

BXUV.V417 -

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.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

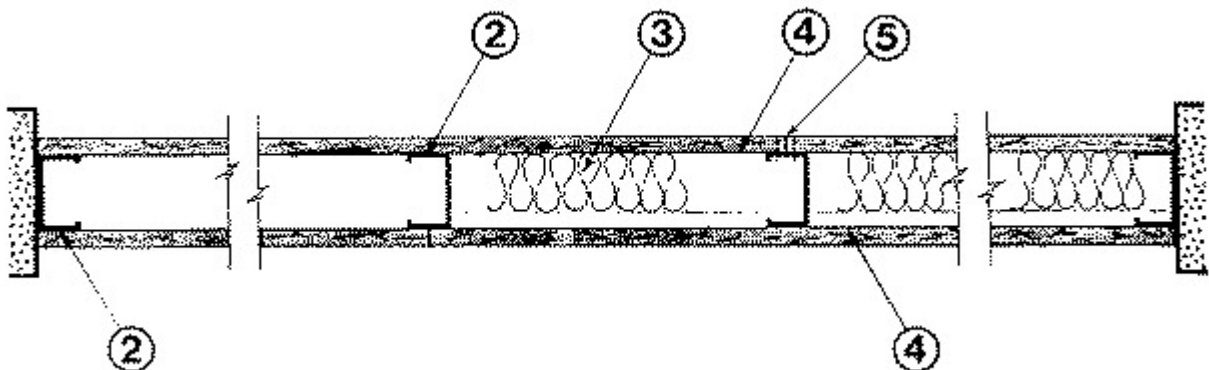
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances

Design No. V417

March 13, 2020

Nonbearing Wall Rating — 1 Hr

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



1. Floor and Ceiling Runners — (Not Shown) — Channel shaped runners, 3-5/8 in. wide (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1A. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2A, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 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

FUSION BUILDING PRODUCTS — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1B. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2B, channel shaped runners, 1-1/4 in. deep by min 3-5/8 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 METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1C. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™Track

FUSION BUILDING PRODUCTS — Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper25™ Track

1D. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2D, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 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 — Viper20™ Track

1E. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2E, channel shaped runners, 1-1/4 in. deep by min 3-5/8 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™

1F. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.

TELLING INDUSTRIES L L C — ViperTrack™

1G. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 1 — For use with Item 2H, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

STEEL INVESTMENT GROUP L L C — AlphaTRAK

1H. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 1 — For use with Item 2I, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X Track

2. **Steel Studs** — Channel shaped, 3-5/8 in. wide (min), 1-1/4 in. legs, 3/8 in. folded back returns, formed from min No. 25 MSG galv steel spaced 24 in. OC max.

2A. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Item 1A, proprietary channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. less in length than assembly height. Spaced 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

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

FUSION BUILDING PRODUCTS — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

2B. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Item 1B, channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. less in length than assembly height. Spaced 24 in. OC max.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2C. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Items 1C, 4D, and 4E only, proprietary channel shaped steel studs, min 3-5/8 in. wide. Studs cut 3/8 in. less in length than assembly height. Spaced 24 in.

OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™

FUSION BUILDING PRODUCTS — Viper25™

IMPERIAL MANUFACTURING GROUP INC — Viper25™

2D. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Item 1D, proprietary channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. less in length than assembly height. Spaced 24 in. OC max.

TELLING INDUSTRIES L L C — Viper20™

2E. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Item 1E, channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. less in length than assembly height. Spaced 24 in. OC max.

TELLING INDUSTRIES L L C — TRUE-STUD™

2F. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Items 1F, 4D, and 4E only, proprietary channel shaped steel studs, min 3-5/8 in. wide. Studs cut 3/8 in. less in length than assembly height. Spaced 24 in. OC max.

TELLING INDUSTRIES L L C — Viper25™

2G. **Framing Members* — Steel Studs** — As an alternate to Item 2 — For use with Item 1A (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2H. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Item 1G, channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. less in length than assembly height. Spaced 24 in. OC max.

