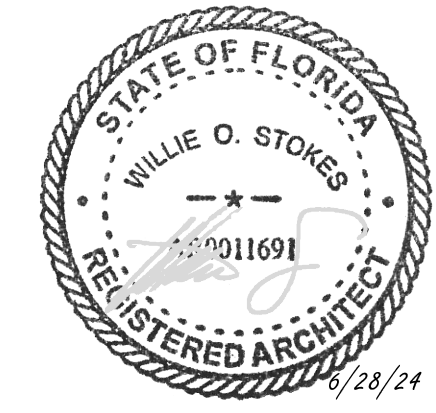


# JUPITER MEDICAL CENTER NEIGHBORHOOD HOSPITAL AT AVENIR

PALM BEACH GARDENS, FL



CONSTRUCTION DOCUMENTS  
06.28.24



JUPITER MEDICAL CENTER NEIGHBORHOOD HOSPITAL AT AVENIR

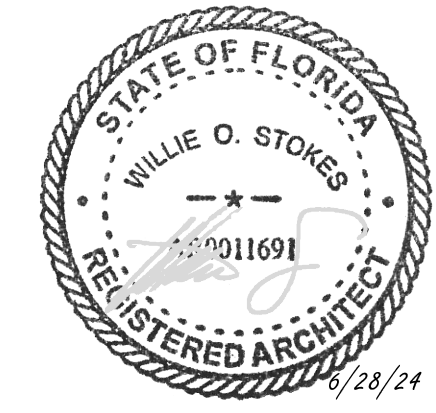
CONSTRUCTION DOCUMENTS

JOB # 21059



# JUPITER MEDICAL CENTER NEIGHBORHOOD HOSPITAL AT AVENIR

PALM BEACH GARDENS, FL



CONSTRUCTION DOCUMENTS  
06.28.24



JUPITER MEDICAL CENTER NEIGHBORHOOD HOSPITAL AT AVENIR

CONSTRUCTION DOCUMENTS

JOB # 21059



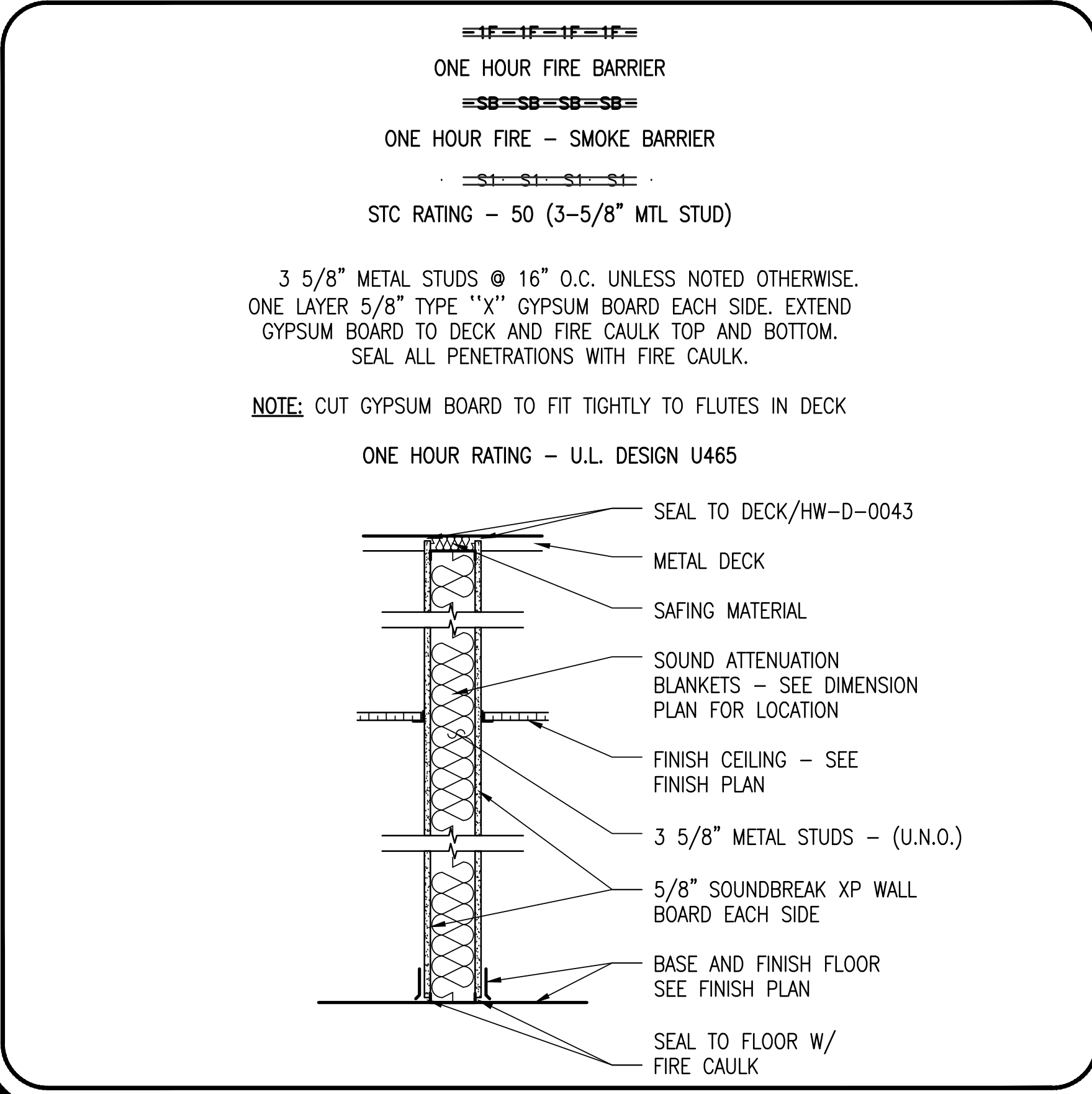
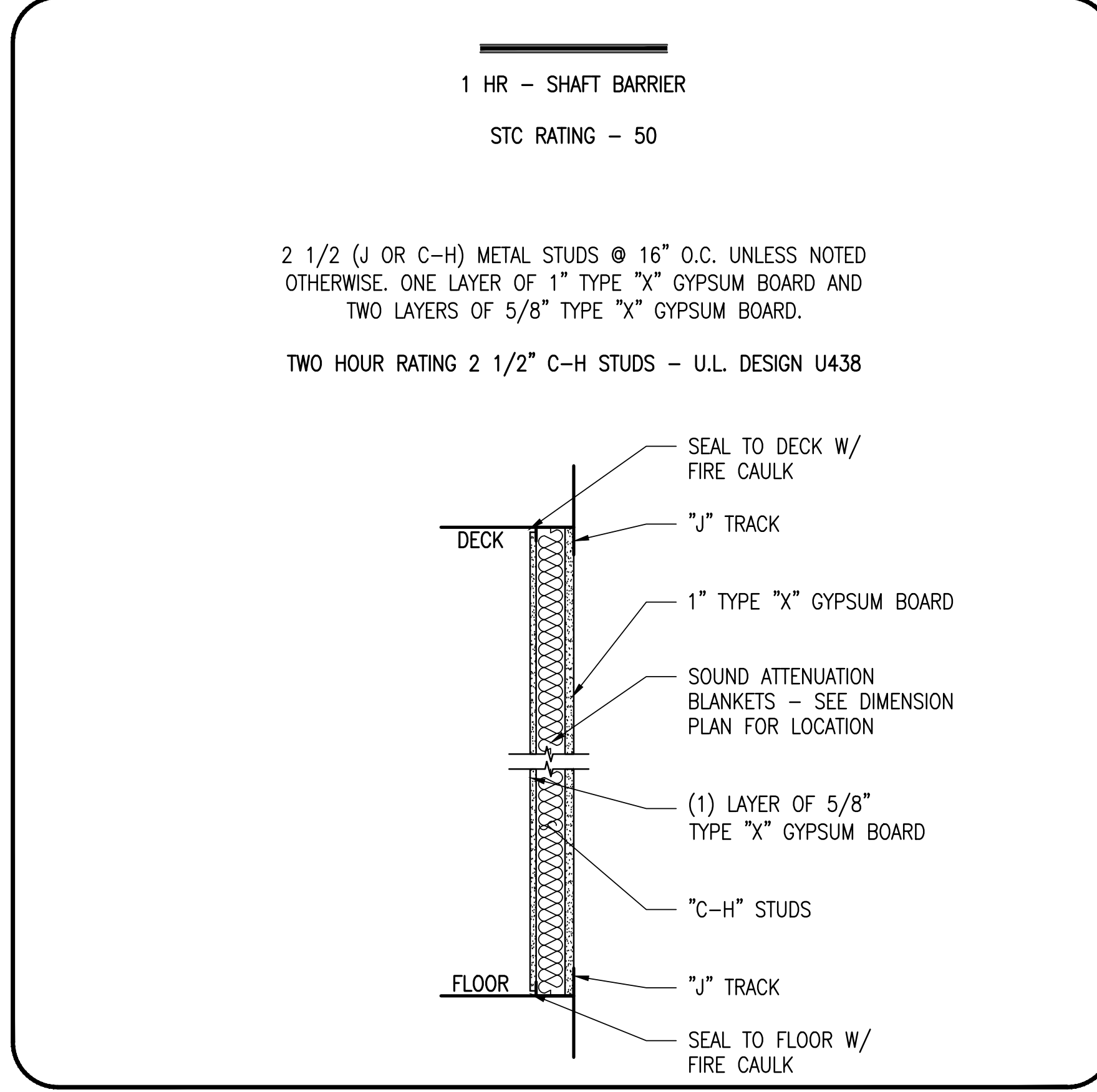
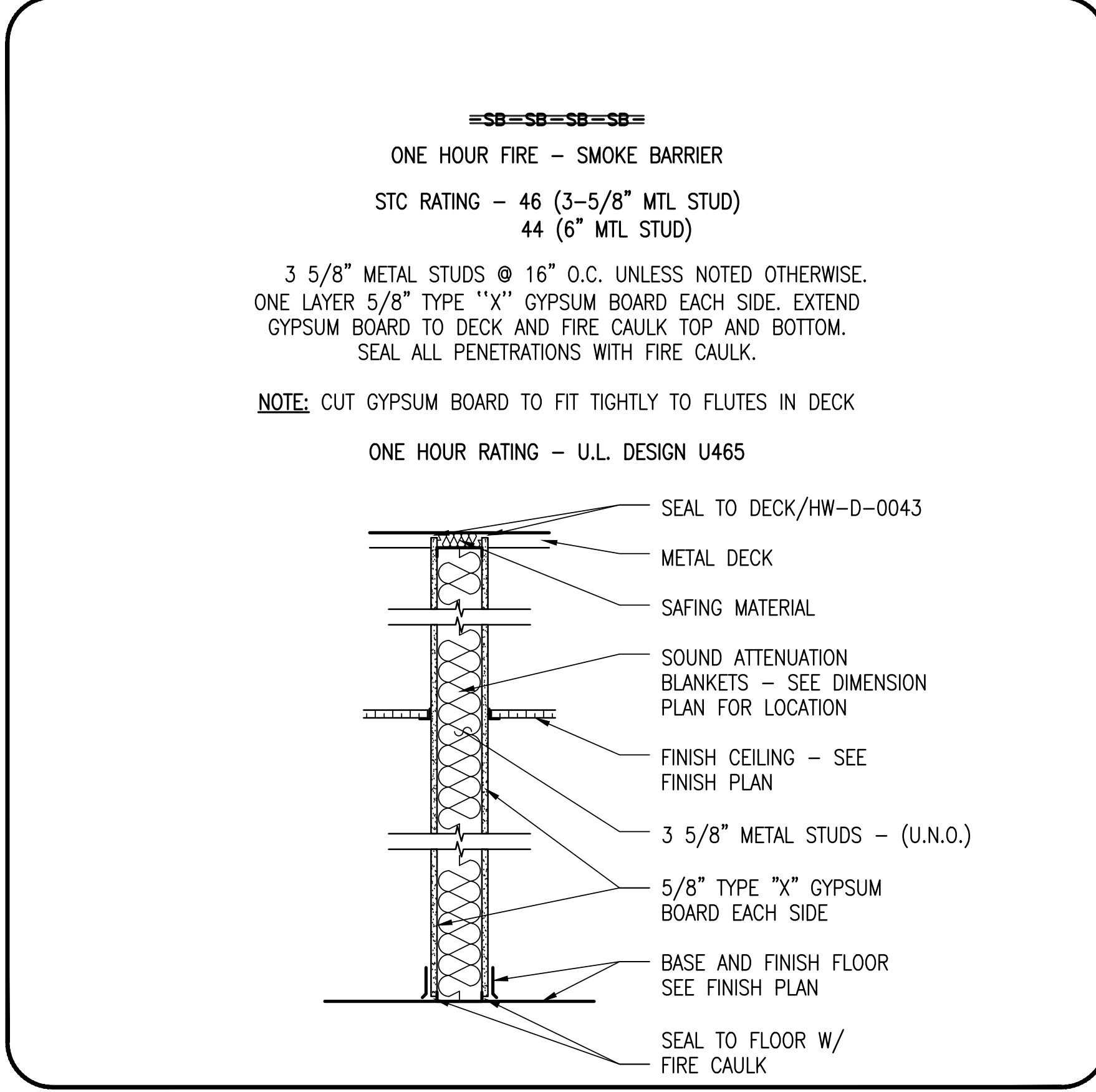
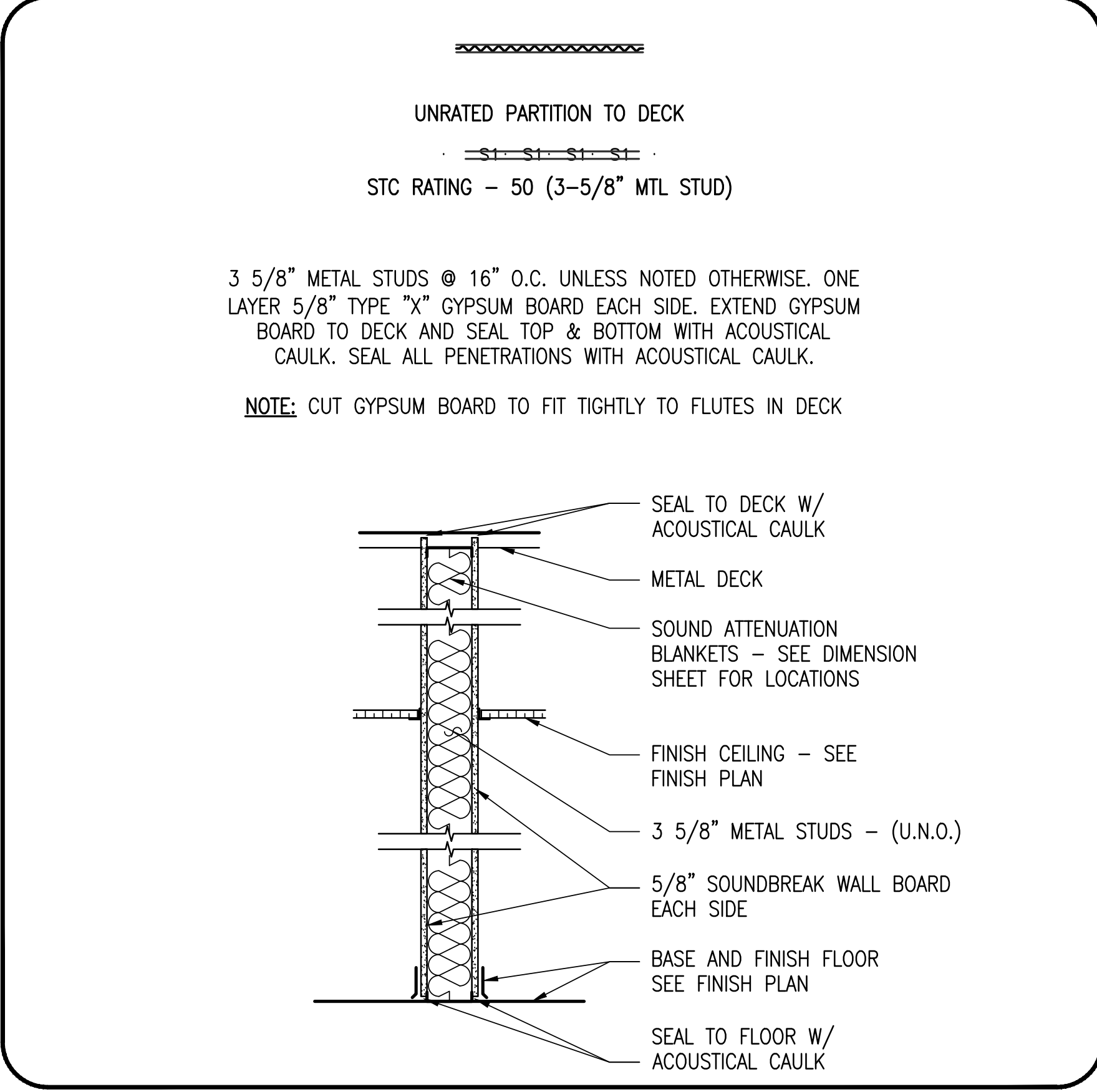
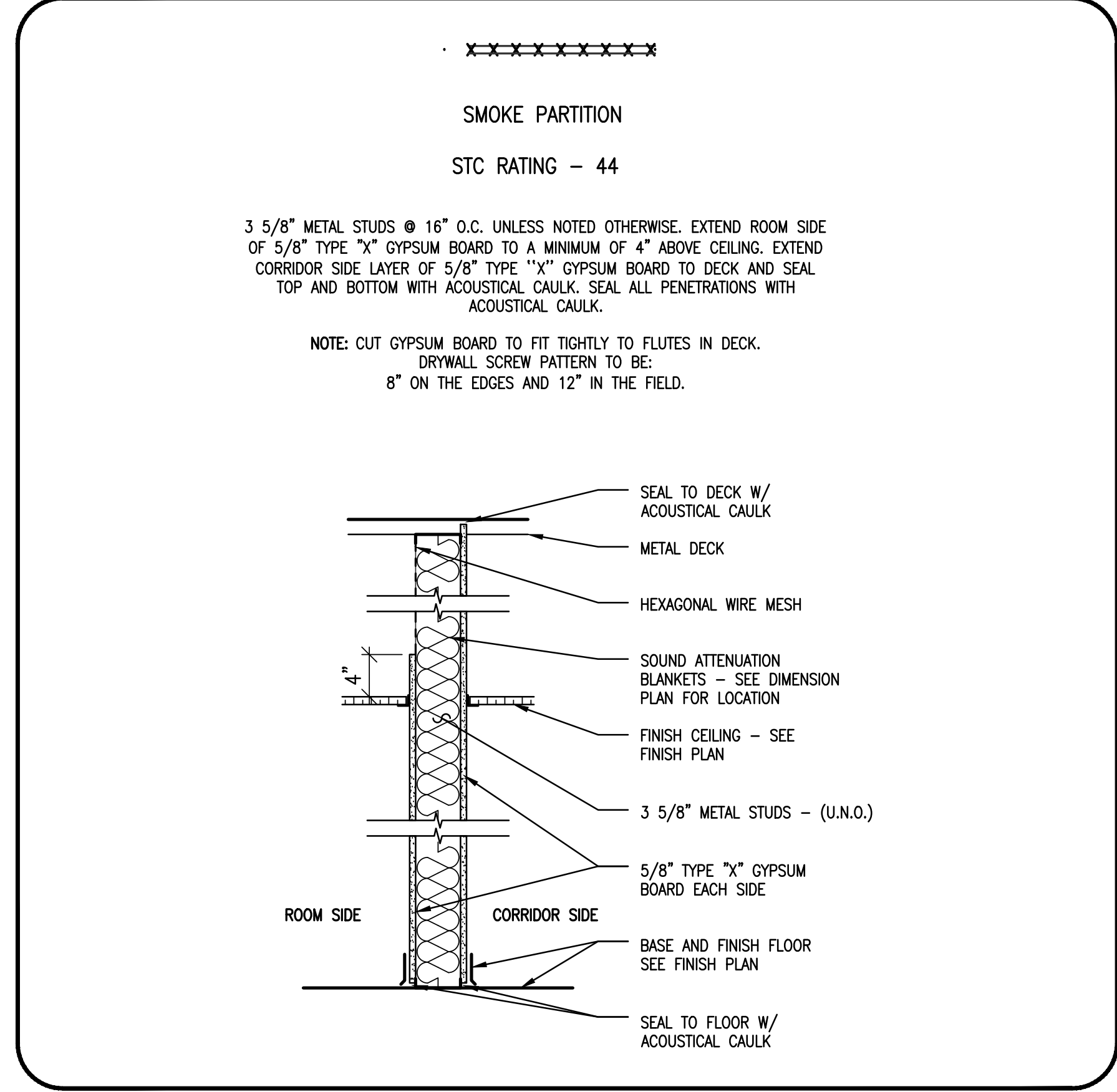
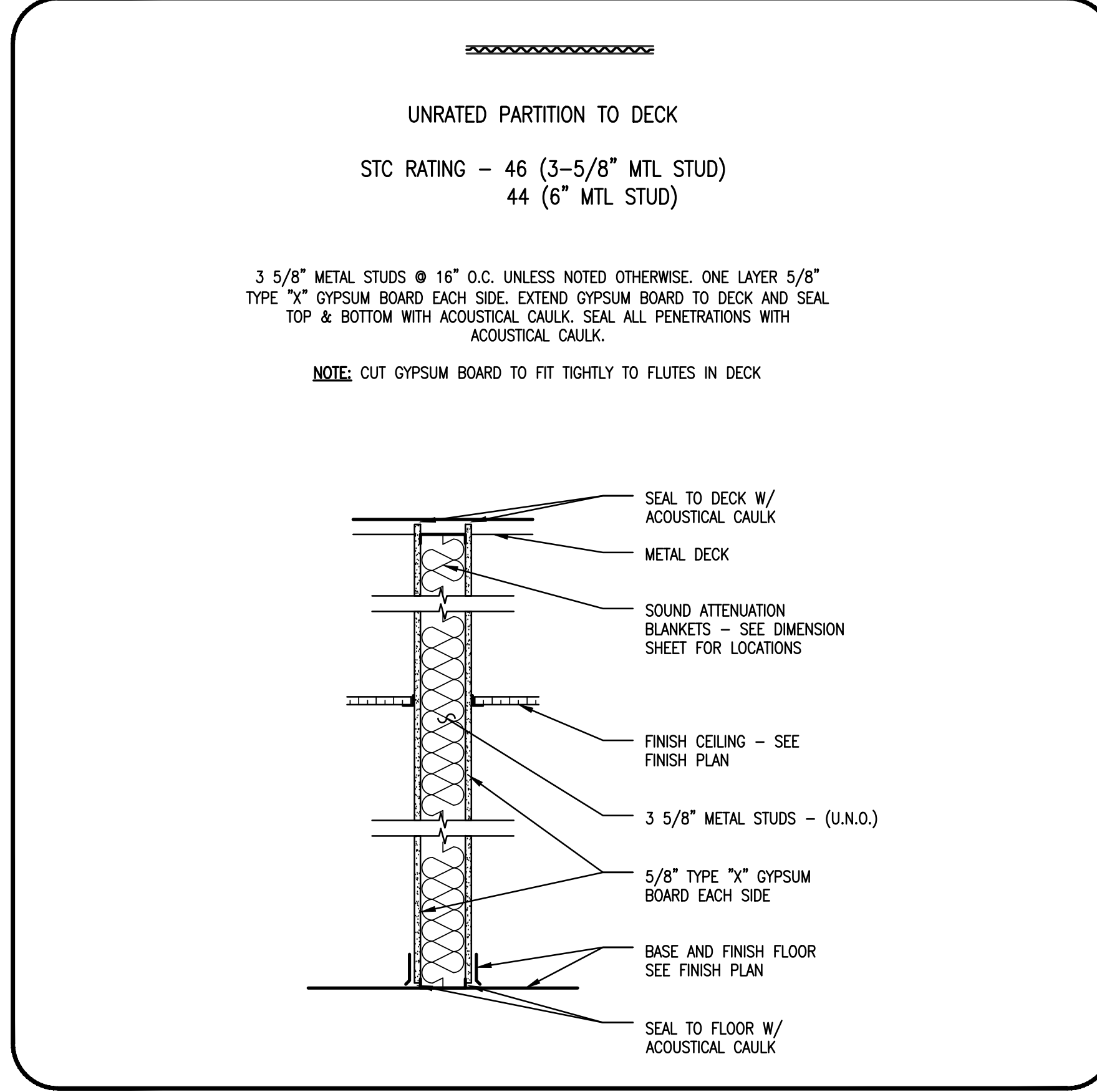
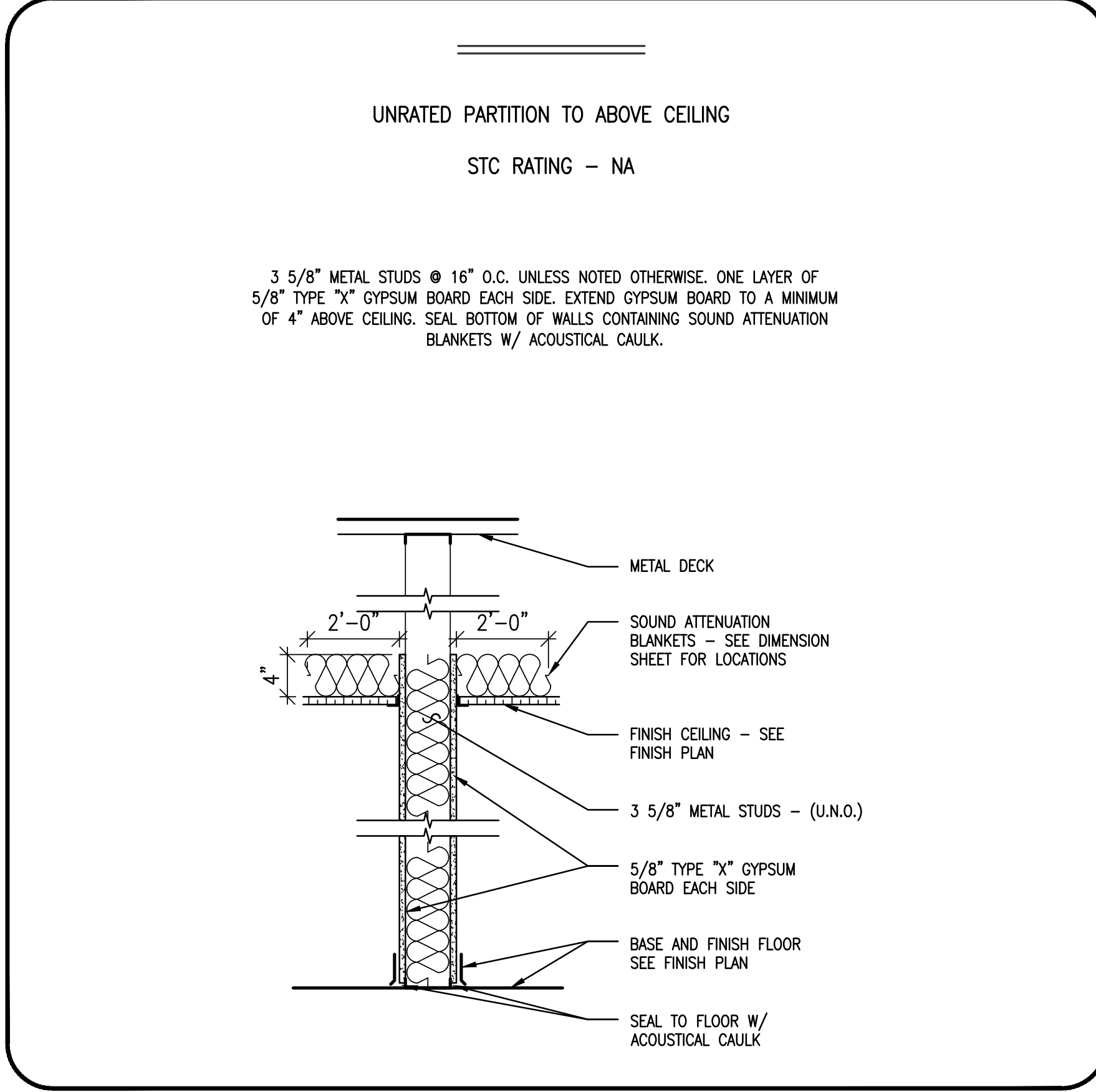
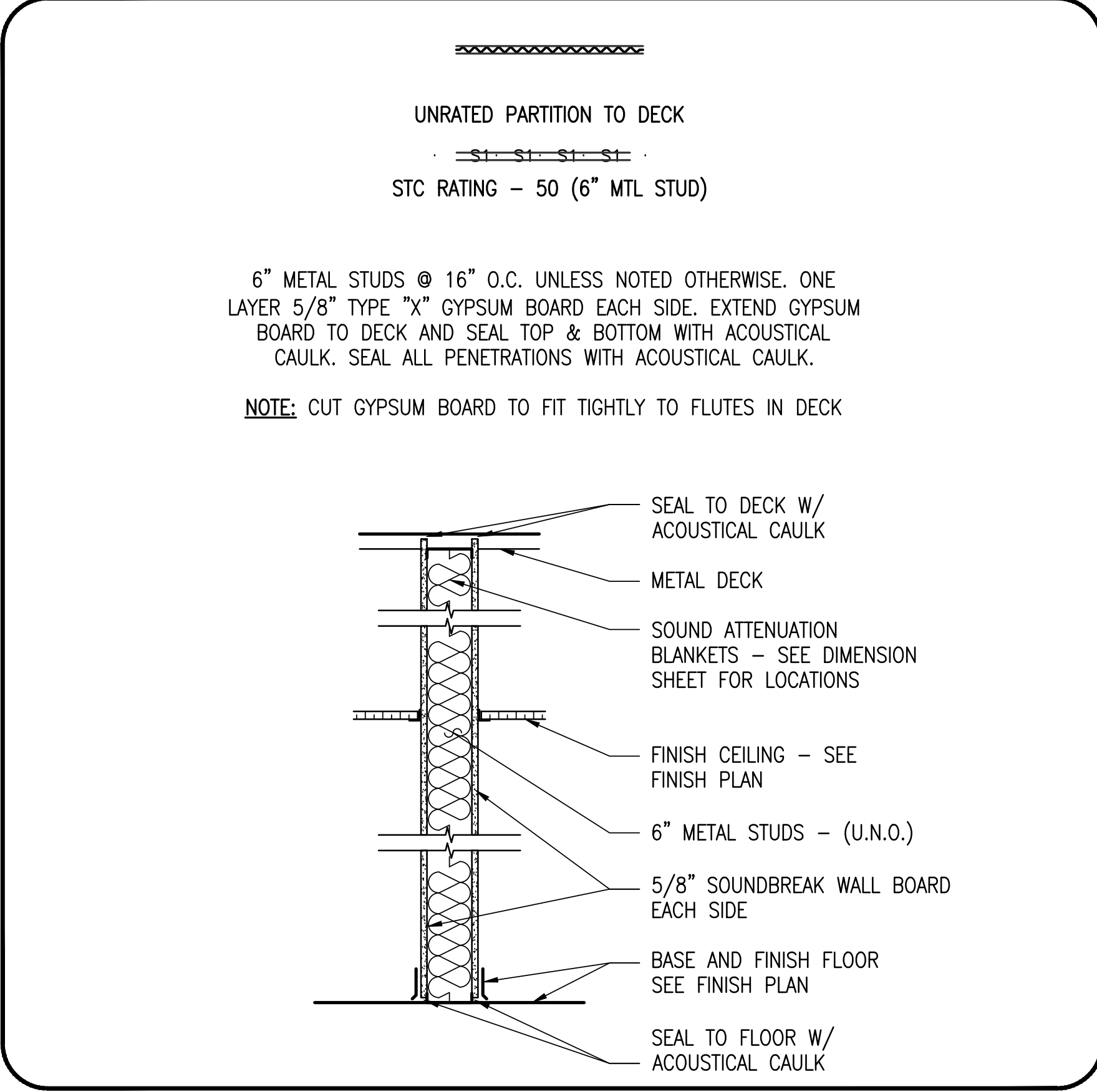








