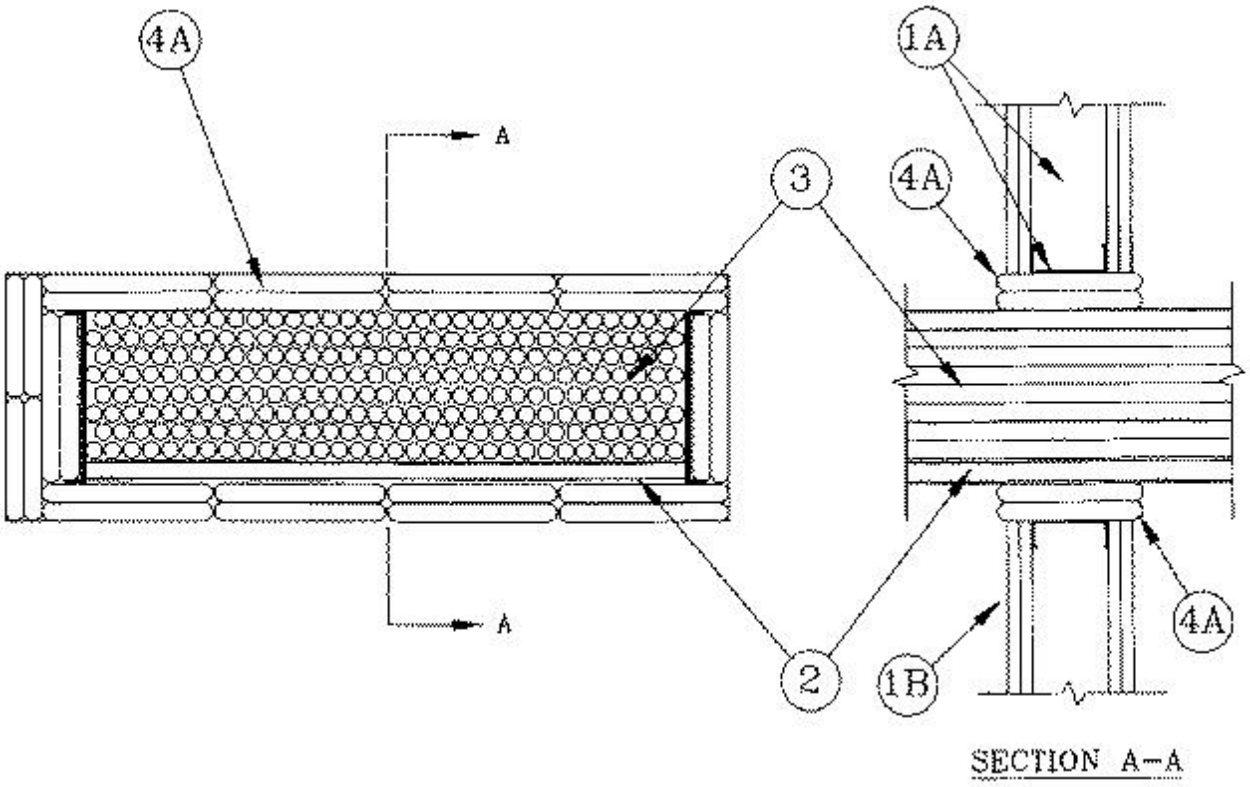
System No. W-L-4025

January 08, 2010

F Ratings — 1-1/2 and 2 Hr (See Item 3)

T Rating — 1/2 Hr



SECTION A-A

1. **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 U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 3-5/8 in. wide and spaced max 24 in. OC. When steel studs are used and the width of the opening exceeds the width of the stud cavity, the opening of the wall to accommodate the cable tray (Item 2) shall be framed on all sides using lengths of studs installed between the vertical studs and attached to the studs at each end. The framed opening in the steel stud wall shall be 18 in. wider and 3 in. higher than the outer dimensions of the cable tray such that, when the cable tray is installed in the opening, a min 1 in. to a max 2 in. clearance is present between the sides of the cable tray and a nom 1 in. clearance is present between the top and bottom of the cable tray. In steel stud walls, framing members to be installed in such a manner to form a max 30 in. wide by max 8 in. high opening. In wood stud walls, framing members to be installed in such a manner to form a max 14 -1/2 in. wide by max 8 in. high opening.

