

UL/cUL SYSTEM NO. HW-D-0542

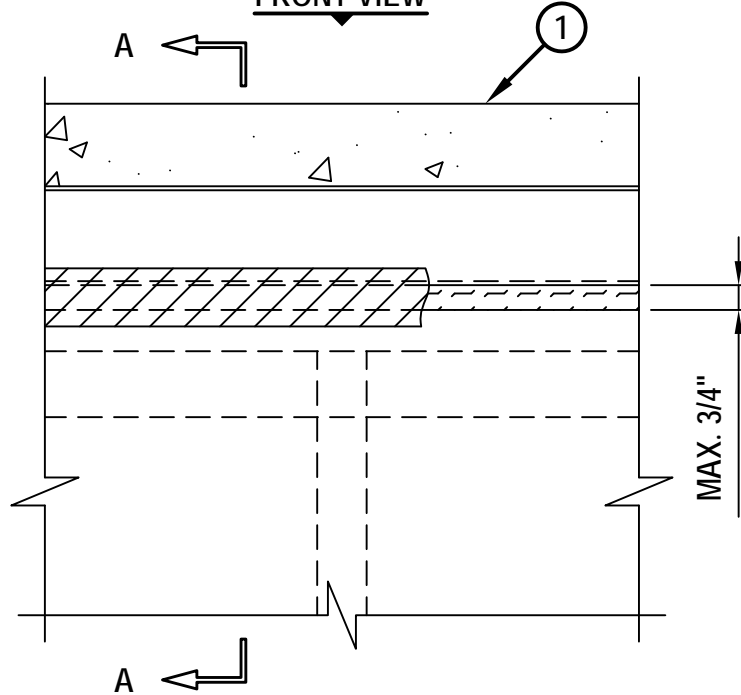
# TOP OF WALL JOINT : GYPSUM SHAFT WALL ASSEMBLY

ASSEMBLY RATING = 2-HR.

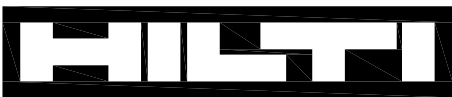
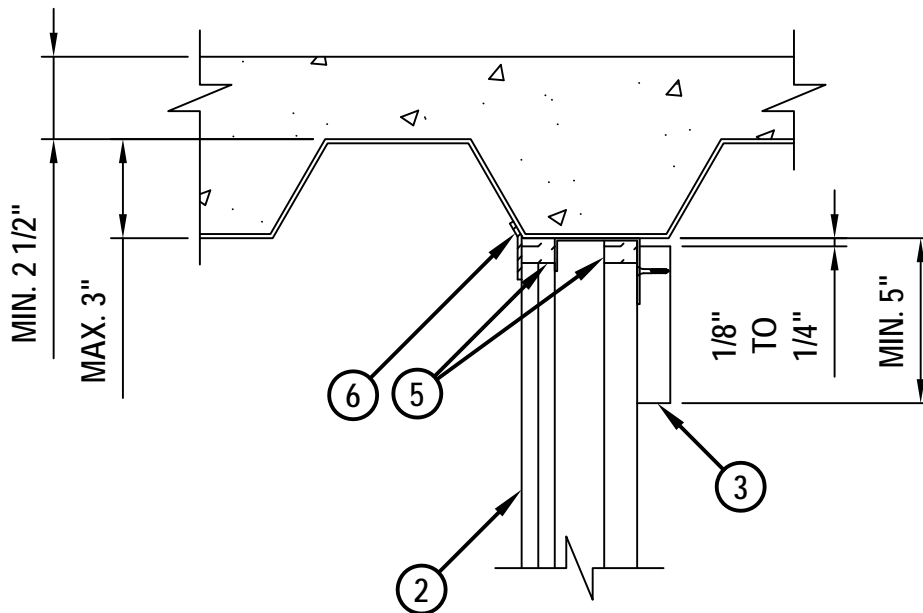
CLASS II MOVEMENT CAPABILITIES - 16% COMPRESSION OR EXTENSION

HW-D-0542d.050712

FRONT VIEW



SECTION A-A



Hilti Firestop Systems

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

Sheet	1 of 2
Scale	1 1/64" = 1"
Date	May 07, 2012

Drawing No.

**HWD  
0542d**

**Saving Lives through Innovation and Education**

**TOP OF WALL JOINT : GYPSUM SHAFT WALL ASSEMBLY**

ASSEMBLY RATING = 2-HR.

