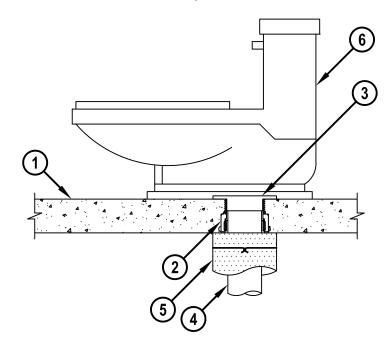
UL/cUL SYSTEM NO. F-B-1033

CLOSET FLANGE AND DRAIN PIPING THROUGH CONCRETE FLOOR ASSEMBLY

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

CROSS-SECTIONAL VIEW

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- 1. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR ASSEMBLY (MIN. 6" THICK) (2-HR. FIRE-RATING).
- 2. HILTI CP 680-M, CP 680-P, OR CP 680-PX CAST-IN FIRESTOP DEVICE CAST OR GROUTED INTO CONCRETE FLOOR (SEE TABLE BELOW).
- 3. CAST IRON CLOSET FLANGE SIZED TO ACCOMMODATE DRAIN PIPE AND SECURED TO CONCRETE FLOOR WITH CONCRETE ANCHORS.
- 4. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
 - A. NOMINAL 3" OR 4" DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVER).
 - B. NOMINAL 3" OR 4" DIAMETER CAST OR DUCTILE IRON PIPE.
- 5. NOMINAL 2" THICK MINERAL FIBER PIPE INSULATION TO EXTEND MINIMUM 30" BELOW FLOOR ASSEMBLY. PIPE INSULATION TO BE TIGHTLY BUTTED TO BOTTOM OF FLOOR ASSEMBLY AND SECURED WITH 16 GA. STEEL TIE WIRE SPACED MAXIMUM 6" OC (SEE NOTE BELOW).
- 6. FLOOR MOUNTED VITREOUS CHINA WATER CLOSET.

NOMINAL PIPE DIAMETER	PRODUCT DESCRIPTION	T-RATING
3"	CP 680-M 3", CP 680-P 3", OR CP 680-PX 3"	2-HR.
4"	CP 680-M 4", CP 680-P 4", OR CP 680-PX 4"	2-HR.

NOTE: IN ADDITION TO STEEL TIE WIRE, INSULATION SHALL BE WRAPPED WITH A UL APPROVED ALL SERVICE JACKET OR FOIL-SCRIM-KRAFT.



HILTI, Inc. Plano, Texas USA (800) 879-8000

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Scale	5/64" = 1"
Date	Oct. 29, 2015

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