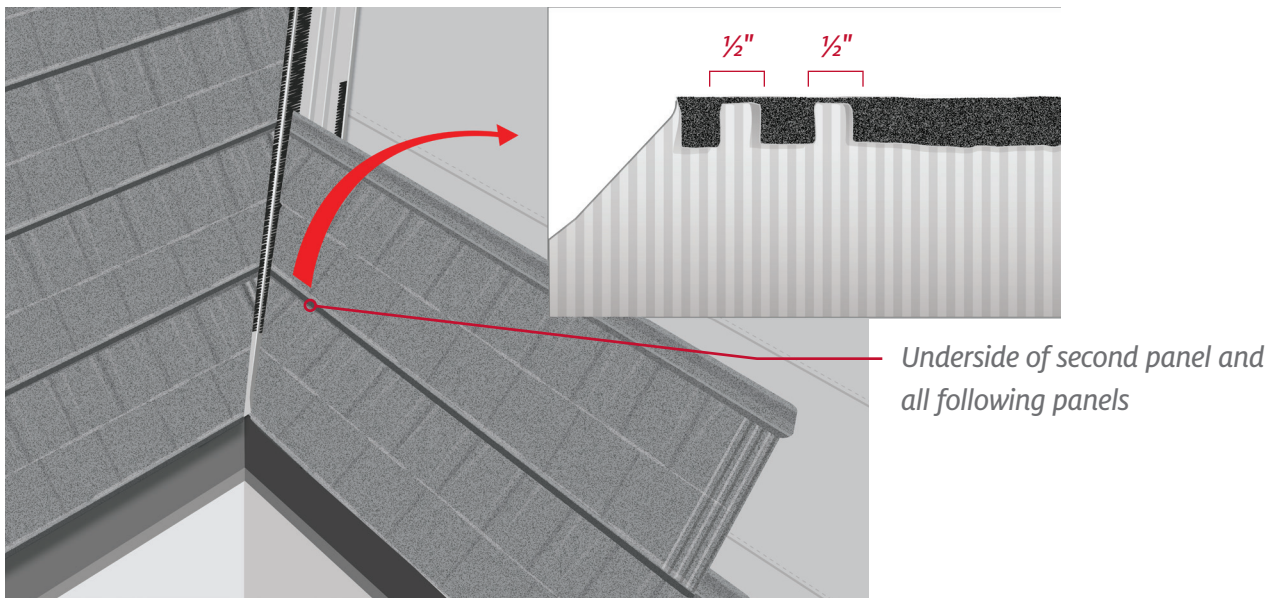


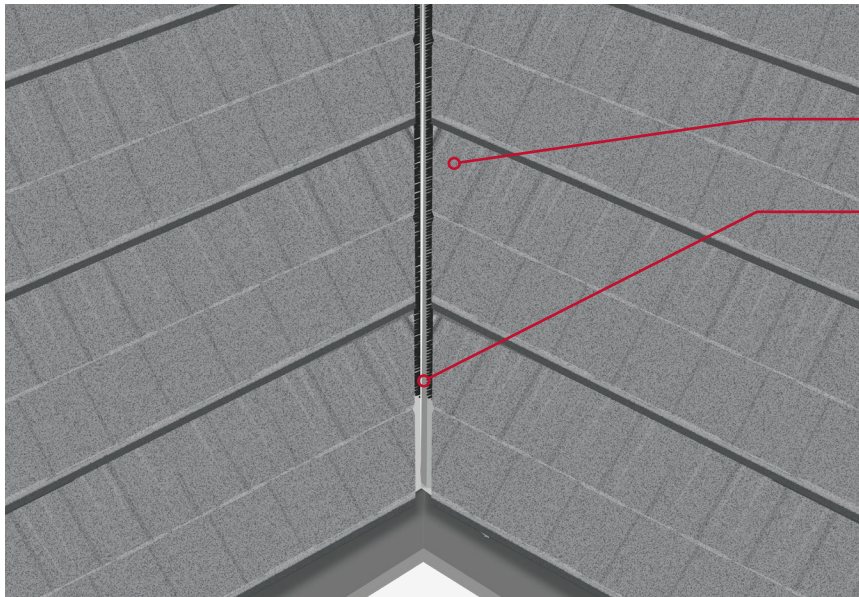
FIG. 04.D

#### NOTES

4. **CF SHINGLE ONLY:** Drill three 1/4" holes at the bottom of the step for the first 4 tiles starting at the eave for both sides of the valley.
5. **Notching remaining valley cuts:** Come in 1" and cut two 1/2" notches on the underside of the interlock with a 1" gap, in every valley tile from the second run onwards. (Fig. 04.D)

## DETAIL #4 CONTINUED

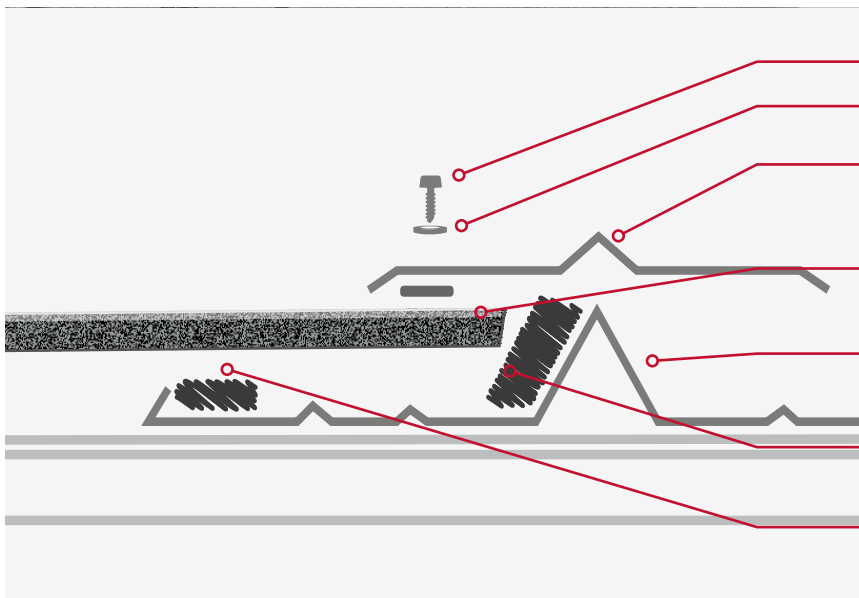
### Valley



*Panels cut tight to valley*

*Ridge Vent*

FIG. 04.E



*Screw*

*Grommet*

*Valley Cap*

*Panel*

*CF Valley*

*RRG Ridge Vent*

*Debris Blocker*

FIG. 04.F

### NOTES

6. Panels cut tight to the ridge vent at the center of the valley. (Fig. 04.E)
7. Valley cap installs over the center of the valley. Secure with  $\frac{3}{4}$ " stitch screws over the high part of the shingle at the step. Note a grommet must be installed on the underside of the cover on top of the panel. Screws are approximately 2' OC. (Fig. 04.F)

## DETAIL #5

### Side-wall flashing

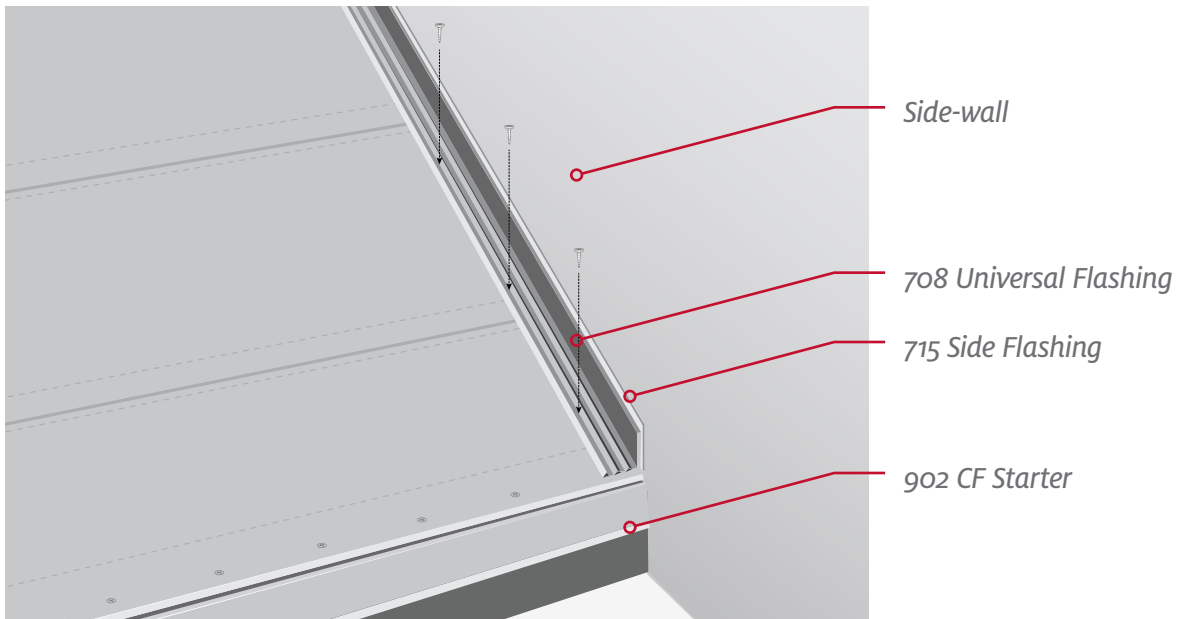


FIG. 05.A

#### NOTES

##### New Construction

1. Install underlayment and turn 4" up the side wall
2. Fasten 708 Universal Flashing flush with 902 Starter prior to exterior cladding being installed.
3. At the eave, position universal channel flush with fascia.
4. Fasten 708 Universal flashing with #12 x 1 ½ screws 12" OC in the outer pan nearest the hem.
5. Kick out required (refer to local building codes).
6. Optional: Install RRG Debris blocker in wooded areas.

