

*The most often heard contractor phrase:
No one else makes me do that, so why do I have to ...*

Drip Edge Cut/Damaged by Gutter Installers or Roofers

Violation : Drip edge cut/damaged, insufficient lap and not sealed
 Code Section : 2014 FBC-R R905.2 asphalt shingles/R905.3 concrete and clay tile/R905.4 metal roofs
 2014 FBC-B 1507.2 asphalt shingles/1507.3 concrete and clay tile/1507.4 metal roofs
 Comments : Contractor shall replace drip edge material where cut/damaged by/for gutters

Violation : Drip edge cut/damaged, insufficient lap and not sealed

A common practice by gutter installers (and roofing contractors during reroofing) is to cut the drip edge at the inside corners, outside corners, at/near the ends of the gutters, and to notch the drip edge for the gutter spikes/supports ... all in an effort to allow the gutters to be installed up behind the drip edge.

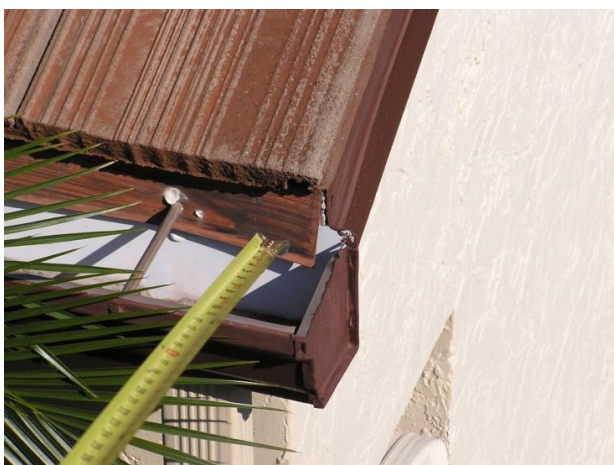
When the drip edge is cut, the lap no longer exists, and the drip edge now has openings and cuts through its face.



- Drip edge flashing was cut for gutter installation.
- There is now a large open area in the face of the drip edge.



- The drip edge outside corners and inside corners were cut to make the original gutter installation easier.
- These gutter installers seem to have learned to avoid the drip edge ... but have now installed the gutter so low that the top of the gutter is exposed and allows rain behind the gutter (this not a roofing problem).



- Drip edge ends cut for gutter installation.
- Gutter spikes through fascia.



- Drip edge cut for the gutters, cut at the gutter ends, inside corners, and outside corners.

*The most often heard contractor phrase:
No one else makes me do that, so why do I have to ...*



- Other gutter installers who have learned to avoid the drip edge ... but have now installed the gutter so low that the top of the gutter is exposed and allows rain behind the gutter (as in the other photo showing this issue, this not a roofing problem – this is a gutter installation issue which will lead to wood decayed fascia).
- Some gutter installers go to a lot of work to try to correct what they did – cut the drip edge.
- An additional problem with anchoring/supporting the gutters through the drip edge is that the gutters can now pull the drip edge back and possibly off, during high wind events, such as tropical storms and hurricanes.



Photo to left

Some gutter installers have grasped the issues:

- do not cut the drip edge
- securing through the drip edge not only creates holes through the drip edge but may cause damage to the roof during high wind events
- wood decay of the fascia by installing gutters too low

It takes times to educate gutter installers / roofing contractors to not cut the drip edge when gutters are installed / reinstalled after the drip edge has been installed – however, it has been done in some areas of the state.

While the drip edge flashing lap requirements for asphalt shingle roof coverings are spelled out in the code - drip edge requirements for other types of roof coverings are not always clearly spelled out:

Asphalt shingles: (bold and underlining are mine)

R905.2 Asphalt shingles.

R905.2.8.5 Drip edge.

