# 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

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Roof Inspection for : [redacted]

Job Address : [redacted] Milwaukie, Oregon 97267

I inspected this roof on February 18th 2023. I met the owner and we got on the roof. The roof is a new Certainteed 'Landmark' asphalt laminated shingle. One layer over plywood. Separate photo emails will be sent. Each photo email will be numbered to correspond to the numbered items on the summary report. As always I ask for the contract as sometimes I find that what is on the contract and what is on the roof do not match up. All the homeowner had was a piece of paper with the line "Match existing shingles with 50 year shingles and ridge vent'. This is not a 'contract'. The CCB ***requires*** a detailed contract. ORS 701.305.This is not a detailed contract. Without a legally acceptable and proper required contract the contractor cannot claim a lien ORS 87.037. The following items should be noted :

1. A majority of shingles were not yet sealed / bonded so it was easy to check nailing all over the roof. Most nails are over driven and/or above the 2 nailing lines where Certainteed **requires** the nails be placed. Many nails are angle driven or under driven. There are shingles all over with only 1 nail. The nailing here is not remotely close to code and Certainteed requirements.
2. The nails used for the ridge shingles on all ridge vets are too short at 1-3/4". These nails don't even reach the deck. Nails must penetrate at least 3/4" into the deck. ** See attached Certainteed nailing spec sheet.
3. Many ridge shingles are laying flat. Ridge shingles must have an apex so as to shed water. The ridge vent and ridge shingles were not correctly installed.
4. Certainteed requires all protrusions to be double sealed. ** See attached Certainteed spec sheet.
5. The owner wanted the ridge shingles and ridge vent to match existing. This was not done. Of course, without a required detailed contract, as far as the cointractor is concerned it's pretty much 'anything goes'. Things like this are why a detailed contract is legally required.
6. At some areas of the field shingles are overlapping this should never be done. Shingles were jammed together so when it warms up there isn't ample room for the shingles to 'relax' / lay down flat. All manufacturers want shingles laid loosely together to allow them to eventually 'relax.
7. At the rake edges on the street side roof the top of the rake metal is visible up

to 5/8". The top of any rake metal should never be visible. Certainteed **requires** shingles to lap past the flashing. ** See attached Certainteed sheet.

8. Plastic utility 'stem vents' were re installed. The manufacturer of these puts factory applied nailing holes in the flanges. These holes are larger than the diameter of shingle nails. This allows for expansion and contraction. These holes were not used. Nails were put into the flanges, therefore, the vents cant expand and contract so eventually the plastic flanges will most definitely brake / fall apart. I see it all the time.

Conclusion : Whoever installed these shingles were not qualified to install these shingles. Installation is not remotely close to code and Certainteed requirements.

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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# Correct Fastening 8

*YOUR OBJECTIVE:*
*To learn CertainTeed's recommended methods for fastening shingles.*