## WALL DESIGNATIONS



**JUPITER MEDICAL CENTER  
NEIGHBORHOOD HOSPITAL AT AVENIR**

PALM BEACH GARDENS, FLORIDA

DAVIS STOKES COLLABORATIVE P.C.


**DSC**  **ARCHITECTS**

7121 CROSSROADS BLVD.  
BRENTWOOD, TN 37027

TEL (615) 726-0010

MAIL [dscinfo@dsccol.com](mailto:dscinfo@dsccol.com)

WEB [www.dsccol.com](http://www.dsccol.com)

	
WALL DESIGNATIONS	
G2.01	
ISSUE DATE:	JOB NUMBER
06.28.24	21059

[illegible]



[illegible][illegible]







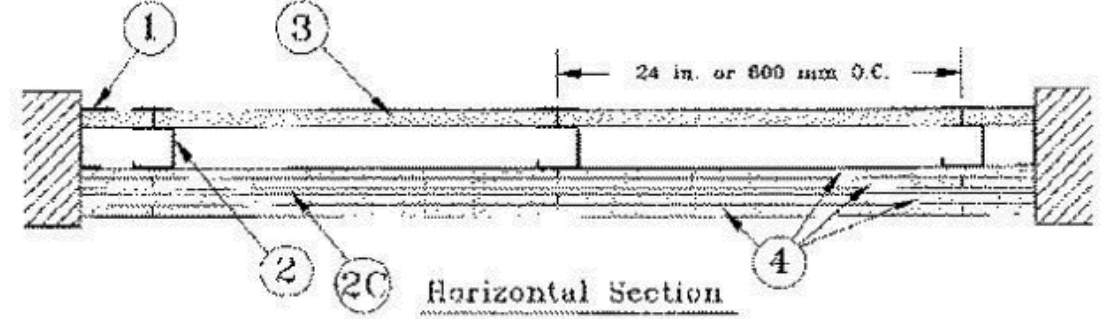
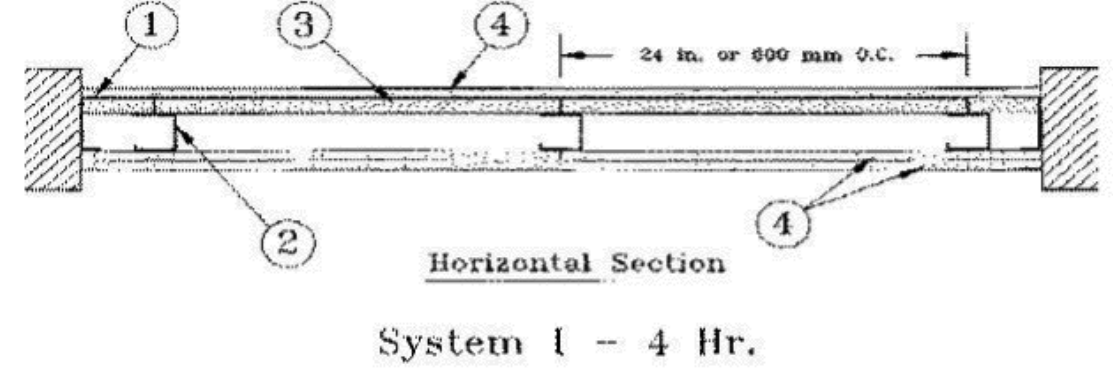
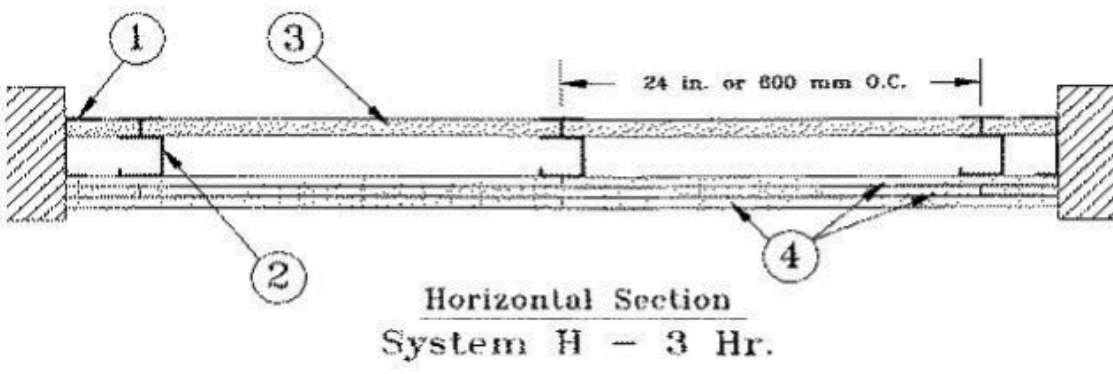
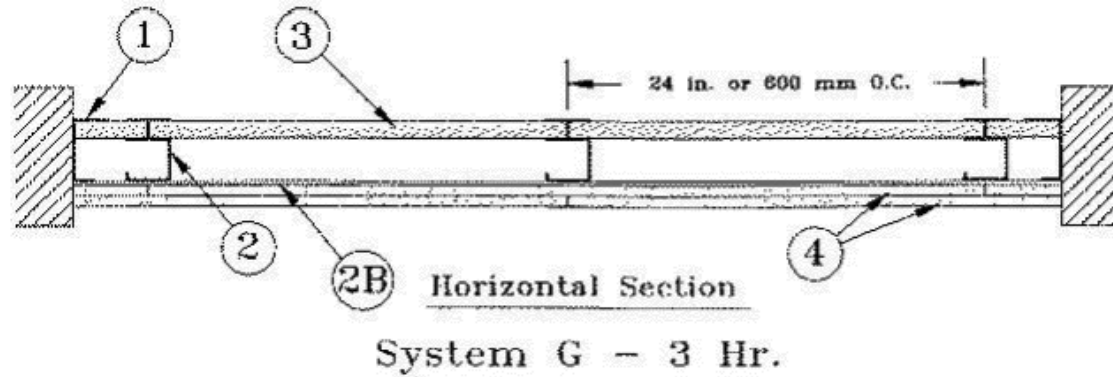
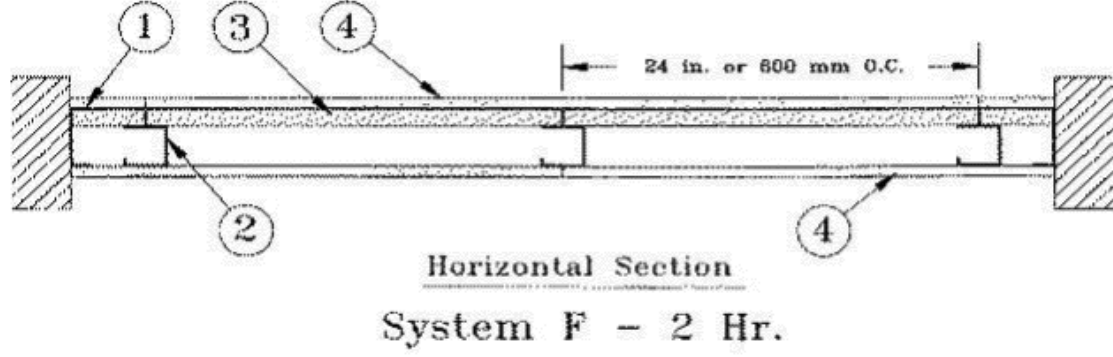
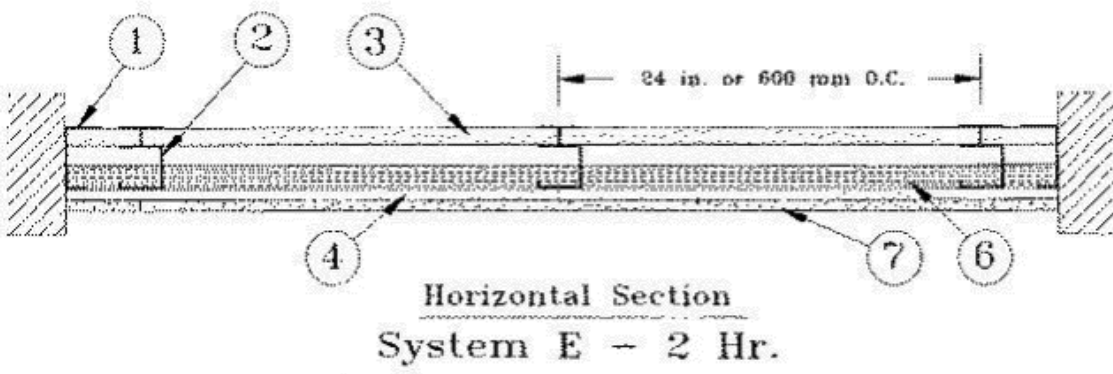
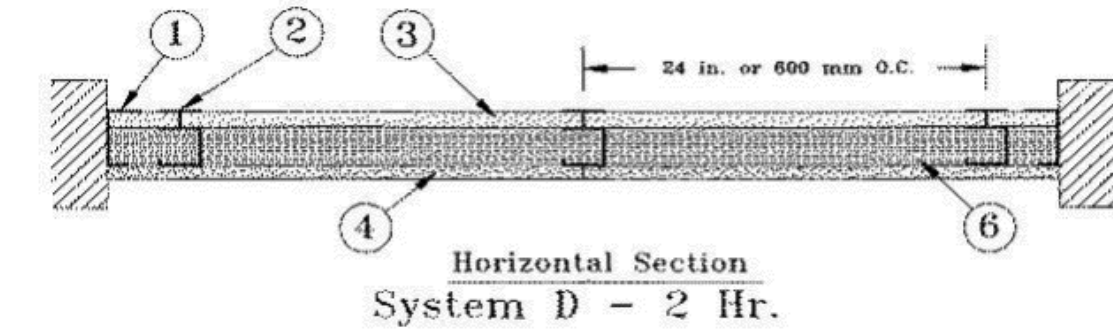
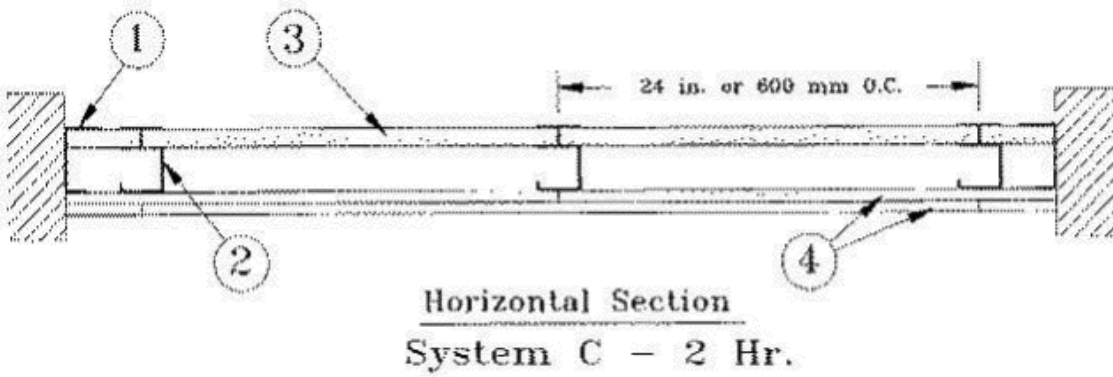
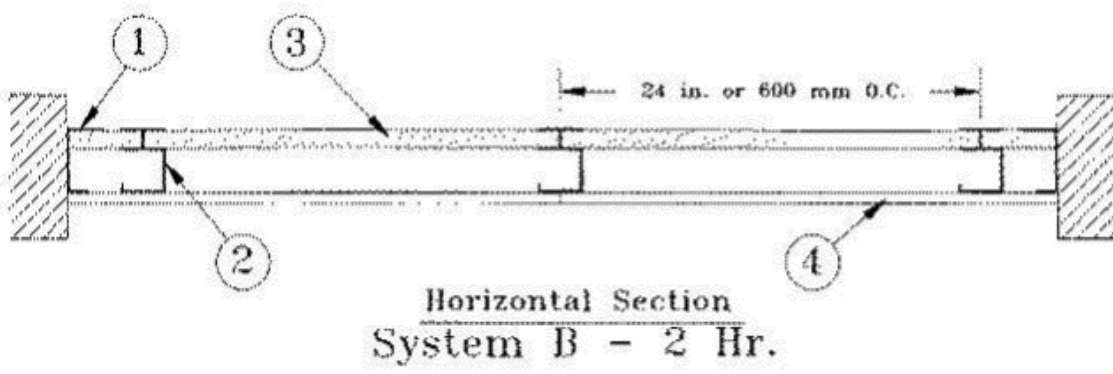
UL ASSEMBLIES

ONE HOUR SHAFT WALL

Design No. **U415**

February 14, 2022

**Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr**  
\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.  
**System A — 1 Hr.**



**1. Floor, Side and Ceiling Runners** — "J" - shaped runner, min 2-1/2 in. deep (min 4 in. deep when System C is used), with unequal legs of 1 in. and 2 in., fabricated from min 24 MSG (min 20 MSG when Item 4A, 4B, 4C, 4D or 7 are used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. "E" - shaped studs (Item 2A) may be used as side runners in place of "J" - shaped runners.

