



Oregon Roof Consulting and Inspection

No-Nonsense Roofing Advice for Property Owners: Affordable ~ Thorough ~ Versatile ~ Capable

Serving the Portland Metro area and all of Oregon: (503) 654-4612

Oregon CCB: 199121 ~ WA Lic: OREGORC871MR

PO Box 220190, Milwaukie, OR 97222

Resume' ~ Track Record ~ Experience ~ Qualifications ~ History

Please note : I have 44 years of legitimate verifiable experience as a laborer / grunt / gopher for my brother's roofing business in the 60's, the better part of 3 decades as a roofing contractor, 6 years as an estimator / project manager for 2 large roofing companies and am now nearing the end of my 10th year as the owner / operator of Oregon Roof Consulting and Inspection. I have personally installed over 1,000 roofs and have done at least 14,000 roofing estimates back in the roofing days. Oregon Roof Consulting has participated in 5 courtroom hearings and 16 arbitration hearings in Oregon and Washington and 19 on site CCB mediation meetings in Oregon - all as an expert witness, so, we are somewhat familiar with the roofing trade.

I have done work for but not limited to : Homeowners; Businesses and corporations of all sizes; Insurance companies; Banks; Churches; Relocation companies; Roofing contractors; Investment groups; HOA's; Apartment complexes of all sizes; The State of Oregon; Multiple school districts including West Linn; David Douglas; and every elementary, middle, and high school in both Hood River and Wasco (The Dalles) counties; United States Coast Guard in Astoria; etc. I have done jobs all over Oregon and Washington; All over the San Francisco Bay Area including San Francisco, Oakland, Napa, Richmond, Alameda, Fremont, Pleasanton, Berkeley, Fresno, Sacramento and Reno Nevada. We have also helped with two shingle roofing projects on the remote South Pacific island of Rarotonga (Cook Islands). This is all on my website. See www.oregonroofconsulting.com

Thank you,

Owner of Oregon Roof Consulting & Inspection

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- Affordable ~ Thorough ~ Versatile ~ Capable
- Roofing in Oregon Since 1973
- Project Management & Monitoring
- Inspections ~ Certifications ~ Owner Advocacy

www.oregonroofconsulting.com

Phone: (503) 654-4612 Cell: (503) 952-6479

Email: joe@oregonroofconsulting.com

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Joe Sardotz, Owner Operator



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Roof Inspection for : [REDACTED]
Job Address : [REDACTED] Portland, Oregon 97225

I inspected this roof on August 25th 2022. I met the owner and got on the roof. The roof is a new Certainteed 'Landmark' 30 year factory warranted asphalt laminated shingle in the 'Heather' color. One layer over shiplap. The 3 flat areas are a Certainteed 'SA' peel and stick granulated membrane. Separate photo emails will be sent. Each photo email will be numbered to correspond to the numbered items on the summary report. The following items should be noted :

Pitched roof w / shingles

1. There are a few - not many - badly scuffed / gouged shingles in the mid front area that really should be replaced. See photos.
2. There is a section of continuous ridge vent. This was not on the contract. One side is on a low slope section that is too shallow for a ridge vent. This ridge vent should be removed.
3. Certainteed wants all protrusions (vents, pipes) to be double sealed. This is a requirement not a recommendation. See attached Certainteed sheet.

3 Flat Roof Areas

1. All details on the front, back, and upper SA membrane sections are not remotely close to being correct.
2. The stem vent on the back section is designed for pitched / shingle roofs not flat work. There are utility vents designed for flat work.
3. Attached will be pages / diagrams showing how a structural member through roof deck; base flashing on concrete / masonry wall with metal counter flashing; base flashing and wall covering on wood wall; edge flashing; gutter edge flashing should be done. I have discussed this at length with a Certainteed technical person for absolution and verification.

Conclusion : Whoever installed the SA membrane had absolutely no business installing this SA membrane. This improperly installed SA membrane should be completely torn off and some type of membrane should be **properly installed**.

It is any Contractor's responsibility, obligation, and requirement to 1) Know how a roof system should be installed. 2) Install that roof system correctly.

