## SECTION 607 - CHAIN LINK FENCES AND GATES

607.01 Description. This section describes constructing chain link fences and gates.

### 607.02 Materials.

Structural Concrete 601
Chain Link Fence Materials 722

### 607.03 Construction.

(A) General. Clear, grade, and grub fence alignment. Adjust post spacing at fence breaks or at intersections with existing fences to conform to required closure.

For concrete embedded posts, braces, or anchors, install temporary guys or braces to secure posts until concrete sets. Do not install materials on posts, or strain guys and braces until seven days after concrete placement. Crown top of concrete fence footings to shed water.

Set top of posts to required height and alignment.
Attach wire or fencing fabric firmly to posts and braces. Stretch taut and install to required height.

Provide electrical ground conforming to Section 9 of the National Electric Safety Code at each crossing of electric transmission, distribution, or secondary line.
(B) Posts. Furnish posts from pipes conforming to Table 607.03-1 Schedule of Chain Link Fence Posts. Space line posts at 10 feet maximum interval, center to center of post, measured parallel to the ground. Install posts in vertical position.

| TABLE 607.03-1 - SCHEDULE OF CHAIN LINK FENCE POSTS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ZINC-COATED PIPE - NOMINAL |  |  |  |  |  |  |  |  |
| Fence Height (Feet) | Line Post |  | End, Corner \& Pull Post |  | Brace |  | Top Rail |  |
|  | $\begin{aligned} & \text { OD } \\ & \text { Inch } \end{aligned}$ | Wt lbs/ft | OD <br> Inch | Wt lbs/ft | OD <br> Inch | Wt lbs/ft | OD <br> Inch | Wt lbs/ft |
| 3 | 1-7/8 | 2.72 | 1-7/8 | 2.72 | 1-5/8 | 2.57 | 1-3/8 | 1.68 |
| 4 | 1-7/8 | 2.72 | 1-7/8 | 3.65 | 1-5/8 | 2.57 | 1-3/8 | 1.68 |
| 5 | 1-7/8 | 2.72 | 2-3/8 | 3.65 | 1-5/8 | 2.57 | 1-5/8 | 2.27 |
| 6 | 2-3/8 | 3.65 | 3 | 5.79 | 1-5/8 | 2.57 | 1-5/8 | 2.27 |
| ALUMINUM PIPE - NOMINAL |  |  |  |  |  |  |  |  |
| Fence Height (Feet) | Line Post |  | End, Corner \& Pull Post |  | Brace |  | Top Rail |  |
|  | $\begin{aligned} & \text { OD } \\ & \text { Inch } \end{aligned}$ | Wt lbs/ft | OD Inch | Wt lbs/ft | OD Inch | Wt lbs/ft | $\begin{gathered} \text { OD } \\ \text { Inch } \end{gathered}$ | Wt lbs/ft |
| 3 | 2 | 1.264 | 3 | 2.621 | 1-1/4 | 0.786 | 1-1/4 | 0.786 |

Use minimum footing diameter of 8 inches, or three times diameter of post, whichever is greater.

For fence heights greater than 6 feet, brace end, corner, and gate posts to nearest line post with horizontal braces as compression members, and truss rods with turnbuckles as tension members. Provide brace and truss pull posts at intervals of 300 feet in both directions.

Install corner posts when fence line changes 30 degrees or more.
Pass top rail or top tension wire through base of line post tops or extension arms, and form continuous brace from end to end of each fence section.

Furnish top rails in approximate 20 -foot lengths. Provide top rails with accepted outside couplings or expansion sleeves. Fasten top rail or top tension wire securely to terminal posts with rail ends and brace bands.

Furnish brace rails in required lengths.
(C) Fence Fabric. Fasten chain link fabric on designated side of posts. Position fabric to follow ground contour with bottom of fabric 2 inches above ground.

Provide knuckled finish on bottom edge of chain link fabric. For chain link fabric widths greater than 60 inches, provide twisted and barbed finish on top edge. For chain link fabric widths of 60 inches or less, provide knuckled finish on top edge.

