**SECTION 10 73 16**

**CANOPIES**

**PART 1 - GENERAL**

* 1. **DESCRIPTION OF PRODUCT**
1. Floline Marquee Classic Extruded Aluminum wall mounted hanging rod canopy system.
	1. **REFERENCES**
2. REFERENCE STANDARDS:
3. AAMA –2605
4. ASTM – B209, A36
5. AMS – QQ-A-250/2
6. AWS - American Welding Society.
	1. **SUBMITTALS**
7. Submit approval drawings and calc books, both signed and sealed by a

Professional Engineer licensed in the state where the project is located.

1. PRODUCT DESIGN REQUIREMENTS:

The canopy shall meet the following design requirements as shown on the drawings:

1. Building Code: See drawings.
2. Ground Snow Load (Pg): See drawings.
3. Basic Wind Speed (V): See drawings.
4. Seismic Design: See drawings.
5. SUBMITTAL REQUIREMENTS: Calculations and Submittal drawings shall include, at a minimum:
	1. Calculations:
		1. References to building codes and design manuals used for calculations.
		2. Formulas used for determining snow, wind, and seismic loads to specific project location.
		3. Connection design for anchorage to the building.
	2. Submittal Drawings shall specify and indicate:
		1. All materials and finishes to be applied.
		2. Canopy framing.
		3. Panel lay-out.
		4. Hanging rod diameter and clevis size.
		5. Upper wall brackets.
		6. Methods of anchorage, including structural connection details showing bolt sizes and plate thicknesses.
	3. **QUALITY ASSURANCE**
6. MANUFACTURER QUALIFICATIONS:
	1. Company specializing in engineering and manufacturing pre-engineered canopies with a minimum experience of ten (10) years.
	2. **MANUFACTURER WARRANTY**
7. Painted aluminum canopy parts must have a 10-year limited warranty on paint finish.

**PART 2 – PRODUCTS**

**2.1 CANOPY SYSTEM AND MATERIALS**

1. MANUFACTURERS:
	1. Acceptable Manufacturer: Floline Architectural Systems, LLC, 16108 S. Rt 59, Ste. 108, Plainfield, IL 60586; Phone (866) 356-5463; Fax (815) 733-6999; [www.flolinesystems.com](http://www.flolinesystems.com) Receive pricing from the corporate office, 16108 S. Rt 59, Ste. 108, Plainfield, IL 60586; Phone (866) 356-5463; Fax (815) 733-6999
2. SUBSTITUTION LIMITATIONS:
	1. Substitutions must be approved a minimum of ten (10) days before bid. All approved manufacturers shall be notified in writing before the bid date and shall not be allowed to bid without written notification.
3. PRODUCT REQUIREMENTS AND MATERIALS:
	1. GENERAL: The Floline Marquee Classic canopy shall be shop assembled (u.n.o. on manufacturer’s proposal). Upper wall brackets, hanging rod assemblies, and mounting hardware will ship “loose” for final field assembly. Field labor will be kept to a minimum by pre-manufactured parts.
	2. CANOPY FRAMING AND PANS: Standard shapes extruded from aluminum conforming to 6063-T6 and 6061-T6 specification. Frame and panels will have a 70% Kynar finish conforming to AAMA 2605-98. Color chosen from manufacturer's standard color chart. Gutter fascia to have mitered corners that are factory welded. Mechanical connections of gutter fascia utilizing rivets are not acceptable.
	3. WALL CONNECTION REQUIREMENTS:
		1. Structural fasteners thru canopy frame shall be 300 series alloy stainless steel bolts/anchors.
		2. Structural fasteners thru upper wall brackets shall be either:
		1. 300 Series alloy stainless steel bolts/anchors (Standard).
		2. Hot dipped galvanized A307 bolts (Option).
		3. Hanging rod assemblies shall be either:
		1. Stainless steel (300 series alloy) unpainted.
		2. Hot dipped galvanized with a matching paint finish.
		4. Upper wall brackets will be either:
		1. 3/8” aluminum (6061) with a matching paint finish (Standard)
		2. 3/8” hot dipped galvanized steel plate (A36) with
		 a matching paint finish (Option).
		3. 3/8” stainless steel plate (300 series alloy) unpainted (Option)
		5. All exposed fasteners shall be painted by manufacturer prior to shipment to match the canopy color.
	4. SHEET METAL
		1. Sheet metal components
			1. Provide accessories and other items essential to completeness of canopy installation as shown on drawings, if required.
			2. Components to have same finish as canopy, unless otherwise noted.
	5. FINISHES:
		1. KYNAR 500® FINISH ON ALUMINUM CANOPY PARTS:
			1. Spray-applied 70% Kynar finish meeting the AAMA Voluntary Specification 2605-98 shall be met.
			2. Total dry film thickness shall be 1.2 mil (typ), but not less than 1.0 mil.
			3. Sample production parts shall have been tested and meet the following criteria:
				1. Salt spray resistance per ASTM B 117 to 4,000 hours minimum rating of 7 on scribe line or cut edges
				2. Color retention per ASTM D 2244, Section 6.3 – maximum 5.0 E units (Hunter) color change after minimum 10-yr exposure test per Section 7.9.1.1
				3. Chalk resistance No. 8 rating for colors and No. 6 rating for whites per ASTM D 4214, Test method A (Method D 659) for ten (10) years per Section 7.9.1.1
				4. Gloss Retention per ASTM D 523 shall be a minimum of 50% after 10-yr exposure test per Section 7.9.1.1
			4. Exposed fasteners for frame and ornamentation shall be painted to match the canopy.
		2. KYNAR 500® FINISH ON SHEET METAL
			1. Full Strength Kynar 500®/Hylar 5000 (contains a minimum 70% Kynar/Hylar polyvinylidene fluoride (PVDF) resins) premium flouropolymer coating system of 1.0 (± 0.1) mil total dry film thickness. For additional protection a wash coat of 0.3 -0.4 mil dry film thickness is applied to the reverse side.
	6. TRANSLUCENT PANEL OPTION:
	Roof panels to be either:
		1. Polycarbonate multiwall, 16 or 20 mm thickness, Opal White translucent color, 23.62” cover width, with batten caps.
		2. Polycarbonate solid, .236” thickness, White translucent color.

**PART 3 – EXECUTION**

**3.1 INSTALLERS STORAGE AND HANDLING**

1. Inspect delivered materials upon receipt to insure no damage has occurred during shipment.
2. Protect canopy after arrival at destination from weather, sunlight, and damage.
3. Installer shall store canopy elevated from soils to allow air circulation and to not introduce mold, fungi decay or insects to the product.
4. Product must be handled with protective straps or padded forks if lifting with mechanical equipment. Use of chain or cable to lift product into place will not be accepted.

**3.2 ERECTION**

1. Install canopy according to manufacturer's installation instructions, approved shop drawings, and these specifications.
2. Remove any strippable film at time of installation.
3. The general contractor shall be responsible for protecting the canopy from construction operations and abuse by other trades.

**3.3 REPAIR**

1. Do not attempt any field changes without first contacting the manufacturer.

**3.4 CLEANING**

1. Prevent rust staining by immediately removing from finished surfaces any filings caused by drilling or cutting
2. All dirt oil, grease, fingerprints, or other contaminants shall be removed after installation is completed.
3. Follow manufacturer’s recommended cleaning and maintenance instructions.

**END OF SECTION**