

SECTION 107113 - SUNSHADES

PART 1 - GENERAL

1.1 SUMMARY

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:

1. Prefabricated aluminum sunshades.

- B. Related Requirements:

1. Section 055913 - Metal Balconies for prefabricated balconies.

1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Sunshade assembly and attachment shall resist loads indicated on the Structural Drawings.

- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

1.3 COORDINATION AND SCHEDULING

- A. Coordinate installation of anchorages for sunshades. Furnish drawings, templates, and directions for installing anchorages. Deliver anchorage items to Project site as to not delay construction progress.

- B. Schedule installation so wall attachments are made only to completed walls. Do not support sunshades temporarily by any means that do not meet structural performance requirements.

1.4 SUBMITTALS

- A. Product Data: Include ASD data sheets. Include typical percentage of recycled aluminum.

- B. Shop Drawings: Include plans, elevations, sections, and attachment details.

1. Shop drawings shall be stamped by a professional engineer licensed in the jurisdiction of the project.

- C. Samples for Verification: For each type of exposed finish required.

1.5 FIELD CONDITIONS

- A. Field Measurements: Verify actual locations of walls and other construction contiguous with sunshades by field measurements before fabrication and indicate measurements on Shop Drawings. Field measurements/verifications are to be performed by the installer in the field if required.

1.6 WARRANTY

- A. Warranty: Provide manufacturer's standard limited warranty against defects in manufacturing.

PART 2 - PRODUCTS

2.1 PREFABRICATED ALUMINUM SUNSHADES

- A. Basis-of-Design Manufacturer: American Structures & Design, Inc., (P) 253-833-4343, <https://americanstructures.com>.
- B. Components:
1. Infill: [Airfoil.] [Blade.] [Tube.]
 2. Trim: [Flat.] [Radius.]
 3. Attachment: [Cantilevered bracket.] [Sag rod.] [Sag rod with pipe sleeve.] [As recommended by manufacturer.]
- C. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.7 mm or thicker. Finishes to be applied by a certified manufacturer's applicator.
- D. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.7 mm or thicker. Finishes to be applied by a certified manufacturer's applicator.
1. Color: [Clear] [Champagne] [Light bronze] [Medium bronze] [Dark bronze] [Black].
- E. Baked-Enamel Finish: AAMA 2604 or 2605 except with a minimum dry film thickness of 1.8 mils (0.04 mm). Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish. Finishes to be applied by a certified manufacturer's applicator.
1. Finish Color: [As selected from manufacturer's standard colors.] [Custom.]
- F. Powder Coat Finish: AAMA 2604 performance.
1. Chemistry: Polyester TGIC free or TGIC
 2. Standard Durability: 3 to 5 years Florida.
 3. Extended Guarantees: 10 years film integrity and 5 years color.
 4. Finish Sheen: Matt.
 5. Finish Color: [As selected from manufacturer's standard colors.] [Custom.]
 6. Finishes to be applied by a certified manufacturer's applicator.
- G. Powder Coat Finish: AAMA 2605 performance.
1. Chemistry: FEVE.
 2. Standard Durability: 10 years Florida.
 3. Extended Guarantees: 20 years film integrity and 5 years color.
 4. Finish Sheen: Matt.
 5. Finish Color: [As selected from manufacturer's standard colors.] [Custom.]
 6. Finishes to be applied by a certified manufacturer's applicator.

2.2 MATERIALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, stains, discolorations, or blemishes.
- B. Brackets, Flanges, and Anchors: Same metal and finish as supported rails unless otherwise indicated.

2.3 ALUMINUM

- A. Aluminum, General: Provide alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with strength and durability properties for each aluminum form required not less than that of alloy and temper designated below.
- B. Extruded Bars and Shapes, Including Extruded Tubing: ASTM B221 (ASTM B221M), Alloy 6061-T6. Yield strength for Alloy 6063-T6 is 25 ksi (172 MPa).
- C. Drawn Seamless Tubing: ASTM B210 (ASTM B210M), Alloy 6063-T832.
- D. Plate and Sheet: ASTM B209 (ASTM B209M), Alloy 5005-H32 or Alloy 6061-T6.

2.4 FABRICATION

- A. Shop fabricate sunshades to the maximum extent practical.

2.5 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" recommendations for applying and designating finishes.
 - 1. Protect mechanical finishes from scratching and paint damage in transit.
 - 2. Provide exposed fasteners with finish matching appearance where applicable.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine attachment locations for suitable conditions where sunshades will be installed.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install sunshades in accordance with ASD instructions, approved submittals and in proper relationship with adjacent construction.

3.3 CLEANING

- A. Clean aluminum by washing thoroughly with clean water and soap, rinsing with clean water, and wiping dry.

3.4 PROTECTION

- A. Restore finishes damaged during installation and construction period so no evidence remains of correction work.

END OF SECTION