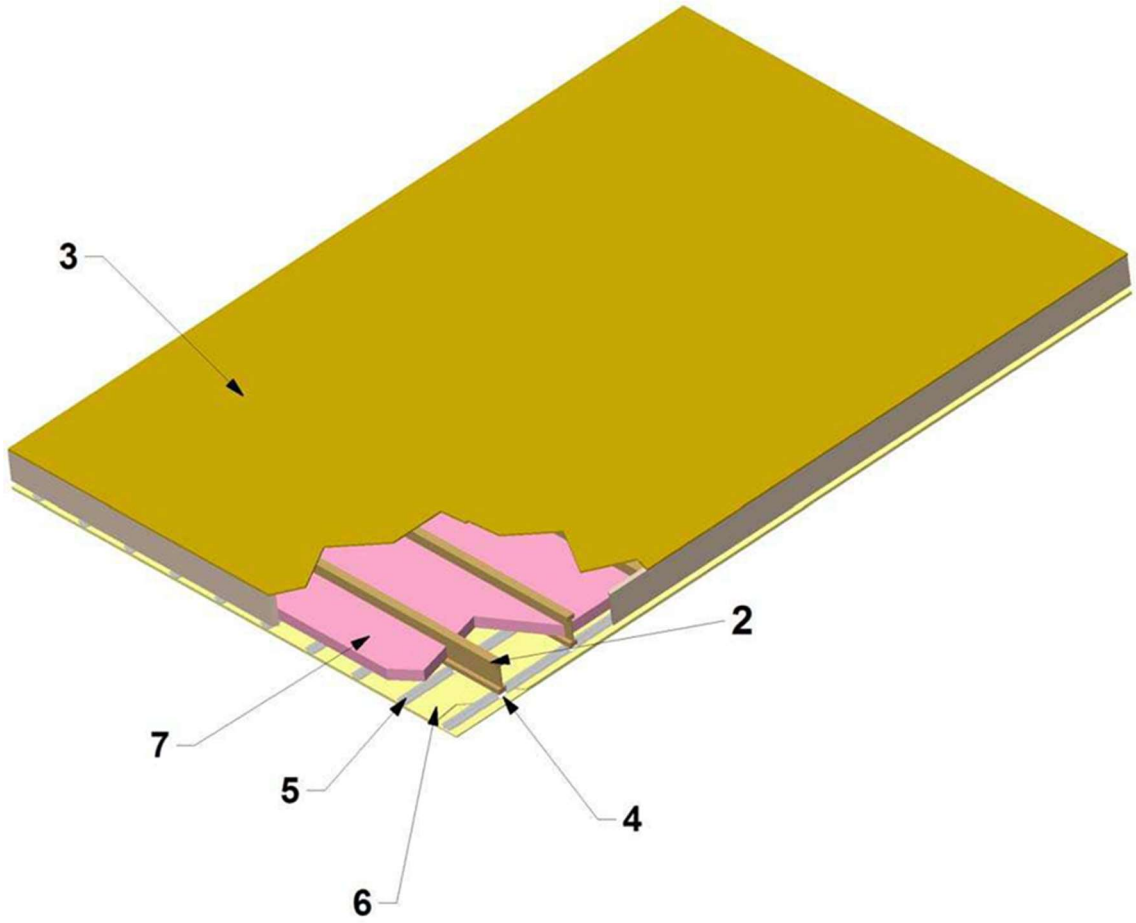
IB EWP Inc.
Design No. IB/WIJ 60-01
Loaded Floor/Ceiling Assembly
IB600 OSB Web I Joist
ASTM E119
Fire Resistance Rating – 1 Hour
Superimposed Load – 51 PSF



1. **TOPPING (Optional, Not Shown):** Lightweight concrete, min. density 110 pound per square foot (pcf), min. compressive strength 3000 pound per square inch (psi) or proprietary gypsum/cement/sand topping, min. density 100 pcf, min. density compressive strength 1000 psi. Min. topping thickness for lightweight concrete or proprietary gypsum/cement/sand topping is 3/4 in. with Joists (Item 2) spaced 24 in. on center (oc).

2. **CERTIFIED MANUFACTURER:** IB EWP Inc.

   CERTIFIED PRODUCT: IB I Joist

   CERTIFIED MODEL: IB600, IB800 or IB900x

WOOD JOISTS – Use min. 14 in., 1-1/2 in. x 2-1/2 in. flange, 3/8 in. thick OSB Web I-Joists spaced a max. of 24 in. oc. Fasten I-Joists to rim board with 2-3/8 in. long × 0.113 in. smooth shank nails. Fasten one nail through the rim board into the end of each flange, and one on each side of the joist web into the bearing plate (not shown).

