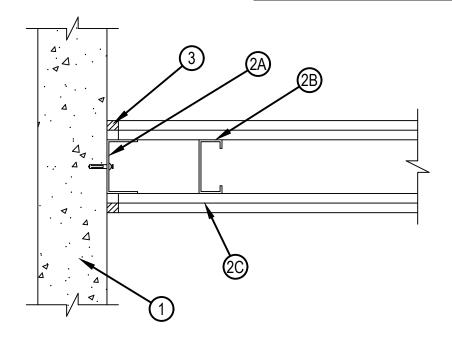


System No. WW-D-0040

| ANSI/UL2079 | CAN/ULC S115 |
|--|--|
| Assembly Ratings — 1, 2, 3 and 4 Hr (See Item 2) | F Ratings — 1, 2, 3 and 4 Hr (See Item 2) |
| Nominal Joint Width - 3/4, 7/8 or 1 In. (See Item 3) | FT Ratings — 1, 2, 3 and 4 Hr (See Item 2) |
| Class II Movement Capabilities — 19% Compression or Extension, 16% Extension and 33% Compression or 43% Compression (See Item 3) | FH Ratings — 1, 2, 3 and 4 Hr (See Item 2) |
| L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 3) | FTH Ratings — 1, 2, 3 and 4 Hr (See Item 2) |
| L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 3) | Nominal Joint Width – 19, 22 or 25 mm |
| | Class II Movement Capabilities — 19% Compression or Extension, 16% Extension and 33% Compression or 43% Compression (See Item 3) |
| | L Rating at Ambient - Less Than 1.55 L/s/m (See Item 3) |
| | L Rating at 204°C - Less Than 1.55 L/s/m (See Item 3) |



System No. WW-D-0040

- 1. Concrete Wall Assembly Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.
 - See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
- 2. Gypsum Wall Assembly The 1, 2, 3 or 4 hr 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 Runners Runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Runner to be provided with 1-1/4 in. (32 mm) flanges. Runner secured to concrete wall assembly with steel concrete fasteners spaced 12 in. (305 mm) OC.
 - B. Studs Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 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. First stud adjacent to concrete wall assembly located max 4 in. (102 mm) from wall face. Stud spacing not to exceed 24 in. (610 mm) OC.
 - C. Gypsum Board* One, two, three or four layers of 5/8 in. (16 mm) thick gypsum board for 1, 2, 3 and 4 hr rated assemblies, respectively, as required in the individual Wall and Partition Design. Wall to be constructed as specified in the individual U400, V400 or W400 Series Design in the UL Fire Resistance Directory, except that a max 1 in. (25 mm) gap shall be maintained between the side of gypsum board and face of concrete wall assembly for 1 and 2 hr rated assemblies or a max 3/4 in. (19 mm) or 7/8 in. (22 mm) for 3 and 4 hr rated assemblies, dependent on the movement capabilities described in Item 3. Gypsum board not attached to side runner.

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

- 3. Fill, Void or Cavity Material* Sealant Max separation between the side of gypsum board and face of concrete wall assembly is 1 in. (25 mm) for 1 and 2 hr rated assemblies. The joint system is designed to accommodate a max 19 percent compression or extension from its installed width. Max separation between the side of gypsum board and face of concrete wall assembly is 3/4 in. (19 mm) or 7/8 in. (22 mm) for 3 and 4 hr rated assemblies, respectively. The joint system is designed to accommodate a max 16 percent extension or 33 percent compression from its installed width for 3/4 in. (19 mm) joints or 43 percent compression only for 7/8 in. joints. Min 5/8 in. (16 mm) thickness of fill material installed on each side of the wall between the side of the gypsum board and the face of the concrete wall assembly, flush with each surface of the gypsum board and the face of the concrete wall assemblies. Min 1 in. (25 mm) thickness of fill material installed on each side of the wall between the side of the gypsum board and the face of the concrete wall assemblies.
 - HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC CP601S Elastomeric Firestop Sealant or CP606 Flexible Firestop Sealant or CFS-S SIL GG Sealant is used.
- 4. Forming Material (Optional, Not Shown) Mineral wool insulation, fiberglass batt insulation or polyurethane/polyethylene foam backer rod. Forming material to be recessed from both surfaces of the 2, 3 and 4 hr fire rated wall to accommodate the required thickness of fill material.
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

