

SECTION 860 FENCE

860.01 CHAIN LINK FENCE.

This material shall meet AASHTO M-181.

860.02 BARBED WIRE AND STAPLES.

Barbed wire shall meet ASTM A-121, Class 1. Brace wire and loops shall be No. 9 gauge smooth galvanized wire.

- A. **Staples.** Staples shall be 1-1/2 inches long and made of No. 9 gauge galvanized wire.
- B. **Woven Wire.** Woven wire shall meet ASTM A-116, Class 1.

860.03 STEEL POSTS.

- A. **Line Posts.** Line posts shall meet the details shown on the Plans and the following requirements:

Posts shall be galvanized and meet ASTM A-702, type B steel.

Wire fasteners shall be furnished with each post. They shall be made of galvanized wire and shall securely fasten the wire to the posts.

Each post shall have rolled in corrugations, ribs, lugs or notches so constructed as to engage the fence wires in proper position. Posts with punched tabs intended to be crimped around the wires shall not be accepted.

- B. **Angle-Type End, Corner, and Pull Posts.** Angle-type end, corner, and pull posts shall have a nominal weight of 4.10 lbs. per foot. Angles for braces shall have a nominal weight of 3.19 lbs. per foot. Posts shall not weigh less than 97% of the specified weight.

860.04 WOOD POSTS.

Wood posts shall be of Pine, Fir, Spruce, Cedar, Aspen, American Elm, Eastern Cottonwood, or Ash. Posts shall be naturally round and shall be cut from live, green growing trees.

Line Posts and braces shall be at least 3-1/2 inches in diameter at the small end and of the length shown on the Plans. Corner and brace posts shall be of length and diameter shown in the Contract. Posts shall be Plan length \pm one inch.

All posts shall have the inner bark shaved off, knots trimmed and be pointed for driving before treatment.

Knots that are sound, smoothly trimmed, and do not impair the strength of the posts will be permitted. Decay, short kinks, and reverse bends will not be permitted. One way sweep not to exceed 1-1/2 inches will be permitted.

Defects of any kind which give the posts an unsightly appearance will not be permitted.

All posts shall be preserved and treated according to Section 846.

SECTION 862 GUARDRAIL AND POSTS

862.01 GENERAL.

All steel components of the various types of guardrail shall be galvanized.

No burning, cutting, or welding will be permitted after galvanizing unless the item is regalvanized according to Section 854.

862.02 WIRE ROPE AND FITTINGS FOR CABLE GUARDRAIL.

Wire rope and connecting hardware shall meet AASHTO M-30, Type I, Class A, 3/4-inch rope. Connecting hardware shall develop the full strength of a single cable (25,000 pounds). Cast steel components shall meet AASHTO M-103.

- A. **Spring Assembly.** The tension spring assembly shall have a spring constant of 450 psi \pm 50 pounds per inch, and shall permit a travel of 6 inches \pm one inch.
- B. **Socket Baskets and Wedges.** Socket baskets shall be designed for use with the wedge detailed on the Plans.
- C. **Threading.** Threads of externally-threaded parts shall be UNC, ANSI B1.1, Class 2A Tolerance. Internally-threaded parts shall meet the dimensional requirements of ASTM A-563.
- D. **Bolts, Nuts, and Washers.** Bolts shall meet ASTM A-307 and nuts to ASTM A-563, Grade A, or better. Both nuts and bolts shall be galvanized according to AASHTO M-232. Nuts shall be hex or heavy hex type.

Hook bolts, as installed, shall develop an ultimate pull open strength of from 500 to 1,000 pounds applied in a direction normal to the longitudinal axis of the post.

Washers shall be made of steel and shall be galvanized according to AASHTO M-232. They shall meet the dimensional requirements of ANSI B27.2, Type A plain washer.