

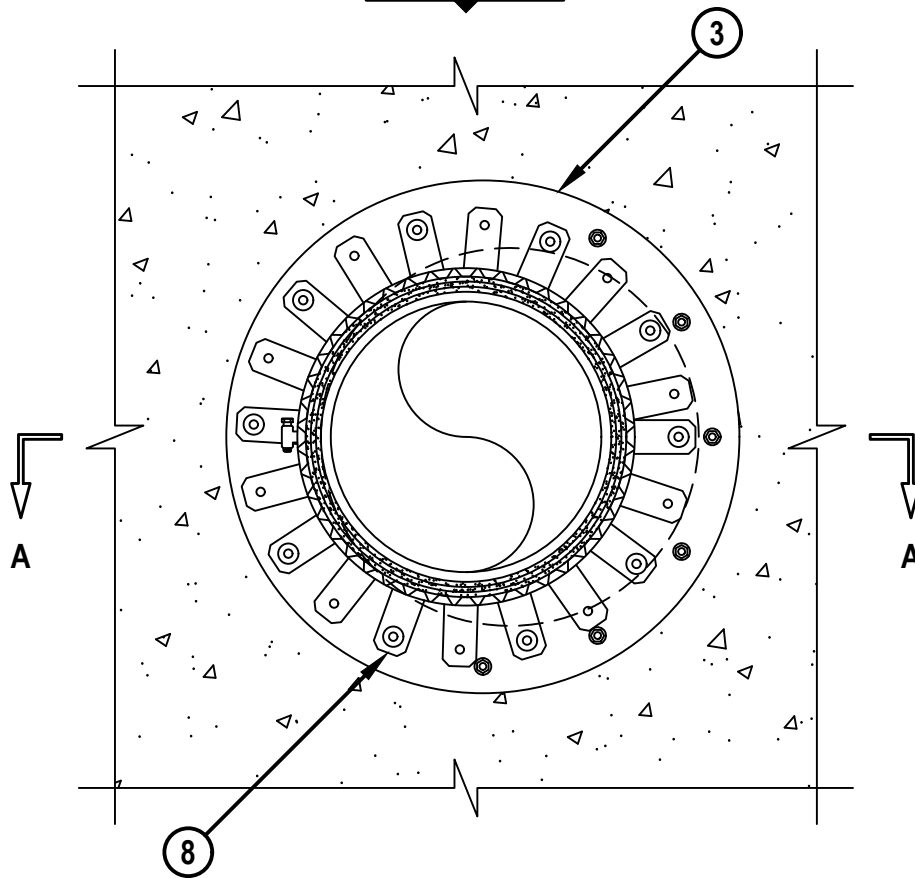
UL SYSTEM NO. C-AJ-2409

PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

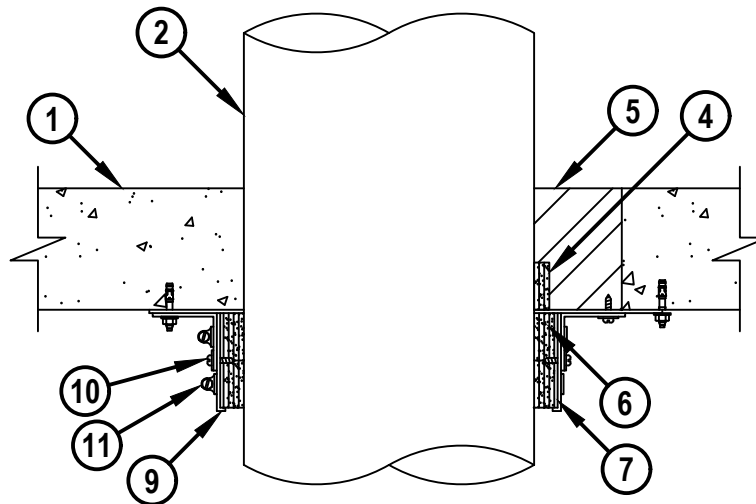
F-RATING = 3-HR.