Provide drip edge at eaves and gables of shingle roofs. The overlap is to be a minimum of 3 inches (76 mm). Eave drip edges shall extend 1/2 inch (13 mm) below sheathing and extend back on the roof a minimum of 2 inches (51 mm). Drip edge at eaves shall be permitted to be installed either over or under the underlayment. If installed over the underlayment, there shall be a minimum 4 inch (51 mm) width of roof cement installed over the drip edge flange. Drip edge shall be mechanically fastened a maximum of 12 inches (305 mm) on center. Where the V_{asd} as determined in accordance with Section R301.2.1.3 is 110 mph (177 km/h) or greater or the mean roof height exceeds 33 feet (10 058 mm), drip edges shall be mechanically fastened a maximum of 4 inches (102 mm) on center.

*The most often heard contractor phrase:
No one else makes me do that, so why do I have to ...*

Concrete and clay tiles:

Drip edge requirements for concrete/clay tile roof coverings are given several choices: (bold and underlining are mine)

R905.3 Clay and concrete tile.

R905.3.8 Flashing.

At the juncture of roof vertical surfaces, flashing and counterflashing shall be provided in accordance with this chapter and the manufacturer's installation instructions or recommendations of the FRSA/ TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Fifth Edition where the Vasd is determined in accordance with Section R301.2.1.3 or the recommendations of RAS 118, 119 or 120.

I.E., R905.3.8 says:

- The code and the manufacturer's installation instructions
or
- The code and the recommendations of the FRSA/ TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Fifth Edition where the Vasd is determined in accordance with Section R301.2.1.3
or
- The code and the recommendations of RAS 118, 119 or 120

The above three options create a conflict with the following section: (underlining and bold are mine)

SECTION R905 REQUIREMENTS FOR ROOF COVERINGS

R905.1 Roof covering application.

*Roof coverings **shall be applied in accordance with the applicable provisions of this section and the manufacturer's installation instructions.** Unless otherwise specified in this section, roof coverings shall be installed to resist the component and cladding loads specified in Table R301.2(2), adjusted for height and exposure in accordance with Table R301.2(3).*

The above conflict is resolved by 102.1 of Chapter 1, Administrative:

SECTION 102 APPLICABILITY

[A] 102.1 General.

Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.

The result is that the code **and** the manufacturer's installation instructions apply in all cases – unless the requirements of FRSA/ TRI or RAS 118/119/120 (as applicable) are more restrictive.

The drip edge flashing shall be installed to the most restrictive of the code; the manufacturer's installation instructions; FRSA/TRI – RAS 118/119/120 (as applicable).

- The code is vague on the installation of drip edge flashing for concrete/clay tile roof coverings.
- The manufacturer's installation installations (and product approval) typically specify the installation of drip edge flashing.
- FRSA/TRI 07320, Florida High Wind Concrete and Clay Roof Tile Installation Manual, Fifth Edition Revised, April 2012 (referenced in 2014 FBC-Residential, Chapter 46 Referenced Standards and FBC-Building, Chapter 35 Referenced Standards)

I will summarize FRSA/TRI below – to view the full FRSA/TRI 07320, Florida High Wind Concrete and Clay Roof Tile Installation Manual, Fifth Edition Revised, April 2012 ([click here](#)):

- On document page 1 (file page 4): "Refer to each manufacturer's Product Approval(s) or Compliance Report for additional information."

***The most often heard contractor phrase:
No one else makes me do that, so why do I have to ...***

This means the FRSA/TRI 07320 acknowledges that manufacturer's NOA/PA/CR/ESR may have more restrictive requirements than those in FRSA/TRI.

- Single Ply System, document Page 4 (file page 7), second paragraph in left column, Eave Metal, 3" minimum lap and the lap is to be sealed.
- Two Ply System, document Page 5 (file page 8), second paragraph in left column, Drip Edge, 3" minimum lap and the lap is to be sealed.
- RAS 118/119/120
RAS 118 and 119 are for mechanically attached tile systems.
From RAS 118, 3.02 Drip Edge Metal, A., B. and C. all state "All joints shall be lapped a minimum of 4 in. ensuring water shedding capabilities and apply approved plastic roof cement between laps."
From RAS 119, 3.02 Drip Edge Metal, A., B. and C. all state "All joints shall be lapped a minimum of 4 in. ensuring water shedding capabilities and apply approved plastic roof cement between laps."
RAS 120 is for adhesive or mortar attached tile systems.
From RAS 120, 3.02 Drip Edge Metal, A., B. and C. all state "All joints shall be lapped a minimum of 4 in. ensuring water shedding capabilities and apply approved plastic roof cement between laps."

