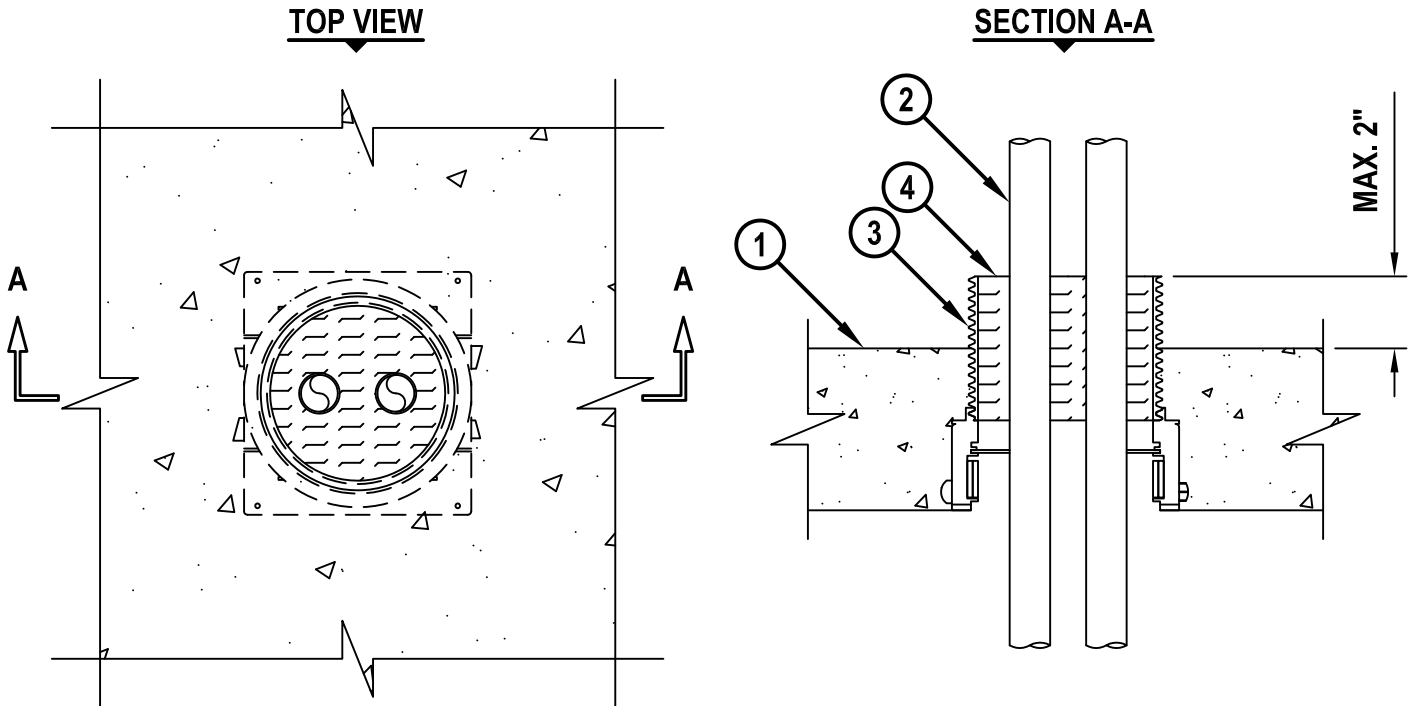


**MULTIPLE METAL PENETRANTS THROUGH CONCRETE FLOOR OR
CONCRETE OVER METAL DECKING**

F-RATING = 3-HR.
T-RATING = 2-HR.

FA1022g.070215



1. CONCRETE FLOOR ASSEMBLY (3-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK).
 - B. STEEL FLOOR UNIT/FLOOR ASSEMBLY - LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 4-1/2" THICK) OVER METAL DECKING.
2. PENETRATING ITEMS TO BE ANY COMBINATION OF THE FOLLOWING (MAX. QTY. = 5) :
 - A. MAXIMUM 1" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 5 OR HEAVIER).
 - B. MAXIMUM 1" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 1" NOMINAL DIAMETER COPPER PIPE OR TUBING.
 - D. MAXIMUM 1" NOMINAL DIAMETER STEEL CONDUIT.
 - E. MAXIMUM 1" NOMINAL DIAMETER EMT.
3. HILTI CP 680-M [2",3",4" OR 6"], CP 680-P [2", 3", 4" OR 6"] OR CP 680-PX [2" OR 3"] CAST-IN FIRESTOP DEVICE, CAST OR GROUTED INTO CONCRETE FLOOR.
4. MINIMUM 4" THICKNESS MINERAL WOOL (MINIMUM 4 PCF DENSITY) TIGHTLY PACKED INTO DEVICE, COMPLETELY FILLING ANNULAR SPACE AROUND METAL PENETRANTS.

NOTES : 1. ANNULAR SPACE BETWEEN PENETRANTS = MINIMUM 1", MAXIMUM 2".
 2. ANNULAR SPACE BETWEEN PENETRANTS AND FIRESTOP DEVICE = MINIMUM 3/4", MAXIMUM 2".
 3. FOR CONCRETE FLOOR OVER METAL DECKING APPLICATIONS, A METAL DECK ADAPTER KIT IS REQUIRED.



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Sheet	1 of 1
Scale	3/16" = 1"
Date	July 2, 2015

Drawing No.
**FA
1022g**