

System No. F-E-2007

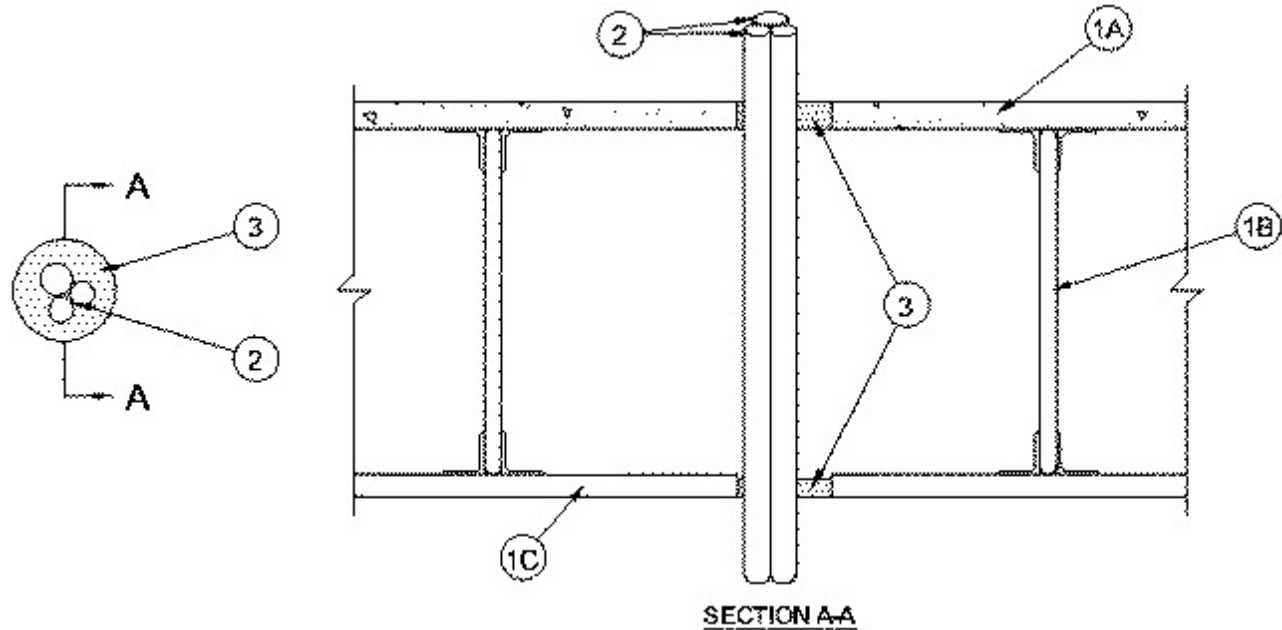
August 31, 2016

F Rating — 1 Hr

T Rating — 1 Hr

L Rating at Ambient — Less than 1 CFM/sq ft

L Rating at 400° F — Less than 1 CFM/sq ft



1. Floor-Ceiling Assembly — The 1 hr fire-rated concrete and steel joist Floor-Ceiling assembly shall be constructed of the materials and in the manner described in the individual G500 Series Design in the UL Fire Resistance Directory, as summarized below:

A. Concrete Floor — Normal weight or lightweight (100-150 pcf or 1600-2400 kg/m³) concrete over metal lath or steel deck as specified in the individual G500 Series Design. Max diam of floor opening is 3 in. (76 mm).

B. Joists — Steel joists or **Structural Steel Members*** as specified in the individual G500 Series Design.

C. Gypsum Board* — Min 5/8 in. (16 mm) thick, screw-attached to furring channels as specified in the individual G500 Series Design. Max diam of ceiling is 3 in. (76 mm).

2. Through Penetrant — A max of three SDR 9 (or heavier) cross-linked polyethylene (PEX) tubing for use in closed (process or supply) piping systems. Of the three tubes, a max of one shall have a nom diam greater than 3/4 in. (19 mm). The max diam of one tube is 1 in. (25 mm). The annular space between the tubing and the periphery of the opening shall be a min 3/16 in. (4.8 mm) and a max of 1 in. (25 mm). The space between the tubing shall be a min 0 in. (point contact) to a max 1/4 in. (6 mm). Tubing to be rigidly supported on both sides of the floor-ceiling assembly.

3. Fill, Void or Cavity Materials* — **Sealant** — Min 3/4 in. (19 mm) thickness of fill material applied within the annulus, flush with top surface of floor. Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with bottom surface of ceiling. On both the top and bottom of the assembly, fill material forced into interstices within group of penetrating items to max extent possible. Additional fill material shall be installed such that a min 1/4 in. (6 mm) thick crown of fill material applied around the group of penetrants on both the top and bottom of the assembly.

RECTORSEAL — FS1900 Sealant, Metacaulk 1000, Metacaulk 350i, Biostop 500+, Biostop 350i

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