

Product Evaluation

RC131 | 0320

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-131

Effective Date: March 1, 2020

Re-evaluation Date: March 2024

Product name: SHURLOC 175 Steel Roofing Panels Installed Over a Plywood Deck

Manufacturer: Central Texas Metal Roofing Supply Co., Inc.
830 Sagebrush Drive
Austin, TX 78758
(512) 452-1515

General Description:

The SHURLOC 175 metal roofing panels are 1-3/4" tall rib, 18" wide, snap seam roof panels with clip attachment. The roof panels are manufactured from 24-gauge coated steel conforming to ASTM A792, Grade 40, with a minimum yield strength of 40,000 psi. The panels have an AZ 55 hot-dip aluminum zinc alloy coating conforming to ASTM A792. The panel clips are a one-piece assembly

The panels are 18" in width and have a nominal rib height of 1-3/4".

The panel clips are a one-piece assembly, 3-1/2" wide x 1-7/8" high. The clips are located 48" on center.

Limitations:

Design Wind Pressure: For installation of the SHURLOC 175 roof panels to nominal 19/32" plywood panel decks, design wind pressure limitations are specified in Table 1.

Roof Deck: The roof deck must be minimum nominal 19/32" plywood. All plywood butt joints must be sealed with caulk or with one-part urethane sealant.

Roof Deck Attachment: The roof deck must be secured to the roof framing to resist the required design pressures.

Installation Over an Existing Roof Covering: Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing. The thickness of the plywood deck must comply with the requirements of this evaluation report. Note: Inspection of the existing roof deck must be made before installing the roof panels. The condition of the existing roof deck must be acceptable to receive the roof panels before the roof panel installation can proceed.

Roof Slope: The SHURLOC 175 roof panels must not be installed on roofs with a roof slope less than 3:12.

Installation:**General Installation Requirements:**

The installation of the panels must be limited to extending two inches beyond the plane of the fascia board.

Panel Installation Requirements

Panels: Panels must be attached to the roof deck in accordance with Table 1. Refer to Figures 1-17 in this evaluation report for illustrations of the attachment details.

Table 1

Wind Pressure (psf)	Attachment of Roof Panel to 19/32" Thick Plywood Deck	
	Fasteners Per Clip Into Roof Deck	Clip Spacing
-52.5	Two (2) No. 10-12 x 1" Type A	48" on center

Underlayment: Minimum one layer of No. 30 (Type II) asphalt felt must be used. The underlayment used must comply with ASTM D 226, ASTM D 4869, or ASTM D 1970. The felt must be installed with minimum 6" side laps and 3" head laps. The underlayment must be applied with corrosion resistant fasteners in accordance with manufacturer's installation instructions. Fasteners must be applied along the overlaps not farther apart than 36" on center. **Note:** An optional radiant barrier may be installed beneath the panels in conjunction with the underlayment.

Anchorage:

Panels: The SHURLOC 175 roof panels must be secured to the plywood deck using clips in accordance with Table 1 with minimum #10-12 x 1" Pancake Type A screws, manufactured by Jetna Fastech, Inc. If the panels are laid directly over an existing roof covering, then longer fasteners are required. The fasteners must be long enough to penetrate completely through the wood structural panels with a minimum exposure of 1/4" below the underside of the wood structural panels.

Ridge Flashing and Hip Flashing: The ridge flashing and the hip flashing must be installed as shown in Figures 1 and 2.

Valley Trim: The valley trim must be installed as shown in Figures 3 and 4.

Endlap: The endlap must be installed as shown in Figure 5.

Rake Flashing and Gable Flashing: The rake flashing and the gable flashing must be installed as shown in Figures 6, 7, and 8.

Eave Trim: The eave trim must be installed as shown in Figures 12 and 13.

Alternative Fasteners: Substitution of equivalent fasteners must meet the following requirements:

- #10-12 Pancake Type A screws, manufactured by Jetna Fastech, Inc.
- Ultimate withdrawal (pullout) \geq 372 lbs. in 19/32" plywood

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.

