See General Information for Fire-resistance Ratings - ANSI/UL 263

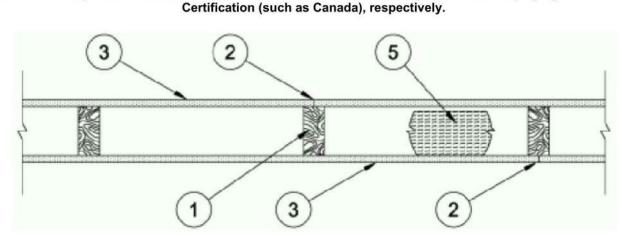
June 27, 2014

Bearing Wall Rating — 1 Hr Finish Rating — See Items 3, 3A, 3D, 3E, 3F, 3G, 3H, 3J and 3L.

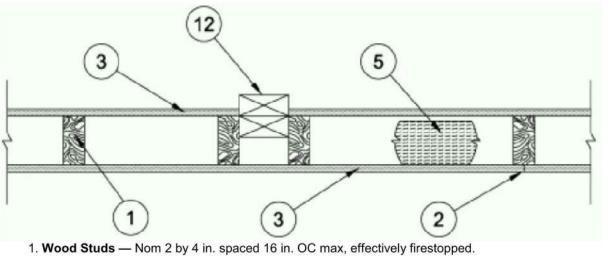
STC Rating - 56 (See Item 9)

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



UL U305-1



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 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard 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 nailed 7 in. OC with 6d 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 panels are to be installed horizontally. For an alternate method of attachment of gypsum panels, refer to Item 6, 6A or 6B, Steel Framing

When Item 6,6B, or 6C Steel Framing Members\*, are used, gypsum panels attached to furring 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 furring channels. Base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC. Face layer attached to furring channels with 1-5/8 in. long Type S bugle-head steel screws spaced 12 in. OC. All joints in face layers staggered with joints in base layers. One layer of gypsum board attached to opposite side of wood stud without furring 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 S or S-12 steel 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, Mold & Mildew Resistant Type X and Mold & Mildew Resistant AR Type X, Type Blueglass Exterior Sheathing

AMERICAN GYPSUM CO — Types AGX-1(finish rating 23 min.), M-Glass (finish rating 23 min.), Type AGX-11 (finish rating 26 min), Type LightRoc (finish rating 22 min) or Type AG-C

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1 (finish rating 24 min).

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CERTAINTEED GYPSUM INC — Type 1, Type SF3 (finish rating 20 min) or FRPC, Type C or Type X (finish rating 26 min), Type EGRG or GlasRoc (finish rating 23 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 SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRC (finish rating 24 min), Type WRX (finish rating 24 min).

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC6A (finish rating 34 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX (finish rating 21 min).

GEORGIA-PACIFIC GYPSUM L L C — Type 5 (finish rating 26 min), Type 6 (finish rating 23 min), Type 9 (finish rating 26 min), Type C (finish rating 26 min), Type DGG (finish rating 20 min), Type GPFS1 (finish rating 20 min), Type GPFS2 (finish rating 20 min), Type GPFS6 (finish rating 26 min), Type DS, Type DAP, Type DD (finish rating 20 min), Type DA, Type DAPC, Type LS (finish rating 23 min), Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type LWX (finish rating 22 min), Veneer Plaster Base-Type LWX (finish rating 22 min), Water Rated-Type LWX (finish rating 22 min), Sheathing Type-LWX (finish rating 22 min), Soffit-Type LWX (finish rating 22 min), Type DGLW (finish rating 22 min), Water Rated-Type DGLW (finish rating 22 min), Sheathing Type- DGLW (finish rating 22 min), Soffit-Type DGLW (finish rating 22 min), Type LWX (finish rating 22 min), Type LW2X (finish rating 22 min), Veneer Plaster Base - Type LW2X (finish rating 22 min), Water Rated - Type LW2X (finish rating 22 min), Sheathing - Type LW2X (finish rating 22 min), Soffit - Type LW2X (finish rating 22 min), Type DGL2W (finish rating 22 min), Water Rated - Type DGL2W (finish rating 22 min), Sheathing - Type DGL2W (finish rating 22 min).

