ONLINE CERTIFICATIONS DIRECTORY

Design No. U305
BXUV.U305
Fire-resistance Ratings - ANSI/UL 263

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Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in advance 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 constructing.
- 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 or the design. Users of fire resistance assemblies are advised to consult the general listed information for each product category and each group of assemblies. The Guide Information includes specific 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

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

New Search Criteria for Fire Resistance Ratings - ANSI/UL 263

New General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

Design No. U305

December 19, 2017

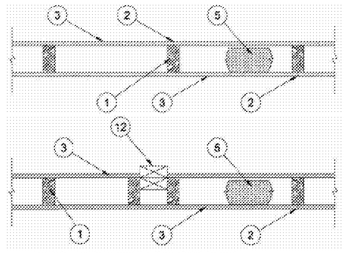
Bearing Wall Rating — 1 Hr

Finish Rating — See Items 3, 3A, 3D, 3E, 3F, 3G, 3H, 3J and 3L.

STC Rating - 50 (See Item 9)

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 max, effectively fireblocked.

2. **Joints and Nail Heads** — Joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when square edge boards are used. As an alternate, nom 5/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer basecoat with the joints reinforced with paper tape. Nailheads exposed or covered with joint compound.

3. **Gypsum Board*** — 5/8 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels rated 7 hr, OC with 60 cement coated nails 1-7/8 in. long, 0.2013 in. shank diam and 15/64 in. diam heads. When used in widths other than 48 in., gypsum panels are to be installed horizontally. For an alternate method of attachment of gypsum panels, refer to Items 6, 6A or 6B. **Steel Framing Members*:**

When Items 6, 6B, or 6C **Steel Framing Members*,** are used, gypsum panels attached to framing channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

When Item 6A, **Steel Framing Members*** is used, two layers of gypsum panels attached to framing channels. Base layer attached to framing channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC. Face layer attached to framing channels with 1 5/8 in. long Type S bugle-head steel screws spaced 12 in. OC. All joints in face layer staggered with joints in base layer. First layer of gypsum board attached to opposite side of wood stud without framing channels as described in Item 3.

When Item 7, resilient channels are used, 5/8 in. thick, 4 ft wide gypsum panels applied vertically. Screw attached furring channels with 1 in. long, self-drilling, self-tapping Type X or N-12 wood screws spaced 8 in. OC, vertical joints located midway between studs.

ACADIA DRYWALL SUPPLIES LTD — Type X (Finish rating 22 min), 5/8 Type X, Moisture Resistant Type X, Gypsum Sheathing Type X, Moist & Mildew Resistant Type X and Mold & Mildew Resistant Art Type X, Type Bluegoose Exterior Sheathing

AMERICAN GYPSUM CO — Types AGX-1(Finish rating 15 min), M-Glass (Finish rating 25 min), Type AGW-1 (Finish rating 20 min), Type AGW-32 (Finish rating 32 min), Type LightGlass (Finish rating 33 min) or Type AGW.

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DSN-1 (Finish rating 24 min)

CERTAINTEED GYPSUM INC — Type 1, Type SFS (Finish rating 20 min) or FIRE; Type C, Type X or Type X-1 (Finish rating 26 min); Type GGS1 or GlassMat (Finish rating 33 min); Type MaxRite (Finish rating 26 min).

CGC INC — Type SHX (Finish rating 24 min), Type C (Finish rating 24 min), Type IP-AX (Finish rating 24 min), Type DPC-AX (Finish rating 24 min), Type IP-X1 (Finish rating 24 min), Type IP-X2 (Finish rating 24 min), Type DCK (Finish rating 24 min), Type DCX (Finish rating 24 min), Type DPX (Finish rating 24 min), Type ULX (Finish rating 22 min), Type VERC (Finish rating 24 min), Type VERX (Finish rating 24 min)

CONTINENTAL BUILDING PRODUCTS OPERATING CO. L L C — Type LGRTSA (Finish rating 34 min), Type LGRTGA, Type LGRC-G/A, Type LGRC-WGD, Type LGG1X (Finish rating 31 min)

