FENCE TYPE B

GENERAL NOTES

1. This fence is to be used generally in urban areas.
2. For supplemental information refer to Section 550 of FDOT Standard Specifications.
3. Chain link fabric, post, truss rods, tension wires, tie wires, stretcher bars, gates and all miscellaneous fittings and hardware shall meet the requirements of AASHO and AASHTO as noted in the current reference.

4. Fence Component Options:
   A. Line post options:
      (1) Galvanized steel pipe, Schedule 40, 15/16" nominal dia.; zinc galvanized at the rate of 1.8 oz/ft²; ASTM A36 Table 2 (Grade A or B); ASTM F1083, and AASHTO M111.
      (2) Aluminum coated steel pipe; ASTM A36, Table 2 (Grade A or B); Schedule 40, 15/16" nominal dia., 1.90" OD, coated at the rate 0.40 oz./ft²; AASHTO M111.
      (3) Aluminum alloy pipe–2" nominal dia.; ASTM B241 or B221, Alloy 6063, T6.
      (4) Steel H-Beam–12 ' x 12 ' x 12 '; Zinc Galv., 1.8 oz./ft²; AASHTO M111 and Detail.
      (5) Aluminum alloy in-Beam–12 ' x 12 ' x 12 '; Detail.
      (6) Steel C–1/4" x 1/2", 1.8 oz./ft²; zinc; AASHTO M111, OR, 0.9 oz./ft²; zinc-5% aluminum-magnesium; ASTM F1043 and Detail.
      (7) Resistance welded steel pipe, 50,000 psi min yield strength ASTM A53, A653, A653M or equivalent stock of the same material; ASTM F1066 Group 7B (Alternative Design); fence industry 2" OD, 1.90" NPS, 1.90" OD, depressed 0.120" min. wall thick., and min. wt. 2.28 lb./ft², with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, C or D; the chromate conversion coating of external Type B shall have a thickness of 15µg/in². min. and the polymer film topcoat shall have a thickness of 0.0035 mil. internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
   B. Corner, end, and pull post options:
      (1) Galvanized steel pipe, Schedule 40, 15/16" nominal dia.; zinc galvanized at the rate of 1.8 oz/ft²; ASTM A36 Table 2 (Grade A or B); ASTM F1083, and AASHTO M111.
      (2) Aluminum coated steel pipe; ASTM A36, Table 2 (Grade A or B); Schedule 40, 15/16" nominal dia., 1.90" OD, coated at the rate 0.40 oz./ft²; AASHTO M111.
      (3) Aluminum alloy pipe–2" nominal dia.; ASTM B241 or B221, Alloy 6063, T6.
      (4) Resistance welded steel pipe, 50,000 psi min yield strength ASTM A53, A653, A653M or equivalent stock of the same material; ASTM F1066 Group 7B (Alternative Design); fence industry 2" OD, 1.90" NPS, 1.90" OD, depressed 0.120" min. wall thick., and min. wt. 1.83 lb./ft², with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, C or D; the chromate conversion coating of external Type B shall have a thickness of 15µg/in². min. and the polymer film topcoat shall have a thickness of 0.0035 mil. internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
   C. Rail options:
      (1) Galvanized steel pipe, Schedule 40, 15/16" nominal dia; zinc galvanized at the rate of 1.8 oz/ft²; ASTM A53 Table 2, ASTM F1083, and AASHTO M111.
      (2) Aluminum coated steel pipe; ASTM A53 steel, 2" Tables; Schedule 40, 15/16" nominal dia.; 2.375" OD; coated at the rate 0.40 oz./ft²; AASHTO M111.
      (3) Aluminum alloy pipe–2" nominal dia.; ASTM B241 or B221, Alloy 6063, T6.
      (4) Resistance welded steel pipe, 50,000 psi min yield strength ASTM A53, A653, A653M or equivalent stock of the same material; ASTM F1066 Group 7B (Alternative Design); fence industry 2" OD, 2.375" NPS, 2.375" OD, depressed 0.120" min. wall thick., and min. wt. 3.117 lb./ft², with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, C or D; the chromate conversion coating of external Type B shall have a thickness of 15µg/in². min. and the polymer film topcoat shall have a thickness of 0.0035 mil. internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
   D. Chain link fabric options: 12 mesh with twisted and barred selvage top and bottom for all options except as described in Note No. 10.
      (1) AASHTO M181 Type I – Zinc Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 1.8 oz/ft²; M181 Class D 2.0 oz/ft², modified to 1.8 oz/ft².
      (2) AASHTO M181 Type II – Aluminum Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 0.40 oz/ft².
      (3) AASHTO M181 Type IV – Polyvinyl Chloride (PVC) Coated Steel, No. 9 gage (coated wire diameter), core wire – zinc coated steel; PVC coating: M181 Class A (either extruded or bonded) or Class B (bonded). See Table 2. Unless the plans call for M181 standard colors medium green, dark green or black the coating color shall be soft gray matching that of No. 306/22 of Federal Standard 595A.
   E. Tension wire options:
      (1) Steel wire No. 7 gage zinc galvanized at the rate of 1.2 oz/ft²; AASHTO M111.
      (2) Steel wire No. 7 gage Alclad steel wire, diameter of 0.1875" or larger conforming to the requirements of ASTM F1083, and AASHTO M111.
      (3) Aluminum coated steel wire No. 7 gage coated at the rate of 0.60 oz/ft²; AASHTO M111.
   F. Tie wire and hog ring options:
      (1) Steel wire No. 8 gage zinc galvanized at the rate of 1.2 oz/ft².
      (2) Steel wire coated with a diameter of 0.1443" or larger conforming to the requirements of ASTM F1083, and AASHTO M111.
      (3) Aluminum coated steel wire No. 7 gage coated at the rate of 0.40 oz/ft².

