

**SECTION 07 5800  
ROOF REMEDIATION AND REPAIRS**

**PART I - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract apply to work of this section.

**1.02 DESCRIPTION**

- A. Work included
1. Furnish all labor, materials and equipment required, complete with all accessories and incidentals required, in accordance with the Drawings and these Specifications, including but not limited to the following:
    - a. Remediation of and repairs to existing sheet metal roofing and flashings.

**1.03 QUALITY ASSURANCE**

- A. Standards
1. Accomplish work under this Section in strict accordance with the manufacturer's published specifications and best trade practices to achieve a completely watertight roofing and flashing installation.
- B. General
1. Be responsible for measurements. Before ordering material, preparing shop drawings, or doing any work, verify at the site all dimensions which may affect the work. Assume full responsibility for the accuracy of figures.
  2. Immediately refer to any conflicts among requirements of these specifications on drawings, those of regulatory agencies, material manufacturer's recommendations and good roofing practices to the Roof Consultant.
  3. Final results are the entire responsibility of the roofing contractor.
- C. Installer Qualifications: A single installer ("Roofer") shall perform work of this section; and shall be a firm with not less than 5 years of successful experience in repairing roofing systems similar to those required for this project.

**1.04 SUBMITTALS**

- A. Materials List
1. Before any materials of this Section are delivered to the jobsite, submit to the Roof Consultant a complete list of all materials, including manufacturer's names, to be furnished and installed under this portion of the work.

**1.05 INSPECTION**

- A. Prior to final payment, and as a condition thereof, the Roofing Installer shall obtain final approval from Roofing Technology Associates, Ltd. indicating proper compliance with the Contract Documents. The Roofing Contractor shall coordinate inspection services during roof application.
- B. The Roofing Consultant shall perform inspections as work is being performed to insure conformance with manufacturer's recommendations and recognized roofing procedures.

**1.06 JOB CONDITIONS**

- A. Weather Condition Limitations: Proceed with roofing work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturer's recommendations and warranty requirements.

1. Do not install materials when rain, cold, moisture, frost, snow or other climatic conditions prevent the adhesion of materials. Proceed with roofing work only when weather conditions are in compliance with manufacturer's recommended limitations, and when conditions will permit the work to proceed in accordance with requirements and the manufacturer's recommendations.

#### **1.07 PRODUCT HANDLING**

- A. Store adhesives and flashings in a dry, warm, well-ventilated, weather-tight place. Handle and store materials or equipment in a manner to avoid significant or permanent deflection of deck.

### **PART II - PRODUCTS**

#### **2.01 GENERAL**

- A. Performance: Provide flashing and repair materials recognized to be of generic type indicated and tested to show compliance with indicated performances, or provide other similar materials certified in writing by manufacturer to be equal or better than specified in every significant respect, and acceptable to Owner's Representative.
- B. Compatibility: Provide products which are recommended by the selected material manufacturer to be fully compatible with indicated substrates, or provide separation materials as required to eliminate contact between incompatible materials.

#### **2.02 PIPE BOOT FLASHING**

- A. Replacement pipe boot flashings shall be comprised of a flexible aluminum base with flexible, weather resistant EPDM boots as manufactured by one of the following manufacturers or approved equal:
  1. Pipe-Master Pipe Flashing; [www.trianglefastener.com](http://www.trianglefastener.com)
    - a. 1-3/4 inch - 3-inches diameter: 002DEKR
    - b. 3-inch - 6-1/4 inches diameter: 004DEKR
  2. Dyna-Flash Pipe Flashing; [www.dynamicfastener.com](http://www.dynamicfastener.com)
    - a. 1-3/4 inch - 3-inches diameter: #2
    - b. 3-inch - 6-1/4 inches diameter: #4

#### **2.03 RETROFIT PIPE FLASHING**

- A. Retrofit replacement pipe boot flashings shall be capable of being wrapped around pipes when a standard pull over cannot be used. They shall be comprised of a flexible aluminum base with flexible, weather resistant EPDM boots as manufactured by one of the following manufacturers or approved equal:
  1. Pipe-Master Pipe Flashing; [www.trianglefastener.com](http://www.trianglefastener.com)
    - a. 3/4 inch - 2-3/4 inches diameter: RF101 GS
    - b. 2-inch - 7 inches diameter: RF201 GS
    - c. 3-1/4 inch - 10 inches diameter: RF301 GS
  2. Dyna-Flash Pipe Flashing; [www.dynamicfastener.com](http://www.dynamicfastener.com)
    - a. 3/4 inch - 2-3/4 inches diameter: 801
    - b. 2-inch - 7 inches diameter: 802
    - c. 3-1/4 inch - 10 inches diameter: 803

