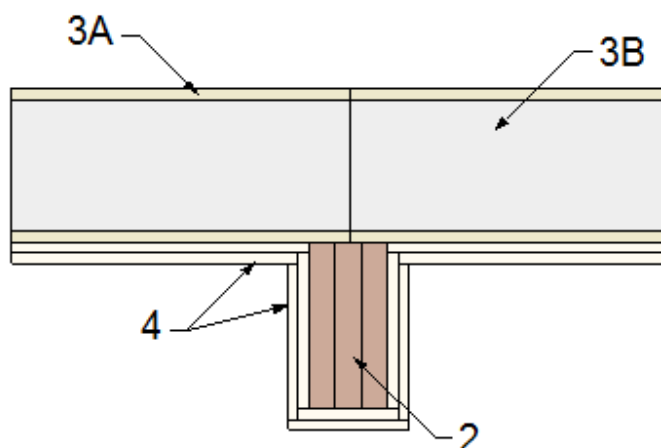

Design Number: TPC / CRP 60-01
ROOF-CEILING SYSTEMS
Timberline Panel Company, LLC
Timberline 4½ to 10½ in. Structural Insulated Panels
ASTM E 119 – 2012 Edition
CAN/ULC S 101 – 2007 Edition
Restricted Superimposed Load: See Item 1

Rating – 1 Hour



ITEM 1

1. CEILING ASSEMBLY: Construct a ceiling assembly using elements described in Items 2 through 5 with a maximum restricted superimposed load of 40% of the allowable capacity of the panel.
2. WOOD BEAMS/JOIST: Use minimum 4-1/2 in. wide x 9-1/2 in. deep engineered wood beam/joist spaced in accordance with manufacturer's design specifications and building code requirements.
3. CERTIFIED COMPANIES: Timberline Panel Company, LLC

CERTIFIED PRODUCT: Timberline Structural Insulated Panels

ROOF PANELS: Install Timberline Structural Insulated Panels consisting of the following elements:
 - A. FACING: Nominal 7/16 in. thick OSB skins factory bonded to interior and exterior sides of EPS foam core (Item 3B) conforming and identified as meeting DOC PS 2-04, Exposure 1, Rated Sheathing with a span index of 24/16 and/or CAN/CSA O325.0, Exterior Grade Sheathing with a span index of 1R24/2F16.
 - B. CORE: Use ASTM C578 compliant and Listed Type I EPS (min. 0.9 pcf) with a flame spread rating not exceeding 75 and smoke-developed rating not exceeding 450 per ASTM E84 and/or CAN/ULC S701 compliant and Listed Type 1 EPS with a flame spread rating not exceeding 500 per CAN/ULC S102.2.
 - C. ADHESIVE (Not Shown): Facing materials are adhered to the core material using a structural adhesive. The adhesive is applied during the

lamination procedure in accordance with the in-plant quality system documentation.

- D. SPLINE (Not Shown): Structural Insulated Panels are interconnected with surface splines or block splines.

Surface splines typically consist of 3 in. wide by 7/16 in. thick OSB. At each panel joint, one surface spline is inserted into each of two tight-fitting slots in the core. The slots in the core are located just inside the facing.

Block splines are manufactured in the same manner as the SIP except with an overall thickness that is 1 in. less than the overall thickness of the panel to be joined.

4. GYPSUM BOARD: Apply two (2) layers of 5/8 in. thick, Type X gypsum board to the interior side of the ceiling assembly (Item 1) oriented with the long dimension oriented perpendicular to the wood beams (Item 2). Secure the base layer using 1-1/4 in. long, bugle head self-drilling screws spaced nominally 8 in. on center (oc) around the perimeter and 12 in. oc in the field. Secure the second layer using 2 in. long bugle head self-drilling screws spaced nominally 8 in. oc around the perimeter and 12 in. oc in the field. Stagger joints of base layer and second layer.

- A. JOINT TAPE AND COMPOUND – (Not Shown) Apply a level 2 finish of vinyl or casein, dry or premixed joint compound applied in two coats to all exposed fastener heads and gypsum board joints. Embed minimum 2 in. wide paper, plastic, or fiberglass tape in first layer of compound over joints in gypsum board (Item 3).

5. ROOF COVERING (Not Shown): Use a Class A, B, or C hot mopped or cold applied roof covering, or use a ballasted, adhered or mechanically attached single ply roofing membrane.