**2. Steel Studs** — "C-H" - shaped studs, min 2-1/2 in. deep (min 4 in. deep when System C is used), fabricated from min 25 MSG (min 20 MSG when Items 2D, 4A, 4B, 4C, 4D or 7 is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor-to-ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when Items 4A, 4B, 4C, or 4D are used).

**2A. Steel Studs** — (Not Shown) — "E" - shaped studs installed back to back in place of "C-H" - shaped studs (Item 2) "E" - shaped studs secured together with steel screws spaced a maximum 12 in. OC. Fabricated from min 25 MSG (min 20 MSG when Item 2D, 4A, 4B or 7 is used) galv steel, min 2-1/2 in. deep (min 4 in. deep when System C is used), with one leg 1 in. long and two legs

3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 to 1/2 in. less than floor to ceiling heights.

**2B. Furring Channels** — (Optional, Not Shown) — For use with single or double layer systems. Resilient furring channels fabricated from min 25MSG corrosion protected steel, installed horizontally, and spaced vertically a max 24 in. OC. Flange portion of channel attached to each intersecting "C-H" or "E" stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When furring channels are used, wallboard to be installed vertically only. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

**2C. Furring Channels** — For use with System I - "Hat" - shaped, 25 MSG galv steel furring channels attached directly over the inner layers of wallboard to each stud with 2 in. long Type S pan head steel screws. Screws alternate from top flange to bottom flange at each stud intersection. Furring channels spaced vertically max 24 in. OC.

**2D. Steel Framing Members\*** — (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

**a. Furring Channels** — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

**b. Steel Framing Members\*** — Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.  
**PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-1 (2.75)

**2E. Steel Framing Members\*** — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

**a. Furring Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4.

**b. Steel Framing Members\*** — Used to attach furring channels (Item 2Ea) to studs. Clips spaced 24 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.  
**STUDDO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237R

**2F. Steel Framing Members\*** — (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

**a. Furring Channels** — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 3.

**b. Steel Framing Members\*** — Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.  
**PLITEQ INC** — Type GENIECLIP

**2G. Steel Framing Members\*** — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

**a. Furring Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2Gb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

**b. Steel Framing Members\*** — Used to attach furring channels (Item 2Ga) to studs. Clips spaced 24 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.  
**REGUPOL AMERICA** — Type SonusClip

**2H. Steel Framing Members\*** — (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

**a. Resilient Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

**b. Steel Framing Members\*** — Used to attach resilient channels (Item 2Ha) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1-1/2 in. pan-head self-drilling screw.  
**KEENE BUILDING PRODUCTS CO INC** — Type RC+ Assurance Clip

**2I. Steel Framing Members\*** — (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

**a. Furring Channels** — Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

**b. Steel Framing Members\*** — Used to attach furring channels (Item 2Ia) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.  
**CLARKDIETRICH BUILDING SYSTEMS** — Type ClarkDietrich Sound Clip

**3. Gypsum Board\*** — Gypsum liner panels, nom 1 in. thick, 24 in. or 600 mm (for metric spacing) wide. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" portion of "C-H" studs or the gap between the two 3/4 in. legs of the "E" studs. Free edge of end panels attached to long leg of vertical "J" - runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC. When wall height exceeds liner panel length, liner panel may be butted to extend to the full height of the wall. Horizontal joints need not be backed by steel framing. In System I, butt joints in liner panels are staggered min 36 in. Butt joints backed with 6 in. by 22 in. strips of 3/4 in. thick gypsum wallboard (Item 4). Wallboard strips centered over butt joints and secured to liner panels with six 1-1/2 in. long Type G steel screws, three screws along the 22 in. dimension at the top and bottom of the strips.  
**CGC INC** — Type SLX

**UNITED STATES GYPSUM CO** — Type SLX

**USG BORAL DRYWALL SFZ LLC** — Type SLX

**USG MEXICO S A DE C V** — Type SLX

**4. Gypsum Board\*** — **System A — 1 Hr**  
Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. when installed vertically or 8 in OC when installed horizontally. Horizontal joints need not be backed by steel framing.

**CGC INC** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, ULX, USGX, WRC, WRX

**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Types C and SCX

**UNITED STATES GYPSUM CO** — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULX, ULX, WRC, WRX, USGX.

**USG BORAL DRYWALL SFZ LLC** — Types C, SCX, SGX, USGX

**USG MEXICO S A DE C V** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

**System B — 2 Hr**  
Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in two layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 12 in. OC when installed vertically and staggered 8 in. from base layer screws or 8 in. OC when installed horizontally and staggered 8 in. from base layer screws. Horizontal joints between inner and outer layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in.

**CGC INC** — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Types C and SCX

**UNITED STATES GYPSUM CO** — 1/2 in. Types C, IP-X2, IPC-AR, or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULX, ULX, USGX, WRC, WRX.

**USG BORAL DRYWALL SFZ LLC** — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, USGX

**USG MEXICO S A DE C V** — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

**System C — 2 Hr**  
Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, secured with 1-1/4 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field when installed vertically or 8 in. OC along the vertical edges and in the field when installed horizontally. Horizontal joints need not be backed by steel framing. Screws along side joints offset 4 in. Requires min 4 in. deep framing per Items 1, 2 and 3. Requires min 3 in. thick mineral wool batts per Item 6.

**CGC INC** — Types IP-X3 or ULTRACODE

**UNITED STATES GYPSUM CO** — Types IP-X3 or ULTRACODE

**USG BORAL DRYWALL SFZ LLC** — Type ULTRACODE

**USG MEXICO S A DE C V** — Types IP-X3 or ULTRACODE

**System D — 2 Hr**  
Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached directly to studs with 1 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Horizontal joints need not be backed by steel framing. Requires face layer of 1/2 or 5/8 in. thick cementitious backer units per Item 7 and min 1-1/2 in. thick mineral wool batts per Item 6.

**CGC INC** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Types C and SCX

**UNITED STATES GYPSUM CO** — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULX, ULX, USGX, WRC, WRX.

**USG BORAL DRYWALL SFZ LLC** — Types C, SCX, SGX, USGX

**USG MEXICO S A DE C V** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

**System E — 2 Hr**  
Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. OC when installed

vertically or 8 in. when installed horizontally. Horizontal joints need not be backed by steel framing.

**CGC INC** — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Types C and SCX

**UNITED STATES GYPSUM CO** — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULX, ULX, USGX, WRC, WRX.

**USG BORAL DRYWALL SFZ LLC** — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, USGX

**USG MEXICO S A DE C V** — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

**System F — 2 Hr**  
Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically in two layers. Inner or base layer attached to resilient furring channels (Item 2B) with 1 in. long Type S steel screws spaced 24 in. Outer or face layer attached to resilient furring channels (Item 2B) with 1-5/8 in. long Type S steel screws spaced 12 in. OC and staggered 12 in. from base layer screws. Joints between inner and outer layers staggered 24 in.

**CGC INC** — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Types C and SCX

**UNITED STATES GYPSUM CO** — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULX, ULX, USGX, WRC, WRX.

**USG BORAL DRYWALL SFZ LLC** — 1/2 in. Type C; 5/8 in. Types C, SCX

**USG MEXICO S A DE C V** — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

**System G — 3 Hr**  
Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in three layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in OC when installed horizontally. Middle layer attached to studs with 1-5/8 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 2-1/4 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. . Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

**CGC INC** — Types C, IP-X2, IPC-AR, ULX, WRC

**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Type C

**UNITED STATES GYPSUM CO** — Types C, IP-X2, IPC-AR, ULX, WRC

**USG BORAL DRYWALL SFZ LLC** — Type C

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR, WRC

**System H — 3 Hr**  
Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, two layers over the flange of the "C" section of the studs, one layer over the flange of the "H" section of the studs. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

**CGC INC** — Types C, IP-X2, IPC-AR, ULX, WRC

**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Type C

**UNITED STATES GYPSUM CO** — Types C, IP-X2, IPC-AR, ULX, WRC

**USG BORAL DRYWALL SFZ LLC** — Type C

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR, WRC

**System I — 4 Hr**  
Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 4 ft wide (or 1200 mm for metric spacing) wallboard with square or tapered edges. Total of four layers to be used. First and second (inner) layers applied vertically or horizontally over the steel studs. Horizontal joints need not be backed by steel framing. When applied vertically, joints centered over studs and staggered min 24 in., otherwise all joints staggered min 12 in. First layer secured to studs with 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 24 in. OC. Second layer secured to studs with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Third layer applied vertically over the furring channels (Item 2C) with a 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Fourth layer applied vertically or horizontally with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. When applied vertically, joints to be staggered min 24 in. from third layer, otherwise all joints staggered min 12 in.

**CGC INC** — Types IP-X3 or ULTRACODE

**UNITED STATES GYPSUM CO** — Types IP-X3 or ULTRACODE

**USG BORAL DRYWALL SFZ LLC** — Type ULTRACODE

**USG MEXICO S A DE C V** — Types IP-X3 or ULTRACODE

**4A. Gypsum Board\*** — (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9) or Lead Discs or Tabs (see Item 10).

**RAY-BAR ENGINEERING CORP** — Type RB-LBG

**4B. Gypsum Board\*** — (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or #6 by 1-1/4 in. long bugle head fine drill) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.  
**NEW ENGLAND LEAD BURNING CO INC, DBA NELCO** — Type Nelco

**4C. Gypsum Board\*** — (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A). Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip.

**MAYCO INDUSTRIES INC** — Type X-Ray Shielded Gypsum

**4D. Gypsum Board\*** — (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".  
**RADIATION PROTECTION PRODUCTS INC** — Type RPP - Lead Lined Drywall

**5. Joint Tape and Compound** — (Not Shown)  
**Systems A, B, C, E, F, G, H, I**  
Joints on outer layers of gypsum boards (Item 4 and 4A) covered with paper tape and joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. Exposed screw heads covered with joint compound.

**6. Batts and Blankets\*** — **Systems A, B, E, F, G, H, I**  
(Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt mineral bearing the UL Classification Marking as to Fire Resistance.

**Systems C & D**  
Min 3 in. (System C) and min 1-1/2 in. (System D) thick mineral wool batts, friction fitted between the studs and floor and ceiling runners.

**ROCKWOOL** — Type AFB, min. density 1.8 pcf / 28.8 kg/m<sup>3</sup>

**THERMAFIBER INC** — Type SAFB, SAFB FF

**7. Cementitious Backer Units\*** — (System D) — Nom 1/2 or 5/8 in. thick panels, square edge, attached to studs over gypsum wallboard with 1-5/8 in. long, Type S-12, corrosion resistant steel screws spaced 8 in. OC and staggered 8 in. from gypsum wall board screws. Joints covered with glass fiber mesh tape. Vertical joints staggered one stud cavity from gypsum wallboard joints. Horizontal joints staggered a min of 12 in. from the gypsum wallboard joints.  
**UNITED STATES GYPSUM CO** — Type DCB

**8. Laminating Adhesive\*** — (Optional, Not Shown) — Used to bond outer layer of Cementitious Backer Units (Item 7) to inner layers of Gypsum Board (Item 4) in System D. ANSI A136.1 Type 1 organic adhesive applied with 1/4 in. square notched trowel. See Adhesives (BYWR) in the Fire Resistance Directory or Adhesives (BILZ) in the Building Materials Directory for names of Classified companies.

**9. Lead Batten Strips** — (Not Shown, For Use With Item 4A) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Required behind vertical joints.

**9A. Lead Batten Strips** — (Not Shown, for use with Item 4C) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and optional at remaining stud locations.

**10. Lead Discs or Tabs** — (Not Shown, For Use With Item 4A) — Used in lieu of or in addition to the lead batten strips (Item 9) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

**10A. Lead Discs** — (Not Shown, for use with Item 4C) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ



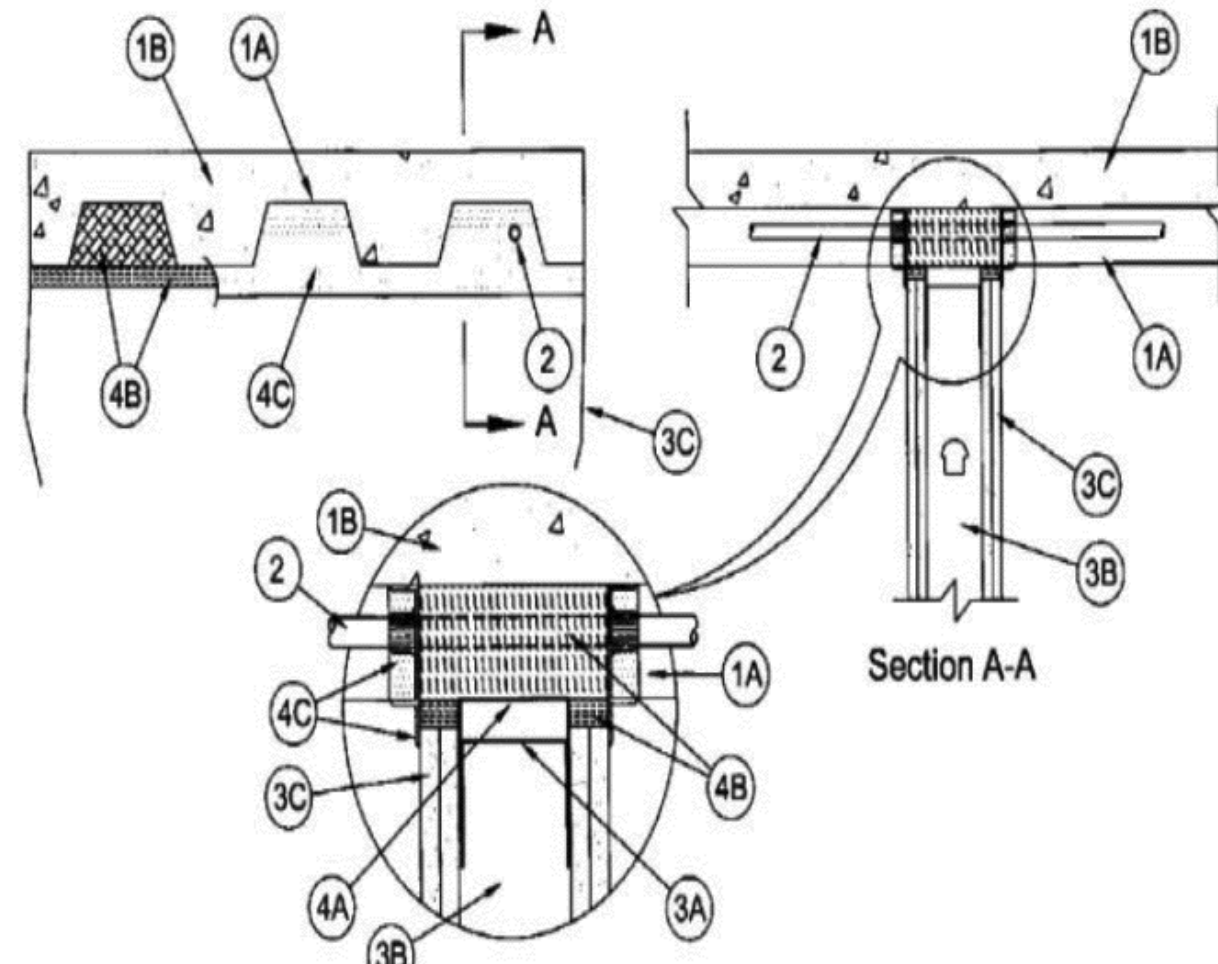
UL ASSEMBLIES

HEAD OF WALL ASSEMBLY FOR  
~~1P=1P=1P=1P=~~  
ONE HOUR FIRE BARRIER  
~~SB=SB=SB=SB=~~  
ONE HOUR FIRE – SMOKE BARRIER

System No. HW-D-0043

July 17, 2023

ANSI/UL2079	CAN/ULC 5115
Assembly Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)	F Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)
Nominal Joint Widths - 1-1/2 and 2-1/2 In. (See Item 4)	FT Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)
Class II Movement Capabilities — 40 or 50% Compression or Extension (See Item 4)	FH Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)
L Rating At Ambient — Less Than 1 CFM/sq ft	FTH Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)
L Rating At 400 F — Less Than 1 CFM/sq ft	Nominal Joint Widths - 1-1/2 and 2-1/2 In. (See Item 4)
	Class II Movement Capabilities — 40 or 50% Compression or Extension (See Item 4)
	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft



1. **Floor Assembly** — The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory. The hourly fire rating of the floor assembly shall be equal to or greater than the hourly fire rating of the wall assembly. The floor assembly shall include the following construction features:

A. **Steel Floor and Form Units\*** — Max 3 in. (76 mm) deep galv steel fluted floor units.

B. **Concrete** — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

1A. **Roof Assembly** — (Not Shown) — As an alternate to the floor assembly (Item 1), a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly fire rating of the roof assembly shall be equal to or greater than the hourly fire rating of the wall assembly. The roof assembly shall include the following construction features:

A. **Steel Roof Deck** — Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation** — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the steel roof deck.

2. **Through Penetrant** — (Optional) — Max one penetrant per flute to be installed parallel and centered within the flutes of the steel deck. Penetrants installed with a min annular space of 1/2 to 1-2/ in. (13-38 mm) between the penetrant and the steel deck. Penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of penetrants may be used:

A. **Conduit** — Nom 1/2 in. diam (or smaller) steel electrical metallic tubing (EMT) or steel conduit.

B. **Conduit** — Nom 1-1/2 in. diam (or smaller) Schedule 40 PVC conduit.

C. **Polyvinyl Chloride (PVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

D. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) SDR17 SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

**When steel conduit or EMT (Item 2A) is installed in flute of steel deck, the hourly rating of the joint system is 1 hr. When nonmetallic penetrates (Items 2B, 2C and 2D) are installed in flute of steel deck, the hourly rating of the joint system is equal to the hourly fire rating of the wall assembly up to a max of 2 hr.**

3. **Wall Assembly** — 1, 2, 3 or 4 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400, or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners** — Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs. When deflection channel (Item 4A) is used, flange height of ceiling runner is to be equal to or greater than flange height of deflection channel and the ceiling runner is to nest within the deflection channel with a 1/2 to 3/4 in. (13 to 19 mm) gap maintained between the top of the ceiling runner and the top of the deflection channel. When deflection channel is not used, flange height of ceiling runner shall be min 1/4 in. (6

mm) greater than max extended joint width. Ceiling runner installed perpendicular to direction of fluted steel deck and secured with steel masonry anchors or welds spaced max 24 in. (610 mm) OC.

A1. **Light Gauge Framing\*** — **Slotted Ceiling Runner** — Slotted ceiling runner may be used as an alternate to the ceiling runner in Item 3A. Slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 3B). Ceiling runner installed perpendicular to direction of fluted steel floor or roof deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel (Item 4A) shall not be used.

**BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS** — SLP-TRK, SLPTRK325

**CEMCO, LLC** — CST, CST325

**CLARKDIETRICH BUILDING SYSTEMS** — Type SLT, SLT-H

**MARINO/WARE, DIV OF WARE INDUSTRIES INC** — Type SLT

**METAL-LITE INC** — The System

**RAM SALES L L C** — RAM Slotted Track

**SCAFCO STEEL STUD MANUFACTURING CO**

**TELLING INDUSTRIES L L C** — True-Action Deflection Track

A2. **Light Gauge Framing\*** — **Vertical Deflection Ceiling Runner** — When the nom joint width is less than or equal to 1 in. (25 mm), vertical deflection ceiling runner may be used as an alternate to the ceiling runner in Items 3A and 3A1. Vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Vertical deflection ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When vertical deflection ceiling runner is used, deflection channel (Item 4A) shall not be used.

A3. **Light Gauge Framing\*** — **Notched Ceiling Runner** — As an alternate to the ceiling runners in Items 3A through 3A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 3B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When notched ceiling runner is used, deflection channel (Item 4A) shall not be used.

**OLMAR SUPPLY INC** — Type SCR

A4. **Steel Framing Members\*** — **Sound Isolation Clips** — (Not Shown, For Max 2 hr Assembly Rating) — As an alternate attachment means for the ceiling runner to the underside of the floor or roof assembly when no deflection channel (Item 4A) is used, sound isolation clips installed in accordance with the accompanying installation instructions. Sound isolation clip installed through nom 1 in. (25 mm) diam hole in ceiling runner and attached to top of ceiling runner using four min No. 8 by 1/2 in. (13 mm) long self-tapping galv steel screws. Sound isolation clips to be installed adjacent to every stud location but not more than 24 in. (610 mm) OC and attached to the underside of floor or roof assembly using min 3/16 in. (5 mm) diam by 2-1/2 in. (64 mm) long steel masonry anchors.

