



## Design No. U451

### BXUV.U451

### Fire Resistance Ratings - ANSI/UL 263

[Page Bottom](#)

#### Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

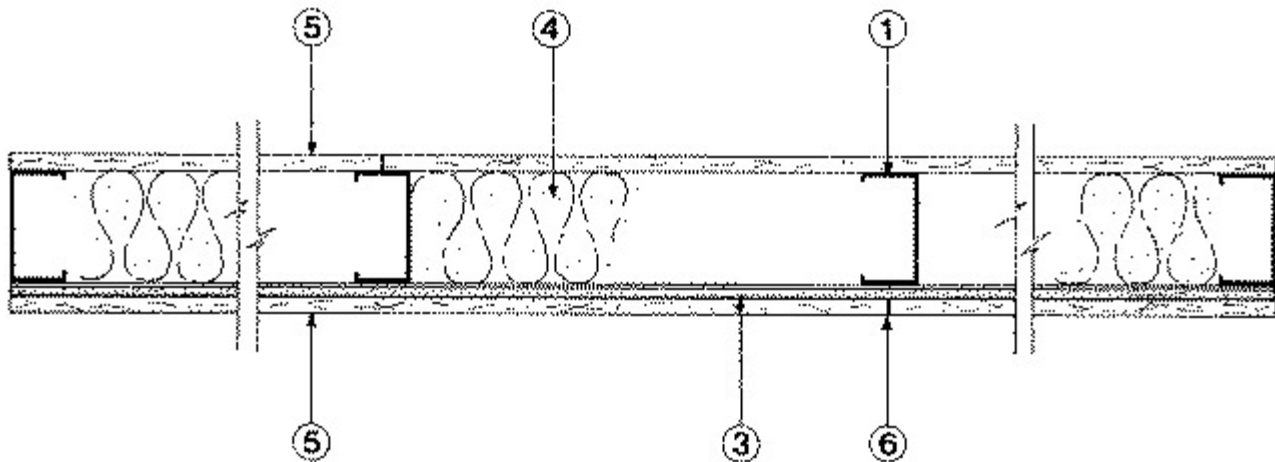
#### Fire-resistance Ratings - ANSI/UL 263

[See General Information for Fire-resistance Ratings - ANSI/UL 263](#)

## Design No. U451

June 07, 2013

### Nonbearing Wall Rating — 1 HR.



1. **Studs** — Channel-shaped, min 2-1/2 in. wide by 1-1/4 in. deep with 5/16 in. folded back return flange legs. Fabricated from No. 25 MSG galv steel. Max stud spacing 24 in. OC. Studs to be cut 1 in. less than assembly height.

1A. **Framing Members\* - Steel Studs** — Not shown - In lieu of Item 1 — For use with Item 2A, proprietary channel shaped steel studs, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.020 in. thick galv steel. Max stud spacing 24 in. OC. Studs cut 1 in. less in length than assembly height.

**CALIFORNIA EXPANDED METAL PRODUCTS CO** — Viper20™

**MARINO/WARE, DIV OF WARE INDUSTRIES INC** — Viper20™

**PHILLIPS MFG CO L L C** — Viper20™

1B. **Framing Members\*— Steel Studs** — Not shown - In lieu of Item 1 — For use with Item 2B, channel shaped steel studs, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced max 24 in. OC. Studs cut 1 in. less in length than assembly height.

**CLARKDIETRICH BUILDING SYSTEMS** — CD ProSTUD

**DMFCWBS L L C** — ProSTUD

**MBA BUILDING SUPPLIES** — ProSTUD

**RAM SALES L L C** — Ram ProSTUD

**SOUTHEASTERN STUD & COMPONENTS INC** — ProSTUD

**STEEL STRUCTURAL SYSTEMS L L C** — Tri-S ProSTUD

1C. **Framing Members\* - Steel Studs** — Not shown - In lieu of Item 1 — For use with Item 2C, proprietary channel shaped steel studs, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.020 in. thick galv steel. Max stud spacing 24 in. OC. Studs cut 1 in. less in length than assembly height.

**TELLING INDUSTRIES L L C** — Viper20™

1D. **Framing Members\*— Steel Studs** — Not shown - In lieu of Item 1 — For use with Item 2D, channel shaped steel studs, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced max 24 in. OC. Studs cut 1 in. less in length than assembly height.

**TELLING INDUSTRIES L L C** — TRUE-STUD™

2. **Floor and Ceiling Runners (Not Shown)** — Channel-shaped runners, min 2-1/2 in. wide by 1-1/4 in. deep, fabricated from No. 20 MSG galv steel. Attached to floor and ceiling with fasteners, 24 in. OC, max.

