



Design No. U348
BXUV.U348
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.

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. U348

April 13, 2018

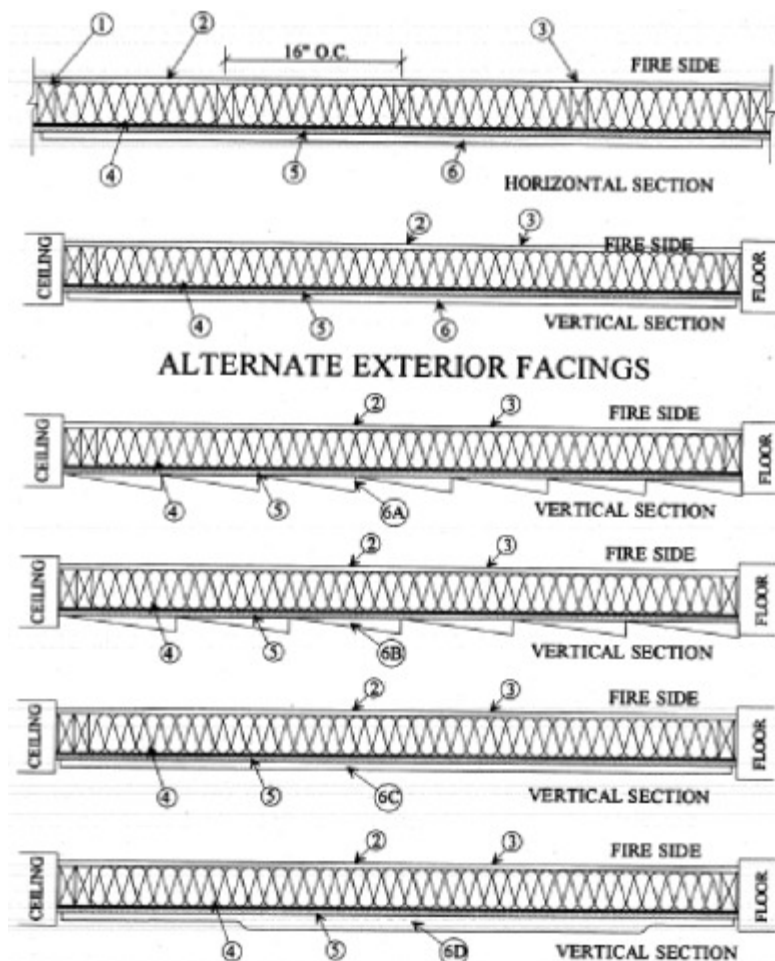
Bearing Wall Rating — 1 Hr

(EXPOSED TO FIRE ON INTERIOR FACE ONLY)

For Wood Studs, Finish Rating — 23 min

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. **Wood Studs** — Nom 2 by 4 in., spaced 16 in. OC in with two 2 by 4 top and one 2 by 4 bottom plates. As an option, nom 2 by 6 in., spaced 24 in. OC with two 2 by 6 top and one 2 by 6 bottom plates may be used in lieu of 2 by 4 studs and plates. Studs effectively fire stopped.

1A. **Steel Studs and Floor and Ceiling Tracks** — As an option to Item 1 — (Not Shown) — Top and bottom tracks of wall assemblies shall consist of steel members, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 MSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, that provide a sound structural connection between steel studs, and to adjacent assemblies such as a floor, ceiling, and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. O.C. Steel studs min 3-1/2 in. wide, No. 20 MSG (0.0329 in., min bare metal thickness) corrosion protected cold formed steel studs designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC. Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications.

2. **Gypsum Board*** — Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. Nom. 5/8 in. thick, 4 ft. wide, applied vertically, and nailed to studs and bearing plates 7 in. OC. with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam. and 1/4 in. diam. head. When steel framing is substituted for wood framing, 1 in. long Type S steel screws are used in lieu of nails.

ACADIA DRYWALL SUPPLIES LTD ([View Classification](#)) — CKNX.R25370

AMERICAN GYPSUM CO ([View Classification](#)) — CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO ([View Classification](#)) — CKNX.R19374

CERTAINTED GYPSUM INC ([View Classification](#)) — CKNX.R3660

CGC INC ([View Classification](#)) — CKNX.R19751

GEORGIA-PACIFIC GYPSUM L L C ([View Classification](#)) — CKNX.R2717

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C ([View Classification](#)) — CKNX.R18482

LOADMASTER SYSTEMS INC ([View Classification](#)) — CKNX.R11809

NATIONAL GYPSUM CO ([View Classification](#)) — CKNX.R3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM ([View Classification](#)) — CKNX.R7094

PANEL REY S A ([View Classification](#)) — CKNX.R21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD ([View Classification](#)) — CKNX.R19262

GEORGIA-PACIFIC GYPSUM L L C ([View Classification](#)) — CKNX.R6937

THAI GYPSUM PRODUCTS PCL ([View Classification](#)) — CKNX.R27517

UNITED STATES GYPSUM CO ([View Classification](#)) — CKNX.R1319

USG MEXICO S A DE C V ([View Classification](#)) — CKNX.R16089

3. **Joints and Nailheads** — Wallboard joints covered with tape and joint compound. Nail heads covered with joint compound.