##### Reroof

1. Flush with 902 CF Starter.
2. Fasten 708 Universal flashing with #12 x 1 ½" screws 12" OC in the outer pan nearest the hem.
3. Overlap 6".
4. If no wall flashing is present, install 705 USA side flashing using proper sealant and fasteners.
5. Kick out required (refer to local building codes).
6. Optional: Install RRG Debris blocker in wooded areas.

## DETAIL #6

### Panel Installation, Layout, Overlap & Fastening

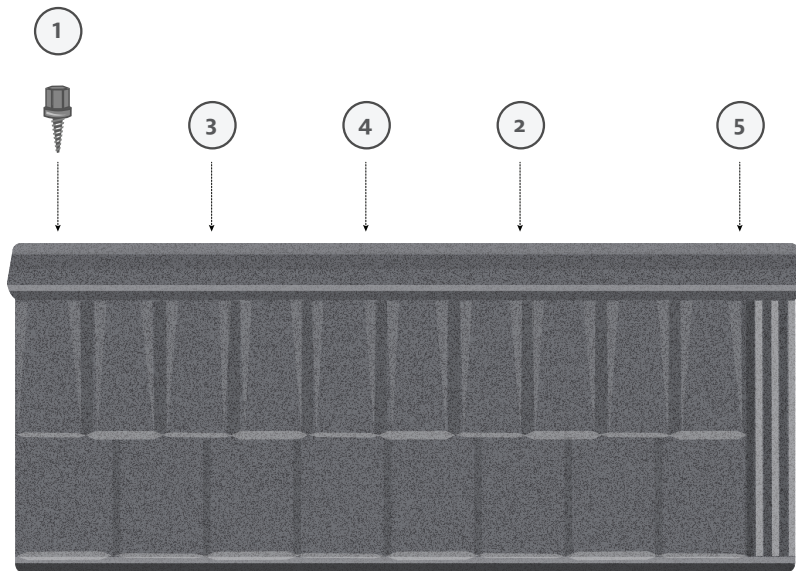


FIG. o6.A

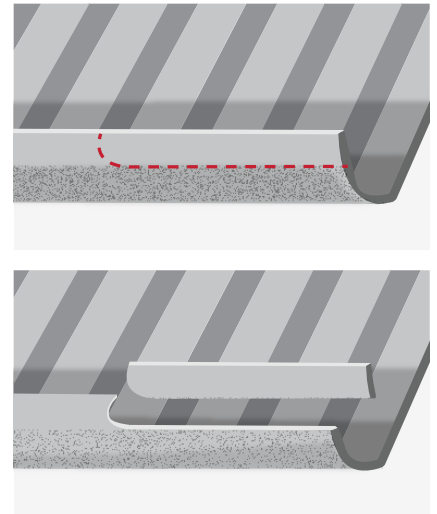


FIG. o6.B

#### NOTES

1. Starting at the first course, going from left to right, start with a full panel at gable, valley, hip or sidewall.
2. Notch to first panel 2" (4" in the valley) at the underside of the interlock. (Fig. o6B)
3. Install five fasteners using the sequencing above with #12 x 1 1/2" screws or 8D ringshank nails. For open rafters and vaulted ceilings, use #8 x 3/4" screws.
4. Continue installing first course of panels across to termination point at gable, hip, valley or sidewall.
5. Notch final panel at the termination point. 2" (4" in the valley) at the underside of the interlock. (Fig. o6B)
6. Continue installing panels up the roof randomly. (Fig. o6D)

## DETAIL #6 CONTINUED

Panel Installation, Layout, Overlap & Fastening

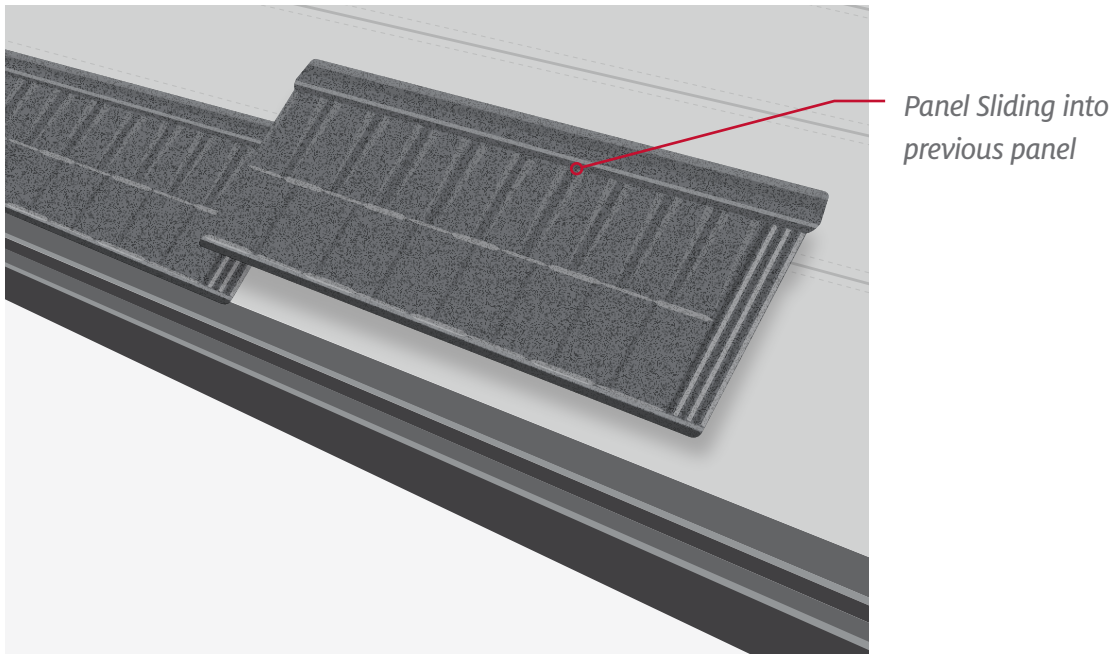


FIG. o6.C

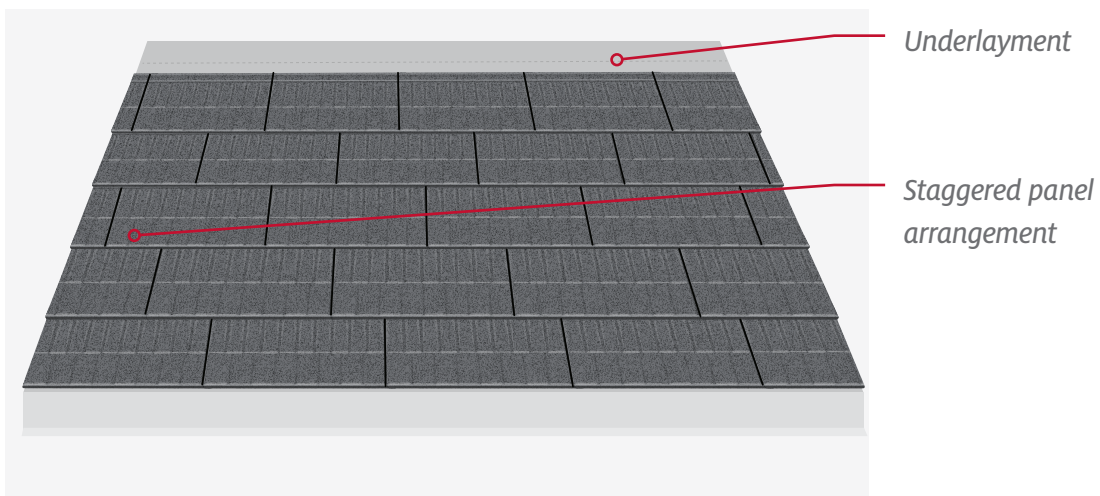


FIG. o6.D

7. Panels terminate at the center of the ridge.
8. Start and terminate panels tight to gable, valley, hip or sidewall.
9. Exposure shall be 49 5/8" on sidelap to cover 3 water channels.
10. Exposure on headlap shall be 14 1/2" when fully engaged.
11. No panel fasteners shall penetrate flashing at gable, valley, hip or sidewall