Metal roofs:

The code section for metal roof coverings is titled 'Metal roof shingles' but includes references to metal roof panels by referring to "roll-formed panels" and "metal-sheet roof roof-covering"; this sometimes complicates the application of the code to metal roof coverings.

R905.4 Metal roof shingles.

The installation of metal roof shingles shall comply with the provisions of this section.

Metal roof panels, metal shingles, and metal-sheet roof covering systems are to be in accordance with their Product Approval / Notice of Acceptance requirements: (bold and underlining are mine)

R905.4.5 Application.

Metal roof shingles shall be installed in accordance with the approved manufacturer's installation instructions. The product approval shall state the allowable uplift resistance for the attachment system.
The installation of metal roof shingles shall be limited to roofs where the allowable uplift resistance is equal to or greater than the design uplift pressure for the roof listed in Table R301.2(2).

The Florida Product Approvals for metal roofing which I reviewed for this newsletter (I randomly selected 7 different ones which were approved for application to plywood roof decking) revealed the following in the product approvals:

- Some product approvals had a complete lack of details for anything other than attaching the metal roofing panels themselves.
 - This brings up a question of what needs to be done and how to address all the other details not shown – no flashings are shown, no drip edge is shown, just the anchoring of the metal roof panels down to the deck. These other details would need to be addressed in the manufacturer's installation instructions.
 - Having done code inspections around the state, few AHJ require that both the manufacturer's installation instructions and the product approval be submitted with the permit application.
 - Some AHJ do not require the either the manufacturer's installation instructions or the product approval to be submitted with the permit. Instead, those AHJ will stamp the approved construction documents with a notice that states that the product approval are to be provided on-site for the inspection – sometimes the product approval is there, sometimes not ... regardless, that leave the AHJ with no record of the product approval for their file.
 - Some AHJ will stamp the approved documents with a notice which states that the product approval and the manufacturer's installation instructions are to be provided on-site for the inspection; however, the AHJ has no record of either for their file.
- Some product approvals showed a drip edge metal for their panels.

***The most often heard contractor phrase:
No one else makes me do that, so why do I have to ...***

- Some product approvals only referenced RAS 133 – Roofing Application Standard (RAS) No. 133 Standard Procedure For Installation Of Metal Roof Systems

From the 2014 Florida Building Code, Residential

○ CHAPTER 9 ROOF ASSEMBLIES

SECTION R905 REQUIREMENTS FOR ROOF COVERINGS

R905.2 Asphalt shingles.

The installation of asphalt shingles shall comply with the provisions of this section.

R905.2.8 Flashing.

Flashing for asphalt shingles shall comply with this section.

R905.2.8.5 Drip edge.

Provide drip edge at eaves and gables of shingle roofs. The overlap is to be a minimum of 3 inches (76 mm). Eave drip edges shall extend 1/2 inch (13 mm) below sheathing and extend back on the roof a minimum of 2 inches (51 mm). Drip edge at eaves shall be permitted to be installed either over or under the underlayment. If installed over the underlayment, there shall be a minimum 4 inch (51 mm) width of roof cement installed over the drip edge flange. Drip edge shall be mechanically fastened a maximum of 12 inches (305 mm) on center. Where the Vasd as determined in accordance with Section R301.2.1.3 is 110 mph (177 km/h) or greater or the mean roof height exceeds 33 feet (10 058 mm), drip edges shall be mechanically fastened a maximum of 4 inches (102 mm) on center.

R905.3 Clay and concrete tile.

R905.3.8 Flashing.

At the juncture of roof vertical surfaces, flashing and counterflashing shall be provided in accordance with this chapter and the manufacturer's installation instructions or recommendations of the FRSA/ TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Fifth Edition where the Vasd is determined in accordance with Section R301.2.1.3 or the recommendations of RAS 118, 119 or 120.

R905.4 Metal roof shingles.

R905.4.5 Application.