## GENERAL FASTENING GUIDELINES

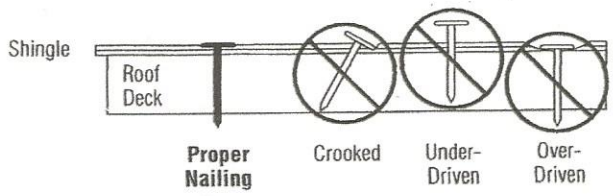



*Figure 8-1: Fastening three-tab, strip-type shingles.*

- Proper placement of fasteners is important for shingle performance and warranty protection. Ideally, placement of fasteners should be as specified according to the precise locations shown for each shingle. However, in practice some variation (dimensional tolerance) is acceptable.
- When fastening a typical three-tab, strip-type shingle, CertainTeed requires that at least four fasteners be used.
- Nails are strongly recommended instead of staples. *(Nails **MUST** be used with Hatteras, LandMark TL, Presidential TL, Carriage House and Grand Manor shingles.)*
- Nailing locations vary by shingle style and by roof slope. It is critical to fasten the shingles in the proper locations in order to achieve designed performance. Improperly fastened shingles may blow off or slip out of place. The use of asphalt roofing cement in small quarter-size dabs to hold the shingle down is required on most shingles when applied to steep slopes exceeding 21/12 (60 degrees). Consult individual shingle application instructions for details on the above, including fastening points.
- When fastening a heavier and thicker premium product, like Carriage House Shangle™ or Grand Manor Shangle®, CertainTeed requires longer nails.
- Nails with a barbed or rough shank are recommended. Smooth pneumatic nails are also acceptable.
- Nail shanks must be either 11- or 12-gauge.
- Nail head diameter must be at least 3/8".
- Nail shanks must be long enough to penetrate the roofing and then go 3/4" into solid wood, plywood or non-veneer wood decking, or through the thickness of the decking, whichever is less.
- Be sure fasteners are driven straight, with nail heads flush with the shingle surface and never cutting into the shingle (*Figure 8-1*).
- All nails must be corrosion resistant; for example, double-dipped galvanized steel, aluminum, copper, or stainless steel.
- To prevent shingle distortion, do not attempt to realign a shingle by shifting the free end after two fasteners are in place.
- Fasteners should not go into, above, or between the self-sealing strips (except for Hatteras and Highland Slate). If they do, the shingles may not seal properly and will be more likely to blow off.
- If a nail is underdriven, be sure that it is hammered down **flush**.
- Seal overdriven nails with asphalt roofing cement and install another nail nearby.
- Fasteners must not be exposed; i.e., visible on the finished roof.

## ARE STAPLES ACCEPTABLE?

Both ARMA and CertainTeed **strongly recommend** that properly driven and applied roofing nails be used as the fastening system for asphalt shingles. Staples can perform acceptably if properly applied, but proper alignment and application is more difficult with staples than with nails, making shingle damage and blow-offs more likely. (Nails **MUST** be used for Hatteras®, Landmark™ TL, Presidential T/L, Carriage House and Grand Manor shingles, plus in high-wind areas and to qualify for an increased wind warranty if available.

**Caution:** Check your local Building Code for applicable fastener requirements.

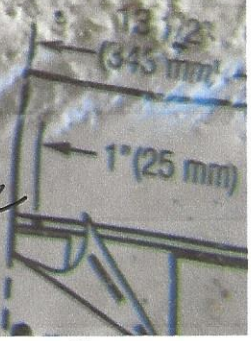
**Slope Restrictions**

- **The roof deck must be at least:** 3/8" (9.5 mm) thick ply or 7/16" (11 mm) thick non-veneer or 1" (25 mm) thick [illegible] wood deck.