# DETAIL #7A

## Short Course

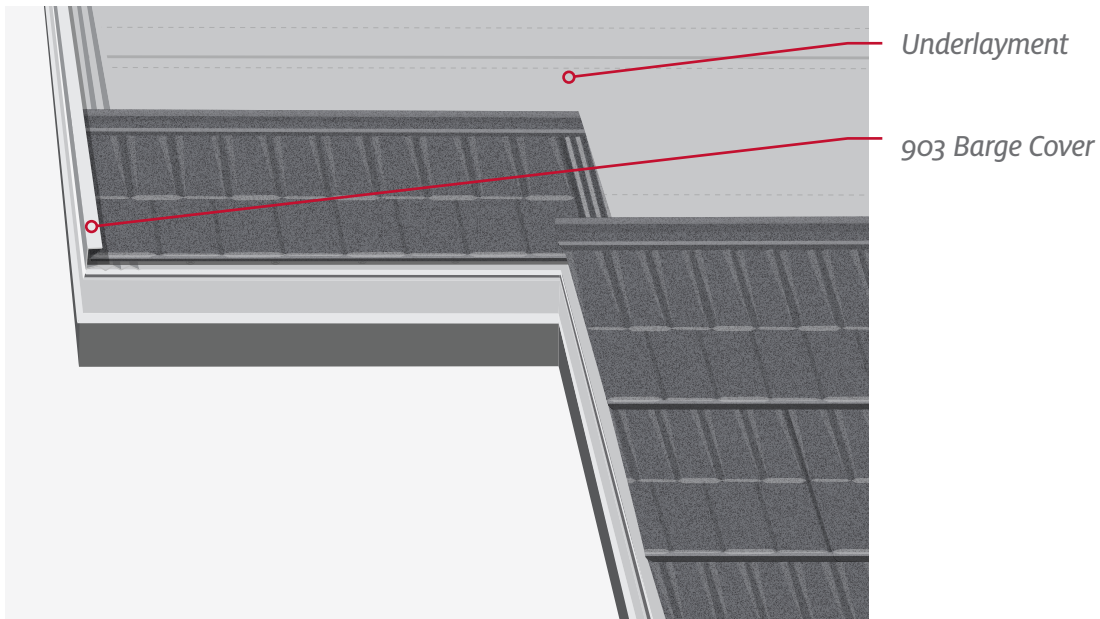


FIG. 07.A

### NOTES

1. Install panel on the upper starter strip at the transition so the under lap is flush with the inside of the barge channel.
2. Install full panel covering the underlay on the transition panel so the headcheck is past the upper starter strip.
3. Cut off excess material above 901 CF Short course as not to interfere with the next course of panels.
4. Snap horizontal line on transition panel (FIG. 07.B ) where the short course will start.
5. Align 901 CF Short course on transition panel line.
6. Fasten through the panel into the deck using #12 x 1 1/2" screws or 8D ringshank nails.
7. Continue panel installation across short course at the transition (FIG. 07.C).  
\* Water channel flush with offset in barge.

## DETAIL #7A CONTINUED

Short Course

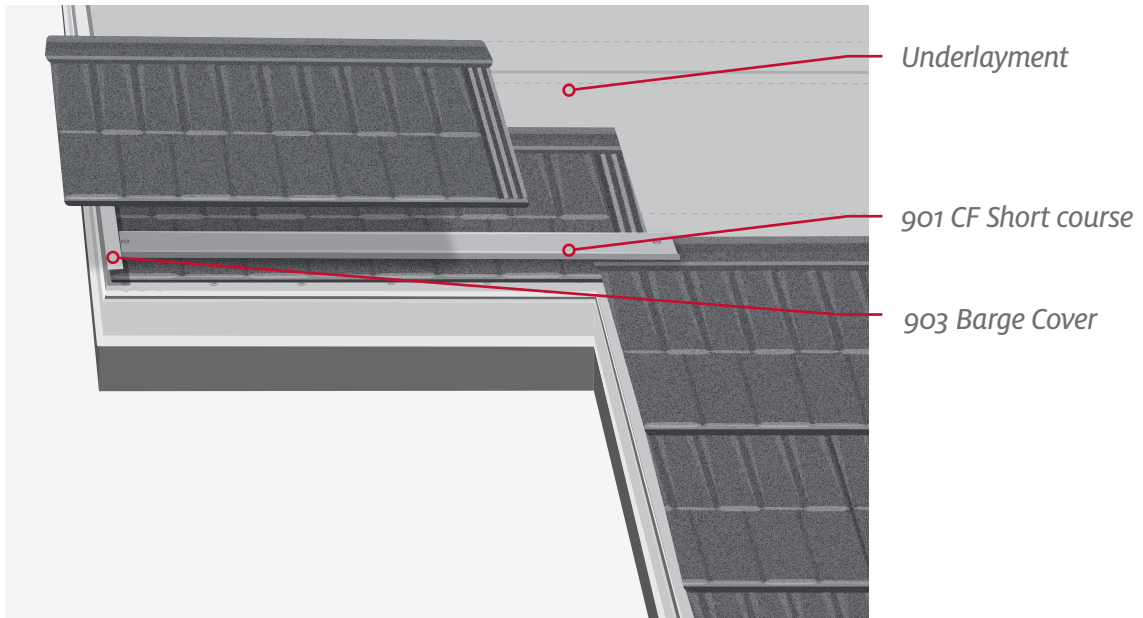


FIG. 07.B

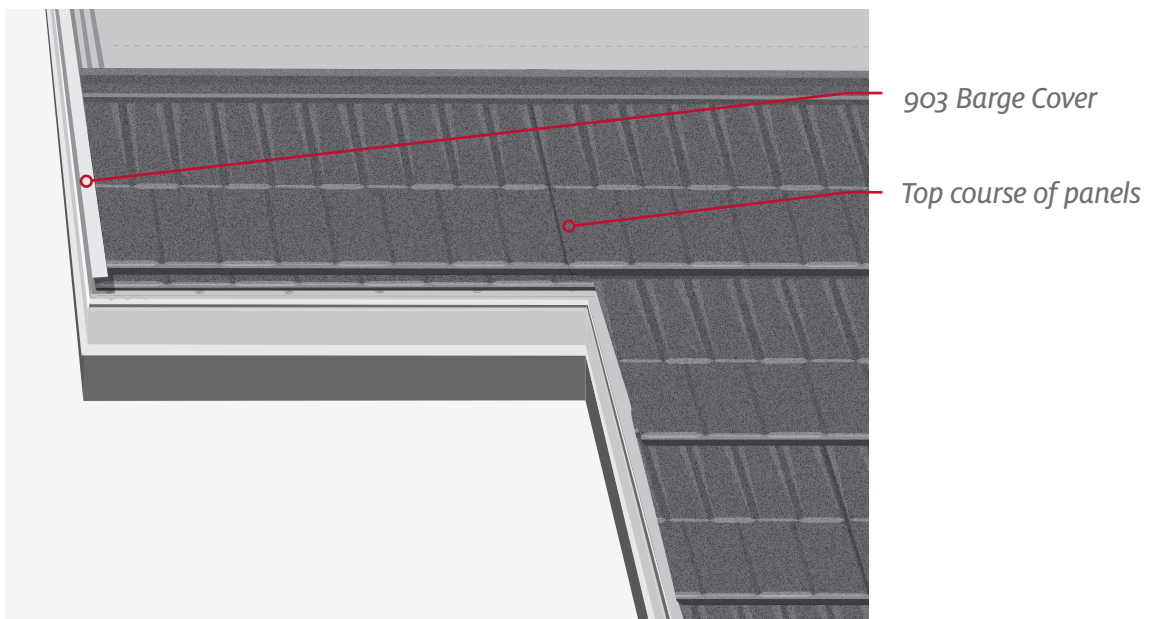


FIG. 07.C

## DETAIL #7B

### Pitch Change

#### HIGH TO LOW

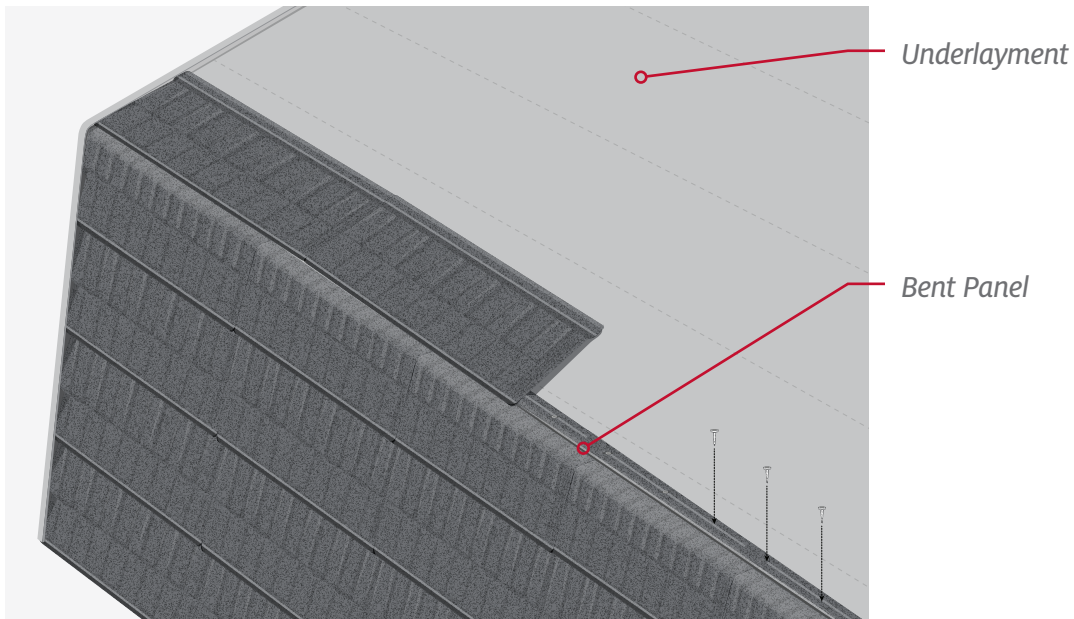


FIG. 07.D

#### NOTES

1. Measure and bend the panels at the pitch change to follow the pitch of the roof.
2. Continue to install panels on low pitch by interlocking into the headcheck of the bent panel.

