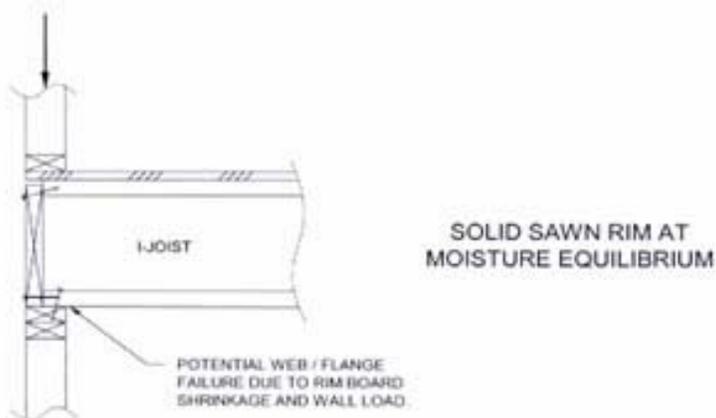
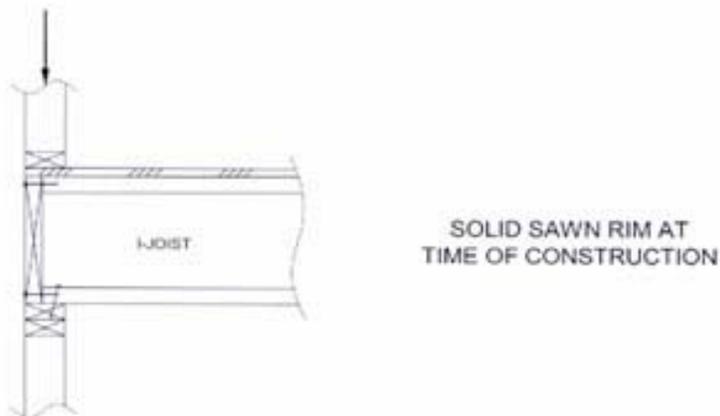


Position Statement

**Solid Sawn Rim Board Used with Prefabricated Wood I-Joists
February 6, 2001**

The design and use of a rim board is to provide for the transfer of loads applied from the walls, floors and roof loads from above, including lateral forces from the diaphragm, to the wall or foundation below. Both of these load transfers must occur in order for the structure to perform properly.

Prefabricated Wood I-Joist (PWIJ) depth criteria includes bearing forces and stresses. Such stresses often control the selection and resulting design of a PWIJ system. The design of a PWIJ system assumes that loads from above are transferred into the rim material and around the PWIJ and that these loads are not transferred through the PWIJ. The rim depth must be predictable and stable to avoid loading the PWIJ throughout the service life of the structure.



For lateral load transfer, the design limitation is often nailing from the sheathing into the rim. This nailing is required to develop and transfer shear forces in the diaphragm to the wall or foundation below. A rim board that is short will significantly affect the lateral load that can be achieved by nailing between the sheathing and the rim.

For these reasons, it is essential that the rim board specified match the remainder of the system. I-joists are manufactured to tight tolerances and in a dry condition. Solid sawn material is manufactured at various moisture contents, varied depth tolerances depending on the mill and from different raw materials and a resource base. I-joist and solid sawn material of the same nominal size often vary in depth and are simply incompatible. The two products cannot be expected to perform adequately as a system when combined.

The Wood I-Joist Manufacturers Association (WIJMA), a technical group representing all major manufacturers, recognizes the inherent incompatibility between a prefabricated I-joist and solid sawn rim material. The position of this group is that the use of solid sawn material as a rim board is not compatible with I-joist systems, that the use of such can lead to structural deficiencies.