B. **Gypsum Board* —** 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max area of opening in steel stud walls is 240 sq in. with max dimensions of 30 in. Max area of opening in wood stud walls is limited to 116 sq in. with max dimensions of 14-1/2 in.

2. **Cable Tray* —** Max 24 in. wide by max 6 in. deep open-ladder cable tray with channel-shaped side rails formed from 0.087 in. thick aluminum with 1-1/2 in. wide by 1/2 in. deep channel shaped rungs spaced 9 in. OC. One cable tray to be installed in the opening. The annular space between the cable tray and the periphery of opening shall be a min of 1 in. to a

max 2 in. Cable tray to be rigidly supported on both sides of wall assembly.

3. **Cables —** Aggregate cross-sectional area of cables in cable tray to be max 39 percent of the cross-sectional area of the cable tray based on a max 6 in. cable loading depth within the cable tray. Any combination of the following types and sized of cables may be used:

A. Max 1/C - 500 kcmil copper conductor cable with polyvinyl chloride (PVC)-nylon insulation and PVC jacket.

B. Max 3/C (with ground) No. 12 AWG (or smaller) copper conductor nonmetallic sheathed (Romex) cable with PVC insulation and jacket materials.

C. Max 100 pair No. 24 AWG (or smaller) copper conductor telephone cable with PVC insulation and jacket materials.

D. Max 72 fibers — 62.5/125 fiber optic cable with PVC insulation and jacket materials.

The F Rating of the firestop system is dependent upon the type of cables used. If the 1/C - 500 kcmil cables are used, the F Rating is 1-1/2 hr. If the 1/C - 500 kcmil cables are omitted the F Rating is 2 hr.

3A. **Through Penetrating Product* —** (Not shown) — In addition to cables (Item 3), max three copper conductor No. 2 AWG (or smaller) aluminum **Armored Cable+** or **Metal-Clad Cable+.** Max three armored or metal-clad cables shall be installed within the cable tray. Max cable fill within cable tray including cables and through-penetrating product shall not exceed 39 percent. Through-penetrating product to be rigidly supported on both sides of wall assembly.

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4. **Firestop System —** The firestop system shall consist of the following:

A. **Fill, Void or Cavity Material* — Pillows —** Max 13-1/2 in. long by 7 in. wide by 1-1/2 in. thick pillow-like material tightly packed into opening to fill the annular space between cables, between cables and periphery of opening and between cable tray and periphery of opening. During installation of fill material, fill material shall be weaved between cable bundles to seal any voids between cables and cable bundles. Pillows shall be installed horizontally (on edge) within the annular space between cable tray and periphery of opening, between the cables and the periphery of the opening. Pillows tightly packed into opening in such a manner that the ends project a nom 1/2 in. beyond each surface of wall.

RECTORSEAL — FlameSafe ® Bags

B. **Fill, Void or Cavity Material* — Sealant —** (Not Shown) — Min 3/8 in. thickness of fill material applied within annulus to seal any voids between cables, between cables and periphery of opening and between cable tray and periphery of opening.

RECTORSEAL — FS1900, FS1901, FS1905 and FS1929 Sealant

C. **Wire Lath —** (Not Shown, - Optional) Nom 1 in. diamond shaped wire lath fabricated from min No. 20 AWG galv steel wire. Wire lath cut to fit the contour of the opening with a min 2 in. lap beyond the periphery of the opening to keep the pillows in place. Wire lath secured to both surfaces of wall assembly by means of 2-1/4 in. long Type S steel screws in conjunction with 1/4 in. by 1-1/2 in. diam steel fender washers, spaced 4 in. OC. The joints within the wire lath shall overlap a min of 2 in. and be secured together by means of No. 20 AWG steel wire spaced 4 in. OC.

+Bearing the UL Listing Mark

*Bearing the UL Classification Marking