## Fastening – IMPORTANT


**Steep Slope**

Use SIX nails a
for every full
roofing cement

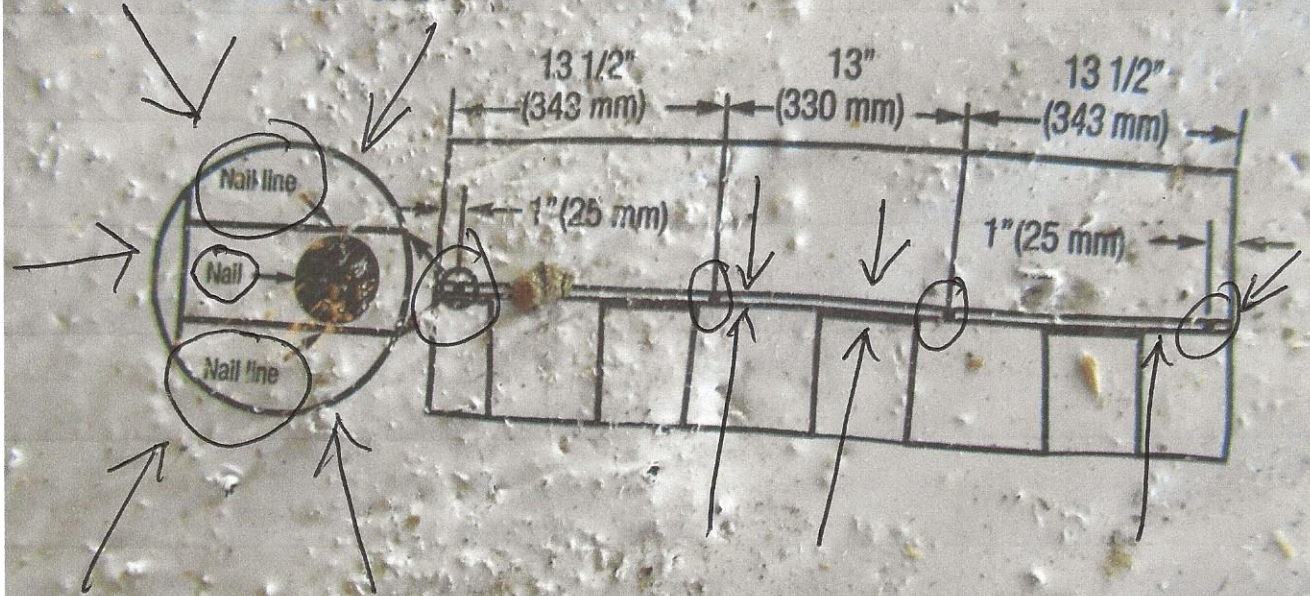



For decks 3/4" (19 mm) thick, or thicker, nails must go at least 3/4" (19 mm) into the deck. On thinner decks, nails must go at least 1/8" (3.2 mm) through the deck. Nails must be 11 or 12 gauge roofing nails, corrosion-resistant, with at least 3/8" (9.5 mm) heads, and at least 1-1/4" (32 mm) long.

**IMPORTANT: NAILS ARE REQUIRED FOR THIS PRODUCT AND MUST BE LOCATED WITHIN THE NAIL LINES, TARGETING LOCATIONS SHOWN BELOW. NAILS MU**

* THIS IS ON ALL CERTAINTEED SHINGLE WRAPPERS *

**Use FOUR nails for every full "Landmark TL" shingle, located as shown below.**

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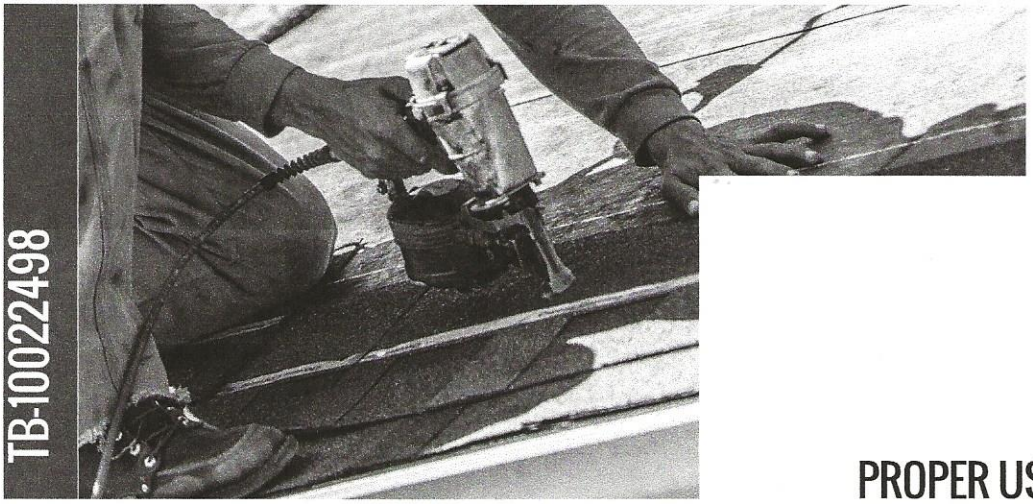


TB-10022498

# TECHNICAL BULLETIN

## PROPER USE OF PNEUMATIC COIL NAILERS

***SUPERSEDES PREVIOUS BULLETINS***

### Issue Description:

The proper use of pneumatic coil nailers for the installation of asphalt shingles.