#### **2.04 POLYURETHANE ROOF SEALANT**

- A. The polyurethane roof sealant shall be a flashing grade, single component (fabric-less) moisture-cure polyurethane roof sealant as manufactured by ITW Polymers Sealants North America, Inc. or approved equal.
  1. ERsystems H.E.R

#### **2.05 SEALANT**

- A. Sealant for sheet the pipe boot flashings shall be fast curing UV resistant polymer sealant.
  1. APS 500 Advanced Polymer Sealant

2. Approved equal

## **2.06 FASTENERS**

- A. Fasteners for securing replacement pipe boots shall be corrosion resistant self-drilling screws for attaching to metal as recommended by the pipe boot manufacturer

## **PART III - EXECUTION**

### **3.01 DELIVERY AND STORAGE**

- A. Material shall be delivered to the site in the original unopened containers or wrappers, clearly labeled with the manufacturer's name, brand name, and such identifying numbers as are appropriate. Materials damaged in handling or storage shall not be used. Cardboard containers should be stored on pallets in a dry area.

### **3.02 INSTALLATION PROCEDURES**

- A. General: Comply with manufacturer's instructions, except where more stringent requirements are indicated herein.
- B. Do not install any roofing materials during rain or other inclement weather. One exception is that temporary work may be installed during such weather to protect the building interior and new materials that are already installed. Remove all temporary work and materials that have been exposed to such weather, then install permanent materials as specified during acceptable weather conditions.
- C. Materials must be stored dry and protected with tarps and on pallets at all times. No work shall commence when inclement weather is threatening. Wet or damaged materials will be removed from the job site.

### **3.03 REMEDIAL WORK/REPAIRS**

- A. Remediation of the pipe boot flashings on Areas B, C, D and E
  1. Refer to the Roof Plans as follows:
    - a. PLATE 2 - Roof Plan Area B
    - b. PLATE 3 - Roof Plan Area C
    - c. PLATE 4 - Roof Plan Area D
    - d. PLATE 5 - Roof Plan Area E
- B. Conventional Pipe Boot Replacement
  1. As indicated by the numbered symbols appearing in triangles on the appropriate Roof Plan, remediate the pipe boot flashings according to the prescribed size and type of boot flashing.
    - a. Remove and discard existing pipe boot flashings where replacement is indicated.
    - b. Clean the pipe and roof surface of any sealant, adhesives or mastic.
    - c. Trim the opening in the pipe boot flashing per manufacturer's recommendations
    - d. Slide the pipe boot down the pipe.
    - e. Press the aluminum frame/base down onto the roof surface to shape it - bending it to conform to the roof profile or irregularities.
    - f. Apply sealant to the base of the flashing and the roof.
    - g. Use fasteners to complete sealing per manufacturer's recommended quantity and spacing.
- C. Retrofit Pipe Boot Replacement
  1. As indicated by the numbered symbols appearing in triangles on the appropriate Roof Plan, remediate the pipe boot flashings according to the prescribed size and type of boot flashing.
    - a. Remove and discard existing pipe boot flashings where replacement is indicated.
    - b. Clean the pipe and roof surface of any sealant, adhesives or mastic.

- c. Using tin snips, trim the opening in the pipe boot flashing per manufacturer's recommendations to fit pipe.
  - d. Wrap the retrofit boot around the pipe with the seam on the down-slope side of the penetration.
  - e. Press the aluminum frame/base down onto the roof surface to shape it - bending it to conform to the roof profile or irregularities.
  - f. Apply sealant to the base of the flashing and the roof.
  - g. Join the interlocking seam per manufacturer's instructions
  - h. Use fasteners to complete sealing per manufacturer's recommended quantity and spacing.
- D. Polyurethane Sealant
- 1. Polyurethane sealant should be applied according to manufacturer's instructions in locations where the penetration is too large or the spacing between the penetrations is too tight to accommodate a new pipe boot and where indicated on the Roof Plan
    - a. Clean the pipe and roof surface of any deteriorated sealant, adhesives or mast
    - b. For large penetrations, leave the existing pipe boot in place and apply polyurethane sealant at the top and over the fasteners as necessary to assure a watertight seal.
    - c. For small penetrations that are spaced too tightly together to accommodate pipe boots, ensure the roof surface and penetrations are cleared of any existing sealants or repair materials. Follow manufacturer's instructions to create a watertight seal around the penetrations at the roof surface.

**END OF SECTION**