

9-09 TIMBER AND LUMBER

9-09.1 General Requirements

All timber and lumber for structures shall be Douglas Fir-Larch, unless specified otherwise in the Contract. The allowable species of timber and lumber for guardrail posts, signposts, and mileposts shall be Douglas Fir-Larch or Hem Fir. Timber and lumber for sawed fence posts and mailbox posts shall be Western Red Cedar, Douglas Fir-Larch, or Hem Fir.

9-09.2 Grade Requirements

Timber and lumber shall conform to the grades and usage listed below. Grades shall be determined by the current standards of the West Coast Lumber Inspection Bureau (WCLIB) or the Western Wood Products Association (WWPA).

Structures

Timber and lumber, unless specified otherwise in the Contract, shall conform to the following:

Materials 2" to 4" nominal thick, 5" nominal and wider (Structural Joists and Planks)	No. 1 and better, grade (Section 123-b of WCLIB) or (Section 62.11 of WWPA)
Materials 5" nominal and thicker (Beams and Stringers)	No. 1 and better, grade (Section 130-b of WCLIB) or (Section 70.11 of WWPA)

Timber lagging for soldier pile walls shall be Douglas Fir-Larch, grade No. 2 or better or Hem-Fir No. 1.

Guardrail Posts

Timber and lumber for guardrail posts (classified as Posts and Timbers) shall conform to the species and grades listed below.

Douglas Fir	No. 1 and better, grade (Section 131-b WCLIB) or (Section 80.11 WWPA)
Hem Fir	Select Structural, grade (Section 131-a WCLIB) or (Section 80.10 WWPA)

Sign Posts, Mileposts, Sawed Fence Posts, and Mailbox Posts

Sign posts, mileposts, sawed fence posts, and mailbox posts shall conform to the grades shown below.

4 × 4	Construction grade (Light Framing, Section 122-b WCLIB) or (Section 40.11 WWPA)
4 × 6	No. 1 and better, grade (Structural Joists and Planks, Section 123-b WCLIB) or (Section 62.11 WWPA)
6 × 6, 6 × 8, 8 × 10	No. 1 and better, grade (Posts and Timbers, Section 131-b WCLIB) or (Section 80.11 WWPA)
6 × 10, 6 × 12	No. 1 and better, grade (Beams and Stringers, Section 130-b WCLIB) or (Section 70.11 WWPA)

9-09.2(1) Surfacing and Seasoning

All timber and lumber shall be sized as indicated in the plans.

All timber and lumber to be painted shall be surfaced on all sides. All timber and lumber to be painted shall be thoroughly air or kiln dried to an equilibrium moisture content and shall be stored in such a manner as to remain in a thoroughly dry condition until placed into the Work.

9-09.2(2) Vacant**9-09.2(3) Inspection**

Timber and lumber requiring a grade stamp shall be marked with a certified lumber grade stamp provided by one of the following agencies:

West Coast Lumber Inspection Bureau (WCLIB)

Western Wood Products Association (WWPA)

Pacific Lumber Inspection Bureau (PLIB)

Any lumber grading bureau certified by the American Lumber Standards Committee

Timber and Lumber requiring a grading certificate shall have a certificate that was issued by either the grading bureau whose stamp is shown on the material, or by the lumber mill, which must be under the supervision of one of the grading bureaus listed above. The certificate shall include the following:

Name of the mill performing the grading

The grading rules being used

Name of the person doing the grading with current certification

Signature of a responsible mill official

Date the lumber was graded at the mill

Grade, dimensions, and quantity of the timber or lumber

For Structures:

All material delivered to the project shall bear a grade stamp and have a grading certificate. The grade stamp and grading certificate shall not constitute final acceptance of the material. The Engineer may reject any or all of the timber or lumber that does not comply with the Specifications or has been damaged during shipping or upon delivery.

For Guardrail Posts and Blocks, Sign Posts, Mileposts, Sawed Fence Posts, and Mailbox Posts:

Material delivered to the project shall either bear a grade stamp on each piece or have a grading certificate. The grade stamp or grading certificate shall not constitute final acceptance of the material. The Engineer may reject any or all of the timber or lumber that does not comply with the Specifications or has been damaged during shipping or upon delivery.

9-09.3 Preservative Treatment

9-09.3(1) General Requirements

All timber and lumber requiring preservative treatment shall be treated in accordance with AASHTO M 133. As specified by AASHTO M 133, the American Wood-Preservers' Association (AWPA) standards shall govern the Specifications. These Specifications include: storing and curing the timber and lumber, the wood preservatives, the preservative treatment process, documenting the results of the treatment, inspection, testing, and the identification of properly treated timber. Unless otherwise specified in the Contract, all timber and lumber shall be treated in accordance with Sections U1 and T1 of the latest edition of the AWPA standards.

All cutting, boring, chamfering, routing, surfacing, and trimming shall be done prior to treating. Any field drilling or cutoffs shall be treated by two liberal applications of a compatible preservative. The applications shall be in accordance with the requirements of AWPA Standard M-4 entitled, "Standard for the Care of Pressured Treated Wood Products".

All charges shall consist of pieces of the same species that are similar in form, size, moisture content, and receptivity to treatment. The pieces in the charge shall be separated to ensure contact of treating medium with all surfaces. The method of determining the retention of the preservatives shall be by assay.

As specified in the Contract, all orders of treated timber and lumber will be stamped "WSDOT Approved for Shipment" or accompanied by a Certificate of Treatment record. The Certificate of Treatment shall include the following information:

- Name and location of the wood preserving company
- Customer identification
- Date of treatment and charge number
- Type of chemical used and amount of retention
- Treating process and identification of the Specification used
- Description of material that was treated
- Signature of a responsible plant official

In addition to the Certificate of Treatment, all orders of treated timber or lumber that are not stamped "WSDOT Approved for Shipment", shall be accompanied by a Grading Certificate in accordance with Section 9-09.2(3). Such certification or approved for shipment tag shall not constitute final acceptance of the material. The Engineer may reject any or all of the timber or lumber that does not comply with the Specifications or has been damaged during prolonged storage, shipping, or upon delivery.

All timber and lumber to be used in aquatic environments, unless specified otherwise in the Contract, shall be chemically treated using Best Management Practices (BMPs). The producer of the chemically treated products shall supply a written certification that the BMPs were utilized, including a description and appropriate documentation of the BMPs used. This information may be included on the Certificate of Treatment record.