
SECTION 02821 ORNAMENTAL FENCE

All work and materials shall conform to the Drawings and these specifications:

PART 1 GENERAL

1.0 SUMMARY

A. Ornamental fencing and accessories for the Master Halco Estate Fence Alternative shown on Drawings.

1.01 SUBMITTALS

- A. Shop drawings: Layout of fences and gates with dimensions, details, and finishes of components, accessories, and post foundations.
- B. Product Data: Manufacturer's catalog cuts indicating material compliance and specified options.
- C. Samples: Color selection for polymer finishes. If requested, samples of materials (e.g., finials, caps, and accessories).

1.02 MANUFACTURER

- A. Products from qualified manufacturers having a minimum of 5 years experience manufacturing ornamental picket fencing will be acceptable by the architect as equal, if approved in writing, ten days prior to bidding, and if they meet the following specifications for design, size, gauge of metal parts and fabrication.
- B. Ornamental Picket Fence: Style: Estate
 Height: 4'-0"
- C. Approved Manufacturers: Monumental Iron Works/Master Halco Inc., Baltimore, MD
 Phone (410) 676-2744 Fax (410) 676-7098

PART 2 PRODUCTS

2.0 FENCE MATERIALS

- A. Pickets: Square Solid Bar, ASTM A 36, hot rolled structural quality steel, 60,000 psi (372 MPa) tensile strength, 36,000 psi yield strength. Size pickets - 3/4" (75 mm). Space pickets 3-15/16" maximum (100 mm) face to face. Attach each picket to each rail with 1/4" (6 mm) industrial drive rivets. Size 1" long..
- B. Rails: 1-1/2" (38mm) x 1-3/8" (35mm) x 1-1/2" (38mm), 11 gauge [0.120" (3.05mm)] thick galvanized steel "U" channel per ASTM A-653 or ASTM A-607, having a 50,000 psi (344 MPa) yield strength and G90 zinc coating, 0.90 oz/fl² (0.27 kg/M²). Punch rails to receive pickets and rivets and attach rails to rail brackets with 2 each, 1/4" (6 mm) industrial drive rivets. Size #4. Steel for rail produced under ASTM A446.
- C. Posts: Galvanized square steel tubular members (min. 2" size) manufactured per ASTM A-787 having a 45,000 psi (310 MPa) yield strength and G90 zinc coating, 0.90 oz/fl². Sized for commercial application.

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- D. Accessories: Assembled panels with ornamental accessories attached using industrial drive rivets to prevent removal and vandalism.
 - E. Finish: All pickets, channels, posts, fittings and accessories shall be polyester coated individually after drilling and layout, to ensure maximum corrosion protection. (Coating of assembled sections is unacceptable). All components shall be given a 4 stage "Power Wash" pre-treatment process that cleans and prepares the galvanized surface to assure complete adhesion of the finish coat. All metal is then given a polyester resin based powder coating applied by the electrostatic spray process, to a thickness 2.5 (.0635 mm) mils. The finish shall be baked in a 450⁰F (232⁰C) (metal temperature) oven for 20 minutes. Color shall be selected by the Department.

GATES

- A. Ornamental picket swing gates as specified on the Drawings

ACCESSORIES

- A. Rail Attachment Brackets - die cast of zinc (ZAMAK #3 Alloy) per ASTM B86-83Z 33521. Ball and socket design capable of 30° swivel (up/down-left/right). Bracket to fully encapsulate rail end for complete security.
- B. Industrial Drive Rivets: Of sufficient length to attach items in a secure nonrattling position. Rivet to have a minimum of 1100 lbs. (4894 N) holding power and a shear strength of 1500 lbs. (6674 N).
- C. Ornamental Picket Fence Accessories: Provide indicated items required to complete fence system. Galvanize each ferrous metal item in accordance with ASTM B695 and finish to match framing.
- D. Post Caps: Formed steel, cast of malleable iron or aluminum alloy, weathertight closure cap. Provide one flat style post cap for each post.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install fence in accordance with manufacturer's instructions.
- B. Surface mount (wall mount) posts with mounting plates where indicated. Fasten with lag bolts and shields.

3.02 GATE INSTALLATION

- A. Install gates plumb, level and secure for full opening without interference.
- B. Attach hardware by means which will prevent unauthorized removal.
- C. Adjust hardware for smooth operation.

3.03 ACCESSORIES

- A. Install post caps and other accessories to complete fence.

END OF SECTION 02821