GEORGIA-PACIFIC GYPSUM I L C — Type X (Finish rating 26 min), Type C (Finish rating 22 min), Type G (Finish rating 28 min), Type C (Finish rating 26 min), Type DGX (Finish rating 22 min), Type DSP(1) (Finish rating 20 min), Type DPS(2 (Finish rating 20 min), Type DPS(2 (Finish rating 26 min), Type DS, Type DSI (Finish rating 25 min), Type DA, Type DAPG, Type LB (Finish rating 22 min), Type K, Veneer Plaster Base - Type X, Water Resist - Type X, Sheathing - Type X, Glaste - Type X, Type UGX (Finish rating 22 min), Veneer Plaster Base-Type USPI (Finish rating 22 min), Water Resist-Type UGW (Finish rating 22 min), Sheathing Type-UGSI (Finish rating 22 min), Glaste Type UGS (Finish rating 22 min), Type DGXW (Finish rating 22 min), Water Resist-Type DGXWI (Finish rating 22 min), Sheathing - Type DGXSI (Finish rating 22 min), Glaste Type DGXS (Finish rating 22 min), Type DGX-PGS (Finish rating 22 min), Type DGX-PGSI (Finish rating 22 min), Veneer Plaster Base - Type UGXP (Finish rating 22 min), Water Resist - Type UGXPW (Finish rating 22 min), Sheathing - Type UGXPSI (Finish rating 22 min), Glaste - Type UGXPS (Finish rating 22 min), Type DGX-PGP (Finish rating 22 min), Type DGXPW (Finish rating 22 min), Type DGXPSI (Finish rating 22 min), Water Resist - Type DGXPWI (Finish rating 22 min), Sheathing - Type DGXPSI (Finish rating 22 min)

NATIONAL GYPSUM CO — Type PGX (Finish rating 20 min), Type PSX-G (Finish rating 20 min), Type PSXV (Finish rating 20 min), Type PSXG II (Finish rating 24 min), Type PGW-G (Finish rating 20 min), Type PGW-V (Finish rating 20 min), Type PGW-G (Finish rating 20 min), Type PSW-G (Finish rating 20 min), Type PSW-V (Finish rating 20 min), Type PSW-G (Finish rating 20 min), Type PSXG II (Finish rating 24 min), Type PSXG (Finish rating 24 min), Type PGX (Finish rating 20 min), Type PGW (Finish rating 20 min), Type PSW (Finish rating 20 min), Type PSX (Finish rating 20 min), Type PGW (Finish rating 20 min), Type PSW (Finish rating 20 min)

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type DS, Type DA, Type DAPG, Type LB (Finish rating 22 min), Type K, Type UGX (Finish rating 22 min), Type UGW (Finish rating 22 min), Type UGSI (Finish rating 22 min), Type UGS (Finish rating 22 min), Type DGXW (Finish rating 22 min), Type DGXWI (Finish rating 22 min), Type DGXSI (Finish rating 22 min), Type DGXS (Finish rating 22 min), Type DGX-PGS (Finish rating 22 min), Type DGX-PGSI (Finish rating 22 min), Type UGXP (Finish rating 22 min), Type UGXPW (Finish rating 22 min), Type UGXPSI (Finish rating 22 min), Type UGXPS (Finish rating 22 min), Type DGX-PGP (Finish rating 22 min), Type DGXPW (Finish rating 22 min), Type DGXPSI (Finish rating 22 min), Water Resist - Type DGXPWI (Finish rating 22 min), Sheathing - Type DGXPSI (Finish rating 22 min)

PANEL REY S.A — Type GREX, PRX, PRC, PRCF2, Types RHX, RCXX, RFX, RSX (Finish rating 22 min)

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type ESI-1 (Finish rating 26 min)

THAI GYPSUM PRODUCTS PCL — Type C, Type X (Finish rating 26 min)

UNITED STATES GYPSUM CO — Type AR (Finish rating 24 min), Type C (Finish rating 24 min), Type FRX-C (Finish rating 24 min), Type SHAR (Finish rating 24 min), Type DPC (Finish rating 24 min), Type IP-X1 (Finish rating 24 min), Type IP-X2 (Finish rating 24 min), Type DCK (Finish rating 24 min), Type DCX (Finish rating 24 min), Type WRX (Finish rating 24 min), Type IPM (Finish rating 24 min), Type ULX (Finish rating 30 min)

