
SECTION 32 31 13.15
INTERIOR CHAIN-LINK FENCES AND GATES

PART 1 GENERAL

1.1 DESCRIPTION

- A. The Work of This Section Includes: Work to be performed at the Township Building Renovation & Expansion site.
1. Chain-Link Fencing: Galvanized chain-link fence, full height to underside of roof deck as indicated on Sheet A-102 for in Salley Port A107 to enclose Water Service A107A.

1.2 QUALITY ASSURANCE

- A. Referenced Standards:
1. American Society for Testing and Materials (ASTM):
 - a. A120 Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless
 - b. A123 Zinc (Hot-Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strip
 - c. A392 Zinc-Coated Steel Chain-Link Fence Fabric

1.3 SUBMITTALS

- A. General: Submit in accordance with Section 01 30 00.
- B. Manufacturer's Product Data: Submit manufacturer's latest publications of descriptive literature and product data.
- C. Shop Drawings: Submit shop drawings of fence layout including details, fittings, hardware, and anchoring. Posts shall not be anchored to roof deck and shall be designed to accommodate deflection in the roof system.
- D. Samples:
1. Fence Fabric: One 12" square
 2. Posts and Rails: One 12" length each size
 3. Caps, Ties, Hardware: One representative sample each
- E. Compliance Statement: Submit a Statement of Compliance, Section 00 62 33.14, from the materials supplier(s), together with supporting data, attesting that the products provided meet or exceed specification requirements.

PART 2 PRODUCTS

2.1 CHAIN-LINK FABRIC

- A. Zinc-Coated (Galvanized) Steel; ASTM A392, Class 1. Hot-dip galvanized before weaving. One-piece full height of fabric.

2.2 FRAMEWORK

- A. Galvanized Steel Pipe; ASTM A123, Schedule 40. Hot-dip galvanized inside and outside. Provide post caps where required.
- B. Fence Posts:
1. Terminal Posts: 3.00" O.D.
 2. Intermediate/Line Posts: 2.50" O.D.

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3. Expansion Sleeve Posts: 2.50" OD or 2.00" OD as determined by post size sleeve is to be placed in.
 4. Horizontal Brace Rails: 1.66" O.D.
 5. Truss Rods: 0.313" Rod, w/Turnbuckles
- C. Gate Posts:
1. Gate Framing Posts: 3.00" O.D.
- D. GATES
1. Framework:
 - a. 1.66 inches O.D. galvanized steel pipe, with diagonal truss rods. Provide horizontal center rail on gates over 6 feet high; vertical center upright on gate leaves over 8 feet wide.
 2. Hinges: Non-lift-off, 180 degree swing offset type, of size to accommodate gate frame and post.
 3. Latch: Fork type latch with ability to receive Owner supplied padlock.

2.3 FITTINGS

- A. Rail ends, rail sleeves, tension bars, brace ends, post tops and caps, latch forks, lock keepers, and other appurtenances, including gate hinges and barbed wire support arms:
1. Malleable, pressed or cast steel. Hot-dip galvanized after fabrication, ASTM A123.

2.4 TENSION WIRE

- A. #6 gage Galvanized Coil Spring Tension Wire; #9 gage Hog Rings and Tie Wire.

2.5 ACCESSORIES

- A. Provide galvanized steel anchor plates 6 inch x 6 inch x 1/4 inch fully welded to terminal and line posts for anchoring to concrete slab with 3/8 inch diameter anchor bolts, 4 per anchor plate.
- B. Provide galvanized steel angle to attach to structural roof framing for attachment of terminal and line post sleeves. Bar clamp angle to steel structure as required. Angle size shall be adequate for span between framing members, minimum 2 inch x 3 inch.
- C. Provide galvanized steel anchor plates 6 inch x 3 inch x 1/4 inch fully welded to terminal and line post sleeves for attaching to galvanized steel angle. Provide two bar clamps per attachment to angle.

PART 3 EXECUTION

3.1 INSPECTION

- A. Verify that final grading in fence location is completed without irregularities which would interfere with fence installation. Do not commence work until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Measure and layout complete fence line; measure parallel to surface of ground.
- B. Locate and mark position of posts. Locate terminal posts adjacent to existing construction; locate two line posts at equal distant spacing between terminal posts.
- C. Locate and attach angle to roof framing structure to be inline with post placement layout on concrete slab.

3.3 POST INSTALLATION

- A. Bolt terminal and line posts to concrete slab using 3/8 inch x 2-1/2 inch concrete anchors.
1. 4 anchor bolts per post.
 2. Prior to anchoring terminal and line posts, insert terminal and line post sleeves.

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- B. Bar clamp terminal and line post sleeves to galvanized steel angle attached to roof framing structure. Use minimum of two bar clamps, one on each side of post.
 - C. Provide corner, end, and pull posts with a horizontal brace and tie rod on each side of the posts, extending and connecting to adjacent line posts as required.

3.4 FABRIC INSTALLATION

- A. Remove slack from fabric by means of mechanical fence stretchers before making attachment to posts.
- B. Cut fabric to form one continuous piece between terminal posts.
- C. Cut fabric to fit around roof framing members. Keep fabric within 1 inch of framing member. Frame fabric opening around roof framing member with tension bar.
- D. Hold bottom of fabric 1 to 2 inches above finished grade.
- E. Attach fabric to terminal posts with vertical tension bars threaded through fabric and held by tension bands spaced maximum 12 inches off center.
- F. Fasten fabric to line posts with #9 gage ties, or by integral fabric lock loops as applicable, at maximum 12 inch intervals.
- G. Fasten fabric to top rail and intermediate rail with #9 gage ties at maximum 18 inch intervals.
- H. Fasten fabric to tension wire with hog rings and ties at maximum 18 inch intervals.

3.5 FIELD QUALITY CONTROL

- A. Remove and replace fencing which is improperly located or is not true to line and slab, and posts which are not plumb.
- B. Adjust brace rails and tension rods for rigid installation.
- C. Tighten hardware, fasteners and accessories.
- D. Remove excess and waste materials from the project site.

END OF SECTION 32 31 13.15