

UL/cUL SYSTEM NO. C-AJ-8056

**MULTIPLE PENETRATING ITEMS THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL**

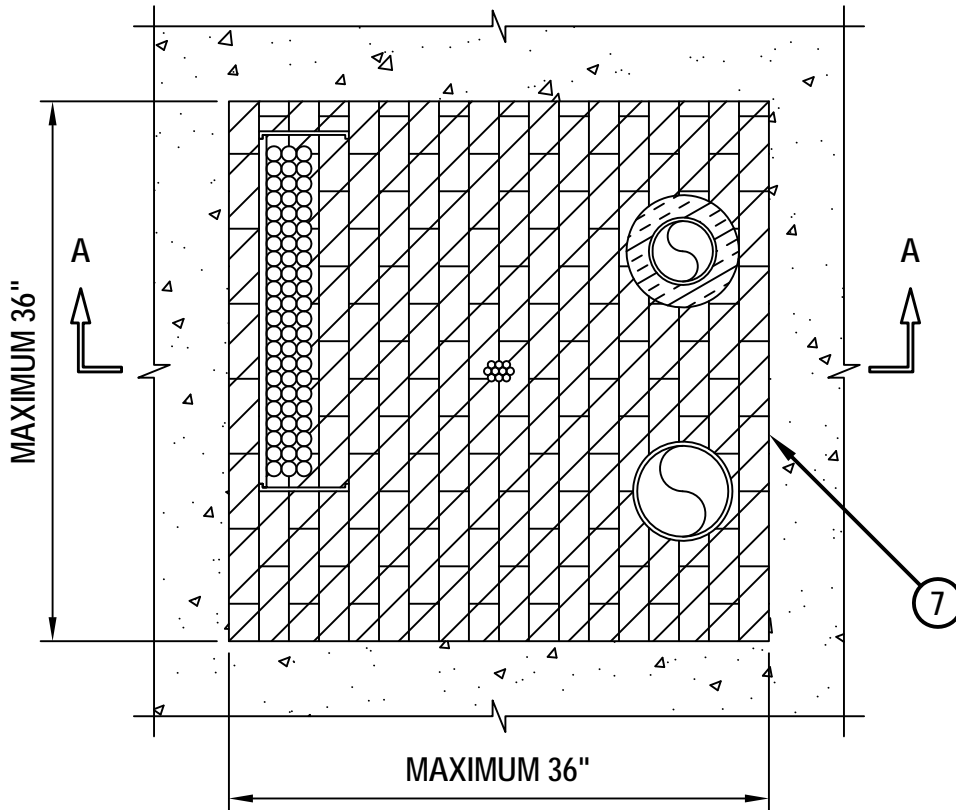
F-RATING = 3-HR.

T-RATING = 0-HR.

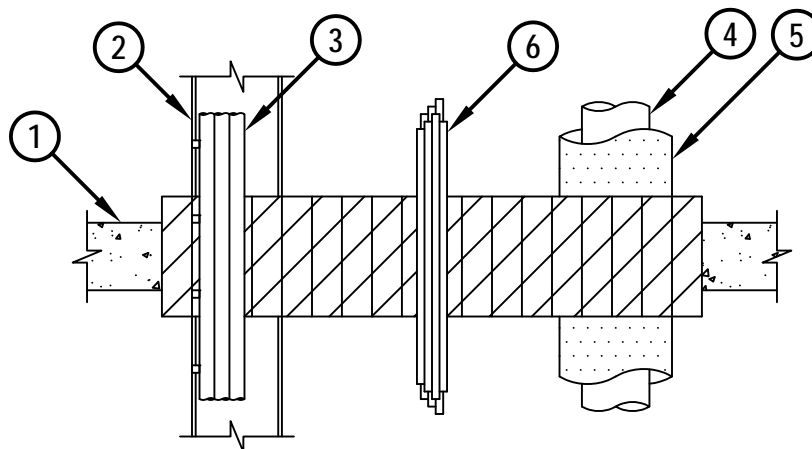
L-RATING AT AMBIENT = 5 CFM / SQ FT

L-RATING AT 400°F = 2 CFM / SQ FT

TOP VIEW



SECTION A-A



CAJ8056h.010615



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

Sheet	1 of 2
Scale	5/64" = 1"
Date	Jan. 06, 2015

Drawing No.  
**CAJ**  
**8056h**

***Saving Lives through Innovation and Education***

**MULTIPLE PENETRATING ITEMS THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL**

F-RATING = 3-HR.