USG BORAL DRYWALL SPZ LLC — Type C (Finish rating 24 min)

USG MEXICO S A DE C V — Type AR (Finish rating 24 min), Type C (Finish rating 24 min), Type WRX (Finish rating 24 min), Type WRC (Finish rating 24 min), Type DPC (Finish rating 24 min), Type IP-X1 (Finish rating 24 min), Type DPX (Finish rating 24 min), Type IP-AR (Finish rating 24 min), Type IPC-AR (Finish rating 24 min), Type ULX (Finish rating 32 min)

3A. **Gypsum Board*** — (As an alternate to Items 3, 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-3/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 8 in. OC with the last screw 1 in. from edge of the board. Where used in widths other than 48 in., gypsum panels are to be installed horizontally.

AMERICAN GYPSUM CO — Types AGX-1 (Finish rating 28 min), M-Glass (Finish rating 25 min), AGW (Finish rating 20 min), Type AGW-32 (Finish rating 32 min), LightGlass (Finish rating 25 min).

CERTAINTEED GYPSUM INC — Type C, Type X or Type X-1 (Finish rating 26 min)

CGC INC — Type AR (Finish rating 24 min), Type C (Finish rating 24 min), Type IP-AR (Finish rating 24 min), Type IPC-AR (Finish rating 24 min), Type IP-X1 (Finish rating 24 min), Type IP-X2 (Finish rating 24 min), Type DCK (Finish rating 24 min), Type DCX (Finish rating 24 min), Type DPX (Finish rating 24 min), Type WRX (Finish rating 24 min), Type WRX (Finish rating 24 min)

NATIONAL GYPSUM CO — Type PSW (Finish rating 24 min)

UNITED STATES GYPSUM CO — Type AR (Finish rating 24 min), Type DCK (Finish rating 24 min), Type DCX (Finish rating 24 min), Type C (Finish rating 24 min), Type IP-X1 (Finish rating 24 min), Type IP-X2 (Finish rating 24 min), Type DPX (Finish rating 24 min), Type IP-AR (Finish rating 24 min), Type IPC-AR (Finish rating 24 min)

USG BORAL DRYWALL SPZ LLC — Type C, SCX, SGX (Finish rating 24 min).

USG MEXICO S A DE C V — Type AR (Finish rating 24 min), Type C (Finish rating 24 min), Type WRX (Finish rating 24 min), Type WRC (Finish rating 24 min), Type IP-X1 (Finish rating 24 min), Type IP-X2 (Finish rating 24 min), Type DPX (Finish rating 24 min), Type DCK, Type IP-AR (Finish rating 24 min), Type IPC-AR (Finish rating 24 min)

3B. **Gypsum Board*** — (As an alternate to Item 3) — Nom 3/4 in. thick, installed with 1-7/8 in. long tenacity coated nails as described in Item 3 or 1-3/8 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A.

CGC INC — Types AR, SHAR

UNITED STATES GYPSUM CO — Types AR, SHAR

USG MEXICO S A DE C V — Types AR, SHAR

3C. **Gypsum Board*** — (As an alternate to Items 3, 3A and 3B) — 5/8 in. thick, 2 ft wide, tongue and groove edge, applied horizontally to one side of the assembly. Installed with 1-7/8 in. long coarse coated nails as described in Item 3 or 1 1/4 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A. Joint covering (Item 2) not required.

CGC INC — Type SHX

UNITED STATES GYPSUM CO — Type SHX

USG MEXICO S A DE C V — Type SHX

3D. **Gypsum Board*** — (As an alternate to Items 3, 3A, 3B, or 3C - Non Shown) - For Direct Application to Studs Only - Nom 5/8 in. thick bevel backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joins centered over studs and staggered nom 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field. Load bearing studs spaced nom 24 in. OC with the last stud 12 in. from edge of board or butted 7 in. from edge of board. Load bearing studs are nom 2 by 4 in. with a max thickness of 0.125 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Load discs or tabs may be used in lieu of or in addition to the load batten strips or screws as other locations. Nom 3/4 in. deep by nom 0.125 in. thick load discs compression fitted or adhered over the screw heads or nom 1/2 in. by 1-1/4 in. by nom 0.125 in. thick load tabs placed on minimum bearing surfaces underneath screw locations prior to the installation of the screws. Load batten strips to have a gap of 58.9% meeting the Federal specification QQ-L-201F Grade "C"

RAY-BAR ENGINEERING CORP — Type RS-18S (Finish rating 24 min)

3E. **Gypsum Board*** — (As an alternate to Items 3, 3A, 3B, 3C, and 3D) — 5/8 in. thick gypsum panels, with square edges, applied either horizontally or 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 2 screws 4 and 1 in. from edge of board or butted 7 in. OC and 60 cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths other than 48 in., gypsum boards are to be installed horizontally.

