

2301 - WOOD POSTS

SECTION 2301

WOOD POSTS

2301.1 DESCRIPTION

This specification governs wood posts and spacer blocks for guardrail, and wood sign support posts. This specification does not cover wood fence posts. It establishes a quality control/quality assurance (QC/QA) and prequalified plant system for producers of wood products.

2301.2 REQUIREMENTS

a. General.

(1) Any plant producing wood posts and spacer blocks for guardrail, and wood sign support posts through this specification must be currently prequalified. A plant is any facility that produces the posts as the final treated product. Prequalification requires a thorough inspection by KDOT and comparison testing to verify the plant has the capability to comply with this specification. Procedures for prequalification are outlined in **subsection 2301.4**.

(2) Unless shown otherwise in the Contract Documents, produce all posts provided under this specification to meet the applicable subsections.

(3) Quality Assurance inspection of wood posts and spacer blocks for guardrail; and wood sign support posts will be done at the job site on a random, project by project basis as outlined in **subsection 2301.4e**.

(4) Wood species not listed but meeting or exceeding these specifications will be considered by the Bureau Chief, Materials and Research, upon written request.

(5) Unless shown otherwise in the Contract Documents, treat material listed under this section with a preservative treatment in accordance with **subsection 2301.2e**.

b. Material Specifications and Grading Rules. Comply with the applicable parts of the following:

- (1) ASTM D 245.
- (2) Standard grading rules as set forth by Southern Pine Inspection Bureau.
- (3) Standard grading rules as set forth by Western Wood Products Association.
- (4) Product Standard 20 American Softwood Lumber Standard as set forth by the U. S. Department of Commerce.

(5) Any commercial grading rules that will provide material of equal or greater stress value may also be used. The burden of proof regarding the equality of the proposed rules lies with the supplier.

(6) Provide materials that are free of decayed wood, rot, red heart, and detrimental compression wood.

(7) **F_b defined.** F_b is the minimum extreme fiber strength in bending under dry conditions (from grading rules tables). Specific requirements for each type of product supplied are outlined in the paragraphs below.

c. Guardrail Posts and Spacer Blocks.

(1) Posts and spacer blocks provided under this specification are surfaced on four sides (S4S) and complies with the dimensions and details shown in the Contract Documents.

(2) Unless shown otherwise in the Contract Documents, provide posts and spacer blocks graded No. 1 (posts and timbers – 5 inch X 5 inch and larger), with a minimum extreme fiber strength in bending, F_b, of 1200 psi, regardless of species. Sterilize posts and spacer blocks by kiln drying.

d. Sign Support Posts.

(1) Posts provided under this specification are S4S and comply with the dimensions and details shown in the Contract Documents.

(2) Unless shown otherwise in the Contract Documents, provide posts graded as follows:

Southern Pine:

4 inch X 4 inch, No. 1 Dense, F_b = 2000 psi

4 inch X 6 inch, No. 1 Dense, F_b = 1750 psi

Douglas Fir:

4 inch X 4 inch and 4 inch X 6 inch,

Select Structural, Base Value F_b = 1450 psi