

## **SECTION 07-60-00 FLASHING-SHEET METALS-GUTTERS**

### **PART 1 – GENERAL**

#### 1.01 SUMMARY

A. Provide flashing and sheet metal (Work not included in Section 13 34 19) where indicated:

1. Sheet metal flashing, coping, fascia, exposed trim, edges, counterflashing, cleats, caps, sills, drips, etc.
2. Gutters and downspouts.
3. Elastic flashing.
4. Sheet metal accessories.

#### 1.02 SUBMITTALS

A. None required unless submitting for approved equals.

#### 1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers, which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards: Comply with the provisions of the following specifications and standards, except as otherwise noted or specified, or as accepted or directed by the Architect.

1. SMACNA, (Sheet Metal and Air Conditioning Contractors National Association, Inc.) Architectural Sheet Metal Manual (Fifth edition).
2. AA, (Aluminum Association), Aluminum Construction Manual- Aluminum Sheet Metal Work in Building Construction.

### **PART 2 – PRODUCTS**

#### 2.01 MATERIALS

A. Sheet Metal: (provide fully painted profiles unless noted otherwise)

1. Pre-primed (field paint) Steel Sheets: 24 gage hot dipped galvanized steel (G90) commercial quality, primed one side with coating 1.0 mil total dry film thickness, and with wash coat on reverse side. Refer Section 09 90 00 for field paint, colors as indicated on drawings or as selected by SCS Construction. .
2. Prefinished Steel Sheets: 24 gage hot dipped galvanized steel (G90) commercial quality, primed and finished one side with Kynar base fluoropolymer coating 1.0 mil total dry film thickness, and with wash coat on reverse side. Colors as selected by SCS Construction. Coat pre-painted side with liquid applied factory installed strippable film for protection of finished surface. Vincent "ColorClad", Peterson "PacClad", or Copper Sales "Una-Clad".
3. Sheet Aluminum: ASTM B 209, alloy 3003, mill finish, temper #14, 20 gage (.032-inch).
4. Zinc-Coated Steel: ASTM A 526, G90 hot-dip galvanized, 20 gage (.032-inch).
5. Lead: ASTM B 749, Type L51121, copper-bearing sheet lead, minimum 4 lb/sq. ft.

B. Flexible Sheet Membrane Flashing: Non-reinforced flexible black elastic rubber sheet, 20 mils thick, formulated from virgin polyvinyl chloride with plasticizers and other modifiers to remain flexible and waterproof in concealed applications.

C. Auxiliary Materials:

1. Fasteners: Same metal as flashing/sheet metal or other noncorrosive metal as Solder recommended by sheet metal manufacturer. Match finish of exposed heads with materials being fastened.
2. Solder: ASTM B 32, 50-50 tin/lead solder, with rosin flux.
3. Roofing Cement: ASTM D 2822, asphaltic.
4. Bituminous isolation coating. SSPC- Paint 12, solvent-type bituminous mastic, nominally free of sulfur, compound for 15-mil dry film thickness per coat.
5. Mastic and elastomeric sealant: Polyisobutylene; non-hardening, non-skinning, non-drying, non-migrating sealant.
6. Epoxy seam sealer: 2-Part noncorrosive metal seam cementing compound, recommended by manufacturer for non-moving joints including riveted joints.

7. Polyethylene underlayment: 6 mil carbonated polyethylene film.
8. Reglets and metal accessories: Sheet metal clips, cleats, straps, anchoring devices and similar accessory units as required for installation of work, matching or compatible with material being installed, noncorrosive, size and gage required for performance.
9. Adhesives: Type recommended by flashing sheet metal manufacturer for water/weather resistant seaming and adhesive application of flashing sheet.
10. Paper Slip Sheets: 5-lb. rosin-sized building paper.

## 2.02 FABRICATION

- A. Fabricate flashing, counterflashing and other sheet metal work not exposed to view of aluminum. Fabricate flashing, gutters, downspouts, conductor heads, scuppers, copings, caps, edges, trim, and other exposed sheet metal work of prepainted, or preprimed and field painted, steel sheets. Use lead at drains, vents, where indicated, and where required to conform to contour of roofing components and accessories.
- B. Fabricate for waterproof and weather resistant performance; with expansion provisions for running work, sufficient to permanently prevent leakage, damage or deterioration of the work. Form work to fit substrates.
- C. Form exposed sheet metal work without excessive oil-canning, buckling, and tool marks, true to line and levels as indicated, with exposed edges folded back to form hems.
- D. Fabricate prepainted steel with strippable film in place. If soldering is necessary, mechanically remove coating. Touch up with color matched paint.
- E. Seams: Fabricate non-moving seams in sheet metal with flat-lock seams. Form aluminum seams with epoxy seam sealer; rivet joints for additional strength where required.
- F. Expansion Provisions: Where lapped or bayonet-type expansion provisions cannot be used, or would not be sufficiently water/weatherproof, form expansion joints of intermeshing hooked flanges, not less than 1-inch deep, filled with mastic sealant (concealed within joints).
- G. Sealant Joints: Where movable, non-expansion type joints are indicated or required for proper performance of work, form metal to provide for proper installation of elastomeric sealant.

H. Separate dissimilar metals from each other to prevent electrolytic action by painting each metal surface in area of contact with a heavy application of bitumastic coating, or by other permanent separation as recommended by manufacturers of dissimilar metals.

## **PART 3 – EXECUTION**

### **3.01 INSTALLATION**

- A. Follow recommendations of SMACNA and AA Manuals for specific application.
- B. Install materials and systems in accordance with manufacturer's instructions. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.
- C. Anchor units of work securely in place by methods indicated, providing for thermal expansion of metal units; conceal fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams, which will be permanently watertight and weatherproof.
- D. Underlayment: Where aluminum is to be installed directly on cementitious or wood substrates, install a course of paper slip sheet and a course of polyethylene underlayment.
- E. Bed flanges of work in a thick coat of bituminous roofing cement where required for waterproof performance.
- F. Secure edges of flashing to other work with angles and bars, and seal with sealant as indicated.
- G. Retainers: Where indicated, provide saw cuts for metal counter-flashing system using metal flashing receiver as detailed and indicated.
- H. Seal edges of metal flashings to substrates with roofing cement; install bed or bead of cement in manner, which will maintain a watertight seal.
- I. Remove strippable film from prepainted steelwork. Restore damaged components and finishes. Clean and protect work from damage.

**-End of Section-**