GEORGIA-PACIFIC GYPSUM I L C — Type DGXS (Finish rating 22 min)

UNITED STATES GYPSUM CO — Type USGX (Finish rating 22 min.)

USG BORAL DRYWALL SPZ LLC - . Type USGX (Finish rating 22 min.)

USG MEXICO S A DE C V — Type USGX (Finish rating 22 min.)

3F. **Gypsum Board*** — (As an alternate to Items 3 through 3E) — 5/8 in. thick paper surfaced applied vertically. Gypsum panels rated 7 hr, OC with 60 cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.

GEORGIA-PACIFIC GYPSUM L L C — Type X (ComfortGuard Sound Deadening Gypsum Board (Finish rating 27 min)

3H. **Gypsum Board*** — (As an alternate to Items 3 — Not to be used with Items 5 or 5.) 5/8 in. thick paper surfaced applied vertically only. Gypsum panels rated 7 hr, OC with 60 cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.

NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board

3I. **Gypsum Board*** — (As an alternate to Items 3 through 3H, Not Shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels rated 7 hr, OC with 60 cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Panel joints covered with paper tape and two layers of joint compound. Nailheads covered with two layers of joint compound.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES (Finish rating 39 min)

3J. **Gypsum Board*** — (As an alternate to Items 3) — Not to be used with Items 6 or 7. 5/8 in. thick paper surfaced applied vertically or horizontally. Gypsum panels secured as described in Item 3 or 3A

CERTAINTEED GYPSUM INC — Type SilentFX

3K. **Gypsum Board*** — (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-3/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 8 in. OC with the last screw 1 in. from edge of the board. Where used in widths other than 48 in., gypsum panels are to be installed horizontally.

NATIONAL GYPSUM CO — Type PSX (Finish rating 20 min), Type SSKXI (Finish rating 20 min), Type PSXV (Finish rating 20 min), Type FSRW-G (Finish rating 20 min), Type FSRW-V (Finish rating 20 min), Type FSW-G (Finish rating 20 min), Type FSW-V (Finish rating 20 min), Type PSXG (Finish rating 20 min), Type PSXG II (Finish rating 24 min), Type PSW-G (Finish rating 20 min), Type PSW-V (Finish rating 20 min), Type PSXG (Finish rating 20 min), Type PSXG II (Finish rating 24 min), Type PSX (Finish rating 20 min), Type FSW (Finish rating 20 min), Type PSW (Finish rating 20 min), Type IP-AR (Finish rating 24 min), Type IPC-AR (Finish rating 24 min), Type ULX (Finish rating 32 min)

3L. **Gypsum Board*** — (As an alternate to Items 3) — For Direct Application to Studs Only — Nom 5/8 in. thick bevel backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joins centered over studs and staggered nom 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field. Load bearing studs spaced nom 24 in. OC with the last stud 12 in. from edge of board or butted 7 in. from edge of board. Load bearing studs are nom 2 by 4 in. with a max thickness of 0.125 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Load discs, nominal 3/8 in. diam by nom 0.085 in. thick compression fitted or adhered over the screw heads. Load batten strips and discs to have a gap of 58.9% meeting the Federal specification QQ-L-201F, Grade "C". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over load bearing bases to be nom 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4.

RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

3N. **Gypsum Board*** — (As an alternate to Item 3) — 5/8 in. thick, 4 ft wide gypsum panels, applied horizontally or vertically with vertical joints centered over studs and staggered one stud cavity on each side of studs. Gypsum panels secured to studs as described in Item 3 or 3A.