**PAC INTERNATIONAL L L C** — Type RSIC-U-HD

B. **Studs** — Steel studs to be min 3-1/2 in (89 mm) wide. Studs cut 1/2 to 1-1/4 in. (13 to 32 mm) less in length than assembly height with bottom nesting in and secured to floor runner. When deflection channel (Item 4A) is used, steel studs attached to ceiling runner with sheet metal screws located 1/2 in. (13 mm) below the bottom to the deflection channel. When deflection channel is not used, studs to nest in ceiling runner without attachment. When slotted ceiling runner (Item 3A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Gypsum Board\*** — Gypsum board sheets installed to a min total thickness of 5/8 in., 1-1/4 in., 1-1/2 in. or 2 in. (16, 32, 38 or 51 mm) on each side of wall for 1, 2, 3 and 4 hr fire rated assemblies, respectively. Wall to be constructed in the individual U400 Series Design in the UL Fire Resistance Directory, except that a max 1 or 2 in. (25 or 51 mm) gap (See Item 4) shall be maintained between the top of the gypsum board and the bottom surface of the steel floor or roof deck. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1 in. (25 mm) below the bottom of the ceiling runner. No gypsum board attachment screws shall be driven into the ceiling runner or into the optional deflection channel.

**When through penetrant (Item 2) is not used, the hourly fire rating of the joint system is equal to the hourly fire rating of the wall.**

4. **Joint System** — **Max separation between bottom of floor or roof deck and top of gypsum board (at time of installation of joint system) is 2-1/2 in. (64 mm) for 1 and 2 hr Ratings and 1 in. (25 mm) for 3 and 4 hr Ratings. The joint system is designed to accommodate a max 50 percent compression or extension from its installed width for max 1-1/2 in. (38 mm) wide joints and a max 40 percent compression or extension from its installed width for max 2-1/2 in. (64 mm) wide joints.** The joint system shall consist of forming and fill materials, with or without a deflection channel (Item 4A), as follows:

A. **Deflection Channel** — (Optional) — Max 2 in. (51 mm) deep min 24 gauge galv steel channel sized to accommodate ceiling runner (Item 3A). Deflection channel installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors or welds spaced max 24 in. (610 mm) OC. The ceiling runner is installed within the deflection channel to maintain a 1/2 to 3/4 in. (13 to 19 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner nests inside the deflection channel without attachment.

B. **Forming Material\*** — Nom 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt cut to the shape of the steel deck flute and installed into the flutes above the ceiling channel. The mineral wool batt pieces are to be stacked to a thickness approx 1 in. (25 mm) greater than the overall thickness of the wall and compressed approx 14 percent in depth thickness such that it is flush with the gypsum board surface on both sides of the wall. When sound isolation clips (Item 2A5) are used, the space between the top of the ceiling runner and the underside of the floor or roof shall be tightly packed with mineral wool batt insulation. Additional sections of mineral wool batt insulation are compressed 50 percent in thickness and installed cut edge first to completely fill the gap above the top of the gypsum board, flush with both surfaces of wall.

**JOHNS MANVILLE** — Safing

**INDUSTRIAL INSULATION GROUP L L C** — MinWool-1200 Safing

**ROCK WOOL MANUFACTURING CO** — Delta Board

**ROCKWOOL MALAYSIA SDN BHD** — Safe

**ROCKWOOL** — Safe

**THERMAFIBER INC** — SAF

B1. **Forming Material\*** — (Optional, Not Shown) — Preformed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes above the ceiling channel. The plugs shall project beyond each side of the ceiling runner and shall be recessed from both wall surfaces to accommodate the required thickness of fill material (Item 4C). Additional forming material, described in Item 4B, to be used in conjunction with the plugs to fill the gap between the top of gypsum board and bottom of steel deck.

**THERMAFIBER INC** — TopStop mineral wool deck plugs Type SAF batts

C. **Fill, Void or Cavity Material\*** — **Sealant** — Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material spray applied on each side of the wall in the flutes of the steel floor or roof deck and between the top of the wall and the bottom of the steel floor or roof deck and overlap a min 1/2 in. (13 mm) onto gypsum board on both sides of wall. Additional 1/6 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material shall overlap a min 1/2 in. (13 mm) onto the steel deck and steel conduit or EMT (when used) on both sides of wall.

**SPECIFIED TECHNOLOGIES INC** — SpecSeal AS200 Elastomeric Spray

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

THIS DOCUMENT CONTAINS PROPRIETARY TO DAVIS STOKES COLLABORATIVE P.C. THIS DOCUMENT IS THE PROPERTY OF DAVIS STOKES COLLABORATIVE P.C. AND IS NOT TO BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT THE WRITTEN CONSENT OF DAVIS STOKES COLLABORATIVE P.C. COPYRIGHT 2019. ALL RIGHTS RESERVED.

7121 CROSSROADS BLVD  
BRENTWOOD, TN 37027  
TEL (615) 726-0010  
MAIL dscinfo@dsccol.com  
WEB www.dsccol.com

DAVIS STOKES COLLABORATIVE P.C.

DSC

ARCHITECTS

REVISIONS

NO.	DATE	DESCRIPTION

G3.03

ISSUE DATE: 06.28.24 JOB NUMBER: 21059

STATE OF FLORIDA  
JULIE O. STOKES  
REGISTERED ARCHITECT  
20111699  
2000023  
2024/24

FLORIDA  
PALM BEACH GARDENS,  
NEIGHBORHOOD HOSPITAL AT AVENIR  
JUPITER MEDICAL CENTER

ARCA LOG #



## UL ASSEMBLIES

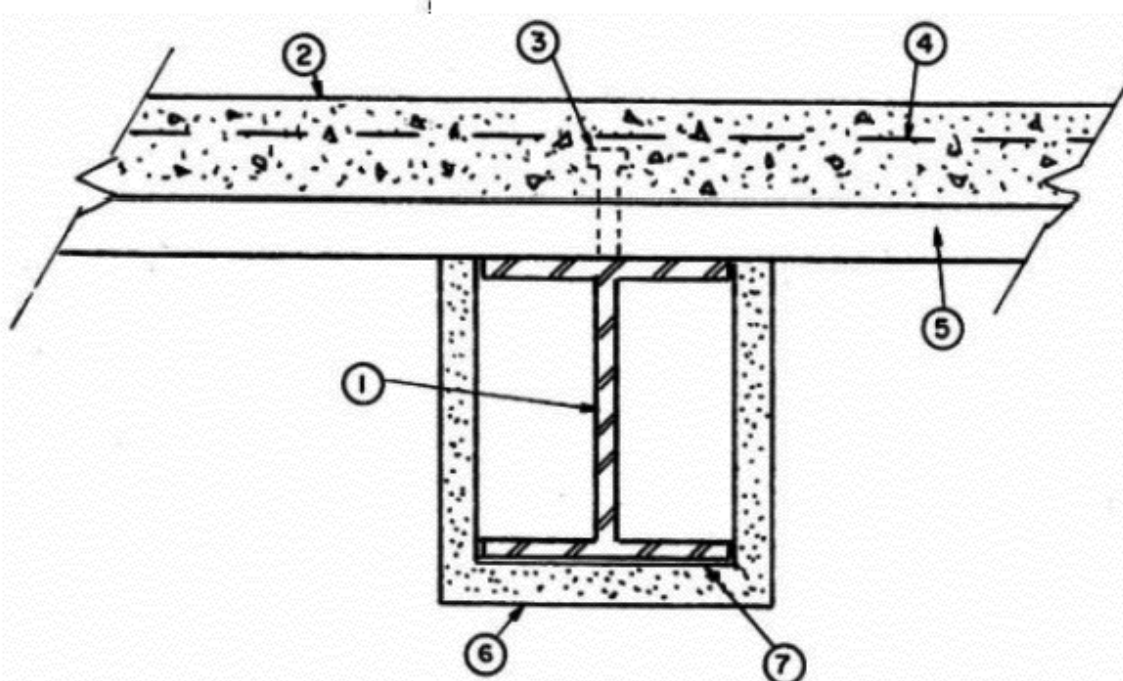
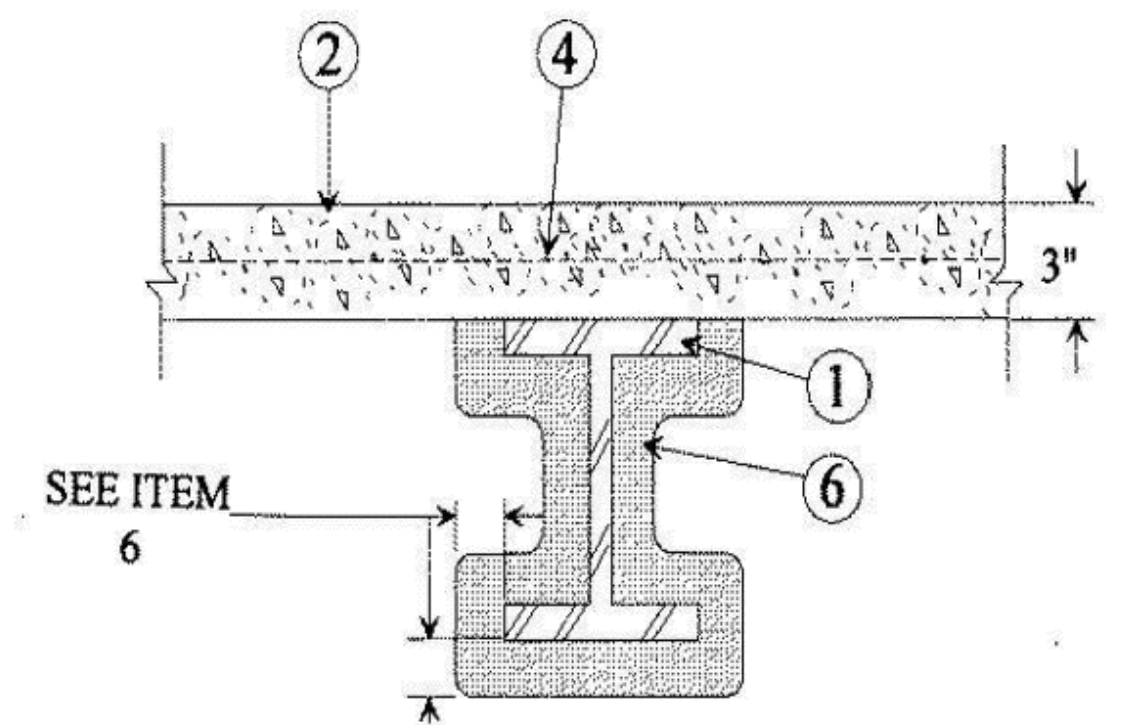
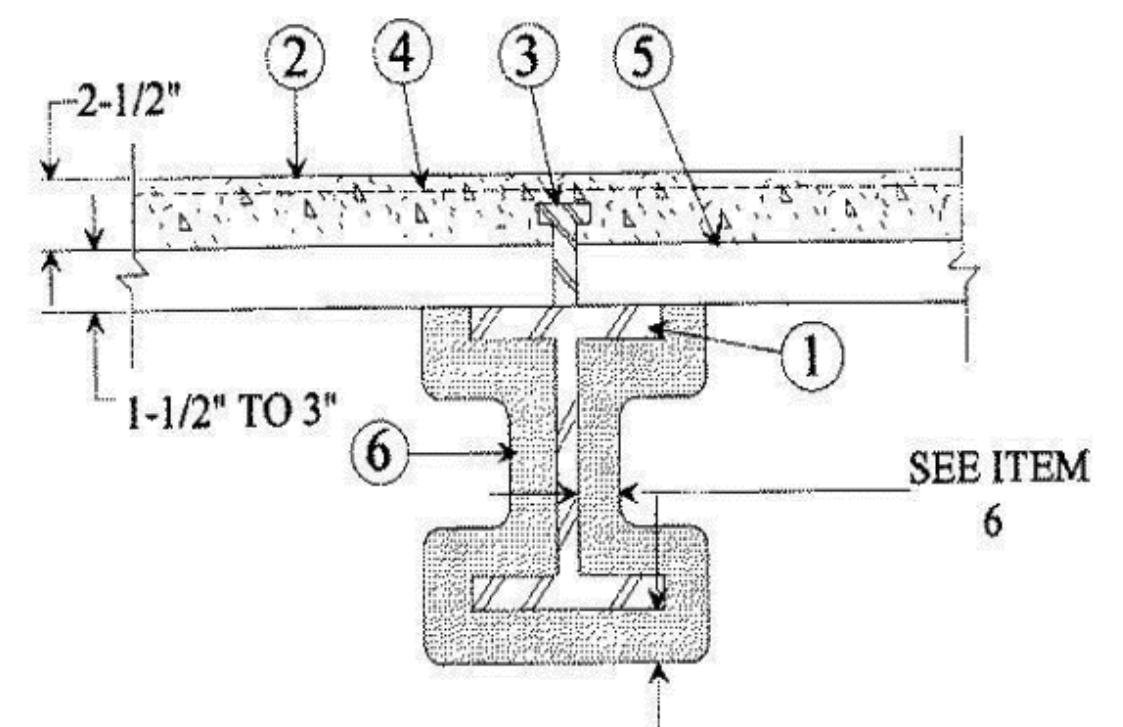
**Design No. N782**

May 08, 2024

Restrained Beam Ratings — 1, 1-1/2, 2, 3 and 4 Hr  
Unrestrained Beam Ratings — 1, 1-1/2, 2, 3 and 4 Hr

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide **BXUV** or **BXUV7**

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Steel Beam** — W8x28 min size.
  2. **Normal Weight or Lightweight Concrete** — Compressive strength, 3000 psi. For normal weight concrete either carbonate or siliceous aggregate may be used. Unit weight, 148 pcf. For lightweight concrete unit weight 110 pcf.
  3. **Shear Connector** — (Optional) — Studs, 3/4 in. diam headed type or equivalent per AISC specifications. Welded to the top flange of beam through the steel floor units.
  4. **Welded Wire Fabric** — (Optional) — 6x6-10/10 SWG.
  5. **Steel Floor and Form Units** — 1-1/2 to 3 in. deep fluted units welded to beam.
  6. **Spray-Applied Fire Resistive Materials\*** — Applied by mixing with water and spraying in more than one coat to the beam to the final thicknesses shown below. When fluted or corrugated steel floor units are used, crest areas shall be filled with Spray-Applied Fire Resistive Materials above the beam. Beam surfaces must be clean and free of dirt, loose scale and oil. Min average and min ind. density of 15/14 pcf respectively, Min avg and min ind density of 22/19 pcf respectively for Types Z-106, Z-106/HY, Z-106/G, Min avg and min ind density of 40/36 pcf respectively for Types AV650, Z-146, Z-146PC and Z-146T cementitious mixture. Min avg and min ind density of 50/45 pcf respectively for Types AV800, Z-156, Z-156T and Z-156PC. For method of density determination, see Design Information Section.
- The thicknesses of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the beams are supporting solid concrete slabs or floor assemblies containing only fluted floor or form units with lightweight concrete.

Min Thkns In.			
Rating Hr	Restrained Beam	Unrestrained Beam	
1	5/16	5/16	
1-1/2	7/16	5/8	
2	11/16	7/8	
3	1-3/16	1-5/16	
4	1-5/8	1-5/8	

The thickness of Spray-Applied Fire Resistant Materials shown in the table below are only applicable when the beams are supporting solid, normal weight, concrete slabs or floor assemblies containing only fluted floor or form units, topped with normal weight concrete.

Min Thkns In.			
Rating	Hr	Restrained Beam	Unrestrained Beam
1		5/16	5/16
1-1/2		3/8	5/8
2		9/16	7/8
3		1	1-5/16
4		1-7/16	1-5/8

The thickness of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the thickness applied to the beams' lower flange edges is reduced by one-half and the beams are supporting solid concrete slabs or floor assemblies containing only fluted floor or form units with lightweight concrete.

Min Thkns In.			
Rating Hr	Restrained Beam		Unrestrained Beam
1		7/16+	7/16+
1-1/2		7/16+	3/4
2		11/16	1
3		1-3/16	1-7/16
4		1-11/16	1-15/16

+ Thickness applied to beams' lower flange edges shall be a min of 1/4 in.

The thickness of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the thickness applied to the beams' lower flange edges is reduced by one-half and the beams are supporting solid concrete slabs or floor assemblies containing only fluted floor or form units with normal weight concrete.

Min Thkns In.			
Rating Hr	Restrained Beam		Unrestrained Beam
1		3/8	3/8
1-1/2		3/8	5/8
2		9/16	7/8
3		1	1-7/16
4		1-7/16	1-15/16

**ARABIAN VERMICULITE INDUSTRIES** — Types MK-6/HY, MK-6/HY Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-1000/HB, MK-1000/HB Extended Set, Z-106, Z-106/G, Z-106/HY, Z-146 investigated for exterior use. Types AV650 and AV800 investigated for external use.

**GCP KOREA INC** — Types MK-6/HY, MK-6/HY Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-1000/HB, MK-1000/HB Extended Set, Z-106, Z-106/G, Z-106/HY, Z-146 investigated for exterior use.

**GCP APPLIED TECHNOLOGIES INC** — Types MK-6/HY, MK-6/HY Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-6/HB, MK-6s, MK-6 GF, MK-6 GF Extended Set, MK-1000/HB, MK-1000/HB Extended Set, RG, Z-106, Z-106/G, Z-106/HY, Z-146, Z-146T, Z146PC, Z-156, Z-156T and Z-156PC investigated for exterior use.

**6A. Spray-Applied Fire Resistant Materials\*** — Applied by mixing with water and spraying in more than one coat to the beam to the final thicknesses shown below. When fluted steel floor units are used, crest areas shall be filled with Spray-Applied Fire Resistant Materials above the beam. Beam surfaces must be clean and free of dirt, loose scale and oil. Min average and min ind. density of 22/20 pcf respectively. For method of density determination, see Design Information Section.

The thicknesses of Spray-Applied Fire Resistant Materials shown in the table below are applicable when the beams are supporting solid concrete slabs or floor assemblies containing only fluted floor or form units with lightweight concrete.

Min Thkns In.			
Rating Hr	Restrained Beam		Unrestrained Beam
1		5/16	5/16
1-1/2		7/16	9/16
2		5/8	13/16
3		1-1/16	1-1/4
4		1-5/8	1-5/8

The thicknesses of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the beams are supporting solid concrete slabs or floor assemblies containing only fluted floor or form units with normal weight concrete.

Min Thkns In.			
Rating Hr	Restrained Beam		Unrestrained Beam
1		5/16	5/16
1-1/2		3/8	9/16
2		9/16	13/16
3		1	1-1/4
4		1-7/16	1-5/8

The thickness of Spray-Applied Fire Resistant Materials shown in the table below are applicable when the thickness applied to the beams' lower flange edges is reduced by one-half and the beams are supporting solid concrete

slabs or floor assemblies containing only fluted floor or form units with lightweight or normal weight concrete.

Min Thkns In.			
Rating	Hr	Restrained Beam	Unrestrained Beam
1		7/16+	7/16+
1-1/2		7/16+	11/16
2		11/16	15/16
3		1-3/16	1-3/8
4		1-11/16	1-15/16

+ Thickness applied to beams' lower flange edges shall be a min of 1/4 in.

The thickness of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the thickness applied to the beams' lower flange edges is reduced by one-half and the beams are supporting solid concrete slabs or floor assemblies containing only fluted floor or form units with normal weight concrete.