2A. **Framing Members\* - Floor and Ceiling Runner** — Not shown - In lieu of Item 2 — For use with Item 1A, proprietary channel shaped runners, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**CALIFORNIA EXPANDED METAL PRODUCTS CO** — Viper20™ Track

**MARINO/WARE, DIV OF WARE INDUSTRIES INC** — Viper20™ Track

**PHILLIPS MFG CO L L C** — Viper20™ Track

2B. **Framing Members\*— Floor and Ceiling Runners** — Not shown - In lieu of Item 2 — For use with Item 1B, channel shaped runners, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**CLARKDIETRICH BUILDING SYSTEMS** — CD ProTRAK

**DMFCWBS L L C** — ProTRAK

**MBA BUILDING SUPPLIES** — ProTRAK

**RAM SALES L L C** — Ram ProTRAK

**SOUTHEASTERN STUD & COMPONENTS INC** — ProTRAK

**STEEL STRUCTURAL SYSTEMS L L C** — Tri-S ProTRAK

**2C. Framing Members\* - Floor and Ceiling Runner** — Not shown - In lieu of Item 2 — For use with Item 1C, proprietary channel shaped runners, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**TELLING INDUSTRIES L L C** — Viper20™ Track

**2D. Framing Members\*— Floor and Ceiling Runners** — Not shown - In lieu of Item 2 — For use with Item 1D, channel shaped runners, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**TELLING INDUSTRIES L L C** — TRUE-TRACK™

**3. Resilient Channel** — 25 MSG galv steel resilient channels spaced vertically max 24 in. OC, flange portion attached to each intersecting stud with 1/2 in. long Type S-12 pan head steel screws.

**3A. Framing Members\*— (Not Shown)** — As an alternate to Item 3, furring channels and **Framing Members** as described below:

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 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel.

b. **Framing Members\*** — Used to attach furring channels (Item a) to studs (Item 1). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S 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 INC** — Types RSIC-1, RSIC-1 (2.75).

**3B. Framing Members\*** — Optional - Not Shown - Used as an alternate method to attach resilient channels (Item 3). Clips attached at each intersection of the resilient channel and the steel studs (Item 1). Resilient channels are friction fitted into clips, and then clips are secured to the stud with min. 1 in. long Type S-12 pan head steel screws through the center hole of the clip and the resilient channel flange.

**KEENE BUILDING PRODUCTS CO INC** — Type RC Assurance.

**3C. Framing Members\*** — (Not Shown) — (Optional on one or both sides) — Alternate to Item 3, furring channels and Steel Framing Members as described below:

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 (Item 1) as described in Item b. Gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A and 5E.

b. **Steel Framing Members\*** — Used to attach furring channels (Item 3Ca) to studs (Item 1). Clips spaced max. 48 in. OC. GENIE CLIPS 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 Genie Clip

3D. **Steel Framing Members** — (Optional, Not Shown)\* - Furring channels and resilient sound isolation clip as described below:

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. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured together with four self-tapping No. 8x1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Gypsum board attached to furring channels as described in Item 6. Side joint furring channels shall be attached to studs with RESILMOUNT Sound Isolation Clips - Type A237R located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge. Not for use with Item 5A and 5E.

b. **Steel Framing Members\*** — Resilient sound isolation clip used to attach furring channels (Item 3Da) to studs. Clips spaced 24 in. OC., and secured to studs with No. 10 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

**STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237R

4. **Batts and Blankets\*** — Placed in stud cavity, 1-1/2 in. min thickness.

**THERMAFIBER INC** — Type SAFB.

5. **Gypsum Board\*** — 1/2 or 5/8 in. thick, 4 ft wide. Screw attached one side to resilient or furring channels with 1 in. long, Type S steel screws spaced 12 in. OC. Gypsum board on direct attached side secured to studs with 1 in. long Type S-12 steel screws spaced 12 in. Gypsum board joints oriented vertically, located over studs and offset between layers.

**AMERICAN GYPSUM CO** — Type AG-C.

**CERTAINTED GYPSUM INC** — 1/2 in. or 5/8 in. Type C.

**CERTAINTED GYPSUM CANADA INC** — 1/2 in. or 5/8 in. Type C.

**CGC INC** — 1/2 in. Type C, IP-X2, IPC-AR or WRC, 5/8 in. Type AR, IP-AR, IP-X1 or SCX.

**GEORGIA-PACIFIC GYPSUM L L C** — Types 5, C, DAP, DA, DAPC.

**LAFARGE NORTH AMERICA INC** — Type LGFC-C, LGFC-C/A.

**NATIONAL GYPSUM CO** — Types FSK-C, FSW-C, FSMR-C.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type C or PG-C.

**PANEL REY S A** — Type PRC

**TEMPLE-INLAND** — Type TG-C.

**THAI GYPSUM PRODUCTS PCL** — Type C.

**UNITED STATES GYPSUM CO** — 1/2 in. Type C, IP-X2, IPC-AR or WRC, 5/8 in. Type AR, IP-AR, IP-X1 or SCX.

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

5A. **Gypsum Board\*** — (As an alternate to Item 5) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 5 with screw length increased to 1-1/4 in.

**CGC INC** — Types AR, IP-AR.

**UNITED STATES GYPSUM CO** — Types AR, IP-AR.

**USG MEXICO S A DE C V** — Types AR, IP-AR.

5B. **Gypsum Board\*** — (As an alternate to Item 5, not for use with Items 1B and 2B) - Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5.

**CGC INC** — Type ULX

**UNITED STATES GYPSUM CO** — Type ULX

**USG MEXICO S A DE C V** — Type ULX

6. **Joint Tape and Compound** — Vinyl, dry or premixed joint compound, applied to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

7. **Caulking and Sealants\*** — (Optional, not shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.

**ITW POLYMERS SEALANTS NORTH AMERICA INC** — Type SCS-200

**UNITED STATES GYPSUM CO** — Type AS.

8. **Wall and Partition Facings and Accessories\*** — (Optional, Not shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-510 panel is installed between the steel framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

**SERIOUS ENERGY INC** — Type QuietRock QR-510.

\*Bearing the UL Classification Mark

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