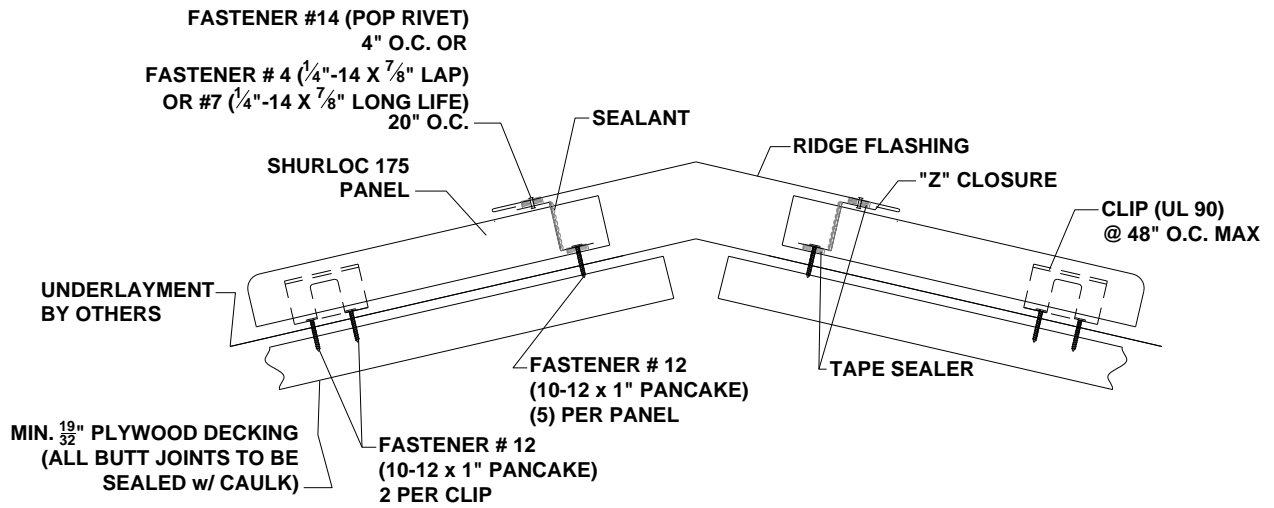


Figure 1: Fixed Ridge/Hip Detail

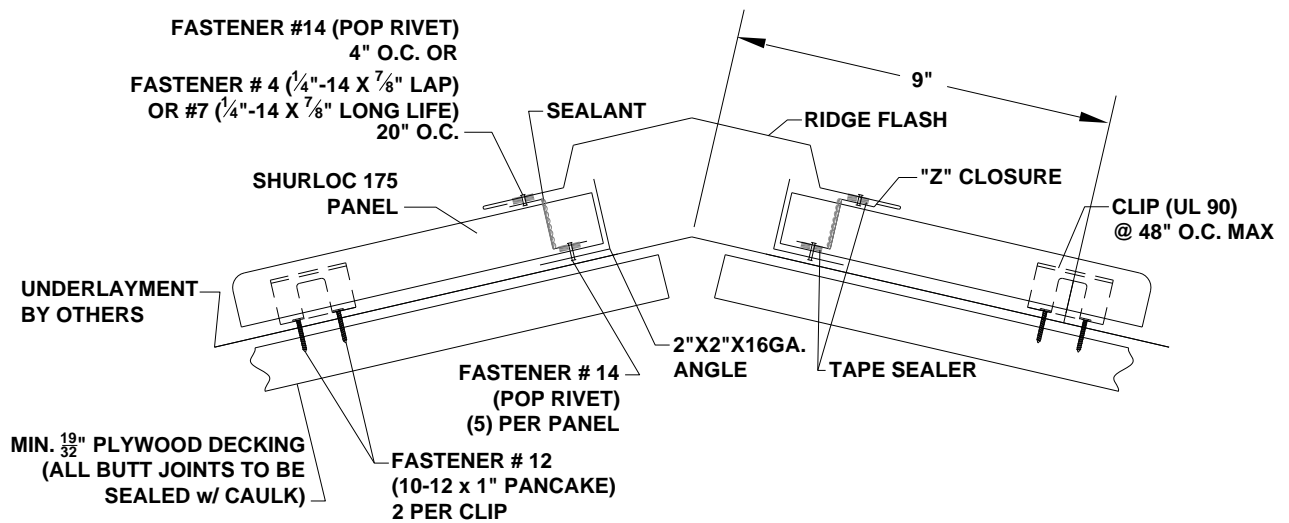


Figure 2: Floating Ridge/Hip Detail

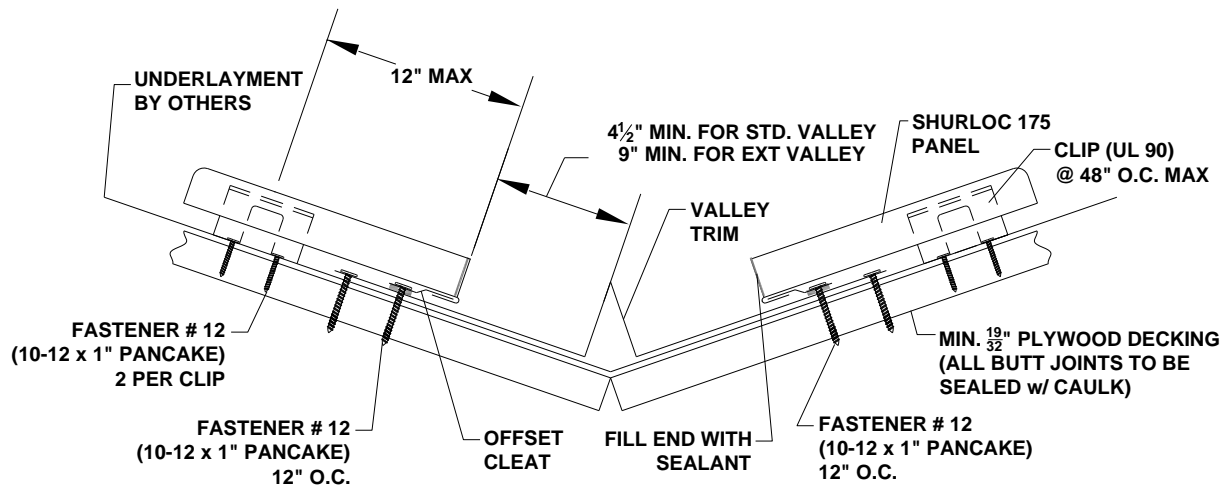


Figure 3: Valley Detail (Valley With Offset Cleat)

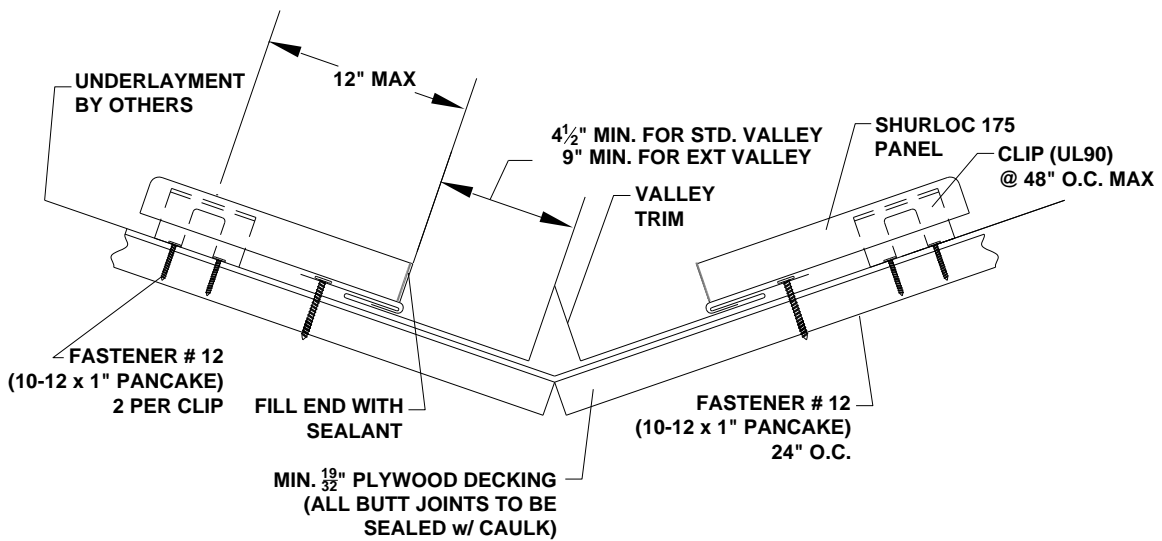


Figure 4: Valley Detail (Valley With Integrated Cleat)