Min Thkns In.			
Rating Hr	Restrained Beam		Unrestrained Beam
1		3/8	3/8
1-1/2		3/8	5/8
2		9/16	7/8
3		1	1-7/16
4		1-7/16	1-15/16

ARABIAN VERMICULITE INDUSTRIES — Type Z-106/HY

GCP KOREA INC — Type Z-106/HY

GCP APPLIED TECHNOLOGIES INC — Z-106/HY

7. **Metal Lath** — (Optional for contour applications, required for boxed applications) - 3.4 lb/sq yd expanded steel. May be tied to lath hangers with No. 18 SWG steel wire spaced 6 in. OC max. or fastened directly to the steel with welds, screws, or powder actuated fasteners

8. **Lath Hangers** — (To be used with Item 7) — No. 6 SWG steel wire, spaced 27 in. OC max.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



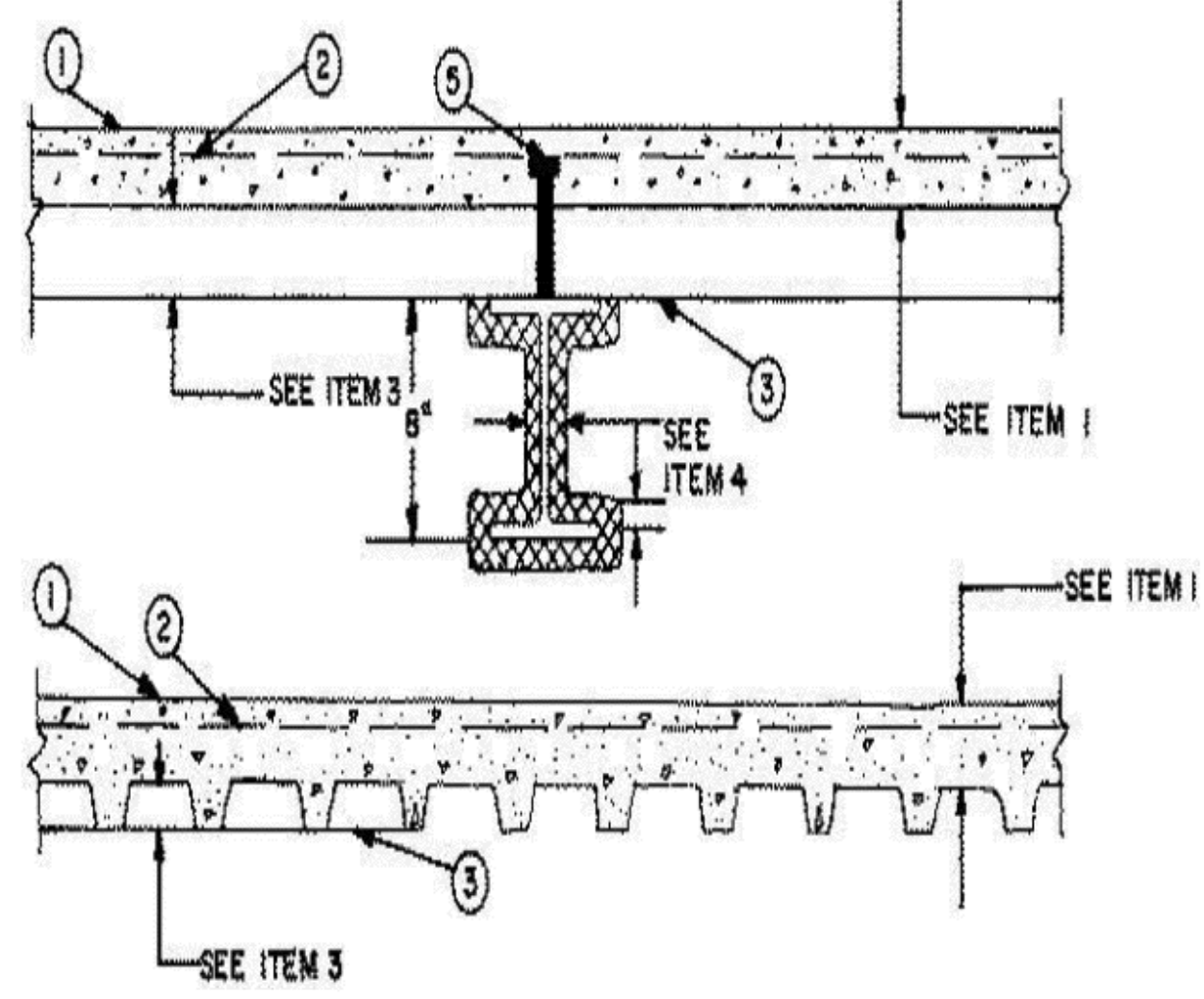
UL ASSEMBLIES

Design No. D916

February 8, 2024

Restrained Assembly Ratings — 3/4, 1, 1-1/2, 2 or 3 Hr.  
(See Items 1, 6, 7, 8 and 11)  
Unrestrained Assembly Rating — 0 Hr. (See Items 3, 4 and 4A)  
Unrestrained Beam Ratings — 1, 1-1/2, 2 and 3 Hr.  
(See Items 4, 4A, 7 and 11)  
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



Supports — 8x28 min size steel beams. Or steel joists or joist girders (not shown), composite or noncomposite. Welded or bolted to end supports. Designed per S.J.I. specifications for a max tensile stress of 30 ksi. May be either uncoated or provided with a shop coat of paint. For the 2 h or less Restrained or Unrestrained Beam Ratings, top and bottom chords shall each consist of two angles with a min total area of 0.96 and 0.77 sq in., respectively. Web members shall be either round bars or angles. Min area of the end diagonal web shall be 0.444 sq in. Min area of each of the first six interior diagonal webs shall be 0.406 sq in. All other interior webs shall have a min area of 0.196 sq in. For the 3 h Restrained or Unrestrained Beam Ratings, each of the top and bottom chords shall each consist of two angles with a min total area of 1.74 sq in. Web members shall be either round bars or angles. Min area of each of the first five end diagonal webs shall be 0.886 sq in. All other interior webs shall have a min area of 0.441 sq in. Bridging per S.J.I. specifications is required when noncomposite joists are used. For noncomposite joists, steel filler pieces of proper size, 1 to 2 in. long shall be welded to and between the top chord angles at midway between all top chord panel points.

1. Normal Weight or Lightweight Concrete — Normal weight concrete carbonate or siliceous aggregate, 3500 psi compressive strength, vibrated. Lightweight concrete, expanded shale, or slate aggregate by rotary-kiln method, or expanded clay aggregate by rotary-kiln or sintered-grate method, or pelletized expanded blast furnace slag aggregate, 3000 psi compressive strength, vibrated, 4 to 7 percent entrained air.

Restrained Assembly Rating Hr	Concrete (Type)	Concrete Unit Weight pcf	Concrete Thkns In.
1	Normal Weight	147-153	3-1/2
1-1/2	Normal Weight	147-153	4
2	Normal Weight	147-153	4-1/2
3	Normal Weight	147-153	5-1/4
3/4 or 1 (See Item 6)	Lightweight	107-113	2-1/2
1	Lightweight	107-120	2-5/8
1-1/2	Lightweight	107-113	3
2	Lightweight	107-113	3-1/4
2	Lightweight	107-116	3-1/4*
2	Lightweight	114-120	3-1/2
3	Lightweight	107-113	4-3/16
3	Lightweight	114-120	4-7/16

\*For use with 2 or 3 in. steel floor and form units only.

2. Welded Wire Fabric — 6x6 - W1.4xW1.4.

3. Steel Floor and Form Units\* — Composite or non-composite, 1-1/2, 1-5/8, 1-13/16, 2 or 3 in. deep galv units or 4-1/2 in. deep noncomposite galvanized units. Fluted units may be uncoated or phosphatized/painted. Min gauges are 22 MSG for fluted and 20/20 MSG for cellular units. The following combinations of units may be used:

- (1) all 18, 24, 26, 28 or 36 in. wide cellular.
- (2) all fluted.
- (3) one or two 3 in. deep, 12 in. wide, 18/18 MSG min cellular units, alternating with 3 in. deep fluted or other cellular.
- (4) any blend of fluted and 18, 24, 26, 28, or 36 in. wide cellular.

(5) 3 in. deep, 30 in. wide cellular with 8-1/8 in. wide valley along side joints may be used when 3/8 in. diam reinforcing bars are placed 1-1/2 in. to each side of side joints and 1 in. above bottom of unit.

(6) Corrugated, 1-5/16 in. deep, 30 in. wide, 24 MSG min galv units with shear wires factory welded to deck corrugations. Welded to supports 12 in. OC. through welding washers. For shear wire spacing of 8 in. or less the steel deck stress shall

not exceed 20 KSI. For shear wire spacing greater than 8 in. OC. but less than or equal to 12 in. OC, steel deck stress shall not exceed 12 KSI.

ASC STEEL DECK, DIV OF ASC PROFILES L L C — 32 in. wide Types NH-32, NHN-32, NHF-32; 36 in. wide Types BH-36, BHN-36, BHN-35-1/4, BHF-36, BHF-36A, 2WH-36, 2WHS-36, 2WHF-36, 2WHF-36A, 3WH-36, 3WHF-36, 3WHF-36A, 3WH-36, 3WHF-36, 3WHF-36A, 3W-36, 3WF-36, DG3W-36, DG3WF-36. All units may be galvanized or Prime Shield. Non-cellular decks may be vented designated with a "V" suffix to the product name. Cellular deck top and bottom sections may be riveted together (designated with "Fr") vs. arc spot welded, "F".

CANAM GROUP INC — 36 in. wide Type P-3623, P-3606, P-3615 and 24 in wide Type P-2432 composite; 24 or 36 in. wide Type 3 in. LOK-Floor; 36 in. wide Types 1.5B, 1.5B1, 1.5BL and 1.5BL; 24 in. or 36 in. wide, vented Types LF2 and LF3.

CANAM STEEL CORP — 24 in. wide, Types 1-1/2, 2 or 3 in. LOK-Floor and LOK-Floor Cell; 36 in. wide, Types 2 or 3 in. LOK-Floor and LOK-Floor Cell; 24 in. wide, Types N-LOK and N-LOK Cell; 24, 30 or 36 in. wide, Type 1-1/2 in. B-LOK and B-LOK Cell.

KAM INDUSTRIES LTD, DBA CORDECK — QL Types, 24 in. wide 3 or 3 inverted, UKX, UKX-3, 2 in. 99, AKX, 21 or 21 inverted, 121, NKX, TKX; 24 or 30 in. wide GKX, GKXH, GKX-A; 36 in. wide 99, AKX, WKX; 24, 26, or 36 in. wide NKX; 1.5NKC, NKC, AKX, 2 or 3 in. TKC; 12 in. wide noncomposite Sec. 12; 17 in. wide 21; 26 or 28 in. wide UKX, 87.5 cm wide. Side joints of QL, 99, 121, WKX, TKX, TKC, and Metric units - QL-77-900; QLC-78-900 may be welded together 60 in. OC. Side joints of 99, AKX, WKX, GKX, GKX-A, TKX and Metric units - QL-77-900 and QLC-78-900 may be fastened together with min 1 in. long No. 12x14 self-drilling, self-tapping steel screws 36 in. OC.

CHIA TEH CONSTRUCTION MATERIAL CO LTD — 24 or 36 in. wide Mac-Lok 3; 24 in. wide CFD-3.

DECK WEST INC — 36 in. wide Type B-DW, Inverted B-DW, BA-DW, Inverted BA-DW, 2-DW or 3-DW. Side joints of Type 2-DW and 3-DW may be fastened together with min 1 in. long No. 12 x 14 self-drilling, self-tapping steel screws 36 in. OC.

DECKCO LLC — 36 in. wide, Types DC 1.5B, DC 1.5 Form, DC 1.5 Inverted Composite, DC 1.5 Inverted Form, DC 1.5 Composite, DC 2 Form, DC 2 Composite, DC 3 Form, DC 3 Composite.

DESIGN ASSISTANCE CONSTRUCTION SYSTEMS INC — 36 in. wide Type DACS1.5CD, or 24 in. wide Type DACS2.0CD, or DACS3.0CD.

EPIC METALS CORP — 24 in. wide Types EC150, ECP150, EC300, ECP300, EC366, ECP366, EC150, EC300 inverted, ECA, 30 in. wide Types ECB150, ECBR150; 36 in. wide Type EC266.

HAMBRO STRUCTURAL SYSTEMS, DIV OF CANAM STEEL CORP — 36 in. wide, 1-1/2 in. Type P3615HB. The max superimposed loadings for Type P3615HB units shall not exceed 250 PSF. For single spans, the use of the units shall be limited to 5 ft 6 in., 6 ft 0 in. and 6 ft 6 in. max spans for the 22, 20 and 18 gauge units, respectively. For multiple spans, 18 gauge units may be used on a max 7 ft 6 in. spans with a max total superimposed loading of 240 PSF.

INTSEL STEEL EAST LLC — 36 in. wide Types 1.5" COMPOSITE/FLOOR, 2" COMPOSITE/FLOOR, 3" COMPOSITE/FLOOR.

KAM INDUSTRIES LTD, DBA CORDECK — 24 in. wide, Types 2 or 3 in. WDR.

MARLYN STEEL DECKS INC — Type 1.5 CF, 2.0 CF or 3.0 CF.

NEW MILLENNIUM BUILDING SYSTEMS L L C — 24 in. wide Type Versa-Dek.

NEW MILLENNIUM BUILDING SYSTEMS L L C — 24 or 36 in. wide Types 2.0CD, 3.0CD, 2.0CFD, 3.0CFD, 3.0CFDES; 24, 30 or 36 in. wide Types 1.5CD, 1.5CD1, 1.5CDR, 1.5CFD. Fluted units may be phos/painted or galvanized.

ROOF DECK INC — 36 in. wide Types LOK 1 1/2, LOK 1 1/2 R; 24 in. wide Types LOK-2, LOK-3.

STEEL MASTERS INTERNATIONAL DEPENDABLE STEEL — 36 in. wide Types 2WH-36, 3WH-36. Units may be phos/painted or galvanized.

TATA STEEL INTERNATIONAL MIDDLE EAST FZE — 36 in. wide, Type ComFlor 46.

VALLEY JOIST+DECK — 24 or 36 in. wide Types WVC 1-1/2 or WVC 2.

VERCO DECKING INC - A NUCOR CO — FORMLOK™ deck types PLB, B, BR, PLN3, N3, PLN, N, PLW2, W2, PLW3, W3. Units may be galvanized, phos/ptd, or mill finish. Units may be cellular or acoustical cellular, with the suffix "CD" or "CD-AC" added to the product name, respectively. All non-cellular deck may be vented or non-vented. 12 in. wide PLW2, W2, PLW3 or W3 units may be blended with 24 or in. wide PLW2, W2, PLW3 or W3 units, respectively; or Types N3, PLN3.

VICWEST INC. — Types HB938, HB938CL, HB938-INV, HB308-INV, HB306, HB30V; HB938, HB938CL and HB938CL-IN Composite Steel Decks; Types RDS938, RDS938CL and RDS938CL-IN Non-Composite Steel Decks.

VULCRAFT, DIV OF NUCOR CORP — 24, 30 or 36 in. wide Types 1.5VL, 1.5VL1, 1.5PLVL1, 1.5VLP, 1.5PLVLP, 1.5VLR, 24 or 36 in. wide Types 1.5VLPA, 1.5PLVLPA, 2VL1, 2.0PLVL1, 2VLJ, 2VLP, 2.0PLVL1, 2VLP, 2.0PLVLPA, 3VL1, 3.0PLVL1, 3VLJ, 3VLP, 3.0PLVL1, 3VLP, 3.0PLVLPA. Types 1.5VL, 1.5VL1, 1.5PLVL1, 1.5VLR, 2VL1, 2.0PLVL1, 2VLJ, 3VL1, 3.0PLVL1, 3VLJ units may be phos/ptd. 24 or 36 in. wide Types 2VLJ, 3VLJ units ++ may be used for max 2 hr Restrained Assembly Rating. Side joints of Type 1.5VL may be fastened together with min 1 in. long No. 12x14 self-drilling, self-tapping steel screws 36 in. OC max. 36 in. wide Types 1.5 SB, 1.5 SBR; 24 or 36 in wide Types 2.0 SB, 3.0 SB, 36 in. wide Type High Strength 1.5 SBL, 36 in. wide Type High Strength 1.5 SBN.

Spacing of welds attaching units to supports shall be 12 in. OC for 12, 24, and 36 in. wide units, four welds per sheet for 30 in. wide units, 6 in. OC for 18 in. wide and Sec. 12 units. Unless noted otherwise, adjacent units button-punched or welded together 36 in. OC along side joints. Adjacent 18 in. wide units welded together 30 in. OC along side joints. For 3 Hr. Rating, units with overlapping type side joints welded together 24 in. OC max.

When a superimposed load of 250 PSF is desired the spacing of welds or button-punches shall not exceed 24 in. OC along side joints.

++ Side joints of Types 2VLJ or 3VLJ units may be fastened together with No. 8, 3/4 in. long self-drilling Tek screws driven diagonally from the top side through the joint of the units at 36 in. O. C. max.

The Unrestrained Assembly Rating is equal to the Unrestrained Beam Rating for a max of 3 Hr. and is limited to the following units and limitations:

- (a) 1-1/2 in. deep, 24 or 36 in. wide, 22 MSG or thicker fluted with clear spans not more than 7 ft 8 in.
- (b) 1-1/2 in. deep, 24 or 36 in. wide, 20 MSG or thicker fluted with clear spans not more than 8 ft 8 in.

(c) 1-1/2 in. deep, 24 or 36 in. wide, 16 MSG or thicker fluted and 18/18 MSG or thicker cellular with clear spans not more than 9 ft 11 in.

(d) 3 in. deep, 36 in. wide, 18 MSG or thicker fluted and 24 in. wide, 20/18 MSG or thicker cellular with clear spans not more than 13 ft 2 in.

4. Spray-Applied Fire Resistive Materials\* — Applied by mixing with water and spraying in one or more coats to a final thickness as shown in the tables below, in the tables below to steel beam surfaces which must be clean and free of dirt, loose scale and oil. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 19/18 pcf respectively for Type 7GP and 7HD. For method of density determination, refer to Design Information Section.

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Spray Applied Fire Resistive Mtl Thkns on Beam In.
1		1	1/2
1-1/2		1	1/2
1-1/2	1-1/2	1-1/2	13/16
2	1	1	1/2
2	2	2	1-1/16
3	1-1/2	1-1/2	13/16
3		3	1-9/16

The thicknesses of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the thickness applied to the beams' lower flange edges is reduced by 1/2 that shown in the table:

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Spray Applied Fire Resistive Mtl Thkns on Beam In.
1		1	9/16
1-1/2		1	9/16
1-1/2	1-1/2	1-1/2	7/8
2	1	1	9/16
2	2	2	1-3/16
3	1-1/2	1-1/2	7/8
3		3	1-3/4

The thicknesses of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the thickness applied to the beams' lower flange edges is reduced by 1/2 that shown in the table and the beams are supporting all fluted floor or form units w/lightweight concrete only:

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Spray Applied Fire Resistive Mtl Thkns on Beam In.
1		1	7/16+
1-1/2		1	7/16+
1-1/2	1-1/2	1-1/2	3/4
2	1	1	7/16+
2	2	2	1
3	1-1/2	1-1/2	3/4
3		3	1-9/16

+Thickness applied to beams' lower flange edge to be 1/4 in. min.

The thickness of material required on the steel joist for the various ratings are shown in the following table:

Restrained or Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Spray Applied Fire Resistive Mtl Thkns on Joist & Bridging In.
1		1
1-1/2	1-1/2	
2	2	
3	3	

GCP KOREA INC — Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6s, Monokote Acoustic 1.

PYROK INC — Type LD.

SOUTHWEST FIREPROOFING PRODUCTS CO — Types 4, 5, 5EF, 5GP, 5MD, 7GP, 7HD, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD.

GCP APPLIED TECHNOLOGIES INC — Types MK-6/HY, MK-6s, RG, Monokote Acoustic 1.

4A. Alternate Spray-Applied Fire Resistive Materials\* — Applied by mixing with water and spraying in one or more coats to a final thickness as shown in the tables below to steel beam surfaces which must be clean and free of dirt, loose scale and oil. When fluted steel deck is used the area between the steel deck and the beams top flange shall be sprayed min avg and min ind density of 19/18 pcf, respectively for Types 7GP, 7HD, 105. Min avg and min ind density of 22/19 pcf, respectively for Types Z-106, Z-106/G, Z-106/HY. For method of density determination, refer to Design Information Section.

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Spray Applied Fire Resistive Mtl Thkns on Beam In.
1		1	1/2
1-1/2		1	1/2
1-1/2	1-1/2	1-1/2	13/16
2	1	1	1/2
2	2	2	1-1/16
3	1-1/2	1-1/2	13/16
3		3	1-9/16

The thicknesses of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the beams are supporting all fluted floor or form units w/lightweight concrete only:

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Spray Applied Fire Resistive Mtl Thkns on Beam In.
1		1	7/16
1-1/2		1	7/16
1-1/2	1-1/2	1-1/2	3/4
2	1	1	7/16
2	2	2	1
3	1-1/2	1-1/2	3/4
3		3	1-5/16

+Thickness applied to beams lower flange edge to be 1/4 in. min.

The thickness of material required on the steel joist for the various Ratings are shown in the following table:

Restrained or Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Type of Concrete Slab	Spray Applied Fire Resistive Mtl Thkns In. Joist & Bridging
1		1 NW or LW	1-1/8
1-1/2		1-1/2 NW or LW	1-3/4
2		2 NW or LW	2-1/4
3		3 NW or LW	2-7/8

GCP KOREA INC — Types Z-106, Z-106/G, Z-106/HY, Monokote Acoustic 5.

SOUTHWEST FIREPROOFING PRODUCTS CO — Types 7GP, 7HD.

GCP APPLIED TECHNOLOGIES INC — Types Z- 105, Z-106, Z-106/G, Z-106/HY, Monokote Acoustic 5.

4B. Alternate Spray-Applied Fire Resistive Materials — Applied by mixing with water and spraying in one or more coats to a final thickness as shown in the tables below to steel beam surfaces which must be clean and free of dirt, loose scale and oil. The thicknesses shown in the table below are applicable to beams supporting all fluted floor or form units. Min avg and min ind density of 40/36 pcf, respectively. Min avg and min ind density of 40/36 pcf respectively for Types Z-146, Z-146PC and Z-146T cementitious mixture. Min avg and min ind density of 50/45 pcf respectively for Types Z-156, Z-156T and Z-156PC.

For density determination refer to Design Information Section.

Unrestrained Beam Rating Hr	Restrained Assembly Rating Hr	Concrete Type	Spray Applied Fire Resistive Mtl Thkns on Beam In.
1	1, 1-1/2, 2	LW	9/16
1-1/2	1, 1-1/2, 2, 3	LW	7/8
1	1, 1-1/2, 2	LW	3/4
1-1/2	1, 1-1/2, 2, 3	LW	1

GCP KOREA INC — Type Z-146 investigated for exterior use

GCP APPLIED TECHNOLOGIES INC — Types Z-146, Z-146T, Z146PC, Z-156, Z-156T and Z-156PC investigated for exterior use

5. Shear-Connector Studs — Optional — Studs 3/4 in. diam by 3 in. long, for 1-1/2 in. deep form units to 5-1/4 in. long for 3 in. deep form units, headed type or equivalent per AISC specifications. Welded to the top flange of the beam through the steel form units.

6. Electrical Inserts — (Not shown) Classified as "Outlet Boxes and Fittings Classified for Fire Resistance." KAM INDUSTRIES LTD, DBA CORDECK — Preset Inserts

For use with 2-1/2 in. lightweight concrete topping over QL-WKX steel floor units. Installed over factory-punched holes in floor units per accompanying installation instructions.

Spacing shall not be more than one insert in each 14 sq ft. of floor area with spacing along floor units not less than 48 in. OC. The holes cut in insert cover for passage of wires shall be no more than 1/8 in. larger diam. than wire. Restrained Assembly Rating is 3/4 hr with Tapmate II-FS-1 and 1 hr with Tapmate II-FS-2 inserts.

KAM INDUSTRIES LTD, DBA CORDECK — Tapmate II-FS-1, II-FS-2; Series KE6.

(2) Wiremold Co. — After set Inserts.

