SECTION 10 7530
PREFABRICATED CANOPIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Prefinished metal hanging rod canopy system.

1.02 RELATED SECTIONS

A. Section 033000 - Cast-In-Place Concrete: Footings.

B. Division 26: Lighting.

1.03 REFERENCES

A. ASTM B 137-95.

B. ASTM B 209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 1996.

C. ASTM B 244-79 (1993).

1.04 DESIGN REQUIREMENTS

A. Components: Design and size components to withstand dead and live loads caused by positive and negative wind pressure acting normal to plane of structure as calculated in the Standard Building Code, 1997 edition.

B. Maximum Allowable Deflection of Panel: 1/90 of span.

C. Movement: Accommodate movement within system without damage to components or deterioration of seals, movement within system; movement between system and perimeter components when subject to seasonal temperature cycling; dynamic loading and release of loads; and deflection of structural support framing.

D. Drainage: Provide positive drainage to exterior for moisture entering or condensation occurring within panel system.

1.05 SUBMITTALS

A. See Division 01 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate dimensions, layout, joints, construction details, methods of anchorage.

C. Samples: Submit 3 samples of decking panel, 6 inches by 6 inches in size indicating finish color, sheen and texture.

D. Structural Design Calculations: Provide submittal indicating compliance with specified design criteria. Design calculations shall bear the seal of same engineer as shop drawings and registered in the State of Georgia.

E. Maintenance Data: Submit as part of closeout documents. Provide instructions for general maintenance and repair of surfaces and finishes.

1.06 FIELD MEASUREMENTS

A. Confirm dimensions prior to preparation of shop drawings.

1.07 QUALITY ASSURANCE

A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

B. Installer: Company specializing in performing the work of this section with minimum five years of experience.

1.08 PRE-INSTALLATION MEETING

A. Convene one week before starting work of this section.

1.09 DELIVERY, STORAGE, AND PROTECTION

A. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.

B. Store prefinished material off ground and protected from weather. Prevent twisting, bending, or abrasion, and provide ventilation to stored materials. Slope metal sheets to ensure drainage.

C. Prevent contact with materials that may cause discoloration or staining of products.

1.10 PROJECT CONDITIONS

A. Sequence installation to ensure electrical connections are achieved in an orderly and expeditious manner.

1.11 WARRANTY

A. See Division 01 - Closeout Submittals, for additional warranty requirements.

B. Correct defective work within a five year period after Substantial Completion for degradation of panel finish, including color fading caused by exposure to weather.

C. Correct defective Work within a five year period after Date of Substantial Completion, including defects in water tightness and integrity of seals.

PART 2 PRODUCTS

2.01 METAL HANGING ROD CANOPY SYSTEM

A. Acceptable Manufacturers: The following manufacturers, subject to compliance with the specifications and approval by Gardner Spencer Smith Tench and Jarbeau, PC are acceptable manufacturers.
   1. Basis of Design - Peachtree Protective Covers: www.peachtreecovers.com.
   2. American Walkway Covers, LLC: www.americanwalkway.com.
   3. E.L. Burns Co: www.elburns.com.
   4. Dittmer Architectural Aluminum Co: www.dittdeck.com.
   5. Mapes Industries, Inc: www.mapes.com.
   6. Mason-Florida, LLC: www.masoncorp.com.
   7. Metals USA Protective Covers: www.buildingproductsusa.com.
   8. Mitchell Metals, LLC: www.mitchellmetals.net.
   9. Substitutions: See Division 01 - Product Requirements.

B. System Description:
   1. Extruded aluminum structural and decking system with overhead hanger rod style canopy. Roll-formed sheet decking and accessory components are not acceptable. Decking components shall interlock without visible joint lines on horizontal surfaces.
   2. System shall drain to continuous fascia-gutter sections providing a minimum 6" depth and ten square inches of gutter area.
   3. Provide internal concealed splices and factory mitered and welded corners.
   4. Expansion joints shall be included to accommodate temperature changes of 120oF. Expansion joints shall have no metal to metal contact.
   5. Beams: Beams shall be open-top tubular extrusion of size and shape shown on drawings, top edges thickened for strength and designed to receive deck members in self-flashing manner. Structural ties shall be installed in tops of all beams.
   6. Deck: Deck shall be extruded self-flashing sections interlocking into a composite unit. Closures at deck ends shall be welded plates.
   7. Escutcheon: Provide manufacturer's standard "star" escutcheon at each hanging rod.

