

# **EVEREST SILKOXY METAL RESTORATION SYSTEM**

## **10 YEAR**

### **Installation Guide Specification**

#### **PART 1 GENERAL**

##### **1.01. SUMMARY**

- A. Provide labor, materials, equipment and supervision necessary to install spray-applied elastomeric Silicone coating system as outlined in this specification to a METAL ROOF.
- B. The manufacturer's application instruction for each product utilized is to be considered part of these specifications and should be followed at all times.

##### **1.02. QUALITY ASSURANCE**

- A. Supplier Qualifications: The Everest Silkoxy System, utilizing Everest Silkoxy high solids silicone, as supplied by Everest Systems Co.
- B. Applicator Qualifications: The applicator shall be approved by Everest Systems Co. North America to apply the system. Manufacturer's written verification of applicator approval is required.
- C. Field Quality Control: Field Quality Control: Before commencing with installation of the Silkoxy Silicone Restoration System, an Adhesion Pull Test must be installed and pass the minimum pull value of 2.0 pli, and 85% cohesive failure. During the installation of the Silkoxy Silicone Restoration System, an authorized Everest Systems field inspector shall visit the jobsite as needed to review the installation with the Roofing Contractor. Upon completion of the Silkoxy System installation, an inspection by Everest Systems Co. or ESC's designated third party inspection firm may be required. Consult with PSP for details and warranty requirements.

##### **1.03. SUBMITTALS**

- A. Product Data: Submit Everest Systems Co. product data sheets and installation instructions.
- B. Submit material safety data sheets.
- C. Submit a sample copy of the Everest Systems Warranty.
- D. Submit a copy of Roofing Contractor's Approved Applicator Certificate from Everest Systems.

##### **1.04. PRODUCT DELIVERY, STORAGE AND HANDLING**

- A. Containers and Packaging: Deliver materials in original sealed containers, clearly marked with manufacturer's logo, full product name, and lot number(s).
- B. Storage and Handling: Store materials between 40°F and 100°F with careful handling to prevent damage to products. If conditions exceed these ranges, special consideration in storage must be taken. Do not store at high temperatures or in direct sunlight.

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- C. Protection: Protect all materials from freezing and other damage during transit, handling, storage, and installation.

### 1.05. PROJECT CONDITIONS

- A. Consult the coatings manufacturer for recommendations on the proper system to use on project substrate and at expected substrate and ambient temperatures. Do not apply coatings when wind velocity is above 15 mph..
- B. Do not apply materials unless surface to receive Silicone coating is clean and dry.
- C. The entire system shall be fully adhered to the surface on which it is applied.
- D. Install all material in strict accordance with all published safety, weather, or applicable regulations of the manufacturer and/or federal agencies, which have jurisdiction.

### 1.06. DETAIL WORK

- A. Refer to Everest Detail Drawings for preparation and finishing of drains, vents, ducts, flashing, parapet walls, etc. The contractor should outline this work before work commences, and shall be performed observing good trade practices.

## PART 2 PRODUCTS

### 2.01. SPRAY-APPLIED ELASTOMERIC, SILICONE COATING SYSTEM

- A. The coating shall be the Everest Silkoxy high solids spray applied elastomeric SILICONE coating, supplied by Everest Systems Co. Company.

- B. Physical Properties of Cured Coating System:

PROPERTY	ASTM METHOD	RESULTS	Everest Silkoxy
Tensile Strength, psi (Max @ 73°F)	D6694/ D-2370	Minimum 150	203
% Elongation @ Break (73°F)	D6694/ D-2370	Minimum 100	468%
Volume Solids %	D6694/ D-2697	> 57	90.0
Weight Solids %	D6694/ D-1644	Report Value	90.0

### 2.02. ACCESSORIES AND MISCELLANEOUS MATERIALS

- A. Flashing and waterproof coverings for expansion joints shall be compatible with the Silkoxy Silicone Coating.
- B. Everest Systems Silkoxy Silicone Flashing Grade Sealant shall be used to seal fatigued flashings, such as curbs, through roof penetrations, drains, base flashings and other areas of concern.
- C. Miscellaneous materials such as adhesives, elastomeric caulking compounds, vents and drains shall be a composite part of the roof system and shall be compatible with the coating materials.