STEEL INVESTMENT GROUP L L C — AlphaSTUD

2I. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Item 1H, proprietary channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. less in length than assembly height. Spaced 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X

3. **Batts and Blankets*** — Mineral wool batts partially or completely filling stud cavity.

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts

ROCK WOOL MANUFACTURING CO — Type Delta Board.

4. **Gypsum Board*** — 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to item 6 (furring channels), gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.

AMERICAN GYPSUM CO — Types AGX-1, M-Glass, AG-C, LightRoc.

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1

CABOT MANUFACTURING ULC — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing

CERTAINTED GYPSUM INC — Type EGRG, GlasRoc, GlasRoc-2, SilentFX, Type X, Type X-1, Easi-Lite Type X-2, 5/8" Easi-Lite Type X.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX), WRC or WRX

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX, CLLX.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPF56, LS, TG-C, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W.

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW, FSW-C, FSW-G, FSW-3, FSW-6, FSW-8, FSMR-C, FSL, Type SBWB

NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-C, C, PG-9, or PG-11, PGS-WRS.

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

THAI GYPSUM PRODUCTS PCL — Type X

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX), ULIX

USG BORAL DRYWALL SFZ LLC — Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX), WRC or WRX

4A. **Gypsum Board*** — (As an alternate to item 4) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4 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.

4B. **Gypsum Board*** — (As alternate to Item 4) - Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally.

CERTAINTED GYPSUM INC — Type X, Type C, Type SilentFX.

THAI GYPSUM PRODUCTS PCL — Type X, Type C.

4C. **Gypsum Board*** — (As an alternate to Items 4 through 4B) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types QuietRock ES

4D. **Gypsum Board*** — For Use with item 2C, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC along edges of board and 12 in. OC in the field of the board. Joints oriented vertically or horizontally and staggered on opposite sides of the assembly. When applied horizontally, joints shall be backed. When attached to item 6 (furring channels), gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.

4E. **Gypsum Board*** — (As an alternate to Item 4) - Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally.

CGC INC — Type ULX

UNITED STATES GYPSUM CO — Type ULX, ULIX

USG MEXICO S A DE C V — Type ULX

4F. **Wall and Partition Facings and Accessories*** — (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527

4G. **Gypsum Board*** — (As an alternate to 5/8 in. Type FSW in Item 4) - 2 layers nom. 5/16 in. thick gypsum panels applied vertically. Horizontal joints on the same side need not be staggered. Inner layer attached with fasteners, as described in item 4, spaced 24 in. OC. Outer layer attached per Item 4.

NATIONAL GYPSUM CO — Type FSW

4H. Gypsum Board* — (As an alternate to Item 4) — (Vertical application) — One layer of 5/8 in. thick gypsum board applied vertically to studs with #6 x 1-1/4 in. long bugle head screws spaced 8 in. OC at the perimeter and 12 in. OC in the field of the boards. Vertical joints are centered over studs and staggered from vertical joints on opposite sides of the wall. For 1 hr rating (Horizontal application) — One layer of 5/8 in. thick gypsum board attached horizontally to studs with 1 in. long Type S bugle head screws spaced 8 in. OC; and to floor and ceiling runners with 1 in. long Type S bugle head screws spaced 8 in. OC with the 1st screw 2 in. from board edge Horizontal joints need not be staggered on opposite faces or backed by steel framing. Vertical joints are centered over studs and staggered on opposite sides of the wall. Horizontal joints need not to be backed by steel framing.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD

4I. Gypsum Board* — (As an alternate to Item 4) — Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall for both vertical and horizontal applications.

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSL, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSMR-C

4J. Gypsum Board* — (As an alternate to Item 4) — Installed as described in Item 4. 5/8 in. thick, 4 ft. wide, applied vertically only and fastened to the studs and plates with 1 in. long, Type S steel screws spaced, 12 in. OC.

NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board

5. Joint Tape Compound — Vinyl, dry or premixed joint compound, applied in two coats 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.

6. Furring Channel — (Optional — Not Shown) — Resilient 25 MSG galv steel furring 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. Not for use with Type FRX gypsum panels.

7. Barrier Mesh — (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.

CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

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

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