Modular Awning System (MAS) Steel

Suggested Specifications | Section 107300
Steel MAS

Part 1 – General

1.1 Summary

A. Provide fixed custom awnings as shown on the drawings, as specified and as needed for a complete and proper installation.
B. The drawings show the extent of the work, the dimensioned profile and depth of the awning to be provided.
C. Related sections include:
1. Division 5 Metal Fabrication.

1.2 References

N/A

1.3 Submittals

A. Product Data
1. Submit specifications, data and installation instructions from the manufacturer of the awning system.
B. Shop Drawings
1. Include elevations, sections and specific details for each awning.
2. Show anchorage details and connections for all component parts.
C. Samples
1. Submit one sample minimum 24" long of each material to be utilized at each awning with appropriate finish.
D. Submit color chips for approval.
E. Warranty
1. Construction Specialties to provide written warranty to the owner that all CS Platform Solutions will be free of defective materials or workmanship for a period of one year from date of installation.

1.4 Quality Assurance

A. Single subcontract responsibility: Subcontract the work to a single firm that has had not less than ten years' experience in the design and manufacturing of work similar to that shown and required. For quality and delivery control, awnings must be purchased from a single source. Sub-contracting of awning assembly is not acceptable.
B. Performance
1. Design awnings to accommodate local requirements for snow and wind loading. Provide engineering calculations to support design. Calculations to be by a registered engineer licensed in the state the project is located. Analysis to include all components of awning including but not limited to capacity and deflection. Deflection to be limited to L/120, ¾", or as required by code.
C. Professional Engineer Requirements: Structural calculations to be signed and sealed by a professional engineer licensed to practice in the project state.
D. Warranty: Provide written warranty to the owner that all products will be free of defective materials or workmanship for a period of one year from date of installation.

1.5 Delivery, Storage and Handling

A. Delivery: At the time of delivery all materials shall be visually inspected for damage. Any damaged boxes, crates, louver sections, etc. shall be noted on the receiving ticket and immediately reported to the shipping company and the material manufacturer.

B. Storage:
1. Material may be stored flat, on end or on its side.
2. Material may be stored either indoors or outdoors.
3. If stored outdoors the material must be raised sufficiently off the ground to prevent it being flooded.
4. If stored outdoors the material must be covered with a weather-proof flame-resistant sheeting or tarpaulin.

C. Handling:
1. Material shall be handled in accordance with sound material handling practices and in such a way as to minimize racking.

Part 2 – Products

2.1 Manufacturers

A. The awnings and related materials herein specified and indicated on the drawings shall be as manufactured by: Construction Specialties, Inc. Melissa, TX.
B. Products equal to the Platform materials may be offered providing that the manufacturer and materials are pre-approved at least 10 working days before the bid date.

2.2 Materials

A. Steel: ASTM A572, Gr.50 Shop Fabricated with Pre-Punched or pre-drilled holes
B. Fasteners: Provide types, gauges and lengths to suit unit installation conditions.
C. Anchors and Inserts: Provide types, gauges and lengths to suit unit installation conditions.

2.3 Fabrication, General

A. Provide Platform fixed awnings and accessories materials, sizes, depths, arrangements and material thickness to be as indicated or as required for optimal performance with respect to strength; durability; and uniform appearance.
B. Include supports, anchorage, and accessories required for complete assembly.

2.4 Awning Models

A. Platform MBS Awning System.
1. **Outriggers:** ASTM A572, Gr.50 Steel
2. **Infill**: [Project Specific]
3. **Fascia**: ASTM A572, Gr.50
4. **Diagonal Support**: ASTM A572, Gr.50
5. **Mounting Bracket**: ASTM A572, Gr.50

2.5 Finishes

General: Comply with NAAMM "Metal Finishes Manual" for finish designations and application recommendations, except as otherwise indicated. Apply finishes in factory. Protect finishes on exposed surfaces prior to shipment. Remove scratches and blemishes from exposed surfaces that will be visible after completing finishing process. Provide color as indicated or, if not otherwise indicated, as selected by architect.
A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" recommendations for applying and designating finishes.
Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
Baked-Enamel Finish: AAMA 2603 except with a minimum dry film thickness of 1.5 mils (0.04 mm). Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.
1. Color and Gloss: [Black] [Brown] [White] [As indicated by manufacturer's designations] [Match Architect's sample] [As selected by Architect from manufacturer's full range] <Insert color and gloss>.