T-RATING = 0-HR.

L-RATING AT AMBIENT = 5 CFM / SQ FT

L-RATING AT 400°F = 2 CFM / SQ FT

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1. CONCRETE FLOOR OR WALL ASSEMBLY (3-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. MAXIMUM 18" x 6" ALUMINUM OR STEEL OPEN LADDER CABLE TRAY.
3. ANY COMBINATION OF THE FOLLOWING CABLES MAY BE USED WITHIN THE CABLE TRAY (SEE NOTE NO. 4 BELOW) :
  - A. MAXIMUM 7/C NO. 12 AWG COPPER CONDUCTOR CABLE.
  - B. MAXIMUM 500 KCMIL SINGLE CONDUCTOR CABLE.
  - C. MAXIMUM 300 PAIR NO. 24 AWG TELEPHONE CABLE.
  - D. MAXIMUM 24 FIBER-OPTIC CABLE (MAXIMUM 1/2" DIAMETER).
4. PENETRATING ITEMS TO BE ANY OF THE FOLLOWING : MAXIMUM 6" NOMINAL DIAMETER STEEL PIPE OR STEEL CONDUIT, MAXIMUM 6" NOMINAL DIAMETER CAST IRON PIPE, OR MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE OR EMT.
5. NOMINAL 1-1/2" THICK GLASS-FIBER PIPE INSULATION.
6. MAXIMUM 2" DIAMETER CABLE BUNDLE TO BE A COMBINATION OF ANY OF THE FOLLOWING :
  - A. MAXIMUM 7/C NO. 12 AWG CABLE.
  - B. MAXIMUM 25 PAIR NO. 24 AWG TELEPHONE CABLE.
  - C. MAXIMUM 2/C NO. 10 +GRND (ROMEX).
  - D. MAXIMUM 3/C NO. 8 ALUMINUM CLAD CABLE.
  - E. RG 62A COAXIAL CABLE.
  - F. MAXIMUM 24 FIBER-OPTIC CABLE (MAXIMUM 1/2" DIAMETER).
7. HILTI CFS-BL FIRESTOP BLOCK OR HILTI FS 657 FIRE BLOCK (2" THICK x 5" WIDE x 8" DEEP, REFERENCE : TOP VIEW) FIRMLY PACKED AND CENTERED WITHIN FLOOR OR WALL. EITHER ONE OR A COMBINATION OF THE BLOCK TYPES MAY BE USED.

- NOTES :
1. MAXIMUM AREA OF OPENING = 1296 SQ. IN., WITH A MAXIMUM DIMENSION OF 36".
  2. ANNULAR SPACE FOR CABLE TRAY = MINIMUM 1-1/2", MAXIMUM 4-1/2".
  3. ANNULAR SPACE FOR PIPE AND CABLE PENETRATIONS = MINIMUM 1", MAXIMUM 4-1/2".
  4. MAXIMUM AREA OF CABLES EQUALS 30% OF CROSS-SECTIONAL AREA OF CABLE TRAY.
  5. APPLY HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT OR HILTI CP 618 FIRESTOP PUTTY STICK INTO INTERSTICES OF CABLES, BETWEEN CABLES AND CABLE TRAY, AND ANY VOIDS TO MAXIMUM EXTENT POSSIBLE.
  6. WIRE MESH [NOT SHOWN] WHEN THE ANNULAR SPACE EXCEEDS 4-1/2", A NOMINAL 2 IN. SQ., NO. 16 SWG WIRE MESH SHALL BE USED TO KEEP THE FIRESTOP BLOCKS/FIRE BLOCKS IN PLACE. WIRE MESH ATTACHED WITH 1/4" DIAMETER x 1" LONG STEEL CONCRETE ANCHORS AND 1-1/2" DIAMETER FENDER WASHERS (SPACED MAXIMUM 8" C/C) ON THE TOP SURFACE OF FLOOR, OR ON BOTH SIDES OF WALL.
  7. L-RATING APPLIES ONLY WHEN FS-ONE MAX OR FS-ONE FIRESTOP SEALANT IS USED.



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