4. **Batts and Blankets*** — Faced or unfaced mineral fiber insulation, 3-1/2 in. thick, nom 3.0 pcf, pressure fit in the wall cavity between stud, plates, and cross bracing.

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

4A. **Batts and Blankets*** — As an Alternate to Item 4 when wood studs are used. - As an Alternate to Item 4 when steel studs are used, but Optional Items 6D, 6E, or 6F are required. Faced or unfaced glass fiber batts, 3-1/2 in. thick, having a min density of 0.9 pcf (min R-13 thermal insulation rating), pressure fit in the wall cavity between stud, plates, and cross bracing.

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

4B. **Fiber, Sprayed*** — As an Alternate to Item 4 when wood studs are used. - As an Alternate to Item 4 when steel studs are used, but Optional Items 6D, 6E, or 6F are required.— (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product.

U S GREENFIBER L L C — INS735 & INS745 for use with wet or dry application. INS765LD and INS770LD are to be used for dry application only.

4C. **Fiber, Sprayed*** — As an Alternate to Item 4 when wood studs are used. - As an Alternate to Item 4 when steel studs are used, but Optional Items 6D, 6E, or 6F are required.- Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft³.

INTERNATIONAL CELLULOSE CORP — Celbar-RL

4D. **Fiber, Sprayed*** — As an Alternate to Item 4 when wood studs are used. - As an Alternate to Item 4 when steel studs are used, but Optional Items 6D, 6E, or 6F are required.— Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

5. **Building Units*** — Building units placed with the laminate face against, and nailed to, the wood framing with 1-7/8 in. long, 6d nails, spaced 6 in. OC. on the perimeter and 12 in. OC. in the field. When steel framing is substituted for wood framing, Type S steel screws are used in lieu of nails with a minimum penetration length through the steel stud of 3/8 in.

LOUISIANA-PACIFIC CORP — Type Blazeguard 1-Side**LOUISIANA-PACIFIC CORP — Type LP FlameBlock 1-Side**

6. **Exterior Facings** — Installed in accordance with the manufacturer's Installation Instructions.

6A. **Vinyl Siding*** — (Optional) - UL Classified exterior plastic siding (molded plastic), fastened to the building units with nails or screws, at the locations specified by the manufacturer.

6B. **Particle Board Siding*** — (Optional) - Oriented strand board, wafer board, or hard board exterior building sidings including patterned panels.

6C. **T-1-11 Plywood** — (Optional) - American Plywood Association rated siding series 303 including textures, bough sawn, MDO, brushed, channel grooved, and lap siding.

6D. **Cementitious Stucco** — (Optional unless Item 1A, Steel Studs, are used in conjunction with Item 4A, Batts and Blankets) - Portland cement or synthetic stucco systems with self-furring metal lath or adhesive base coat. Thickness from 3/8 in. to 3/4 in. depending on system. When used with Steel Studs (Item 1A) and Batts and Blankets (Item 4A), minimum thickness is increased to 1/2 in.

6E. **Brick** — (Optional unless Item 1A, Steel Studs, are used in conjunction with Item 4A, Batts and Blankets - Not Shown) - Brick veneer, meeting the requirements of local code agencies. Brick veneer attached to the studs with corrugated metal wall ties attached to each stud with 8d cement coated nails, every sixth course of bricks. For steel studs, Type S steel screws are used in lieu of nails with a minimum penetration length through the steel stud of 3/8 in.

6F. **Brick Veneer** — (Optional unless Item 1A, Steel Studs, are used in conjunction with Item 4A, Batts and Blankets - Not Shown) Any type on nom 4 in. wide brick veneer. When brick veneer is used, the rating is applicable with exposure on either face. Brick veneer fastened with corrugated metal wall ties attached over sheathing to wood studs with 8d nail per tie: ties spaced not more than each sixth course of brick and max 32 in. OC horizontally. One in. air space provided between brick veneer and sheathing. For steel studs, Type S steel screws are used in lieu of nails with a minimum penetration length through the steel stud of 3/8 in.

OR

6F. **Exterior Facings** — (For use with Wood Studs, Item 1. For use with steel Studs, Item 1A, but limited to the use of Mineral Wool Insulation Item. - Optional - Not Shown) - Any exterior facing approved by the Authority Having Jurisdiction installed in accordance with the manufacturer's installation instructions.

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

[Last Updated](#) on 2018-04-13

[Questions?](#)

[Print this page](#)

[Terms of Use](#)

[Page Top](#)

© 2018 UL LLC

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The

Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2018 UL LLC".