



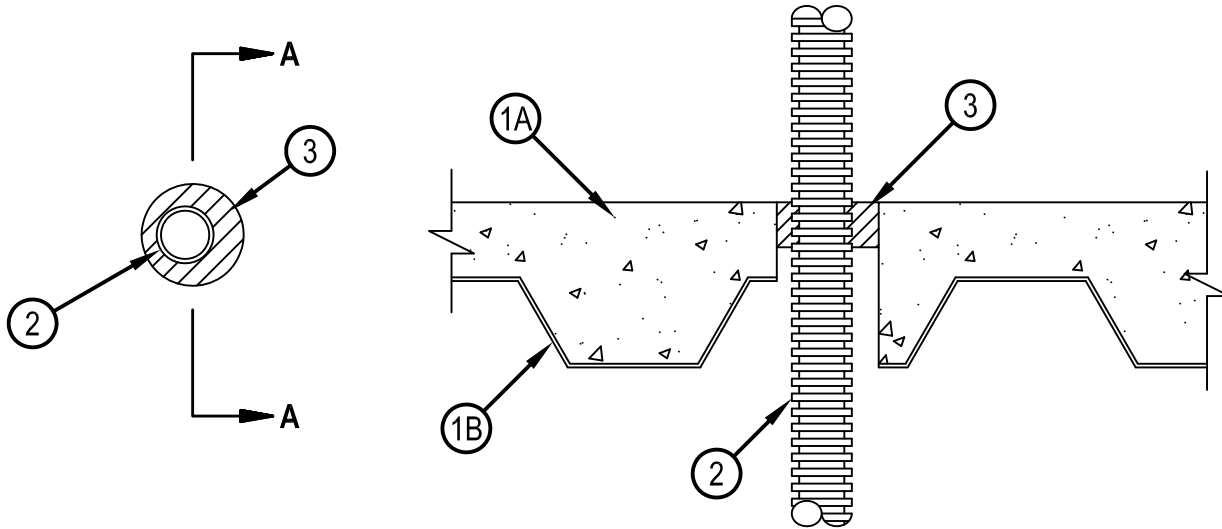
Classified by  
Underwriters Laboratories, Inc.  
to UL 1479

## System No. F-A-2046

F Rating — 2 Hr

T Rating — 1 Hr

FA 2046



### SECTION A-A

1. Floor Assembly — The fire rated unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. Concrete — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete.
  - B. Steel Floor and Form Units\* — Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design. Max diam of opening 3 in. (76 mm).
2. Nonmetallic Penetrants — One nom 1-1/2 in. (38 mm) diam (or smaller) penetrant. The annular space shall be min 1/2 in. to max 3/4 in. (13 to 19 mm). Nonmetallic penetrants shall be rigidly supported on both sides of wall assembly.
  - A. Optical Fiber Raceways+ — Optical fiber raceway installed in accordance with Article 770 of the National Electrical Code (NFPA No. 70). See Optical Fiber Raceways (QAZM) category in the Electrical Construction Directory for names of manufacturers.
  - B. Electrical Nonmetallic Tubing (ENT)+ — ENT constructed of polyvinyl chloride. See Electrical Nonmetallic Tubing (FKHU) category in the Electrical Construction Directory for names of manufacturers.
3. Fill, Void or Cavity Materials\*—Sealant — Min 1-1/2 in. (38 mm) thickness of sealant applied within annular space, flush with top surface of floor. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

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

+Bearing the UL Listing Mark



**Hilti Firestop Systems**

Reproduced by HILTI, Inc. Courtesy of  
Underwriters Laboratories, Inc.

January 15, 2015