

METAL PIPE THROUGH CONCRETE FLOOR/WALL OR CONCRETE BLOCK WALL

F-RATING = 3-HR.

T-RATING = 2-HR. OR 2 3/4-HR. (SEE NOTES BELOW)

L-RATING AT AMBIENT = LESS THAN 1 CFM / SQ FT

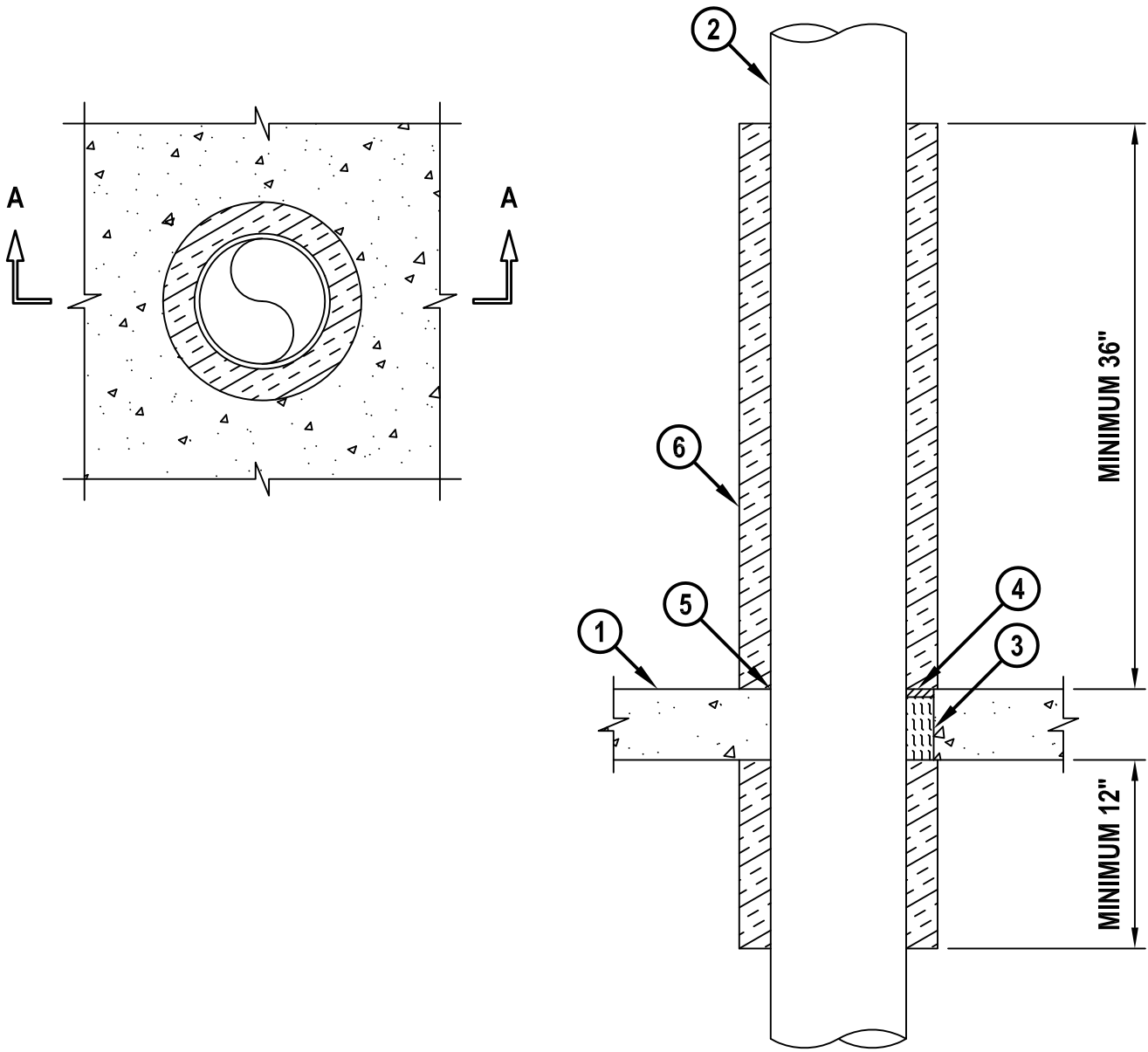
L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT

W-RATING = CLASS I (SEE NOTE NO. 6 BELOW)

CAJ1597e.032815

TOP VIEW

SECTION A-A



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

Sheet	1 of 2
Scale	3/32" = 1"
Date	Mar. 28, 2015

Drawing No.
**CAJ
1597e**

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CAJ1597e-032815

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 PRECAST (HOLLOW-CORE) CONCRETE FLOOR (MINIMUM 6" THICK).
 - C. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
 - A. MAXIMUM 8" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 8" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE OR TUBING.
 - D. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
 - E. MAXIMUM 4" NOMINAL DIAMETER EMT.
3. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT, HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT, HILTI CP 604 SELF-LEVELING FIRESTOP SEALANT, OR HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT.
5. [NOT SHOWN] MINIMUM 1/4" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT (NON REQUIRED WHEN CP 604 SELF LEVELING FIRESTOP SEALANT IS USED).
6. NOMINAL 1-1/2" OR 2" THICK DUCT WRAP (FYREWRAPE DUCT OR FYREWRAPE DUCT 1.5 INSULATION MANUFACTURED BY UNIFRAX, OR FIREMASTER FASTWRAP XL MANUFACTURED BY THERMAL CERAMICS) WRAPPED AROUND PENETRANT, EXTENDING MINIMUM 36" ABOVE FLOOR AND MINIMUM 12" BELOW FLOOR OR MINIMUM 36" BEYOND BOTH SIDES OF WALL ASSEMBLY. THE ENDS ARE TO BE TIGHTLY BUTTED TOGETHER AND TAPED ON TOP SIDE OF FLOOR AND BOTH SIDES OF WALL. THE EXPOSED EDGES OF THE FACED BLANKETS ARE TO BE TAPED WITH 4" WIDE PRESSURE-SENSITIVE ALUMINUM FOIL TAPE. ON THE BOTTOM SURFACE OF THE FLOOR ENDS ARE TO BE TIGHTLY BUTTED AND WIRE BOUND.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 10" FOR NORMAL CONCRETE, 7" FOR PRECAST (HOLLOW-CORE) CONCRETE.
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2".
 3. HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL.
 4. MINERAL WOOL REQUIRED TO BE INSTALLED FLUSH WITH BOTTOM FLOOR SURFACE WHEN INSTALLED IN PRECAST (HOLLOW-CORE) CONCRETE.
 5. T-RATING EQUALS 2-HR. WHEN 1-1/2" THICK DUCT INSULATION IS USED.
 6. W-RATING APPLIES ONLY WHEN HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, HILTI CP 604 SELF-LEVELING FIRESTOP SEALANT, HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT, OR FS-ONE MAX INTUMESCENT FIRESTOP SEALANT IS USED.



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