Single-service after set inserts installed per accompanying installation instructions in 2-1/2 in. diam hole core-drilled through min 3-1/4 in. thick concrete topping to top of cell of any min 3 in. deep cellular steel floor unit specified under Item 3.

Spacing shall be no more than one insert in each 10 sq ft of floor area in each span with a min center to center spacing of 16 in. If the high potential and low potential raceways of the cellular steel floor unit are separated by a valley filled with concrete, the center to center spacing of the high potential and low potential single-service after set inserts may be reduced to a min of 7-1/2 in. Restrained Assembly Rating is 2 hr or less with internally protected type 436 after set insert with Type M4-, M6- or M8- Series single-service activation fitting.

WIREMOLD CO — Internally protected Type 436 after set insert with Type M4-, M6- or M8- Series single-service activation fitting.

7. Mineral and Fiber Boards\* — (Optional, not shown). Applied over concrete floor with no restriction on board thickness. When mineral and fiber boards are used, the unrestrained beam rating shall be increased by a minimum of 1/2 hr. See Mineral and Fiber Board (CER2) category for names of manufacturers.

8. Roof Covering Materials\* — (Optional, not shown)Consisting of materials compatible with insulations described herein which provide Class A, B or C coverings. See Built-Up Roof Covering Materials in Building Materials Directory.

9. Insulating Concrete — (not shown) Optional. Various types of insulating concrete prepared and applied in the thickness indicated:

A. Vermiculite Concrete — (not shown) Optional.  
1. Blend 6 to 8 cu. ft. of Vermiculite Aggregate\* to 94 lb. Portland Cement and air entraining agent. Min thickness of 2 in. as measured to the top surface of the structural concrete or foamed plastic (Item 10) when it is used.  
ELASTIZELL CORP OF AMERICA

SIPLAST INC

VERMICULITE PRODUCTS INC

2. Blend 3.5 cu. ft. of Type NVC Concrete Aggregate\* or Type NVS Vermiculite Aggregate\* coat, 1/8 in. thickness beneath foamed plastic (Item 10) when used, 1 in. min topping thickness.

SIPLAST INC

VERMICULITE PRODUCTS INC

Vermiculite concrete may be covered with Roof Covering Materials (Item 8).

B. Cellular Concrete — Roof Topping Mixture\* — concentrate mixed with water and Portland cement per manufacturers specifications. Min. thickness of 2-in. as measured to the top surface of the structural concrete or foamed plastic (Item 10A) when used. Cast dry density and 28— day min. compressive strength of 190 psi as determined with ASTM C495— 66.  
AERIX INDUSTRIES — Cast dry density of 37 (+ or -) 3.0 pcf.

CELCORE INC — Type Celcore with cast dry density of 31 (+ or - 3.0) pcf or Type Celcore MF with cast dry density of 29 (+ or - 3.0) pcf.

ELASTIZELL CORP OF AMERICA — Type II. Mix #1 of cast dry density 39 (+ or -) 3.0 pcf, Mix #2 of cast dry density 40 (+ or -) 3.0 pcf, Mix #3 of cast dry density 47 (+ or -) 3.0 pcf.

C. Cellular Concrete-Roof Topping Mixture\* — Concentrate mixed with water and Portland cement per manufacturers specifications. 28-day min. compressive strength of 190 psi as determined with ASTM C495-66.  
SIPLAST INC — Mix No. 1 or 2. Cast dry density of 32+3 (Mix No. 1) or 36+3 (Mix No. 2) pcf.

D. Perlite Concrete — 6 cu ft. of Perlite Aggregate\* to 94 lb of Portland Cement and 1-1/2 pt air entraining agent. Min. thickness 2 in. as measured to the top surface of structural concrete or foamed plastic (Item 10A) when it is used. See Perlite Aggregate (CFFX) in Fire Resistance Directory for names of manufacturers.

E. Cellular Concrete — Roof Topping Mixture\* — Foam Concentrate mixed with water, Portland Cement and UL Classified Vermiculite Aggregate per manufacturer's application instructions. Cast dry density of 33 (+ or -) 3.0 pcf and 28-day compressive strength of min 250 psi as determined in accordance with ASTM C495-86.  
AERIX INDUSTRIES — Mix No. 3.

SIPLAST INC — Mix No. 3.

F. Floor Topping Mixture\* — (Optional, not shown) — Approx 4.5 gal of water to 41 lbs of NVS Premix floor topping mixture. Slurry coat 1/8 in. thickness beneath foamed plastic (Item 10) when used , 1 in. min topping thickness.

SIPLAST INC

Floor Topping Mixture may be covered with Built-Up or Single Membrane Roof Covering.

10. Foamed Plastic\* — (optional — Not Shown) For use only with vermiculite (Item 9A) or cellular (Item 9C) concretes — Rigid polystyrene foamed plastic insulation having slots and/or holes sandwiched between vermiculite concrete slurry which is applied to the normal or lightweight concrete surface and vermiculite concrete topping (Item 9A).



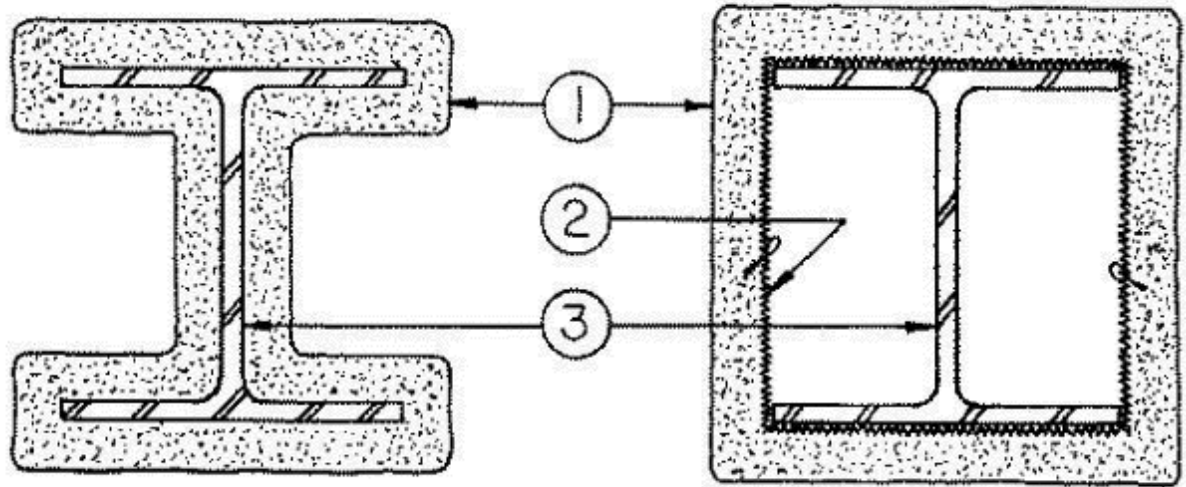
UL ASSEMBLIES

Design No. X772

March 21, 2023

Ratings — 1, 1-1/2, 2, 3 and 4 h.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Spray-Applied Fire Resistive Materials\*** — Applied by mixing with water and spraying in more than one coat to the thicknesses shown below, to steel surfaces which are clean and free of dirt, loose scale, and oil. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 22/19 pcf respectively for Types Z-106, Z-106/G, Z-106/HY. Min avg and min ind density of 19/18 pcf respectively for Types TGP and 7HD. Min avg and min ind density of 40/36 pcf respectively for Types Z-146, Z-146PC and Z-146T cementitious mixture. Min avg and min ind density of 50/45 pcf respectively for Types Z-156, Z-156T and Z-156PC. For method of density determination, see Design Information Section, Sprayed Material.

The thickness of Spray-Applied Fire Resistive Materials to be applied to all surfaces of the column (Item 1) required for rating periods of 1 h, 1-1/2 h, 2 h, 3 h, 4 h may be determined by the equation:

$$h = \frac{R}{1.05 (W/D) + 0.61}$$

Where:

h = Spray-Applied Fire Resistive Materials thickness in the range 0.25-3.875 in.

R = Fire resistance rating in hours (1 - 4 h)

D = Heated perimeter of steel column in inches

W = Weight of steel column in lbs per foot

W/D = 0.33 to 6.62

As an alternate to the equation, the minimum thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings of contour sprayed or boxed columns may be determined from the table below:

		Min Thk In.					
Min Col Size	W/D	1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr	
W4x13	0.556	14/16	1 5/16	1 11/16	2 8/16	3 6/16	
W5x16	0.550	14/16	1 5/16	1 11/16	2 8/16	3 6/16	
W5x19	0.644	13/16	1 3/16	1 9/16	2 6/16	3 2/16	
W6x9	0.338	1 1/16	1 8/16	2	2 8/16	3 13/16	
W6x12	0.448	15/16	1 7/16	1 14/16	2 8/16	3 12/16	
W6x15	0.431	1	1 7/16	1 15/16	2 8/16	3 13/16	
W6x16	0.584	13/16	1 4/16	1 11/16	2 8/16	3 5/16	
W6x20	0.563	14/16	1 4/16	1 11/16	2 8/16	3 6/16	
W6x25	0.696	12/16	1 2/16	1 6/16	2	2 11/16	
W8x10	0.327	1 1/16	1 10/16	2 2/16	3 3/16	N/A	
W8x13	0.421	1	1 7/16	1 15/16	2 8/16	3 13/16	
W8x15	0.481	15/16	1 6/16	1 13/16	2 8/16	3 10/16	
W8x18	0.499	15/16	1 6/16	1 13/16	2 8/16	3 9/16	
W8x21	0.577	14/16	1 4/16	1 11/16	2 8/16	3 5/16	
W8x24	0.591	13/16	1 4/16	1 11/16	2 8/16	3 5/16	
W8x28	0.688	12/16	1 3/16	1 6/16	2	2 11/16	
W8x31	0.665	13/16	1 3/16	1 9/16	2 5/16	3 1/16	
W8x35	0.749	12/16	1 2/16	1 6/16	2	2 11/16	
W8x40	0.849	11/16	14/16	1 2/16	1 11/16	2 8/16	
W8x48	1.000	10/16	14/16	1 2/16	1 11/16	2 7/16	
W8x58	1.200	9/16	13/16	1 2/16	1 10/16	2 3/16	
W8x67	1.370	8/16	12/16	1	1 8/16	2	
W10x12	0.347	1 1/16	1 8/16	2	2 8/16	3 13/16	
W10x15	0.429	1	1 7/16	1 15/16	2 8/16	3 13/16	
W10x17	0.482	15/16	1 6/16	1 13/16	2 8/16	3 10/16	
W10x19	0.538	14/16	1 5/16	1 12/16	2 8/16	3 7/16	
W10x22	0.523	14/16	1 5/16	1 12/16	2 8/16	3 8/16	
W10x26	0.612	13/16	1 4/16	1 10/16	2 7/16	3 4/16	
W10x30	0.699	12/16	1 2/16	1 6/16	2	2 11/16	
W10x33	0.661	13/16	1 3/16	1 9/16	2 5/16	3 2/16	
W10x39	0.780	12/16	1 1/16	1 6/16	2	2 11/16	
W10x45	0.888	11/16	14/16	1 2/16	1 11/16	2 8/16	
W10x49	0.840	11/16	14/16	1 2/16	1 11/16	2 8/16	
W10x54	0.922	11/16	14/16	1 2/16	1 11/16	2 8/16	
W10x60	1.010	10/16	14/16	1 2/16	1 11/16	2 7/16	
W10x68	1.150	9/16	14/16	1 2/16	1 11/16	2 4/16	
W10x77	1.280	9/16	13/16	1 1/16	1 9/16	2 1/16	
W10x88	1.450	8/16	12/16	1	1 7/16	1 15/16	
W10x100	1.640	7/16	11/16	14/16	1 5/16	1 12/16	
W10x112	1.810	7/16	10/16	13/16	1 4/16	1 10/16	
W12x14	0.363	1 1/16	1 8/16	2	2 8/16	3 13/16	
W12x16	0.410	1	1 8/16	1 15/16	2 8/16	3 13/16	
W12x19	0.485	15/16	1 6/16	1 13/16	2 8/16	3 10/16	
W12x22	0.560	14/16	1 5/16	1 11/16	2 8/16	3 6/16	
W12x26	0.531	14/16	1 5/16	1 12/16	2 8/16	3 7/16	
W12x30	0.607	13/16	1 4/16	1 10/16	2 7/16	3 4/16	
W12x35	0.703	12/16	1 2/16	1 6/16	2	2 11/16	
W12x40	0.734	12/16	1 2/16	1 6/16	2	2 11/16	
W12x45	0.829	11/16	1 1/16	1 6/16	2	2 11/16	
W12x50	0.909	11/16	14/16	1 2/16	1 11/16	2 8/16	
W12x53	0.855	11/16	14/16	1 2/16	1 11/16	2 8/16	

W12x58	0.925	11/16	14/16	1 2/16	1 11/16	2 8/16
W12x65	0.925	11/16	14/16	1 2/16	1 11/16	2 8/16
W12x72	1.020	10/16	14/16	1 2/16	1 11/16	2 7/16
W12x79	1.110	10/16	14/16	1 2/16	1 11/16	2 5/16
W12x87	1.220	9/16	13/16	1 1/16	1 10/16	2 2/16
W12x96	1.340	8/16	12/16	1	1 8/16	2
W12x106	1.470	8/16	12/16	15/16	1 7/16	1 14/16
W12x120	1.650	7/16	11/16	14/16	1 5/16	1 12/16
W12x136	1.860	7/16	10/16	13/16	1 3/16	1 9/16
W12x152	2.040	6/16	9/16	12/16	1 2/16	1 8/16
W12x170	2.260	6/16	9/16	11/16	1 1/16	1 6/16
W12x190	2.500	5/16	8/16	10/16	15/16	1 4/16
W12x210	2.730	5/16	7/16	9/16	14/16	1 3/16
W12x230	2.960	5/16	7/16	9/16	13/16	1 2/16
W12x252	3.200	5/16	7/16	9/16	13/16	1 1/16
W12x279	3.500	4/16	6/16	8/16	12/16	15/16
W12x305	3.760	4/16	6/16	8/16	11/16	15/16
W12x336	4.060	4/16	5/16	7/16	10/16	14/16
W14x22	0.476	15/16	1 6/16	1 13/16	2 8/16	3 10/16
W14x26	0.559	14/16	1 5/16	1 11/16	2 8/16	3 6/16
W14x30	0.562	14/16	1 4/16	1 11/16	2 8/16	3 6/16
W14x34	0.633	13/16	1 3/16	1 10/16	2 6/16	3 3/16
W14x38	0.706	12/16	1 2/16	1 6/16	2	2 11/16
W14x43	0.752	12/16	1 2/16	1 6/16	2	2 11/16
W14x48	0.835	11/16	1 1/16	1 6/16	2	2 11/16
W14x53	0.915	11/16	14/16	1 2/16	1 11/16	2 8/16
W14x61	0.928	11/16	14/16	1 2/16	1 11/16	2 8/16
W14x68	1.040	10/16	14/16	1 2/16	1 11/16	2 6/16
W14x74	1.120	9/16	14/16	1 2/16	1 11/16	2 4/16
W14x82	1.230	9/16	13/16	1 1/16	1 10/16	2 2/16
W14x90	1.080	10/16	14/16	1 2/16	1 11/16	2 5/16
W14x99	1.180	9/16	13/16	1 2/16	1 10/16	2 3/16
W14x109	1.290	9/16	13/16	1 1/16	1 9/16	2 1/16
W14x120	1.420	8/16	12/16	1	1 7/16	1 15/16
W14x132	1.560	8/16	11/16	15/16	1 6/16	1 13/16
W14x145	1.640	7/16	11/16	14/16	1 5/16	1 12/16
W14x159	1.780	7/16	10/16	13/16	1 4/16	1 10/16
W14x176	1.960	6/16	9/16	12/16	1 2/16	1 8/16
W14x193	2.140	6/16	9/16	12/16	1 1/16	1 7/16
W14x211	2.320	6/16	8/16	11/16	1	1 6/16
W14x233	2.550	5/16	8/16	9/16	14/16	1 4/16
W14x257	2.780	5/16	7/16	9/16	14/16	1 3/16
W14x283	3.030	5/16	7/16	9/16	13/16	1 1/16
W14x311	3.300	4/16	6/16	8/16	12/16	1
W14x342	3.580	4/16	6/16	8/16	11/16	15/16
W14x370	3.840	4/16	6/16	7/16	11/16	14/16
W14x398	4.090	4/16	5/16	7/16	10/16	14/16
W14x426	4.320	4/16	5/16	7/16	10/16	13/16
W14x455	4.590	4/16	5/16	6/16	9/16	12/16
W14x500	4.950	4/16	5/16	6/16	9/16	12/16
W14x550	5.340	4/16	4/16	6/16	8/16	11/16
W14x605	5.820	4/16	4/16	5/16	8/16	10/16
W14x665	6.210	4/16	4/16	5/16	7/16	9/16
W14x730	6.760	4/16	4/16	5/16	6/16	9/16
W16x26	0.499	15/16	1 6/16	1 13/16	2 8/16	3 9/16
W16x31	0.592	13/16	1 4/16	1 10/16	2 7/16	3 4/16
W16x36	0.617	13/16	1 4/16	1 10/16	2 7/16	3 3/16
W16x40	0.686	13/16	1 3/16	1 9/16	2 5/16	3 1/16
W16x45	0.767	12/16	1 1/16	1 6/16	2	2 11/16
W16x50	0.846	11/16	14/16	1 2/16	1 11/16	2 8/16
W16x57	0.963	10/16	14/16	1 2/16	1 11/16	2 8/16
W16x67	0.936	11/16	14/16	1 2/16	1 11/16	2 8/16
W16x77	1.070	10/16	14/16	1 2/16	1 11/16	2 5/16
W16x89	1.220	9/16	13/16	1 1/16	1 10/16	2 2/16
W16x100	1.370	8/16	12/16	1	1 8/16	2
W18x35	0.602	13/16	1 4/16	1 10/16	2 7/16	3 4/16
W18x40	0.688	12/16	1 3/16	1 6/16	2	2 11/16
W18x46	0.786	12/16	1 1/16	1 6/16	2	2 11/16
W18x50	0.778	12/16	1 1/16	1 6/16	2	2 11/16
W18x55	0.850	11/16	14/16	1 2/16	1 11/16	2 8/16
W18x60	0.923	11/16	14/16	1 2/16	1 11/16	2 8/16
W18x65	0.997	10/16	14/16	1 2/16	1 11/16	2 7/16
W18x71	1.080	10/16	14/16	1 2/16	1 11/16	2 5/16
W18x76	0.971	10/16	14/16	1 2/16	1 11/16	2 8/16
W18x86	1.090	10/16	14/16	1 2/16	1 11/16	2 5/16
W18x97	1.220	9/16	13/16	1 1/16	1 10/16	2 2/16
W18x106	1.330	8/16	12/16	1	1 8/16	2
W18x119	1.480	8/16	12/16	15/16	1 7/16	1 14/16
W21x44	0.672	13/16	1 3/16	1 9/16	2 5/16	3 1/16
W21x50	0.754	12/16	1 2/16	1 6/16	2	2 11/16
W21x57	0.857	11/16	14/16	1 2/16	1 11/16	2 8/16
W21x62	0.846	11/16	14/16	1 2/16	1 11/16	2 8/16
W21x68	0.926	11/16	14/16	1 2/16	1 11/16	2 8/16
W21x73	0.989	10/16	14/16	1 2/16	1 11/16	2 7/16
W21x83	1.120	9/16	14/16	1 2/16	1 11/16	2 4/16
W21x93	1.240	9/16	13/16	1 1/16	1 10/16	2 2/16
W21x101	1.130	9/16	14/16	1 2/16	1 11/16	2 4/16
W21x111	1.240	9/16	13/16	1 1/16	1 10/16	2 2/16
W21x122	1.350	8/16	12/16	1	1 8/16	2
W21x132	1.450	8/16	12/16	1	1 7/16	1 15/16
W21x147	1.610	7/16	11/16	14/16	1 5/16	1 12/16
W24x55	0.749	12/16	1 2/16	1 6/16	2	2 11/16

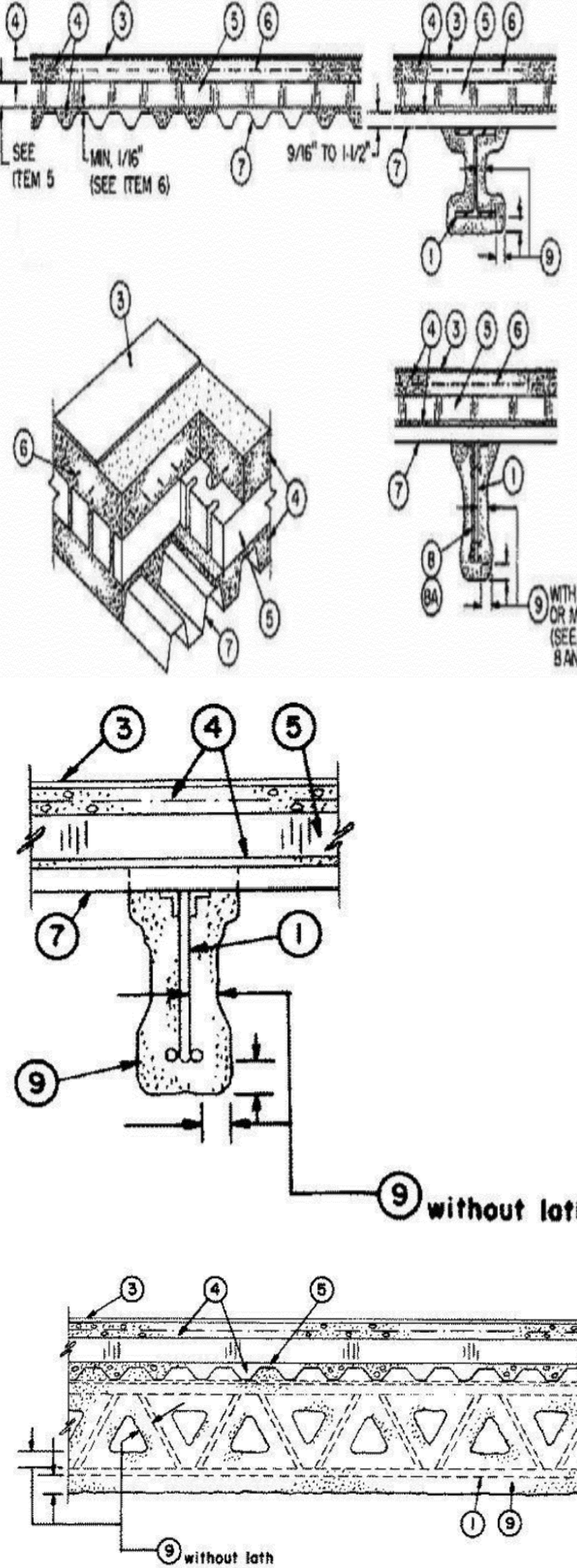


Design No. P921

December 29, 2023

Restrained Assembly Rating — 1, 1-1/2 or 2 Hr (See Items 4, 6, 7 and 9)  
Unrestrained Assembly Rating — 0 Hr (See Item 7)  
Unrestrained Beam Rating — 1, 1-1/2 or 2 Hr (See Items 4, 6, 7 and 9)  
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide [BXUV](#) or [BXUV7](#)

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Supports** — W6x16 or W8x10 beam. As alternate to steel beams, Joist girders — (Not shown) — 20 in. min depth and 13 lb/in ft min weight.