CLASS II MOVEMENT CAPABILITIES - 16% COMPRESSION OR EXTENSION

HWD0542d.050712

1. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK) OVER METAL DECKING ASSEMBLY (2-HR. FIRE-RATING).
2. GYPSUM SHAFT WALL ASSEMBLY (2-HR. FIRE-RATING) TO INCLUDE THE FOLLOWING CONSTRUCTION FEATURES :
  - A. "J" SHAPED CEILING RUNNER, MINIMUM 2-1/2" WIDE WITH LEGS OF 1" AND 2" (MINIMUM 24 GA.) FASTENED TO UNDERSIDE OF DECK WITH STEEL MASONRY ANCHORS, STEEL FASTENERS, OR WELDS AT LOCATION NOT GREATER THAN 2" FROM ENDS AND MAXIMUM 24" O.C.
  - B. "C-H" SHAPED STUDS (MINIMUM 2-1/2" WIDE, MINIMUM 25 GA.) CUT 3/8" TO 1/2" LESS IN LENGTH THAN ASSEMBLY HEIGHT, NESTING IN CEILING RUNNER WITHOUT ATTACHMENT.
  - C. TWO LAYERS MINIMUM 1/2" THICK FIRE-RATED GYPSUM WALLBOARD "TYPE C" ON FINISHED SIDE AND MINIMUM 1" COREBOARD CUT MAXIMUM 3/4" LESS IN LENGTH THAN FLOOR CEILING ASSEMBLY.
3. GYPSUM LINER BOARD (MINIMUM 1" THICK) FASTENED TO 2" LEG OF CEILING RUNNER WITH 1-5/8" TYPE S DRYWALL SCREWS 6" FROM END AND MAXIMUM 12" O.C. (GYPSUM ATTACHED FROM EITHER SIDE OF RUNNER LEG). GYPSUM LINER CUT TO PROFILE OF DECK (1/8" TO 1/4" GAP). GYPSUM LINER BOARD TO OVERLAP ONTO WALL ASSEMBLY MINIMUM 5".
4. [OPTIONAL - NOT SHOWN] WHEN SPRAY-APPLIED FIREPROOFING IS USED, CEILING RUNNER MAY BE SECURED TO DECK WITH Z-SHAPED CLIPS (MIN. 20 GA.) WITH THE FOLLOWING DIMENSIONS : MINIMUM 1" LONG, BUT NOT EXCEEDING THE WIDTH OF THE WALL, BY 1-1/2" OR 2" LONG UPPER AND LOWER LEGS. SUPPORT CLIPS SPACED MAXIMUM 24" OC.
5. MINIMUM 1" THICKNESS HILTI 767 SPEED STRIPS COMPRESSED 50%, FLUSH WITH GYPSUM BOARD SURFACES (SEE NOTE NO. 2 BELOW).
6. MINIMUM 1/8" (WET) THICKNESS HILTI CFS-SP WB FIRESTOP JOINT SPRAY OR HILTI CP 672 SPEED SPRAY TO COMPLETELY COVER MINERAL WOOL AND OVERLAPPING MINIMUM 1/2" ONTO GYPSUM SHAFT WALL AND METAL DECK.

NOTES : 1. MAXIMUM WIDTH OF JOINT = 3/4".

2. AS AN ALTERNATE TO HILTI CP 767 SPEED STRIPS, MINERAL WOOL (MIN. 4 PCF DENSITY) COMPRESSED 50% MAY BE USED.

3. STEEL FLOOR UNITS MAY BE SPRAYED WITH A MIN. 5/16" THICKNESS TO MAX. 1-3/4" THICKNESS OF UL CLASSIFIED MONOKOTE TYPE MK-6/HY (MANUFACTURED BY W.R. GRACE) OR TYPE 300 (MANUFACTURED BY ISOLATEK, INT.) FIREPROOFING PRIOR TO OR AFTER INSTALLATION OF CEILING RUNNERS.

4. WHEN THE STEEL DECK IS COATED WITH FIREPROOFING, HILTI FIRESTOP SPRAY SHALL OVERLAP THE WALL A MINIMUM 1/2" AND OVERLAP THE FIREPROOFING A MINIMUM 2".

5. AS AN ALTERNATE TO CEILING RUNNER IN ITEM NO. 2, SLOTTED CEILING RUNNERS MAY BE USED. CONSULT THE UL FIRE RESISTANCE DIRECTORY FOR APPROVED MANUFACTURERS.



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