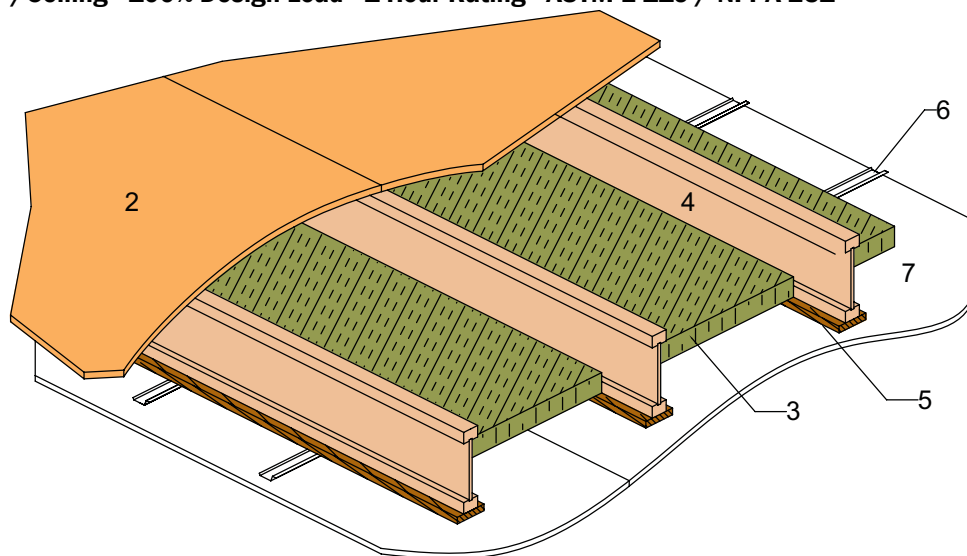


WIJ-1.3 One-Hour Fire-Resistive Ceiling Assembly**Floor^a/Ceiling - 100% Design Load - 1 Hour Rating - ASTM E 119 / NFPA 251**

- 1. Floor Topping (optional, not shown):** Gypsum concrete, lightweight or normal concrete topping.
- 2. Floor Sheathing:** Minimum 23/32 inch thick tongue-and-groove wood sheathing (Exposure 1). Installed per code requirements.
- 3. Insulation:** Minimum 2 inch thick mineral wool insulation batts – 3.5 pcf (nominal), supported by setting strip edges, friction-fitted between the sides of the I-joist flanges.
- 4. Structural Members:** Wood I-joists spaced a maximum of 24 inches on center.
 Minimum I-joist flange depth: 1-5/16 inches Minimum I-joist flange area: 2.25 inches²
 Minimum I-joist web thickness: 3/8 inch Minimum I-joist depth: 9-1/4 inches
 See ASTM D 5055-07 for qualification requirements.
- 5. Setting Strips:** Minimum 1x4 (nominal) wood setting strips attached with 1-1/2 inch long drywall screws at 24 inches on center along the bottom flange of I-joist creating a ledge to support insulation.
- 6. Resilient Channels:** Minimum 0.019 inch thick galvanized steel resilient channels, attached perpendicular to I-joists using 1-7/8 inch long drywall screws. Resilient channels spaced 16 inches on center and doubled at each wallboard end joint extending to the next joist.
- 7. Gypsum Wallboard:** Minimum 5/8 inch thick Type C gypsum wallboard installed with long dimension perpendicular to resilient channels and fastened to each channel with minimum 1-1/8 inch long Type S drywall screws. Fasteners spaced 7 inches on center and 3/4 inches from panel edges and ends. End joints of wallboard staggered.
- 7. Finish System (not shown):** Face layer joints covered with tape and coated with joint compound. Screw heads covered with joint compound.

Fire Test conducted at National Gypsum Testing Services, Inc.
 Third Party Witness: Underwriter's Laboratories, Inc.

September 28, 2001
 Report No: NC3369

STC and IIC Sound Ratings for Listed Assembly

| Without Gypsum Concrete | | | | With Gypsum Concrete | | | |
|-------------------------|-----------------|--------------|-----|----------------------|-----------------|-----------------|-----------------|
| Cushioned Vinyl | | Carpet & Pad | | Cushioned Vinyl | | Carpet & Pad | |
| STC | IIC | STC | IIC | STC | IIC | STC | IIC |
| 51 ^b | 46 ^b | 52 | 66 | 60 ^b | 48 ^b | 60 ^b | 60 ^b |

^a This assembly may also be used in a fire-rated roof/ceiling application, but only when constructed exactly as described.

^b STC and IIC values estimated by David L. Adams Associates, Inc.