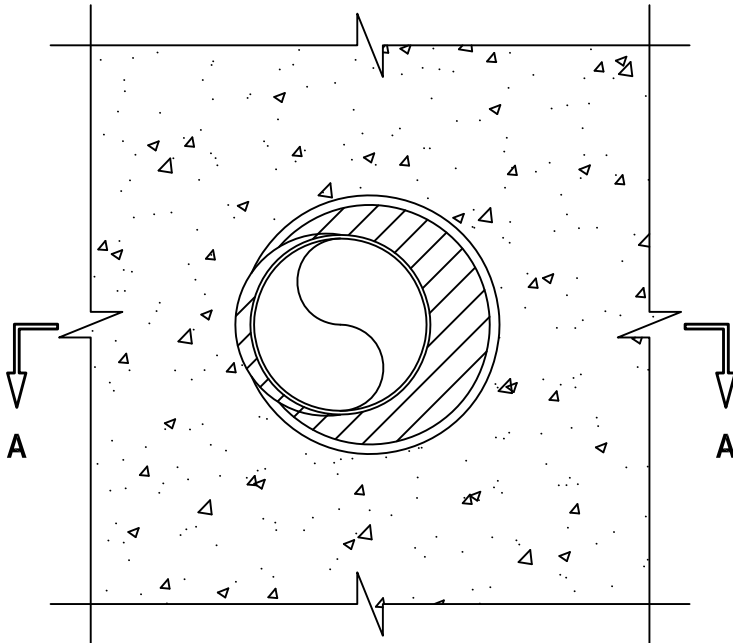


**ROUND SHEET METAL DUCT THROUGH CONCRETE FLOOR/WALL
OR BLOCK WALL ASSEMBLY**

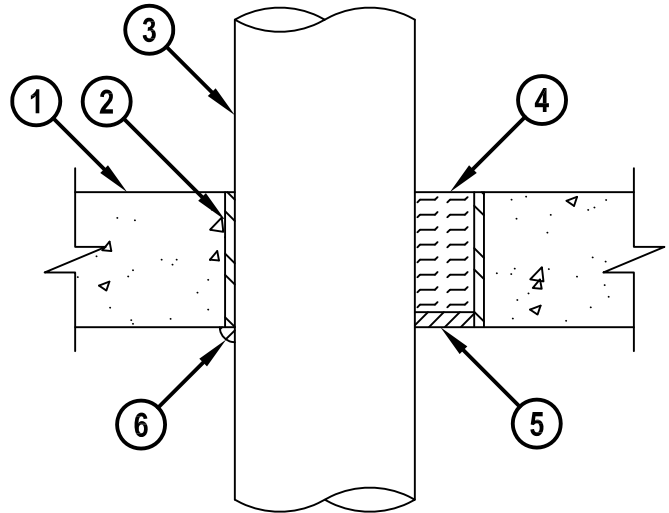
F-RATING = 2-HR.
T-RATING = 1/4-HR.

CAJ7103b.011515

BOTTOM VIEW



SECTION A-A



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. PRECAST (HOLLOW-CORE) CONCRETE FLOOR (MINIMUM 6" THICK).
 - C. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. [OPTIONAL] MAXIMUM 8" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 10 OR HEAVIER).
3. MAXIMUM 6" NOMINAL DIAMETER SHEET METAL DUCT (MIN. 28 GA.).
4. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
5. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT, FLUSH WITH TOP OR BOTTOM SURFACE OF FLOOR.
6. MINIMUM 1/2" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING [NORMAL CONCRETE] = 8".
 2. MAXIMUM DIAMETER OF OPENING [PRECAST (HOLLOW-CORE) CONCRETE] = 7".
 3. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2".
 4. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.



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

Sheet	1 of 1
Scale	5/32" = 1"
Date	Jan. 15, 2015

Drawing No.
**CAJ
7103b**