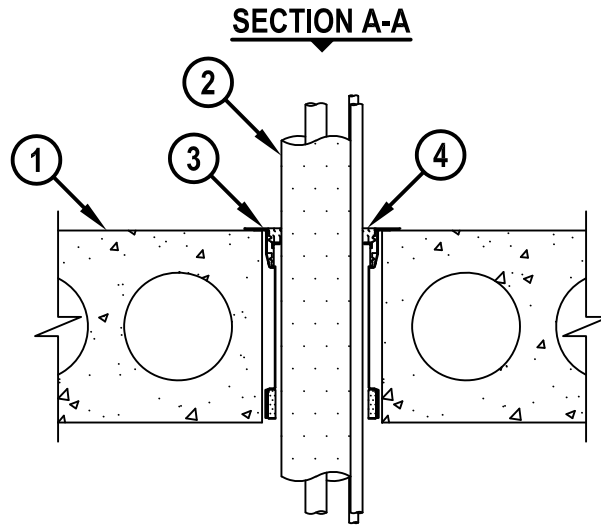
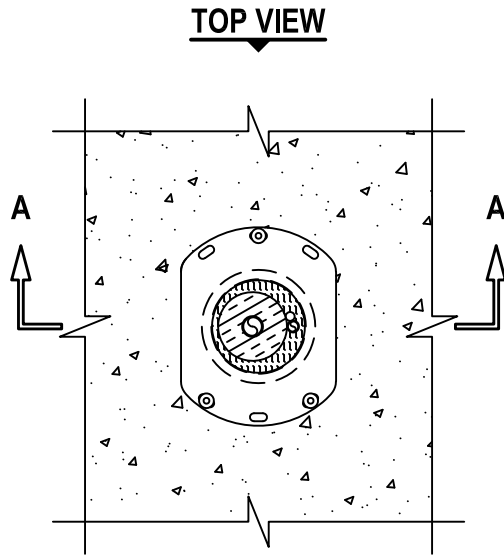


MULTIPLE PENETRANTS THROUGH HOLLOW-CORE CONCRETE FLOOR ASSEMBLY

F-RATING = 2-HR.
T-RATING = 1-HR.

FB8010b.022618



1. ANY UL CLASSIFIED PRECAST HOLLOW-CORE FLOOR ASSEMBLY (MINIMUM 6" TO MAXIMUM 12-1/2" THICK) (2-HR. FIRE-RATING).
2. SINGLE HVAC LINE SET INSTALLED WITHIN THE FIRESTOP DEVICE AND CONSISTING OF THE FOLLOWING :
 - A. MAXIMUM 2" NOMINAL DIAMETER COPPER PIPE OR TUBING (MAX. QTY. = 2).
 - B. NOMINAL 1" THICK AB/PVC PIPE INSULATION INSTALLED ON COPPER PIPE OR TUBING GREATER THAN 3/8" NOMINAL DIAMETER.
 - C. MAXIMUM 4 PAIR NO. 18 AWG THERMOSTAT CABLE WITH PVC JACKET.
3. HILTI CFS-DID FIRESTOP DROP-IN DEVICE INSERTED INTO OPENING (SEE TABLE BELOW) AND SECURED TO TOP OF FLOOR WITH THREE HILTI 1/4" (6mm) DIAMETER BY 1-1/4" (32mm) LONG KWIK-CON II+ CONCRETE SCREW ANCHORS, HILTI 1/4" (6mm) DIAMETER BY 1-3/4" (45mm) LONG KWIK BOLT 3 STEEL EXPANSION ANCHORS, OR HILTI 1/4" (6mm) BY 3/4" (19mm) LONG METAL HIT ANCHORS (INSTALLED IN A TRIANGULAR FASHION THROUGH HOLES PROVIDED). IN ADDITION, FOR NOMINAL 2", 3", AND 4" DEVICES, FOUR 11/16" (18mm) LONG HILTI X-GH P18 MX STEEL FASTENERS MAY BE INSTALLED THROUGH THE STEEL FLANGE, TWO ON EACH SIDE.
4. MINIMUM 1/2" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED, FLUSH WITH TOP OF FIRESTOP DEVICE.

CORE HOLE DIAM	FIRESTOP DEVICE	FLOOR THICKNESS (MIN. MAX.)
5"	CFS-DID 3" C	6" TO 6-1/2"
5"	CFS-DID 3" HC8	7-1/2" TO 8-1/2"
5"	CFS-DID 3" HC10	9-1/2" TO 10-1/2"
5"	CFS-DID 3" HC12	11-1/2" TO 12-1/2"



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Sheet	1 of 1
Scale	1/8" = 1"
Date	Feb. 26, 2018

Drawing No.
FB 8010b