



ASSA ABLOY Patriot Ornamental Welded Wire Fence Specifications:

[This specification contains options and notes in square brackets. The various choices relate to the color, style, size, and component dimensions of the fences. Select one of the options and eliminate the brackets in your final specifications.]

Section 32 31 16 – Welded Wire Fences and Gates

PART 1 – GENERAL:

1.01 SECTION INCLUDES

A. Decorative welded wire fencing, gates, and accessories.

1.02 RELATED SECTIONS

A. Section ___ ___ - Earthwork

B. Section ___ ___ - Concrete

1.03 SYSTEM DESCRIPTION

A. The manufacturer shall supply a total ornamental welded wire fence system of the style, strength, size, and color defined herein. The system shall include all components as required, and shall be fabricated, coated, and assembled in the United States.

1.04 QUALITY ASSURANCE

A. The contractor shall provide laborers and supervisors who are familiar with the type of construction involved, and the materials and techniques specified.

B. Manufacturer of fence system must have ten (10) years of documented experience in manufacturing the products specified in this section.

1.05 REFERENCES

A. ASTM A525 - Specification for General Requirements for Steel Sheet, Zinc-coated (Galvanized) by the Hot-Dip Process

B. ASTM A641 – Specification for Zinc-Coated (Galvanized) Carbon Steel Wire

C. ASTM A185 – Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.

D. ASTM B117 – Practice for Operating Salt Spray (Fog) Apparatus

E. ASTM D2247 – Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity

1.06 SUBMITTALS

A. Manufacturer’s submittal package shall be provided prior to installation.

B. Changes in specification may not be made after the bid date.

C. Samples of assembled materials, components, hardware, accessories, and/or colors, if requested.

1.07 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Upon receipt, materials should be checked for damage that may have occurred in shipping to the job site.
- B. Each package shall bear the name of the manufacturer.
- C. Store products in manufacturer's unopened packaging.
- D. Store materials in a secure and dry area to protect against damage, weather, vandalism, and theft.
- E. Transport, handle and store products with care to protect against damage before installation.

PART 2 – PRODUCTS:

2.01 MANUFACTURER

A. The fencing system shall be Patriot Ornamental Wire Fence as manufactured by Jerith Manufacturing LLC., 14400 McNulty Road, Philadelphia, PA 19154. Telephone: 800-344-2242; Fax: 215-676-9756; email: sales@jerith.com.

- B. Substitutions: [Not permitted / May be submitted in accordance with Section ___ ___].
- C. Nominal fence height shall be [48, 60, 72, 96, 120, 144] inches. Fences taller than 72" shall be made by stacking two same height panels on top of each other.
- E. Color shall be Black.

2.02 MATERIALS

A. Structural Components: All posts and rails used in the fence system shall be manufactured from coil steel having a minimum yield strength of 55,000 psi. The steel shall be galvanized to meet the requirements of ASTM A525 with a zinc coating weight of 0.60-1.0 ounces per square foot.

B. Infill: Section infill wires shall be steel with a minimum yield strength of 50,000 psi. The steel shall be galvanized to meet the designation of "regular coating" in accordance with requirements of ASTM A641.

2.03 FINISH

A. Pretreatment: A five stage non-chrome pretreatment shall be applied. The final stage shall be a dry-in-place activator which produces a uniform chemical conversion coating for superior adhesion.

B. Coating: Fence materials shall be coated with a TGIC polyester powder-coat finish system. Epoxy powder coatings, baked enamel or acrylic paint finishes are not acceptable. The finish shall have a cured film thickness of at least 2.0 mils.

C. Tests: The cured finish shall meet the following requirements:

1. Humidity resistance of 1,000 hours using ASTM D2247.
2. Salt-spray resistance of 1,000 hours using ASTM B117.
3. Outdoor weathering shall show no adhesion loss, checking or crazing, with only slight fade and chalk when exposed for 3 years in Florida facing south at a 45 degree angle.

2.03 FABRICATION

A. Fence Sections shall be manufactured with 1" square x 18 gauge (.049") tubing welded every 12" to the top and bottom of welded wire panels. Welded wire panels shall be comprised of [4 (.225"), 6 (.192")] gauge (Washburn & Moen Standard) vertical wires and 6 (.192") gauge horizontal wires. 4 gauge vertical wires shall be placed 3½" on center. 6 gauge vertical wires shall be placed 1¾" on center. Horizontal wires shall be 6 gauge and spaced to provide style differences but no further apart than would allow substantial rigidity of vertical wires. Horizontal and vertical wires shall be assembled by automatic machines or other suitable mechanical means that will ensure accurate spacing and alignment of all members of the finished fabric. The wires shall be connected at every intersection by electric resistance welding in accordance with all requirements in ASTM A185. Sections shall be capable of supporting a 550 lb. load applied vertically at midspan and a concentrated load of 225 lbs. applied horizontally at midspan without permanent deformation.

B. Posts shall be [2", 2½", 3", 4"] square x [16 (.065"), 14 (.080"), 12 (.105"), 11 (.125")] gauge steel tubing. Posts shall be spaced 70" apart from inside face to inside face. Steel rail ends shall be screwed to terminal posts to receive the 1" square top and bottom rails. The rails shall be secured to the rail ends by stainless steel screws. Steel caps shall be provided with all posts.

C. Residential and light commercial grade gates shall be assembled using gate uprights with 1" outside cross-section dimensions having 7/8" tubes welded to them. A Fence Section shall then be cut to size and secured to two uprights using stainless steel screws. A 1" x .125" diagonal brace shall be provided, cut to length, cold galvanized, touched up, and screwed into position from the top hinge side to the bottom latch side of the gate. All gates shall support a 300 lb. vertical load on the latch side of the gate without collapsing.

D. Heavy duty grade gate frames shall consist of 2" square x .125" wall gate uprights and 1.5" x 1.5" x .125" U-channels for top and bottom members welded at each connection with a 1" x .125" wall diagonal brace welded into place. Infill of matching Fence Section shall be welded into frame.

2.05 WARRANTY

A. The entire fence system shall have a written 8 Year Warranty against rust and defects in workmanship and materials. In addition, the finish shall be warranted not to crack, chip, peel, or blister for the same period.

PART 3 – EXECUTION:

3.01 PREPARATION

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

B. Ensure property lines and legal boundaries are clearly established.

C. Remove any surface irregularities which may cause interference with the installation of the fence.

3.02 FENCE INSTALLATION

A. Install fence in accordance with the manufacturer's instructions.

B. Excavate post holes to proper depth to suit local conditions for stability and support of the fence system without disturbing the underlying materials. Excavate deeper as required for adequate support in soft and loose soils.

C. Set fence posts in concrete footers at 70" spacing from inside of post to inside of post. Note that this fence must be stepped for installations on a slope. It can not follow the grade.

D. Center and align posts in holes to required depth. Place concrete around posts and tamp for consolidation. After tamping, check alignment of posts, and make necessary corrections before the concrete hardens.

E. Insert rail ends into horizontal rails and fasten in place to the posts.

3.03 GATE INSTALLATION

A. Set gate posts plumb and level for gate openings specified in construction drawings.

B. Install gates to allow full opening without interference after concrete has hardened around gate posts. Adjust hardware for smooth operation. Install one drop rod for double gates.

3.04 ACCESSORIES

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

3.05 CLEANING

A. Contractor shall clean site of debris and excess materials. Post hole excavations shall be scattered uniformly away from posts.

B. If necessary, clean fence system with mild household detergent and clean water. Excess concrete must be removed from posts and other fencing material before it hardens.