NATIONAL GYPSUM CO — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min), Type FSL (finish rating 24 min), Type FSW-8.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-2 (finish rating 20 min), PG-3 (finish rating 20 min), Types PG-3W, PG-5W (finish rating 20 min), Type PG-4 (finish rating 20 min), Type PG-6 (finish rating 23 min), Types PG-3WS, PG-5WS, PGS-WRS (finish rating 20 min), Types PG-5, PG-9 (finish rating 26 min), PG-11 or Type PG-C.

PANEL REY S A — Type GREX, PRX; Types RHX, MDX, ETX (finish rating 22 min)

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

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1 (finish rating 26 min)

UNITED STATES GYPSUM CO — Type AR (finish rating 24 min), Type C (finish rating 24 min), Type FRX-G (finish rating 29 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 SHX (finish rating 24 min), Type SCX (finish rating 24 min), Type SGX (finish rating 24 min), Type ULX (finish rating 22 min), Type WRX (finish rating 24 min), Type WRC (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 SHX (finish rating 24 min), SCX (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type ULX (finish rating 22 min).

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3A. 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 1-1/4 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. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.

AMERICAN GYPSUM CO — Types AGX-1 (finish rating 25 min.), M-Glass (finish rating 25 min.), Type AG-C (finish rating 25 min.).

**CERTAINTEED GYPSUM INC** — Type C or Type X (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 SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type WRC (finish rating 24 min), Type WRX (finish rating

UNITED STATES GYPSUM CO — Type AR (finish rating 24 min), Type SCX (finish rating 24 min), Type SGX (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 SHX (finish rating 24 min), Type FRX-G (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (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 SHX (finish rating 24 min), Type SCX, Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24

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

CGC INC - Types AR, IP-AR.

described in Item 3A.

UNITED STATES GYPSUM CO — Types AR, IP-AR.

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

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 cement 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.

CGC INC — Type SHX.

UNITED STATES GYPSUM CO — Type SHX.

USG MEXICO S A DE C V — Type SHX.

Joint covering (Item 2) not required.

3D. Gypsum Board\* — (As an alternate to Items 3, 3A, 3B, or 3C — not shown) For Direct Application to Studs Only- Nom 5/8 in, thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 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 UL U305-4

the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 1-1/2 in. wide, max 10 ft long 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. Lead discs or tabs may be used in lieu of or in addition to the lead batten strips or optional at other locations. Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards underneath screw locations prior to the installation of the screws. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

**RAY-BAR ENGINEERING CORP** — Type RB-LBG (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 1 and 4 in. from edge of board or nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.

**GEORGIA-PACIFIC GYPSUM L L C** — GreenGlass Type X (finish rating 23 min).

3F. Gypsum Board\* — (As an alternate to Items 3, 3A, 3B, 3C, 3D, and 3E) - 5/8 in. glass-mat faced with square edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC around the perimeter and in the field with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Nails shall be placed 1 inch and 3 inch from horizontal joints and 7 inch OC thereafter.

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

3G. Gypsum Board\* — (As an alternate to Items 3 through 3F) - 5/8 in. thick paper surfaced applied vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in.

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

3H. **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 only. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915

NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board

31. Gypsum Board \* — (As an alternate to Items 3 through 3H, not shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels nailed 7 in. OC with 6d 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

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES (finish rating 20 min).

applied vertically only. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads.

CONSULTANT

PARTNERSHIP, LLC

A MULTI-DISCIPLINARY DESIGN FIRM

SOUTH TERRACES

115 PERIMETER CENTER PLACE, SUITE 950

ATLANTA, GEORGIA 30346

TELEPHONE: 770 396 7248

FAX: 770 396 2945

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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 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 8 in. OC with the last screw 1 in. from the edge of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

NATIONAL GYPSUM CO — Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSW-6 (finish rating 20 min).

3L. Gypsum Board\* — (As an alternate to Item 3) For Direct Application to Studs Only- Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long vpe W coarse thread gypsum panel steel screws spaced 8 in, OC at perimeter and in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in, wide, max 10 ft long with a max thickness of 0.140 in, placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, max 5/16 in. diam by max 0.140 in. thick. compression fitted or adhered over the screw heads. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades

MAYCO INDUSTRIES INC — "X-Ray Shielded Gypsum"

3M. Gypsum Board\* — (As an alternate to Items 3) For Direct Application to Studs Only- For use as the base layer or as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to study with 1-5/8 in. long Type W coarse thread gypsum panel steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and 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. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Fasteners for face layer gypsum panels (Items 4, 4A or 4B) when installed over lead backed board to be min 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, applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Secured as described in Item 3.

