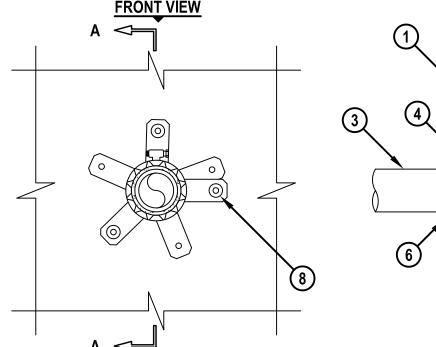
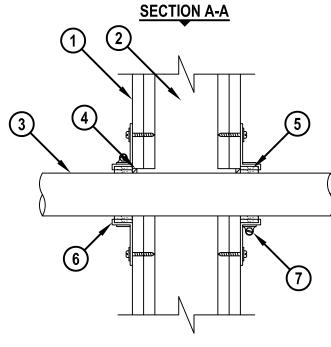
## **UL SYSTEM NO. W-L-2453**

## PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR. T-RATING = 0-HR, OR 1-3/4-HR.





- 1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300, U400 OR V400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
- 2. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 3-1/2" WIDE.
- 3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
  - A. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
  - B. MAXIMUM 2' NOMINAL DIAMETER PP PLASTIC PIPE(CELLULAR OR SOLID CORE).
- 4. MINIMUM 1/4" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
- 5. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, TWO TIMES, AND HELD IN PLACE WITH ALUMINUM TAPE.
- 6. HILTI RETAINING COLLAR WRAPPED OVER WRAP STRIPS, OVERLAPPING MINIMUM 1".
- 7. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP FASTENED AT MID-HEIGHT OF RETAINING COLLAR.
- 8. EVERY OTHER TAB OF RETAINING COLLAR SECURED TO GYPSUM WALL WITH 1-1/4" LONG STEEL LAMINATE DRYWALL SCREWS IN CONJUNCTION WITH 3/4" DIAMETER FENDER WASHERS.

NOTES: 1. MAXIMUM DIAMETER OF OPENING = 2-5/8".

- 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/4".
- 3. CLOSED OR VENTED PIPING SYSTEM (PVC AND PP = SCHEDULE 80).



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

Sheet	1 of 1
Scale	3/16" = 1"
Date	Jan. 12, 2015

WL 2453b