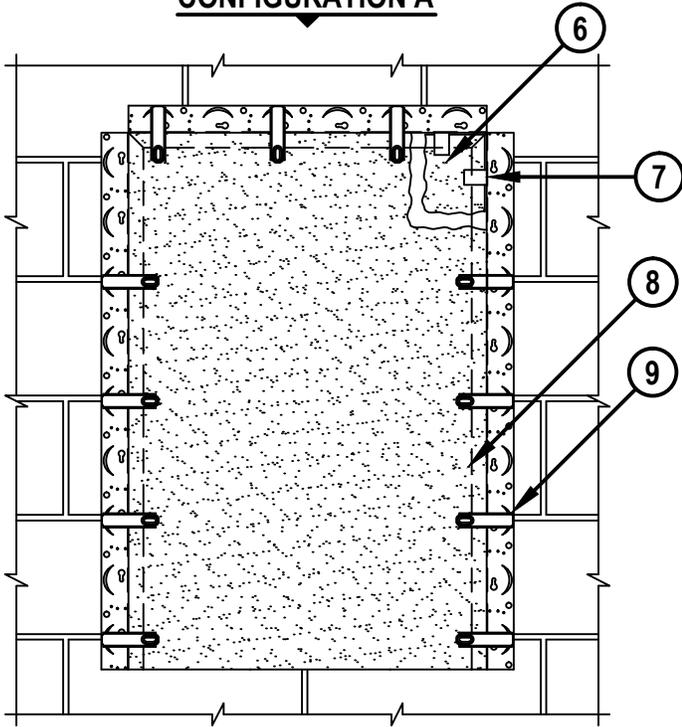


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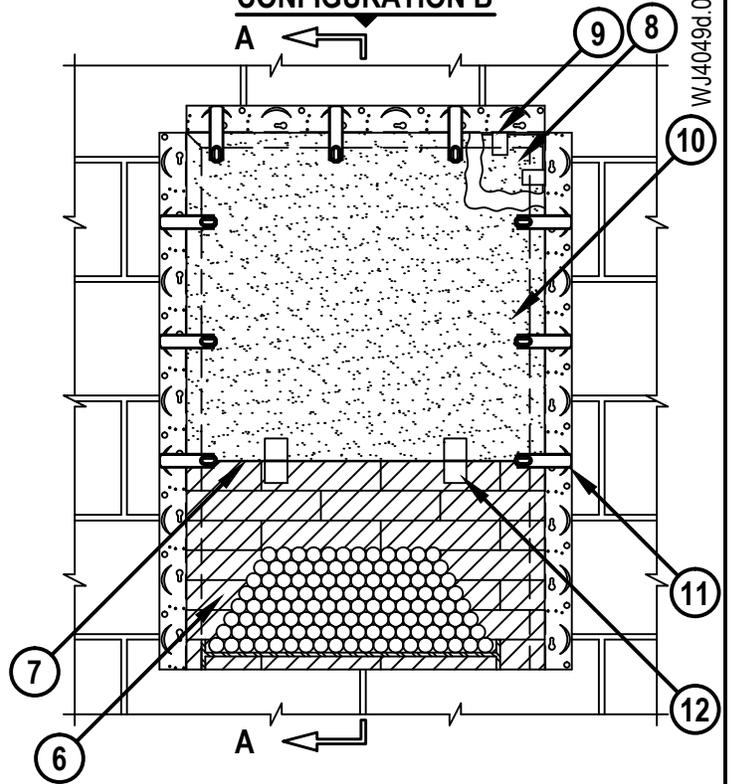
CABLE RACK(S) THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.
T-RATING = 1/4-HR.