**** The Oregon Residential Specialty Code R102.7.1 : 'Additions, alterations or repairs (excluding ordinary repairs) to any structure shall conform to the requirements for a new structure without requiring an existing structure to comply with all of the requirements of this code, unless otherwise stated. Additions, alterations or repairs shall not cause an existing structure to become unsafe or adversely affect the performance of the building.....'. R905.1 : 'Roof coverings shall be applied in accordance with the applicable provisions of this section and manufacturers installation instructions'. R903.1 : ' Roof Assemblies shall be designed and installed in accordance with this code and the approved manufacturers instructions such that the roof assembly shall serve to protect the building or structure '. R105.2 : 'Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in a manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction'. **** A permit may or may not be required in your area. To inquire call local building officials.****

Thank you,



Owner of Oregon Roof Consulting & Inspection

****This document carries no warranty or guarantee. It is an opinion based on industry standards, manufacturers specifications, local codes and my experience****

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ITEM #3 ON (SHINGLE PART) OF SUMMARY

Here Are Some Tips

In a roof-over, you need to expose step-flashing before installing the second layer of shingles. If the second layer is just cut around the object, and the apron flashing is not brought out on top of the new shingles, then the original step flashing drains onto the apron and down between the layers. After several years, the deck is saturated and rotting. Opening up the flashing the right way is a "pain," but it must be done. Thanks to Tim Mosher from Lima, OH. Tim recently repaired the bottom corners of 8 dormers on his parent's roof where the flashing was "shingled-over"... no wonder he sent us this tip!

5. Apply an additional row of shingles over the metal flashing strip, trimmed to match the vertical width of the metal flashing strip on the shingle surface. Fasten shingles with face nails sealed over with a small dab of roofing cement.
6. Next, if there is siding, bring it down over the vertical part of the step flashing to serve as cap flashing. Do not nail the siding into the vertical flashing.

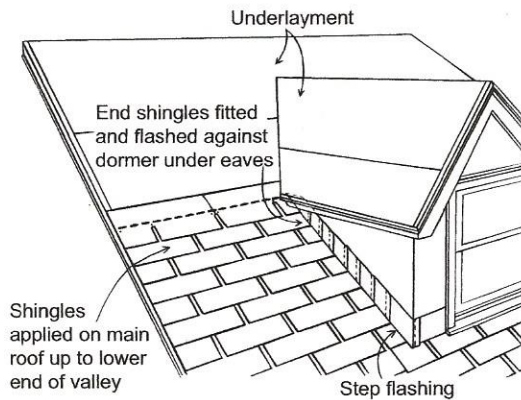


Figure 6-4: Front/side wall flashing.

7. If the vertical front wall meets a sidewall, as in dormer construction, cut the front flashing so that it extends at least 7" around the corner. Then continue up the sidewall with step flashing as described earlier. A good quality caulk, or asphalt roofing cement, may be useful to fully seal behind corner joints, if they will not be soldered.

SOIL STACKS AND VENT PIPES

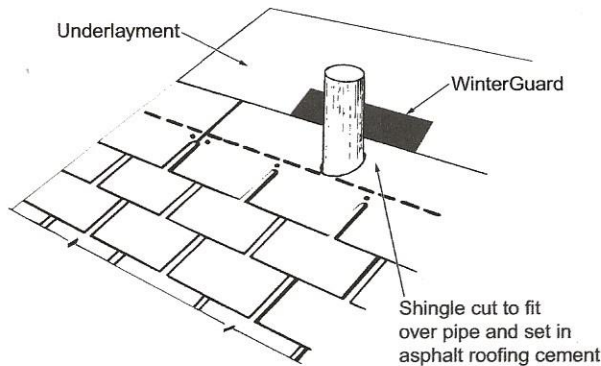


Figure 6-5: Cutting shingle to fit around vent pipe.

Practically all homes have circular vent pipes or ventilators projecting through the roof. Before installing the flashing, bring the shingles up to the vent pipe. Then cut a hole in the shingle that will go over the pipe and install the shingle, setting it in asphalt plastic cement. Next, place a preformed flashing flange, sized to fit snugly over the pipe, over the vent pipe and set it in asphalt roofing cement. Be sure the flange is seated squarely on the roof.

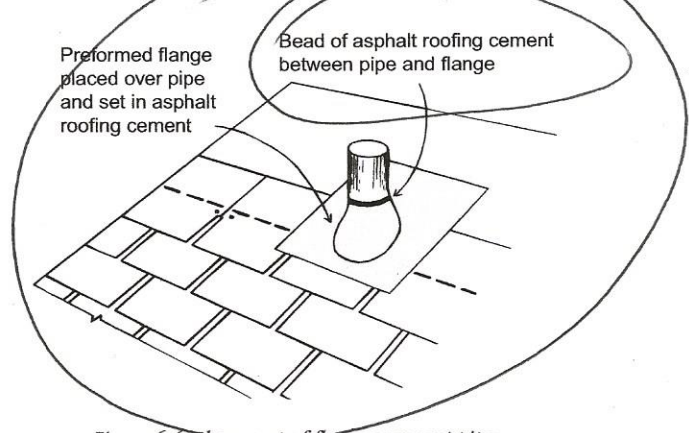


Figure 6-6: Placement of flange over vent pipe.

