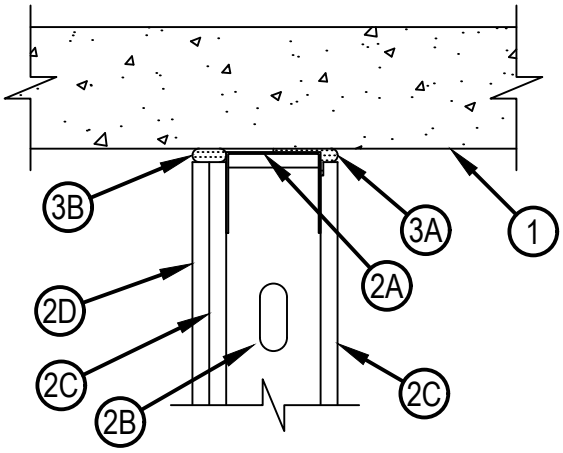
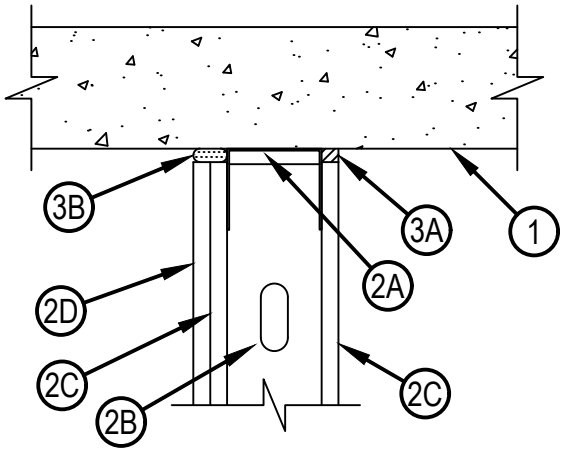
Classified by
Underwriters Laboratories, Inc.
to UL 2079 and CAN/ULC-S115

System No. HW-D-0947

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 1 Hr	F Rating — 1 Hr
Nominal Joint Width — 1/2 or 3/4 In. (See Item 3)	FT Rating — 1 Hr
Class II Movement Capabilities — 50% or 19% Compression or Extension, or 66% or 19% Compression Only (See Item 3)	FH Rating — 1 Hr
L Rating at Ambient — Less than 1 CFM/Lin Ft	FTH Rating — 1 Hr
L Rating at 400° F — Less than 1 CFM/Lin Ft	Nominal Joint Width - 13 or 19 mm (See Item 3)
	Class II Movement Capabilities — 50% or 19% Compression or Extension, or 66% or 19% Compression Only (See Item 3)
	L Rating at Ambient — Less than 1.55 L/s/lin m
	L Rating at 204°C — Less than 1.55 L/s/lin m



