

**KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, EDITION 2015**

Delete SECTION 2302 and replace with the following:

SECTION 2302

WOOD FENCE POSTS

2302.1 DESCRIPTION

This specification governs wood fence posts. The source document for all treatment related requirements referenced in this specification is the latest edition of the American Wood Protection Association's (AWPA) Book of Standards.

2302.2 REQUIREMENTS

a. General

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

(2) Quality Assurance inspection of wood fence posts will be done at the job site on a random, project by project basis as outlined in **subsection 2302.2d**.

(3) Wood species not listed in **subsection 2302.2b.(4)** but meeting or exceeding these specifications will be considered by the Bureau Chief of Construction and Materials upon written request.

(4) Unless shown otherwise in the Contract Documents, treat material listed under this section with a preservative treatment according to **subsection 2302.2c**.

b. Material Specifications

(1) Provide round posts that comply with the dimensions and details shown in the Contract Documents.

(2) Cut the posts from round, live, sound, and solid trees, free of decayed wood, rot, red heart, and detrimental compression wood. Unsound knots are not permitted. Sound knots will be permitted provided the diameter of the knot does not exceed one-third of the diameter of the post where it occurs.

(3) Groups of knots, or any combination of defects which impair the strength more than the maximum knot size, will not be allowed.

(4) When measured over the outer 2 inch of a radial line from the pith, display the following results:

- Douglas Fir with less than 5 annual rings per inch.
- Southern Pine with less than 4 annual rings per inch.
- None with less than 30% of summer wood.

(5) Provide straight posts such that a line drawn from the center of the top to the center of the bottom does not fall outside the center of the post by more than 1 ½ inch.

(6) Do not permit the diameter of the bottom of the post to exceed the diameter of the top of the post by more than ¼ inch per linear foot of post. The diameter of the post must vary uniformly from top to bottom.

(7) Cleanly peel the posts with by mechanical process or by hand. Follow the natural taper of the post in machine peeling operations. Keep the post free from the glazed surface left by dried sap. Trim all protruding knots flush with the sided of the posts and remove all spurs and splinters. Saw both ends of each post square with the longitudinal axis of the post.

c. Preservative Treatment and Handling of Wood Products

(1) General. Treat all wood products with a wood preservative registered by the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide and Rodenticide Act.

(a) Treat all wood products provided under this specification to satisfy all requirements of AWPA Standard U1, "User Specification for Treated Wood". Within U1, satisfy the requirements of Commodity Section B: Posts and Use Category 4A.

- (b) Treatment processes not listed but meeting or exceeding these specifications will be considered by the Bureau Chief, Construction and Materials, upon written request.
- (2) Preservative Types. Use Chromated Copper Arsenate Type C (CCA-C) that complies with AWPA Standard P23.
- (3) Fabrication. Complete all adzing, boring, chamfering, framing, gaining, incising, surfacing, and trimming prior to treatment.
- (4) Treatment Processes.
 - (a) Comply with all requirements of AWPA Standard T1, "Processing and Treatment Standard", including any special requirements for the Commodity Specification and Use Category specified above.
 - (b) Stamp or tag each treated piece with the plant identification and minimum specified treatment recorded in pounds per cubic foot (PCF).
- (5) Handling. Load, unload or transfer treated posts and blocks using procedures specified in AWPA M4, "Standard for the Care of Preservative-Treated Wood Products".
- (6) Shipments. Do not ship treated material while still dripping. Unless kiln dried, retain it in the treatment yard for a minimum of 3 days. Retain the material in the treatment yard a minimum of 7 days when the ambient temperature remains below 60°F.
- (7) Storage.
 - (a) Place treated wood products on treated or non-decaying skids or cribbing, that are positioned to support the material to minimize distortion.
 - (b) Stack and tightly band with spaced layers to permit air flow between each layer and minimize warping.
 - (c) Place the material in an area free of debris, decayed wood, and dry vegetation, and with sufficient drainage to prevent material from being subjected to standing water.
- (8) Damage During Shipment. Damage affecting the utility of the item is cause for rejection.

d. Quality Assurance.

(1) Verification Inspections. During the course of each year, a representative of the Bureau of Construction and Materials will randomly select a minimum of 1 project or contract containing wood fence posts provided by each of the supplying plants. The representative will contact the District administering these projects or contracts for scheduling of the field verification testing. Upon notification of a verification inspection, the Contractor is required to store materials in a manner allowing easy access for inspection and, upon arrival of the Engineer's representative, provide adequate manpower for the handling and re-stacking of the product.

(2) Verification Testing.

- (a) All materials used on the project are considered to be 1 lot and will be subject to treatment verification testing. A minimum of 30 randomly selected pieces will be selected. Then, a single boring from each of the selected pieces, will be tested for penetration and retention. Borings will be taken as described in AWPA Standard M2, "Standard for Inspection of Wood Products Treated with Preservatives" and tested in accordance with AWPA Standard A9, "Standard Method for Analysis of Treated Wood and Treating Solutions by X-Ray Spectroscopy". If the sample fails to meet the specifications for retention or penetration, it is cause for rejecting the entire lot.
 - (b) Depth of penetration and retention will be determined and evaluated as described in **subsection 2301.4c**.
 - (c) In the event that the verification samples fail to comply with the preceding, the Engineer's representative may randomly resample the lot 1 time only on a 2 to 1 basis, or reject the lot. If the lot is re-sampled, then both samples must pass, or the entire lot is rejected. The results of the resample specimens will replace the initial test results.
 - (c) The Contractor is to replace the rejected lot at no additional cost to KDOT. Remove the rejected lot from the job storage site.
- (3) Verification Related Costs. KDOT's costs for verification inspection and testing will be borne by KDOT. Excessive inspections for replacement of rejected material may be charged to the Contractor.

2302.3 BASIS OF ACCEPTANCE

a. Provide the Engineer's representative of the project with a copy of plant test reports that govern the analysis of the wood fence posts delivered to the project. Include a report of the preservative treatment analysis. Mail a copy

of the reports to the -KDOT Materials and Research Center, 2300 SW Van Buren Street, Topeka, KS 66611. Verify that the project number and/or the contract number are on each report.

b. Provide the Engineer's representative of the project with shipping orders, an invoice, or cover letter that documents the project number, wood fence post sizes, job, or producer order numbers, and the total number of wood fence posts delivered to the project.

c. Provide the Engineer's representative of the project with a certification stating that the wood fence posts delivered to the project comply with this specification, and that the preservative treatment complies with the applicable AWWPA standards. The documentation must bear the signature and title of an official of the plant with contract binding authority. This requirement may be included on the test reports referenced in **subsection 2302.3a.**

d. As a minimum, wood fence posts must be legibly stamped with the producers' identification, and minimum specified treatment recorded in PCF.

e. The final disposition of the wood fence posts will be completed at the final destination as the result of inspection for the quality of workmanship and the delivery condition and approval of the associated required documentation.

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