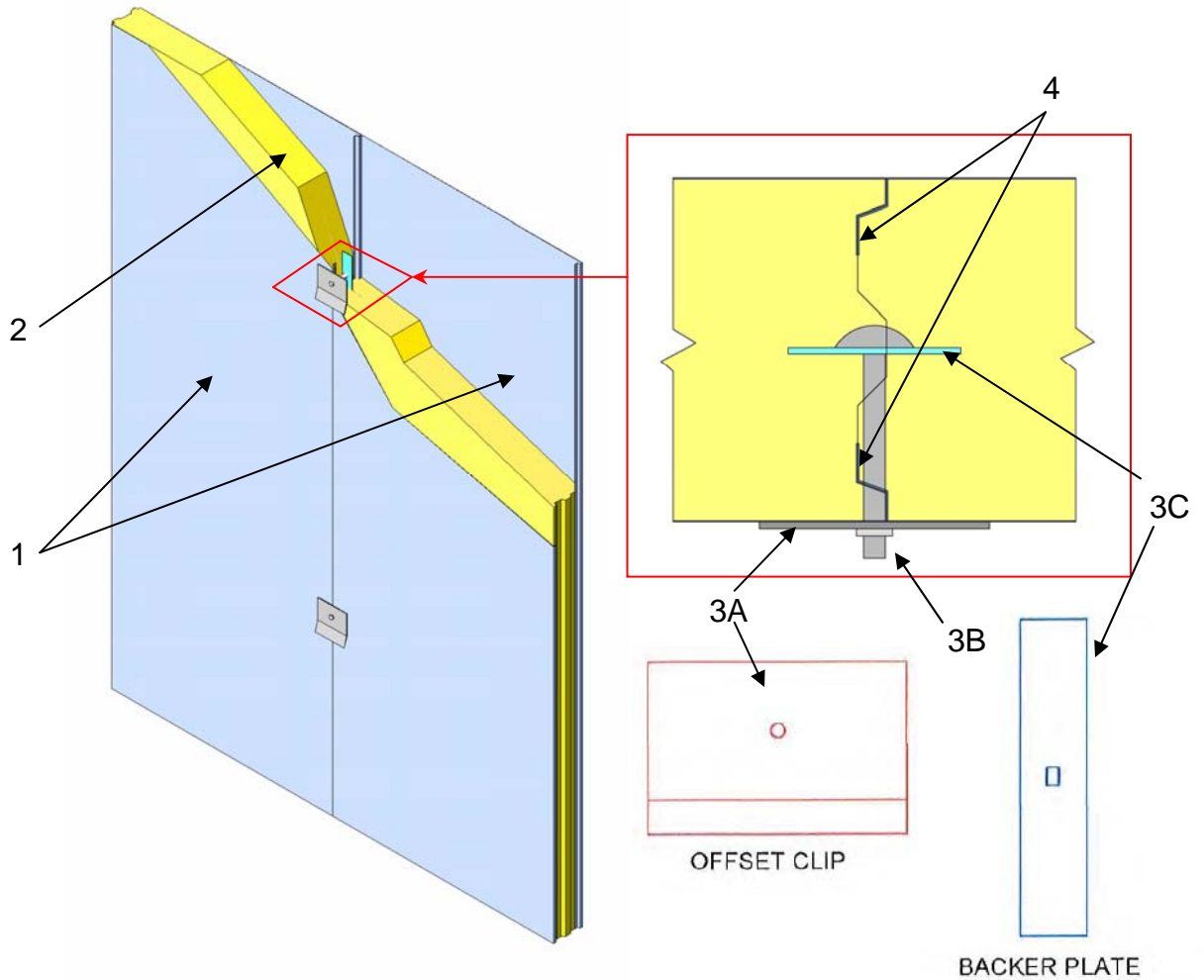


Design No. SPI/FWPA 180-01
STRUCTURAL PANELS INC. – “ROCKWALL” SANDWICH PANEL WALL ASSEMBLY
Non-load-bearing wall assembly
Fire resistance ratings in accordance with CAN/ULC S101 and ASTM E119



PANEL THICKNESS	FIRE RATING
4 in. (102 mm)	1 Hour
5 in. (127 mm)	2 Hour
6 in. (152 mm)	3 Hour

1. **Steel Skins:** 26 GA G-90 hot dipped galvanized steel skin compliant with ASTM A653/A653M-11 CS Type B. Ends are profiled as detailed above for a tongue and groove joint, friction fit and fastened as detailed in points 3A, 3B, and 3C.

Panels are 46-1/2 in. (1181 mm) wide; in assembled walls, the joints are 46 in. on center (OC).

2. **Mineral Fiber Insulation:** UL-certified Roxul ConRock® “mineral-fiber boards”. Each package of mineral-fiber boards

must bear the Classification Marking of UL Inc. and contain the following information:

- UL-Classified company's name or File R18618.
- Type designation: "Mineral-Fiber Boards".

A minimum density of 125 kg/m³ is required. Thickness required to achieve the minimum panel thickness for the fire rating as noted in the table above.

The insulation is adhered to the steel skins with a two-part isocyanurate adhesive identified as Daltofoam TR 44203 and Suprasec 2026 mixed in a ratio of 40/60 respectively. The adhesive must be applied at a rate of 175 ± 25 g/m².

3. **Clip and Backer Plate Assembly:** located at vertical wall joints spaced 5 ft apart, maximum 3 ft from bottom wall terminations and maximum 2 ft below top wall terminations. Components of clip assembly as follows:

- A. **Offset Clip:** 12 GA G90 galvanized steel. The clip is a 6 in. wide x 6 in.

high plate with a 1/4 in. bend at 1-3/8 in. from the bottom edge (flat end 6 in. wide x 4 in. high). A 3/8 in. diameter punched hole is located in the centre of the flat section.

- B. **Carriage Bolt:** 3/8 in. diameter steel carriage bolt with nut and washer clamping down Offset Clip (3A) to panel joint exterior.
- C. **Backer Plate:** 12 GA (minimum) G90 galvanized steel backer plate with a pre-punched 3/8 in. square hole through which the carriage bolt passes. The backer plate size is dependent on the panel thickness per the table below.

Panel Thickness	Minimum Backer Plate Size
4 in. thick	2-3/4 in. wide x 12 in. high
5 in. thick	2-3/4 in. wide x 12 in. high
6 in. thick	3 in. wide x 18 in. high

4. **Caulking:** Dow 999-A white caulking bead applied along full length of interior-side and exterior-side joint grooves.