**PART 3 EXECUTION****3.01. MANUFACTURER'S INSTRUCTIONS**

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins and product guide specification instructions

**3.02. EXAMINATION**

- A. Inspect surfaces, which will receive the coating system to make sure they are clean, smooth, sound, properly prepared, and free of moisture, dirt, debris, or other contamination.
- B. Verify that all roof penetrations, mechanical equipment, cants, edge metal, and other on-roof items are in place and secure.
- C. Verify that all critical areas around the immediate vicinity of the spray area are suitably protected.
- D. Verify that all roof drains are clean and in working order.
- E. Verify that all air conditioning and air intake vents are suitably protected or closed.

**3.03. SURFACE PREPARATION****A. GENERAL**

- a. Existing roofing materials shall be securely fastened to meet wind uplift requirements.
- b. If the surface is free of loose scale, rust, weathered or chalking paint, it can be cleaned using a high pressure wash of at least 3500 psi. Grease, oil, or other contaminants shall be removed with approved roof wash products.

**B. METAL**

- a. Severely rusted metal (flaking) should be wire abraded down to clean, white metal. Surface rust does not require abrasion.
- b. Metal that has corroded to the point of weakness must be replaced.
- c. Stitch screw any large gaps or overlaps that cause greater than 1/16" opening.

**SEAMS**

- a. Apply Silkoxy Flashing Grade to Horizontal Seams
  - i. Apply Silkoxy Flashing Grade over seam at least using 1 gal/sq.
  - ii. While standing on the lower panel of the endlap, backbrush the silicone into the seam.

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- iii. Allow to dry for 12 hrs.

Fasteners:

- a Tighten or replace all fasteners as necessary. In no case shall joints or seams be allowed to separate greater than 1/16 inch.
- b Apply Silkoxy Flashing Grade over every fastener to ensure it completely encapsulates the fastener head. Target is 50 DFT.

(Anticipated usage will be around 0.05 gal/sq)

- a If roof has surface clips they must be completely encapsulated with Silkoxy Flashing Grade. Special care must also be taken to allow water to flow around clips.. (Each clip will need to be encapsulated at least ¼ inch thick and 1.5 inches beyond the clip in all sides.)

Penetrations, Flashings, Ridge-Caps etc:

- a Seal by applying Silkoxy Flashing Grade at a rate to ensure 50 wet mils in thickness and 2" around the base of the penetration.
- b Small holes in roof should be treated as follows:
  - i. If area has been previously coated ,remove all coating in 6" area around hole.
  - ii. Remove all rust in exposed area.
  - iii. Apply sheet metal patch with standard fasteners with neoprene washers.
  - iv. Scuff the new metal with sandpaper to produce a profile.
  - v. Apply Silkoxy Flashing Grade to new metal, paying special attention to the seams.
- c On previously coated roofs, with rust showing through, these areas MUST be treated as follows:
  - i. Mechanically remove coating in rusted areas until a 1" non rusted area is exposed beyond the rusted area.
  - ii. All flaking rust must be removed.
  - i. Surface should be power washed and all loose, blistered or damaged coating removed.
  - ii. Apply a single layer of Silkoxy Silicone Coating at a rate of 1.5 gallons per 100 square feet to the area.
  - iii. Allow to dry for 12 to 24 hours.

**3.04. APPLICATION**

- A. Elastomeric Silicone Coating System:
  - a. The coating system shall be sprayed or roller applied.
  - b. The coating system shall be evenly applied in 1 or 2 coats to achieve a **minimum required** dry film thickness.
- B. 10 Year L&M Warranty- 1.5 gallons per 100 square feet- 21 Mills DFT
  - a. These minimum recommendations for material usage are for ideal conditions. The number of gallons per 100 square feet may need to increase due to uneven application, roof profile, wind conditions while spraying, or other variables.
  - b. No coating shall be applied if weather will not allow it to skin over prior to exposure to precipitation.