CERTAINTEED GYPSUM INC — Easi-Lite Type X (Finish rating 24 min), Easi-Lite Type C (Finish rating 24 min)

3O. **Wall and Partition Facings and Accessories*** — (As an alternate to Item 3) — Nom 5/8 in. thick gypsum panels, 4 ft wide applied vertically, applied horizontally. Panels rated 7 hr, OC with 60 cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Panel joints covered with paper tape and joint compound. Nailheads covered with two layers of joint compound.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527 (Finish rating 24 min).

3P. **Gypsum Board*** — (As an alternate to Items 3, 3A, 3B, 3C, 3D, and 3E) — 5/8 in. thick gypsum panels applied vertically or horizontally. Gypsum panels fastened to framing with 1-3/4 in. long drywall screw spaced 8 in. OC along edges of board and 12 in. OC along intermediate framing members. Screws on opposite sides of studs need not be staggered. Glass fiber insulation blankets 3 in. thick, 4 lb/cu ft density, 1 in. long drywall screw spaced 8 in. OC. Face layer gypsum panels fastened to studs with 1-5/8 in. long drywall screw spaced 8 in. OC starting with a 6" stagger.

NATIONAL GYPSUM CO — Type PSX (Finish rating 20 min)

3Q. **Gypsum Board*** — (As an alternate to Items 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-3/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 12 in. OC with the last two screws 4 and 1 in. from the edges of the board. Where used in widths other than 48 in., gypsum panels are to be installed horizontally.

CONTINENTAL BUILDING PRODUCTS OPERATING CO. L L C — Type LGRCSA (Finish rating 21 min), Type LGRCSA, Type LGRCSA, Type LGG1X

3R. **Gypsum Board*** — (As an alternate to Item 3) - For use with Item 5H — Nom 5/8 in. thick, 4 ft wide, Gypsum panels applied vertically or horizontally. Gypsum panels secured as described in Item 3 or 3A.

CERTAINTEED GYPSUM INC — Type C, Type X or Type X-1 (Finish rating 26 min)

3S. **Gypsum Board*** — (As an alternate to Items 3, 3A, 3B, 3C, 3D, and 3E) — 5/8 in. thick paper surfaced applied vertically or horizontally. Gypsum panels secured as described in Item 3 with nail length increased to 2 in.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-13

4. Steel Corner Fasteners — (Optional) — For use at wall corners. Chisled shaped, 2 in. long by 1 in. high on the face side with two 1/8 in. wide blades protruding into the 5/8 in. wide channel, fabricated from 24 gauge galvanized steel. Fasteners applied one on the end of an edge joint from strong tapered edges of the gypsum board, no greater than 1/2 in. from corner of gypsum board, into opposite 3 in. OC fastener to adjacent stud through the utility slot. No. 6x1 screws spaced nom 8 inches. Corners of wall board shall be nailed to the stud bottom plate using No. 6x1 cement coated nails.

5. **Batts and Blankets*** — (Optional — Required when Item 6A is used (DC:21)) — Glass fiber or mineral wool insulation. Placed to completely or partially fill the stud cavities. When Item 6A is used, glass fiber or mineral wool insulation shall be friction fitted to completely fill the stud cavities.

CERTAINTEED CORP

JOHNS MANVILLE

KNAUF INSULATION LLC

MANSON INSULATION INC

OWENS CORNING HT INC, OSY OF OWENS CORNING — Cavity Fiberglass Corp

ROCK WOOL MANUFACTURING CO — Lapis Board

ROCKWOOL — Associated Fire Batts

THERMAFIBER INC — Type SAFB, SAFB FF

5A. **Fiber, Sprayed*** — (Not Shown — Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) — 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 3.5 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product. When Item 6B is used, Fiber, Sprayed shall be INSI330, INSI340, INSI360LD or INSI370LD

U S GREENFIBER L L C — INSI330 & INSI340 for use with wet or dry applications. INSI360LD, INSI350LD, INSI340LD, INSI331, INSI341, INSI361LD, and INSI371LD are to be used for dry application only

5B. **Fiber, Sprayed*** — (Not Shown - Not for use with Item 6) — As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied cellulose insulation material. The fiber is applied with water to enclose surfaces in accordance with the application instructions supplied with the product. Applied to considerably fill the enclosed cavity. Minimum dry density of 4.0 pounds per cubic

NU-WOOL CO INC — Cellulose Insulation

5C. **Batts and Blankets*** — Designed for use with resilient channels. Item 7. 1 in. thick mineral wool batts, friction fitted to fill interior of wall.