CONFIGURATION A



CONFIGURATION B

System No. HW-D-0947

1. Floor Assembly —Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly —The 1 h fire-rated gypsum board /steel stud wall assembly shall be constructed of the materials and in the manner specified 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 min No. 25 gauge (floor runners) galv or min No. 20 gauge (ceiling runners) galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner secured to concrete floor slab with steel masonry anchors, steel fasteners spaced 24 in. (610 mm) OC.
   A1. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate min 3-1/2 in. (89 mm) steel studs (Item 2B). Slotted ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
      BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
      CEMCO, LLC — CST
      CLARKDIETRICH BUILDING SYSTEMS — Types SLT, SLT-H
      MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT
      METAL-LITE INC — The System
      SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track
      TELLING INDUSTRIES L L C — True-Action Deflection Track
   A2. Light Gauge Framing* — Vertical deflection Ceiling Runner — As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate min 3-1/2 in. (89 mm) steel studs (Item 2B). Vertical deflection ceiling runner secured to concrete floor slab with steel fasteners or steel masonry anchors spaced max 24 in. (610 mm) OC.
      THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800
   A3. Light Gauge Framing* — Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate min 3-1/2 in. (89 mm) steel studs (Item 2B). Notched ceiling runner secured to concrete floor slab with steel masonry anchors or steel fasteners spaced max 24 in. (610 mm) OC.
      OLMAR SUPPLY INC — Type SCR
   B. Studs — Steel studs to be min 3-1/2 in. (64 mm) wide. Studs cut 3/4 to 1 in. (19 to 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 slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at mid-height of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at mid-height of each slot.
   C. Gypsum Board* — For 1 hr assembly, one layer of 5/8 in. (16 mm) thick gypsum board is required on both sides of wall in the individual Wall and Partition Design. In addition, on one side of wall, an additional layer of 5/8 in. (16 mm) gypsum board shall be installed (see Item 2D). A max 3/4 in. (19 mm) gap shall be maintained between the top of gypsum board and the bottom of surface of the concrete floor. The screws attaching the gypsum board to studs at the top of the wall shall be located 1 in. (25 mm) to 1-1/2 in. (38 mm) below the bottom edge of the ceiling runner.
   D. Gypsum Board* —As noted in Item C above, one additional layer of 5/8 in. (16 mm) gypsum board shall be installed on one side of wall. The type and orientation of gypsum board shall be the same as used for Item 2C. The additional layer of board shall be installed per the gypsum board manufacturer's specifications for a 2 hr rated two layer gypsum board Wall and Partition Design with vertical joints centered over studs and staggered one stud cavity on opposite sides of wall. A max 3/4 in. (19 mm) gap shall be maintained between the top of gypsum board and the bottom of surface of the concrete floor. The screws attaching the gypsum board to studs at the top of the wall shall be located 1 in. (25 mm) to 1-1/2 in. (38 mm) below the bottom edge of the ceiling runner.

System No. HW-D-0947

Configuration A:

3. Joint System — When max separation between the bottom of floor and top of wall is 1/2 in. (13 mm), the joint system is designed to accommodate a max 50 percent compression or extension from its installed width. When max separation between the bottom of floor and top of wall is 3/4 in. (19 mm), the joint system is designed to accommodate a max 66% compression only from its installed width. The joint system consists of the following:
   A. Fill, Void or Cavity Material* — Top Track Seal — Factory supplied foam seal sized for width of ceiling runner is cut in half lengthwise at dotted line or tear strip, and installed over the ceiling runner (Item 2A) on the side of wall with one layer of gypsum board, prior to attachment to underside of concrete floor in accordance with the installation instructions. Butt joints in CFS-TTS shall be compressed min 1/2 in. (13 mm).
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-TTS 358, CFS-TTS 600, CFS-TTS R or CFS-TTS-OS
   B. Fill, Void or Cavity Material* — Top Track Seal — Factory supplied foam seal cut in half lengthwise at dotted line or tear strip, and the halves then folded and pushed into the joint to be friction fit and to be flush against the ceiling runner at side of wall having two layers of gypsum board. Butt joints in CFS-TTS shall be compressed min 1/4 in. (6 mm).
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-TTS 212, CFS-TTS 358, CFS-TTS 600, CFS-TTS R or CFS-TTS-OS

Configuration B:

3. Joint System —When max separation between the bottom of floor and top of wall is 1/2 in. (13 mm), the joint system is designed to accommodate a max 19 percent compression or extension from its installed width. When max separation between the bottom of floor and top of wall is 3/4 in. (19 mm), the joint system is designed to accommodate a max 19% compression only from its installed width. The joint system consists of the following:
   A. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material installed on one side of the wall having one layer of gypsum board, between the top of the gypsum board and the bottom of the concrete floor, flush with wall surface.
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant or CP606 Flexible Firestop Sealant or CFS-S SIL GG Sealant. L Ratings apply only when CP606 or CFS-S SIL GG Sealant is used.
   B. Fill, Void or Cavity Material* — Top Track Seal — Factory supplied foam seal cut in half lengthwise at dotted line or tear strip, and the halves then folded and pushed into the joint to be friction fit and to be flush against the ceiling runner at side of wall having two layers of gypsum board. Butt joints in CFS-TTS shall be compressed min 1/4 in. (6 mm).
      HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-TTS 212, CFS-TTS 358, CFS-TTS 600, CFS-TTS R OS or CFS-TTS-OS

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