**3.05. FIELD QUALITY REQUIREMENTS**

- A. Inspection by the coating manufacturer's representative shall be made to verify the proper installation of the system. Any areas that do not meet the minimum standards for application as specified herein shall be corrected at the contractor's expense.

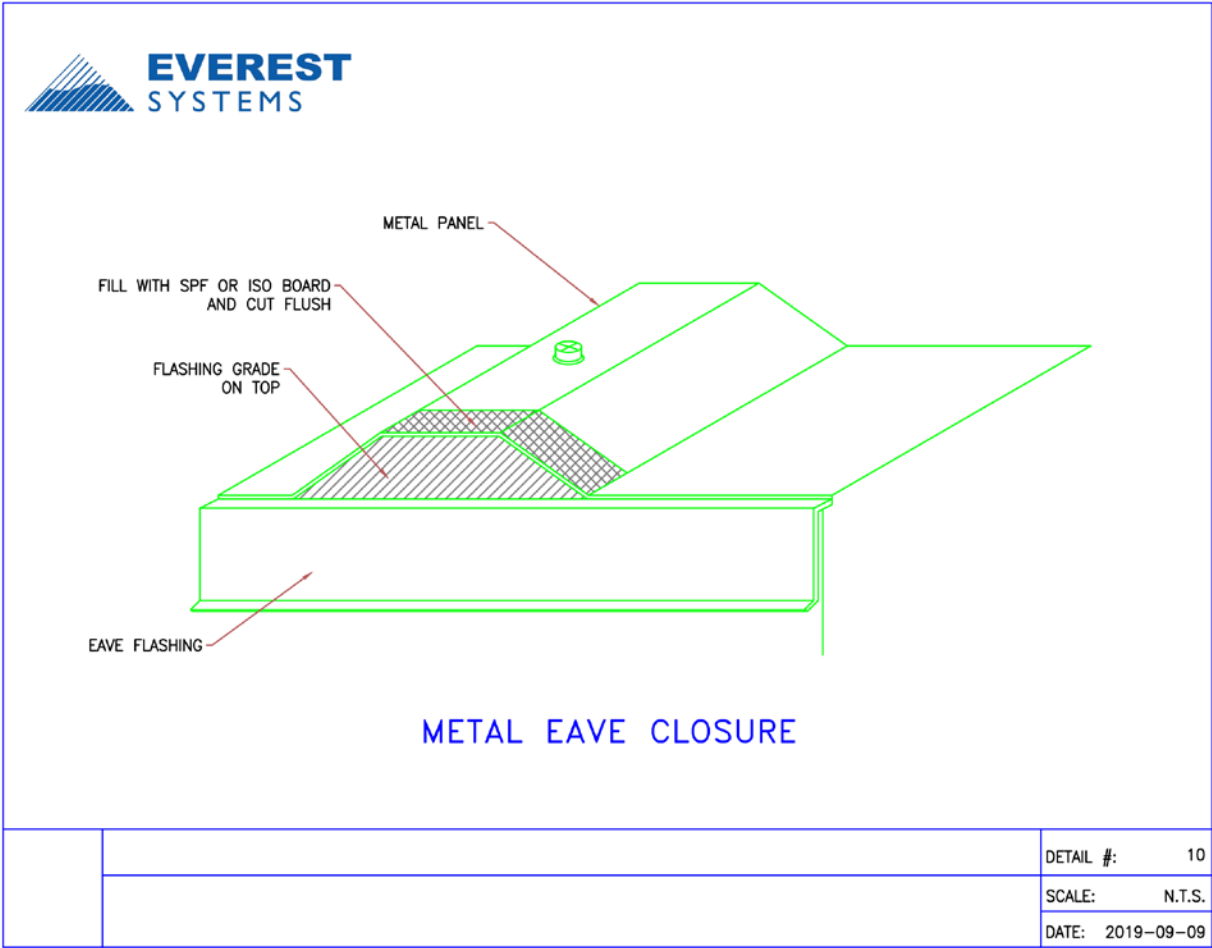
**3.06. CLEANING**

- A. Surfaces not intended to receive spray polyurethane foam insulation and/or elastomeric coating materials shall be protected during the application of the system. Should this protection not be effective, or not be provided, the respective surfaces shall be restored to their proper conditions.
- B. All debris from completion of work shall be completely removed from the project site. The site shall be left in a broom-clean condition.

