

BXUV.L591 - Fire-resistance Ratings - ANSI/UL 263



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. L591

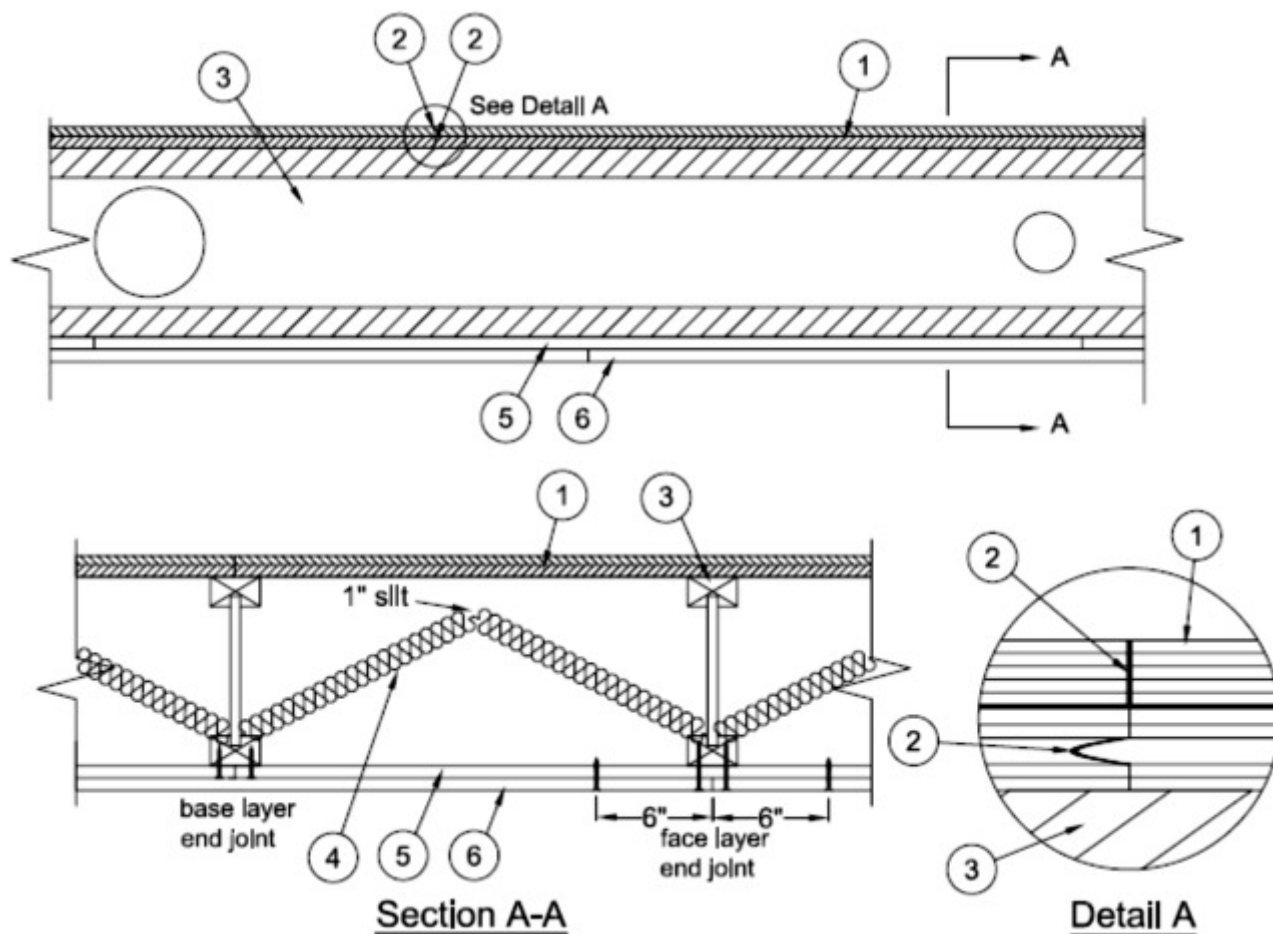
October 06, 2020

Unrestrained Assembly Rating — 1 Hr

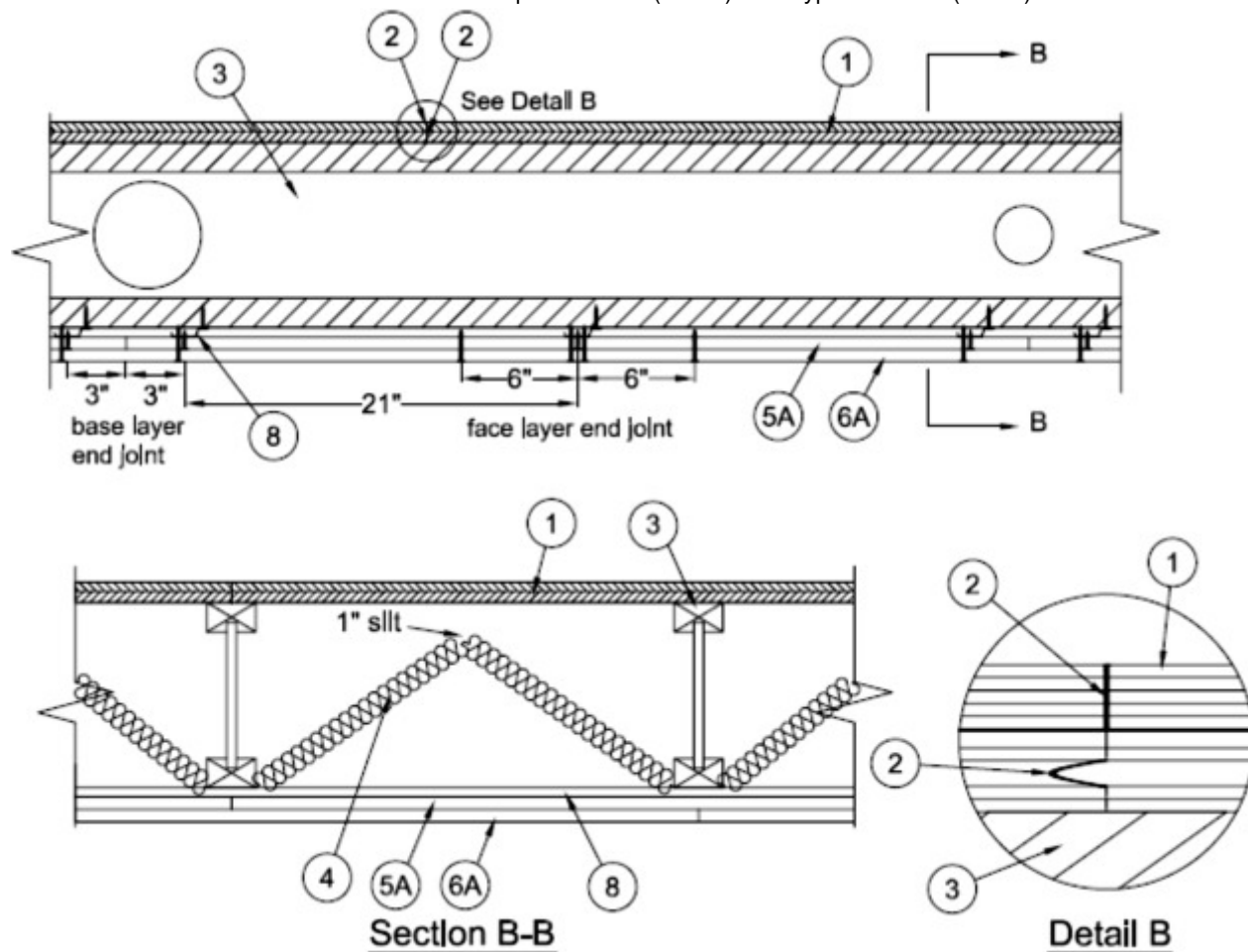
Finish Rating — See Items 5 and 5A

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.**



Direct attachment of Composite Panel (Item 5) and Gypsum Board (Item 6)



Composite Panel (Item 5A) and Gypsum Board (Item 6A) Attached via Resilient channels

1. Building Units* — Subflooring — Nom. 1-1/8 in. thick T & G laminated composite plywood subfloor structural panels. Subfloor panels to be perpendicular to the joists (Item 3) with end joints staggered 4 ft. T & G side of panel to be in contact with the joists. End joints centered over top chord of joists. Subfloor panels secured to joists with construction adhesive and #8 by 2 in. long deck construction screws or 2 in. long nails spaced 12 in. OC in the field and 6 in. OC at the end joints. Adhesive applied as 3/8 in. diam bead to top chord of joists.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietWood 631.