Fasten top edge of chain link fabric to top rail or tension wire between posts. Fasten bottom edge of chain link fabric to tension wire between posts. Excavate high points of ground to install bottom tension wire on straight grade between posts. Do not fill depressions.

Fasten chain link fabric to end, corner, and gate posts with stretcher bars and stretcher bar bands spaced at 12 inches. Fasten chain link fabric to line posts and tension wires with tie wires or metal bands. Space tie wires or metal bands on line posts at approximately 14 inches, and on top rails and tension wires at approximately 24 inches.
(D) Gates. Furnish gate frames and posts from pipes conforming to Table 607.03-3 - Gates (3 Feet to 6 Feet Height), or accepted shapes of equivalent structural strength. Cross-truss drive gates with adjustable truss rods acceptable to the Engineer. Assemble from properly designed fittings, or by welding techniques acceptable to the Engineer.

Use chain link fabric for gate. Attach fabric to gate frame by stretcher bars and tie wires, as specified for fence construction, and suitable tension connectors spaced at approximately 12 inches.

For gate heights up to 60 inches, hang gate with two hinges. For gate heights greater than 60 inches, hang gate with three hinges. Provide hinges designed to clamp securely to gate post, and permit gate to swing back against fence.

Provide gates with combination catch and locking attachment of design acceptable to the Engineer. Provide stops to hold gates open and center rest with catch where required.

| TABLE 607.03-3 - GATES (3 FEET TO 6 FEET HEIGHT) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ZINC-COATED PIPE |  |  |  |  |
| GATE FRAMES |  | GATE OPENING | GATE POSTS |  |
| $\begin{aligned} & \text { O.D. } \\ & \text { Inch } \end{aligned}$ | Nominal Weight lbs/ft |  | O.D. Inch | Nominal Weight lbs/ft |
| 1-7/8 | 2.72 | Single to 6 ' or Double to $12^{\prime}$ | 3 | 5.79 |
| 1-7/8 | 2.72 | Single over 6' to 13' or Double over 12' to 26' inclusive | 4 | 9.11 |
| 1-7/8 | 2.72 | Single over $13^{\prime}$ to 18' or Double over 26' to 36' inclusive | 6-5/8 | 18.97 |
| 1-7/8 | 2.72 | Single over 18' or Double over 36' | 8-5/8 | 24.70 |


| TABLE 607.03-3 - GATES (Continued) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALUMINUM PIPE |  |  |  |  |  |  |
| GATE FRAMES |  |  | GATE OPENING | GATE POSTS |  |  |
| Nominal Size Inch | Nominal O.D. Inch | Wt. lbs/ft |  | Nominal Size Inch | Nominal O.D. Inch | Wt. lbs/ft |
| 1-1/2 | 1.9 | 0.94 | Single to $6^{\prime}$ or Double to $12^{\prime}$ | 3 | 3-1/2 | 2.621 |
| 1-1/2 | 1.9 | 0.94 | Single over 6' to 13' or Double over 12 ' to 26 ' inclusive | 3-1/2 | 4 | 3.151 |
| 1-1/2 | 1.9 | 0.94 | Single over 13' to 18' or Double over 26' to 36'inclusive | 6 | 6-5/8 | 6.564 |
| 1-1/2 | 1.9 | 0.94 | Single over 18' or Double over $36^{\prime}$ | 8 | 8-5/8 | 9.878 |

607.04 Measurement. Fence and gate will be paid on a lump sum basis. Measurement for payment will not apply.
607.05 Payment. The Engineer will pay for accepted fence and gate on a contract lump sum basis. Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for following pay items when included in proposal schedule:

## Pay Item

Pay Unit
$\qquad$ - Feet, Chain Link Fence Lump Sum

Chain Link Gate, $\qquad$ Feet High And $\qquad$ Feet Wide

## END OF SECTION 607

