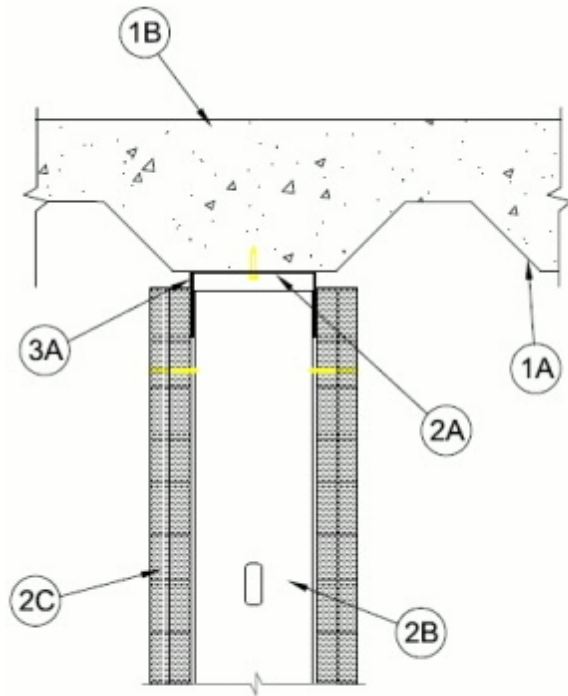




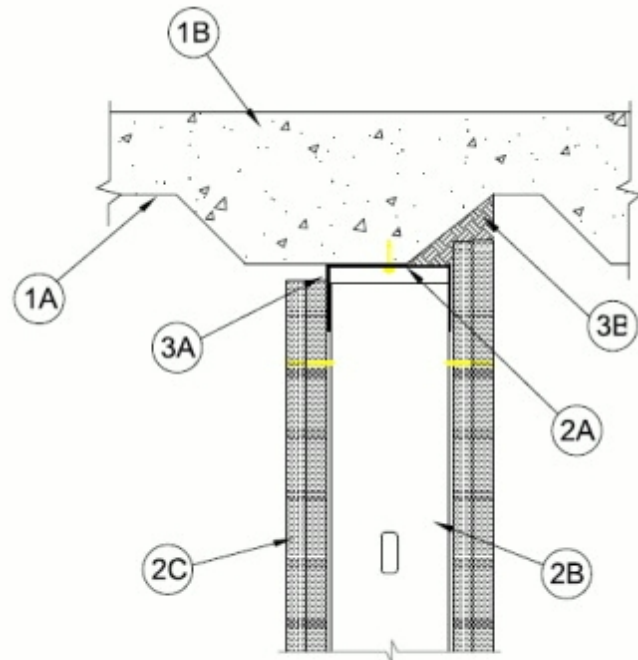
System No. HW-D-0720

October 28, 2013

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1/2 in.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II or III Movement Capabilities — 100% Compression or Extension for 1/2 in. Joint; 100% Compression or 0% Extension for 1 in. Joint	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating at 400°F — Less than 1 CFM/Lin Ft	Nominal Joint Width - 1/2 in.
	Class II or III Movement Capabilities — 100% Compression or Extension
	L Rating at Ambient — Less than 1 CFM/Lin Ft
	L Rating at 400°F — Less than 1 CFM/Lin Ft



CONFIGURATION A



CONFIGURATION B

1. **Floor Assembly** — The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor And Form Units*** — Max 3 in. (76 mm) deep galv steel fluted floor units.

B. **Concrete** — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

1A. **Roof Assembly** — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling designs in the UL Fire Resistance Directory. **The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly.** The roof assembly shall include the following construction features:

A. **Steel Roof Deck** — Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation** — Roof insulation to consist of min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck.

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. The wall shall be parallel to the flutes of the deck and centered under the valley of the deck (Configuration A) or offset under the valley of the deck (Configuration B) and shall include the following construction features:

A. **Steel Floor and Ceiling Runners** — Channel shaped ceiling runner with width to accommodate studs, legs of min 2 in. (51 mm), and fabricated from min 24 MSG galv steel. Ceiling runner installed parallel to steel deck direction. Floor runners of wall assembly shall consist of min No. 25 ga galv steel channels sized to accommodate the steel studs. Floor runner to be provided with min 1-1/4 in. (32mm) flanges. Ceiling runner to be attached to steel deck with steel fasteners spaced a max of 24 in. (610 mm) O.C.

B. **Studs** — Steel studs to be min 3-5/8 in. (92 mm) wide and formed of min 25 ga galv steel. Studs cut 3/4 to 1 in. (19 to 25 mm) less in length than assembly height with bottom nesting in and secured to floor runner. Steel studs nested in ceiling runner without attachment. Studs spaced max 24 in. (610 mm) OC.

C. **Gypsum Board*** — Gypsum board 5/8 in. (16 mm) thick, applied on both sides of wall as specified in the individual Wall and Partition Design except that a max 1/2 in. (13 mm) gap shall be maintained between the top of the gypsum board and the valley of the fluted deck above the gypsum board. For Configuration B, the gypsum board layers extending above the ceiling runner shall have a min gap of 1/2 in. (13 mm) to the fluted deck immediately above. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1 to 1-1/2 in. (25 to 38 mm) down from legs of ceiling runner at time of installation. No gypsum board attachment screws shall be driven into the ceiling runner.

The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

3. **Joint System** — **Max separation between bottom of floor and top of gypsum board (at time of installation) is 1/2 in. (13 mm). The joint system is designed to accommodate a max 100 percent compression or extension from its installed width.** The joint system shall consist of the following:

A. **Fill, Void or Cavity Material*** — Min 25 ga composite steel angle with one 5/8 in. (16 mm) leg and one 1-1/2 in (38 mm) leg with an intumescent strip affixed along the inside 1-1/2 in (38 mm) leg. The 5/8 in. leg of steel angle is friction fit between the top web of the ceiling runner and the valley of the steel deck. Steel angle is required on one side of wall only as illustrated.

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B. **Forming Material*** — (Configuration B only) - Min 4 pcf (64 kg/m³) mineral wool insulation pieces inserted into the exposed space above ceiling runner and between top edges of extended gypsum board layers and fluted deck, flush with extended gypsum board side of wall.

See **Forming Material** (XHKU) category in the Fire Resistance Directory for names of manufacturers.

*Bearing the UL Classification Mark