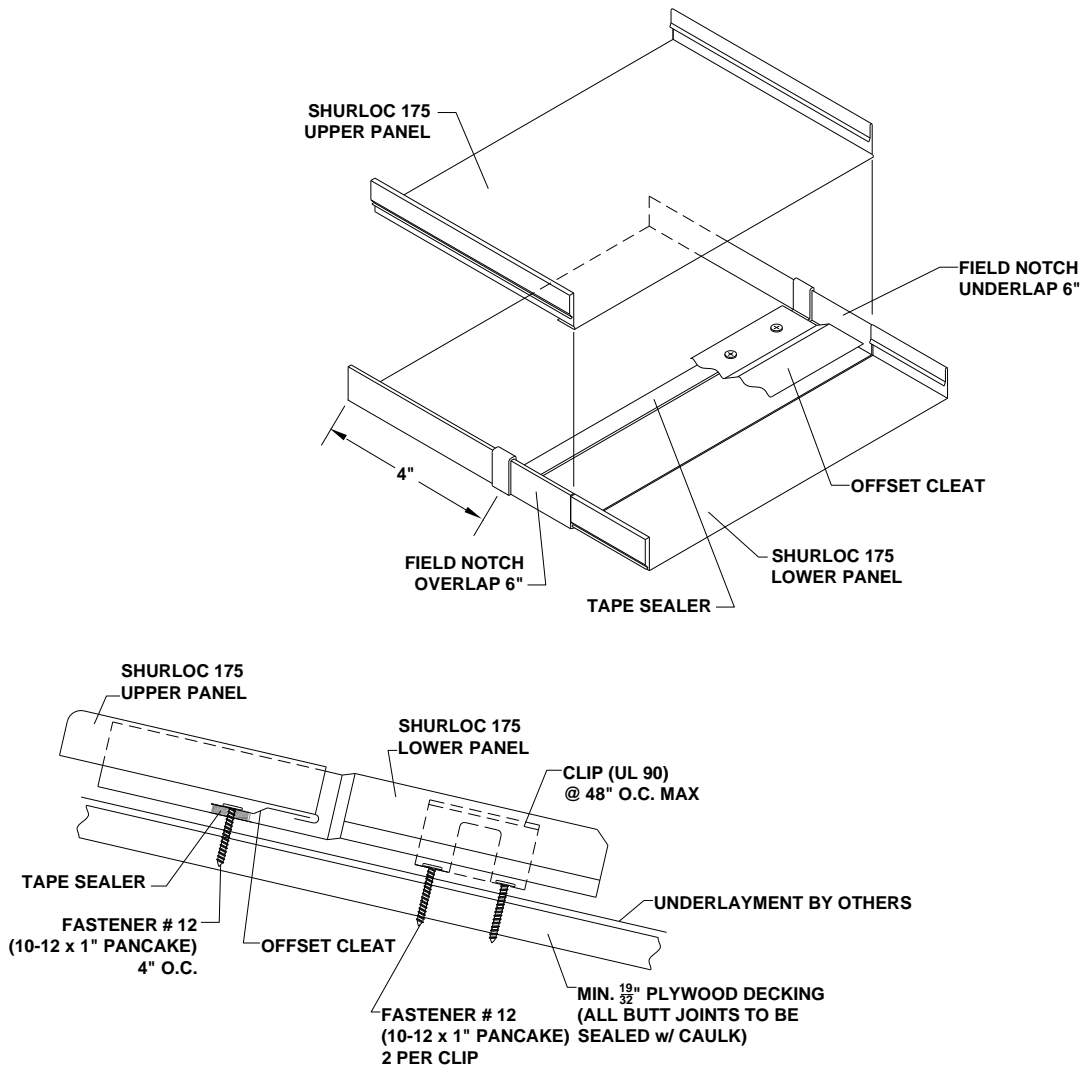


Figure 5: Endlap Detail

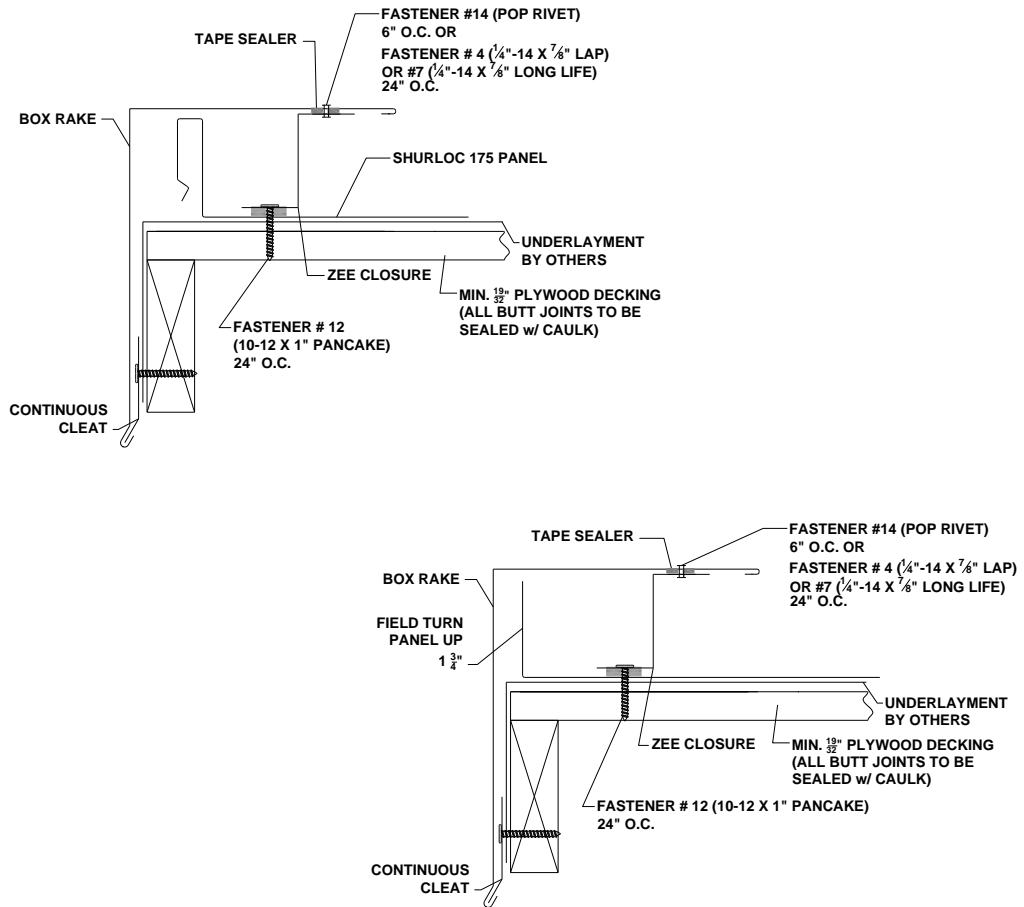


Figure 6: Fixed Rake/Gable Flashing Detail

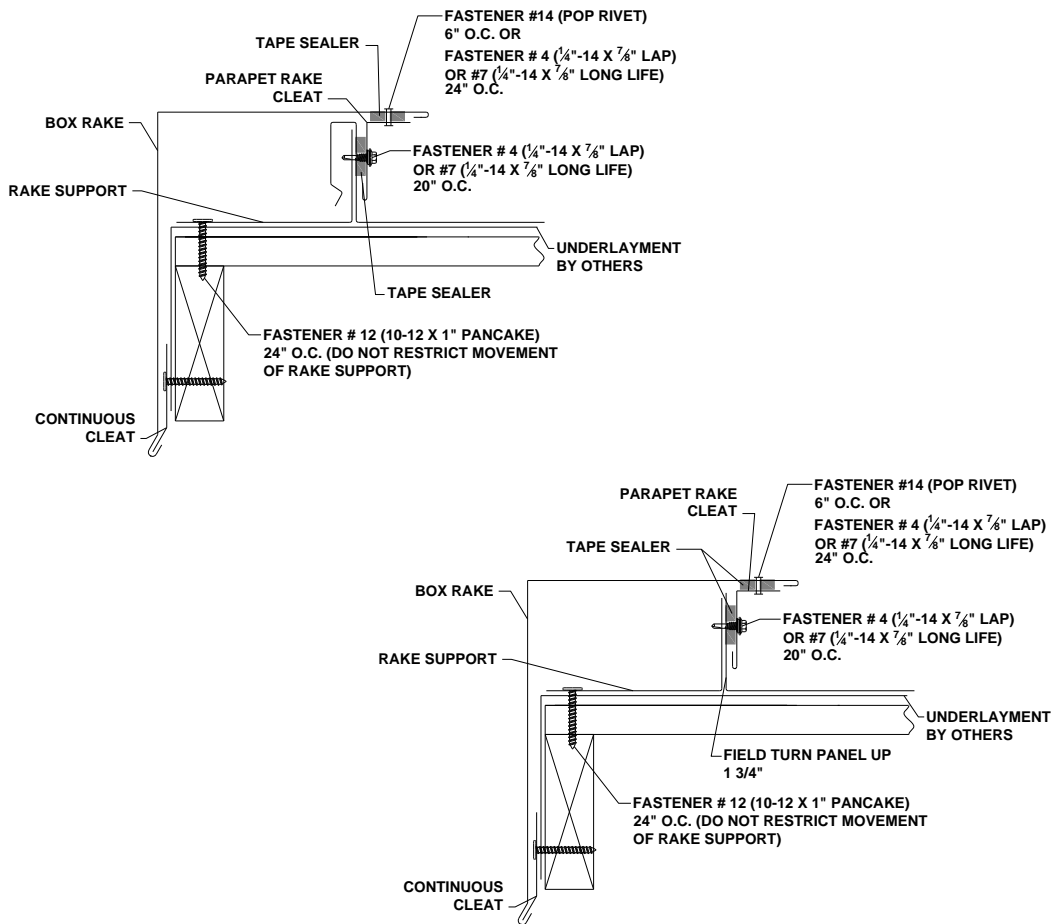


