

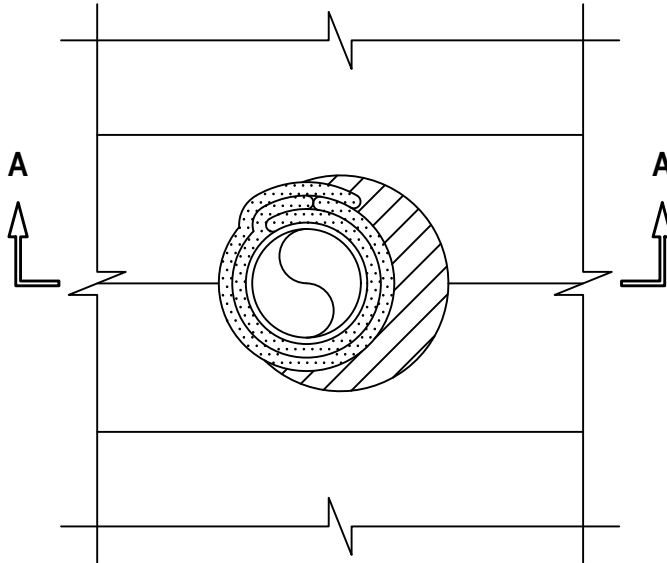
UL/cUL SYSTEM NO. F-G-1001

METAL PIPE THROUGH MASS TIMBER FLOOR ASSEMBLY

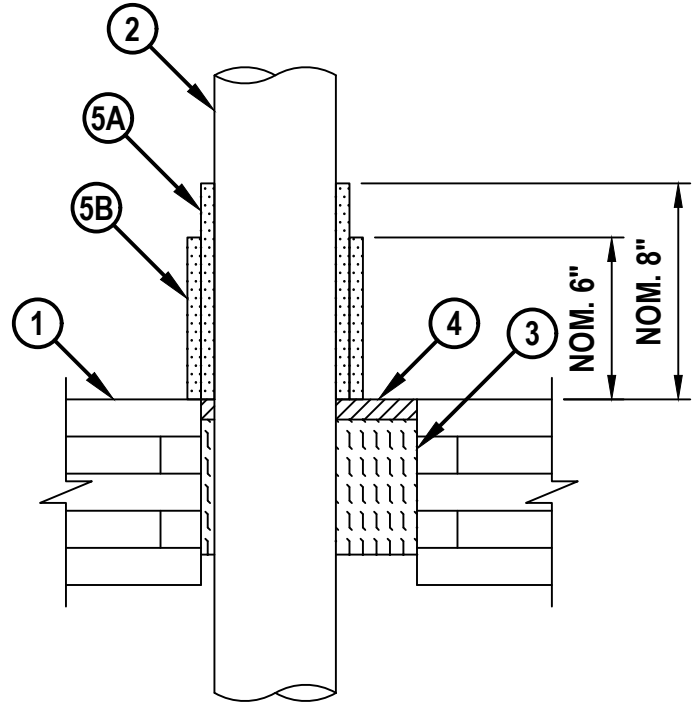
F-RATING = 2-HR.

T-RATING = 0-HR. OR 1-HR. (SEE NOTE NO. 4 AND TABLE BELOW)

TOP VIEW



SECTION A-A



FG1001a.051223



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

Sheet	1 of 2
Scale	9/64" = 1"
Date	May 12, 2023

Drawing No.

**FG
1001a**

Saving Lives through Innovation and Education

METAL PIPE THROUGH MASS TIMBER FLOOR ASSEMBLY

F-RATING = 2-HR.

T-RATING = 0-HR. OR 1-HR. (SEE NOTE NO. 4 AND TABLE BELOW)

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1. CROSS-LAMINATED TIMBER (CLT) PANEL, MINIMUM 6-7/8 IN. THICK, 5 PLY CROSS, LABELED CLT 175-5S, 220-7S, 244-7S GRADE E1 IN ACCORDANCE WITH ANSI/APA PRG 320 AS REQUIRED BY CHAPTER 6 OF INTERNATIONAL BUILDING CODE (IBC) FOR TYPE IVA, IVB OR IVC CONSTRUCTION. THE REQUIRED HOURLY RATING OF THE CLT FLOOR SHALL BE DETERMINED IN ACCORDANCE WITH CHAPTER 16 OF THE NATIONAL DESIGN SPECIFICATION (NDS). ADDITIONAL INFORMATION REGARDING THE USE OF CLT AS PERMITTED IN THE IBC IS LOCATED IN THE UL XHEZ GUIDE INFORMATION.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
 - A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - B. MAXIMUM 4" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT OR STEEL EMT.
3. MINIMUM 5" THICKNESS MINERAL WOOL SAFING (MIN. 4 PCF DENSITY) TIGHTLY PACKED AND RECESSED TO ACCOMMODATE SEALANT (SEE NOTE NO. 3 BELOW).
4. MINIMUM 3/4" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT, HILTI CP 601S ELASTOMERIC FIRESTOP SEALANT, HILTI CP 606 FLEXIBLE FIRESTOP SEALANT, HILTI CFS-S SIL GG FIRESTOP SILICONE SEALANT, OR HILTI CFS-S SIL SL FIRESTOP SILICONE SEALANT FLUSH WITH TOP OF FLOOR.
5. [OPTIONAL] HILTI CFP-ES ENDO-SHIELD INSTALLED AS FOLLOWS (SEE NOTE NO. 4 AND TABLE BELOW) :
 - A. INITIAL LAYER - PIPE COVERING SHALL BE CONTINUOUSLY WRAPPED A MINIMUM ONE TIME AROUND THE PENETRANT OVERLAPPING A MINIMUM OF 2" BEYOND THE START OF THE FIRST LAYER.
 - B. COLLAR - PIPE COVERING SHALL BE CONTINUOUSLY WRAPPED A MINIMUM ONE TIME AROUND THE INITIAL LAYER OVERLAPPING A MINIMUM OF 2" BEYOND THE START OF THE FIRST LAYER.
 - C. [NOT SHOWN] SEAMS TO BE SEALED WITH MINIMUM 3" WIDE ALUMINUM TAPE OR FSK TAPE APPLIED ALONG THE ENTIRE VERTICAL HEIGHT SEAM OF EACH LAYER OF INSULATION.

PENETRANT DIAMETER (IN.)	INITIAL INSULATION		COLLAR	
	LAYERS REQUIRED	HEIGHT (IN.)	LAYERS REQUIRED	HEIGHT (IN.)
≤ 4	1	8	1	6

- NOTES :**
1. MAXIMUM DIAMETER OF OPENING = 8".
 2. ANNULAR SPACE = MINIMUM 1/2", MAXIMUM 3".
 3. MINERAL WOOL MAY BE RECESSED A MAXIMUM OF 1" FROM THE BOTTOM OF THE FLOOR ASSEMBLY PROVIDED THE MINIMUM THICKNESS LISTED IN ITEM 3 IS MET.
 4. T-RATING IS 1-HOUR WHEN ITEM 5 IS INSTALLED AND 0-HOUR WHEN THIS ITEM IS OMITTED.



Hilti Firestop Systems

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