After the flashing is in place, continue applying the shingles. Cut the shingles in the succeeding courses to fit around the pipe, and embed them in asphalt roofing cement where they overlap the flashing flange. The completed installation should appear as shown in Figure 6-7, with the lower part of the flange overlapping the lower shingles, and the side and upper shingles overlapping the flange.

Follow the same procedure where a ventilator or exhaust stack is located. If the ventilator, exhaust stack, or soil pipe is near a ridge, bring the shingles up to the protrusion from both sides and bend the flashing flange over the ridge to lie in both roof planes, overlapping the roof shingles at all points. Ridge shingles are then positioned to cover the flange. Embed the ridge shingles in asphalt roofing cement where they overlap the flange.

Flexible neoprene boots are also commonly used to flash around vent pipes.

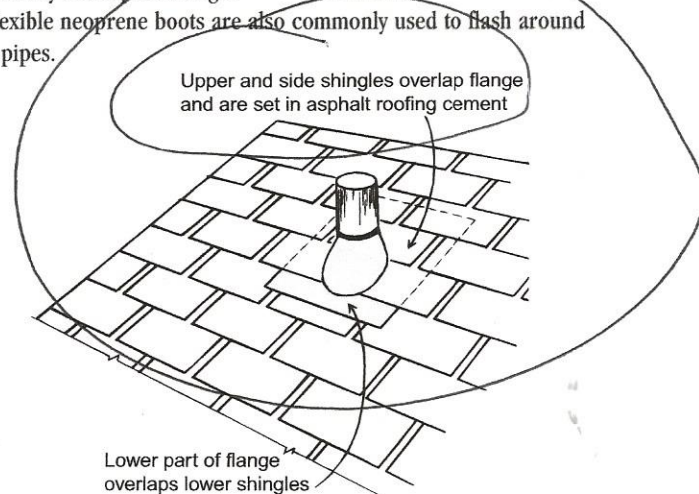


Figure 6-7: Applying shingles around flange.

Proper restoration will vary based on condition of the existing flashing and transition areas. If the existing member or flashing exhibits signs of potential leak points, a comprehensive inspection for trapped moisture shall be conducted. If trapped moisture is found or if previous repairs have built up, potentially creating water dams, existing material/flashing shall be removed and replaced.

Mastic/Reinforced Mastic (3-Course):

- 1. Member Vertical to Existing Flashing**
- 2. Existing Member Vertical Flashing to Horizontal Transition**
- 3. Existing Flashing to Field**