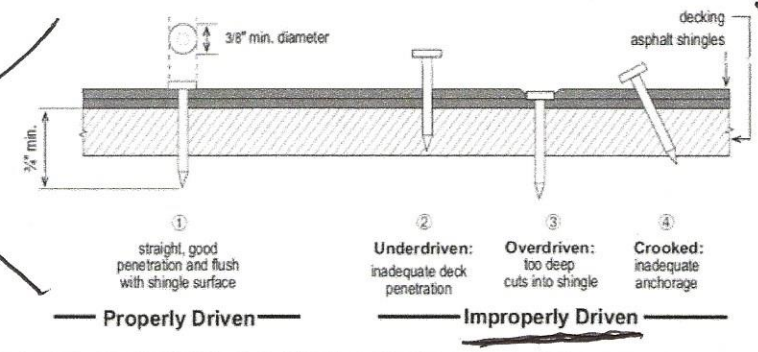
### Recommendations:

Proper setup and use of pneumatic coil nailers is critical for correct installation of Owens Corning® asphalt shingles. Improper use of pneumatic coil nailers may lead to shingle damage and/or shingle failures during a high-wind event. Ensuring proper nail gun setup will:

- Prevent over-driving the nails, which can cause the nail head to blow through the shingle.
- Prevent under-driving the nails, which can prevent shingles from laying flat and sealing properly.

### Key Considerations:

- Use regulated compressed air and never apply more air pressure than is necessary to properly drive the fasteners.
- Most pneumatic coil nailers operate at optimum efficiency when the pressure is set between 80 and 95 psi.
- Most coil nailers are equipped with a depth adjustment knob. Adjust the settings for the nail heads to be driven flush.
- The startup and cutout pressures on the compressor should be set to maintain optimum operating pressure in the compressor tank at all times.
- Air hose length and diameter should be considered when setting psi at regulator.
- Operating more than one coil nail gun from a single compressor may affect how well the fasteners penetrate the shingles.
- Use corrosion resistant 11 or 12-gauge nails with a minimum 3/8-inch diameter heads, complying with ASTM F1667.
- Unusually cold or hot temperatures may require additional tuning of the compressor for optimum nail driving performance.
- Always read and be familiar with the operating instructions for the compressor and nail gun.
- When using pneumatic coil nailers, **always ensure that the nail is driven flat and flush with the shingle.**
- **Any shingle into which an overdriven fastener has been installed** must be repaired by either replacing the shingle or covering the fastener with asphalt roofing cement and installing an additional fastener within 1-inch of the overdriven fastener.




**Please contact 419-248-6557 for additional information.**
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*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.

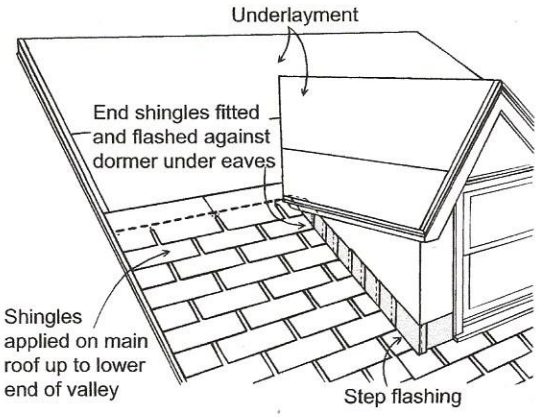


*Figure 6-4: Front/side wall flashing.*

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

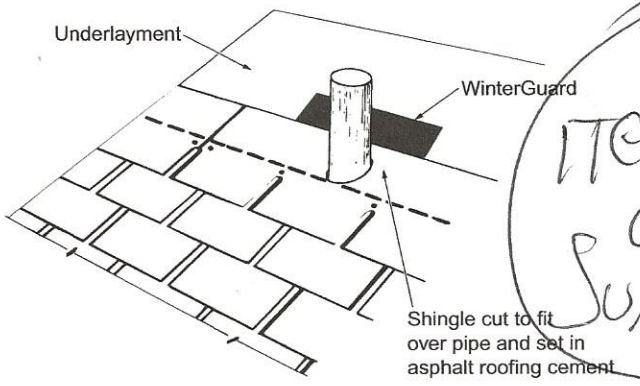


*Figure 6-5: Cutting shingle to fit around vent pipe.*

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.

