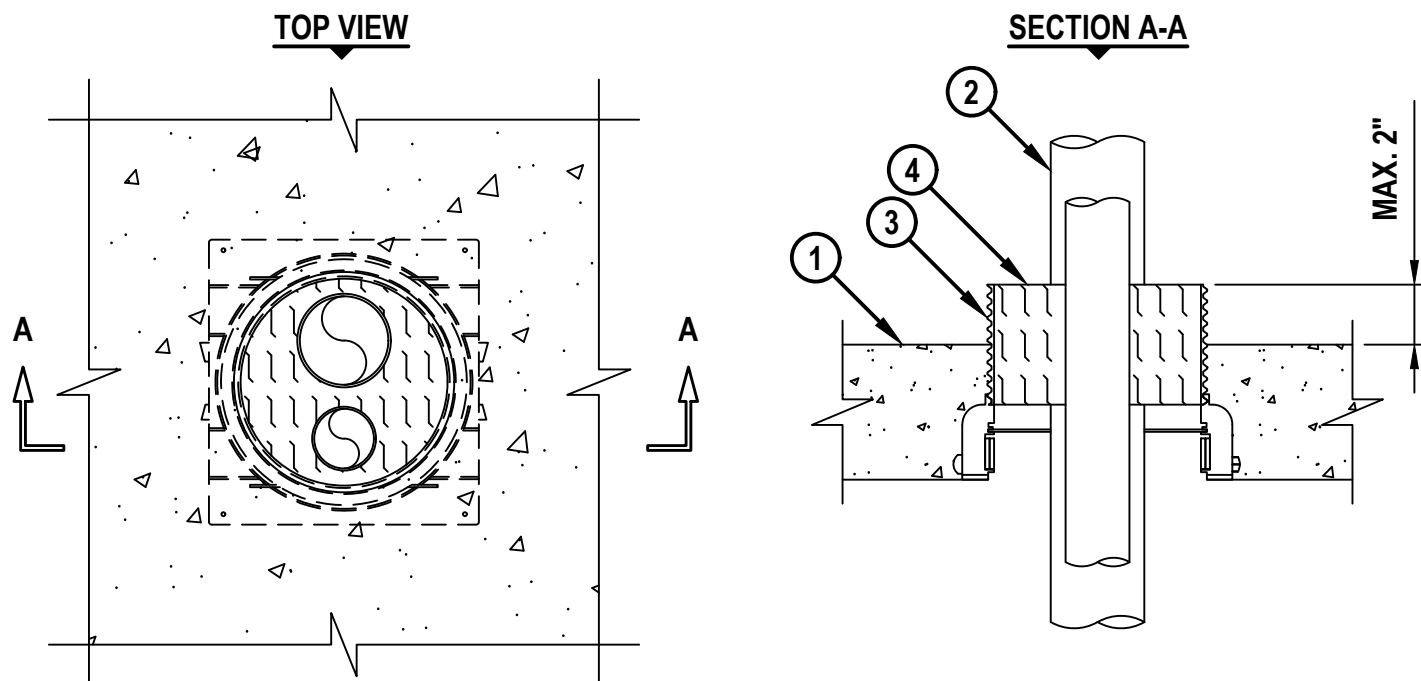


MULTIPLE PENETRANTS THROUGH CONCRETE FLOOR OR CONCRETE OVER METAL DECKING

F-RATING = 2-HR.
T-RATING = 1/2-HR.

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1. CONCRETE FLOOR ASSEMBLY (2-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 ONE MAXIMUM 3" NOMINAL DIAMETER, AND ONE MAXIMUM 2" NOMINAL DIAMETER OF THE FOLLOWING :
 - A. STEEL PIPE (SCHEDULE 5 OR HEAVIER).
 - B. CAST OR DUCTILE IRON PIPE.
 - C. COPPER PIPE OR TUBING.
 - D. STEEL CONDUIT OR STEEL 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. MINIMUM ANNULAR SPACE BETWEEN PENETRANTS = 1/8".
 2. ANNULAR SPACE BETWEEN PENETRANTS AND PERIPHERY OF FIRESTOP DEVICE = MINIMUM 1/2", MAXIMUM 2".
 3. FOR CONCRETE FLOOR OVER METAL DECKING APPLICATIONS, A METAL DECK ADAPTER KIT IS REQUIRED.

HILTI
Hilti Firestop Systems

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Sheet	1 of 1
Scale	5/32" = 1"
Date	Nov. 30, 2023

Drawing No.

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