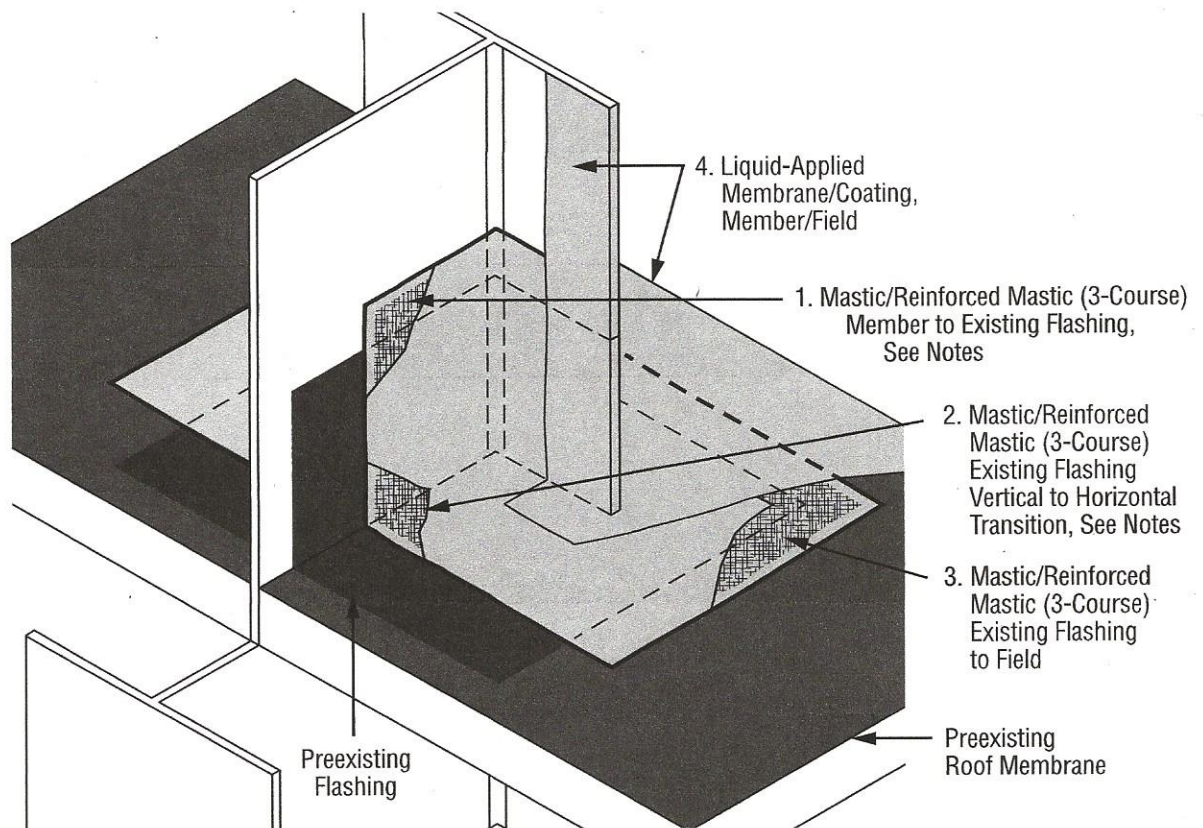
The above noted areas are the three critical waterproofing elements of a structural member penetrating a roof deck. If these areas are firmly adhered with no previous repairs or signs of potential strain, apply SMARTCOAT 300 Series Mastic with a brush, trowel or gloved hand at a maximum thickness of 1/8" for 300/301 Acrylic Mastic and 1/4" for 350/365 Silicone Mastic. If these areas show visual strain, open or weak bonds, previous repairs or potential for large

movement/vibration: After mastic is applied immediately embed SMARTFAB 500 Polyester Reinforcement, minimum 4" width, into wet mastic followed by a second coat of mastic at prescribed thickness to encapsulate edges and surface of polyester. Ensure the polyester is evenly covered and the edges of the detail are properly feathered.

NOTE: These areas can be treated differently based on their individual condition. For example, reinforcement may be necessary where the existing flashing meets the field, but mastic alone may be sufficient where the member vertical meets the existing flashing.

Liquid-Applied Membrane/Coating, Field & Member

Once mastic is cured, apply coating in accordance with specified SMARTCOAT application. Extend coating up existing flashing to top of member vertical(s). Multiple coats will be required to achieve specified mil thickness on vertical surfaces; it is not recommended to apply more than 1G per 100 sq. ft. in a single coat to avoid material sagging.



NOT DRAWN TO SCALE

NOTE: Never repair or coat-over silicone-based mastic or coating with anything other than a compatible silicone-based product; acrylic materials will not bond to silicone.

NOTE: When portions of the detail have undergone previous repairs and if the repairs have been made with compatible materials and are sound, repair can be left in place and reinforced mastic (3-course) applied atop; if the repair was made with incompatible materials, is failing or has potential for high movement, remove these materials and proceed with reinforced mastic (3-course/5-course as appropriate).

For additional questions or support contact CertainTeed Commercial Roofing Technical Services Department 1-800-396-8134 x2 or rpg@saint-gobain.com

Anchor Sheet or Base Ply, Field

Mechanically attach or fully adhere (self-adhered, torch, cold process or hot asphalt). Proper attachment of the base layer is defined by specified system, product selection and deck type.

Cap Sheet Field

Fully adhere (self-adhered, torch, cold process or hot asphalt). Proper attachment is defined by product selection. Extend base ply and cap sheet 2" above cant strip; adhere to cant strip only.

Base Flashing

WALL ATTACHMENT: Mechanically attach Anchor 12" o.c. or self-adhere Base Ply, turn down 2" over outside edge of wall (to be gang fastened when cleat is attached, minimum 4" o.c.); Fully adhere Cap (self-adhered, torch-weld, cold process or hot asphalt; Gang fasten Base and Cap at top edge 9" o.c. with tin discs; Ensure 1.4" bleed out on top edge or apply FlintBond® Caulk. **FIELD ATTACHMENT:** Treat the granulated surface of Cap Sheet, Field, where the Base Flashing overlap occurs: **If self-adhered or using cold process** apply FlintBond Trowel to entire lapped surface with 1/4" bleed out or (in cold weather¹) hot air weld² with bead of FlintBond Caulk at edge; **If torch-welded (cap only³)** heat sink/scrape the

granules with heated trowel or granular embedment tool and ensure 1/4" bleed out; **if using hot asphalt** apply to entire lapped surface with 1/4" bleed out.

