

SPECIFICATIONS

Section 107311 – Overhead Supported Canopy – C-Beam

Part 1: General

1.1 Related Documents

- A. The requirements of Division 1 specifications shall apply to work specified in the section.

1.2 Engineering Design Criteria

- A. International Building Code 2015
- B. ASCE 7-10, Minimum Design Loads for Buildings and Other Structures
- C. Aluminum Design Manual 2015
- D. AWS D1.2 – 2014, Structural Welding Code - Aluminum
- E. Local governing codes and standards for site location

1.3 General Description of Work

- A. Work in this section shall include design, fabrication, and installation of aluminum protective covers. All work shall be in accordance with the shop drawings and this specification section.

1.4 Submittals

- A. Shop Drawings – Submit complete shop drawings including:
 - 1) Overall canopy layout dimensions
 - 2) Cut section details including elevation, bent layout dimensions, canopy connection details, and wall connection details
 - 3) Flashing details pertaining to aluminum canopy
 - 4) Canopy anchorage details
- B. Product Data – Submit manufacturer’s product information, specifications, and installation instructions for the aluminum canopy.
- C. Samples – Submit color selection samples of actual coated aluminum material or actual anodized aluminum material.
- D. Certification – Provide Professional Engineer certification that the proposed canopy design and layout meets or exceeds all applicable loadings (ex: wind load, rain live load, dead load, snow load) for the job location (city & state) in accordance with IBC 2015 and ASCE 7-10.

1.5 Quality Assurance

- A. Manufacturer Qualifications: Minimum five years experience in design, fabrication, and production of aluminum protective covers.
- B. Components shall be assembled in shop to greatest extent possible to minimize field assembly.
- C. Aluminum protective cover, including material and workmanship, shall be warranted from defects for a period of one year from date of completion of aluminum protective cover installation.

Part 2: Products and Materials

2.1 Acceptable Manufacturers

A. **Mitchell Metals, LLC**

1761 McCoba Drive
Smyrna, GA 30080
Phone: 770.431.7300
www.mitchellmetals.net

B. **Dittmer Architectural Aluminum**

1006 Shepard Road
Winter Springs, FL 32708
Phone: 407.699.1755
www.dittdeck.com

- C. Equivalent systems by other manufacturers will be approved for substitution by addendum if the following conditions are met:
- 1) Other manufacturers must have submitted requested information and have been qualified to bid no less than 10 days prior to bid closing date.
 - 2) Manufacturer must submit complete company literature and information to the architect for review

Manufacturer must submit complete proposed canopy system details, including sizes and strength values of all members to be used.

2.2 Design & Assembly

- A. Canopy shall use perimeter extruded gutter and extruded decking running perpendicular to wall being attached to. Perimeter gutter shall be wrapped with 10” C-Beam on three sides. Extruded Decking shall be a roll-locked design where the

- B. extruded cap and pan shall interlock to make a rigid structure. Crimped decking is not allowed.
- C. Canopy gutter frame shall be welded into a single frame unless shipping does not allow. If shipping does not allow, canopy frame shall be riveted together at the corners and caulked inside to make a water-tight frame.
- D. Canopy gutter frame shall have a 10" C-Beam decorative frame attached to it using ½"x 1-1/2" 300 series stainless steel connector bolts at a minimum of 3'-0" on center. The 10" C-Beam frame shall encase only three sides of the canopy gutter frame. All connections between the canopy frame and the 10" C-Beam frame shall be caulked.
- E. Canopy shall be secured to the wall using a 6"x6" extruded wall bracket. A 2"x2" OHS square tube shall be used to connect the canopy frame to the extruded wall bracket. The 2"x2" OHS square tube shall be secured to the canopy frame using an extruded saddle bracket. The extruded saddle bracket shall connect to a 2"x2" frame support tube that sits inside of the decking pan. The 2"x2" frame support tube shall connect to the gutter frame using 4 – 300 series stainless steel fasteners, 2 at each end.
- F. Canopies shall drain from the decking to the perimeter gutter, and discharge from the bottom of the gutter out of a drain scupper. Downspouts can be used to drain the water from the overhead supported canopy to the ground upon the architect's request.
- G. Canopy shall be pitched toward the scupper/downspout to allow proper drainage out of the canopy frame.

2.3 Materials

- A. Overhead Support Tubes
 - 1) Overhead support tubes shall be 2"x2" square tubing (minimum of 0.125" thick).
- B. Frame Supports
 - 1) Frame support tubes shall be 2"x2" square tubing (minimum of 0.125" thick).
- C. Decking
 - 1) Extruded decking shall exceed loading requirements in section 1.2 – Engineering Design Criteria. Minimum 3" x 6" cap and pan.
- D. Gutter
 - 1) Gutter shall be radius cornered aluminum extrusion that exceeds loading requirements in section 1.2 – Engineering Design Criteria. Minimum gutter size shall be 4"x 6" at 0.093" thick.
- E. C-Beam
 - 1) C-Beam shall be 10" x 2 ½" x 0.125".
- F. Flashing

- 1) Flashing shall be made of aluminum sheet painted to match the color of the canopy. Minimum flashing thickness shall be 0.040" thick.

2.4 Fasteners

- A. All framing fasteners shall be 300 series stainless steel with neoprene washers. All rivets are 3/16" aluminum. All decking fasteners shall be long life coated steel with a 300 series stainless steel cap and neoprene washer.

2.5 Finishes

- A. Factory applied baked enamel
 - 1) Enamel is to comply with AAMA 2603.
 - 2) Color is to be as selected by architect from manufacturer's standard color chart.

Part 3: Installation and Execution

3.1 Erection

- A. Canopies are to be installed according to approved shop drawings and plans.
- B. The entire structure shall be installed straight, true, and plumb according to standard construction procedures.
- C. All fasteners penetrating the building's face shall be caulked.
- D. Any blocking necessary to install the overhead supported canopy shall be installed by the General Contractor according to the approved shop drawings prior to canopy installation.
- E. Canopies shall be installed with minimal slope to allow water flow from top of canopy to draining scuppers/downspouts and eliminate ponding.
- F. All joints, corners, and connections shall be tight and clean.
- G. All exposed fasteners are to be painted to match the canopy color.
- H. Decking is to be aligned and secured to aluminum frame structure.

3.2 Cleaning

- A. All canopy surfaces exposed are to be cleaned after installation is complete.
- B. Surplus materials and debris shall be removed from the jobsite after installation is complete.

3.3 Protection



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- A. General Contractor shall ensure protection of installed aluminum canopies from other construction so that canopies are without damage at time of substantial completion of project.