

ITEM 10607.4003M - ORNAMENTAL STEEL PICKET FENCE

DESCRIPTION

General

The Work shall consist of furnishing and installing ornamental picket fencing and accessories as shown on the Plans, as directed by the Engineer, and as herein specified.

Submittals

- A. In accordance with the Standard Specifications Section 106 – Control of Material.
- B. Shop Drawings: Layout of fence with dimensions, details, and finishes of component accessories and post foundations.
- C. Product Data: Manufacturer's catalog cuts indicating material compliance.
- D. Samples: Color selections for polyester finishes. If requested, samples of materials (e.g., finials, caps, and accessories).

Quality Assurance

Qualifications: Manufacturers shall have a minimum of five years experience manufacturing ornamental picket fencing.

MATERIALS

Ornamental Picket Fence

- A. Manufacturer:

Master Halco
Monumental Iron Works
Subsidiary
Style N MOD, 1829-mm
high
6500 Eastern Ave.
Baltimore, MD 21224
410-633-6500
www.mhfence.com

Boundary Fence & Railing
Systems, Inc.
131-02 Jamaica Ave.
Richmond Hill, New York
11418
718-847-3400
Boundfence@aol.com

Ameristar Fence Products
1555 North Mingo Road
Tulsa, OK 74116
918-835-0898
ameristarfenceproducts.com

Or equal as approved by the Engineer.

- B. Pickets: Galvanized square steel tubular members, manufactured per ASTM A-787, having a 310-MPa yield strength and G90 zinc coating. Picket size 25-mm. Space pickets 100-mm maximum face to face. Attach each picket to each rail with 6-mm industrial drive rivets, size No. 4; minimum wall thickness 1.19-mm.
- C. Rails: 38-mm x 35-mm x 38-mm, 3.05-mm thick galvanized steel "U"-channel per ASTM A-653 or ASTM A-607 having a 344-MPa yield strength and G90 zinc coating. Punch rails to receive pickets and rivets and attach rails to rail brackets with 2 each, 6-mm industrial drive rivets, Size No. 4. Steel for rail produced under ASTM A-653.

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- D. Posts: Galvanized square tubular members, manufactured per ASTM A-787, having a 310-MPa yield strength, and G90 zinc coating (inside and outside). Minimum post size shall be as detailed on the Plans.
- E. Accessories: Assembled panels with ornamental accessories attached using industrial drive rivets to prevent removal and vandalism.
- F. Finish: All pickets, channels, posts, fittings and accessories shall be polyester coated individually after drilling and layout, to ensure maximum corrosion protection. All components shall be power washed to assure complete adhesion of the finished coat. All metal shall be given a polyester resin based powder coating applied by an electrostatic spray to a thickness of 0.0635-mm. Bake finish for 20-minutes at 232-degrees Celsius metal temperature. Color shall be black.

Gates

Gates shall be as specified under their respective Contract Items.

Accessories

- A. Rail Attachment Brackets: Die cast of zinc per ASTM 86-83Z 323521. Ball and socket design shall be capable of 30-degree swivel (up/down-left/right). Bracket shall fully encapsulate rail end for complete security that is aesthetically pleasing.
- B. Industrial Drive Rivets: Sufficient length to attach items in a secure non-rattling position. Rivet shall have a minimum of 4894 N holding power and shear strength of 6674 N.
- C. Post Caps: Formed steel, cast of malleable iron or aluminum alloy, weather-tight closure cap. Provide one flat top post cap for each post.
- D. Rings: Cast aluminum. Attach ring to top rail by inserting mounting blocks into top rail and riveting through side of rail using 6mm industrial drive rivet. Hold bottom of ring in place by dowel that protrudes from ring through pre-drilled hole in bottom rail.
- E. Picket Tops: Flat top with polymer plug.

Setting Material

- A. Portland cement concrete used for bars shall conform to NYSDOT Standard Specification Section 501 except that requirements for automated batching shall not apply.
- B. Flanged Posts: Provide flange type baseplates with four holes for surface mounting of posts where indicated.

CONSTRUCTION DETAILS

Examination

- A. Verify that areas to receive fencing are completed to final grades and elevations.

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- B. Ensure property lines and legal boundaries of work area clearly established.

Installation

- A. Install fence in accordance with manufacturer's instructions.
- B. Space posts uniformly at 2536-mm maximum face to face unless otherwise indicated.
- C. Concrete Set Posts:
1. Drill hole in firm, undisturbed or compacted soil. Holes shall have diameter four times greater than nominal outside dimension of post and depths approximately 152-mm deeper than post bottom. Excavate deeper as required for adequate support in soft and loose soils and for posts with heavy lateral loads. Set post bottom 914-mm below surface when in firm, undisturbed soil. Place concrete around post in a continuous pour. Trowel finish around posts and slope to direct water away from posts.
 2. Gate Posts and Hardware: Set keepers, stops, sleeves, and other accessories in concrete.
- D. Surface mount posts with mounting plates where indicated. Fasten with lag bolts and shields.
- E. Check each post for vertical and top alignment and maintain in position during placement and finishing operation.
- F. Align fence panels between posts. Firmly attach rail brackets to posts with 6-mm bolt and locknut, ensuring panels and posts remain plumb.

Accessories

Install post caps and other accessories to complete fence.

Cleaning

Clean up debris and unused materials and remove from site.

METHOD OF MEASUREMENT

Ornamental Steel Picket Fence will be measured by the number of meters of steel picket fence exclusive of the fence gates measured along the top of the fence from center to center of end posts, properly installed in accordance with the Contract Documents and as directed by the Engineer.

BASIS OF PAYMENT

The unit price bid for all the work encompassed by this Section shall include the furnishing of all labor, materials, tools, equipment, and incidentals as necessary to complete the work of the item installed in place to the satisfaction of the Engineer.

Fence gates will be measured and paid for under separate bid items.