PART I - GENERAL

1.01 DESCRIPTION:

A. Scope: Work under this Section shall include all materials and installation necessary to provide Flashing and Sheet Metal, as shown and detailed on the drawings and specified herein.

B. Related Work Specified Elsewhere:
   1. Division 5, Section 05500 – Miscellaneous Metal Fabrications
   2. Division 7, Section 07310 – Roof Coverings
   3. Division 9, Section 09900 – Painting

1.02 QUALITY ASSURANCE

A. References:

B. Qualifications: Installer specializing in the work of this Section with minimum three (3) years documented experience; manufacturer approved.

1.03 SUBMITTALS

A. General: Refer to Section 01330 – SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.

B. Shop Drawings: None required for specified products; required for alternate products.

C. Samples: If specifically requested.

D. Product Data: None required for specified products; required for alternate products.

1.04 PRODUCT HANDLING

A. General: Refer to Section 01310 – COORDINATION.

B. Storage: Stack preformed material to prevent twisting, bending or abrasion; slope to ensure drainage.

1.05 MAINTENANCE

A. General: Refer to Section 01770 – CLOSEOUT PROCEDURES
B. Guarantee: Provide in required form for a period of two (2) years from date of final acceptance by University.

PART II - PRODUCTS

2.01 MATERIALS

A. Sheet Material:
1. Galvanized Sheet Metal: ASTM A446, Grade A, G90 zinc coating; 24 gage minimum, core steel.

B. Underlayment: ASTM D226, 15 lb. asphalt saturated roofing felt, unperforated.

C. Fasteners:
1. Nails:
   b. Steel Nails: Hot-dipped galvanized, annular thread, size as required.
   c. Concrete Nails: Flat head, size as required.
   d. Aluminum Nails: Annular thread, size as required.
2. Rivets: ⅛” diameter; solid type.
3. Washers: Lead or neoprene, where required.
4. Lead Plugs: Size as required.

D. Solder:
2. Flux: FS O-F-506.

E. Galvanizing Repair Treatment:
1. Rod: Per ASTM A780.
2. Coating: Per MIL-P-46105.

F. Protective Coatings:
1. General: FS TT-C-494, Type II; bituminous.

G. Plastic Cement: FS SS-C-153, Type I; asphaltic.
H. Sealing Tape:
   1. No. 606 Architectural Sealant Tape as manufactured by Protective Treatments, Inc.,
   2. Or equal, no known equal.

I. Sealants: FS TT-S-230, non-hardening, non-sagging.

2.02 COMPONENTS

A. Reglets:
   1. O'Keefe's, Inc.; extruded aluminum with butyl rubber sealer and removable snap-in base flashing,
   2. Or equal, no known equal.
   3. Cast-in-Place Concrete: Type C.
   4. Masonry: Type M.
   5. Surface Applied: Type E.

2.03 FABRICATION

A. Manufacture:
   1. General: Form sections, per referenced standards, true to shape, accurate in size, square, and free from distortion or defects. Form pieces in single length sheets, not to exceed 10'-0" in length. Hem exposed edges on underside ½"; miter and seam corners.
   2. Seams: Flat lock.
   3. Corners: One piece with minimum 18" long legs; solder for rigidity, seal with sealant.
   5. Vertical Faces: Bottom edge formed outward ¼" and hemmed to form drip.
   6. Flashing Toe: Extend toe 2" over roofing; return and brake edges.
   7. Soldering: Solder shop formed metal joints. After soldering, remove flux; wipe and wash solder joints clean. Weather seal joints.

B. Assemblies:
   1. General: Fabricate with galvanized sheet metal, unless otherwise shown.
2. Flashing:
   a. Exterior Hollow Metal Frame Flashing: 18 gages, as shown.
   b. Gravel Stops: Form corners with interlocking joint, soldered and ground smooth.

3. Roof Drainage:
   a. Overflows and Scuppers: As detailed, with flange and outlet hemmed and joints fully soldered.

PART III - EXECUTION

3.01 PREPARATION

A. General: Refer to Section 01310 – COORDINATION.
B. Examination: Examine conditions of work in place before beginning work; report defects.
C. Measurements: Take field measurements; report variance between plan and field dimensions.

3.02 INSTALLATION

A. General: Install in conformance with referenced standards, manufacturer's written directions, as shown, and as specified.
B. Underlayment: Apply one (1) layer of felt underlayment over surfaces as shown; lap all edges 6” minimum, in direction of slope.
C. Application:
   1. General: Make corners square, surfaces true and straight in planes, and lines accurate to profiles. Fit sheet metal tight in place; secure using concealed fasteners. Apply plastic cement compound between metal flashings and felt flashings. Seal metal joints watertight.
   2. Expansion and Contraction: Allow for expansion and contraction over an ambient temperature range up to 150°F; distortions resulting from fastening or expansion and contraction stresses not acceptable.
   3. Dissimilar Metals: Isolate with heavy coat of bituminous paint. Coat all sheet metal in contact with roofing felts.
D. Components: Install as shown; set flashing to form watertight fit.
E. Assemblies:
   1. Flashing:
      a. General: Install flashings where shown; miter and solder joints at corners. Lap joints in counterflashing at least 6” and make watertight with sealing tape. Extend counterflashing down not less than 6”.
b. Exterior Hollow Metal Frame Flashing: Provide at frame heads, as shown.

c. Gravel Stops: Set on top of roofing felts in $\frac{1}{8}$" thick bed of plastic cement, with laps filled; close ends at scuppers.

2. Overflows and Scuppers: As shown; fit outlet tightly into collar flashing.

F. Sealants: As shown; per manufacturer's directions.

G. Galvanizing Repair Treatment: Repair damaged zinc coating with specified repair compound, as required.

3.03 CLEANING

A. General: Keep premises free from accumulation of waste and rubbish. At the completion of work remove surplus materials, rubbish, and debris and thoroughly clean exposed surfaces.

END OF SECTION 07600