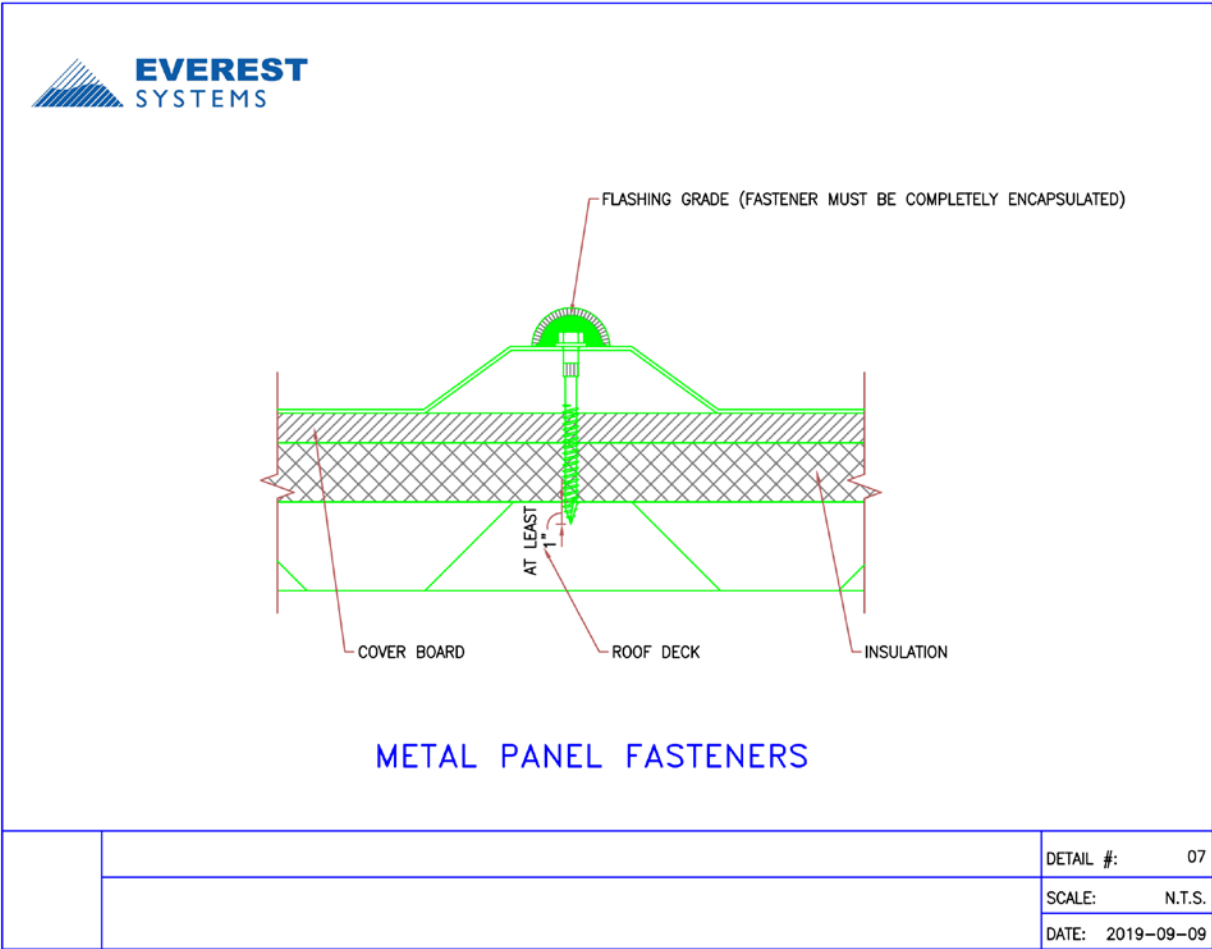
**3.07. MATERIAL**

- B. The following materials are available from Everest Systems Co. Company:
  - a. Everest Silkoxy – 90% Solids Silicone, high performance elastomeric roof coating
  - b. Everest Silkoxy Flashing Grade