INDEX
SHEET NO. 802
1 of 3
GENERAL NOTES CONTINUED

5. Unless a specific material is called for in the plans the Contractor may elect to use either a single type of material or a combination of material types from the component options listed in note 4. Combinations of optional materials are restricted as follows:
(a) Only one fabric optional material will be permitted between corner and/or end post assemblies.
(b) Only one line post optional material will be permitted between corner and/or end post assemblies.
(c) Pull post assemblies shall be optional materials identical to either the linepost optional material or the corner and end post assembly optional material; but, pull post assemblies shall be the same optional material between any set of corner and/or end post assemblies.

6. Concrete for bases shall be Class NS concrete as specified in Section 347 of the Standard Specifications or a packaged, dry material meeting the requirements of a concrete under ASTM C-387. Materials for Class NS concrete may be proportioned by volume or by weight.

7. Line post shall be 8'-6" long (Standard). Line post are to be set in concrete as described above or by the following methods:
(a) In accordance with special details and/or as specifically described in the contract plans and specifications.
(b) In accordance with ASTM F567 Subsections 5.4 through 5.10 as approved by the Engineer.
(c) Pull post installed in accordance with Section 3.8 shall be 9'-6" long.

Line post installed in accordance with the base plate detail “Fence Mounting On Concrete Endwalls and Retaining Wall”, Sheet 3; or, by embedment in accordance with ASTM F567 Subsection 5.3.

End, pull and corner post assemblies shall be in concrete as detailed above for all soil conditions other than solid rock. Post within assemblies that are located on concrete structures or solid rock shall be set by base plate or by embedment as prescribed under (b) above for line post.

Line and assembly posts for 6' fence which must be lengthened due to a variation in the normal ground clearance, shall be set an additional 3' in depth for each 3' of additional ground clearance.

8. Pull post shall be used at breaks in vertical grades of 15° or more, or at approximately 350' centers except that this maximum interval may be reduced by the Engineer on curves where the curve is greater than 3°.

