

UL/cUL SYSTEM NO. HW-D-0981

TOP OF WALL JOINT : GYPSUM SHAFT WALL ASSEMBLY

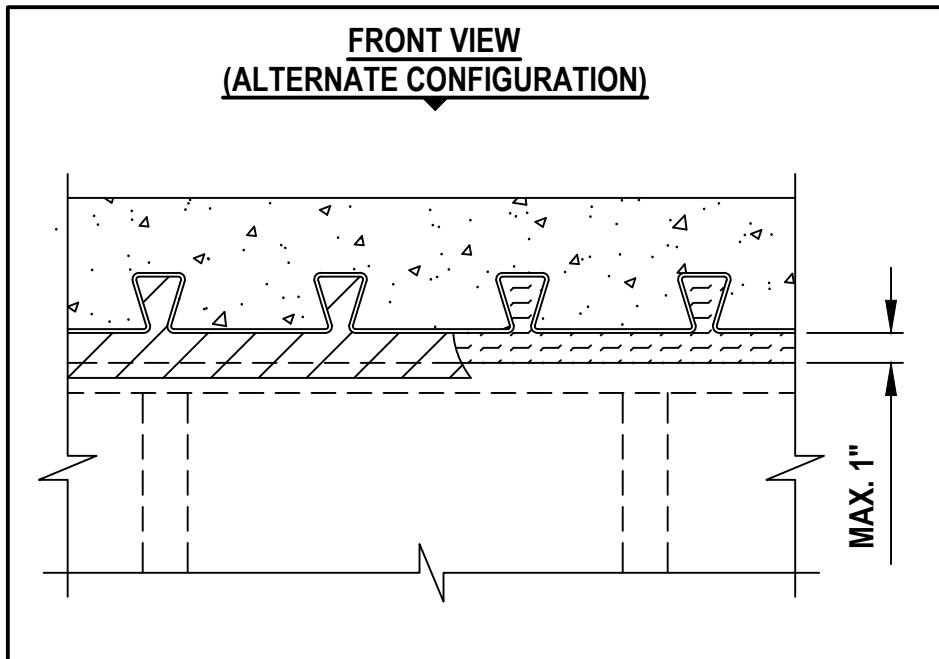
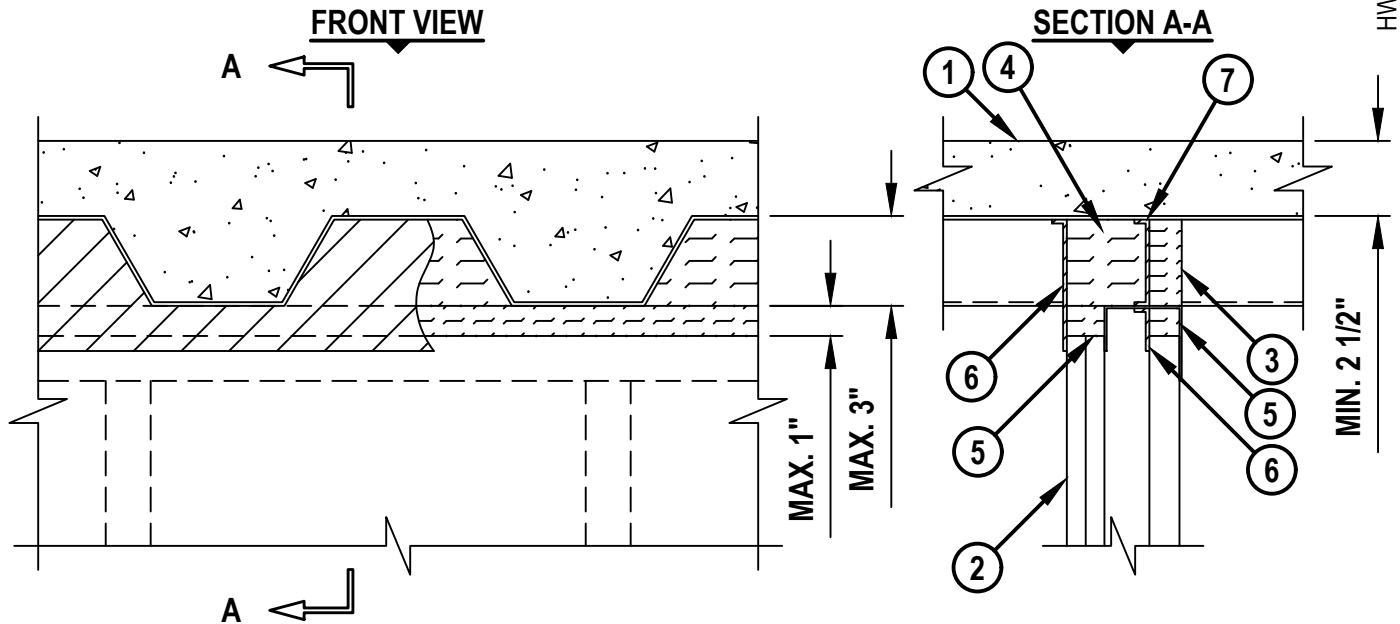
ASSEMBLY RATING = 1-HR. OR 2-HR.

CLASS II MOVEMENT CAPABILITIES - 50% COMPRESSION OR EXTENSION

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

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

HW-D-0981a.060925



HILTI
Hilti Firestop Systems

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

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Scale	5/32" = 1"
Date	June 09, 2025

Drawing No.