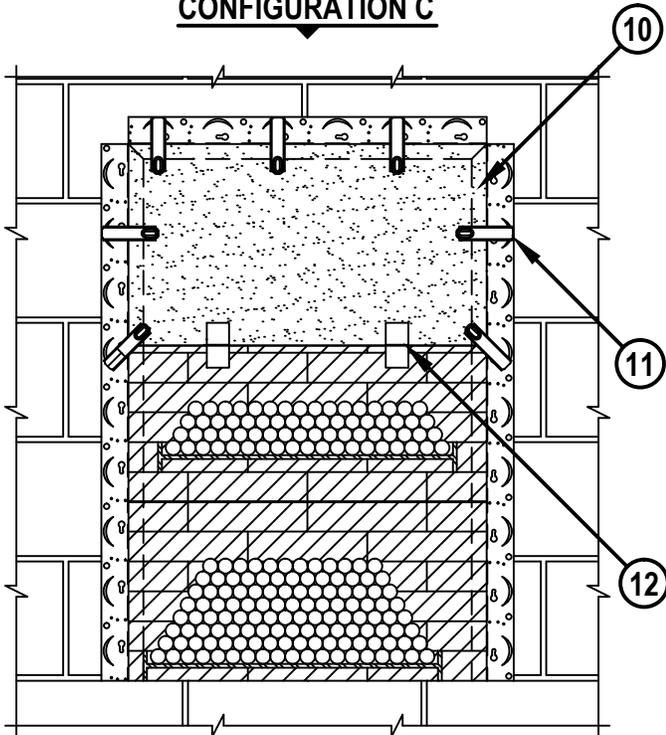
CONFIGURATION A



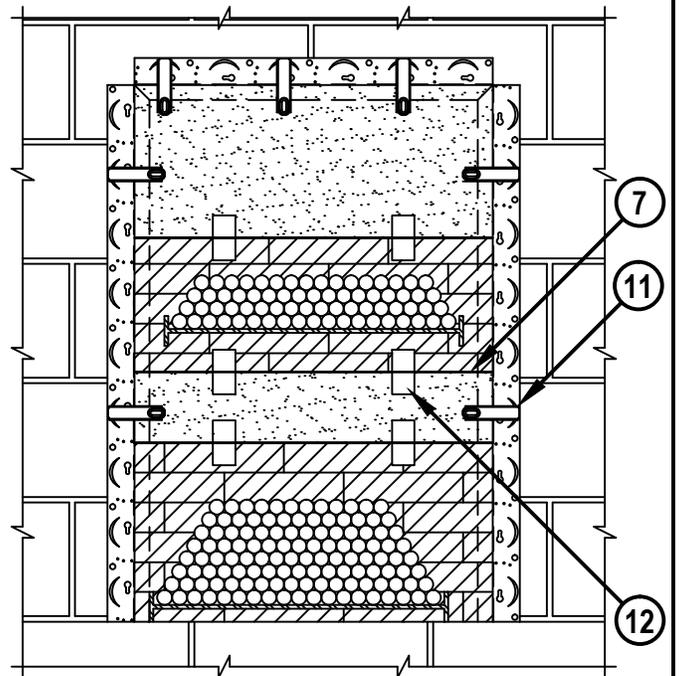
CONFIGURATION B



CONFIGURATION C



CONFIGURATION D



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Scale	5/64" = 1"
Date	Jan. 11, 2012

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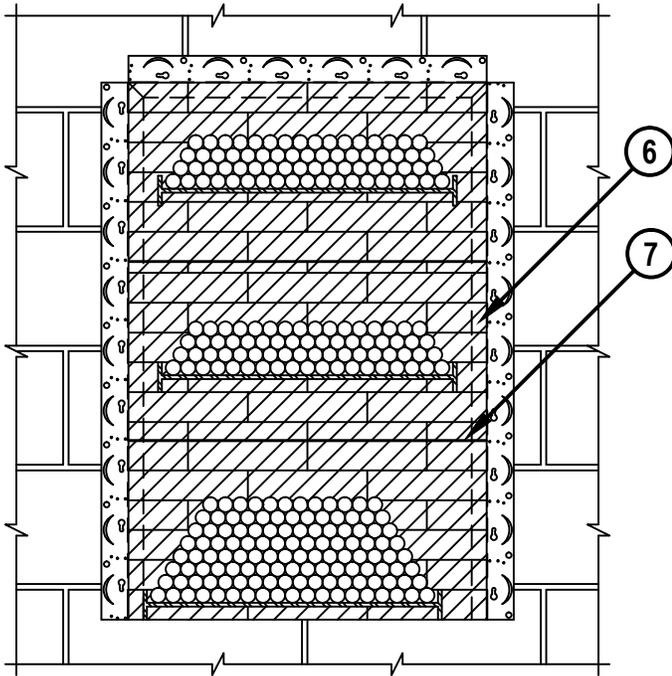
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UL/cUL SYSTEM NO. W-J-4049

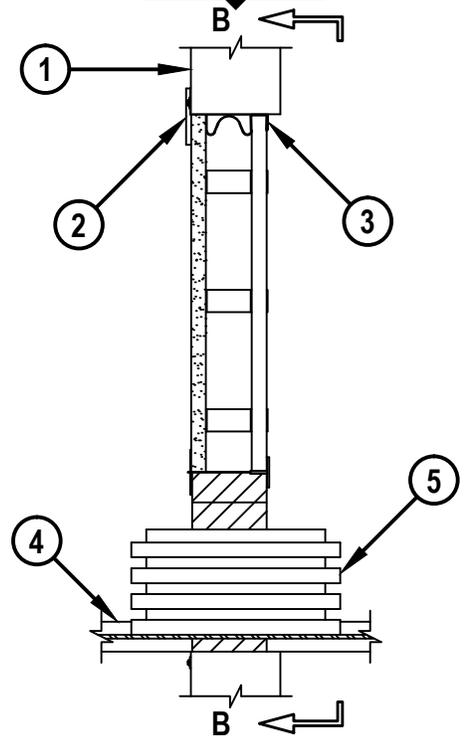
CABLE RACK(S) THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.
T-RATING = 1/4-HR.