Metal roof shingles shall be installed in accordance with the approved manufacturer's installation instructions. The product approval shall state the allowable uplift resistance for the attachment system. The installation of metal roof shingles shall be limited to roofs where the allowable uplift resistance is equal to or greater than the design uplift pressure for the roof listed in Table R301.2(2)

R905.4.6 Flashing.

Roof valley flashing shall be of corrosion-resistant metal of the same material as the roof covering or shall comply with the standards in Table R905.4.4. Valley flashing shall extend at least 8 inches (203 mm) from the centerline each way and shall have a splash diverter rib not less than 3/4 inch (19 mm) high at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than 4 inches (102 mm). The metal valley flashing shall have a 36-inch-wide (914 mm) underlayment directly under it consisting of one layer of underlayment running the full length of the valley, in addition to underlayment required for metal roof shingles.

(Author's note:

- R905.4 Metal roof shingles also applies to metal roof panels as noted in Table 905.4.4 with references to "roll-formed panels" and "metal-sheet roof-covering" systems.
- With the limited information, the lack thereof, of specifications and requirements in 1507.4 Metal roof panels, the installation of drip edge would be in accordance with the manufacturer's installation instructions, Product Approval, or Notice of Acceptance.)

From the 2014 Florida Building Code, Building

○ CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

1507.2 Asphalt shingles.

The installation of asphalt shingles shall comply with the provisions of this section.

1507.2.9 Flashings.

***The most often heard contractor phrase:
No one else makes me do that, so why do I have to ...***

Flashing for asphalt shingles shall comply with this section. Flashing shall be applied in accordance with this section and the asphalt shingle manufacturer's printed instructions.

1507.2.9.3 Drip edge.

Provide drip edge at eaves and gables of shingle roofs. Overlap to be a minimum of 3 inches (76 mm). Eave drip edges shall extend 1/2 inch (13 mm) below sheathing and extend back on the roof a minimum of 2 inches (51 mm). Drip edge at eaves shall be permitted to be installed either over or under the underlayment. If installed over the underlayment, there shall be a minimum 4 inches (51 mm) width of roof cement installed over the drip edge flange. Drip edge shall be mechanically fastened a maximum of 12 inches (305 mm) o.c. Where the Vasd, as determined in accordance with Section 1609.3.1, is 110 mph (177 km/h) or greater or the mean roof height exceeds 33 feet (10 058 mm), drip edges shall be mechanically fastened a maximum of 4 inches (102 mm) on center.

1507.3 Clay and concrete tile.

The installation of clay and concrete tile shall comply with the provisions of this section.

1507.3.9 Flashing.

At the juncture of the roof vertical surfaces, flashing and counterflashing shall be provided in accordance with the manufacturer's installation instructions or the recommendations of the FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Fifth Edition where the basic wind speed, Vasd, is determined in accordance with Section 1609.3.1 or the recommendation of RAS 118, 119 or 120.

1507.4 Metal roof panels.

The installation of metal roof panels shall comply with the provisions of this section.

(Author's note:

- With the limited information, the lack thereof, of specifications and requirements in 1507.4 Metal roof panels, the installation of drip edge would be in accordance with the manufacturer's installation instructions, Product Approval, or Notice of Acceptance.)

[Click here](#) for current and previous editions of the Inspectors' Field Comments Newsletter©.

Please, if you have any items, issues or tips you would like to share with other building officials / inspectors / plan reviewers, send the items, issues or tips to jerry@jerrypeck.com for inclusion in future newsletters.

All contributors will be acknowledged and given credit for their contributions ... please help others by sharing the items, issues, and tips you have found in the field or during plan reviews.

I look forward to all contributions.

Respectfully submitted,



Jerry Peck

Editor/Publisher

Inspectors' Field Comments Newsletter©

jerry@jerrypeck.com

Please use the email address above if:

- You have comments, corrections, or additional information to share – **all comments are encouraged.**
- **You would like to contribute an article to be included in the newsletter.**
- You have a topic you would like researched for the newsletter.
- You know someone you think would like to receive this newsletter, please include their name and email address.
- You would no longer like to receive this newsletter; just put "No thank you" in the subject line.