THERMAFIBER INC — Type SAFB, SAFB FF

5D. **Glass Fiber Insulation** — (As an alternate to Item 5C) — 3 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning Smoke Development Rating, friction fitted to fill the interior of the wall. See **Batts and Blankets** (BKNY or BZZZ) Categories for names of Classified companies.

5E. **Batts and Blankets*** — (Required for use with Wall and Partition Facings and Accessories, Item 3O) — Glass fiber insulation, nom 3-1/2 in. thick, nom. density of 0.90 pcf with a flame spread of 25 or less and a smoke developed of 50 or less. friction-fitted to completely fill the stud cavities. See Batts and Blankets Category (BKNY) for names of manufacturers.

5F. **Fiber, Sprayed*** — (Optional, Not Shown — Not for use with Items 6, 6A or 6B) — As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied granulated mineral fiber material. The fiber is applied with adhesive, at a maximum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (XCJZ).

AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

5G. **Fiber, Sprayed*** — (Optional, Not Shown — Not for use with Items 6, 6A or 6B) — As an alternate to Batts and Blankets (Item 5) and Item 5A - 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 3.30 lbs/ft^3.

INTERNATIONAL CELLULOSE CORP — Cellular Fit.

5H. **Formed Plastic*** — (Optional -For use with Item 3R) — Spray applied. Formed plastic insulation. at any thickness from partial fill to completely filling stud cavity.

SES FOAM INC — SES 2.3lb. Spray Foam and Spumesol 0.5 lb. Spray Foam.

6. **Steel Framing Members*** — (Optional, Not Shown) — Framing channels and Steel Framing Members as described below:

a. **Framing Channels** — Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-1/2/2 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 5. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 4 in. and secured together with two self-tapping and framing screws, nom. 3/16 in. long so the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to framing channels as described in Item 3.

b. **Steel Framing Members*** — Used to attach framing channels (Item 6A) to one side of studs only. Clips spaced 48 in. OC, and secured to studs with two No. 8 x 1-1/4 in. coarse drywall screws, one through the hole at each end of the clip. Framing channels are friction fitted into clips.

PLITEQ INC — Type Slotw Clip

6A. **Steel Framing Members*** — (Optional, Not Shown) — Framing channels and Steel Framing Members as described below:

a. **Framing Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 5. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 4 in. and secured together with two self-tapping and framing screws, nom. 3/16 in. long so the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to framing channels as described in Item 3.

b. **Steel Framing Members*** — Used to attach framing channels (Item 6A) to one side of studs only. Clips spaced 48 in. OC, and secured to studs with two No. 8 x 1-1/4 in. coarse drywall screws, one through the hole at each end of the clip. Framing channels are friction fitted into clips.

STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type RJ-1 or RJ-2

7. **Furring Channel** — (Optional — Not Shown) — For use on one side of the assembly. Furring channels, 25 MSG galv steel, spaced vertically 24 in. OC attached to one side of studs with 1 in. long Type S bugle head steel screws. When resilient channels are used, installed with Type S, 1 in. long screws.

8. **Continuous Sound Isolation*** — (Optional) — A bead of acoustical sealant applied around the perimeter of the sound control

[illegible] Item 3A) [illegible] Type W [illegible] 6 in. OC [illegible] Type S [illegible] 12 in. OC in non-resilient field of the

[illegible] Item 3, above — Gypsum board [illegible] joint compound.

[illegible] Item 3, above — Gypsum board [illegible] shall be finished with fiber tape and joint compound.

[illegible] Item 3, above — Batts or Blankets* The cavities formed by the studs shall be friction fit with R-19 unfaced fiberglass insulation batts nominal 3 in. thick and 15-1/4 in. wide.

[illegible] Item 4, above — Steel Framing Members* Type 450C-1 clips shall be used to attach gypsum board to studs on either side of the wall assembly.

[illegible] 8, above — Caulking and Sealants (Not Shown) A bead of acoustical sealant shall be applied around the partition perimeter [illegible] the sound control.

