

Blocking Requirements for Trus Joist® TJI® Joists at Bearing Walls

END BEARING CONDITION

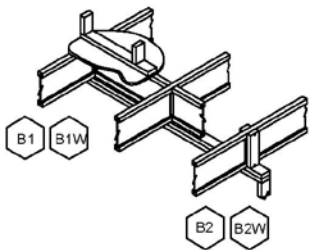
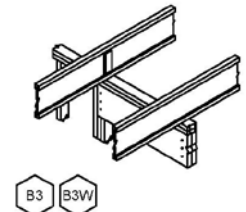
Blocking (or rim board) is required at all joist end bearing conditions to provide lateral load transfer, vertical load transfer and lateral bracing during construction. Material which may be used for blocking includes: TJI® joists, Timberstrand® LSL or Parallam® PSL sections of the same height as the joist. **Dimension lumber should not be used for blocking with TJI® joists over bearing** due to differential shrinkage.

Joist ends which butt together or overlap over a beam or wall are also considered end bearing conditions and require blocking.

INTERIOR BEARING CONDITION

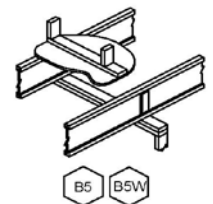
Blocking for Vertical Load

Weyerhaeuser does not require blocking panels or squash blocks at interior load-bearing supports when no load bearing wall is above (see detail B3). This is a general rule based solely on gravity loads. This rule may be superseded by the designer of record if they determine that additional blocking is required.



For TJI® joists which bear on an intermediate support below and support an interior bearing wall above, Weyerhaeuser requires blocking to be installed at the intermediate support (see detail B1). If the walls above and below are not shear walls, squash blocks may usually be substituted for blocking panels (detail B2) with the approval of the designer of record.

In some cases, the load from a bearing wall above is relatively small and the joist can handle the point load without buckling when lateral restraint is not present (detail B5). Web stiffeners may be required to increase the allowable joist reaction at the intermediate bearing (B5W).



Blocking for Lateral Load

Blocking panels may be required at interior load-bearing support walls by the designer of record or when designing per the International Residential Code (IRC) for seismic design categories D₀, D₁, or D₂ per section R502.7.

For TJI® joists with a shear wall above or below, a few blocking panels may be omitted, and squash blocks substituted to allow room for heat ducts or other utilities. Unless noted on the design plans, exterior bearing walls should be considered shear walls. Squash blocks can be substituted if 2 blocks in a row are not removed and no more than 20% of the total blocks along any one wall are removed. To avoid splitting the flange, attachment of angle clips into the side of a TJI® joist flange is not recommended. Solid section blocking may be used if angle clips are required.

Blocking panels may be required by the designer of record at interior load-bearing support walls with non-load bearing wall above for several reasons. These could include using the blocking as a collector, providing foundation wall thrust resistance, or general floor lateral stability. If blocks are specified on the original plans, the blocks must be installed unless the builder obtains specific written permission to omit them from the designer of record. If a note indicates that blocking is per the manufacturer, the above Weyerhaeuser rules apply.

(1) R502.7 Lateral restraint at supports (2018 International Residential Code)

Exception: In seismic Categories D₀, D₁ and D₂ lateral restraint shall also be provided at each intermediate support.