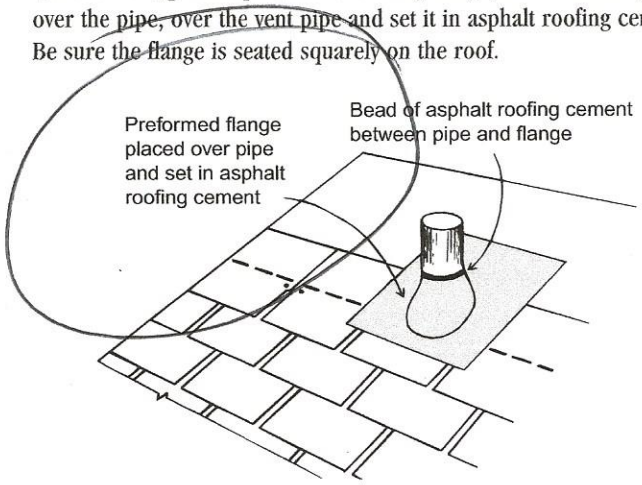


*Figure 6-6: Placement of flange over vent pipe.*

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.

ITEM 4 ON SUMMARY

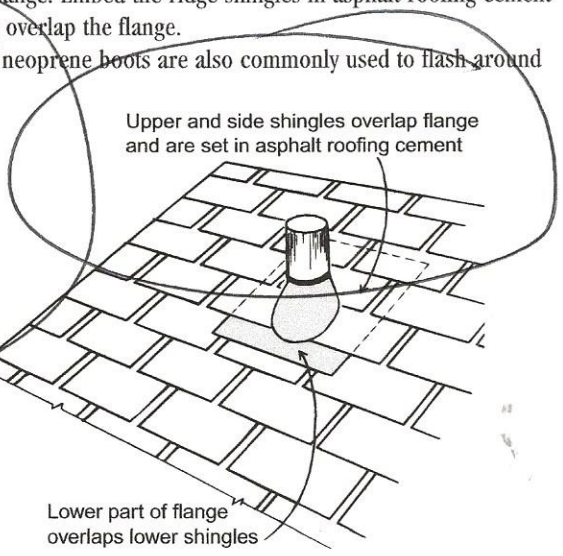


*Figure 6-7: Applying shingles around flange.*

# Flashing: Valleys, Walls, Chimneys, etc.

# 6

ITEM #7 ON SUMMARY

ITEM 4 ON SUMMARY

*YOUR OBJECTIVE:*

*To learn CertainTeed-recommended flashing installation methods and ways to apply shingles at the valleys.*

## FLASHING INSTALLATION

As you can well imagine, a good place for a leak to develop is anywhere the roof joins with walls and chimneys. To help prevent these leaks from occurring, corrosion-resistant metal flashing is typically applied. Metal flashing is effective, because when properly installed, it can help accommodate roof, chimney, wall, or structural movements due to settling, expansion, and contraction.

**ROOF FLASHING WORKS LIKE SHINGLES:** it overlaps and sheds water. Flashing is always constructed in a system to work with the effect of gravity. When correctly designed and installed, flashing can only be defeated by water running uphill. This can happen in the presence of snow, ice or wind-driven rain.

Thus, all flashing systems recommended in this chapter should be reviewed by installers with an eye to local weather extremes, especially the aforementioned elements. The best backup security for flashing systems at this time is the presence of waterproofing shingle underlayment beneath it. However, local experience may call for other flashing modifications to withstand weather-related conditions.

Flashing typically consists of (1) "step" flashing, which is attached to the roof, (2) "cap" flashing, which is attached to the chimney or a wall (*Figure 10-2*), (3) "drip edge" flashing, and (4) "valley" flashing. Step flashing is sometimes called "base flashing" and cap flashing is sometimes called "counter flashing." Often, exterior wall siding serves as cap flashing.

### DRIP EDGE

Drip edge is the simplest flashing. It is used at the rakes and eaves. There are two basic styles of drip edge, generally known as C and "Extended." C-style drip edge does not have an overhang, while the "Extended" profile has a hemmed overhang at the edge of the roof deck.