## DETAIL #7B CONTINUED

Pitch Change

### LOW TO HIGH

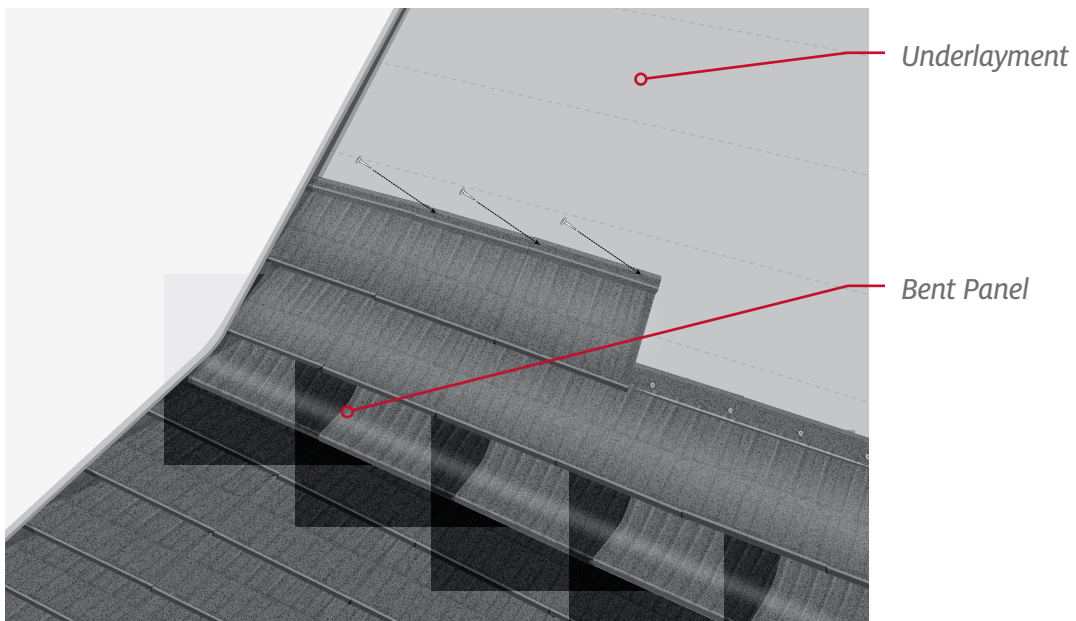


FIG. 07.E

#### NOTES

1. Measure and bend the panels at the pitch change to follow the pitch of the roof.
2. Continue to install panels on high pitch by interlocking into the headcheck of the bent panel.

## DETAIL #8

### Headwall / Roof to Wall

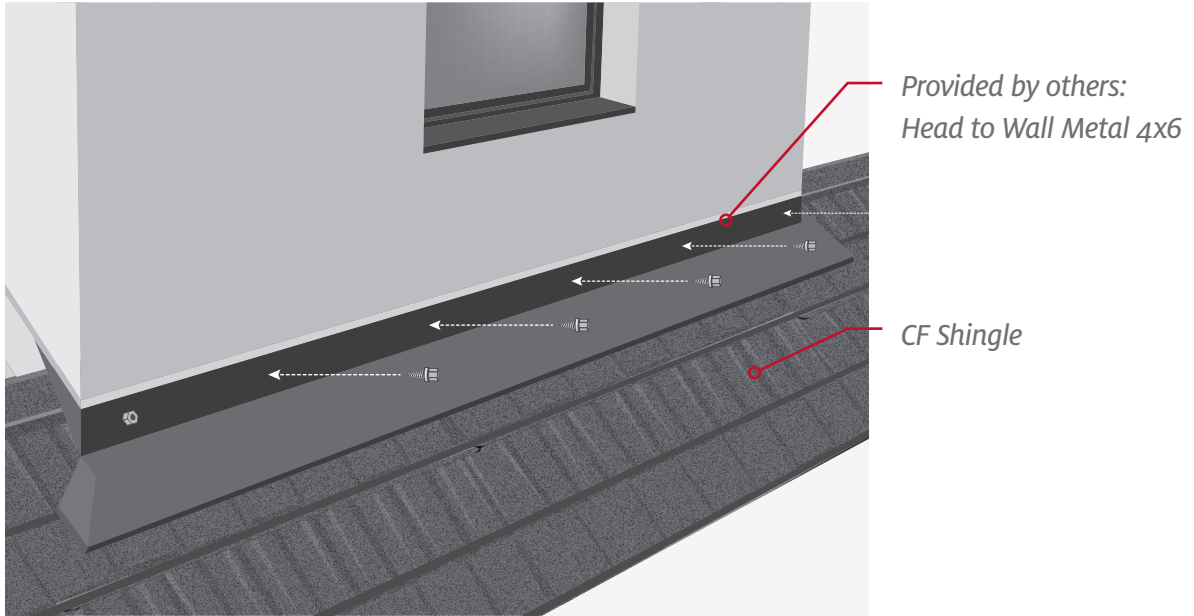


FIG. 08.A

For New Construction: Underlayment 4" up sidewall / headwall

#### NOTES

1. Install panels up to bottom of headwall. Notch the headcheck.
2. Cut the last panel transitioning into the headwall both vertically and horizontally to fit lower left corner condition. Cut and install the next panel(s). (Fig. 08B)
3. Last panel to be cut both vertically and horizontally to fit lower right corner condition. (Fig. 08B)
4. Counter flash with transition/headwall 4" x 6" 110° degree metal (provided by others).
5. Install 708 Universal Flashing flush with headwall metal on left and right side of headwall.
6. Notch panel 4 1/2" at the underside of the interlock.
7. Install 715 Side Flashing to counterflash 110° metal and 708 Universal Flashing. (Fig. 08B)