Figure 7: Floating Rake/Gable Flashing Detail

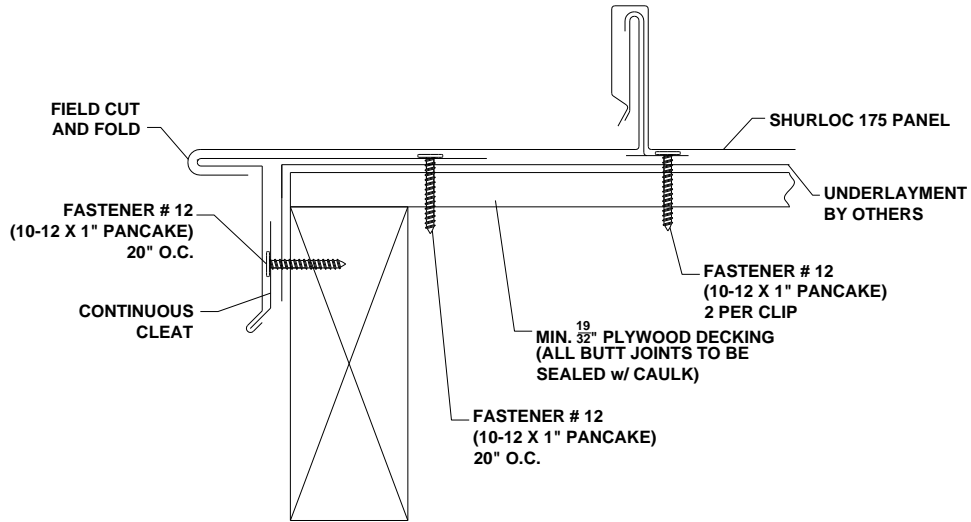


Figure 8: Alternative Rake/Gable Flashing Detail

