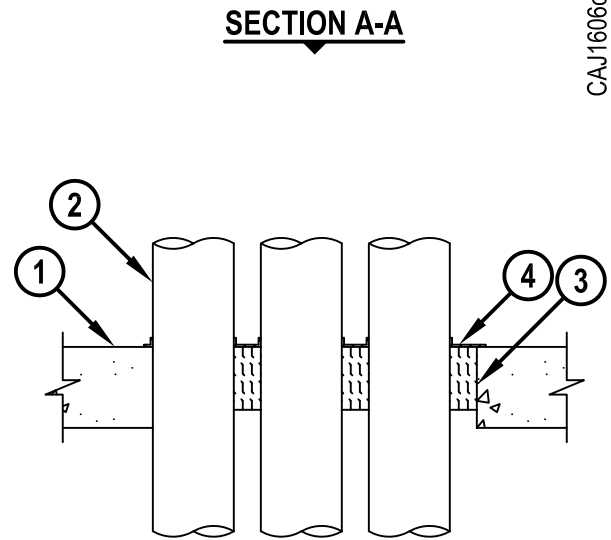
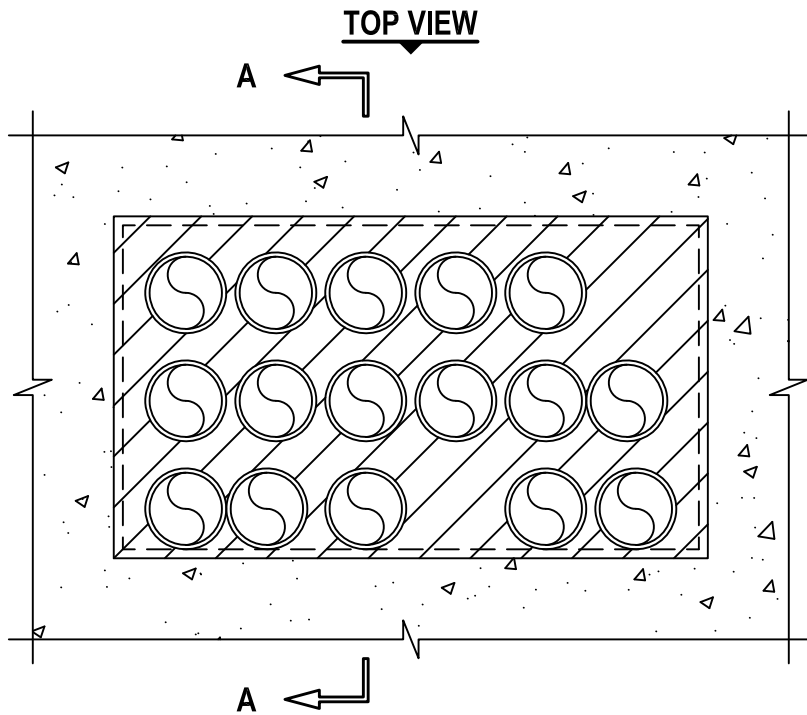


MULTIPLE METAL PIPES THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

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

CAJ1606c.011619



1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
 - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. ONE OR MORE OF THE FOLLOWING PENETRANTS MAY BE INSTALLED :
 - A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCH 10 OR HEAVIER).
 - B. MAXIMUM 4" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT OR EMT.
3. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND FLUSH WITH TOP SURFACE OF FLOOR, OR BOTH SURFACES OF A WALL.
4. MINIMUM 1/8" (WET) THICKNESS HILTI CFS-SP WB FIRESTOP JOINT SPRAY TO COMPLETELY COVER MINERAL WOOL AND OVERLAPPING MINIMUM 1/2" ONTO PENETRANTS AND CONCRETE FLOOR/WALL.

NOTES : 1. MAXIMUM AREA OF OPENING IS 576 SQ. IN., WITH A MAXIMUM DIMENSION OF 32".
 2. ANNULAR SPACE BETWEEN PENETRANTS AND PERIPHERY OF OPENING = MINIMUM 0", MAXIMUM 7".
 3. ANNULAR SPACE BETWEEN PENETRANTS = MINIMUM 1/4", MAXIMUM 5-1/2".
 4. HILTI FIRESTOP SPRAY IS REQUIRED ON BOTH SIDES OF A WALL.



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Sheet	1 of 1
Scale	3/32" = 1"
Date	Jan. 16, 2019

Drawing No.
**CAJ
1606c**