## DETAIL #8 CONTINUED

Headwall / Roof to Wall

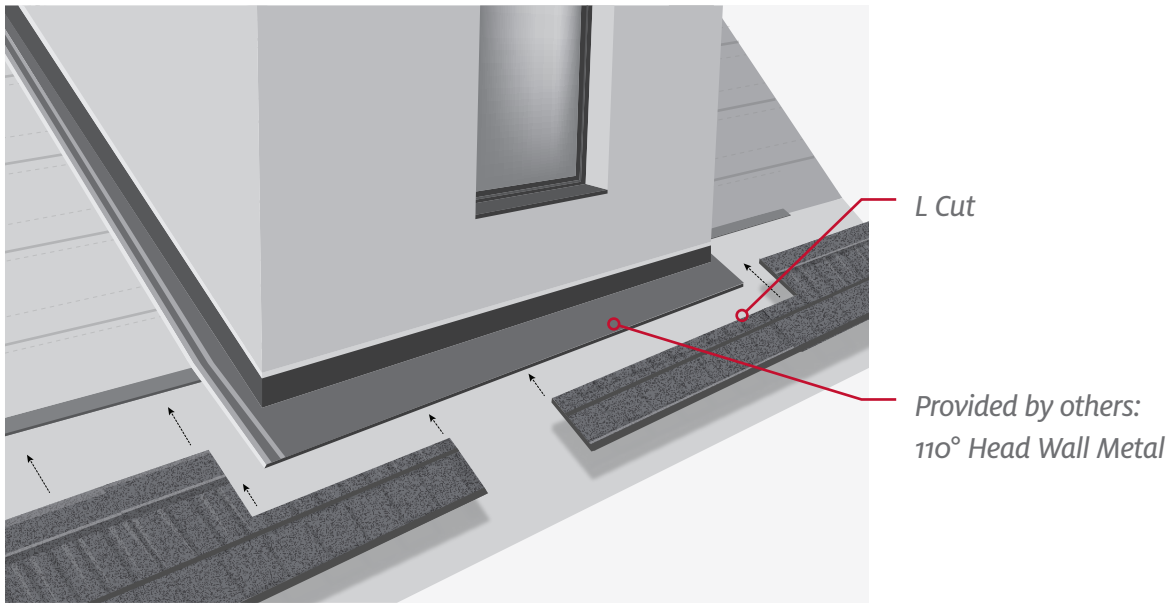


FIG. o8.B

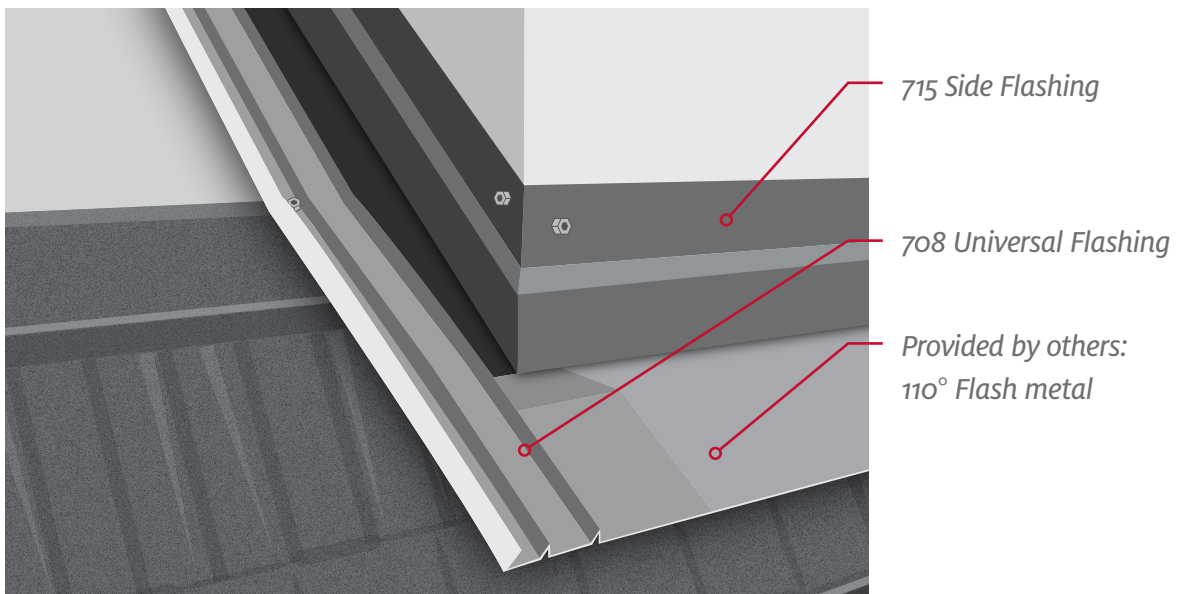


FIG. o8.C

## DETAIL #9

### Chimneys, Skylights & Dormers

For New Construction: Underlayment 4" up sidewall / headwall

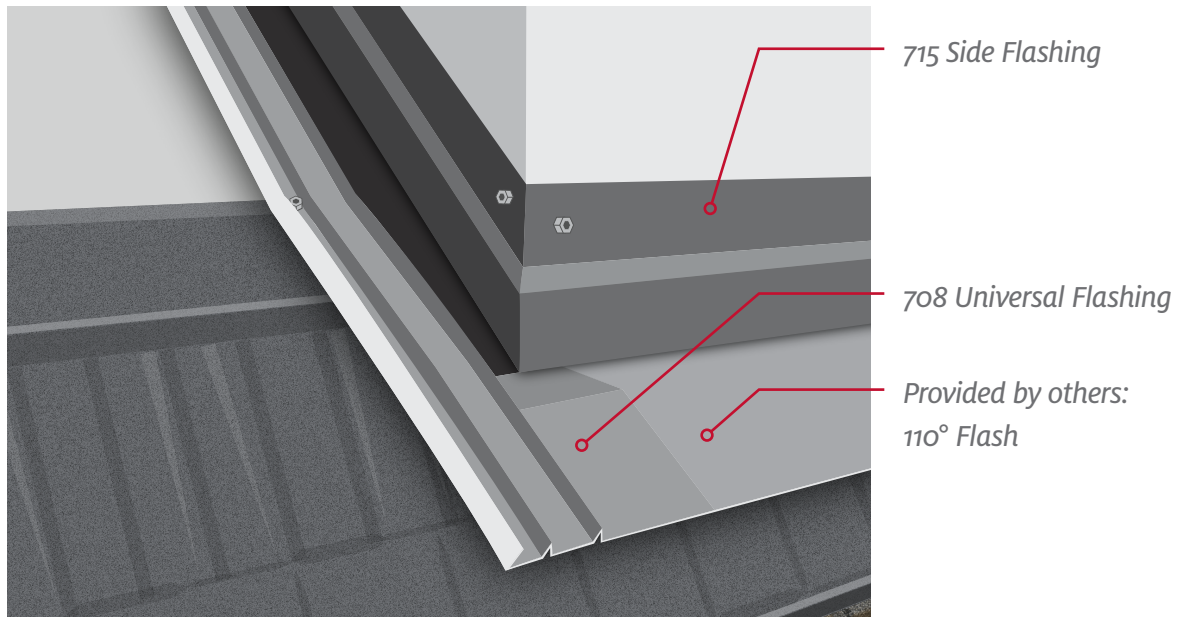


FIG. 09. Dormer

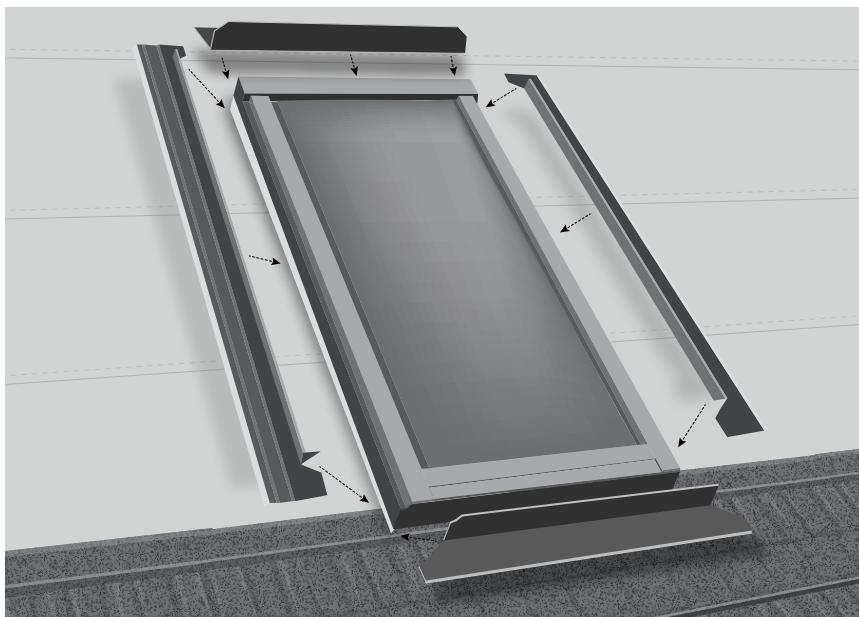


FIG. 09.B Skylight

## DETAIL #9 CONTINUED

Chimneys, Skylights & Dormers

### NOTES

1. Crickets may be required on the ridge side of any chimney or skylight more than 30" wide.
2. Install panels up to bottom of chimney, skylight or dormer. Notch the headcheck
3. Cut the last panel transitioning into the chimney, skylight or dormer both vertically and horizontally to fit lower left corner condition. *(Fig. 09.B)*
4. Horizontally cut and install the next panel(s). Last panel to be cut both vertically and horizontally to fit lower right corner condition. *(Fig. 09.B)*
5. Counter flash with transition/headwall 4"x6" 110 degree metal (provided by others).
6. Install 708 Universal Flashing flush with headwall metal on left and right side of chimneys, skylights and dormers.
7. Notch panel 4 1/2" at the underside of the interlock.
8. Continue installing panels not to exceed 2" past chimney, skylight or dormer.
9. Install saddle (provided by others)
10. Continue installing panels around chimney, skylights or dormers connecting left and right sides. (901 CF Short course maybe required depending on panel layout)