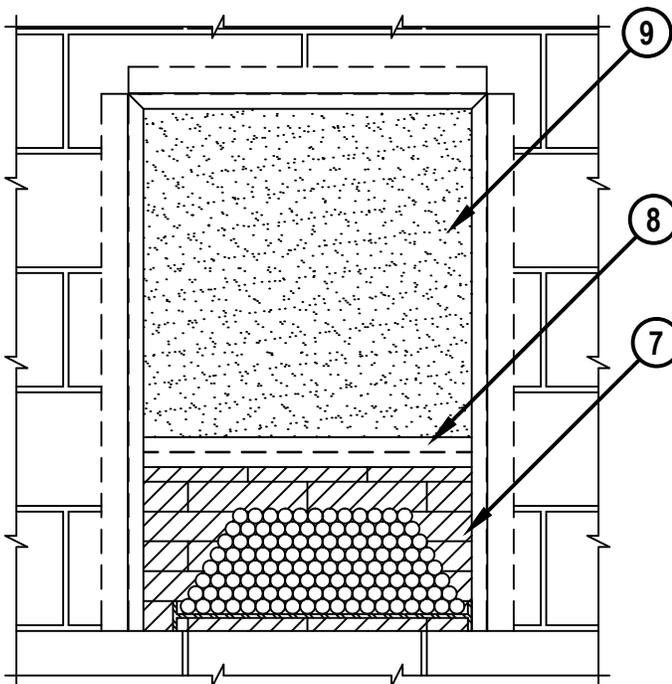
CONFIGURATION E



SECTION A-A



VIEW B-B



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CABLE RACK(S) THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.
T-RATING = 1/4-HR.

WJ4049d.011112

1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 6" THICK).
 - B. ANY UL/cUL CLASSIFIED SOLID OR FILLED CONCRETE BLOCK WALL.
2. FASTEN FIRESTOP Z-FRAME TO STUD MATERIAL ON THREE SIDES OF OPENING (AS SHOWN) WITH 3/16" x 1-1/4" LONG STEEL CONCRETE SCREW ANCHOR AT MAXIMUM 12" C/C SPACING.
3. APPLY HILTI CP 619T FIRESTOP PUTTY ROLL (1" WIDE) TO BACK LIP OF FIRESTOP Z-FRAME AND FASTEN TO WALL WITH 3/16" x 1-1/4" CONCRETE SCREW ANCHORS.
4. [OPTIONAL] MAXIMUM 25" WIDE x 2" HIGH STEEL CABLE RACK (MAX. QTY. = 3).
5. [OPTIONAL] CABLES TO BE A COMBINATION OF ANY OF THE FOLLOWING (CABLE LOADING NOT TO EXCEED 8" FOR RACKS 20" AND LESS IN WIDTH, AND 6" FOR RACKS GREATER THAN 20" IN WIDTH) :
 - A. MAXIMUM 750 KCMIL POWER CABLE TYPE RHW/RHH OR WITH PVC JACKET.
 - B. MAXIMUM 300 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET.
 - C. MAXIMUM 24 FIBER, FIBER-OPTIC CABLE WITH PVC JACKET.
 - D. MAXIMUM 7/C NO. 12 AWG POWER CABLE.

FIRESTOP CONFIGURATION A
(BLANK OPENING)

6. HILTI CP 675T FIRESTOP BOARD CUT TO FIT OPENING (WITHIN 1/4").
7. HILTI CP 675T DISTANCE HOLDERS FITTED OVER FIRESTOP BOARD AT MAXIMUM 8" ON CENTER. AROUND PERIMETER OF BOARD, FIRESTOP BOARD WITH DISTANCE HOLDERS SLID INTO OPENING AND PUSHED BACK FLUSH WITH BACK LIP OF FIRESTOP Z-FRAME (REFERENCE NOTES).
8. ADDITIONAL CP 675T FIRESTOP BOARD CUT TO FIT OPENING (WITHIN 1/4") AND INSERTED FLUSH WITH WALL ASSEMBLY.
9. HILTI Z-FRAME LATCHES SECURED TO Z-FRAME AT 8" C/C AND LOCKED IN PLACE SO THAT THE LATCHES EXTEND OVER THE FIRESTOP BOARD (REFERENCE NOTES).