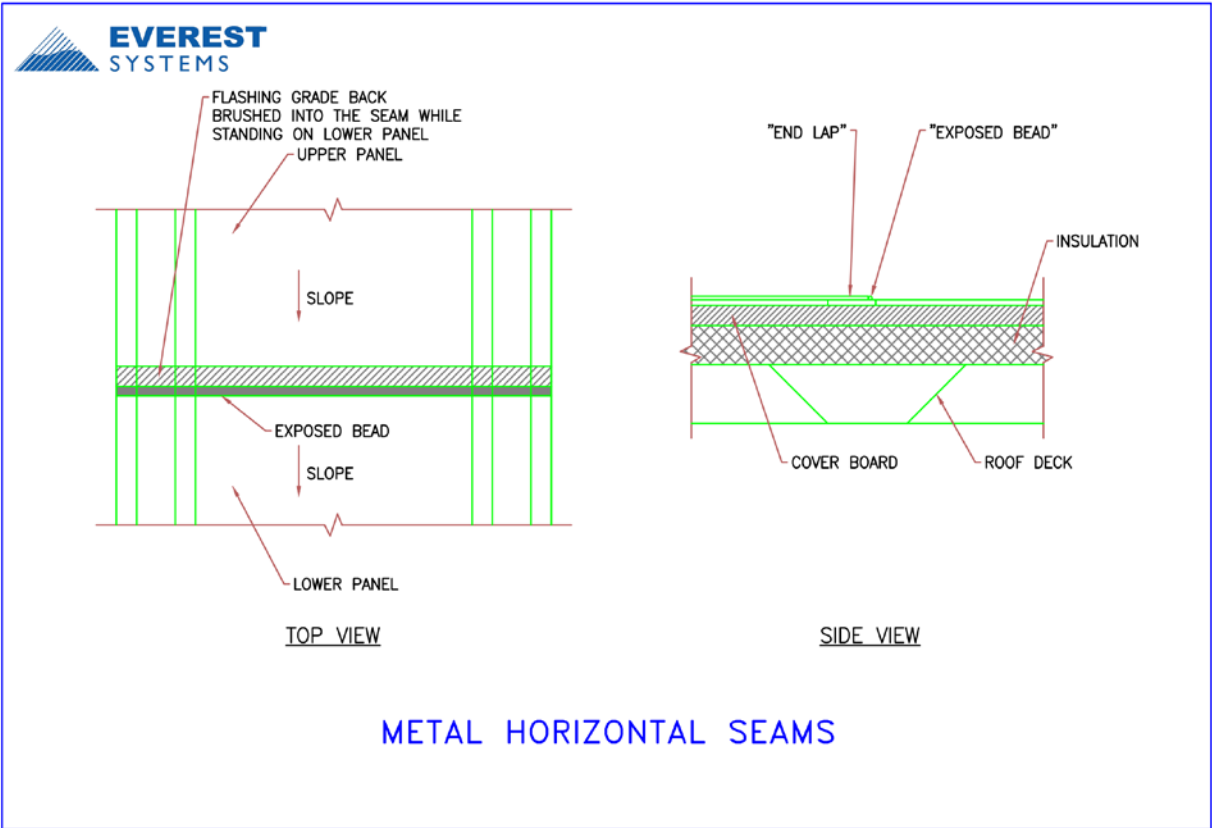
3.08. Detail Drawings



