SECTION 077100 – PREFORMED METAL COPINGS

This specification is applicable for LITSCO’s LockTight coping.

Delete the following instruction in RED Type.

1. GENERAL
   * + 1. SUMMARY.

Modify as necessary

* + - * 1. Furnishing and installing factory fabricated and finished coping systems.
        2. Related work specified elsewhere:

1. Section 06200 – Finish Carpentry.
2. Section 07220 - Roof and Deck Insulation: Roof board insulation
3. Section 07410 - Metal Roof and Wall Panels: Preformed metal roofing.
4. Section 07500 - Membrane Roofing.
5. Section 07620 - Sheet Metal Flashing and Trim.
6. Section 07720 - Roof Accessories: Soffit vents, roof pavers, etc.
   * + 1. REFERENCES
          1. Single Ply Roofing Industry (SPRI)

ES-1 2003: Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems.

* + - 1. DESIGN AND PERFORMANCE CRITERIA.
         1. General Performance: Metal edge assemblies shall comply with performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction.
         2. Uniform Wind Load Capacity.

Installed metal edge system shall withstand negative wind pressures complying with the following criteria.

Design Code: ANSI/SPRI/FM 4435/ES-1

Safety Factor: 2.0.

Select the negative wind pressure design factors that are applicable to this project. Please contact LITSCO for guidance in selecting appropriate factors and pressures for this specific project.

Category [I] [II] [III] [IV] Building with an Importance Factor of [1] [2] [3] [4].

Wind Speed:       mph.

Exposure Category: [B] [C] [D].

Height at Metal Edge System: \_\_\_\_\_\_ feet.

Minimum Building Width: \_\_\_\_\_\_ feet.

Element Negative Wind Pressure:

Horizontal Pressure (acting on vertical fascia and coping elements):- \_\_\_\_\_\_ psf.

Vertical Pressure (acting upward on horizontal coping elements): - \_\_\_\_\_\_ psf.

The “a” dimension used to determine the distance (measured from the corner of the building) in which anchorage and/or fasteners must be increased to account for higher wind pressure: \_\_\_\_\_\_ feet.

The nominal capacity of the panel system shall be determined based on physical testing in accordance with ANSI/SPRI/FM 4435/ES-1. The allowable load carrying capacity shall be calculated by reducing the calculated nominal capacity by the safety factor listed herein.

* + - * 1. Metal thicknesses of exposed sheet metal components shall meet the requirements of ANSI/SPRI ES-1 Table 5.
      1. SUBMITTALS.
         1. Product Data: Manufacturer's data sheets on each product to be used.
         2. Shop Drawings: Show profiles, joining method, location of accessory items, anchorage and flashing details, adjacent construction interface, and dimensions.
         3. Selection Samples: For each finish product specified, two complete sets of color charts representing manufacturer's full range of available colors and patterns
         4. Design Test Reports.

Submit copies of design test reports for each of the performance testing standards listed in specification article 1.4.

Test reports shall be performed by independent, International Accreditation Service, Inc. (IAS) accredited testing laboratory, and shall bear the seal of a registered professional engineer.

Modify the following paragraph to indicate the scope of this project.

* + - 1. QUALITY CRITERIA/INSTALLER QUALIFICATIONS.
         1. Engage an experienced metal edge system contractor to install edge system who has a minimum of three (3) years experience specializing in the installation of metal edge systems.
         2. Successful contractor must obtain all components of edge system from a single manufacturer.
      2. DELIVERY, STORAGE, AND HANDLING.
         1. Inspect materials upon delivery.
         2. Handle materials to prevent damage.
         3. Store materials off ground providing for drainage; under cover providing for air circulation; and protected from any debris.
      3. PROJECT CONDITIONS & COORDINATION
         1. Field Measurements: Verify actual dimensions of construction contiguous with metal edge by field measurements before fabrication.
         2. Coordinate sizes and locations of all work which interfaces with the metal edge system.
         3. Coordinate metal edge system with rain drainage work, flashing, trim, and construction of other adjoining work to provide a leak proof, secure, and noncorrosive installation.
      4. WARRANTIES
         1. Provide a 20 year warranty for manufacturer approved 70 percent Kynar colors for the painted finish covering color fade, chalk, and film integrity. [Note to specifier: finish warranties not available in Baked Enamel Polyester, Anodized or Mill Finish].
         2. Manufacturer’s standard 2 year warranty covering defects in materials and workmanship, resistance to blow-off, in accordance with the stated design limits.
         3. Installer's 5 year warranty covering metal edge system installation and watertightness.
         4. Warranties shall commence on date of substantial completion.