## DETAIL #10

### Roof Penetrations – Pipes & Vents

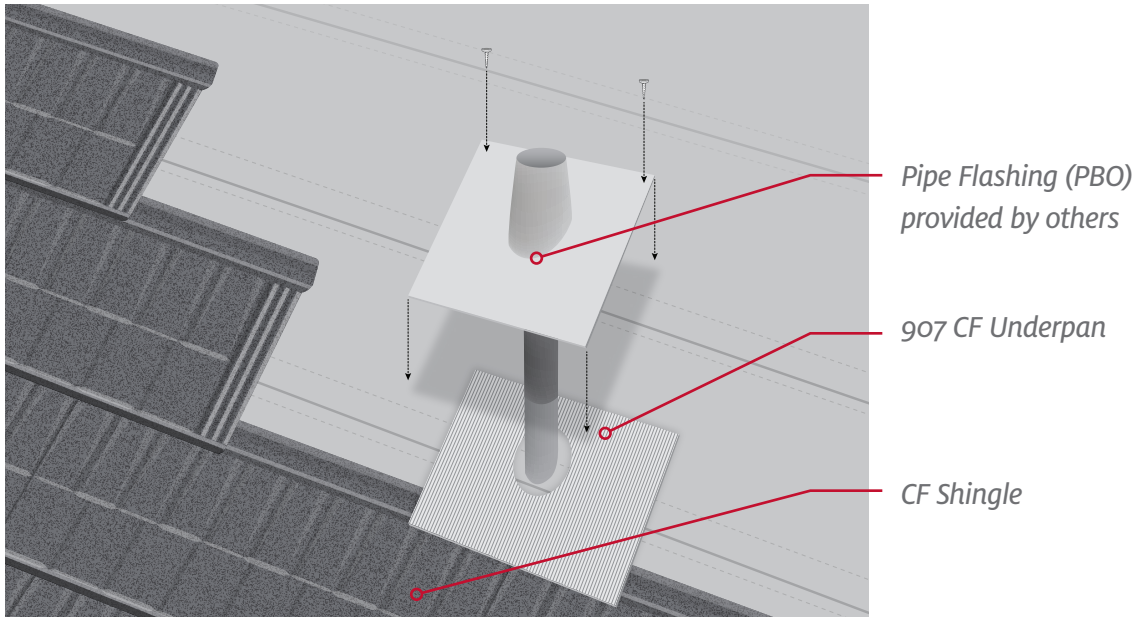


FIG. 10.A

#### NOTES

1. Chaulk around pipe prior to installing 907 CF Underpan.
2. Install 907 CF Underpan with 1/4" bend over headcheck of panel below..
3. Seal around pipe
4. Seal along top and down both sides of pipe flashing, install over underpan and fasten.
5. Install panel by cutting tight around pipe flashing. Notch the underside of the nose of the panel 2" below the pipe.
6. Seal panel where it meets the pipe flashing using touchup kit.
7. Pipe flashing should be painted prior to installation.

## DETAIL #10 CONTINUED

Roof Penetrations – Pipes & Vents

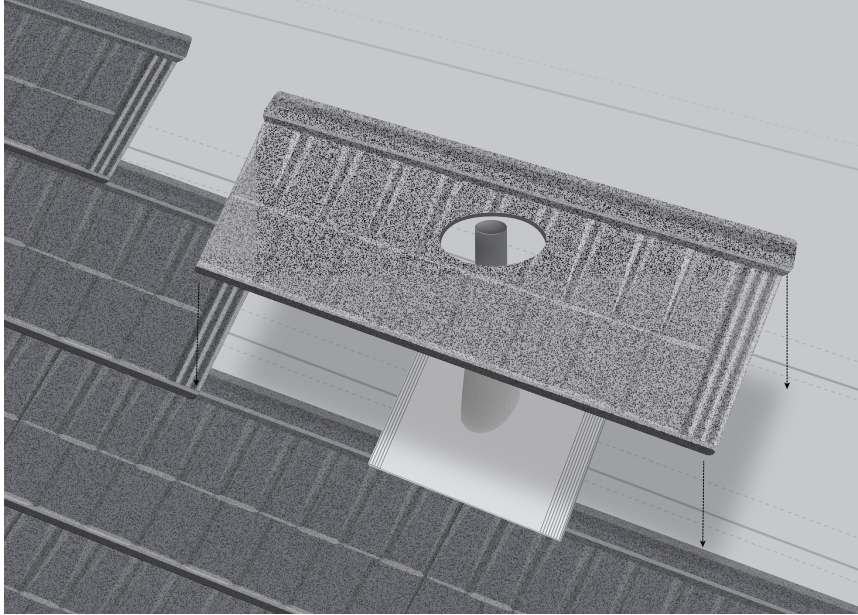
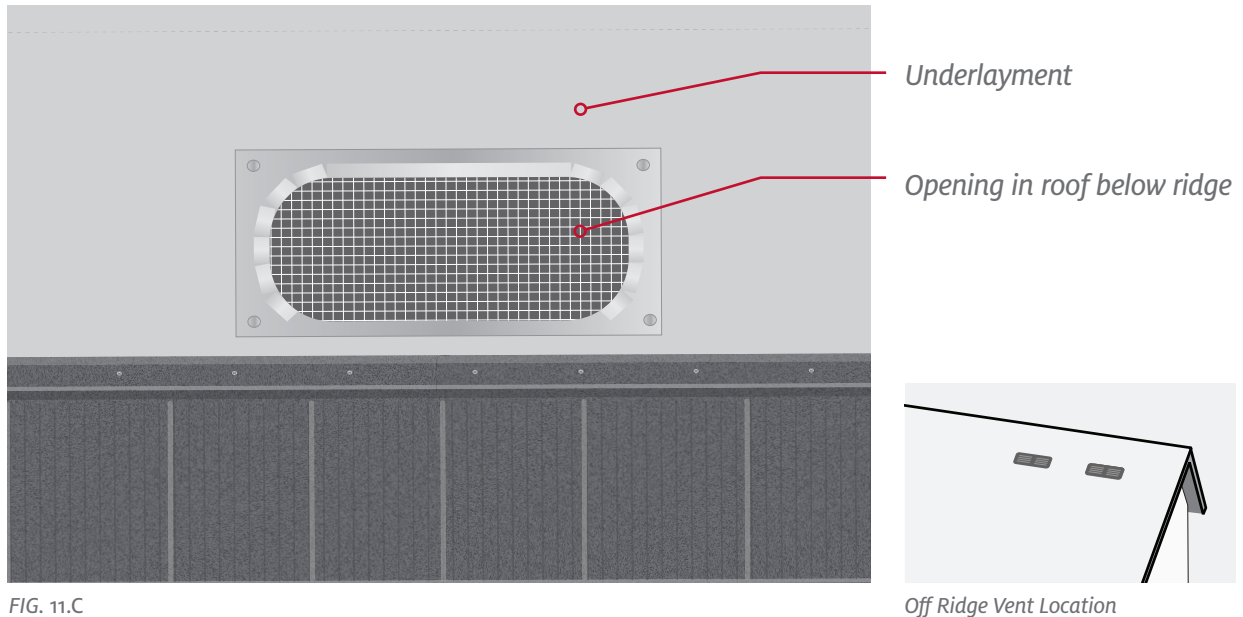


FIG. 10.B

# DETAIL #11A

## Off Ridge Ventilation



### NOTES

1. Desired location is one full course below the ridge.
2. Cut opening, install sub base. (Fig. 11.C)
3. Install Underpan on both sides of opening (Fig. 11.C)
4. Hem left and right of profile vent
5. Apply sealant at headcheck
6. Install profile vent so front edge of vent is flush with headcheck underlock of Tilcor panel
7. Measure and cut left panel to fit flush / tight to the left side of the profile vent. (Fig. 11.D)
8. Install full panel tight to the right side of profile vent
9. Cut and install short course to fit the width of the profile vent and attach with four #12 x 1 1/2" screws. (Fig. 11.E)
10. Continue with the top course panels across the roof.
11. Paint vent prior to installation.