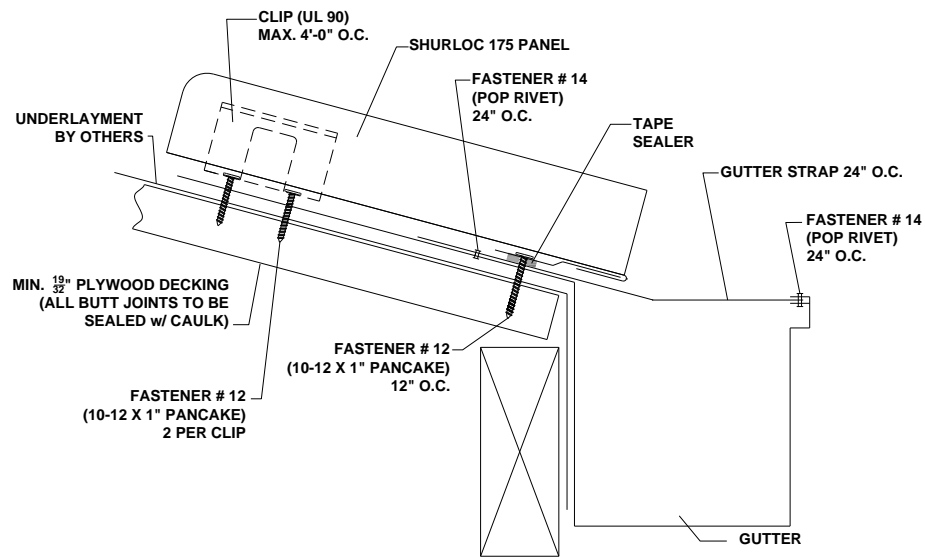


Figure 9: Gutter Detail

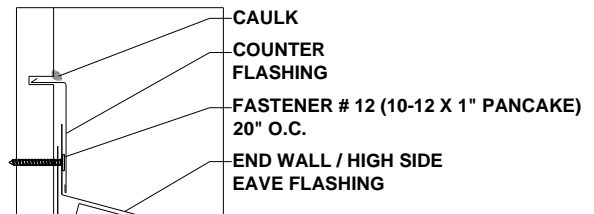
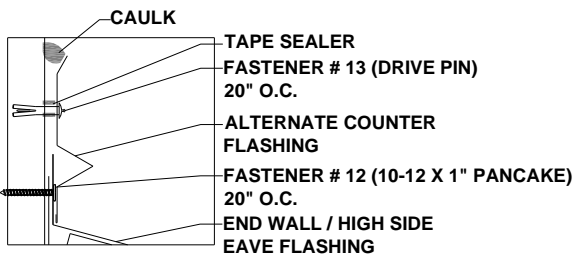
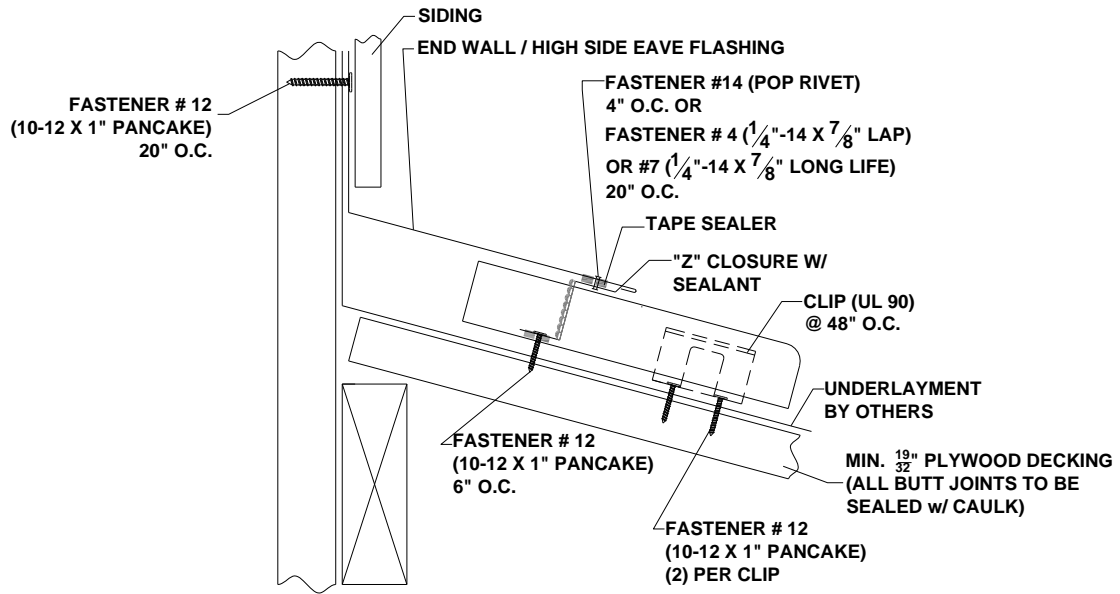