2. Fill Void or Cavity Material* — Sealant — (Optional) — 3/8 in. diam bead applied between tongue-and-groove joints of subflooring (Item 1) and 3/8 in. diam bead applied above the tongue-and-groove joints of subflooring (Item 1).

3M COMPANY 3M FIRE PROTECTION PRODUCTS — Types FireDam 150+, CP 25WB+, IC 15WB+

3. Structural Wood Members — Joists — Min 9-1/2 in. deep "I" shaped wood joists spaced at a max of 24 in. OC. Joists shall conform to ICC-ES ESR-1153 Report. Joist top and bottom chords minimum 1-1/4 in. deep by 1-3/4 in. wide and constructed of either Microllam laminated veneer lumber (LVL) or TimberStrand laminated strand lumber (LSL). Webs constructed of minimum 3/8 in. thick Performance Plus OSB, PS2, Exposure 1. Installation shall be in accordance with manufacturers published literature.

4. Batts and Blankets* — Mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. Nom 1-1/2 in. thick, 24 or 25 in. wide, min density of 2.0 pcf. A 1 in. deep slit shall be cut down the length of each blanket prior to being friction-fitted and tented between joists, with the blanket sides resting on top of the joist bottom flanges or resilient channels, as shown in the above illustration.

5. Wall and Partition Facings and Accessories* — Direct Attach System — Nominal 5/8 in. thick, 4 ft wide laminated composite panels, installed as base layer with long dimensions perpendicular to joists, and end joints of panels centered at the joists. Secured directly to bottom chord of the joists with 1-5/8 in. long Type S bugle-head screws spaced 12 in. OC in the field and at the butted end joints. Screws located 3/4 in. from side edges and 5/8 in. from end joints. Butted end joints in adjacent lengths staggered 48 in. Calcium silicate layer of panel to be in contact with the joists. Finish rating is 38 minutes when composite panel (Item 5) and gypsum board (Item 6) are directly attached to joists.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types QuietRock 525, QuietRock 528

5A. Wall and Partition Facings and Accessories* — Resilient Channel System — Nominal 5/8 in. thick, 4 ft wide laminated composite panels, installed as base layer with long dimensions perpendicular to resilient channels (Item 8). Secured to resilient channels with 1 in. long Type S bugle-head screws spaced 12 in. OC in the field and at the butted end joints. Screws located 3/4 in. from side edges. Butted end joints in adjacent lengths staggered 48 in. End joints secured to both resilient channels as shown. Calcium silicate layer of panel to be in contact with the resilient channels. Finish rating is 47 minutes when composite panel (Item 5A) and gypsum board (Item 6A) are attached to joists via resilient channels (Item 8).

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types QuietRock 525, QuietRock 528

6. Gypsum Board* — Direct Attach System — Nominal 5/8 in. thick, 4 ft wide gypsum board panels, installed as face layer with long dimensions perpendicular to joists, and end joints of panels centered at the joists. Secured through the base layer (Item 5) to the joists with 2-1/4 in. Type S bugle head screws spaced 8 in. OC in the field and at the butted end joints. Screws located 5/8 in. from side edges and 1/2 in. from end joints. Butted end joints of face layer staggered 48 in. in adjacent rows and offset 24 in. from the butted end joints of the base layer (Item 5). Side joints of face layer to be offset min 24 in. from side joints of base layer. In addition to the screws into the joists, face layer of gypsum board secured to the base layer panels (Item 5) with 1-5/8 in. long coarse thread screws spaced 8 in. OC and located 6 in. from both sides of the face layer end joints. Screws located 4 in. from the side edges. Outer layer shall be finished as described in Item 7. When Alternate Structural Wood Members, Item 3A, are used, joist spacing is reduced from 32 in. OC to 24 in. OC.

