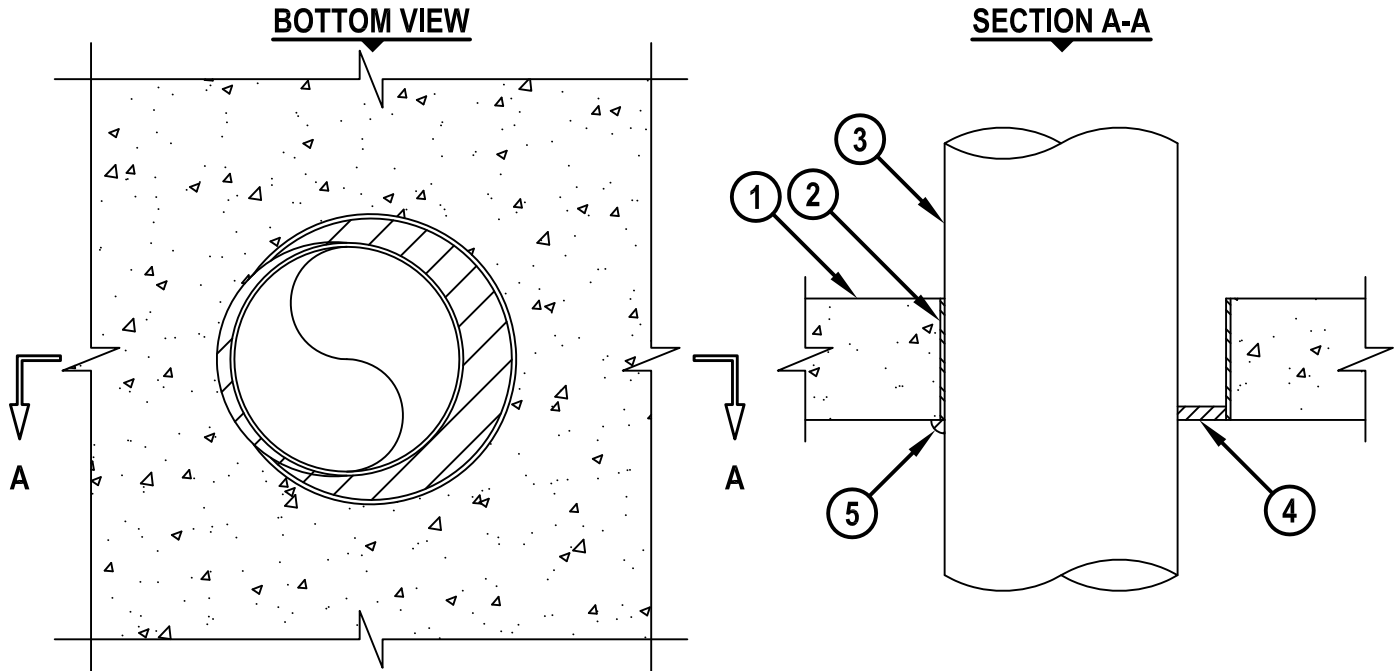


**METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL ASSEMBLY**

F-RATING = 2-HR.  
 FT, FH, AND FTH-RATINGS = 0-HR.

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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 10" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 10 OR HEAVIER) (SEE NOTE NO. 4 BELOW).
3. 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 6" NOMINAL DIAMETER STEEL CONDUIT.
  - D. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE OR TUBING.
  - E. MAXIMUM 4" NOMINAL DIAMETER EMT.
4. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT FLUSH WITH BOTTOM OF FLOOR ASSEMBLY.
5. 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 = 10" FOR NORMAL CONCRETE AND BLOCK WALL, 7" FOR PRECAST (HOLLOW-CORE) CONCRETE.  
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-7/8".  
 3. MINIMUM 1/2" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.  
 4. STEEL SLEEVE NOT SUITABLE FOR USE IN HOLLOW-CORE FLOORS.



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Sheet	1 of 1
Scale	9/64" = 1"
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Drawing No.  
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