

SECTION 10350 - FLAGPOLES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Aluminum flagpole, ground mounted.
- B. Flag: By Owner.

1.2 RELATED SECTIONS

- A. Division 2 –Paving
- B. Section 03300 – Cast-In-Place Concrete: Concrete base and foundation construction

1.3 REFERENCES

- A. AASHTO M-36 - Corrugated Metal Culvert Pipe.
- B. ASTM A53 - Pipe, Steel, Black and Hot-Dipped, Zinc Coated, Welded and Seamless.
- C. ASTM A123 - Zinc (Hot Dipped Galvanized) Coatings on Iron and Steel Products.
- D. ASTM A312 - Seamless and Welded Austenitic Stainless Steel Pipe.
- E. ASTM B221 - Aluminum-Alloy Extruded Bar, Rod, Wire, Shape, and Tube.
- F. ASTM B241 - Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube.
- G. CDA (Copper Development Association) - Handbook.

1.4 PERFORMANCE REQUIREMENTS

- A. Flagpole With and Without Flag Flying: Resistant without permanent deformation to 120 miles/hr wind velocity; non-resonant, safety design factor of 2.5.
- B. Flagpole shall comply with 2009 North Carolina Building Code requirements.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Shop Drawings: Indicate detailed dimensions, base attachment details, anchor requirements, and imposed loads.

- C. Product Data: Provide data on pole, accessories, and configurations. Provide stamped and signed engineering calculations.

1.6 OPERATION AND MAINTENANCE DATA

- A. Submit under provisions of Section 01700.
- B. Operation Data: Provide operating data.
- C. Maintenance Data: Provide lubrication and periodic maintenance requirement schedules.

1.7 QUALIFICATIONS

- A. Design flagpole foundation and supports under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State of North Carolina.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Section 01600.
- B. Spiral wrap flagpole with protective covering and pack in protective shipping tubes or containers.
- C. Protect flagpole and accessories from damage or moisture. Protect pole from construction activity on-site.

PART 2 PRODUCTS

2.1 MANUFACTURES

- A. Pole Tech, Inc. New York
- B. Badgerland
- C. Substitutions: In accordance with Section 01600 – Material and Equipment.

2.2 POLE MATERIALS

- A. Aluminum: ASTM B241, ASTM B221, alloy, T6 temper.

2.3 POLE CONFIGURATION

- A. 20 feet visible length. 22 feet total length.

- B. 5 inch Butt diameter, 3 inch Top diameter.
- C. .156 inch Wall thickness.
- D. Flagpole: Ground mounted type.
- E. Flagpole Design: Cone tapered.
- F. Halyard: Internal type. Stainless steel.
- G. Winch: Removal crank. Automatic brake.
- H. Finial Ball: Stainless steel.
- I. Primer: Zinc chromate type.

2.4 MOUNTING COMPONENTS

- A. Foundation Tube Sleeve: AASHTO M-36, corrugated 16 gauge steel, galvanized, as indicated.
- B. Pole Base Attachment: Flush; steel base, with base cover.
- C. Lighting Ground Rod: Copper rod, 3/4 inch diameter.
- D. Lightning Ground Cable: Copper No. 6 AWG, soft drawn.

2.5 FINISHES

- A. Metal Surfaces in Contact With Concrete: Asphaltic paint.
- B. Concealed Steel Surfaces: Prime painted.
- C. Exposed to View Surfaces: Clear anodized aluminum.
- D. Stainless Steel: No. 4 satin finish.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site conditions under provisions of Section 01039
- B. Verify that concrete foundation supports are ready to receive work and dimensions are as indicated on shop drawings

3.2 PREPARATION

- A. Coat metal sleeve surfaces below grade and surfaces in contact with dissimilar materials with asphaltic paint

3.3 INSTALLATION

- A. Install flagpole, base assembly, and fittings in accordance with manufacturer's instructions.
- B. Electrically ground flagpole installation.
- C. Fill foundation tube sleeve with concrete specified in Section 03300.
- D. Install foundation plate and centering wedges for flagpole base. Set concrete base and fasten.

3.4 ERECTION TOLERANCES

- A. Maximum Variation From Plumb: 1/2 inch.

3.5 ADJUSTING

- A. Adjust work under provisions of Section 01700
- B. Adjust operating devices so that halyard and flag function smoothly.

3.6 CLEANING

- A. Clean pole according to manufacture's written instructions.

END OF SECTION