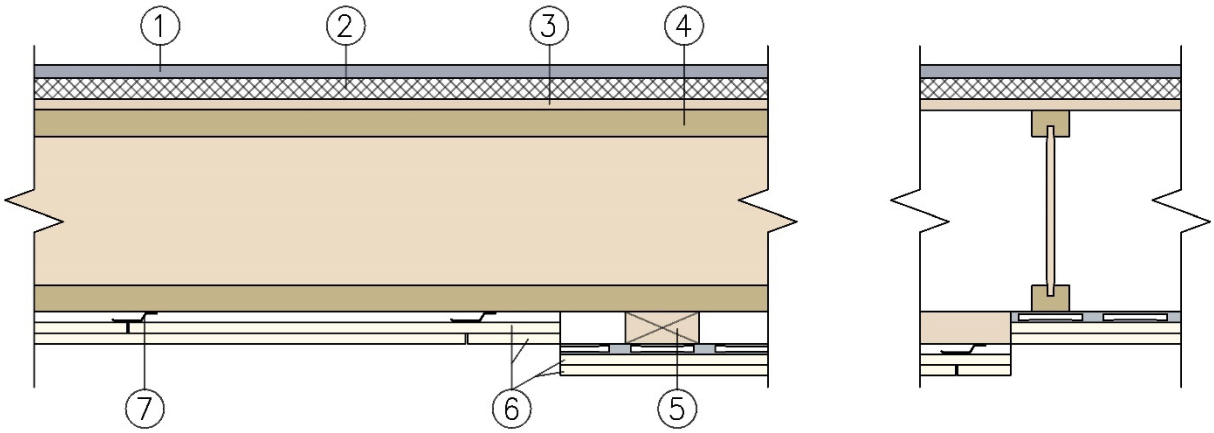
Weyerhaeuser NR Company
Design No. WNR/RCA 60-01
Wood I-Joists
TJI® Joists
ASMT E119, CAN/ULC S101
Rating: 1 Hour Roof/Ceiling Assembly



1. **ROOF COVERING:** Suitable materials intended for built-up roof covering which provides Class A, B, C covering on combustible wood decks for fire resistant assemblies equivalent to this roof-ceiling/assembly.

2. **ROOF INSULATION:** Sheathing material and adhesive products found suitable for use in 1 hour rated fire assemblies equivalent to this roof/ceiling assembly.

3. **SHEATHING:** Min. 15/32 in. square edge plywood or oriented strand board (OSB) sheathing designed and installed per Code requirements, H clips midway between joists or as per Code requirements.

4. **STRUCTURAL MEMBERS:** Wood I-Joists

   A. **CERTIFIED PRODUCT:** Weyerhaeuser NR Company, TJI® Series Joists: TJI 110, TJI 210, TJI 230, TJI 360, TJI 560, TJI 560D:

   Min. depth: 9-1/2 in., Max. spacing: 48 in. on center (oc).

   B. Code Compliant Weyerhaeuser Timberstand LSL, Microllam LVL, or Parallam PSL Certified to ASTM D5456:

   Min. thickness: 1.5 in., Min. depth: 9-1/2 in., Max. spacing: 48 in. oc.

5. **WOOD FURRING (Optional):** 2 x 4 lumber, min. Standard & Better grade, placed perpendicular to joists and spaced max. 24 in. oc, attached to each joist with one min. 3 in. Type W screw. Required when joists spacing exceeds 24 in. oc.

6. **GYPSUM BOARD:** Two layers, min. 1/2 in. Type X gypsum board. Max. board width is 48 in. Exposed joints to be taped and filled. Exposed screw heads to be filled.

   Application to Joists or Furring:

   Base layer applied to joists or furring with long edge perpendicular to supports and with end joints butted over supports. Adjacent end joints staggered min. 24 in.

Base layer attached with Type W screws, spaced 12 in. oc on intermediate supports and 6 in. oc at end supports. Screws must penetrate min. 1 in. into wood member.

Face layer installed with long edge perpendicular to supports and edges staggered 24 in. from base layer edges. End joints located over and attached to supports and staggered min. 24 in. from base layer end joints. Face layer attached with Type W screws, spaced 12 in. oc on intermediate supports and 8 in. oc on end supports. Screws must penetrate min. 1 in. into wood member. Face layer also fastened to base layer with a row of Type G screws, spaced 8 in. oc located 6 in. away from end joints in face layer. Type G screws must penetrate min. of 1 in. beyond surface of base layer.

Application to Channels:

Base layer applied to furring channels with long edge perpendicular to channels. End joints staggered at a min. of two channel spacings. Base layer fastened to channels with Type S screws spaced 12 in. oc along channels. 7/8 in. screws required for base layer when using 1/2 in. gypsum board base layer, 1 in. screws required for base layer when using 5/8 in. gypsum board.

Face layer installed with long edges perpendicular to the channels. Long edges staggered 24 in. from base layer edges. End joints staggered a min. of one channel spacing from the base layer end joints. Face layer attached with Type S screws, spaced 12 in. oc on intermediate supports and 8 in. oc on end supports. 1-3/8 in. screws required for face layer when using 1/2 in. gypsum board. 1-5/8 in. screws required for face layer when using 5/8 in. gypsum board. Face layer also fastened to base layer with a row of Type G screws, spaced 8 in. oc located 6 in. away from end joints in face layer. Type G screws must penetrate min. of 1 in. beyond surface of base layer.

7. **STEEL FURRING CHANNELS:** 0.019 in. or thicker galvanized steel resilient channels, max. spacing 24 in. oc, fastened to each joist with one 1-1/4 in. Type W screw.

   Alternate: Joists may be spaced at 32 in. oc without wood furring if resilient channels are spaced 16 in. oc max.

Consult the listing report on the Directory of Building Products (https://bpdirectory.intertek.com) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.