1A. **Steel Joists** — 12K5 or heavier steel joist may be used as secondary support.

2. **Bridging Angles** — (Not shown) — 1-1/4 by 1-1/4 by 1/8 in. thick angles for use with steel joists. Angles welded to top and bottom chords of the joists.

3. **Roof Covering\*** — Consisting of hot mopped or cold application materials compatible with insulation(s) described herein which provide Class A, B or C coverings. See Roofing Materials and Systems Directory-Roof Covering Materials (TEVT).

3A. **In lieu of Item 3, roof covering consisting of single-ply Roofing Membrane\*** — that is either ballasted, adhered or mechanically attached as permitted under the respective manufacturer's Classification. See Fire Resistance Directory — Roofing Membranes (CHCI).

4. **Vermiculite Concrete** — 6 cu ft of **Vermiculite Aggregate\*** to 94 lb of Portland cement and 0.11 lb of air entraining agent mixed with approx 25 gal of water. Min compressive strength shall be 125 psi when tested in accordance with ASTM C495. Min thickness above foamed plastic is 2 in. Min thickness between top of steel deck and bottom of foamed plastic shall be

1/16 in. when wire mesh (Item 6) is used and 1/8 in. when the wire mesh is not used. When foamed plastic (Items No. 5 through 5C) is not used the topping thickness of Vermiculite Concrete over the crests of steel deck shall be a min of 2-3/16 in. for the 1 and 1-1/2 h ratings and 2-3/8 in. for the 2 h rating. The max vermiculite concrete thickness shall be determined by job site conditions.

**MANDOVAL LTD**  
**MANDOVAL VERMICULITE PRODUCTS INC**

**SIPLAST INC**

**THE STRONG CO INC**  
**VERMICULITE PRODUCTS INC**

4A. **As an alternate to Item 4, Cellular Concrete— Roof Topping Mixture\*** — Foam concentrate mixed with water and Portland cement per manufacturer's specifications. Cast dry density and 28-day compressive strength of min 190 psi as determined in accordance with ASTM C495. Min thickness above foamed plastic is 2 in. Min thickness between the top of steel deck and the bottom of foamed plastic shall be 1/8 in. When foamed plastic is not used, the min thickness of Roof Topping Mixture\* above the top of the steel deck shall be 2-3/4 in.

**AERIX INDUSTRIES** — Cast dry density 37 (+ or -) 3.0 pcf.

**CELCORE INC** — Type Celcore with cast dry density of 31 (+ or - 3.0) pcf or Type Celcore MF with cast dry density of 29 (+ or - 3.0) pcf.

**CONCRECEL INTERNATIONAL INC** — Cast dry density 38 (+ or -) 3.0 pcf.

**ELASTIZELL CORP OF AMERICA** — Type II, Mix #1 of cast dry density 39 (+ or -) 3.0 pcf, Mix #2 of cast dry density 40 (+ or -) 3.0 pcf, Mix #3 of cast dry density 47 (+ or -) 3.0 pcf.

**SIPLAST INC** — Mix #2. Cast dry density of 36 (+ or -) 3.0 pcf.

4B. **As an alternate to Item 4 — Perlite Concrete** — Mix consists of 6 cu ft of **Perlite Aggregate\*** to 94 lb of Portland cement and 1-1/2 pints of air-entraining agent. Thickness of perlite concrete topping to be 2 in. min from the top plane of the foamed plastic. Min thickness between the top of steel deck and the bottom of the foamed plastic shall be 1/8 in. See **Perlite Aggregate** (CFFX) category in Fire Resistance Directory for names of Classified companies.

4C. **As an alternate to Item 4 — Cellular Concrete — Roof Topping Mixture\*** — Foam Concentrate mixed with water, Portland Cement and UL Classified Vermiculite Aggregate per manufacturer's application instructions. Cast dry density of 33 (+ or -) 3.0 pcf and 28-day compressive strength of min 250 psi as determined in accordance with ASTM C495-86. A 1/8 in. min slurry coat shall be employed below the foamed plastic (Item 5). The cellular concrete topping thickness, above the foamed plastic, shall be 2 in. min. When foamed plastic is not used, the min thickness of Roof-Topping Mixture, above the top of the steel deck, shall be 2-3/4 in.

**AERIX INDUSTRIES** — Mix #3.

**SIPLAST INC** — Mix #3.

4D. **As an alternate to Item 4 — Cellular Concrete — Roof Topping Mixture\*** — Foam concentrate mixed with water and Portland cement per manufacturer's specifications. Cast dry density and 28-day compressive strength of min 190 psi as determined in accordance with ASTM C495. Min thickness above foamed plastic is 2 in. Min thickness between the top of steel deck and the bottom of foamed plastic shall be 1/8 in. When foamed plastic is not used, the min thickness of Roof Topping Mixture\* above the top of the steel deck shall be 2-3/4 in.

**CELCORE INC** — Type Celcore with cast dry density of 31 (+ or - 3.0) pcf or Type Celcore MF with cast dry density of 29 (+ or - 3.0) pcf.

5. **Foamed Plastic\*** — (Optional) — Foamed plastic insulation boards with holes and/or slots. Nom size 24 by 48 in. Thickness shall be 3/4 in. to 8 in.

**SIPLAST INC**

**VERMICULITE PRODUCTS INC**  
5A. **Foamed Plastic\*** — Nom 24 by 48 in., 48 by 48 in., 24 by 96 in. or 48 by 96 in. by max 14 in. thick polystyrene foamed plastic insulation boards with holes symmetrically placed having a max density of 2.0 pcf. For use only with cellular concrete roof topping mixture.

5B. **Foamed Plastic\*** — (Optional) — Nom 24 x 48 by max 8 in. thick polystyrene foamed plastic insulation boards having a density of 2.5 pcf max. Each insulation board shall contain six nom 3 in. diam holes oriented in two rows of three holes each, with the holes spaced 12 in. OC transversely and 16 in. OC longitudinally. See **Foamed Plastic\*** (BRYX) category in the Building Materials Directory or **Foamed Plastic\*** (CCVW) category in Fire Resistance Directory for list of Classified Companies.

5C. **Foamed Plastic\*** — (Optional) — For Use With Items 4A and 4D) — Nominal 24 by 48 by max 14 in. thick expanded polystyrene foamed plastic insulation boards having a max. density of 2.5 ± 0.1 pcf encapsulated within cellular concrete topping. Each insulation board shall contain eight min 2 in. diameter holes oriented in two rows of four holes each with the holes spaced 12 in. OC transversely and 12 in. OC longitudinally or six min 3 in. diameter holes oriented in two rows of three holes each with the holes spaced 12 in. OC transversely and 16 in. OC longitudinally. See **Foamed Plastic\*** (BRYX) category in the Building Materials Directory or **Foamed Plastic\*** (CCVW) category in Fire Resistance Directory for list of Classified Companies.

6. **Wire Mesh** — No. 19 SWG galv steel wire twisted to form 2 in. hexagons. In addition, straight No. 16 SWG galv steel wire woven into mesh and spaced 3 in. apart for stiffness. Mesh installed without attachment perpendicular to supports and overlapped 6 in. at the sides. As an alternate, 4 by 8 in., No. 12/14 SWG or 2 by 2 in., No. 14/14 SWG welded wire fabric may be used. The wire mesh may be omitted for the **1 and 1-1/2 h ratings**. Thickness of vermiculite concrete between the top of the roof deck and the bottom of the foamed plastic insulation shall be 1/8 in. min when wire mesh is not used.

6A. **Fiber Reinforcement\*** — (Optional, not for use to achieve 2 hr ratings) — For use only with Roof-Topping Mixtures\* manufactured by Cellular Concrete LLC. In lieu of Wire Mesh (Item 6), Fiber Reinforcement may be added to roof

topping mixtures (Items 4A or 4C). See Fiber Reinforcement (CBXQ) Category for rate that fibers are added to roof topping mixture.  
**FORTA CORP** — Types Econo-Mono, Mighty-Mono, Stucco-Bond, Econo-Net, Cast-Master, Super-Net, Ultra-Net.

6B. **Wire Lath** — (As alternate for Wire Mesh Item 6) - For use only with Roof-Topping Mixtures\* manufactured by ELASTIZELL CORP OF AMERICA. Welded wire lath, Type Structuralath, 17 ga. galv steel wire welded to form 1-1/2 by 1-1/2 inch openings. Lath installed without attachment perpendicular to supports and overlapped 6 in. at the sides. The wire lath may be omitted for the **1 and 1-1/2 h ratings**. Thickness of cellular concrete between the top of the roof deck and the bottom of the foamed plastic insulation shall be 1/8 in. min when wire lath is not used.

7. **Steel Roof Deck** — (Unclassified) — Noncomposite design, vented or nonvented units, 9/16 in., 15/16 in., 1-5/16 in., 1-1/2 or 2 in. deep galv units, nom 24 to 36 in. wide. When vented or nonvented 9/16 in. deep galv units are used, the **Restrained Assembly and Beam Ratings shall not exceed 1-1/2 h**. Welded to supports with 3/8 in. puddle welds through weld washers spaced 15 in. OC. Adjacent units overlapped one corrugation. Max support spacing 8 ft OC unless otherwise noted for specific Classified units and their recommended loadings. Steel thickness to be No. 24 MSG min when supports are spaced not more than 8 ft OC, No. 26 MSG min when supports are spaced not more than 6 ft OC, and No. 28 MSG, 9/16 in. deep steel deck may be used when supports are spaced 4 ft OC. Roof deck units to be loaded not more than 75 percent of their max allowable bending stress. For clear spans not more than 7 ft., 8-3/8 in. the **Unrestrained Assembly Rating is equal to the Restrained Assembly Rating**. Or, **Classified Steel Floor and Form Units\*** conforming to the same installation, steel thickness, loading requirements and **Restrained Assembly Rating** as described for unclassified units.

**ASC STEEL DECK, DIV OF ASC PROFILES L L C** — Types CP32, C14-32, B-36, BN-36, BN-35-1/4, DGB-36, CP-32 Ventform, 2WH-36 and 2WH5-36. Two or three 10 ft 0 in. continuous spans may be used for Type B-36, BN-36, BN-35-1/4, DGB-36, 2WH-36, or 2WH5-36 units, and 12 ft 0 in. simple or continuous spans may be used for Type N units, provided that the total loading on these spans is based on the allowable steel stress and the deflection limitation criteria using the steel (noncomposite) section properties of these units.

**CANAM GROUP INC** — Types P-3606, P-3615, or P-3012; 36 in. wide Types 1.5B, 1.5B1; 24 in. wide Types 3N, 3N1.

**CANAM STEEL CORP** — Types B, UFX, UFXV, UFX-36, UFXV-36. Types NI and NS deck may be used on simple or continuous 12 ft 0 in. spans with the total loading on these spans limited by the allowable bending stress and/or the deflection criteria of this deck.

**DECK WEST INC** — 36 in. wide Type B-DW, BA-DW or 3-DW. The Type 3-DW units made from 22 ga or heavier steel may be used for a maximum 10 ft., 0 in. spans, provided that the total loading on these spans is based on the allowable steel stresses and the deflection limitation criteria using the steel (noncomposite) section properties of these units.

**EPIC METALS CORP** — Type Metricform, ER2R, ER3.5, ECA, ECA3.5.

**GOODER HENRICHSEN CO.** — Type B.

**INTSEL STEEL EAST LLC** — 36 in. wide Type 1.5" B-DECK/ROOF, 24 in. wide Type N-DECK/ROOF.

**KAM INDUSTRIES LTD, DBA CORDECK** — Type QL-3 or Sec. 3 with or without up-punched integral hanger tabs, and 3 in. QL-99. The 3 in. deep Type QL-99 units made from 22 ga or heavier steel may be used for max 10 ft, 0 in. spans, provided the total loading on these spans is based on the allowable steel stresses and the deflection limitation criteria using the steel (noncomposite) section properties of these units.

**MARLYN STEEL DECKS INC** — Types B, BV, EF, EVF, F, HF, HVF, N, NV, SF, SVF, Type Marcore.

**NEW MILLENNIUM BUILDING SYSTEMS L L C** — Types B, BI, N, F, 0.6FD, 1.0FD, 1.5FD, 0.6FDV, 1.0FDV, BV, EHD, EHDV, HD, HDV, S, SV, SD, SDV, SDR, NW32 and NW32L. Units may be phos/painted or galvanized.

**ROOF DECK INC** — Vented or Nonvented Types EHD Multi-Rib, HD Multi-Rib, S Multi-Rib.

**STEEL MASTERS INTERNATIONAL DEPENDABLE STEEL** — 36 in. wide Types 2WH-36. Two or three 10 ft 0 in. continuous spans may be used for Type 2WH-36 units, provided that the total loading on these spans is based on the allowable steel stress and the deflection limitation criteria using the steel (noncomposite) section properties of these units.

**VALLEY JOIST+DECK** — Types F, B, BI, VS, B vented.

**VERCO DECKING INC - A NUCOR CO** — Deck types PLB, HSB, PLN3, HSN3, PLN, N, Shallow or Deep VERCOR™, Deep VERCOR PLVENTLOK, System 80; FORMLOK™ deck types PLB, B, PLN3, N3, PLN, N, PLW2, W2. Units may be galvanized, phos/pdtd., or mill finish. Deck may be vented or non-vented. Two or three 10 ft 0 in. continuous spans may be used for the following units under the following conditions: (A) For Types PLB, PLB FORMLOK™, B, B FORMLOK™, PLW2 FORMLOK™ and W2 FORMLOK™ units the total loading on these spans shall be based on the allowable steel stress or the deflection limitation criteria using the steel (non-composite) section properties of these units. (B) For System 80 the min gauge of units is 18 MSG and use is limited to three continuous spans. Types 2.0D, 3.5D.

Deck types PLN, N may be used on simple or continuous 12 ft 0 in. spans with the total loading on these spans limited by the allowable bending stress and/or the deflection limitation criteria.

**VULCRAFT, DIV OF NUCOR CORP** — Types 0.6C, 0.6CPR, 0.6CSV, 1.0C, 1.0CSV, 1.3C, 1.3CSV, 1.5C, 2C, 3C, 1.5B, 1.5B1, 1.5PLB, 1.5F, 3N, 3N1, 3.0PLN, 3NL-32, 3NI-32, 3PLN-32. Type 1.5B units made from 21MSG or heavier steel may be used on simple or continuous 10 ft 0 in. spans with the total load on these spans limited by the allowable bending stress and/or the deflection criteria of this deck. Type 3N made from 22MSG or heavier steel may be used on simple or continuous 12 ft 0 in. spans with the total load on these spans limited by the allowable bending stress and/or the deflection criteria of this deck; Types B High Strength, BW High Strength, Nonvented Types BW, 2.0D, 3.5D.

8. **Metal Lath** — (Not Shown) — (Required on both sides of joists with Z-146, Z-146T, Z146PC, Z-156, Z-156T and Z-156PC, otherwise optional I) — Metal lath is used to facilitate the spray application of Spray-Applied Fire Resistive Materials on steel bar joists and trusses. The diamond mesh, 3/8 in. expanded

steel lath, 1.7 to 3.4 lb per sq yd, is secured to one side of each steel joist with No. 18 SWG galv steel wire at joist web and bottom chord members, spaced 15 in. OC max. When used, the metal lath is to be fully covered with Spray-Applied Fire Resistive Materials with no min thickness requirements.

8A. **Non-Metallic Fabric Mesh** — (Optional) — As an alternate to metal lath, glass fiber fabric mesh, weighing approximately 2.5 oz per sq yd, polypropylene fabric mesh, weighing approximately 1.25 oz per sq yd or equivalent, is used to facilitate the spray application. The mesh is secured to one side of each joist web member. The method of attaching the mesh must be sufficient to hold the mesh and the spray-applied Spray-Applied Fire Resistive Materials material in place during application until it has cured. An acceptable method to attach the mesh is by embedding the mesh in minimum 1/4 in. long beads of hot melted glue. The beads of glue shall be spaced a maximum of 12 in. OC along the top chord of the bar joist. Another method to secure the mesh is by 1-1/4 in. long by 1/2 in. wide hairpin clips formed from No. 18 SWG or heavier steel wire.

9. **Spray-Applied Fire Resistive Materials\*** — Applied by mixing with water and spraying in more than one coat to the final thickness shown below to joist or beam surfaces which are clean, free of dirt, loose scale and oil. A 1-3/4 in. thickness of Spray-Applied Fire Resistive Materials shall be applied to the bridging bars. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 19/18 pcf respectively for Type 7GP and 7HD. For method of density determination refer to Design Information Section.

		Thkns In.			
Restrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Min Thkns on Beam W6x16	Min Thkns on Beam W8x10	Min Thkns on Joist (No. Lath)	Min Thkns on Joist (with Lath)
1		1	1-3/8	1-1/2+	1-1/2+
1-1/2	1-1/2	1-1/4	1-3/4	2-1/4	1-3/4
2	1-1/2	1-3/8	1-7/8	2-1/4	1-3/4
2	2	1-5/8	2-1/4	2-7/16	1-7/8

**ARABIAN VERMICULITE INDUSTRIES** — Types MK-6/CBF, MK-6/ED, MK-/HY, MK-6S, Sonophone 1.

**GCP APPLIED TECHNOLOGIES INC** — Types MK-6/HY, MK-6S, RG, Monokote Acoustic 1.

**GCP KOREA INC** — Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6S, Monokote Acoustic 1.

**PYROK INC** — Type LD

**SOUTHWEST FIREPROOFING PRODUCTS CO** — Types 4, 5, 5EF, 5GP, 5MD, 7GP, 7HD, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD

+ For 1 Hr ratings, the min joist size shall be 14J7.

9A. **Spray-Applied Fire Resistive Materials\*** — (Not Shown) — In lieu of Item 9 the following Spray-Applied Fire Resistive Materials may be applied by mixing with water and spraying in multiple coats to final thicknesses shown below. Min avg and min ind density 19/18 pcf respectively for Types 7GP, 10S. Min avg and min ind density of 22/19 pcf respectively for Types Z-106, Z-106/G, Z-106/HY. For method of density determination, refer to Design Information Section, Sprayed Material.

Restrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Min Thkns on Beam in W6x16	Min Thkns on Beam in W8x10
1		1	1-1/16
1-1/2		1-1/2	1-3/8
2		1-1/2	1-15/16
2		2	1-13/16
2			2-9/16

**ARABIAN VERMICULITE INDUSTRIES** — Types Sonophone 5, Z-106, Z-106/G, Z-106/HY.

**GCP APPLIED TECHNOLOGIES INC** — Types 10S, Monokote Acoustic 5, KM-601, Z-106, Z-106/G, Z-106/HY.

**GCP KOREA INC** — Types Monokote Acoustic 5, Z-106, Z-106/G, Z-106/HY.

**SOUTHWEST FIREPROOFING PRODUCTS CO** — Type 7GP.

9B. **Spray-Applied Fire Resistive Materials\*** — (Not Shown) — In lieu of Item 9 or 9A the following Spray-Applied Fire Resistive Materials may be applied by mixing with water and spraying in multiple coats to final thicknesses shown below. Min avg and min ind density 40/36 pcf respectively. Min avg and min ind density of 40/36 pcf respectively for Types Z-146, Z-146PC and Z-146T cementitious mixture. Min avg and min ind density of 50/45 pcf respectively for Types Z-156, Z-156T and Z-156PC. For method of density determination, refer to Design Information Section, Sprayed Material.

Restrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Min Thkns on Beam in W6x16	Min Thkns on Beam in W8x10
1		1	1-1/16
1-1/2		1-1/2	1-3/8
2		1-1/2	1-15/16
2		2	1-13/16
2			2-9/16

**ARABIAN VERMICULITE INDUSTRIES** — Type Z-146

**GCP APPLIED TECHNOLOGIES INC** — Types Z-146, Z-146T, Z146PC, Z-156, Z-156T and Z-156PC

**GCP KOREA INC** — Type Z-146

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

THIS DOCUMENT CONTAINS PROPRIETARY TO DAVIS STOKES COLLABORATIVE P.C. THE CONTENTS MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT THE WRITTEN CONSENT OF DAVIS STOKES COLLABORATIVE P.C. COPYRIGHT 2023. ALL RIGHTS RESERVED.

