

SECTION 07 62 00.01
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. All flashing, trim and sheet metal Work as indicated on the Drawings, as required for the completed Work, and as specified herein. The Work shall include, but shall not be limited to, the following:
 - 1. Roof Flashings (various types)
 - 2. Wall Flashings (various types)
 - 3. Shop-Formed Coping Flashing
 - 4. Flashing at expansion joints
 - 5. Flashing at roof penetrations.

1.02 REFERENCE STANDARDS

- A. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.
- B. CDA A4050 - Copper in Architecture - Handbook; current edition.
- C. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.
- D. Federal Specifications (FS)

1.03 SUBMITTALS

- A. Shop Drawings
 - 1. Show the manner of forming, jointing, and securing the metal flashings, trim, and other specified sheet metal items. Include expansion joint connections, and the method of forming waterproof connections to adjoining construction.
- B. Product Data
 - 1. Catalog sheets, specifications, installation instructions for each item specified except for shop or job formed items, solder and flux.
 - 2. Manufacturer's recommendations for installation and spacing of snow guards.
- C. Samples
 - 1. Anchors: Two, each type required.
 - 2. Gravel Stop / Fascia
 - 3. Cap/Counter Flashings: Full section, 6" long.
 - 4. Coping Flashing: Full section, 12" long.
- D. Termination bar, 12" section.
 - 1. Termination bar fasteners, stainless steel, 3 of each type.
 - 2. Termination bar sealant, 1 container.
- E. Guarantee
- F. Certificates of qualifications as specified under Article titled "Quality Assurance".
- G. Product Certificates
 - 1. Certify that materials of this Section, such as copper/fabric flashing, sealants, termination bar, and fasteners, are compatible with all components of the air barrier system and other Project materials that contact them.

1.04 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.
- B. All metal Work shall be ink-stamped at intervals, identifying manufacturer, type metal, and gauge or thickness.
- C. For factory fabricated items, follow the manufacturer's recommendations and installation instructions unless specifically shown or specified otherwise.

- D. Materials containing asbestos are prohibited.
- E. Project Foreman Qualifications
 - 1. Successful completion of a formal instructional and training program for the installation of the specified roofing/flashing systems, as evidenced by:
 - a. A certificate of journeyman roofer as issued under a union apprenticeship-journeyman training program duly registered with the New York State Department of Labor (or other State Labor Department); or
 - b. A certificate or diploma issued by a vocational training school or national roofing manufacturer attesting to successful completion of an equivalent formal training program. (Submit copy of certificate for above).

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products of this Section in such manner to protect them from damage.

1.06 FIELD CONDITIONS

- A. Make the roof and all uncompleted flashings watertight at the end of each work day.

PART 2 PRODUCTS

2.01 MATERIALS FOR FLASHING FABRICATION

- A. Stainless Steel Sheet
 - 1. Dead soft fully annealed stainless steel sheet, ASTM A240, Type 316, sulfur content .005 or less, 2D dull finish.

2.02 FASTENERS

- A. Anchors
 - 1. Provide one of the following types:
 - a. Hammer driven anchors, consisting of a stainless steel drive pin and a corrosion resistant metal expansion shield inserted thru a stainless steel disc with an EPDM sealing washer.
 - b. Self-tapping, corrosion resistant, concrete and masonry screw inserted thru a stainless steel disc with an EPDM sealing washer.
- B. Fasteners for Through-Wall Flashing Termination Bar
 - 1. Tapcon Concrete Screw: stainless steel

2.03 MISCELLANEOUS METALS

- A. Solder
 - 1. Composition of block tin/pig lead of proportion recommended by the metal manufacturer, stamped either 50/50 or 60/40 "Warranted".
- B. Flux
 - 1. Paste or acid type as recommended by the metal manufacturer.
- C. Bituminous Coating: FS TT-C494
- D. Type 3 Sealant (For concealed sealant joints of thru-wall cap receivers and other areas which require concealed sealant).
 - 1. One part butyl rubber sealant; Pecora BC-158, PTI 707, or Woodmont chem-Calk 300.
- E. Termination Bar
 - 1. Stainless steel. Provide material compatible with the air barrier system. York Manufacturing Co., Sanford, Maine.
- F. Flashing Sealants, Cements, Mastics, and Adhesives
 - 1. Provide products recommended in writing by the flashing manufacturer, and compatible with all adjacent materials, including components of the air barrier system. Materials containing asbestos are prohibited.

- a. Where low modulus silicone sealant is indicated provide ASTM C 920, single-component, neutral-curing silicone; Class 100/50, Grade NS, Use NT, Use O.