1. PRODUCTS
   * + 1. MANUFACTURERS
          1. Basis of Design: LITSCO’s LockTight Coping system as manufactured by Long Island Tinsmith Supply Corp. (LITSCO), Glendale, NY, 718-846-0400; Email: [info@litsco.com](mailto:info@litsco.com); Web: [www.litsco.com](http://www.litsco.com)
          2. Manufacturers not listed above must submit for approval, ten (10) days prior to bid date.
          3. No substitutions will be permitted after the bid date of this project.
       2. COPING SYSTEM
          1. LockTight Coping.
          2. Construction:

Metal

**[**.040 inch (1.01 mm) **]** **[**.050 inch (1.27 mm)**]** **[**.063 inch (1.6 mm)**]** aluminum

Finish:

Standard color Kynar-500 as selected by the Architect from roof edge manufacturer's color chart.

Texture: Smooth

Dimensions:

Coping cap: Length of 10'-0” (3048 mm)

Horizontal dimension: Approximately \_\_\_\_\_\_ inches

Maximum Exposed exterior face dimension: 6 inches (152 mm).

Maximum Exposed interior face dimension: 5 inches (102 mm).

Anchor Chair: .063” mill finish aluminum x width as required for parapet wall.

Contact LITSCO to determine anchor chair spacing based upon project specific strength requirements to meet the requirements of the building code.

Anchor chairs shall be spaced at maximum 60 inches on center.

Internal splice plates shall be provided at coping cover joints. Splice plates shall be 4 inches (152 mm) wide and finished to match the coping cover.

Sealant Bead: One-part, neutral cure, medium modulus silicone sealant, shall be PCS Silicone manufactured by Pecora Corp.

Color to match coping.

Wood Fasteners: Attach anchor chairs using 1/4 inch x 1-1/4 inch (6 mm x 32 mm) long multi-purpose screws. Use two (2) screws at front face of anchor chair and four (4) screws on top horizontal surface of anchor chair.

Miters and end caps shall be fabricated by manufacturer to suit the conditions indicated on the Drawings.

* + - 1. ACCESSORIES
         1. Self-Adhering Vapor Impermeable, Ice & Water shield**:** 40-mils- (1.0-mm-) thick minimum, consisting of slip-resisting top surface laminated to SBS-modified asphalt adhesive, with release-paper backing.

Products: Subject to compliance with requirements, provide the following:

CCW-705 by Carlisle Coatings & Waterproofing of Wylie, TX.

* + - * 1. Flashing and Trim: Formed from same material and gauge as coping.

1. PREPERATION & EXECUTION
   * + 1. EXAMINATION
          1. Do not begin installation until substrates have been properly prepared
          2. Verify the substrate is dry, clean and free of foreign matter
          3. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding
       2. PREPARATION
          1. Clean substrates thoroughly.
          2. Establish straight, side and crosswise benchmarks
          3. All surfaces shall be checked for square and straightness.
          4. Measure the wall lengthwise and crosswise to confirm lengths, widths, and clearances of metal edge system components and verify clearances for thermal movement.
       3. METAL EDGE SYSTEM INSTALLATION
          1. All details will be shown on in accordance with approved shop drawings and manufacturer's product data, within specified erection tolerances.

The specifier should customize this section to illustrate the intended scope of work for this project.

* + - * 1. Install metal edge system in strict compliance with manufacturer’s written installation instructions.
        2. Seal laps and joints in accordance with system manufacturer's product data.
        3. Installed system shall be true to line and plane and free of dents, and physical defects. In light gauge elements with wide flat surfaces, some oil canning may be present. Oil canning does not affect the finish or structural integrity of the panel and is therefore not cause for rejection.
        4. At joints in linear sheet metal items, set sheet metal items in two ¼-inch- (6-mm-) beads of butyl sealant. Extend sealant over all metal surfaces. Mate components for positive seal. Allow no sealant to migrate onto exposed surfaces.
        5. Touch up exposed fasteners using paint furnished by the panel manufacturer and matching exposed panel surface finish.
        6. Clean exposed surfaces of metal edge system and accessories after completion of installation. Leave in clean condition at date of substantial completion. Touch up minor abrasions and scratches in finish.

END OF SECTION 077100