AMERICAN GYPSUM CO — Type AG-C

CERTAINTEED GYPSUM INC — Type C

CGC INC — Types C, IP-X2, IPC-AR

CERTAINTEED GYPSUM INC — Type LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAP, DAPC, DGG, DS, TG-C.

NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSMR-C, FSW-C, FSW-G, FSW-3, FSW-8

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

PANEL REY S A — Types PRC, PRC2

THAI GYPSUM PRODUCTS PCL — Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR

USG BORAL DRYWALL SFZ LLC — Type C

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

6A. Gypsum Board* — Resilient Channel System — Nominal 5/8 in. thick, 4 ft wide gypsum board panels, installed as face layer with long dimensions perpendicular to resilient channels (Item 8), and end joints centered at the resilient channels as shown. Secured through the base layer (Item 5A) to the resilient channels with 1-7/8 in. Type S bugle head screws spaced 8 in. OC in the field and at the butted end joints. Screws located 3/4 in. from side edges and 1/2 in. from end joints. Butted end joints of face layer staggered 48 in. in adjacent rows and offset 24 in. from the butted end joints of the base layer (Item 5A). Side joints of face layer to be offset min 24 in. from side joints of base layer. In addition to the screws into the resilient channels, face layer of gypsum board secured to the base layer panels (Item 5A) with 1-5/8 in. long coarse thread screws spaced 8 in. OC and located 6 in. from both sides of the face layer end joints. Screws located 4 in. from the side edges. Outer layer shall be finished as described in Item 7.

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

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

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

CERTAINTEED GYPSUM INC — Types EGRG, GlasRoc, Type C, Type X, Type X-1, Easi-Lite Type X-2.

CGC INC — Types C, IP-X1, IP-X2, IPC-AR, SCX, ULIX, WRX

CERTAINTEED GYPSUM INC — Types LGFC6A, LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 9, C, GPFS1, GPFS6, DA, DAP, DAPC, DGG, DS, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, TG-C, GreenGlas Type X, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X

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

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-3, PG-4, PG-5, PG-6, PG-9, PG-C, PG-11, PGS-WRS, PGI

PANEL REY S A — Types PRC, PRC2

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

THAI GYPSUM PRODUCTS PCL — Type C, Type X

UNITED STATES GYPSUM CO — Types C, IP-X1, IP-X2, IPC-AR, SCX, ULIX, WRX

USG BORAL DRYWALL SFZ LLC — Types C, SCX

USG MEXICO S A DE C V — Types C, IP-X1, IP-X2, IPC-AR, SCX, WRX

7. Finishing System — (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to outer layer joints and all screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all outer layer joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board.

8. Resilient Channels — (For use with Items 5A and 6A) — Formed from min 0.018 in. thick galv steel, 1/2 in. deep by 1-1/8 in. wide at the face by 2 in. overall width, spaced 21 in. OC perpendicular to trusses as shown in the above illustration. Channels secured to each joist with 1-1/4 in. long Type S bugle head steel screws. Channels overlapped 4 in. at splices. Two channels, spaced 6 in. OC at each base layer panel (Item 5A) end joint as shown in the above illustration.

9. Steel Framing Members* — (Optional, Not Shown) — Used as an alternate method to attach resilient channels to structural members. A resilient sound isolation accessory shall be used at each attachment point of the resilient channels and spaced max 24 in. O.C. Channel ends butted and centered under the structural members and attached with one accessory at each end. Additional accessories used to hold resilient channels that support the Wall Partition Facings (item 5A) end joints. The accessory envelops the mounting edge of the resilient channel. The accessory and resilient channel are fastened to the structural members with the screws supplied with the accessory and per the accessory manufacturer's installation instructions. Item 5A butt joints staggered minimum 24 in. OC and screws spaced 8 in. OC (in lieu of 12 in.) when used.

PAC INTERNATIONAL L L C — Type RC-1 Boost

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