**DETAIL #11A CONTINUED**

Off Ridge Ventilation

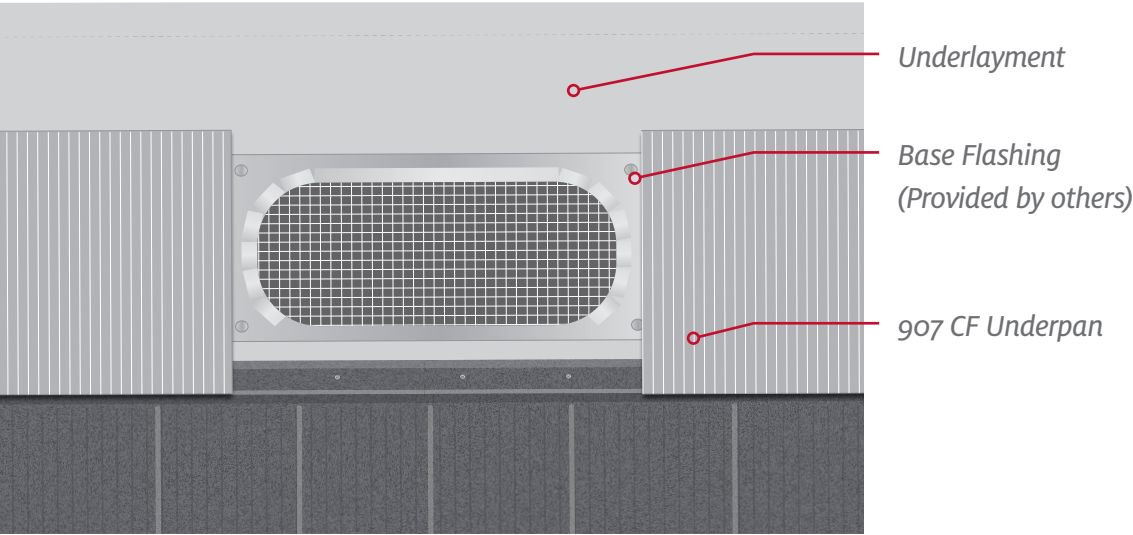


FIG. 11.D

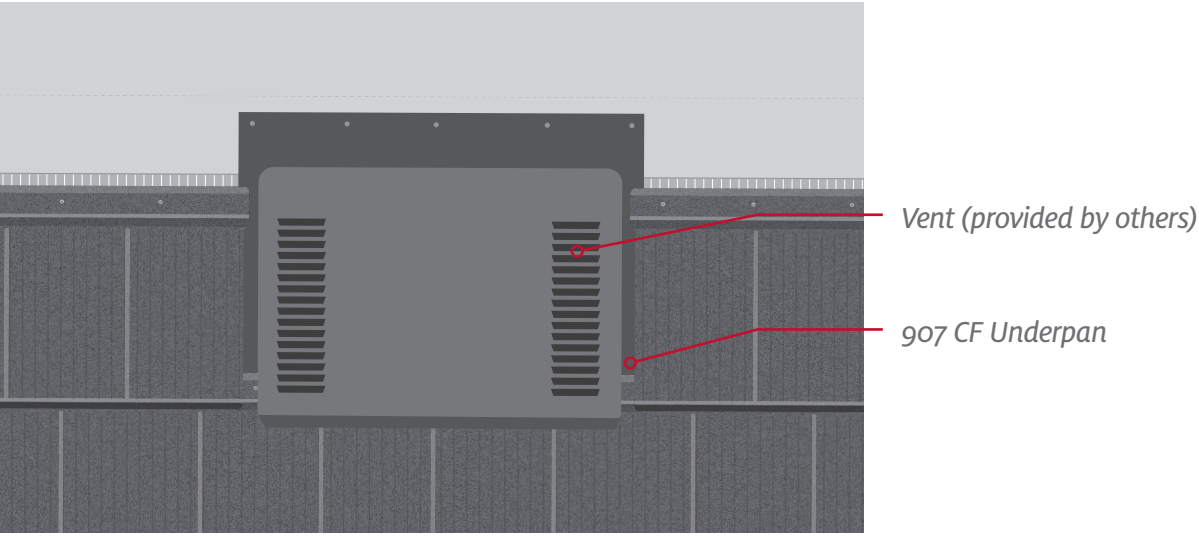


FIG. 11.E

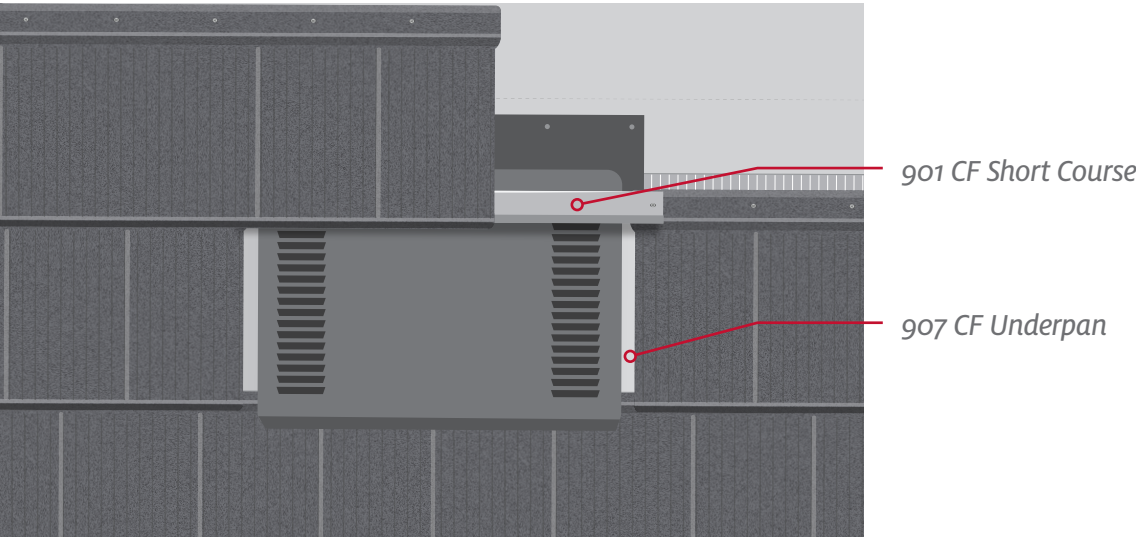


FIG. 11.F

## DETAIL #11B

### Ridge Ventilation

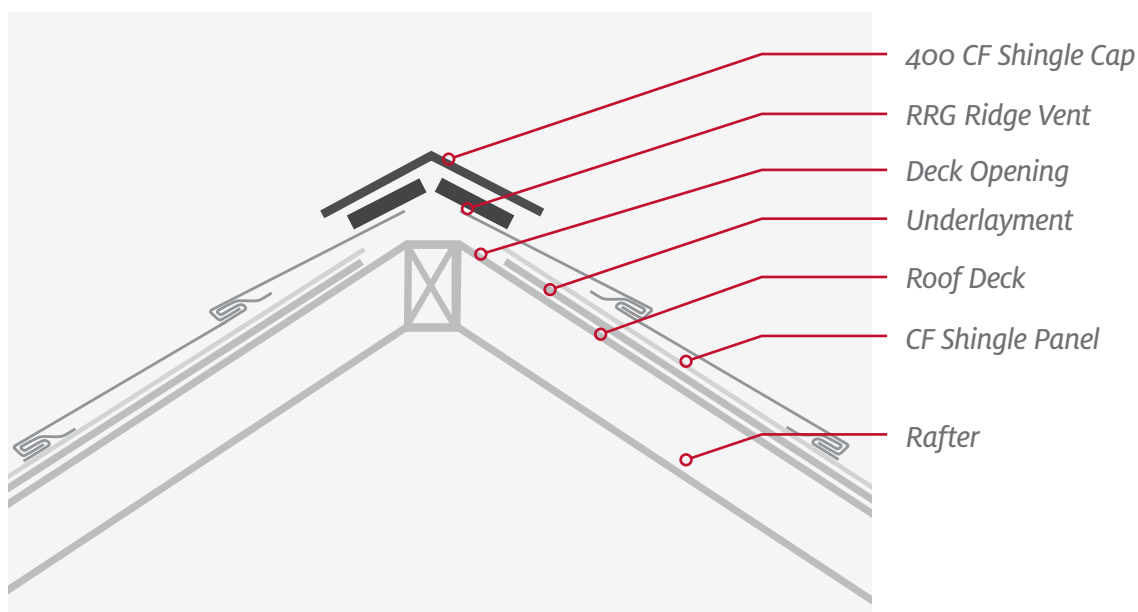


FIG. 11.G

#### NOTES

1. Cut 1" opening on both sides of the ridge.
2. Install last course of CF Shingle panels up to the opening on both sides of the ridge.
3. Install RRG Ridge Vent on both sides of the ridge so the ridge vent is touching at the center of the ridge.
4. Install 400 CF Shingle Caps over the top of the ridge vent securing with #12 x 1 1/2" screws or ring shank nails.



## DETAIL #11C

### Ridge Ventilation

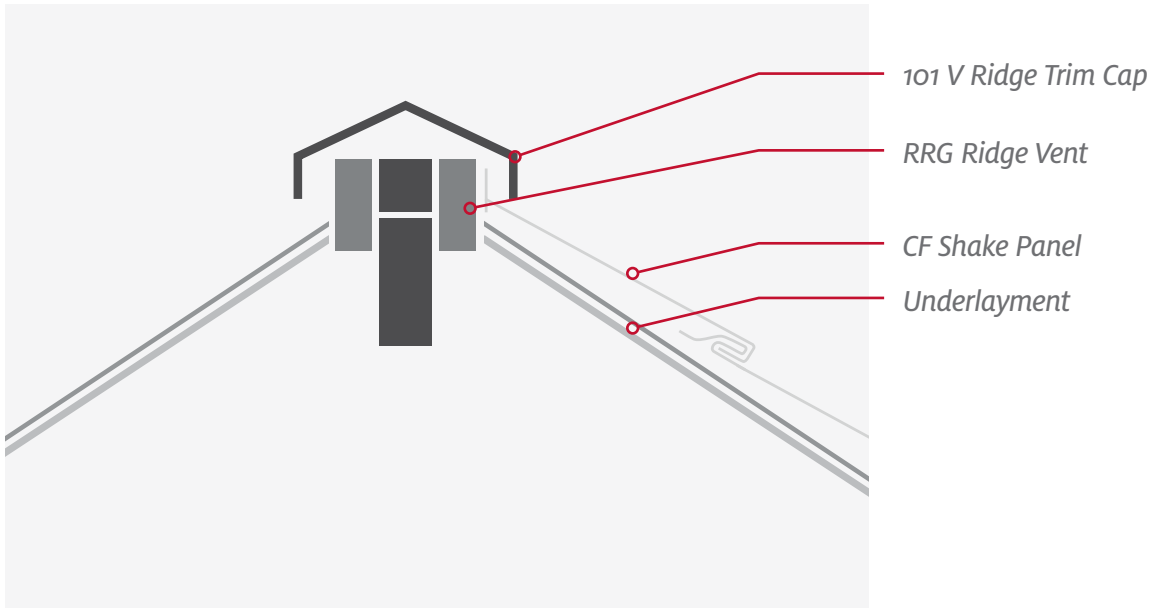


FIG. 11.H

#### NOTES

1. Cut 1 - 1/2" opening on both sides of the ridge.
2. Install 2x2 batten on center of ridge securing to the rafter with 16D nails.
3. Install RRG Ridge Vent horizontally along both sides of the ridge, down into opening and securing with screws or nails into the 2x2 batten 24" O.C.
4. Last course of panels, measure, cut and bend the panels up to the RRG Ridge Vent 1" and fasten to the batten with #12 x 1 1/2" screw or ring shank nail.
5. Install 101 V Ridge Trim Cap's using #10 x 1 1/2" painted screws.