**HWD
0981a**

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1. FLOOR OR ROOF ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING) :**A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MIN. 2-1/2" THICK) OVER METAL DECKING (UL/cUL CLASSIFIED D700 OR D900 SERIES).****A1. REINFORCED CONCRETE (MIN. 2-1/2" THICK) OVER COMPOSITE METAL DECK (MAX. 2-1/2" DEEP FLUTES) (BY EPIC METALS).****A2. REINFORCED CONCRETE (MIN. 2-1/2" THICK) OVER COMPOSITE METAL DECK (MAX. 2" DEEP FLUTES VERSA-DEK®) (BY NEW MILLENNIUM BUILDING SYSTEMS).****A3. STEEL FLOOR AND FORM UNITS (CONFIGURATION B) – COMPOSITE MAX 2 IN. (51 MM) DEEP GALV STEEL FLUTED UNITS. (VERCO DECKING INC – A NUCOR CO – TYPE 2.0D FORMLOK).****A4. STEEL FLOOR AND FORM UNITS (CONFIGURATION B) – COMPOSITE MAX 2 IN. (51 MM) DEEP GALV STEEL FLUTED UNITS. (VULCRAFT, DIV OF NUCOR CORP – TYPE 2.0D FORMLOK).****B. INSULATING CONCRETE (MIN. 2-1/2" THICK) OVER METAL DECKING (UL/cUL CLASSIFIED P900 SERIES).****C. [NOT SHOWN] FLUTED STEEL ROOF DECK (UL/cUL CLASSIFIED P700 OR P900 SERIES).****2. GYPSUM SHAFT WALL ASSEMBLY (UL/cUL CLASSIFIED U400, V400, OR W400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN) TO INCLUDE THE FOLLOWING CONSTRUCTION FEATURES :****A. "J" SHAPED CEILING RUNNER, MINIMUM 2-1/2" WIDE WITH LEGS OF MINIMUM 2-1/2" (MINIMUM 25 GA.) FASTENED TO UNDERSIDE OF DECK OR FLOOR WITH STEEL FASTENERS (OR WELDS) SPACED MAXIMUM 24" OC. CEILING RUNNER MAY BE INSTALLED PERPENDICULAR TO DECK FLUTES.****B. "C-H" SHAPED STUDS (MINIMUM 2-1/2" WIDE, MINIMUM 25 GA.) CUT 1" TO 1-1/4" LESS IN LENGTH THAN ASSEMBLY HEIGHT, NESTING IN CEILING RUNNER.****C. NOMINAL 1" THICK GYPSUM LINER PANEL CUT 1" TO 1-1/2" LESS IN LENGTH THAN FLOOR TO CEILING HEIGHT. TYPE AND SHEET ORIENTATION AS SPECIFIED IN THE INDIVIDUAL UL DESIGN.****D. NOMINAL 5/8" THICK GYPSUM WALLBOARD "TYPE C" GYPSUM WALLBOARD APPLIED VERTICALLY OR HORIZONTALLY IN ONE OR TWO LAYERS FOR 1-HR. OR 2-HR. RATED WALLS RESPECTIVELY. CUT WALLBOARD MAXIMUM 1-1/2" LESS IN LENGTH THAN ASSEMBLY HEIGHT WITH SCREW ATTACHMENT 1" BELOW THE BOTTOM OF THE CEILING RUNNER.****3. HILTI CP 777 SPEED PLUGS OR MINERAL WOOL SAFING (MIN. 4 PCF DENSITY) COMPRESSED 50% FRICTION FITTED TO COMPLETELY FILL FLUTE ABOVE THE SHAFT LINER (SEE NOTE NO. 5 BELOW).****4. HILTI CP 777 SPEED PLUGS OR MINERAL WOOL COMPRESSED 50% FRICTION FITTED TO COMPLETELY FILL REMAINDER OF FLUTE FLUSH WITH ACCESSIBLE SIDE OF WALL (SEE NOTE NO. 5 BELOW).****5. HILTI CP 767 SPEED STRIPS OR MINERAL WOOL SAFING (MIN. 4 PCF DENSITY) COMPRESSED 50% AND INSERTED INTO JOINT, FLUSH WITH FINISHED SIDE OF THE WALL AND COMPLETELY FILLING AREA ABOVE THE SHAFT LINER.****6. MINIMUM 1/8" (WET) THICKNESS HILTI CFS-SP WB FIRESTOP JOINT SPRAY TO COMPLETELY COVER MINERAL WOOL AND TO OVERLAP A MINIMUM 1/2" ONTO GYPSUM WALL AND METAL DECK.****Hilti Firestop Systems**HILTI, Inc.
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NOTES : 1. MAXIMUM WIDTH OF JOINT = 1".

2. STEEL FLOOR UNITS MAY BE SPRAYED WITH A MINIMUM 5/16" TO MAXIMUM 1-3/4" THICKNESS OF UL CLASSIFIED MONOKOTE TYPE MK-6/HY (MANUFACTURED BY GCP APPLIED TECHNOLOGIES) OR CAFCO TYPE 300 (MANUFACTURED BY ISOLATEK, INT.) FIREPROOFING, PRIOR TO OR AFTER INSTALLATION OF CEILING RUNNERS.

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

4. AS AN ALTERNATE TO CEILING RUNNER IN ITEM NO. 3, SLOTTED CEILING RUNNERS MAY BE USED. CONSULT THE UL FIRE RESISTANCE DIRECTORY FOR APPROVED MANUFACTURERS.

5. WHEN EPIC METALS DECK IS USED, MINERAL WOOL IS TO BE TIGHTLY PACKED INTO THE INVERTED FLUTES, FLUSH WITH BOTH SIDES OF WALL. ADDITIONALLY, WHEN EPIC METALS "TORIS C" DECK IS USED MINERAL WOOL IS TO BE COMPRESSED 25% TO FILL RECESSED INDENTATION ABOVE CEILING RUNNER.



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