1. **Floor Assembly** - Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Floor may also be constructed of any min 6 in. thick (152 mm) UL Classified hollow-core Precast Concrete Units*. See Precast Concrete Units (CFTV) category in Fire Resistance Directory for names of manufacturers.

2. **Wall Assembly** - The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and 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 galv steel channels sized to accommodate steel studs (Item 2B). Length of flange to equal fully extended width of joint plus 1/4 in. (6 mm). Ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC or min 1 in. (25 mm) long steel masonry or powder actuated fasteners spaced at a max of 24 in. (610 mm) OC.

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**System No. HW-D-0696**

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<tr>
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<td>Assembly Ratings - 1 and 2 Hr (See Item 2)</td>
<td>F Ratings - 1 and 2 Hr (See Item 2)</td>
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<td>Class II or III Movement Capabilities - 100% Compression (See Item 3)</td>
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*Painted or coated steel or galv steel may be used as specified by fire engineer.
A1. **Light Gauge Framing** - Vertical Deflection Ceiling Runner - As an alternate to the ceiling runner in Item 2A, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clip provided with step bushings for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC.

**THE STEEL NETWORK INC** - VertiTrack VTD358, VTD400, VTD600 and VTD800

A2. **Light Gauge Framing** - Notched Ceiling Runner - As an alternate to the ceiling runners in Items 2A or 2A1, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC.

**OLMAR SUPPLY INC** - Type SCR

B. **Studs** - Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1 in. (25 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When vertical deflection ceiling runner (Item 2A1) is used, steel studs secured to slotted vertical deflection clips, through bushings, with steel screws at mid-height of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Batts and Blankets** - (Not Shown) - As an alternate to the forming material (Item 3B), min 2.5 pcf (40 kg/m3) mineral wool batt insulation, of a width and thickness to completely fill stud cavity. Insulation batts friction fit to completely fill all stud cavities below the bottom surface of the steel ceiling runner.

See Battens and Blankets (BZJZ) category in the Fire Resistance Directory for names of manufacturers.

D. **Batts and Blankets** - (Not Shown) - In 1 hr fire rated wall assemblies as an alternate to the forming material (Item 3B), any glass fiber insulation bearing the UL Classification Marking as to fire resistance or surface burning characteristics, of a width and thickness to completely fill stud cavity. Insulation batts friction fit to completely fill all stud cavities below the bottom surface of the steel ceiling runner. At the steel ceiling runner, the top 6 in. (152 mm) section of insulation to be folded back upon itself to double the density at this location.

See Battens and Blankets (BZJZ) category in the Fire Resistance Directory for names of manufacturers.

E. **Gypsum Board** - Gypsum board sheets installed to a min total thickness of 5/8 in. (16 mm) and 1-1/4 in. (32 mm) on each side of wall for 1 and 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the floor. In addition, the top row of screws shall be installed into the steel studs 1 to 5 in. (25 to 127 mm) below the bottom edge of the ceiling runner flange.

The hourly ratings of the joint system are equal to the hourly rating of the wall.

3. **Joint System** - Max separation between bottom of floor and top of wall is 1 in. (25 mm). The joint system is designed to accommodate a max 100 percent compression from its installed width. The joint system consists of the following:

A. **Fill, Void or Cavity Material** - Factory-supplied intumescent gasket installed and nominally centered over the ceiling runner (Item 2A, 2A1, 2A2) prior to attachment to underside of concrete floor. Gypsum wallboard layers to be installed on both sides of the wall maintaining a minimum 1/8 in. (3 mm) overlap over the intumescent gasket at time of installation.

**SPECIFIED TECHNOLOGIES INC** - Speed Flex Track Top Gasket

B. **Forming Material** - When stud cavities are not filled with mineral wool batt insulation or glass fiber insulation (Items 2C or 2D), nom 4 in. (102 mm) thick by 6 in. (152 mm) wide sections of 4 pcf (64 kg/m3) mineral wool batt insulation installed between studs (Item 2B) flush with the bottom surface of the steel ceiling runner.

**INDUSTRIAL INSULATION GROUP L L C** - MinWool-1200 Safing

**JOHNS MANVILLE** - Safing

**ROCK WOOL MANUFACTURING CO** - Delta Board

**ROCKWOOL MALAYSIA SDN BHD** - Safe

**ROCKWOOL** - Safe

**THERMAFIBER INC** - SAF

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.