

**METAL PIPE THROUGH HOLLOW-CORE CONCRETE FLOOR ASSEMBLY**

F-RATING = 3-HR.

T-RATING = 0-HR. OR 1/4-HR.

L-RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT. (SEE NOTE BELOW)

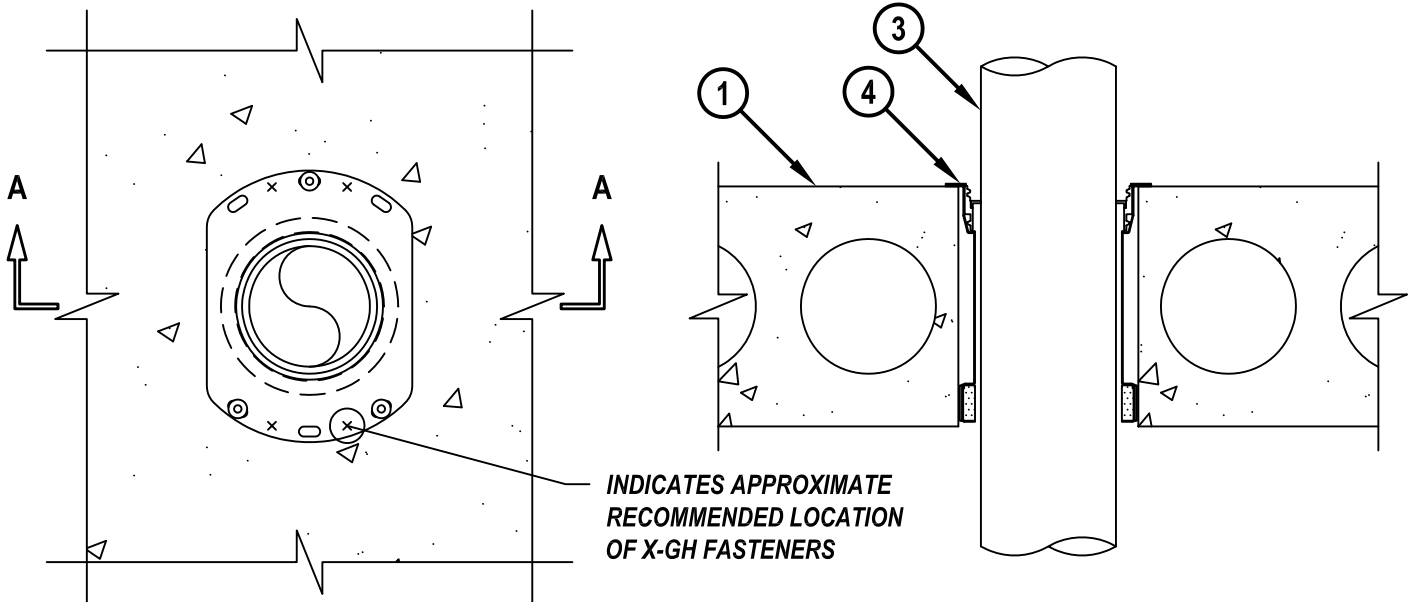
L-RATING AT 400°F = LESS THAN 1 CFM/SQ. FT. (SEE NOTE BELOW)

W-RATING = CLASS I (SEE NOTE BELOW)

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**TOP VIEW**

**SECTION A-A**



1. ANY UL CLASSIFIED PRECAST HOLLOW-CORE FLOOR ASSEMBLY (MINIMUM 6" TO MAXIMUM 12-1/2" THICK) (3-HR. FIRE-RATING).
2. [OPTIONAL - NOT SHOWN] NOMINAL 4", 5", OR 6" DIAMETER GALVANIZED STEEL SLEEVE (MIN. 26 GA.), HAVING A MINIMUM 2" LAP ALONG THE LONGITUDINAL SEAM, INSERTED INTO THE OPENING. SLEEVE MAY EXTEND A MAXIMUM 4" BELOW BOTTOM SURFACE OF FLOOR AND SIT FLUSH WITH TOP SURFACE OF FLOOR.



HILTI, Inc.  
Tulsa, Oklahoma USA (800) 879-8000

Sheet	1 of 2
Scale	5/32" = 1"
Date	May 13, 2011

Drawing No.  
**FB  
1029a**

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**3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :**

- A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
- B. MAXIMUM 4" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
- C. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE OR TUBING.
- D. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT OR EMT.

**4. 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.**

CORE HOLE OR SLEEVE DIAM	FIRESTOP DEVICE	NOM DIAM OF THROUGH PENETRANT	FLOOR THICKNESS (MIN. MAX.)
4"	CFS-DID 2" C	2" OR SMALLER+	6" to 6-1/2"
5"	CFS-DID 3" C	3"	6" to 6-1/2"
6"	CFS-DID 4" C	4"	6" to 6-1/2"
4"	CFS-DID 2" HC8	2" OR SMALLER+	7-1/2" to 8-1/2"
5"	CFS-DID 3" HC8	3"	7-1/2" to 8-1/2"
6"	CFS-DID 4" HC8	4"	7-1/2" to 8-1/2"
4"	CFS-DID 2" HC10	2" OR SMALLER+	9-1/2" to 10-1/2"
5"	CFS-DID 3" HC10	3"	9-1/2" to 10-1/2"
6"	CFS-DID 4" HC10	4"	9-1/2" to 10-1/2"
4"	CFS-DID 2" HC12	2" OR SMALLER+	11-1/2" to 12-1/2"
5"	CFS-DID 3" HC12	3"	11-1/2" to 12-1/2"
6"	CFS-DID 4" HC12	4"	11-1/2" to 12-1/2"

**+ FOR PIPE SMALLER THAN NOMINAL 2" DIAMETER, AN ADAPTER AND HILTI IPS OR CPS TOP SEAL PLUG MUST BE USED IN CONJUNCTION WITH THE CFS-DID 2" C, HC8, HC10, AND HC12 DEVICES.**

**NOTE : [OPTIONAL] TO ACHIEVE W-RATING AND/OR L-RATING, WATER BARRIER MODULES MAY BE THREADED ON TOP OF CFS-DID DEVICES FOR NOMINAL 2", 3", AND 4" PIPES (LISTED ABOVE).**



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