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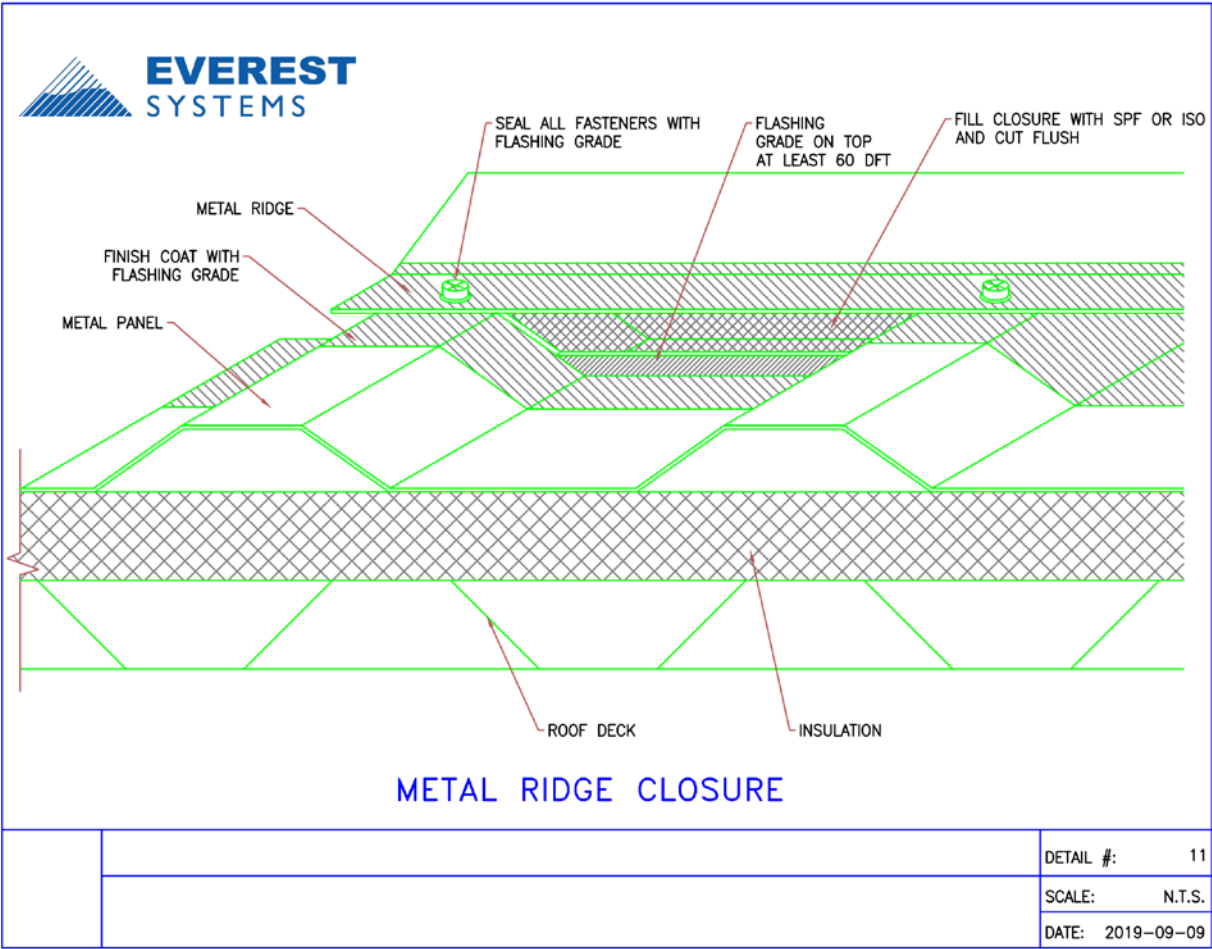


