SECTION 02824A
WOVEN WIRE FENCE AND GATES / ALL STEEL FRAMEWORK

PART 1 GENERAL

1.01 DEFINITIONS
- A. AASHTO: American Association of State Highway and Transportation Officials
- B. ASTM: American Society for Testing and Materials

1.02 SYSTEM DESCRIPTION
- A. Design requirements in accordance with-ASSHTO and ASTM specs.
  1. Fence shall be Type10 47 Woven Wire fence with an all steel framework and 1 strand of barbed wire.
     - AASHTO M181-98 Chain Link Fence (Used for end, corner, brace, and gate posts.)
     - AASHTO M279-97 / ASTM A116-95—Zinc-Coated Steel Woven Wire
     - AASHTO M280-01 / ASTM A121-99—Metallic-Coated Carbon Steel Barbed Wire
     - AASHTO M281-96 (2000) / ASTM A702-89 (1994)—Steel Fence Posts and Assemblies, Hot Wrought

1.03 SUBMITTALS
- A. Shop Drawings:
  1. Plan and sections of fence layout.
- B. Manufacturer's catalog information on woven wire, gates and posts.

1.04 DELIVERY, STORAGE, AND HANDLING
- A. Deliver materials with manufacturer's tags and labels intact and legible.

1.05 PROJECT/SITE CONDITIONS
- A. Do not install fence until final grading complete and finish elevations established.

PART 2 PRODUCTS

2.01 Major components, including but not limited to fabric, framework, and accessories, shall be manufactured in the USA.

2.02 FABRIC
- A. Woven Wire:
  1. Steel woven wire securely welded or twisted, conforming to requirements for Class II of ASTM A584 or A116, Class 2 coating.
  2. Mesh Size: 6 in. nominal.
  3. Wire Size: 11 ga, 120 in. nominal dia of coated wire, except top and bottom wires 9 ga, 0.148 in. nominal dia of coated wire.
  4. Aluminum Coating: ASTM A584.
  5. Zinc Coating: ASTM A116.

2.03 FRAMEWORK
- A. End, Corner, Pull and Gate Posts, and Braces:
  1. The tubular framework shall be in accordance with ASTM 1043, group 1C.
  2. Acceptable Manufacturers

Allied Tube & Conduit
16100 S. Lathrop Ave.
Harvey, IL 60426
1-708-339-1610
atcfence.com

3. End, corner, pull, and gateposts to be 2.875 in. O.D. with 1.660 in. O.D. horizontal bracing.

B. Line Posts:

1. Must be "T" drive posts, 7 ft. long and must have a nominal weight of 1.2 lbs ft. with a minimum weight of 1.08 lbs. ft. for any individual post, exclusive of anchor plate. The post must be studded or have other approved provisions for holding the fabric in place on the post and must be provided with a suitable anchor plate. Each post must be furnished with not less than 6, 11 ga. galvanized or aluminum coated wire clamps.
Posts must be painted / / galvanized in accordance with AASHTO M 281.

2.04 BARBED WIRE

A. 12-1/2 ga wire with 14 ga, 4-point round barbs spaced approximately 5 in. o/c.

B. Galvanize in accordance with ASTM A121, Class III, except zinc coating shall be 0.80 oz/sq ft.

C. Aluminum coat in accordance with ASTM A585, Type I / / II.

(NTS Type I is standard barb spacing of barbs at 5 in o/c and Type II is high security with spacing of 3 in o/c)

2.05 GATES

A. Gates: Swing type complete with latches, stops, keepers, hinges, and woven wire fabric.

B. Construct gates with top, bottom, and side framework of following dimensions and weights and same height as fence.

Use and Shape	**Minimum Outside Dimension (in.)**	**Minimum Weight (lbs/ft)**
Leaf Width 8 ft or Less Round	1.660	1.84
Leaf Width Over 8 ft Round	1.90	2.28

C. Weld joints. Provide vertical bracing at 8 ft maximum spacing. Provide horizontal brace for leaves over 8 ft wide.

D. Cover with woven wire fabric attached securely to frame wrapping each line of wire around frame and tying wire back on itself with not less than 1-1/2 twists tightly wrapped.

E. Latch: Forked or plunger bar type with integral padlock eye to permit operation from either side of gate. Provide padlock for each gate to be keyed alike with padlocks on-site.

2.06 HARDWARE AND FITTINGS

A. Fittings, Caps, Connections, and Other Castings: Pressed steel or malleable iron.

B. Hot dip galvanized fittings in accordance with ASTM A153.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine conditions under which fence and gates to be installed. Notify ENGINEER in writing of improper Work conditions.

B. Do not proceed with Work until unsatisfactory conditions corrected.

C. Verify measurements at site.

D. Check location of existing underground work to verify footings clear utilities and other underground work.

3.02 INSTALLATION

A. Framing:

1. Install line posts not more than 16 ft apart.
2. Install pull posts not more than 600 ft apart where straight run of fence exceeds 600 ft and fence line changes direction by more than 15E, but less than 30E.
3. Install corner posts where fence line changes direction by more than 30E.
4. All posts shall be set plumb and true to line. All posts out-of-plumb more than 1 inch shall be reset. All posts out-of-line more than 2 inches shall be reset. Set steel line posts by driving. Care shall be used not to damage steel posts while driving. At each steel post line wires of the fence fabric and barbed wire shall be secured to the post with wire tie or clip which will be wrapped around the wire on each side of the post, holding the wire tightly to the post and preventing slipping up or down the post.
5. End, Pull, Corner, and Gate Posts:
   a. Posts to be set in concrete footings
   b. Brace and truss end, pull, corner, and gate posts to adjacent brace posts. Truss with 3/8 in. truss rod and tightner as shown on the drawings.

B. Footings:

1. Footings shall have vertical sides to minimize uplift. Dispose of excavated material.
2. Size:
   a. Minimum dia. shall be 12 in.
   b. Set corner, end, pull, and gate posts 42 in. below grade.
   c. Set line posts 36 in. below grade.
   d. Total depth of hole shall be 6 in. greater than required for post embedment.

C. Woven Wire Fabric:

1. Secure to end and corner posts by wrapping each line of wire around post and tying wire back on itself with not less than 1-1/2 twists tightly wrapped.
2. Stretch wire until slack taken up, longitudinal wires taut, and approximately 50% of factory fabricated fence crimp removed.
3. Secure to post with galvanized or aluminum coated tie wires at top and bottom, and at 3 intermediate wires.
4. Make splices at corner or brace posts.

D. Gates:

1. Install gates at locations shown on Drawings.

3.03 ADJUSTMENT AND CLEANING

A. Paint steel posts or other steel work cut on job and abrasions or stripping of galvanizing on pipe, fittings or fabric with heavy coat of approved zinc-rich primer paint.

B. Finish paint and matching color to be approved by ENGINEER.

* * * END OF SECTION * * *