

ITEM 10607.4301 M - ORNAMENTAL PICKET SWING GATE SYSTEM

DESCRIPTION:

General

The Work shall consist of furnishing and installing ornamental picket swing gates, and standalone card reader, as shown on the Plans, as directed by the Engineer, and as specified herein.

Submittals

- A. In accordance with NYSDOT Standard Specifications Section 106 – Control of Material.
- B. Shop Drawings: Layout of fences and gates with dimensions, details, and finishes of components, 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

- A. Qualifications: Manufacturers shall have a minimum of five years experience manufacturing ornamental picket fencing.
- B. Special Warranty: Provide a warranty covering swing gate, posts, card reader and accessories against failure resulting from normal use for a period of five years from date of purchase. Failure is defined as any defect in manufacturing that prevents the gate from operating in a normal manner.

MATERIALS:

Ornamental Picket Swing Gates

- A. Manufacturer having a minimum of five years of experience:

Estate Single Swing Gate	Boundary Fence & Railing	Ameristar Fence Products
Master Halco	Systems, Inc.	1555 North Mingo Road
Monumental Iron Works	131-02 Jamaica Ave.	Tulsa, OK 74116
Subsidiary	Richmond Hill, New York	918-835-0898
6500 Eastern Ave.	11418	ameristarfenceproducts.com
Baltimore, MD 21224	718-847-3400	
410-633-6500	Boundfence@aol.com	
www.mhfence.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.

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- C. 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.
- D. Picket Tops: Flat top with polymer plug.
- E. Gate Frames: Fabricate ornamental picket swing gate using galvanized steel members, ASTM A78, structural quality steel, 310-MPa tensile strength, with galvanized G90 coating. Frame members welded using stainless steel welded to form rigid one-piece unit. Minimum size vertical uprights, 50-mm square, 13 gauge wall thickness.
- F. Ornamental Picket Infill: "U" channel rails formed from hot-rolled structural steel, 35-mm wide by 38-mm deep, 11 gauge wall thickness. Punch rails to receive pickets and weld inside gate frame. Pickets (25-mm galvanized steel square tube) of gauge, spacing, and with accessories to match fence. Attach pickets to "U" rails with 6-mm industrial rivets, size No. 4.
- G. Bracing: Provide diagonal adjustable length truss rods on gates to prevent sag.
- H. Hardware: Galvanized steel or malleable iron shapes to suit gate size.
- I. Hinges: Structurally capable of supporting gate leaf and allow opening and closing without binding. Non-lift-off type hinge design shall permit gate to swing 180-degrees.
- J. Latch: Capable of retaining gate in closed position with provision for padlock.
- K. Keeper: Provide keeper for each gate leaf over 1,500-mm wide. Gate keeper shall consist of mechanical device for securing free end of gate when in full open position.
- L. Gate Posts: Square members, ASTM 787, structural quality steel, 310-MPa tensile strength with galvanized G90 coating, size as indicated below.

Gate Leaf Single Width	Post Size (Square)
914-mm	76-mm

- M. Polyester Powder Coat Finish: After components have been galvanized to provide maximum corrosion resistance, pretreat, clean, and prepare galvanized surface to assure complete adhesion of finish coat. Apply 0.0635-mm thickness of polyester resin based powder coating by electrostatic spray process. Bake finish for 20 minutes at 232-degrees Centigrade metal temperature. Color shall be black to match ornamental steel picket fence.

Swing Gate Card Reader

Provide standalone swing gate card reader. Card reader shall be compatible with the new card access system installed at the entrance to building under the electrical contract (P.I.N. 0806.E6) for this project.

Setting Materials

Portland cement concrete shall conform to the requirements of NYSDOT Standard Specification Section 501 except that requirements for automated batching shall not apply.

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CONSTRUCTION DETAILS:

Examination

- A. Verify that areas to receive fencing are completed to final grades and elevations.
- B. Ensure property liens and legal boundaries of work area clearly established.

Installation

- A. Install gate posts in accordance with manufacturer's instructions.
- B. Framing Installation:
 - 1. Install gate posts in accordance with manufacturer's instructions.
 - 2. Concrete Set Gate Post: Drill holes in firm, undisturbed, or compacted soil. Holes shall have diameter four times greater than 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 posts in a continuous pour. Trowel finish around post and slope to direct water away from posts.
 - 3. Gate Posts and Hardware: Set keepers, stops, sleeves, and other accessories in concrete. Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.
- C. Gate Installation:
 - 1. Install gates plumb, level, and secure for full opening without interference.
 - 2. Attach hardware by means that will prevent unauthorized removal.
 - 3. Adjust hardware for smooth operation.
- D Contractor shall install standalone card reader in accordance with the manufacturer's instructions and the layout dimensions as shown on the Plans.

Cleaning

Clean up debris and unused materials and remove from site.

Tests and Demonstration

- A. All work provided under the Contract shall be demonstrated to function properly in accordance with Contract requirements.
- B. Upon completion of the work, and prior to final payment, testing of equipment and

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appliances installed hereunder shall be performed in the presence of the Engineer-In-Charge.

- C. Should the tests show that any of the materials, appliances or workmanship are not in compliance with the specifications, the Contractor, upon written notice, shall remove the same and promptly replace them with other materials in conformity with the specifications at no cost to the State.

METHOD OF MEASUREMENT:

Ornamental Picket Swing Gate Systems will be measured for payment by each swing gate system furnished and 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 ornamental picket swing gate system, card reader, all labor, materials, tools, equipment, testing and incidentals as necessary to complete the work of the item installed in place to the satisfaction of the Engineer.