On rakes, drip edge is installed on top of the underlayment to prevent wind-driven rain from getting beneath it. On eaves, it is installed beneath the underlayment to allow water to shed smoothly off the roof if it gets under the shingles.

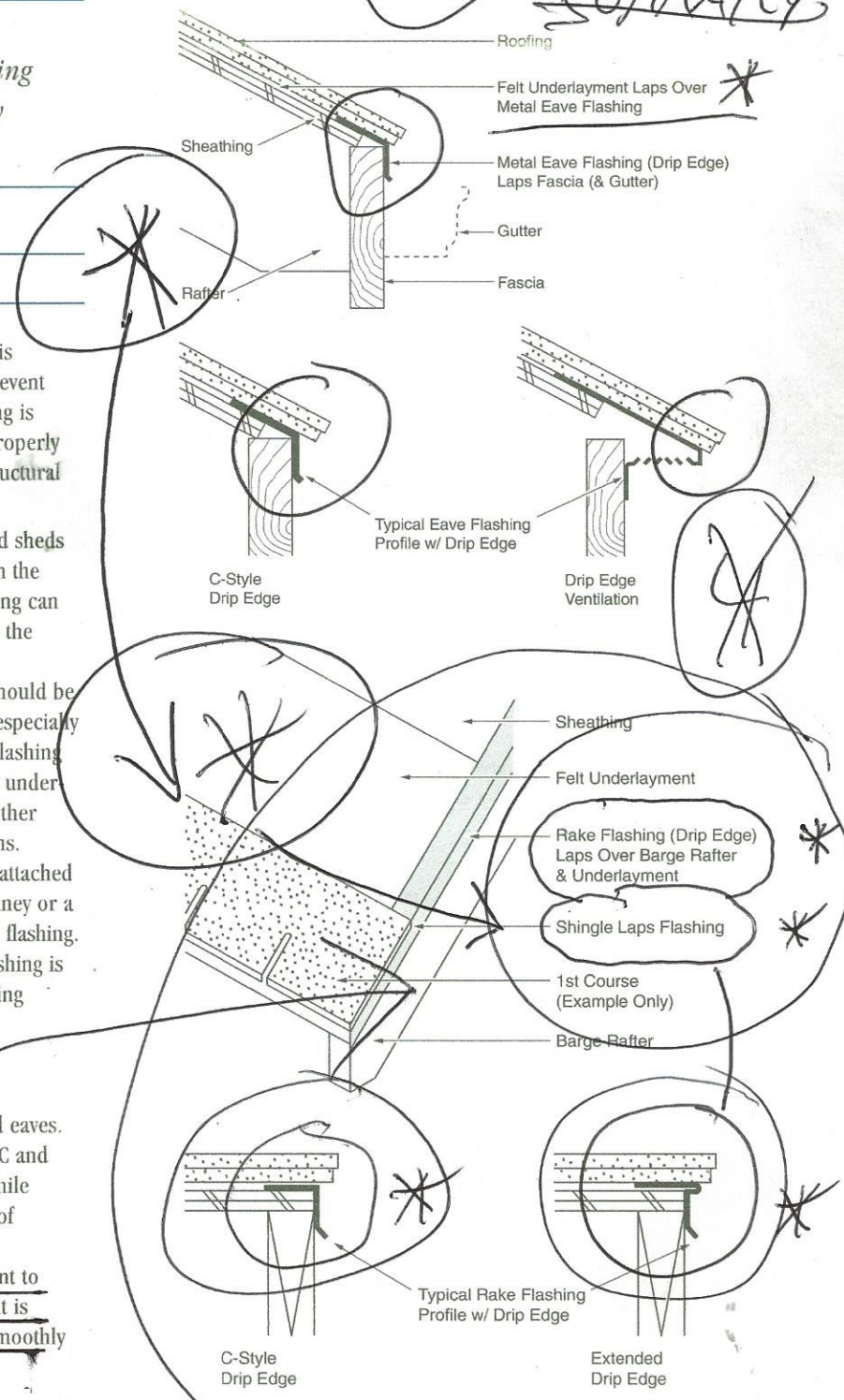


*Figure 6-1: Typical eaves and rake flashing profiles with drip edg*