[illegible] Corner Fasteners (Item 4). Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not required as alternates for obtaining SRC rating.

10. **Wall and Partition Facings and Accessories*** — (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the GP-500 or GP-518 panel is installed between the wood framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated in its fastener tape and sealing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock QR-500 and QR-518

11. **Cementious Backer Units*** — (Optional Item Not Shown — For Use On Face Of 1 Hr Systems With AR Standard Item Required) - Nominal 1/2 in., 3/4 in. or 1 in. thick, min. 32 in. wide. Applied vertically or horizontally with vertical joins centered over studs. Fastened to studs and runners with corrosion bonded screws of adequate length to penetrate stud by a minimum of 3/8 in. For steel framing members, and a minimum of 3/4 in. for wood framing members spaced a max of 8 in. OC. When 4 ft. wide boards are used, horizontal joints need not be backed by framing

NATIONAL GYPSUM CO — Type DuroBacker, PermaBase, DuroBacker Plus, or PermaBase Plus

12. **Non-Bearing Wall Partition Intersection** — (Optional) — Two nominal 2 by 4 in. studs or nominal 2 by 6 in. studs nailed together with two 3 in. long 16d nails spaced 6 max. 16 in. OC vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 16d nails spaced 6 max. 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be braced by with a second 2 by 4 in. wood stud fastened with 3 in. long 16d nails spaced 6 max. 16 in. OC. vertically. Maximum one non-bearing wall partition intersection per stud cavity. Non-bearing wall partition stud depth shall be at a minimum equal to the depth of the bearing wall

13. **Mesh Netting** — (Not Shown) — Any thin, woven or non-woven fibrous netting material attached with staples to the outer face of the outer layer fiber fiber to facilitate the installation of the outer layer fiber fiber the opposite side.

14. **Mineral and Fiber Board*** — (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with tongue and groove edges and tongue and groove ends. Attached to framing with 2 in. long Type W steel screws, spaced 12 in. OC. The required UL Classified gypsum board layer(s) is/are to be installed as indicated in its fastener tape and sealing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

HOMASOTE CO - Homasote Type 440-32

14A. **Mineral and Fiber Board*** — (Optional, Not Shown) — For use with Items 14B-14D — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and perpendicular to wood studs. Attached to framing with minimum 1-3/8 in. long ring shanked nails or 1 1/4 in. long Type W steel screws, spaced 12 in. OC along board edges and 24 in. OC in field of board along intermediate framing. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

HOMASOTE CO — Homasote Type 440-32

14B. **Glass Fiber Insulation** — (For use with Item 14A) — 3-1/2 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning Smoke Fire Resistance, placed to fill the interior of the wall. See **Batts and Blankets** (BKNY or BZZZ) categories for names of Classified companies.

14C. **Batts and Blankets*** — (As an alternate to Item 14B. For use with Item 14A). 3 in. thick mineral wool batts, placed to fill interior of wall, attached to the 3-1/2 in. face of the studs with staples placed 24 in. OC.

THERMAFIBER INC — Type SAFB, SAFB FF

14D. **Adhesive** — (For use with Item 14A) — Construction grade adhesive applied in vertical, serpentine, nominal 1/8 in. wide beads along the length or both vertical edges of Mineral and Fiber Board (Item 14A).

14E. **Gypsum Board*** — (For use with Item 14A) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 14A) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in non-vertical field of the Mineral and Fiber Board (Item 14A). Secured to nonvertical studs and bearing plates with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound. Trade Packing or Pan

AMERICAN GYPSUM CO — Type AGC-C

CERTAINTEED GYPSUM INC — Type FSRC, Type C

CGC INC — Types C, IP-X2, IPC-AR

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGPCG-GM

GEORGIA-PACIFIC GYPSUM L L C - Types G, DWPG, TG-G

NATIONAL GYPSUM CO — Types PSC-G, PSW-G

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

PANEL REY S A — Type PRC

THAI GYPSUM PRODUCTS PCL — Type C

UNITED STATES GYPSUM CO — Types C, DPXC, DPCAR

USG BORAL DRYWALL SPZ LLC — Type C

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

*** 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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CHARLOTTE, NC

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