OR

B. Hot Dipped Galvanizing

1. Scope: All ferrous metal exposed to the weather, and all ferrous metals indicated on drawings or in specifications to be galvanized, shall be cleaned and then hot-dipped galvanized after fabrication.

a. Avoid fabrication techniques that could cause distortion or embrittlement of steel items to be hot-dip galvanized. Fabricator shall consult with hot-dip galvanizer regarding potential warpage problems or handling problems during the galvanizing process that may require adjustment of fabrication techniques or design before finalizing shop drawings and beginning of fabrication.

b. Cleaning: Thoroughly clean metal surfaces of all mill scale, rust, dirt, grease, oil, moisture and other contaminants prior to galvanizing.

c. Application: Hot-dip galvanizing shall conform to the following:

i. ASTM A 143: Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel.
ii. ASTM A 123: Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
iii. ASTM A 153: Galvanized Coating on Iron and Steel Hardware - Table 1.
iv. ASTM A 384: Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies.
v. ASTM A 385: Practice for Providing High Quality Zinc Coatings.
vi. ASTM A 924: Galvanized Coating on Steel Sheets.

d. Minimum weight of galvanized coating shall be two (2) oz. per square foot of surface.

e. Fabricate joints which will be exposed to weather in a manner to exclude water or provide weep holes where water may accumulate.

f. All galvanized materials must be inspected for compliance with these specifications and marked with a stamp indicating the name of the galvanizer, the weight of the coating, and the appropriate ASTM number.

PART 3 – Execution

3.1 Examination

A. Examine openings to receive the work. Do not proceed until any unsatisfactory conditions have been corrected.

3.2 Installation

A. Comply with manufacturer's instructions and recommendations for installation of the work.

B. Verify dimensions of supporting structure at the site by accurate field measurements so that the work will be accurately designed, fabricated and fitted to the structure.

C. Anchor awnings to the building substructure as indicated on architectural drawings.

D. Erection Tolerances:

1. Maximum variation from plane or location shown on the approved shop drawings: 1/8" per 12 feet of length, but not exceeding 1/2" in any total building length or portion thereof (non-cumulative).

2. Maximum offset from true alignment between two members abutting end to end, edge-to-edge in line or separated by less than 3": 1/16" (shop or field joints). This limiting condition shall prevail under both load and no-load conditions.

E. Cut and trim component parts during erection only with the approval of the manufacturer or fabricator, and in accordance with his recommendations. Restore finish completely. Remove and replace members where cutting and trimming has impaired the strength or appearance of the assembly.

F. Do not erect warped, bowed, deformed or otherwise damaged or defaced members. Remove and replace any members damaged in the erection process as directed.

G. Set units level, plumb and true to line, with uniform joints.

3.3 Protection

A. Protect installed materials to prevent damage by other trades. Use materials that may be easily removed without leaving residue or permanent stains.

3.4 Adjusting and Cleaning

A. Immediately clean exposed surfaces to remove fingerprints and dirt accumulation during the installation process. Do not let soiling remain until the final cleaning.

B. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to the material finishes. Thoroughly rinse surfaces and dry.

C. Restore components damaged during installation and construction so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by the Architect, remove damaged materials and replace with new materials.

1. Touch up minor abrasions in finishes with a compatible air-dried coating that matches the color and gloss of the factory applied coating.

END OF SECTION 107300

