UL SYSTEM NO. F-A-2089

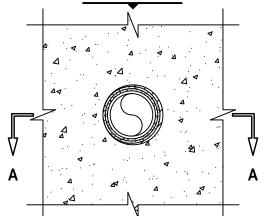
PLASTIC PIPE THROUGH CONCRETE FLOOR ASSEMBLY

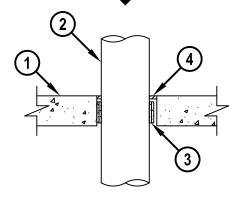
F-RATING = 3-HR. T-RATING = 0-HR.

W-RATING = CLASS I (SEE NOTE NO. 2 BELOW)

BOTTOM VIEW

SECTION A-A





- 1. CONCRETE FLOOR ASSEMBLY (3-HR. FIRE-RATING):
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK).
 - B. STEEL FLOOR UNIT/FLOOR ASSEMBLY LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK) OVER METAL DECKING.
- 2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
 - A. MAXIMUM 3" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - B. MAXIMUM 3" NOMINAL DIAMETER ABS PLASTIC PIPE (CELLULAR OR SOLID CORE).
 - C. MAXIMUM 3" NOMINAL DIAMETER CPVC PLASTIC PIPE (CLOSED PIPING SYSTEM ONLY).
 - D. MAXIMUM 3" NOMINAL DIAMETER FRPP PLASTIC PIPE.
- 3. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, AS SPECIFIED IN THE TABLE BELOW, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE. WRAP STRIP TO BE INSERTED INTO ANNULAR SPACE AND POSITIONED 1/4" FROM BOTTOM SURFACE OF CONCRETE FLOOR.
- 4. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT, HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT APPLIED DIRECTLY ON TOP OF WRAP STRIP, FLUSH WITH TOP SURFACE OF FLOOR.

NOMINAL PIPE	MAXIMUM DIAMETER	ANNULAR SPACE		NO. OF LAYERS
DIAMETER	OF OPENING	MINIMUM	MAXIMUM	OF CP 648E
2"	3-1/2"	3/16"	15/16"	1
3"	5"	3/8"	1-1/8"	2

NOTES: 1. CLOSED OR VENTED PIPING SYSTEMS (PVC, ABS, FRPP = SCHEDULE 40; CPVC = SDR 13.5).

2. W-RATING APPLIES ONLY WHEN HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT IS USED.



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Scale	1/8" = 1"
Date	Jan. 07, 2015

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