Figure 10: Fixed Endwall/Parapet High Side Eave Detail

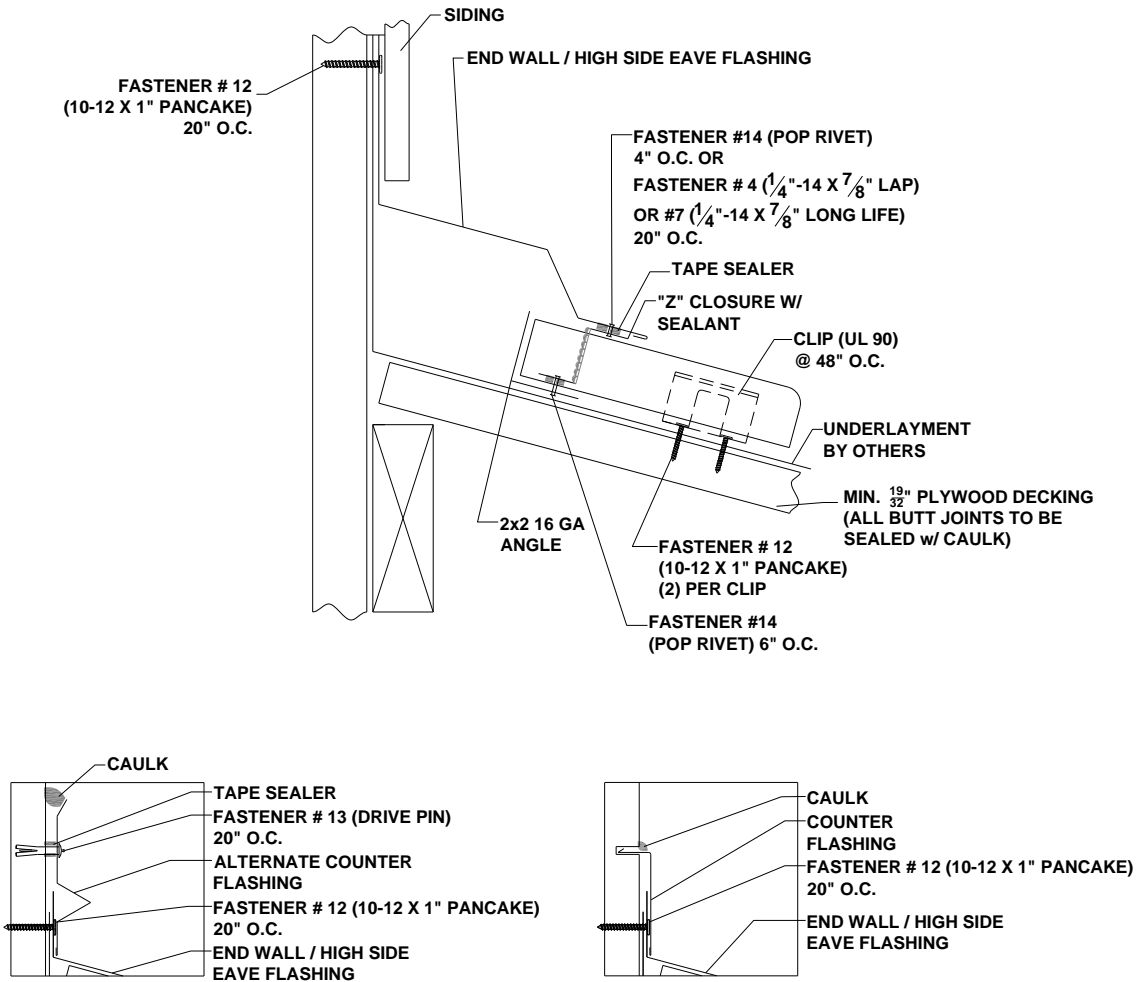


Figure 11: Floating Endwall/Parapet High Side Eave Detail

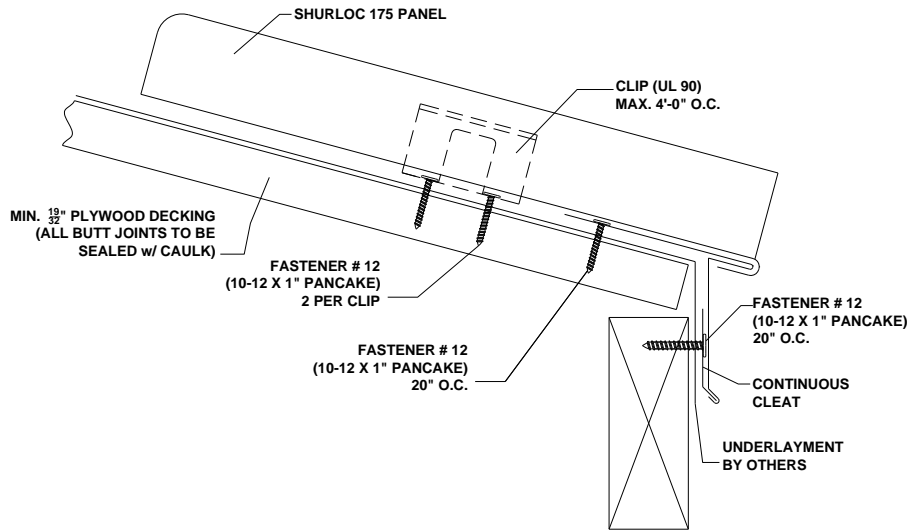


Figure 12: Eave Detail