Cap Sheet Counterflashing

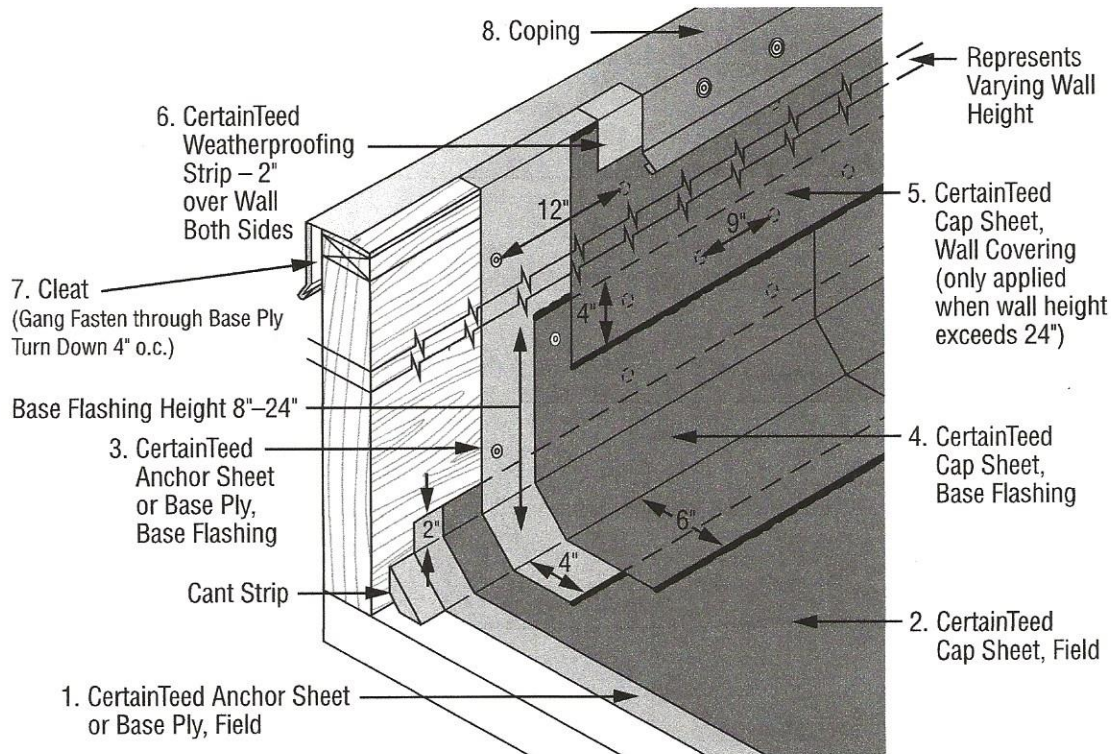
NOTE: This layer is only applied when wall height exceeds 24". **If self-adhered** apply FlintBond Caulk to top edge; **If torch-welded** ensure 1/4" bleed out at top edge; **If using cold process** set in FlintBond Trowel with 1/4" bleed out at top edge; **if using hot asphalt** apply hot asphalt or set in FlintBond Trowel with 1/4" bleed out at top edge. **BASE FLASHING OVERLAP:** Follow application method as noted for Base Flashing, FIELD OVERLAP.

Weatherproofing Strip

Self-adhere Metalayment®, WinterGuard® HT or Flintlastic® PlyBase/MidPly. Turn down over wall 2" both sides, or 1" beyond the wood nailer (to be gang fastened when cleat is attached).

NOTE: For walls 24" or less in height, vertical termination of Base Flashing will match/replace vertical termination of Wall Covering as shown below.

CertainTeed recommends strapping all Base Flashing and Counterflashing rolls, running the width of the roll up or perpendicular to the vertical surface.



NOT DRAWN TO SCALE

¹20°F-49°F (-6.6°C-4.4°C)

²Apply heat from a hot-air welder with a 2" tip to the overlapped granular surface while applying rolling pressure from a silicone roller to the overlapping Cap. With the hot air welder set between 900°F-1,100°F (setting 8-10), apply heat to the overlap interface while bonding Cap with rolling pressure on the granulated surface. Roll the overlapping Cap in place, moving the hot air welder to allow for forward progress. Avoid applying so much heat or moving at a pace that results in smoke. Apply a bead of FlintBond Caulk along the edge. Continue overlap application, 2" per pass.