## DETAIL #12A

### Ridge

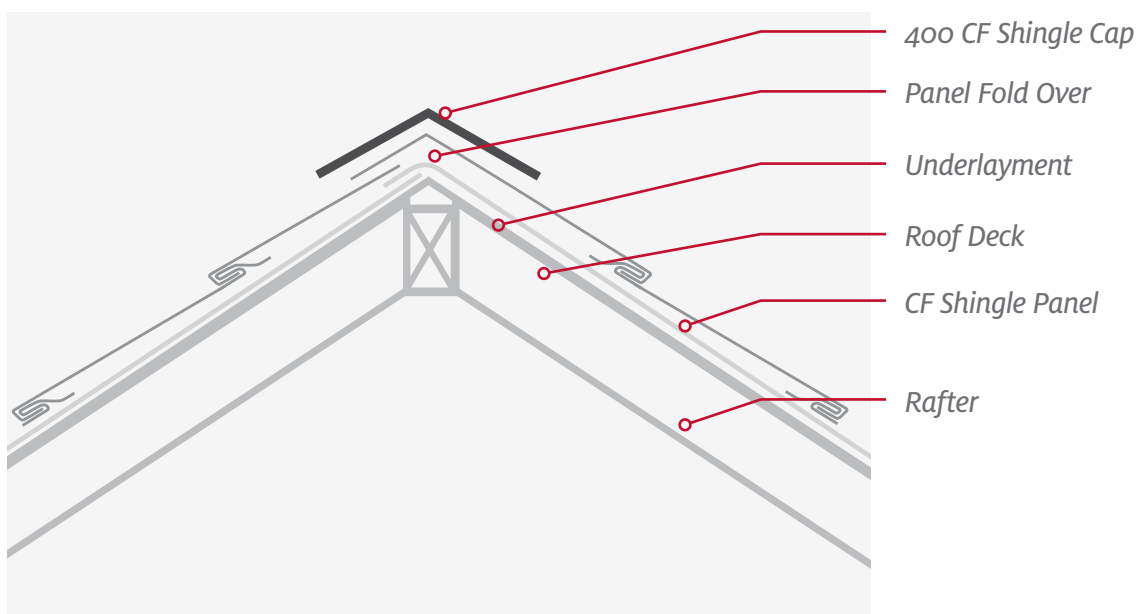


FIG. 12.A

#### NOTES

1. Install 400 CF Shingle Cap across the ridge and securing through the panels into the deck with #12 x 1 1/2" screws or ring shank nails.



## DETAIL #12B

### Ridge

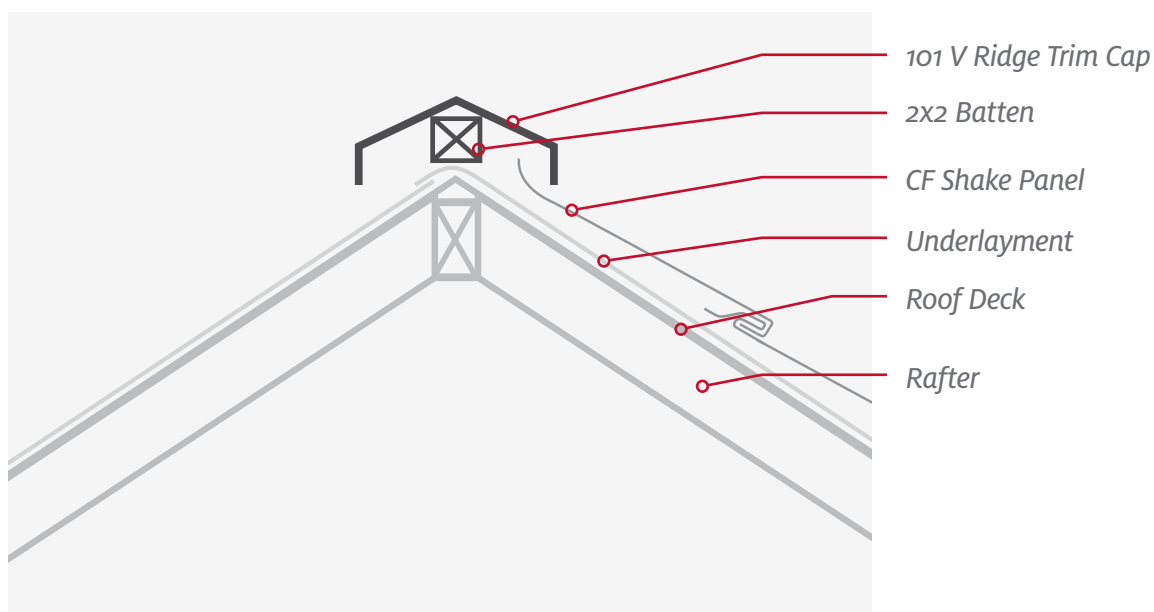


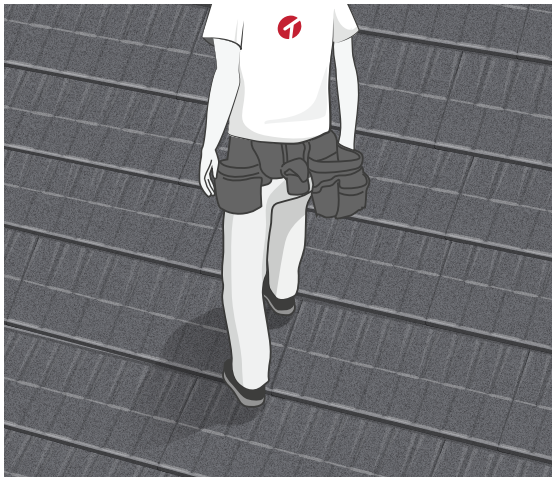
FIG. 12.B

#### NOTES

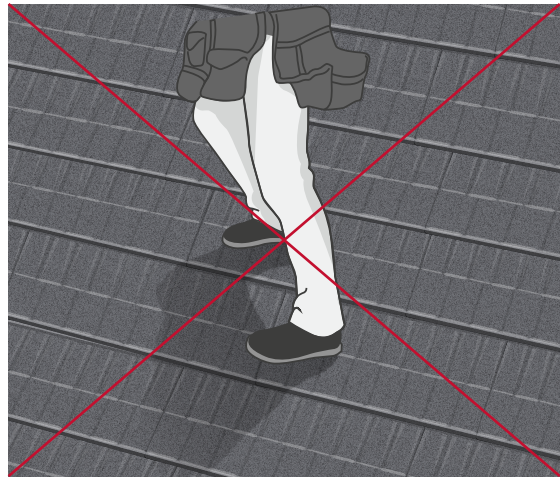
1. Install last course of panels on one side of the ridge by measuring and cutting panels so it finishes at the center of the ridge.
2. On the opposite side measure and cut the panels  $1\frac{1}{2}$ " so it can be bent/folder over the opposite side securing with #12 x  $1\frac{1}{2}$ " screws or ring shank nails. Last course of panels, measure, cut and bend the panels over the ridge and fasten to the batten with #12 x  $1\frac{1}{2}$ " screw or ring shank nail.
3. Install 2x2 batten over center of ridge over CF Shake panels with 16D nails 12" O.C.
4. Install 101 V Ridge Trim Cap's using #10 x  $1\frac{1}{2}$ " painted screws.

# WALKING INSTRUCTIONS

Correct / Incorrect



*Correct*



*Incorrect*

## NOTES

1. Step on the headcheck or where the two tiles meet.
2. DO NOT step on a single tiles, make sure each step is placed where both tiles meet.

# CLEANING & TOUCH-UP

## During Installation

1. Metal shavings need to be removed daily during installation.
2. If you need to touch up finish either during or after installation, use a Tilcor Touch-Up Kit matching the stone coated panel finish of your installation.
3. For questions regarding any additional issues, call 916-838-1940 or visit [www.tilcorroofingusa.com](http://www.tilcorroofingusa.com). Full Product Specs and details are available at [www.tilcorroofingusa.com](http://www.tilcorroofingusa.com).
4. After installation is complete, be sure to clean all debris off of the roof, especially any metal shavings.

# MAINTENANCE & CARE

Foot Traffic Avoid walking on side laps. See walking instructions at [www.tilcorroofingusa.com](http://www.tilcorroofingusa.com)

# FREEZE/THAW CYCLES

When installing in areas subject to frequent freeze and thaw cycles, always install with an ice barrier where required.

