FIRE-RESISTANCE DESIGN

Assembly Usage Disclaimer

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

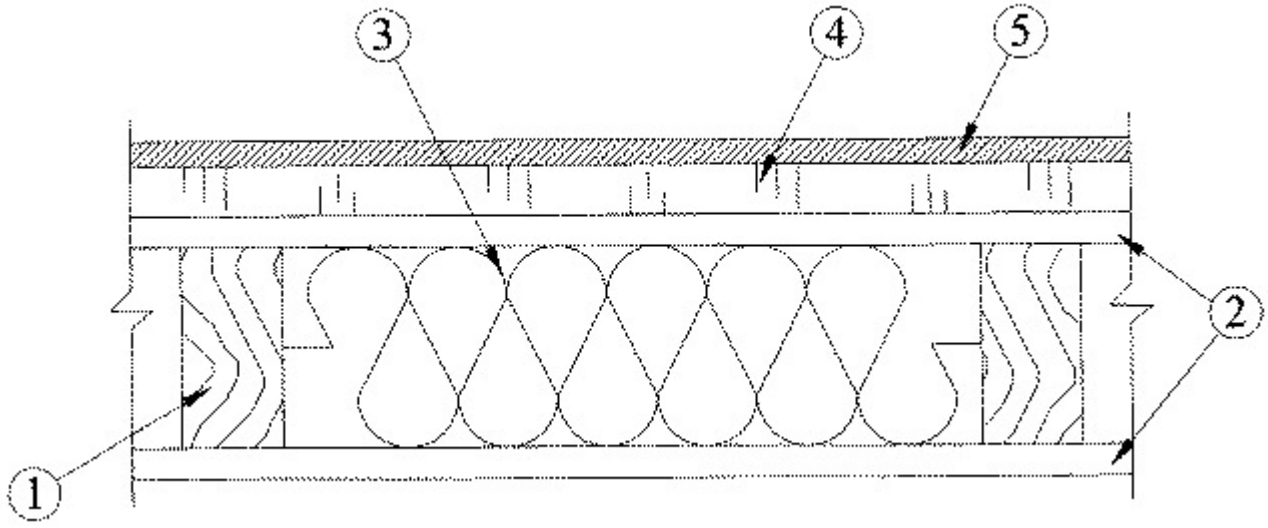
Design No. U364

April 22, 2019

Bearing Wall Rating — 1 Hr.

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 —** Min. nom 2 by 4 in., spaced 16 in. OC.

2. **Gypsum Board* — Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305.** Nom5/8 in. thick (min) 4 ft wide bearing the UL Classification Marking for Fire Resistance applied vertically. Attached to studs with 6d cement coated nails or 1-7/8 in. long No. 6 buglehead dry wall screws spaced 7 in. OC at the edges and in the fields. Vertical joints located over studs. Joints covered with paper tape and joint compound. Fastener heads covered with joint compound.
CABOT MANUFACTURING ULC (View Classification) — CKNX.R25370

AMERICAN GYPSUM CO (View Classification) — CKNX.R14196

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

CERTAINTEED GYPSUM INC (View Classification) — CKNX.R3660

CGC INC (View Classification) — CKNX.R19751

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

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

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

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

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

USG BORAL DRYWALL SFZ LLC (View Classification) — CKNX.R38438

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

2A. **Gypsum Board* —** (As an alternate to Item 2) — Nominal 5/8 in. thick, 4 ft wide panels, secured as described in Item 2.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES.

2B. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 2 and 2A) — Nominal 5/8 in. thick, 4 ft wide panels, secured as described in Item 2.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527.

2C. **Gypsum Board* —** (As an alternate to Item 2) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board.
AMERICAN GYPSUM CO — Types AGX-1, M-Glass, Type AG-C, LightRoc.

3. **Batts and Blankets* —** Min. 3-1/2 in. glass fiber or mineral wool batts placed to fill cavity of wall.
See **Batts and Blankets*** (BZJZ) Category for names of Classified companies.

4. **Foamed Plastic* —** Max. 2 in. thick rigid polystyrene insulation attached to studs with 2-1/2 in. long galvanized roofing nails.
OWENS CORNING SCIENCE AND TECHNOLOGY, LLC

THE DOW CHEMICAL CO

4A. **Foamed Plastic* —** As an alternate to Item 4, maximum 2 in. thick Polyisocyanurate foamed plastic insulation boards Classified in accordance with BRYX and / or CCVW, attached to studs with 3 in. long galvanized roofing nails.
ATLAS ROOFING CORP — EnergyShield Pro Wall Insulation, EnergyShield Pro 2 Wall Insulation, EnergyShield CGF Pro and EnergyShield Ply Pro

CARLISLE COATINGS & WATERPROOFING INC — Type R2+ SHEATHE

FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"

HUNTER PANELS — Type Xci-Class A, Xci 286, "Xci CG" and "Xci Foil", "Xci CG NH", "Xci Foil NH"

RMAX OPERATING L L C — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".

4B. **Building Units* —** As an alternate to Items 4 or 4A, max. 2-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in., with a facer on one side and with oriented strand board or plywood on the other, attached to studs with 3- in. long galvanized roofing nails.
HUNTER PANELS — Type "Xci NB" and "Xci Ply"

4C. **Building Units* —** As an alternate to Items 4, 4A or 4B, max. 2-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in., with a facer on one or both sides and bonded to fiberboard, oriented strand board or plywood on one side, attached to studs with min. 8d nails or min. 2-1/2 in. long Type W screws.
RMAX OPERATING L L C — Types Thermasheath-SI, ECOBASE ci, ThermaBase-CI, ECOMAXci FR Ply, "ECOMAXci Ply"

4D. **Building Units* —** As an alternate to Items 4, 4A - 4C, consisting of 7/16-in. thick PS-2 rated oriented strand board (OSB) as cover board bonded to rigid 1/2 in. to 2 in. thick polyisocyanurate insulation, installed vertically with vertical joints located over studs. Fastened to studs with min. 10d galvanized nails, spaced 6 in. OC at edges and 12 in. OC in the field. Length of nails to be such that they engage with studs minimum 1-3/8 in.
HUBER ENGINEERED WOODS L L C — ZIP System ® R Sheathing

5. **Exterior Facings —** Installed in accordance with the manufacturer's installation instructions. One of the following exterior facings is to be applied over the Foamed Plastic* or Building Units*:

A. **Vinyl Siding Molded Plastic* —** Contoured rigid vinyl siding having a flame spread value of 20 or less.
See Molded Plastic (BTAT) category in the Building Materials Directory for names of manufacturers.

B. **Particle Board Siding —** Hardboard exterior sidings including patterned panel or lap siding.

C. **Wood Structural Panel or Lap Siding —** APA Rated Siding, Exterior, plywood, OSB or composite panels with veneer faces and structural wood core, per PS 1 or APA Standard PRP-108, including textured, rough sawn, medium density overlay, brushed, grooved and lap siding.

D. **Cementitious Stucco —** Portland cement or synthetic stucco systems with self-furring metal lath or adhesive base coat. Thickness from 3/8 to 3/4 in., depending on system.

E. **Brick —** 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. When brick veneer is used the wallboard on the exterior side may be eliminated.

*** 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 2019-04-22

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.

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