T-RATING = 2-HR.

BOTTOM VIEW



SECTION A-A



CAJ2409e.030723



HILTI, Inc.
Plano, Texas USA (800) 879-8000

Sheet	1 of 2
Scale	9/64" = 1"
Date	Mar. 07, 2023

Drawing No.
**CAJ
2409e**

Saving Lives through Innovation and Education

PLASTIC PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY

F-RATING = 3-HR.

T-RATING = 2-HR.

CAJ2409e.030723

1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICKNESS).
 - B. ANY UL CLASSIFIED CONCRETE BLOCK WALL.
2. MAXIMUM 10" NOMINAL DIAMETER FRPP PLASTIC PIPE (CLOSED OR VENTED PIPING SYSTEM).
3. SHEET METAL COVER PLATE (MIN. 18 GA.) TO CONSIST OF TWO PIECES HAVING A 1" OVERLAP ALONG SEAM AND MINIMUM 2" OVERLAP ONTO CONCRETE FLOOR AND SECURED TO BOTTOM OF FLOOR WITH 1/4" X 1-3/4" LONG STEEL EXPANSION BOLTS IN CONJUNCTION WITH 3/4" DIAMETER STEEL WASHERS (EX. HILTI KWIK-BOLT 3) (SPACED MAXIMUM 6" C/C).
4. THREE LAYERS HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK X 1-3/4" WIDE) INDIVIDUALLY WRAPPED AROUND THE PIPE, WHERE ANNULAR SPACE EXISTS, AND HELD IN PLACE WITH TAPE. WRAP STRIP BUTTED TIGHTLY AGAINST TOP SURFACE OF COVER PLATE.
5. MIN. 4-1/2" DEPTH HILTI CP 620 FIRE FOAM INSTALLED FLUSH WITH BOTH SURFACES OF FLOOR/WALL.
6. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK X 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, COVERING FOUR TIMES, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE. WRAP STRIP TO BE BUTTED TIGHTLY AGAINST BOTTOM SURFACE OF COVER PLATE AND DOUBLE STACKED.
7. SHEET METAL SLEEVE (MIN. 28 GA.) WITH 1" OVERLAP ALONG LONGITUDINAL SEAM. SLEEVE INSTALLED OVER HILTI CP 648E WRAP STRIP AND TO EXTEND 3-1/2" TO 4" BELOW BOTTOM SURFACE OF FLOOR OR BOTH SURFACES OF WALL.
8. FIRST HILTI RETAINING COLLAR SHALL BE WRAPPED AROUND BOTTOM OF SLEEVE WITH ENDS OVERLAPPING MINIMUM 1". RETAINER TABS ARE PREBENT 90° TOWARDS THE PIPE TO RETAIN THE WRAP STRIP. ANCHOR TABS TO BE LEFT UNBENT.
9. SECOND HILTI RETAINING COLLAR SHALL BE WRAPPED AROUND TOP OF SLEEVE AND ANCHOR TABS OF FIRST RETAINING COLLAR WITH ENDS OVERLAPPING MINIMUM 1". SECURE EVERY OTHER TAB TO BOTTOM SURFACE OF FLOOR WITH 1/4" x 1-1/4" LONG STEEL EXPANSION BOLTS AND MINIMUM 1-1/4" WASHERS (EX. HILTI KWIK-BOLT 3).
10. SECURE COLLARS AND STEEL SLEEVE TOGETHER WITH 1/4" STEEL SHEET METAL SCREWS (SPACED 4" O.C.).
11. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP(S) LOCATED AROUND RETAINING COLLARS 1" BELOW FLOOR ASSEMBLY AND 1" UP FROM BOTTOM OF SLEEVE.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 14".
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 3-3/8".
 3. HILTI CP 648E WRAP STRIPS (ITEMS 4 & 6), RETAINING COLLARS AND COVER PLATES ARE REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.



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Sheet	2 of 2
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