FIRESTOP CONFIGURATION B, C AND D
(SINGLE OR MULTIPLE CABLE RACKS)

6. HILTI CFS-BL FIRESTOP BLOCK OR HILTI FS 657 FIRE BLOCK (5" DEEP) TO FILL AREA AROUND CABLE RACK/CABLES UP TO HILTI T-BAR. FIRESTOP/FIRE BLOCKS TO EXTEND FLUSH WITH BACK LIP OF FIRESTOP Z-FRAME. EITHER ONE OR A COMBINATION OF BLOCK TYPES MAY BE USED.
7. HILTI T-BAR(S) FASTENED TO BACK LIP OF FIRESTOP Z-FRAME WITH ONE 3/8" LONG NO. 8 STEEL SCREW AT THE CENTER OF EACH END OF T-BAR, OR SECURED AT FRONT EDGE BY Z-FRAME LATCH ON BOTH ENDS OF T-BAR. T-BAR TO BE LOCATED, MAXIMUM 6" ABOVE CABLES.
8. HILTI CP 675T FIRESTOP BOARD CUT TO FIT OPENING ABOVE UPPER T-BAR (WITHIN 1/4").
9. HILTI CP 675T DISTANCE HOLDERS FITTED OVER FIRESTOP BOARD AT MAXIMUM 8" ON CENTER. ON SIDES AND TOP SIDE OF BOARD, FIRESTOP BOARD WITH DISTANCE HOLDERS SLID INTO OPENING AND PUSHED BACK FLUSH WITH BACK LIP OF FIRESTOP Z-FRAME (REFERENCE NOTES).
10. ADDITIONAL CP 675T FIRESTOP BOARD CUT TO FIT OPENING ABOVE UPPER T-BAR (WITHIN 1/4") AND INSERTED FLUSH WITH WALL ASSEMBLY.



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CABLE RACK(S) THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.
T-RATING = 1/4-HR.

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11. HILTI Z-FRAME LATCHES SECURED TO Z-FRAME AT 8" C/C AND LOCKED IN PLACE SO THAT THE LATCHES EXTEND OVER THE BOARD (REFERENCE NOTES).
12. SLIDING T-BAR LATCH CENTERED WITHIN FIRESTOP T-BAR, OVERLAPPING FIRESTOP BOARD AND FIRESTOP/FIRE BLOCKS AT 12" C/C.

NOTE : FIRESTOP BOARD MAY BE INSTALLED BETWEEN CABLE RACKS IF SEPARATED BY T-BARS AND INSTALLED WITH LATCHES AND DISTANCE HOLDERS, AS DESCRIBED ABOVE (REFERENCE CONFIGURATION D).

FIRESTOP CONFIGURATION E
(THREE CABLE RACKS)

6. HILTI CFS-BL FIRESTOP BLOCK OR HILTI FS 657 FIRE BLOCK (5" DEEP) TO FILL AREA AROUND CABLE RACK/CABLES.
7. HILTI T-BAR(S) FASTENED TO BACK LIP OF FIRESTOP Z-FRAME WITH ONE 3/8" LONG NO. 8 STEEL SCREW AT THE CENTER OF EACH END OF T-BAR, OR SECURED AT FRONT EDGE BY Z-FRAME LATCH ON BOTH ENDS OF T-BAR. T-BAR(S) TO BE LOCATED, MAXIMUM 6" ABOVE CABLES.

NOTE : FIRESTOP BOARD MAY BE INSTALLED BETWEEN CABLE RACKS IF SEPARATED BY T-BARS AND INSTALLED WITH LATCHES AND DISTANCE HOLDERS, AS DESCRIBED ABOVE (REFERENCE CONFIGURATION D).

NOTES :

1. MAXIMUM AREA OF OPENING = 864 SQ. IN. WITH A MAXIMUM DIMENSION OF 36".
2. ANNULAR SPACE BETWEEN CABLE RACK AND PERIPHERY OF OPENING = MINIMUM 0", MAXIMUM 34".
3. MINIMUM ANNULAR SPACE BETWEEN CABLE RACK AND T-BAR = 1".
4. MINIMUM 1" WIDE HILTI CP 619T PUTTY ROLL SHOULD BE APPLIED WHERE BOTTOM OF FIRESTOP BOARD MEETS PERIPHERY OF OPENING AS WELL AS BACK LIP OF T-BAR ADJACENT TO FIRESTOP BOARD.
5. MINIMUM 1" DEPTH HILTI CP 618 PUTTY STICK OR CP 619T PUTTY ROLL APPLIED WHERE VISIBLE GAP EXISTS (1/8" TO 1/4") BETWEEN FIRESTOP BOARDS AND PERIPHERY OF OPENING.
6. MINIMUM 1" WIDE HILTI CP 619T PUTTY ROLL CENTERED OVER FIRESTOP BOARD AND Z-FRAME. PUTTY ROLL INSTALLED BETWEEN LATCHES.

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