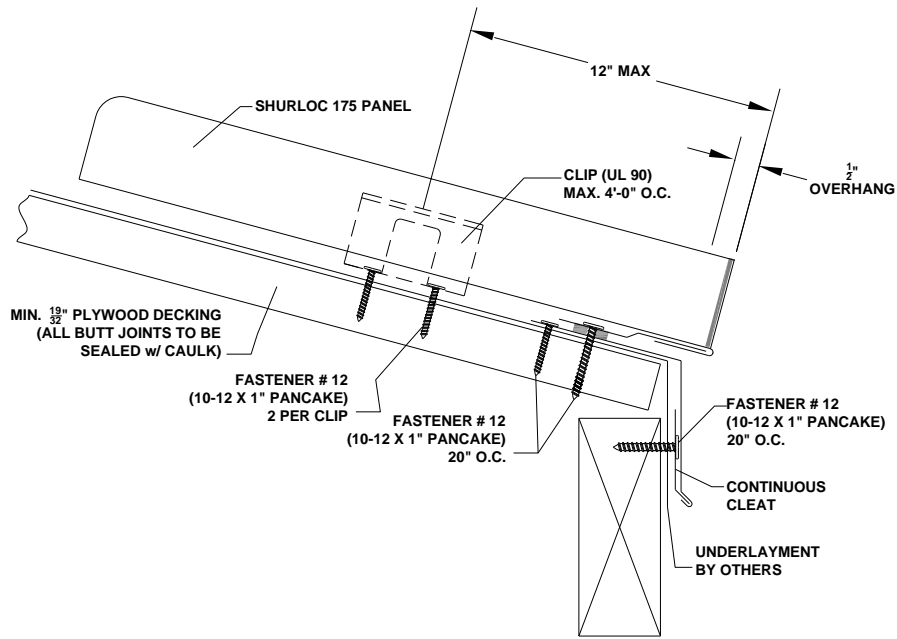


Figure 13: Alternative Eave Detail

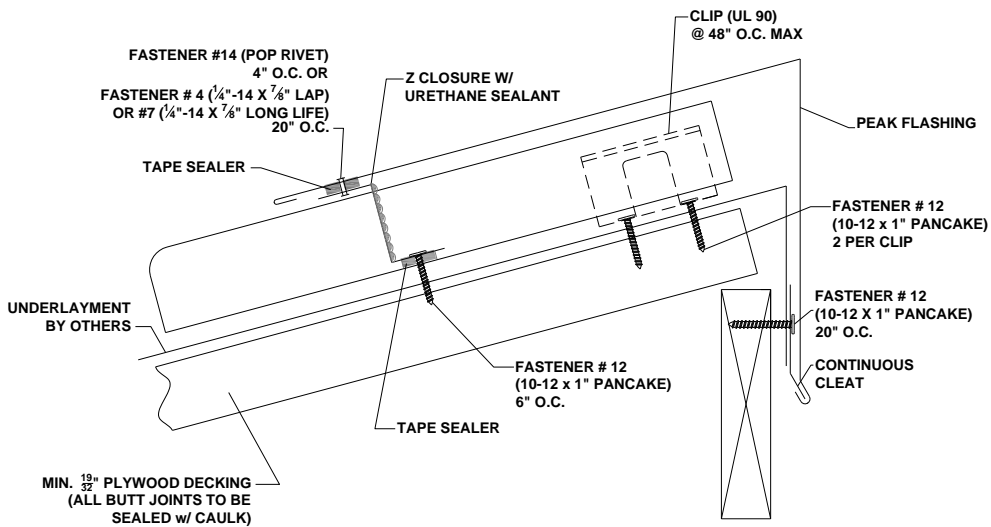


Figure 14: Fixed Peak Flashing Detail

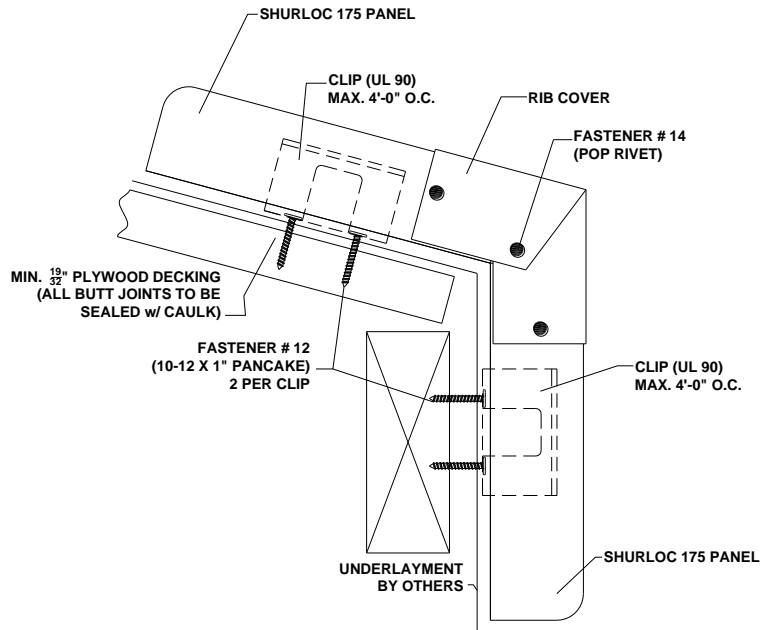