³When potential fire hazards can be mitigated CertainTeed considers it acceptable to direct torch provided low output (50,000 BTU or less) equipment is used; when potential fire hazards cannot be mitigated indirect torching methods should be utilized.

Base Ply and Cap Sheet, Field

Fully adhere (self-adhered, torch, cold process or hot asphalt) base and cap layer. Proper attachment is defined by specified system, product selection and deck type. Extend base ply and cap sheet 2" above cant strip; adhere to cant strip only.

Base Flashing

WALL ATTACHMENT: Mechanically attach top edge to wall, 9" o.c. through tin discs with concrete fasteners; **if self-adhered** apply FlintBond® Caulk to top edge; **if torch-welded** ensure 1/4" bleed out at top edge; **if using cold process** set in FlintBond Trowel with 1/4" bleed out at top edge; **if using hot asphalt** ensure 1/4" bleed out at top edge.

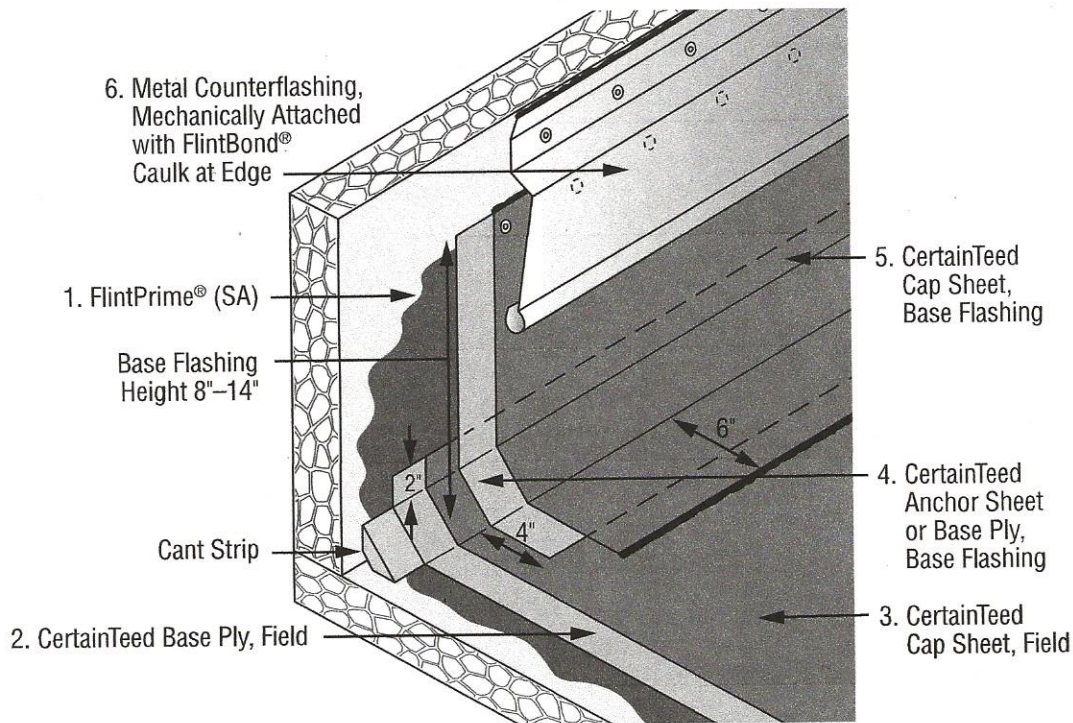
FIELD OVERLAP: Treat the granulated surface of Cap Sheet, Field, where Base Flashing overlap occurs:

if self-adhered apply FlintBond Trowel to entire lapped surface or (in cold weather¹) hot air weld² with bead of FlintBond Caulk at edge; **if torch-welded** heat sink/scrape the granules with heated trowel or granular embedment tool and ensure 1/4" bleed out; **if using cold process** apply FlintBond Trowel with 1/4" bleed out; **if using hot asphalt** ensure 1/4" bleed out.

Metal Counterflashing

Mechanically attach a minimum 6" o.c. or as required by building code.

CertainTeed recommends strapping all Base Flashing and Counterflashing rolls, running the width of the roll up or perpendicular to the vertical surface.