C. Aluminum Materials:
   1. Aluminum extrusions: 6063-T6 aluminum alloy; minimum 0.125" wall thickness for structural components, and as indicated by approved engineering design.
   2. Aluminum sheet: 5005-H34 aluminum alloy; minimum 0.050" thick.
   3. Fasteners: Hardened aluminum or stainless steel. Exposed fasteners shall be countersunk and shall match canopy in color.

4. Grout: Grout shall be 2000 p.s.i. compressive strength, 1 part Portland cement and 3 parts masonry sand. Add water to produce pouring consistency.
5. Gaskets: Gaskets shall be dry seal santoprene pressure type.

D. Finish:
1. AA-A41, Class I, clear anodized finish.
2. Minimum coating weight: 32 mg/sq.in.
3. Minimum coating thickness: 0.70 mils.
4. Finish shall be selected by Gardner Spencer Smith Tench and Jarbeau, PC from the manufacturer's standard mechanical and chemical finishes, followed by anodic finish.

2.02 FABRICATION

A. Form work true to line and level with accurate angles and surfaces and straight sharp edges. Ease exposed edges to radius of approximately 1/32". Form bend metal corners to smallest radius possible without causing grain separation or otherwise impairing work. Perform fabrication work prior to anodizing.

B. Form profiles without waves or buckling in metal surfaces. Form glazing battens continuously.

C. Provide anchorage and superstructure of type shown on approved shop drawings and coordinated with supporting structure. Fabricate and space anchoring devices as indicated.

D. Fabricate all flashings, closures and similar components as required to prevent water migration between building and canopy at connection point.

E. Bent Construction: Beams and columns shall be factory welded with neatly mitered corners into one-piece rigid bents. All welds shall be smooth and uniform using an inert gas shielded arc. Suitable edge preparation shall be performed to assure 100% penetration. Grind welds only where interfering with adjoining structure to allow for flush connection. Field welding is not permitted. Rigid mechanical joints shall be used when shipping limitations prohibit the shipment of fully welded bents.

F. Deck Construction: Deck shall be manufactured of extruded modules that interlock in a self-flashing manner. Interlocking joints shall be positively fastened at 8" O.C. creating a monolithic structural unit capable of developing the full strength of the sections. The fastenings must have minimum shear strength of 350 pounds each. Deck shall be assembled with sufficient camber to offset dead load deflection.

PART 3 EXECUTION

3.01 PREPARATION

A. Inserts and Anchorages: Furnish inserts and anchoring devices which must be preset in adjacent work on a timely basis to avoid delay in the work. Set at locations as indicated on the approved shop drawings.

B. Coordinate setting drawings diagrams, templates, and instructions for installation of concrete inserts, anchor bolts and miscellaneous items having integral anchors cast in concrete construction.

3.02 ERECTION

A. Verify location and alignment of preset anchors. Report deviations and proposed method for correction to Architect prior to commencement of installation.

B. Fastening to In-Place construction: Provide anchorage devices and fasteners for securing items to in-place construction, including threaded fasteners for concrete inserts. Anchor bolts and erection bolts of types and sizes indicated on approved shop drawings.

C. Placement: Set work in location, alignment and elevation, plumb and level within specified tolerances, true and free of rack; measured from established lines and levels. Install work in accordance with approved shop drawings and manufacturer's instructions.

D. Protection: Protect components from contact with dissimilar materials by separating with concealed neoprene gaskets or bituminous coating. Protect finishes from damage or scratching

during installation. Replace all damaged components to original condition.

E. Connection: Provide connections as indicated on approved shop drawings. Join dissimilar metals by bolting with galvanic separators.

F. Caulk perimeter of canopies using silicone sealant as specified . Flash abutting walls for watertight connection.

3.03 CLEANING

A. Cleaning: Maintain canopy assembly in reasonably clean condition during construction period. Immediately remove stains or materials having adverse effect on materials and finishes. Remove excess glazing and sealant compounds.

B. Final Cleaning: Just prior to Date of Substantial Completion clean entire canopy assembly using pretested detergent and water. Flush with clean water. Repair or replace work which cannot be cleaned of which has been damaged during construction operations.

END OF SECTION