9. Corner post are to be installed at all horizontal breaks in fence at 15° or more and as required at vertical breaks over 15° as determined by the Engineer.

10. When fence has an installed top of fabric height less than 6' knuckled top and bottom selvages shall be used unless the plans specifically identify locations for twisted selvage fabrics.

11. Unless sliding gates or special gates are called for in the plans, all gates shall be chain link swing gates meeting the material requirements described and as approved by the Engineer. Payment shall include the gates, single or double, all necessary hardware for installation and any additional length and/or size for posts at the opening. Gates shall be paid for under the contract unit price for Fence Gates, EA.

12. For construction purposes corner post assemblies shall consist of one corner post, two braces, two truss rods, and all necessary fittings and hardware as detailed. End post assemblies shall consist of one end post, one brace, one truss rod and all necessary fittings and hardware as detailed.

13. In areas where there are physical constraints outside the right-of-way which restricts the fence construction, the fabric may be installed on the inside of the posts.

---

### TYPE IV VINYL COATED FABRIC

<table>
<thead>
<tr>
<th>Specified Diameter</th>
<th>Minimum Weight of Zinc Coating</th>
<th>MDR Class A</th>
<th>MDR Class B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Extruded</td>
<td>Extruded</td>
</tr>
<tr>
<td></td>
<td></td>
<td>And Bonded</td>
<td>Bonded</td>
</tr>
<tr>
<td>in.</td>
<td>mm</td>
<td>oz./ft²</td>
<td>g/m²</td>
</tr>
<tr>
<td>0.148</td>
<td>3.77</td>
<td>9</td>
<td>0.30</td>
</tr>
</tbody>
</table>

### DESIGN NOTE

This index details fencing that is constructed with chain link fabric 6’ (nominal) in height and with specific ground clearance.

For fencing of different height or installation details, the fence shall be fully detailed in the Contract plans.
**Fence Type B**

**Fence Mounting on Concrete Endwall and Retaining Walls**

**OPTIONAL 1/2"x 1 5/8" H-BEAM LINE POST**

**Steel 1/8" (ASTM A36) Galvanized or Aluminum 1/8" Alloy 6061-T6**

- 1/8" Dia. Hole For 1/4" Galvanized Anchors, Nuts and Washers (2 Req'd)

**Fence To Be Mounted On Concrete Endwall and Retaining Walls**

**Barb Wire Attachment**

1. Base plate identical for line, pull, end, and corner posts and shall be considered an integral part of the respective posts for basis of payment.

2. Post to be plumbed by grout shim under base plate.

3. Anchors (Galvanized Steel):
   - 12" Cast In Place, 100° Embedment: Headed Bolts, Cluster or Plate Anchors. 6" Min. Embedment. Anchors shall be expansion bolts set in drilled holes with an adhesive material system in accordance with Specification Sections 416 and 937. Drilled holes shall be 1/4" larger in diameter than the anchor bolt. Expansion Bolts Not Permitted.

**Expansion Bolts Not Permitted.**

**BASE PLATE AND ANCHOR NOTES:**

- Attachments to be used only when called for in the plans.
- Attachments to extend in direction of restraint, unless otherwise called for in plans. Direction of restraint will be as follows:
  - (a) Outward on limited access right of way line.
  - (b) Outward on controlled access right of way line.
  - (c) Outward on pedestrian ways.

- Post shall be plumbed by grout shim under base plate.

- Considered an integral part of the respective posts for basis of payment.

- Anchors (Galvanized Steel): 12" Cast In Place, 100° Embedment: Headed Bolts, Cluster or Plate Anchors. 6" Min. Embedment. Anchors shall be expansion bolts set in drilled holes with an adhesive material system in accordance with Specification Sections 416 and 937. Drilled holes shall be 1/4" larger in diameter than the anchor bolt. Expansion Bolts Not Permitted.

**FOOTNOTES:**

1. Expansion Bolts Not Permitted.