

ITEM 607.9002 25 - WOOD SCREEN FENCE – 10 FOOT HIGH

1. DESCRIPTION:

- 1.01 This work shall consist of furnishing and erecting wood screen fence at the locations and to the heights or elevations shown on the plans. Alternates may be proposed, however, in accordance with the provisions of the value engineering note incorporated in this project.

2. MATERIALS:

- 2.01 Wood Screen Fence - The material used to construct the wood fence detailed on the plans shall meet the requirements specified in the following subsections of the Standard Specifications:

Class A Concrete	501
Wood Preservative - Water Borne	708-31
Bar Reinforcement, Grade 400	709-01
Stress Graded Timber and Lumber	712-14
Structural Steel (ASTM-A36M)	715-01
Galvanized Coatings	719-01
Painting Galvanized Surfaces	740-03

Additional requirements for the wood fence shall be as follows: Timber and lumber delivered to the site shall be straight, sound, square edged, free from shakes, loose knots or decay. Sheathing shall be tongue and groove; shall be use classified as "Joist and Planks" and shall have a design value of 1200 PSI, or greater, after adjustment for wind loading and wet service conditions. Stringers and posts shall be use classified as "Beam and Stringer", and shall have a design value of 1400 PSI, or greater, after adjustment for size, wind loading, and wet service conditions. All stresses are extreme fiber bending stresses and use classifications are as defined in ASTM D245.

- 2.02 Wood used shall be pressure treated in accordance with S708-31 Wood Preservative Water Borne, except minimum retention shall be 21.2 pounds per cubic foot. Moisture content of all sheathing shall be reduced to a maximum of 15% before and after pressure treating. Timber posts shall be reduced to an exterior moisture content of 15% to the depth of the penetration of the preservative and an interior moisture content of 30% maximum.
- 2.03 Structural glued laminated timber may be used for posts. If used, it shall provide allowable design values of 2400 PSI in bending before allowance for wet service, wind, and size factors. Preservative treatment shall be in accordance with AWWA C-28. "Standard for Preservative Treatment of Structural Glued Laminate Members". General requirements shall be those given for treatment of individual laminates before gluing.
- 2.04 Coal-tar pitch shall conform to Military Specifications MIL-C-018480A. Steel shapes, nuts and washers, bolts and anchoring devices shall be galvanized in accordance with § 719-01, unless indicated otherwise on the plans. Nails shall be hot dipped galvanized.
- 2.05 All structural steel employed in the fence shall be galvanized in accordance with §719-01 Galvanized Coatings.
- 2.06 The following are regarded to be the essential functions and characteristics of the Wood Screen Fence:
1. Have strength sufficient to withstand wind loading to 0.232 PSI with appropriate safety factors customarily employed.
 2. Have a design life of 20 years, or more.

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2. MATERIALS: (cont'd)

2.06 (cont'd)

3. Have aesthetics which will be satisfactory to the community, as determined by the Chief Engineer.

BASIS OF ACCEPTANCE

Timber walls will be accepted at the site based on their conformance with the specifications and the details shown on the Plans.

3. CONSTRUCTION DETAILS:

- 3.01 Wood Screen Fence - The Contractor shall select post and footing sizes based on the information given on the plans subject to the Engineer's approval.
- 3.02 Holes for post footings shall be pre-drilled, true and plumb, as approved by the Engineer, to the stated diameter and depth. Precautions shall be taken to protect the holes from collapse. Holes shall contain no free water at the time of concrete placement.
- 3.03 Bar reinforcement and posts shall be set, and secured in place, in the holes which shall then be filled with Class A Concrete in direct contact with the soil, to the level shown on the plans. The boards shall be erected and nailed to each stringer as shown on the plans. The nails shall be driven in a staggered and diagonal nailing pattern and the nail heads hammered flush.
- 3.04 A portion of the groove may be removed from replacement sheathing boards to facilitate replacement.
- 3.05 Any cuts made after preservative treatment shall be carefully trimmed and coated in accordance with AWP specification M-4 to the satisfaction of the Engineer.

Milling of angle post shall be completed prior to preservative treatment.

- 3.06 The bottom of all fence boards shall, if set below finish grade, have this portion of the boards sealed by applying a heavy coat of coal-tar conforming to Military Specification Mil-C-18480A and backfilled.

4. METHOD OF MEASUREMENT:

- 4.01 Wood screen fence shall be measured for payment by the number of Linear foot of fence satisfactorily erected in accordance with this specification. The fence shall be measured along the top, center to center of end posts.

5. BASIS OF PAYMENT:

- 5.01 The unit price bid per foot for the Wood Screen Fence shall include the cost of furnishing all labor, materials, tools and equipment necessary to satisfactorily complete the work and shall include all necessary clearing, grubbing, excavation and disposal, fill, concrete, bar reinforcement, anchoring, posts, hardware, fencing, repair of material damaged by the Contractor's operations and all other necessary materials.