Figure 15: Roof Transition Detail

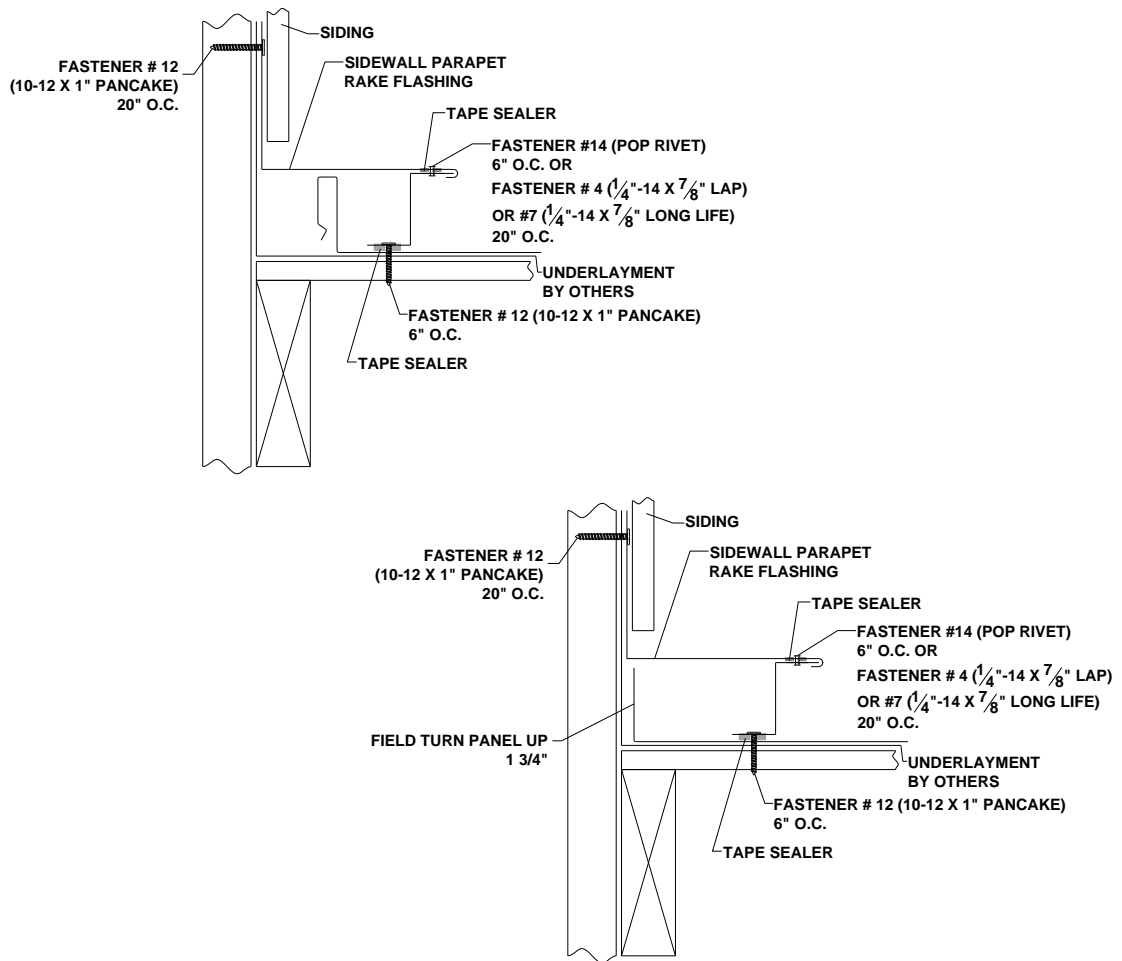


Figure 16: Sidewall/Parapet Fixed Rake Flashing Detail

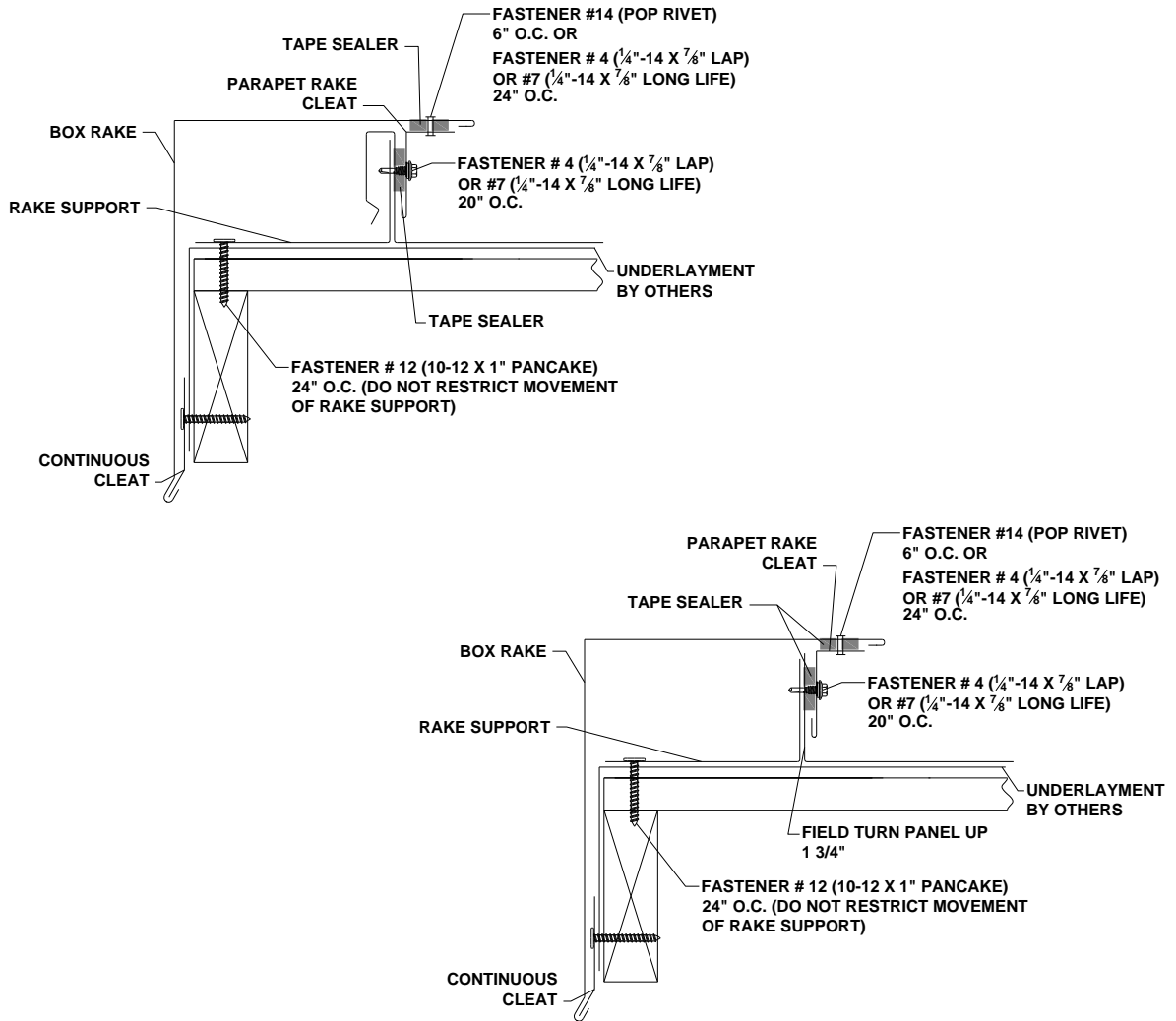


Figure 17: Sidewall/Parapet Floating Rake Flashing Detail