

System No. HW-D-0458

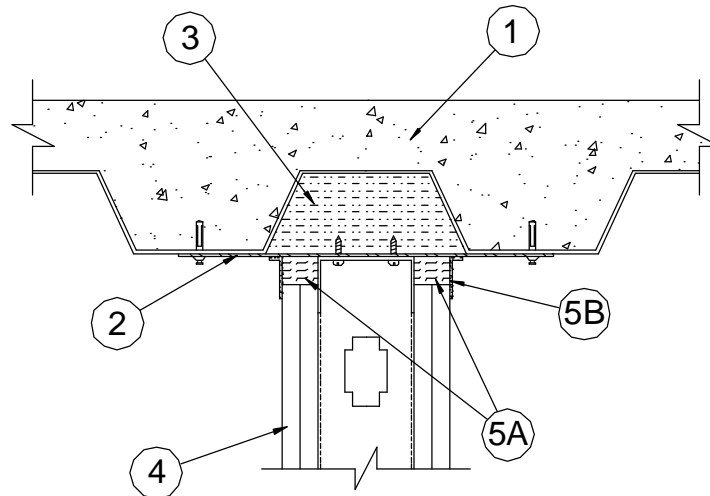
August 28, 2006

Assembly Rating — 1 and 2 Hr (See Item 4)

Nominal Joint Width — 1 In.

Class II Movement Capabilities — 18.75% Compression and Extension

(UL/cUL)



1. **Floor Assembly** — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:
 - A. **Steel Floor and Form Units*** — Max 3 in. deep galv steel fluted floor units.
 - B. **Concrete** — Min 2-1/2 in. thick reinforced concrete, as measure from the top plane of the floor units.
2. **Steel Straps** — Min 2 in. wide by 16 MSG galv steel straps cut to a length to span the flute and overlap the adjacent valleys of fluted floor units by 1-1/2 in. Straps spaced max 24 in. OC and fastened to floor assembly with 1/4 in. diam by 1-1/2 in. long steel concrete anchors.
3. **Forming Material* - Plugs** — Preformed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes above the steel straps. Adjacent lengths of plugs to be tightly butted with butted seams spaced min 24 in. apart along the length of the plugs.

ROCK WOOL MANUFACTURING CO — Delta Board or Deck Plugs
4. **Wall Assembly** — The 1 or 2 h fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
 - A. **Steel Floor and Ceiling Runners** — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Ceiling runner to be provided with 2 in. flanges. Ceiling runner installed parallel to direction of fluted steel floor units, directly beneath steel straps and secured to straps with two No. 8 self-drilling, self-tapping steel screws per strap.
 - B. **Studs** — Steel studs to be min 3-5/8 in. wide. Studs cut 1/2 in. to 3/4 in. less in length than assembly height with bottom nesting in and resting on the floor runner and with top nesting in ceiling runner without attachment. Stud spacing not to exceed 24 in. OC.
 - C. **Gypsum Board*** — For 1 hr assembly, one layer of 5/8 in. thick gypsum board as specified in the individual Wall and Partition Design. For 2 hr assembly, two layers of 5/8 in. thick gypsum board are specified in the individual Wall and Partition Design. For both hourly ratings, a nom 1 in. gap shall be maintained between the top of the gypsum board and the bottom surface of the steel floor units and the top row of screws shall be installed into the studs 3 in. below the valleys of the steel floor units.
5. **Joint System** — Max separation between bottom of floor and top of wall is 1 in. The joint system is designed to accommodate a max 18.75 percent compression or extension from its installed width. The joint system consists of a forming material and a fill material between the top of the gypsum board and the bottom of the floor, as follows:
 - A. **Forming Material*** — Min 4 pcf density mineral wool batt insulation cut shall be cut into strips to fill the gap between the top of gypsum board and bottom of the floor units. The width of the strips shall be equal to the total thickness of the gypsum board. The strips of mineral wool are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the mineral wool plug or steel floor units.

FIBREX INSULATIONS INC — FBX Safing Insulation

ROCK WOOL MANUFACTURING CO — Deck Plugs

ROXUL INC — SAFE Mineral Wool Batts

- B. **Fill, Void or Cavity Material* - Sealant** — Min 1/8 in. wet thickness of fill material sprayed or trowelled on each side of the wall to completely cover the mineral wool forming material and to overlap a min of 1/2 in. onto gypsum board, steel floor units and steel straps on both sides of the wall.

TREMCO INC — TREMstop Acrylic-SP

*Bearing the UL Classification Mark



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