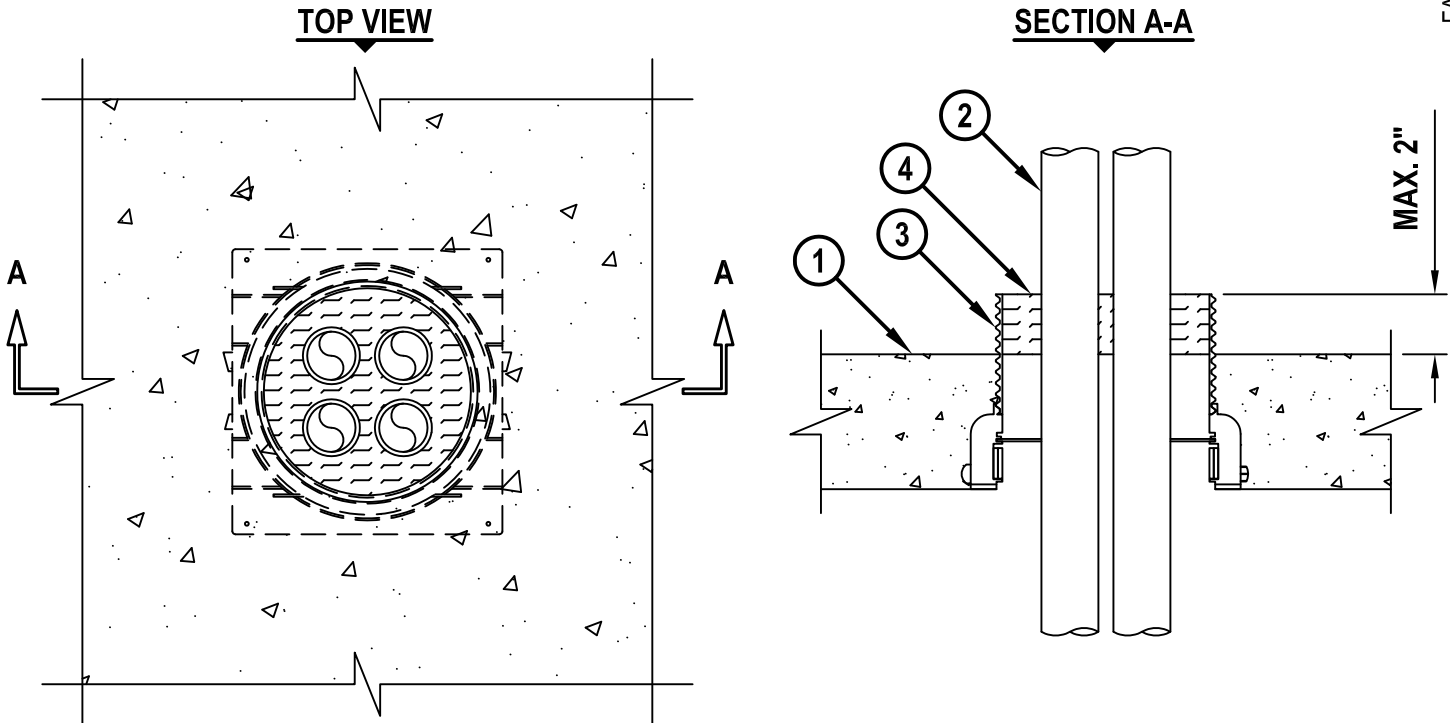


**MULTIPLE METAL PENETRANTS THROUGH CONCRETE FLOOR OR
CONCRETE OVER METAL DECKING**

F-RATING = 3-HR.
T-RATING = 1-HR.

FA1066c.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 DECK.
2. PENETRATING ITEMS TO BE ANY COMBINATION OF THE FOLLOWING (MAXIMUM QUANTITY = 4) :
 - A. MAXIMUM 1-1/2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 5 OR HEAVIER).
 - B. MAXIMUM 1-1/2" NOMINAL DIAMETER EMT OR STEEL CONDUIT.
 - C. MAXIMUM 1" NOMINAL DIAMETER COPPER PIPE OR TUBING.
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 2" THICKNESS MINERAL WOOL (MINIMUM 4 PCF DENSITY) TIGHTLY PACKED AND FLUSH WITH TOP OF FIRESTOP DEVICE.

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



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

Sheet	1 of 1
Scale	5/32" = 1"
Date	July 2, 2015

Drawing No.
**FA
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