STATE OF WASHINGTON

# STATE BUILDING CODE COUNCIL

May 2018

Log No. _____

**1. State Building Code to be Amended:**

- ☒ International Building Code
- ☐ ICC ANSI A117.1 Accessibility Code
- ☐ International Existing Building Code
- ☐ International Residential Code
- ☐ International Fire Code
- ☐ Uniform Plumbing Code
- ☐ International Mechanical Code
- ☐ International Fuel Gas Code
- ☐ NFPA 54 National Fuel Gas Code
- ☐ NFPA 58 Liquefied Petroleum Gas Code
- ☐ Wildland Urban Interface Code

For the Washington State Energy Code, please see specialized energy code forms

**Section(s):**
2303.1.1.3

**Title:**
Used Solid-Sawn Lumber

**2. Proponent Name (Specific local government, organization or individual):**

**Proponent:** Kathleen Petrie
**Title:** Program Manager, Green Building Communitywide
**Date:** May 27, 2021

**3. Designated Contact Person:**

**Proponent:** Kathleen Petrie
**Title:** Program Manager, Green Building Communitywide
**Address:** 201 S. Jackson St, Suite 5701, Seattle WA 98104

**Office Phone:** (206) 477-2482
**Cell:** None
**E-Mail address:** keptrie@kingcounty.gov

4. **Proposed Code Amendment**. Reproduce the section to be amended by underlining all added language, striking through all deleted language. Insert new sections in the appropriate place in the code in order to continue the established numbering system of the code. If more than one section is proposed for amendment or more than one page is needed for reproducing the affected section of the code additional pages may be attached. (Examples on the SBCC website)

   **Code(s)** International Building Code **Section(s)** 2303.1.1.3

   Enforceable code language must be used; see an example by clicking here.
   Amend section to read as follows:

**2303.1.1 Sawn lumber.** Sawn lumber used for load-supporting purposes, including end-jointed or edge-glued lumber, machine stress-rated or machine-evaluated lumber, shall be identified by the grade mark of a lumber grading or inspection agency that has been approved by an accreditation body that complies with DOC PS 20 or equivalent. Grading practices and identification shall comply with rules published by an agency approved in accordance with the procedures of DOC PS 20 or equivalent procedures.

**2303.1.1.1 Certificate of inspection.** In lieu of a grade mark on the material, a certificate of inspection as to species and grade issued by a lumber grading or inspection agency meeting the requirements of this section is permitted to be accepted for precut, remanufactured or rough-sawn lumber and for sizes larger than 3 inches (76 mm) nominal thickness.

**2303.1.1.2 End-jointed lumber**. Approved end-jointed lumber is permitted to be used interchangeably with solid-sawn members of the same species and grade. End-jointed lumber used in an assembly required to have a fire-resistance rating shall have the designation "Heat Resistant Adhesive" or "HRA" included in its grade mark.

**2302.1.1.3 Used solid-sawn lumber**. Used solid-sawn dimensional lumber in good condition and devoid of areas of decay, not meeting the requirements of Sections 2303.1.1, 2303.1.1.1 or 2303.1.1.2, ~~shall comply with the following:~~

1. ~~Dimensional lumber~~ that has a nominal thickness of 2 inches with a nominal width of 6 inches, or less, shall be assumed to be spruce-pine-fir stud grade and shall have structural properties assigned in accordance with current adopted standards. All other dimensional lumber shall be assumed to be hem-fir No. 2 grade and shall have structural properties assigned in accordance with current adopted standards.

5. **Briefly explain your proposed amendment, including the purpose, benefits and problems addressed.** Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

This similar proposal was approved by the State Building Code Council and published as a 2018 amendment in the IRC (Section R602.1.1). Approval of this proposal will put the IBC and the IRC in alignment with respect to the reuse of salvaged dimensional sawn lumber.

When constructing to the requirements of the IBC, quality, salvaged solid-sawn lumber that is ungraded or does not have a certificate of inspection cannot currently be reused in a structural capacity unless allowed by the Building Official. The intent of this proposal is to assume conservative material base values that reflect past construction methods which will expand the use of salvaged lumber without compromising safety.

Prior to 1980, douglas fir and hem-fir No. 2 were the predominant wood species used in residential construction. In the 1980's, spruce-pine-fir (SPF) stud grade became more commonly used for non-bearing

walls and other non-structural applications in order to help meet the increased building demand in Washington State.

Without grading or certifying the material, we cannot assume that a stud (2x material) extracted from one building to be reused in another, is douglas fir. By assigning the base values of SPF stud grade to the lumber, we allow structural use of this material only to the capacity of the weakest wood species that would have been used in a previous building.

To assign hem-fir No. 2 base values for all other dimensional lumber, a factor of safety is built in because these values reflect the minimum quality lumber that would have been used for beams and columns in a previous building.

Approving this proposal will put the IBC in alignment with the allowance in the IRC. This proposal provides clear directive to the engineer/designer, removes potential liability from the building official while maintaining safety, and will result in the increased and economical use of salvaged lumber for those wishing to reuse quality material.

**6. Specify what criteria this proposal meets.** You may select more than one.

- ☐ The amendment is needed to address a critical life/safety need.
- ☒ The amendment clarifies the intent or application of the code.
- ☐ The amendment is needed to address a specific state policy or statute.
- ☐ The amendment is needed for consistency with state or federal regulations.
- ☐ The amendment is needed to address a unique character of the state.
- ☐ The amendment corrects errors and omissions.

**7. Is there an economic impact:** ☐ Yes ☒ No

Explain:

This proposal applies only to those choosing to build with salvaged lumber. By reusing salvaged lumber, this provision eliminates the cost of having the lumber professionally graded or inspected in order to be certified. Also, if salvaging lumber from one site to reuse it in other projects, that material it is essentially free or provides a cost-savings to the developer/contractor.

If there is an economic impact, use the tool below to estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. If preferred, you may submit an alternate cost benefit analysis.

Provide your best estimate of the construction cost (or cost savings) of your code change proposal? (See OFM Life Cycle Cost **Analysis tool** and **Instructions;** use these **Inputs**. **Webinars on the tool can be found Here and Here**)

$Click here to enter text./square foot (For residential projects, also provide $Click here to enter text./ dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application:

No additional plan review or inspection effort required.

Please send your completed proposal to: sbcc@des.wa.gov

All questions must be answered to be considered complete. Incomplete proposals will not be accepted.