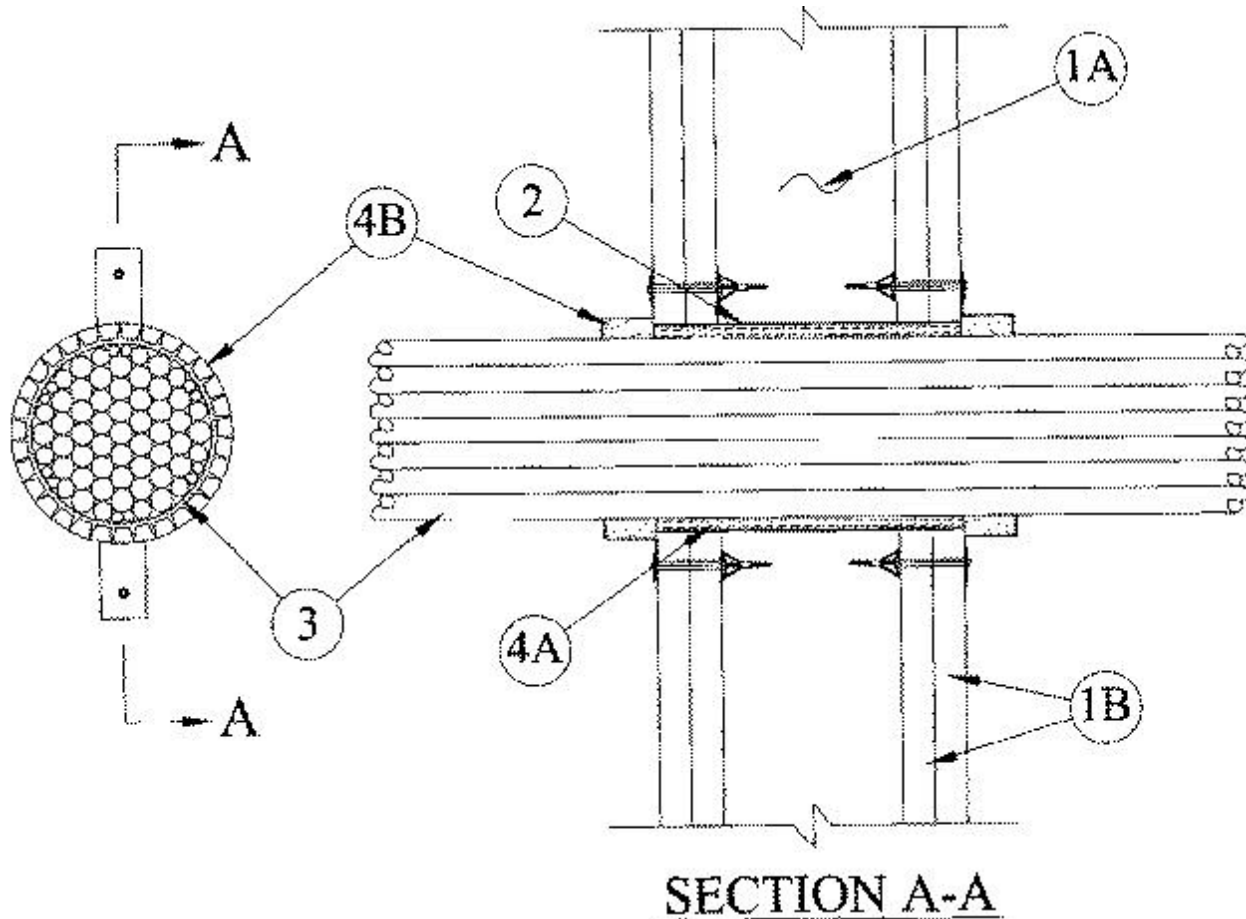


## System No. W-L-3151

June 07, 2004

F Ratings — 1 and 2 Hr (See Item 1)

T Rating — 0 Hr



**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 specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

**A. Studs** — Wall framing shall consist of either wood or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 3-1/2 in. wide and spaced max 24 in. OC.

**B. Gypsum Board\*** — Min 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers and orientation shall be as specified in the individual U300 or U400 Wall and Partition Design. Diam of opening shall be 1 in. larger than the nom diam of the firestop device (Item 4B). Max diam of opening is 4 in.

**The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.**

**2. Steel Wire Mesh** — (Optional) — Cylindrical sleeve fabricated from No. 8 steel wire mesh and having a min 2 in. lap along the longitudinal seam. Length of steel mesh to be 1/2 in. less than thickness of wall. Steel wire mesh to be centered and formed to fit periphery of through opening.

**3. Cables** — Aggregate cross-sectional area of cables to be min 10 to max 40 percent of the cross-sectional area within the firestop device (Item 4B). Cables to be bundled with bundle centered in opening. Cables to be rigidly supported on both

sides of wall assembly. Any combination of the following types and sizes of copper conductor cables may be used:

- A. Max 25 pr No. 24 AWG telephone cables with polyvinyl chloride (PVC) insulation and jacket.
- B. Max 4 pr No. 24 AWG telephone cables with PVC insulation and jacket.
- C. Max 2/C with ground No. 12 AWG Type NM nonmetallic sheathed (Romex) cable with PVC insulation and jacket.

**3A. Through Penetrating Product\*** — (Not Shown) As an alternate Item 3, through-penetrating product to be installed within the firestop device (Item 4B). Aggregate cross-sectional area of through penetrating product to be min 10 to max 40 percent of the cross-sectional area within the firestop device. Through-penetrating product to be bundled and centered in opening. Through penetrating product rigidly supported on both sides of wall assembly. Any combination of the following types and sizes of through-penetrating products may be used:

- A. Max two twisted copper conductors No. 10 AWG (or smaller) **Power Limited Fire Alarm Cable+** with or without a jacket under a metal armor.

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- B. Max two twisted copper conductors No. 12 AWG (or smaller) **Non Power Limited Fire Alarm Cable+** with or without a jacket under a metal armor.

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- C. Max two copper conductor with ground No. 12 AWG **Metal-Clad Cable+**.

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

A. **Packing Material** — (Optional) — Min 4-3/4 or 6 in. thickness of min 4 pcf mineral wool batt insulation firmly packed into opening flush with surfaces of wall as a permanent form for 1 or 2 hr rated wall, respectively.

B. **Firestop Device\*** — Nom 3 in. diam (or smaller) galv steel collar lined with an intumescent material sized to fit the cable bundle. Device to be installed around cable bundle in accordance with accompanying installation instructions. Device incorporates anchor tabs for securement to both sides of wall by means of min 1/8 in. diam by 2-1/4 in. long hollow wall anchors in conjunction with 1/4 in. by 9/16 in. washers. Device to be secured at each tab.

**RECTORSEAL** — Biostop Pipe Collar

C. **Packing Material** — (Not Shown) — As an alternate to the steel wire mesh (Item 2) and the packing material (Item 4A), a min 1 in. depth of min 4 pcf mineral wool may be firmly packed within the firestop device around the outside of the cable bundle.

\*Bearing the UL Classification Mark