NOT DRAWN TO SCALE

¹20°F-49°F (-6.6°C-4.4°C)

²Apply heat from a hot-air welder with a 2" tip to the overlapped granular surface while applying rolling pressure from a silicone roller to the overlapping Cap. With the hot air welder set between 900°F-1,100°F (setting 8-10), apply heat to the overlap interface while bonding Cap with rolling pressure on the granulated surface. Roll the overlapping Cap in place, moving the hot air welder to allow for forward progress. Avoid applying so much heat or moving at a pace that results in smoke. Apply a bead of FlintBond Caulk along the edge. Continue overlap application, 2" per pass.

Anchor Sheet or Base Ply

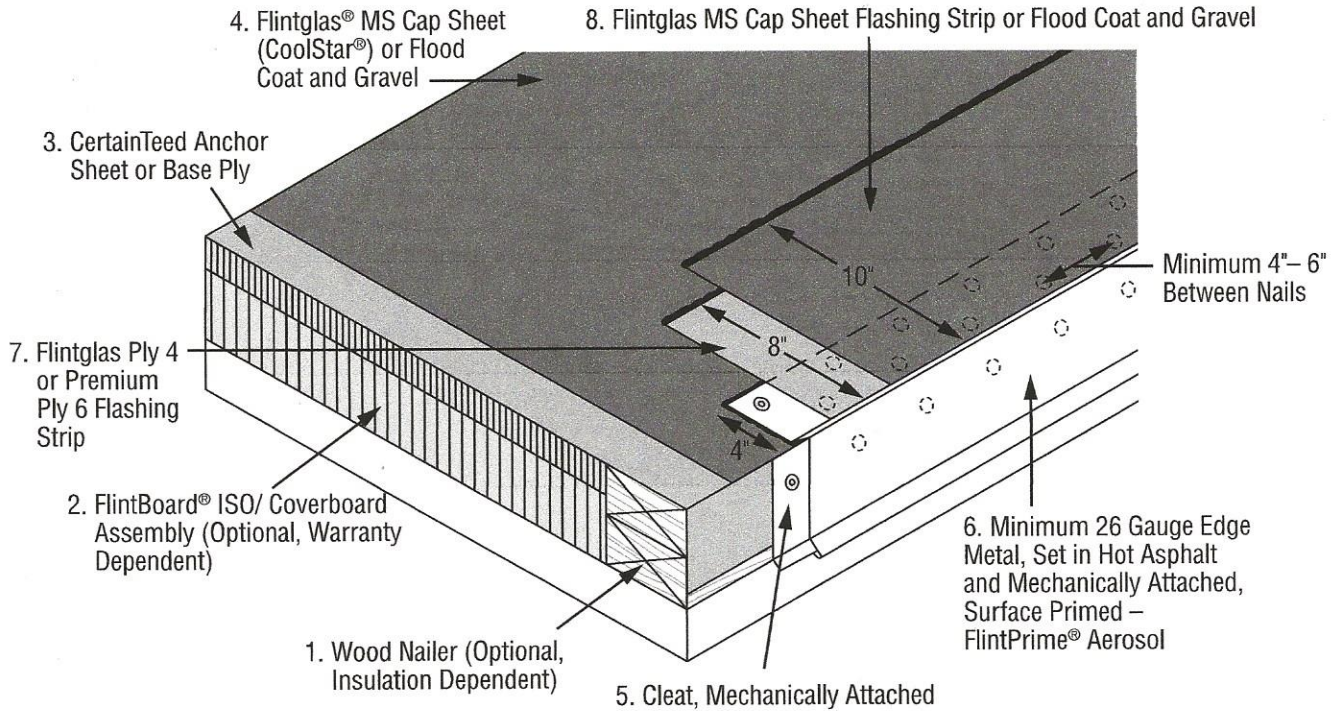
Mechanically attach or fully adhere (self-adhered, torch, or hot asphalt). Proper attachment of the base layer is defined by specified system, product selection and deck type.

Flashing Strips

Apply with hot asphalt and ensure 1/4" bleed out.

Edge Metal

Mechanically attach a minimum two staggered rows, 6" o.c. or as required by building code; endlaps should receive two nails. Edge Metal shall have a minimum 3/4" rise for gravel surfaced membranes and a 3/8" rise for smooth or mineral surfaced membranes.



NOT DRAWN TO SCALE

Anchor Sheet or Base Ply, Field

Mechanically attach or Fully adhere (self-adhered, torch, cold process or hot asphalt). Proper attachment of the base layer is defined by specified system, product selection and deck type. Ensure base sheet is extended below wood nailer blocking.