7121 CROSSROADS BLVD  
BRENTWOOD, TN 37027  
TEL (615) 726-0010  
MAIL dscinfo@dsccol.com  
WEB www.dsccol.com

DAVIS STOKES COLLABORATIVE P.C.  
DSC ARCHITECTS

REVISIONS

NO. DATE DESCRIPTION

G3.07

ISSUE DATE 06/28/24  
JOB NUMBER 21059

STATE OF FLORIDA  
WILLIE O. STOKES  
REGISTERED ARCHITECT  
11169  
2600023  
12/28/24

JUPITER MEDICAL CENTER  
NEIGHBORHOOD HOSPITAL AT AVENIR  
PALM BEACH GARDENS, FLORIDA





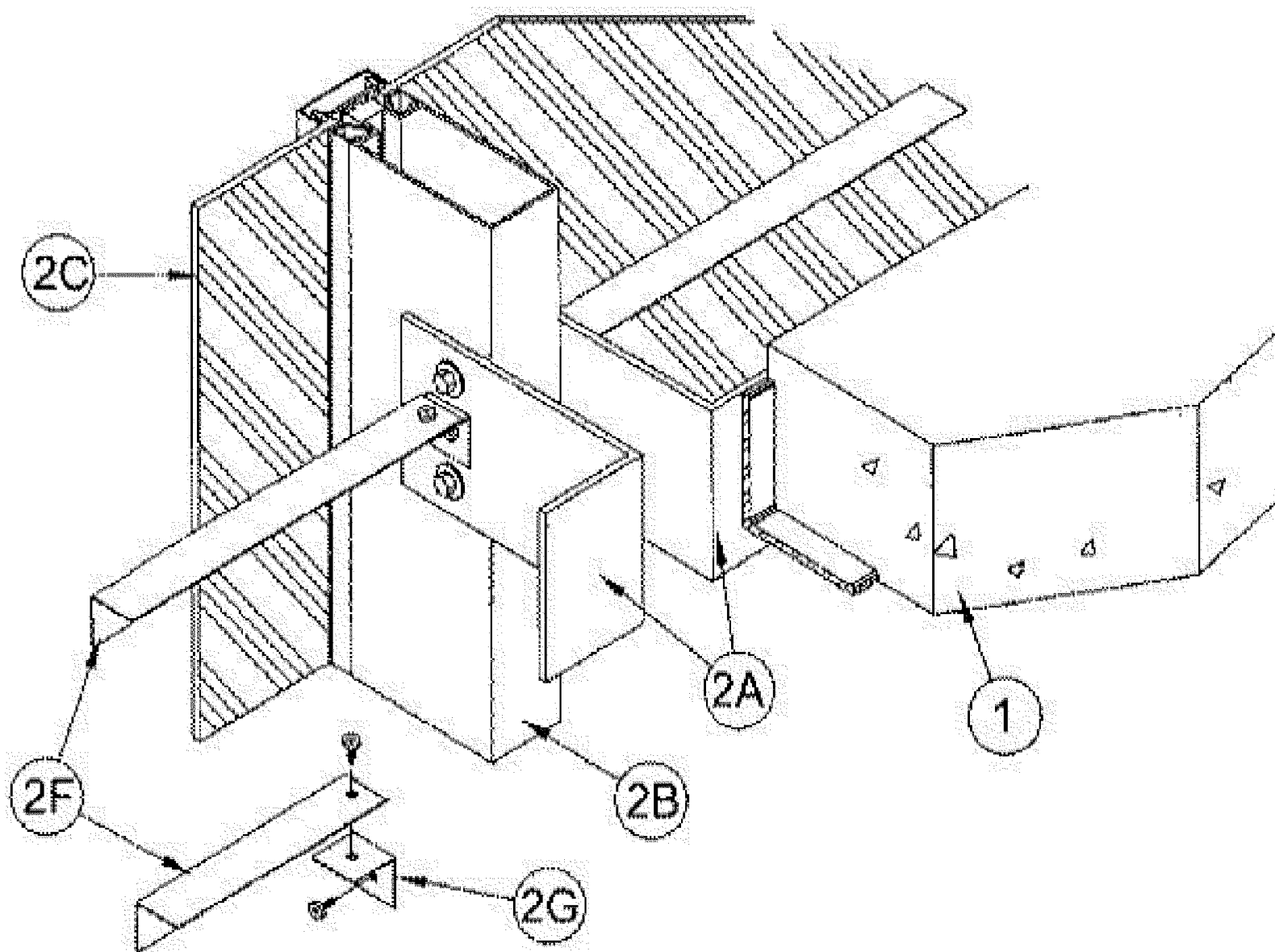
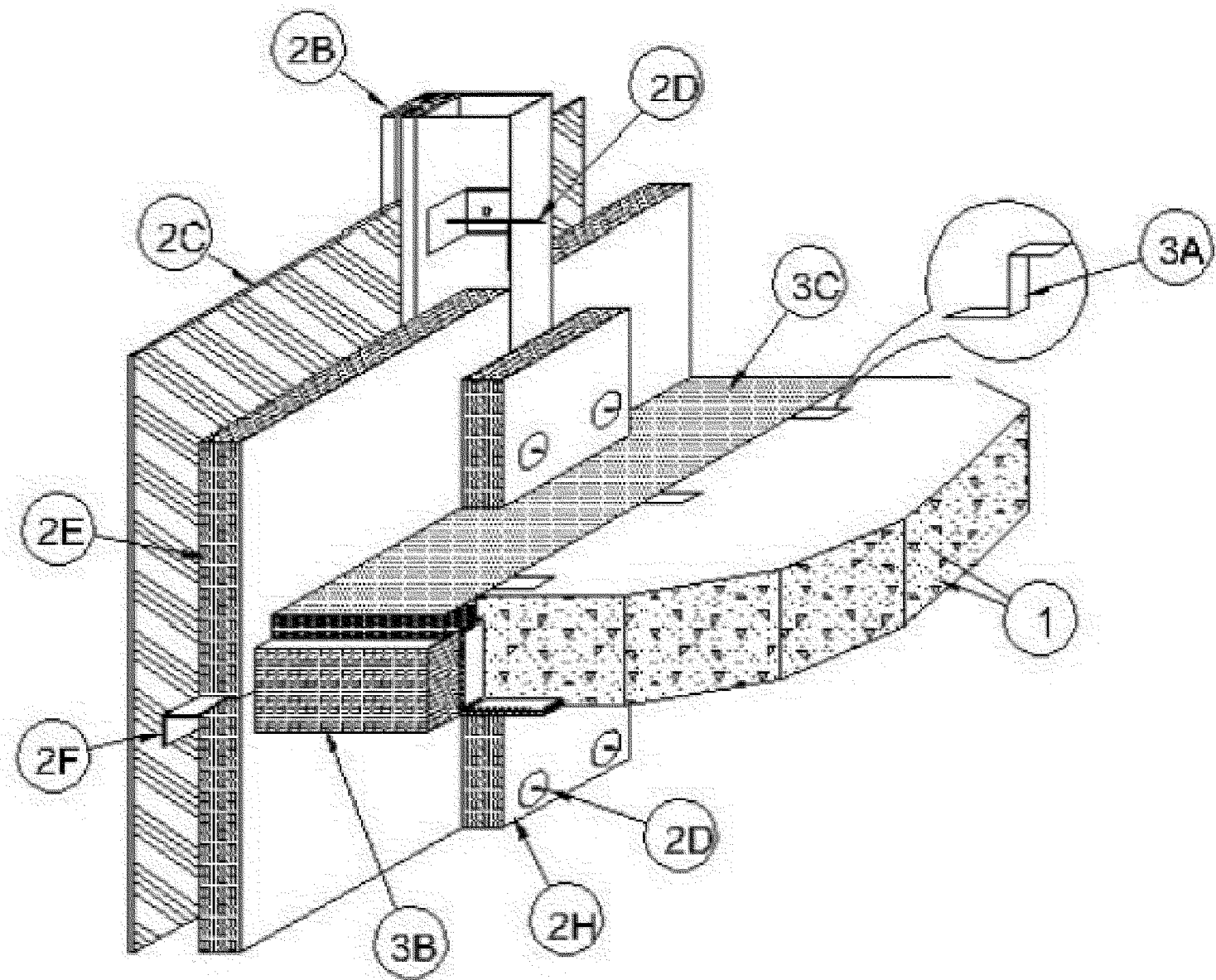


**System No. CW-S-2001**

January 28, 2008

**F Rating — 2 Hr****T Rating — 3/4 Hr****Integrity Rating — 2 Hr****Insulation Rating — 3/4 Hr**

**Linear Opening Width — 8 In. Max**



**1. Floor Assembly** — Min 5 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete. Perimeter of floor assembly to be provided with min 4 by 4 by 1/4 in. thick cast-in-place structural steel angle for weld-attachment of mullion mounting angles (Item 2A).

**2. Curtain Wall Assembly** — The curtain wall assembly shall incorporate the following construction features:

**A. Mullion Mounting Angles** — Min 5 in. long angles with one nom 4 in. leg for attachment to edge of floor assembly and with one leg approx 2 in. longer than distance to nearest face of mullion. Angles to be formed of min 1/4 in. thick steel. Angles welded to steel angle at edge of floor assembly (Item 1) on each side of vertical mullion (Item 2B) at each floor level. Top edge of each angle to be recessed 1 to 2 in. below top surface of floor.

**B. Framing** — The rectangular tubing mullions (vertical members) and transoms (horizontal members) shall be min 2-1/2 in. wide by 4-1/2 in. deep and shall be formed from min 0.100 in. thick aluminum. Mullions spaced max 60 in. OC and secured to steel mounting angles (Item 2A) at each floor level with two 3/8-16x4 in. long hex head steel bolts in conjunction with anchor sleeves. Interior face of mullions to be max 8 in. from edge of floor assembly. Transoms to be spaced min 72 in. OC. Transom above perimeter joint system to be located such that its bottom surface is at a height of 33 in. above the top surface of the floor (Item 1).

**C. Spandrel Panels** — Nom 1/4 in. thick opaque heat-strengthened glass. Each panel secured in position with aluminum retainers in conjunction with glazing gaskets and steel screws.

**D. Impaling Pins** — Min 4-1/2 in. long 12 gauge steel pins swaged to nom 2 by 2 by 2 in. long galv steel angle. Steel angle screw-attached to mullions and transoms with No. 12 steel screws. Impaling pins to be located in each corner and spaced max 12 in. OC around perimeter of each spandrel panel. Leg of steel angle provided with impaling pin to be recessed 2 in. from interior face of framing such that curtain wall insulation (Item 2E) is flush with interior face of framing.

**E. Curtain Wall Insulation\*** — Min 2 in. thick mineral wool batt insulation, unfaced or faced on one side with aluminum foil/scrin vapor retarder, supplied in nom 36 in. wide batts. Insulation batts installed over entire interior surface of curtain wall. Insulation batts to be installed with

no vertical seams and with horizontal seams spaced min 36 in. OC. Insulation panels tightly-fitted between vertical mullions and impaled on pins (Item 2D), flush with interior surface of framing, and secured in position with min 1-1/2 in. diam steel clinch shields. The horizontal seam between insulation panels shall be located 3 in. below the top plane of the floor at each floor level.

**THERMAFIBER INC — FIRESPAN 90**

**F. Stiff Back Angle** — Nom 1-1/2 by 1-1/2 in. angle formed of min 20 gauge galv steel to be installed to stiffen curtain wall insulation between vertical mullions at sifting joint. Ends of stiff back angle secured to angle attachment clips (Item 2G) with steel screws. Horizontal leg of stiff back angle to be located at midheight of forming material (Item 3B). Vertical leg of stiff back angle to be recessed from interior face of mullion to accommodate thickness of curtain wall insulation (Item 2E).

**G. Angle Attachment Clip** — Nom 1-1/2 by 1-1/2 by 1-1/2 in. long angle formed of min 20 gauge galv steel. Angle attachment clips welded or screw-attached to mullion mounting angles (Item 2A) for attachment of stiff back angles (Item 2F).

**H. Framing Covers — Curtain Wall Insulation\*** — Min 8 in. wide strips cut from the same nom 2 in. thick mineral wool batt insulation used for the curtain wall insulation (Item 2E). Framing covers to be centered over mullions and transoms and impaled on the same pins used to secure the curtain wall insulation and secured in position with steel clinch shields.

THERMAFIBER INC — FIRESPAN 90

**L Light Gauge Framing\* - Spiral Anchor** — (Not Shown) - As an alternate to the impaling pins (Item 2D), galv steel wire spiral anchors may be used to secure the framing covers (Item 2H) to the curtain wall insulation (Item 2E) on each side of the mullion. Nom length of spiral anchors to be equal to thickness of curtain wall insulation plus thickness of framing cover. Spiral anchors driven through mullion covers and into curtain wall insulation and spaced max 12 in. OC.

**THERMAFIBER INC**

**3. Perimeter Fire Containment System** — The perimeter fire containment system shall incorporate the following construction features:

**A. Support Clips** — Z-shaped clips formed from 1 in. wide strips of 20 ga galv steel. Clips to be 3 in. high with 2 in. and 3 in. upper and lower horizontal legs, respectively. The 3 in. horizontal leg is to be impled into edge of forming material (Item 3B) at its middepth and the 2 in. horizontal leg is to rest on top surface of floor. Saffing clips to be located adjacent to mullion mounting angles (Item 2A) and spaced max 12 in. OC along perimeter of floor assembly.

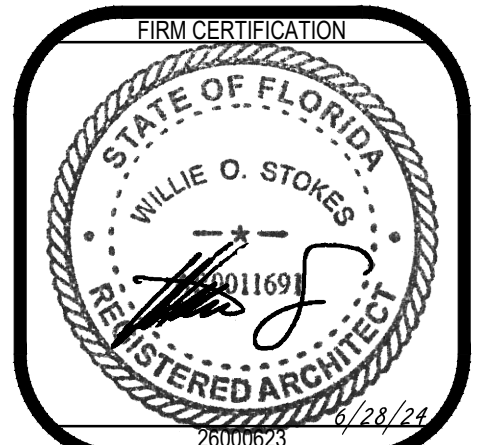
**B. Forming Material\***—Nom 4 in. thick, nom 4 pcf density mineral wool batt insulation. Batt sections to be cut to a width approx 25 percent greater than width of perimeter joint and compression-fitted into perimeter joint such that its top surface is recessed 1 in. from top surface of floor assembly. Length of batt to be equal to on center spacing of mullions such that it is friction-fitted between mullions without seams. Additional pieces of forming material to be friction-fitted into spaces between mullion mounting angles at each mullion location.

**THERMAFIBER INC — Type SAF**

**C. Fill, Void or Cavity Material\*** — Min 1 in. thickness of fill material installed atop forming material, flush with top surface of floor assembly. Dry mix or ready-mix material. Dry mix material mixed with water in accordance with the accompanying installation instructions.

**UNITED STATES GYPSUM CO — Types FC, RFC**

\*Bearing the UL Classification Mark



JUPITER MEDICAL CENTER  
NEIGHBORHOOD HOSPITAL AT AVENIR

FLORIDA

PALM BEACH GARDENS,

THIS DOCUMENT CONTAINS  
INFORMATION THAT IS  
PROPRIETARY TO DAVIS, STOKES  
COLLABORATIVE, P.C. THIS  
DOCUMENT AND/OR ITS  
CONTENTS MAY NOT BE  
REPRODUCED OR DISCLOSED TO  
THIRD PARTIES, EITHER IN WHOLE OR IN  
PART, WITHOUT THE PRIOR  
WRITTEN CONSENT OF DAVIS,  
STOKES COLLABORATIVE, P.C.  
COPYRIGHT 2024, ALL RIGHTS  
RESERVED

DAVIS STOKES COLLABORATIVE P.C.

**DSC**

ARCHITECTS

7121 CROSSROADS BLVD  
BRENTWOOD, TN 37027

TEL (615) 726-0010

MAIL [dsinfo@dsccol.com](mailto:dsinfo@dsccol.com)

WEB [www.dsccol.com](http://www.dsccol.com)

## REVISIONS

[illegible]

G3.09

ISSUE DATE:	JOB NUMBER
06.28.24	21059





**NOTE:**

- 1.) CONTROLS FOR WATER CLOSET FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS.
- 2.) THE FORCE REQUIRED TO ACTIVATE WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, FAUCET AND OPERATING MECHANISM CONTROLS, SHALL BE NO GREATER THAN 5 Lbf.

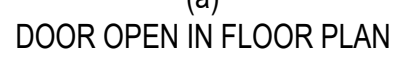
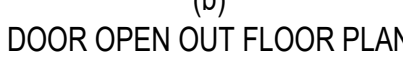
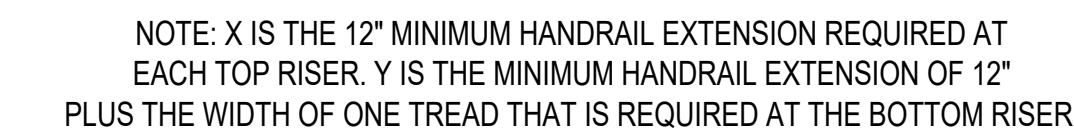


FIG. 10  
TYPICAL TOILET LAYOUTS



NOTE: X IS THE 12" MINIMUM HANDRAIL EXTENSION REQUIRED AT EACH TOP RISER. Y IS THE MINIMUM HANDRAIL EXTENSION OF 12" PLUS THE WIDTH OF ONE TREAD THAT IS REQUIRED AT THE BOTTOM RISER.

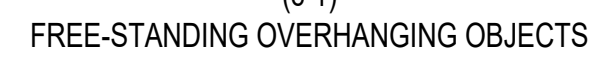
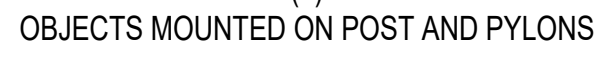
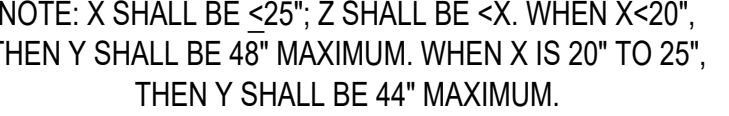
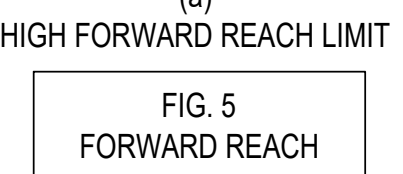


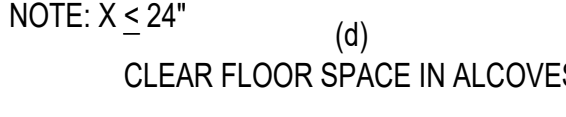
FIG. 8  
PROTRUDING OBJECTS

[illegible]

MAXIMUM FORWARD REACH OVER AN OBSTRUCTION



10/10/2016



FOR SPACE FORWARD APPROACH

FIG. 4  
MINIMUM CLEARANCE WIDTH  
FOR TWO WHEELCHAIRS



\_\_\_\_\_

FIG. 3  
WHEELCHAIR TURNING SPACE



FIG. 1	MINIMUM
REAR WHEELCHAIR	FOOT

FIG. 2  
MINIMUM CLEARANCE WIDTH  
FOR TWO WHEELCHAIRS

**GENERAL NOTE:**

THIS DATA IS PROVIDED AS AN ADDITIONAL RESOURCE TO THE TEAM OF OWNER, CLIENT, ARCHITECT, ENGINEER AND SPECIFICALLY CONTRACTOR. THIS IS A TOOL TO APPRISE ALL PARTIES OF GENERAL ACCESSIBLE CONDITIONS AS PUBLISHED PER THE 2010 ADA AMERICANS WITH DISABILITIES ACT, AND THE ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES. THE DIAGRAMS ARE VERBATIM DUPLICATIONS OF THE 2010 ADA STANDARDS AND ARE NOT INDICATIVE OF ALL CONDITIONS AND CERTAINLY DO NOT FULLY REPRESENT THE ENTIRETY OF THE WRITTEN GUIDELINES AS CONTAINED IN THE STANDARDS. THIS DATA IS IN SUPPORT OF GENERAL ARCHITECTURAL AND ENGINEERING DOCUMENTATION WHICH IS INTENDED TO BE CONSISTENT WITH ACCESSIBLE CONDITIONS. HOWEVER, THE 2010 ADAAG IS NOT A BUILDING CODE AND NOT NECESSARY REVIEWABLE OR ENFORCEABLE BY TRADITIONAL BUILDING OFFICIALS. THE 2010 ADAAG IS A CIVIL STATUTE. THEREFORE, THE ENTIRE TEAM OF OWNER, CLIENT, ARCHITECT, ENGINEER AND SPECIFICALLY CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE TO THE SPECIFIC INTENT OF THE LAW. THIS DATA IS PROVIDED TO ACT AS AN ADDED SAFEGUARD TO FULLY FAMILIARIZE THE TEAM WITH EXPECTATIONS ASSOCIATED WITH THE 2010 ADA STANDARD AND TO ASSIST THE TEAM IN ACHIEVING FULLY ACCESSIBLE CONDITIONS AS REQUIRED BY CIVIL LAW. WE ENCOURAGE THE DETAILED REVIEW BY OWNER AND CONTRACTOR.



THIS DOCUMENT CONTAINS  
INFORMATION THAT IS  
PROPRIETARY TO DAVIS, STOKES  
COLLABORATIVE, P.C. THIS  
DOCUMENT AND/OR ITS  
CONTENTS MAY NOT BE  
REPRODUCED OR DISCLOSED TO  
OTHERS, EITHER IN WHOLE OR IN  
PART, WITHOUT THE PRIOR  
WRITTEN CONSENT OF DAVIS,  
STOKES COLLABORATIVE, P.C.  
COPYRIGHT 2024. ALL RIGHTS  
RESERVED

7121 CROSSROADS BLVD  
BRENTWOOD, TN 37027

TEL (615) 726-0010

MAIL [dscinfo@dsccol.com](mailto:dscinfo@dsccol.com)

WEB [www.dsccol.com](http://www.dsccol.com)

DAVIS STOKES COLLABORATIVE P.C.  
DSC ARCHITECTS

[illegible]