METAL HORIZONTAL SEAMS

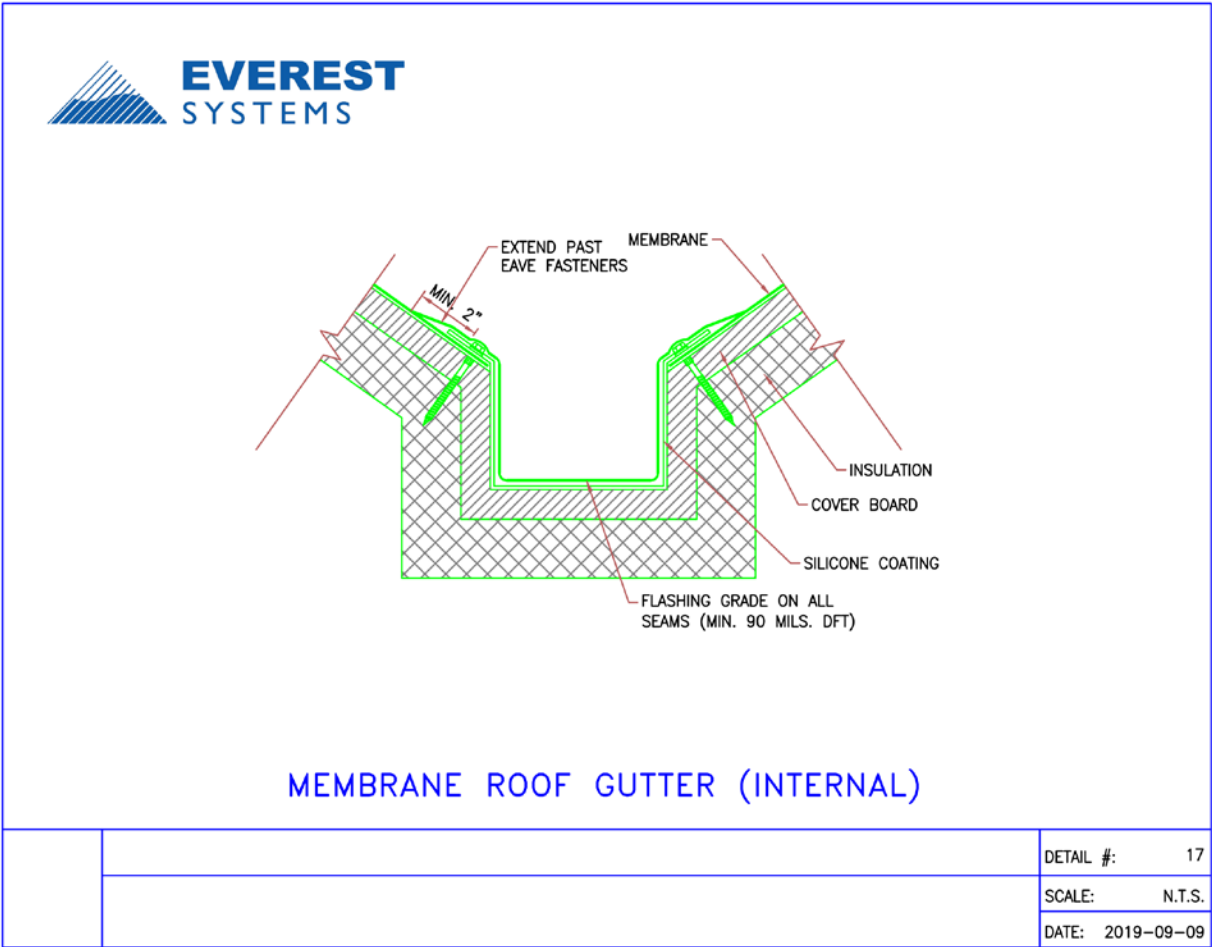
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