

# DELAWARE CONSTRUCTION SPECIFICATION

## FARM FIELD FENCES CS 59

### 1. SCOPE

The work shall consist of furnishing and installing farm field fences, including gates and fittings.

### 2. MATERIALS

Materials for farm field fences shall conform to the following requirements:

- a. **Wire and Fencing.** All wire shall be of the size specified. All iron and steel fencing materials, except as otherwise specified, shall be zinc coated by the hot dip process, except that clips, tie wires, bands or other fabric fasteners may be protected by electro deposited zinc or cadmium coating.
- b. **Wood Fence Posts and Braces.** Wood posts shall be of cedar, pressure treated pine, or other wood of equal life or strength. The posts shall be sound, new, free from decay, with all limbs trimmed substantially flush with the body. Posts shall be substantially straight throughout their length. Wood braces shall be of material equal to or better than construction grade Douglas Fir.
- c. **Steel Fence Posts.** The steel fence posts shall be "Tee" or "U" or "Y" type with suitable corrugation, knobs, studs or grooves for fastening of line wires thereto. Posts with lugs or lips that are punched out of the post itself shall not be used. The posts shall have an anchor plate which is tapered to facilitate driving. The minimum weight of the posts shall be 1.33 pounds per foot.
- d. **Concrete Fence Posts.** Concrete fence posts shall be manufactured to the specified requirements of size, shape, and strength.
- e. **Gates.** Gates will be of the type specified. The materials shall conform to the kinds, grades, and sizes specified for new fence, and shall include the necessary fittings and stays.

- f. **Staples.** Staples used to fasten fence wire to wood posts shall be 9-gauge galvanized wire with a minimum length of 1 ½ inches for soft woods and minimum length of one inch for close-grain hardwoods.

### 3. **SETTING POSTS**

Steel posts shall be driven to a minimum depth of 15 inches, unless otherwise specified on the drawings.

Concrete of wood posts shall be set in holes to a minimum depth of 2 feet for line posts and 3 feet for corner or brace posts, and backfilled with earth except where otherwise specified.

Post holes shall be at approximately 4 inches larger than the diameter or side dimension of the posts.

Earth backfill around posts shall be thoroughly tamped in layers not thicker than 4 inches and shall completely fill the post hole up to the ground surface. Concrete backfill around posts shall be rodded into place in layers not thicker than 12 inches and shall completely fill the post hole up to the ground surface. Backfill, either earth or concrete, shall be crowned up around posts at the ground surface.

No stress shall be applied to posts set in concrete until at least 24 hours after the concrete has set.

### 4. **CORNER ASSEMBLY**

Unless otherwise specified, corner assemblies shall be installed at all points where the fence alignment changes 15 degrees or more.

### 5. **END PANELS**

End panels shall be built at gates and fence ends.

### 6. **PULL OR POST ASSEMBLY**

Pull post assemblies shall be installed at the following locations:

- a. In straight fence sections, at intervals of approximately 660 feet.
- b. At any point where the vertical angle described by two adjacent reaches of wire is upward and exceeds 10 degrees.

- c. At the beginning and end of each curve.

## 7. **ATTACHING FENCING TO POSTS**

The fencing shall be stretched and attached to posts as follows:

- a. The fencing shall be placed on the side of the post opposite the area being protected, except on curves.
- b. The fencing shall be placed on the outside of curves.
- c. The fencing shall be fastened to each end post, corner post and pull post by wrapping each horizontal strand around the post and tying it back on itself with not less than three tightly wound wraps.
- d. The fencing shall be fastened to steel posts with either two turns of 14-gauge galvanized steel or iron wire or the post manufacturer's special wire clips.
- e. Wire shall be spliced by means of a Western Union splice (or approved commercial splice) having not less than 8 wraps of each end about the other. All wraps shall be tightly wound and closely spaced.

## 8. **CROSSING AT DEPRESSIONS AND WATERCOURSES**

Where fencing is installed across small depressions or watercourses, either of the following methods of installation shall be used:

- a. If the fence wire is installed parallel to the ground surface, the line posts subject to upward pull shall be anchored by means of extra embedment.
- b. If the wire fence is installed with the top wire straight and parallel to the ground surface on either side of the depressions, extra length posts shall be used to allow normal post embedment. Excess space between the bottom of the fence and the ground shall be closed with extra strands of barbed wire.