RIGHT-OF-WAY FENCE LOCATION DETAILS

REVISIONS

IDaho TRANSPORTATION DEPARTMENT

STANDARD DRAWING

English

FENCES

STANDARD DRAWING NO. 610-1

REV.

DATE

DESCRIPTION

09/30/2015

FENCES

Boise, Idaho

DESIGN/TRAFFIC SERVICES ENGINEER

ORIGINAL SIGNED BY TED MASON

DRAUGHTING DATE: 11/05/2015

NOTE

1. Designate post material on project plans. Indicate whether the fence will be a drop fence and the location where drop fence staples will be used.

2. Designate option 1, 2, or 3 for fence type 9 - wildlife fence. - on project plans.

3. Attach anchors plates to metal posts unless the post is set in solid rock. Grout holes when metal posts are set in solid rock.

4. Staple each wire to each wood post. Staple alternating wires. Use two staples per brace and in sag sections, rotate the staples to straddle across the wire. Allow enough space for wire to slide through the staple.

5. Attach fence wire or wire mesh to steel posts with wire clamps. Use one wire clamp per wire. On wire mesh, use four wire clamps per post or eight wire clamps per post in sag sections.

6. Ground wire and wire mesh fences that are near power transmission lines or on top of drop or transmission lines. See the wire and wire mesh fence grounding table and wire and wire mesh fence grounding details. Ground wire and wire mesh fences that are near power transmission lines or on top of drop or transmission lines.

7. When the fence terminates at a bridge, ensure that the top of the fence does not extend beyond the top of the parapet or railing.

8. In the sag detail, install corner plate in addition to the concrete block when the angle is greater than 20°.
**EXAMPLE FENCE APPLICATIONS**

For fence types 1, 3, 5, & 9

**FENCE TYPE 4 - CHAIN LINK FENCE DETAILS**

- **Post Cap**
- **Loop Tension Wire**
- **Eyetop Cap**
- **Line Post**
- **Tension Wire Band**
- **Stretcher Bar Band**
- **Brace Rail Band**
- **3/4" Dia Truss Rod**
- **Truss Rod Tightener**
- **Tie Wire**
- **Concrete Block**
- **Coil Tension Wire**
- **Ground Wire**

**Fence Type 4 Requirements**

- **Ties at 12" C to C**
- **9 Gauge Hog Ring Tension Wire Band**
- **Stretcher Bar Band**
- **Brace Rail Band**
- **Brace & Tie Wire**
- **Example Fence Applications**
  - For fence types 1, 3, 5, & 9

**Barbed or Woven Wire Fence Notes**

9. When a fence line approaches a ditch, gully, or depression, place the last post on level ground close enough to the edge of the depression to avoid tying the wire at the ground touching the ground.

10. When the depth of a depression on a Type 1, 5, or 9 fence exceeds the total vertical wire spacing over a maximum horizontal run of 2 fence sections, construct an extra fence section through the depression. See the example fence applications.

11. If the distance between the ground and the bottom wire of a Type 1 gate is greater than 18", install an under timber, additional wire, and wire stays, and braces.
**CHAIN LINK FENCE HARDWARE TABLE**

- **Corner, End and Gate Posts**: See Standard Specifications for Highway Const.
- **Line Post**: See Standard Specifications for Highway Const.
- **Brace Rail/Top Rail**: See Standard Specifications for Highway Const.
- **Post Cap**: Cast Non-Ferrous Alloy or Galvanized Pressed Steel Cap Must Fit Snugly on Post.
- **Eye-Top Cap**: Galvanized Pressed Steel, Min. 1/2" Thickness or Galvanized Malleable Ferrous Alloy.
- **Stretcher Bar Band**: Class 1 - Min. 3/4" x 3/4" Min. Galvanized Steel, Class 2 - Min. 1/2" x 1/2" Min. Galvanized Steel.
- **Tension Wire/Brace Band**: Class 1 - Min. 1/2" x 1/2" Min. Galvanized Steel, Class 2 - Min. 3/4" x 3/4" Min. Galvanized Steel.
- **Band Bolt**: Class 1 - 3/4" Dia. x 3/8" Galv. Carriage Bolt, Class 2 - 1/2" Dia. x 1/2" Galv. Carriage Bolt (Lock Washer & Flat Washer for Each Band).
- **Rail End**: Galvanized Pressed Steel or Galvanized Malleable Ferrous Alloy, Min. 5/8" Thickness on Back Bolting Apparatus.
- **Brace End**: Galvanized Pressed Steel or Galvanized Malleable Ferrous Alloy, Min. 5/8" Thickness on Back Bolting Apparatus.
- **Truss Rod Tightener**: Class 1 - Min. 3/4" Formed Galvanized Steel, Class 2 - Min. 1/2" Formed Galvanized Steel.
- **Truss Rod**: 3/4" Galvanized, NC Threaded Rod, Lock Washer, & Flat Washer with Two 90° Bends Opposite of Threaded End.
- **Top Rail Sleeve**: Galvanized Steel Not to Be Used on Regular Fences Must Meet Required Pipe Theses.
- **Tension Bar**: Class 1 - Min. 1/2" x 3/4" Galvanized Steel, Class 2 - Min. 3/4" x 1" Galvanized Steel.
- **Fence Fabric**: 2" Galvanized Diamond Mesh Steel Fabric.
- **Tie Wires**: Min. 9 Gauge Aluminum with One Hooked End.
- **Coil Tension Wire**: Min. 7 Gauge.
- **Barbed Wire**: 14 Gauge Spaced Galvanized Medium Carbon Steel Wire with Barbs Spaced at 5" C. to C., Galvanizing Shall Conform to Applicable A.S.T.M. D 433-55 For Bimetallic & Hardened Malleable Specifications.
- **3-Wire Barbram**: Barbram Arm Line Piece - 2" Cut In.

**CHAIN LINK FENCE GROUNDING TABLE**

- **Fence Grounding Line**: Min. 1/0, Min. 1 1/0 3-Wire, Min. 1 1/0 1 1/0 Wire Grounding.
- **Grounding Interval**: 0', 100', 500', 200', 100', 345', 400', 100', 345', 1000'.

**CHAIN LINK FENCE NOTES**

12. The minimum fence height is 8' when Barbed Wire and the 3-Wire Barbram Are Used. Do Not Use Razor Wire with the 3-Wire Barbram.
13. Space Posts Equal Distances Apart, 10' Maximum Spacing.
15. Stretch the Fence Fabric Smooth So That It Has a Uniform Appearance.
16. Selvage the Plain Wire Ends on the Top and Bottom of the Chain Link Fabrics by the Twisted or Knuckled Method. See Wire Selvage Detail.
17. Chain Link Fence Hardware May Vary Somewhat From That Shown in the Chain Link Fence Hardware Table. Ensure That Hardware and Materials Used Are Uniform and Compatible.
18. Install a Top Rail When Barred Wire and the 3-Wire Barbram Are Used.
19. Install Privacy Fence Slats If Shown on Project Plans.
20. Ground Chain Link Fences That Are Near Power Transmission Lines in That Intersect Transmission Lines. See the Chain Link Fence Grounding Table and Chain Link Fence Grounding Details. To Ground, Connect 6-Gauge Braided Ground Cable to the Chain Link Fabric Every 33' Around the Fence Once if the Fence Section Is Shorter Than the Grounding Interval.