

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](#)

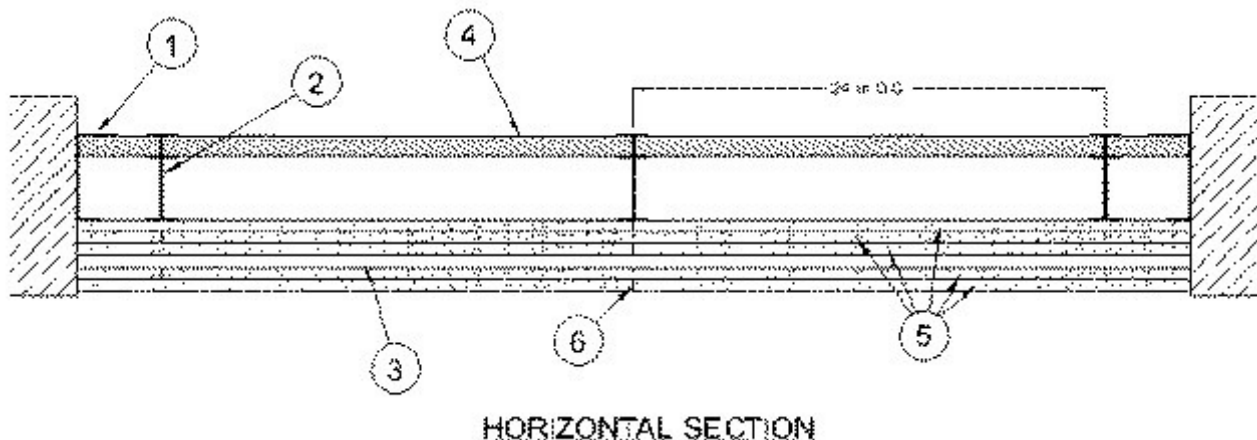
[See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances](#)

### Design No. V451

October 02, 2015

### Nonbearing Wall Rating — 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.**



1. **Floor, Side and Ceiling Runners** — "J" shaped channel, min 4 in. deep, with unequal legs of 1 in. and 2 in., fabricated from min 25 MSG 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.

2. **Steel Studs** — "I" shaped studs, min 4 in. deep by 1-1/2 in. wide, fabricated from min 25 MSG galv steel. Cut to lengths 3/4 in. less than floor-to-ceiling height and spaced 24 in OC.

2A. **Steel Studs** — (Not Shown) — "C-H" shaped studs, min 4 in. deep by 1-1/2 in. wide, fabricated from min 25 MSG galv steel. Cut to lengths 3/4 in. less than floor-to-ceiling height and spaced 24 in. OC

2B. **Steel Studs** — (Not Shown) — "C-T"- shaped studs, min 4 in. deep by 1-1/2 in. wide, fabricated from min 25 MSG galv steel. Cut to lengths 3/4 in. less than floor-to-ceiling height and spaced 24 in. OC.

3. **Furring Channels** — "Hat" shaped, min. 22 MSG galv steel furring channels attached directly over the three inner layers of wallboard to each stud with 2-1/4 in. long Type S bugle head steel screws. Screws alternate from top flange to bottom flange at each stud intersection. Furring channels spaced vertically max 16 in. OC.

4. **Gypsum Board\*** — 1 in. thick gypsum wallboard liner panels, supplied in nominal 24 in. widths. Vertical edges inserted in "I" studs. Free edge of end panels attached to long leg of channel track with 1-5/8 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced not greater than 12 in. OC.

**NATIONAL GYPSUM CO** — Types FSW, FSW-7, FSW-9

5. **Gypsum Board\*** — 5/8 in. thick, 4 ft wide wallboard applied vertically in five layers. Vertical joints centered over steel studs (Item 2) and staggered min 24 in. First layer secured to studs with 1-1/8 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC at the perimeter and in the field. Second layer secured to studs with 1-5/8 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC at the perimeter and in the field. Horizontal butt joints in second layer shall be secured to first layer of gypsum board with 1-1/2 in. long Type G screws spaced 8 in. OC on both sides of the joint and in joint corners. Third layer secured to studs with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC at the perimeter and in the field. Third layer also secured to inner layers with 1-1/2 in. long Type G screws spaced 12 in. OC vertically and centered between the Type S screws in the studs. Horizontal butt joints in third layer shall be secured to inner layers of gypsum board with 1-1/2 in. long Type G screws spaced 8 in. OC on both sides of the joint and in joint corners. Fourth layer secured to the furring channels (Item 3) with 1-1/8 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Horizontal butt joints in fourth layer shall be centered over furring channels (Item 3) and secured to furring channels with 1-1/8 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 8 in. OC on both sides of the joint. Fifth layer secured to furring channels with 1-5/8 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Fifth layer also secured to fourth layer with 1-1/2 in. long Type G screws spaced 16 in. OC along the vertical joints and centered between the Type S screws in the furring channels. Horizontal butt joints in fifth layer shall be centered over furring channels (Item 3) and secured to furring channels with 1-5/8 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 8 in. OC on both sides of the joint. Screws and horizontal butt joints staggered between layers.

**NATIONAL GYPSUM CO** — Type FSW-C

6. **Joint Tape and Compound** — (Not Shown) — Joints on outer layer of gypsum board (Item 5) covered with paper tape and joint compound. Exposed screw heads covered with joint compound.

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