

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

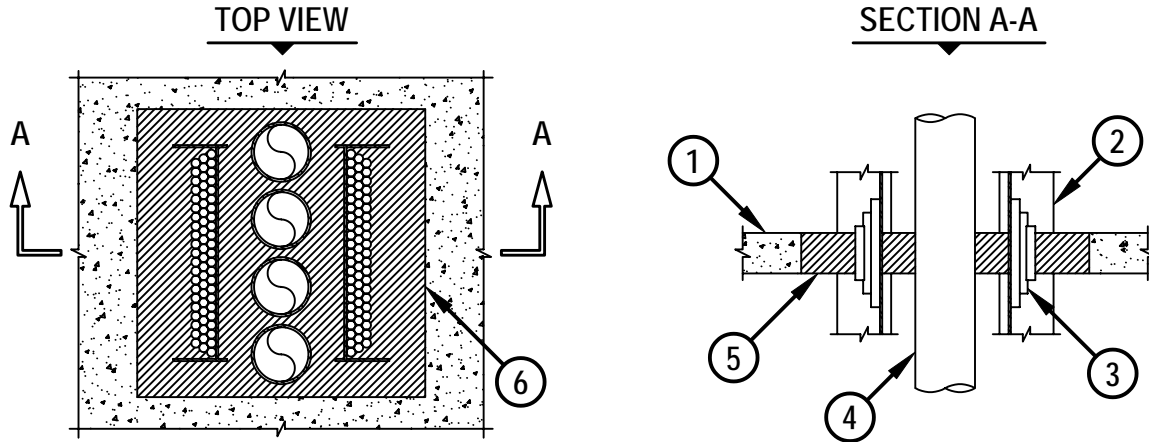
F-RATING = 4-HR.

T-RATING = 0-HR.

L-RATING AT AMBIENT = 14 CFM/SQ. FT.

L-RATING AT 400°F = 14 CFM/SQ. FT.

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1. CONCRETE FLOOR OR WALL ASSEMBLY (4-HR. FIRE-RATING) :
  - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MIN. 4-1/2" THICK).
  - B. ANY UL/ULC CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 24" x 6" ALUMINUM OR STEEL OPEN LADDER CABLE TRAY (MAXIMUM QUANTITY = 2).
3. ANY COMBINATION OF THE FOLLOWING CABLES MAY BE USED WITHIN THE CABLE TRAYS :
  - A. MAXIMUM 500 KCMIL SINGLE CONDUCTOR CABLE.
  - B. MAXIMUM 25 PAIR NO. 24 AWG TELEPHONE CABLE.
  - C. MAXIMUM 3/C (+ GROUND) NO. 12 AWG COPPER CABLE.
  - D. MULTIPLE TWO LEAD FIBER OPTIC CABLE (MAX. 0.12" x 0.24").
4. PENETRATING ITEMS TO BE ANY OF THE FOLLOWING (MAXIMUM QUANTITY = 4) :
  - A. MAXIMUM 26" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
  - B. MAXIMUM 15" NOMINAL DIAMETER CAST IRON PIPE.
  - C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
  - D. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
  - E. MAXIMUM 4" NOMINAL DIAMETER EMT.
5. FORMING NOT SHOWN. USE A RIGID BOARD MATERIAL TO SUPPORT HILTI CP 637 FIRESTOP MORTAR DURING INITIAL CURE.
6. MINIMUM 4-1/2" DEPTH HILTI CP 637 FIRESTOP MORTAR.

NOTES : 1. MAXIMUM AREA OF OPENING = 1024 SQ. IN. WITH A MAX. DIM. OF 32 IN.  
 2. CABLE TRAYS SPACED MINIMUM 5" APART AND A MINIMUM 2" FROM THE PERIPHERY OF THE OPENING.  
 3. PIPES SPACE MINIMUM 2-1/2" APART AND FROM THE PERIPHERY OF THE OPENING.  
 4. PIPES SPACE MINIMUM 5" FROM CABLE TRAYS.  
 5. CABLES TO FILL MAXIMUM 27% OF CROSS-SECTIONAL AREA OF CABLE TRAY.

	HILTI, Inc. Tulsa, Oklahoma USA (918) 252-6000	<i>Sheet</i> 1 of 1	<i>Drawing No.</i> <b>CAJ 8095a</b>
		<i>Scale</i> 3/64" = 1"	
		<i>Date</i> Dec. 5, 2001	
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