

SPECIFICATIONS

Section 107313 – Cantilevered Entrance Canopy

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 and 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
- B. Product Data – Submit manufacturer's product information, specification, and installation instructions for 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
 - 3) Manufacturer must submit complete proposed canopy system details, including sizes and strength values of all members to be used.

2.2 Design & Assembly

- A. Aluminum protective cover shall be welded together into a two-part frame system consisting of the main support frame and the decking frame. Mechanically fastened connections can be used if shipping does not allow welded system.

- B. Canopy shall use perimeter 2"x2" aluminum angle as fascia and the decking shall run perpendicular to the plane of the wall. All beams shall have welded caps at the ends to prevent any water leakage.
- C. Polycarbonate Panel decking shall be attached using H-Channel to connect each panel together. All connections of the Polycarbonate Panel shall be caulked.
- D. Canopies shall drain from the decking to the drain beam against the wall, down the vertical column at each end, and discharge at the bottom of the column out the deflector hole. Deflector plates are to be installed at the bottom of the vertical columns to discharge the water away from the entrance. The deflector plates are to be caulked inside the column and fastened to the column using a single rivet.
- E. The canopy frame is to be fastened to the wall using required fasteners to withstand adequate wind loading and rain loading on the canopy.
- F. Custom flashing is to be used under the decking frame to prevent water from blowing out between the decking and drain beam.

2.3 Materials

- A. Canopy Main Frame
 - 1) Main frame is to be made using extruded aluminum tube and aluminum drain beams (minimum 4"x6"x0.125", unless larger are required due to canopy spans). The only drain beam is located at the back of the frame against the wall to receive all draining water from the canopy top.
 - 2) The main frame is to be welded into a solid frame prior to installation. If welding the main frame into one single frame is not possible due to size constraints, the support frame can be made up of multiple smaller frames.
 - 3) The main frame shall be fabricated and welded to create a minimum 1:12 pitch of the canopy toward the receiving beam against the wall.
- B. Decking Support Frame
 - 1) Support frame is to be made using 2"x2" aluminum tubular extruded members (unless larger are required due to canopy spans). The 2"x2" members are to be solid tubular and have a minimum thickness of 0.125".
 - 2) The support frame is to be welded into a solid frame prior to installation. If welding the support frame into one single frame is not possible due to size constraints, the support frame can be made up of multiple smaller frames.
- C. Decking
 - 1) Decking shall be 16mm translucent Polycarbonate Panel.
- D. Perimeter Fascia Angle
 - 1) Perimeter fascia angle shall be 2"x2"x0.125" aluminum extruded angle.
- E. 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. Large bell washer shall be used with all decking fasteners.

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. Decking frame is to be fastened to the top of the main frame after the main frame has been mounted to the wall.
- D. All joints, corners, and connections shall be tight and clean.
- E. All exposed fasteners are to be painted to match the canopy color.
- F. Decking is to be aligned and secured to aluminum frame structure.
- G. Polycarbonate decking is to be caulked to the perimeter 2"x2" angle to prevent any water leakage.

3.3 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.

3.4 Protection

- 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.