3. **SUB-FLOORING**: Use nominal 23/32 in. thick tongue-and-groove OSB subfloor sheathing. Apply a min. 1/8 in. bead of adhesive with the following requirements along the top of all the joists and in the flooring grooves: meets ASTM D 3498 Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems, meets American Plywood Association specifications AFG-01, and tested and approved for HUD-FHA application per specification UMB No. 60. Secure OSB using 8d 2-1/2 in. common nails spaced 6 in. oc around the perimeter and at the butted edges and 12 in. oc at interior members.

4. **SOUND ISOLATION CLIP (Optional):** GenieClip™, UL – Classified. 1-5/8 in. wide x 15/16 in. high x 2-/12 in. long, spaced max. 48 in. oc along the length of the Furring Channels (Item 5). GenieClip™ shall be used with furring channel matching the specifications noted as required for GenieClip™ in Item 5 of this Design Listing. Each GenieClip™ must be fastened to the Wood Joist (Item 2) using a min. 2 in. Hi-Lo drywall screw through the center grommet.

5. **FURRING:** Use one of the following options:
   i. Install 1/2 in. deep nominal 25 GA galvanized steel single leg (RC-1) or min. 1/2 in. deep x 2-1/2 in. wide "hat-shaped" (RC-2) channels spaced 16 in. oc and applied perpendicular to the Wood Joists (Item 2). Secure furring channels to the bottom flange of each of the Wood Joists (Item 2) using min. 1-1/4 in. long Type W screws, ensuring two screws are installed in the bottom flange of each Wood Joist (Item 2). When required for length, overlap the channel a min. 6 in. and secure using a 1-1/4 in. Type W screw.
   ii. FOR USE WITH GENIECLIP™ (Optional) – Install 7/8 in. deep x 2-1/2 in. face width, min. nominal 25 GA galvanized steel spaced 16 in. oc, applied perpendicular to Wood Joists (Item 2). Furring channels must have hemmed edges.

6. **GYPSUM BOARD:** Install two layers of 1/2 in. or 5/8 in. thick proprietary Type X gypsum board, UL-Classified (Type C) for application in fire-rated construction, installed with the long edge of the base layer perpendicular to the Furring Channel (Item 5), and the face layer sheets with butt joints offset. Attach gypsum board using one of the methods below. Install 1/2 in. thick gypsum board using method i or ii, but when using 5/8 in. thick gypsum board, only method i may be used. After gypsum board is attached, apply vinyl or casein, dry or premixed, joint compound to the exposed face of gypsum wallboard in two coats to all exposed fastener heads and gypsum wallboard joints. Embed a min. 2 in. wide paper, plastic, or fiberglass tape in first layer of compound over joints in gypsum wallboard.
   i. Attach base layer to Furring Channel (Item 5) using 1 in. Type S drywall screws spaced 12 in. oc, 1-1/2 in. from the sides, and 3/8 in. from butt joints. Attach face layer to the resilient channels (through the base layer) using 1-5/8 in. Type S drywall screws spaced 8 in. oc, 1-1/2 in. from the sides. Install face layer with joints offset 24 in. from those of the base layer in two directions (at the sides and ends of the panels). Attach face layer to the base layer using 1-1/2 in. Type G laminating screws spaced 8 in. oc at butt joints. Install screws just short of flush with the surface.

ii. Attach base layer of gypsum board to Furring Channel (Item 5) using min. 1-1/4 in. Type S screws spaced 12 in. oc, 1-1/2 in. from the sides, and 3/8 in. from butt joints. Attach face layer to the resilient channels (through the base layer) using 1-5/8 in. Type S screws spaced 12 in. oc, 1-1/2 in. from the sides. Install face layer with joints offset 24 in. from those of the base layer in two directions (at the sides and ends of the panels). Attach face layer to the base layer using 1-1/2 in. Type G laminating screws spaced 12 in. oc at butt joints. Install screws just short of flush with the surface

7. **INSULATION:** Use insulation with a thickness ranging from 3-1/2 in. thick (R13) to 9-1/2 in. thick (R30) unfaced glass fiber insulation batts conforming to ASTM C518. Install insulation using one of the below methods:

i. Use less than 6-1/4 in. thick insulation. When insulation is installed, insulation wire stays (not shown) are required and are to be spaced at a max. of 12 in. oc perpendicular to the I-Joists in the plenum cavity.
ii. Use 6-1/4 in. thick insulation or greater. When installed, insulation wire stays are not required. Install insulation over the Furring Channel (Item 5) and Gypsum Board (Item 6). Press-fit insulation between the bottom flanges of the Wood Joists (Item 2). Install insulation with ends butted over or between the Furring Channel (Item 5).
iii. When needed, install insulation directly underneath the Sub-flooring (Item 3) and hold insulation in place using insulation wire stays installed per the manufacturer's specifications or spaced max. 12 in. oc, whichever is more conservative.