Flashing Collar

Fully adhere (self-adhered, torch, cold process or hot asphalt). **If self-adhered** apply FlintBond® Caulk to edge; **If torch-welded** ensure 1/4" bleed out at edge; **If using cold process** set in FlintBond Trowel with 1/4" bleed out at edge; **if using hot asphalt** ensure 1/4" bleed out at edge.

Gutter System

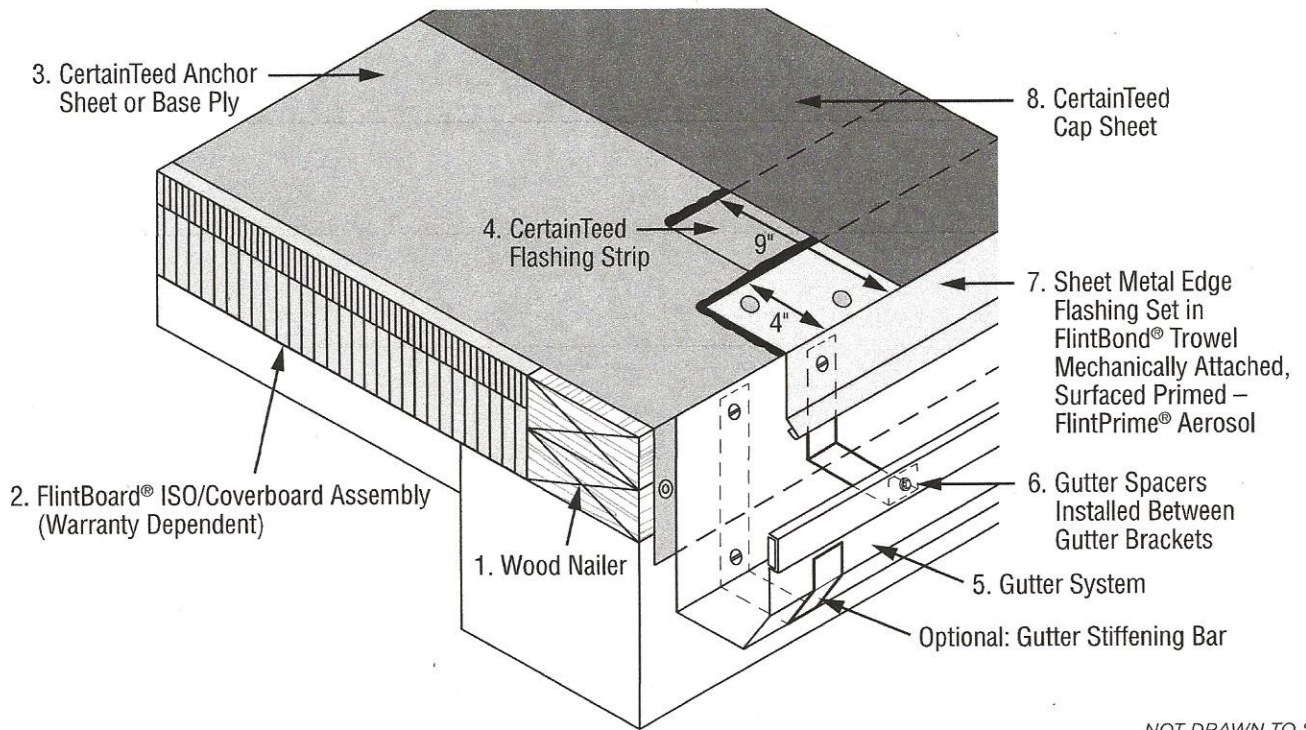
Refer to the Architectural Metal Flashing section of the NRCA Roofing Manual for securement options.

Edge Metal

Set in FlintBond Trowel. Mechanically attach a minimum two staggered rows, 6" o.c. or as required by building code; endlaps should receive two nails. Prime surface with FlintPrime® Aerosol.

Cap Sheet

Fully adhere (self-adhered, torch, cold process or hot asphalt). Proper attachment is defined by product selection. **If self-adhered**, in cold weather¹ hot air weld² with bead of FlintBond Caulk at edge.



NOT DRAWN TO SCALE

¹20°F-49°F (-6.6°C-4.4°C)

²Apply heat from a hot-air welder with a 2" tip to the metal surface while applying rolling pressure from a silicone roller to the overlapping Cap. With the hot air welder set between 300°F-500°F (setting 2-3), apply heat to the overlap interface while bonding Cap with rolling pressure onto the Metal. Roll the overlapping Cap in place, moving the hot air welder to allow for forward progress. Avoid applying so much heat or moving at a pace that results in smoke.