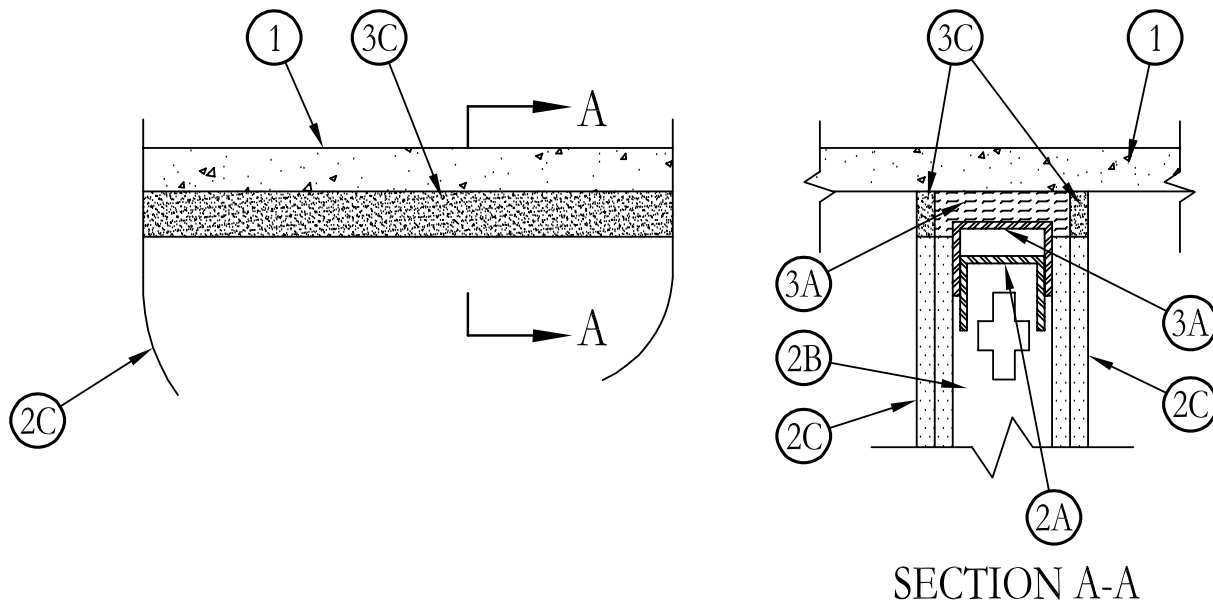


## System No. HW-S-0005

December 07, 1995

Assembly Ratings – 1 and 2 Hr (See Items 2, 3B and 3C)

Joint Width – 1 In. Max



1. **Floor Assembly** – Min 4-1/2 in. thick steel-reinforced lightweight or normal weight (100-150 pcf) structural concrete.
2. **Wall Assembly** – The 1 or 2 hr fire rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described 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** – Top and bottom runners of wall assembly shall consist of min 3-5/8 in. wide by 3 in. deep corrosion protected min 25 MSG steel channels. Floor runners secured with steel fasteners spaced max 24 in. O.C. The ceiling runners are installed within the U-shaped deflection plate (Item 3A) with a nom 1 in. gap is maintained between the top of the ceiling runners and the top of the deflection plate.
  - B. **Studs** – 3-5/8 in. wide by 1-1/4 in. deep corrosion protected min 25 MSG steel channels. Steel stud spacing not to exceed 24 in. O.C.
  - C. **Gypsum Board\*** – 5/8 in. thick, 4 ft wide with square or tapered edges. Wallboard sheets installed vertically on both sides of stud framing with joints centered over studs. A max 1 in. gap is maintained between the top of the wallboard and the bottom of the concrete floor. The gypsum wallboard type, thickness, number of layers and fastener types shall be as specified in the individual U400-Series Design in the UL Fire Resistance Directory.
3. **Joint System** – Max separation between bottom of floor and top of wall is 1 in. The joint system consists of a deflection plate, packing material and caulk, as follows:
  - A. **Deflection Plate A** – nom 4 in. wide by 3 in. deep, min 24 ga steel U-shaped channel. The deflection plate is attached to the concrete floor with masonry anchors at a max 24 in. OC. The steel ceiling runner (Item 2A) is installed within the deflection plate to maintain a nom 1 in. gap between the top of the ceiling runner and the top of the deflection plate. The ceiling runner is not fastened to the deflection plate.
  - B. **Packing Material** – The following packing materials are used:
 

**Mineral Wool** – A 1 in. thickness by 4 in. wide section of min 4 pcf density mineral wool batt insulation is fitted into the 1 in. gap within the deflection plate between the top of the ceiling runner and the deflection plate.

**Polyethylene Backer Rod** (2 hr rated system only) – A nom 1-1/4 in. diam polyethylene backer rod friction-fitted into the gap between the top of the gypsum wallboard and the bottom of the concrete deck on both sides of the wall and recessed from each surface of wall to accommodate the required thickness of fill material.
  - C. **Fill, Void or Cavity Material\*** – A min 5/8 in. thickness of fill material for 1 hr rated systems and a min 1/2 in. thickness of fill material for 2 hr rated systems installed on each side of the wall between the top of the wallboard and bottom of the concrete floor.

3M COMPANY – FB-2000 or FB-2000+

\*Bearing the UL Classification Marking

This material was extracted and drawn by 3M Fire Protection Products from the 2007 edition of the UL Fire Resistance Directory. 