2.04 FABRICATION

- A. General: Where practicable, form and fabricate sheet metal Work in the factory or shop. Produce bends and profiles accurately to the indicated shapes. Where not indicated or specified, follow the applicable requirements of the reference standards listed in PART 1. Hem exposed sheet metal to eliminate all sharp edges and corners.
- B. Cap Flashing (two-piece) with In-Wall or Thru-Wall: All corners of cap receivers shall be factory prefabricated: mitered and lapped approximately 1" at corner, and fully soldered or welded. At expansion joints, provide v-notch splice joint with 6" lap matching three-way fabrication each side of joint. Cap flashing fabricated to be spring tight against wall/base flashing.
 - 1. Three way mortar bond type receiver with snap fit cap flashing.
Acceptable manufacturers / products:
 - a. Keystone Flashing Co., 5119 N. Second Street, Philadelphia, PA. "Keystone Two-Piece cap Flashing".
 - b. Cheney Flashing Co., 623 Prospect St., Trenton, NJ. "Cheney Prefabricated Snap Lock Cap Flashing".
 - c. LITSCO, Long Island Tinsmith Supply Corp., 76-11 88th St., Glendale, NY. Two-piece snap fit cap flashing; with 3-way mortar bond receiver.
 - d. B & B Sheet Metal, 25-40 50th Ave. Long Island City, NY. Two-piece snap fit cap flashing; with 3-way mortar bond receiver.
 - 2. Material
 - a. Stainless Steel 22 ga
- C. Metal Expansion Joint Cover
 - 1. Stainless Steel 22 ga
- D. Sealant Edge / Lintel Flashing
 - 1. Stainless Steel 22 ga
- E. Gravel Stop/Fascia - See Section 075216 "Hybrid Bituminous Membrane Roofing" and details on A402.
 - 1. Stainless Steel 18 ga

PART 3 EXECUTION

3.01 EXAMINATION

- A. Coordinate the work of this Section with other Work for the correct sequencing of items which make up the entire system of weatherproofing or waterproofing.

3.02 PREPARATION

- A. Do not install the Work of this Section unless all necessary nailers, blocking and other supporting components have been provided.
- B. Do not install the Work of this Section unless all substrates are clean and dry. Do not cover air barrier membrane until the completion of a curing period if recommended by the membrane manufacturer.

3.03 INSTALLATION

- A. Isolation
 - 1. Separate dissimilar metals from each other with a dielectric coating to prevent galvanic action. Coating shall be bituminous or synthetic material as required for compatibility with adjacent materials.
- B. Tinning and Soldering
 - 1. Use soldering irons (heavy coppers) as Industry Standard. Torch soldering is not acceptable.
 - 2. Clean, flux and tin all surfaces to be soldered.
 - 3. Sweat solder thoroughly into seams, completely filling the seam for the full width.

4. Upon completion of soldering, remove all traces of flux residue, and if required, apply a neutralizing wash followed by a clean water wash.
- C. Installing In-Wall and Thru-Wall Cap Flashing Receivers, and Thru-Wall Flashing
1. Set the flashing so there is mortar above and below the built-in portion. Bonding ribs shall be completely filled with mortar.
 2. Do not mallet, bend or deform the exposed portion.
 3. Lap all end joints so they interlock at the first raised rib. Apply Type 3 sealant between the mating surfaces of the built-in portion of the flashing before interlocking end joints.
 4. All corners shall be factory prefabricated: mitered and lapped approximately 1" at corner, and fully soldered by the manufacturer.
- D. Installing 2-Piece Cap Flashing
1. Form and install the cap to provide a spring tight fit against the base flashing. Lap all end joints and base flashing a minimum of 3". Extend the cap continuously around corners or provide lock seams. Install waterstop flashing at expansion joints.
 2. Receiver:
 - a. Extend the built-in portion of the cap a minimum of 4" into the wall. Form the edge of the built-in portion with a 2" hook dam.
 - b. Set the cap so there is mortar above and below the built-in portion.
 3. Cap Flashing:
 - a. Insert the cap flashing into the receiver locking slot. Apply upward pressure along the entire length of the cap flashing so that it is securely locked into position.
 4. Pre-tin and solder with soldering irons (heavy coppers) all inside and outside corners.
 5. Where applicable, release existing soldered lap with soldering iron, install base flashing, dress down and re-solder existing lap.
- E. Dressing Down Existing Cap Flashing
1. Turn up all cap flashings as required to perform the Work. Upon completion of the Work, dress down all disturbed cap flashings so they lie flat against the base flashing.
 2. Secure the cap flashing to the wall surface with fasteners spaced 18" oc.
 3. Install matching metal patches at corners of cap flashings which have been cut to perform the Work. Lap the patches a minimum of 1" on each side of the cap flashing.
 - a. Secure the patch by pop-riveting or by soldering.
- F. Installing Expansion Joint Cover
1. Install combination edge strip and cap flashing over the base flashing. Secure the edge strip along the top of the curb and lap the base flashing a minimum of 3". Lap each individual length a minimum of 3".
 2. Form the expansion joint cover with standing seam joints not to exceed 10'-0" oc.
 3. Turn the edges of the cover over the edge strip. Allow clearance of one half the width of the expansion joint between all edges of cover and edge strip.
- G. Sealant Edge / Lintel Flashing
1. Provide stainless steel sealant edge flashing on relieving angles as indicated on the Drawings. Form flashing as required to suit lipped brick or other configuration. Adhere to relieving angle with a full coat of low modulus silicone sealant. Seal joints with sealant. Edge shall be hemmed.

END OF SECTION