



BXUV.V448

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

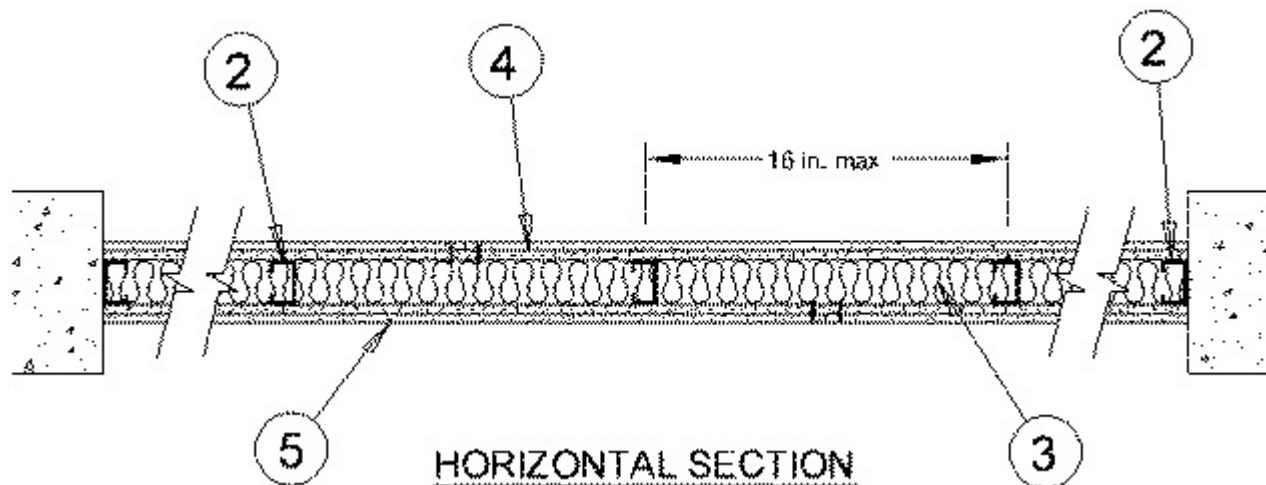
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. V448

June 02, 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 Runner — (Not Shown) — Channel shaped, attached to floor and ceiling with steel fasteners spaced max 36 in. OC. Fabricated from min No. 25 MSG galv steel, min 3-5/8 in. deep and min 1-1/4 in. wide.

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 36 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) — As an alternate to Item 1 - For use with Item 2B, channel shaped, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 36 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 36 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 36 in. OC max.

TELLING INDUSTRIES L L C — Viper20™ Track

1E. **Framing Members* — Floor and Ceiling Runners** — (Not Shown) — As an alternate to Item 1 - For use with Item 2E, channel shaped, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 36 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 36 in. OC max.

TELLING INDUSTRIES L L C — ViperTrack™

1G. **Framing Members* — Floor and Ceiling Runners** — (Not Shown) — As an alternate to Item 1 - For use with Item 2H, channel shaped, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 36 in. OC. max.

RESCUE METAL FRAMING, 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 min25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 36 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X Track

11. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 36 in. OC max.

CRACO MFG INC — SmartTrack20™

2. **Steel Studs** — Channel shaped, spaced a max 16 in. OC. Fabricated from min 25 MSG galv steel, min 3-5/8 in. wide by 1-1/4 in. deep with 1/4 in. folded back return flange legs. Studs to be cut 3/8 in. less the assembly height. Steel studs friction-fitted into ceiling runners (Item 1). Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

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 16 in. OC max. Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

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** — As an alternate to Item 2 — For use with Item 1A, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 16 in. OC. Studs to be cut 3/8 in. less than assembly height. Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

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** — As an alternate to Item 2 — For use with Item 1C, channel shaped studs, min 3-5/8 in. wide, spaced a max of 16 in. OC. Studs to be cut 3/8 in. less than assembly height. Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

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 16 in. OC max. Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

TELLING INDUSTRIES L L C — Viper20™

2E. **Framing Members* — Steel Studs** — As an alternate to Item 2 — For use with Item 1E, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 16 in. OC. Studs to be cut 3/8 in. less than assembly height. Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

TELLING INDUSTRIES L L C — TRUE-STUD™

2F. **Framing Members* — Steel Studs** — As an alternate to Item 2 — For use with Item 1F, channel shaped studs, min 3-5/8 in. wide, spaced a max of 16 in. OC. Studs to be cut 3/8 in. less than assembly height. Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

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 16 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** — As an alternate to Item 2 — For use with Item 1G, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 16 in. OC. Studs to be cut 3/8 in. less than assembly height. Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

RESCUE METAL FRAMING, 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 16 in. OC max. Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X

2J. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Item 1I, proprietary channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.020 in. thick galv steel. Studs cut 3/8 in. less in length than assembly height. Spaced 16 in. OC max. Studs attached to floor runners with 7/16 in. long Type S-12 pan-head, self-drilling, self-tapping steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications. Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

CRACO MFG INC — SmartStud20™

3. **Batts and Blankets*** — Nom 3 in. thick, minimum 3.4 pcf mineral wool batts, friction fit between the studs and floor and ceiling runners.

See **Batts and Blankets** (BZJZ) category for names of manufacturers.

4. **Mineral and Fiber Board*** — Nom 1/2 in. thick, 4 ft wide Homasote Type 440-32 Sheathing. Installed with long dimension parallel with studs. Vertical joints centered on studs, and staggered one stud space from opposite side. Attached to studs with Type S-12, 1-5/8 in. long steel screws, spaced 12 in. OC along interior studs at perimeter of panels.

HOMASOTE CO — Homasote Type 440-32

5. **Gypsum Board*** — 5/8 in. thick, 4 ft wide. One layer of gypsum board applied vertically over the mineral and fiber board with joints centered between studs and staggered min 16 in. on opposite sides, secured with Type S-10, 1-1/2 in. long steel screws spaced 12 in. OC along the perimeter and 16 in. OC in the field.

CGC INC — Types C, IP-X2.

UNITED STATES GYPSUM CO — Types C, IP-X2, ULIX.

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2.

6. Joint Tape and Compound — (Not Shown) — Outer layer joints covered with joint compound and paper or mesh tape. Screw heads covered with joint compound.

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). Mineral and Fiber Boards (Item 4) and Gypsum Board (Item 5) 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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