



RIM BOARD INSTALLATION AND CONNECTION DETAILS

A rim board is the wood component that fills the space between the sill plate and bottom plate of a wall or, in second floor construction, between the top plate and bottom plate of the two wall sections. Proper installation of the rim board is essential to the overall structural integrity of the building.

Installation and Connection Requirements:

1. Floor sheathing to APA Performance Rated Rim Board – Use 8d nails (box or common) at 6 inches o.c. **Caution:** The horizontal load capacity is not necessarily increased with a decreased nail spacing.

Under no circumstances should the nail spacing be less than 3 inches. The 16d (box or common) nails used to connect the bottom plate of a wall to the rim board through the sheathing do not reduce the horizontal load capacity of the rim board provided that the 8d nail spacing (sheathing-rim board) is 6 inches o.c. and the 16d spacing (bottom plate-sheathing-rim board) is in accordance with the prescriptive requirements of the applicable code.

2. APA Performance Rated Rim Board to I-joist – Use two 8d nails (box or common), one each into the top and bottom flanges. This is typical for rim board

having a thickness up to 1-1/8 inches. A larger nail size may be required by the I-joist manufacturer or for thicker rim board products.

3. APA Performance Rated Rim Board to rim board – Attach rim board to rim board in accordance with the details shown in Figure 1. Rim board-to-rim board butt joints should be made between floor joists to minimize damage to joists caused by end nailing.

4. APA Performance Rated Rim Board to sill plate – Toe-nail using 8d (box or common) at 6 inches o.c. or 16d (box or common) at 12 inches o.c. Install toe-nails as shown in Figure 2.

FIGURE 1

ATTACHMENT DETAILS WHERE RIM BOARDS ABUT

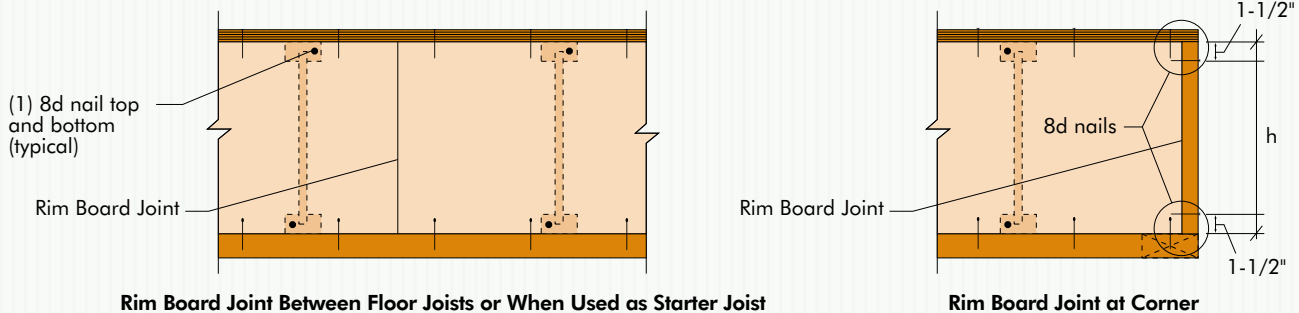
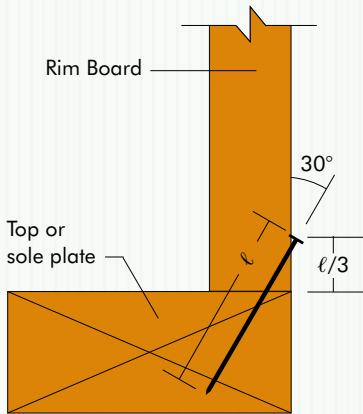


FIGURE 2
TOE-NAIL CONNECTION AT RIM BOARD



5. Attachment of 2x lumber ledgers to APA Performance Rated Rim Board – Use 1/2-inch diameter lag screws with a minimum nominal length of 4 inches or

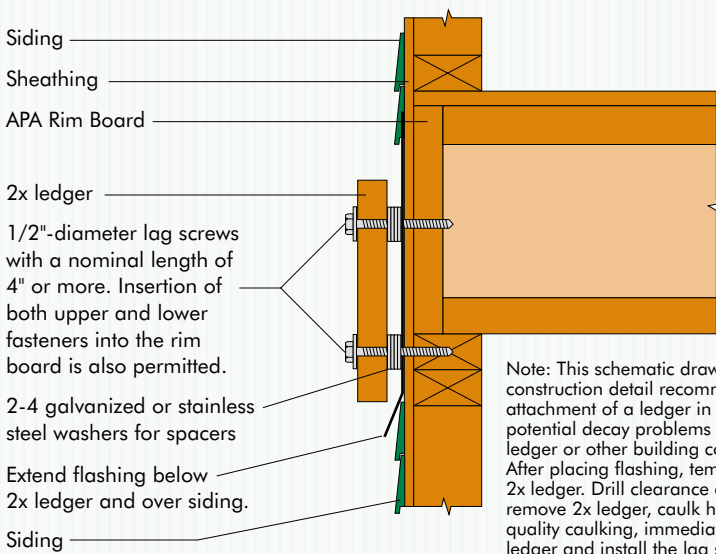
1/2-inch diameter through-bolts with washers and nuts. In both cases, use a vertical and horizontal load design value of 350 lbf per fastener if the rim board thickness is 1-1/8 inches or 300 lbf per fastener if the rim board thickness is 1 inch. (See Figure 3.)

Caution: The lag screw should be inserted in a lead hole by turning with a wrench, not driving with a hammer. A lead hole of 1/4 to 3/16 inch in diameter is required for a 1/2-inch diameter lag screw.

Lead hole sizes for other lag screw diameters can be found in the 1997 National Design Specification for Wood Construction (NDS) published by the American Forest & Paper Association.

Over-torquing can significantly reduce the lateral resistance of the lag screw and should therefore be avoided.

FIGURE 3
2X LEDGER TO RIM BOARD ATTACHMENT DETAIL



1/2"-diameter lag screws with a nominal length of 4" or more. Insertion of both upper and lower fasteners into the rim board is also permitted.

2-4 galvanized or stainless steel washers for spacers

Extend flashing below 2x ledger and over siding.

Note: This schematic drawing is a construction detail recommended for attachment of a ledger in order to avoid potential decay problems on either the ledger or other building components. After placing flashing, temporarily hang 2x ledger. Drill clearance and lead holes, remove 2x ledger, caulk holes with high quality caulking, immediately reapply 2x ledger and install the lag screws. **Some building codes require building paper between sheathing and exterior siding.**

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