**CERTAINTEED GYPSUM INC** — 5/8" Easi-Lite Type X (finish rating 24 min)

3O. Wall and Partition Facings and Accessories\* — (As an alternate to Item 3, not shown) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically. Panels nailed 7 in. OC with 6d 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 527 (finish rating 24 min).

14A. Mineral and Fiber Board\* — (Optional, Not shown) — For use with Items 14B-14E) — For optional use a

an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered ove

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 c

14E. Gypsum Board\* — (For use with Item 14A) - 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fib

intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

UL U305-6

3P. **Gypsum Board\*** — (As an alternate to Item 3, not shown) - Two layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by wood studs. Horizontal joints on the same sidebetween face and base layers need not be staggered. Base layer gypsum panels fastened to studs with 1-1/4 in. long drywall nails spaced 8 in. OC. Face layer gypsum panels fastened to studs with 1-7/8 in. long drywall nails spaced 8 in. OC starting with a 4"

NATIONAL GYPSUM CO — Type FSW (finish rating 25 min)

4. Steel Corner Fasteners — (Optional) — For use at wall corners. Channel shaped, 2 in. long by 1 in. high on the back side with two 1/8 in. wide cleats protruding into the 5/8 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the gypsum board, no greater than 2 in. from corner of gypsum board, max spacing 16 in. OC. Nailed to adjacent stud through tab using one No. 6d cement coated nail per fastener. Corners of wall board shall be nailed to top and bottom plate using No. 6c

5. Batts and Blankets\* — (Optional - Required when Item 6A is used (RC-1)) 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.

KNAUF INSULATION GMBH MANSON INSULATION INC

OWENS CORNING HT INC, DIV OF OWENS CORNING — Corning Fiberglas Corp.

ROCK WOOL MANUFACTURING CO — Delta Board.

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 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft<sup>3</sup>, in accordance with the application instructions supplied with the product. When Item 6B is used, Fiber, Sprayed shall be INS735, INS745, INS765LD or INS770LD.

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 interior surfaces in

UL U305-7

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

5C. Batts and Blankets\* — Required for use with resilient channels, Item 7, 3 in. thick mineral wool batts, friction-fitted to fill interior of wall.

THERMAFIBER INC — Type SAFB

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 and/or Fire Resistance, friction-fitted to fill the interior of the wall. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies. 5E. Batts and Blankets\* — (Required for use with Wall and Partition Facings and Accessories, Item 3D) — Glass fiber insulation, nom 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke

for names of manufacturers. 5F, Fiber, Sprayed\* — (Optional, Not Shown - Not for use with Item 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 water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See

developed of 50 or less, friction-fitted to completely fill the stud cavities. See Batts and Blankets Category (BKNV)

AMERROCK PRODUCTS L P — Rockwool

5G, Fiber, Sprayed\* — (Optional, Not Shown - Not for use with Items6, 6A or 6B), As an alternate to Batts and Blankets (Item 5) and Item 5A - Brown Colored Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed stud cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft<sup>3</sup>.

INTERNATIONAL CELLULOSE CORP — Celbar-RL

6. Steel Framing Members (Optional, Not Shown)\* — Furring channels and Steel Framing Members as

a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. 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 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3. b. Steel Framing Members\* — Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.

b. Steel Framing Members\* — Used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC. RSIC-1 clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the PAC INTERNATIONAL INC — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

6A. Steel Framing Members (Optional, Not Shown)\* — Furring channels and Steel Framing Members on one side of studs as described below: a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. 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. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of

> gypsum board attached to furring channels as described in Item 3. b. Steel Framing Members\* — used to attach furring channels (Item 6Aa) to one side of studs only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.

6B. Steel Framing Members — (Optional, Not Shown)\* — Furring channels and Steel Framing Members as

KINETICS NOISE CONTROL INC — Type Isomax.

24 in, OC perpendicular to study. Channels secured to study as described in Item b. 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 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3. b. Steel Framing Members\* — Used to attach furring channels (Item 6Ba) to studs. Clips spaced

a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced

48 in. OC. Genie clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

PLITEQ INC — Type Genie Clip

6C. Steel Framing Members — (Optional, Not Shown)\* — Furring channels and resilient sound isolation clip as

a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured together with four self-tapping No. 8x1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Gypsum board attached to furring channels as described in Item 3. Side joint furring channels shall be attached to study with RESILMOUNT Sound Isolation Clips located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge. b. Steel Framing Members\* — Resilient sound isolation clip used to attach furring channels (Item 6Ca) to studs. Clips spaced 16 in. OC., and secured to studs with No. 10 x 2-1/2 in. coarse

drywall screw through the center hole. Furring channels are friction fitted into clips.

STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R 7. Furring Channel — Optional - Not Shown - For use on one side of the wall - Resilient channels, 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. When resilient channels are used, insulation, Items 5C or

8. Caulking and Sealants — (not shown, optional) A bead of acoustical sealant applied around the partition 9. STC Rating — The STC Rating of the wall assembly is 56 when it is constructed as described by Items 1

A. Item 2, above - Nailheads Shall be covered with joint compound.

B. Item 2, above - Joints As described, shall be covered with fiber tape and joint compound. C. Item 5, above - Batts and Blankets\* The cavities formed by the studs shall be friction fit with R-19 unfaced fiberglass insulation batts measuring 6-1/4 in. thick and 15-1/4 in. wide.

E. Item 8, above - Caulking and Sealants (not shown) A bead of acoustical sealant shall be applied around the

F. Steel Corner Fasteners (Item 4), Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not evaluated as alternatives for obtaining STC 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 QR-510 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 as to fastener type and spacing, 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

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 510.

11. Cementitious Backer Units\* — (Optional Item Not Shown - For Use On Face Of 1 Hr Systems With All Standard Items Required) - 7/16 in., 1/2 in., 5/8 in., 3/4 in. or 1 in. thick, min. 32 in. wide.- Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with cement board 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.

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 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a 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 framed by with a second 2 by 4 in. wood stud fastened with 3 in. long 10d nails spaced a 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 one row of studs to facilitate the installation of the sprayed fiber from the opposite row. 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 long dimension parallel and centered over studs. 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 as to fastener type and spacing, 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

UL U305-10

AKA REVEL AT THE

2885 CRESCENT PKWY

SMYRNA, GA 30080

**BALLPARK** 

ATLANTIC REALTY **PARTNERS** 

3438 PEACHTREE ROAD **SUITE 1425** 

ATLANTA, GA 30326

ISSUES & #\rightarrow - REVISIONS \_\_\_\_\_ 05/22/2017 PERMIT SET 3 BUILDING PERMIT 07/25/2017

attached to the studs with corrugated metal wall ties attached to each stud with 8d cement coated nails, every sixth 6F. Exterior Facings — (Optional — Not Shown) — Any exterior facing approved by the Authority Having Jurisdiction

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.

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SHEET TITLE **UL ASSEMBLIES** 

BUILDING PERMIT RE-SUBMISSION

U349-1

Design No. U349 **BXUV.U349** Fire Resistance Ratings - ANSI/UL 263 Page Bottom

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

. 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

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

See General Information for Fire-resistance Ratings - ANSI/UL 263

August 02, 2016 Bearing Wall Rating - 2 Hr

Design No. U349

For Wood Studs, Finish Rating - 55 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 <u>BXUV</u> or <u>BXUV7</u>

ALTERNATE EXTERIOR FACINGS

om 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 1A. Steel Studs — (Not Shown) — In lieu of Item 1. Corrosion protected steel studs, min No. 20 MSG and min. 3-1/2 in. formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structura 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 issemblies shall not exceed 16 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. 1B. Steel Floor and Ceiling Tracks — (Not Shown, for use with Item 1A) — Top and bottom tracks of wall assemblies shall consist of steel members, min No. 20 MSG and min. 3-1/2 in. deep. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. O.C. 1C. Lateral Support Members — (Not Shown, for use with Item 1A) — Where required for lateral support of steel studs,

support may be provided by means of steel straps, channels or other similar means as specified in the design of a 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, two layers applied vertically. Base layer nailed to wood studs and bearing plates 6 in OC with 6d cement coated pails, 1-7/8 in long, 0.0915 in shank diam, and 1/4 in diam, head. The face layer, with joints staggered from base layer, nailed to the studs and bearing plates over the base layer, 8 in. OC. with 8d ment coated nails, 2-3/8 in. long, 0.113 in. shank diam. 9/32 in. diam. head. For securement to steel studs and track, 1 in. long Type S or S-12 steel screws to be used to install the base layer and 1-5/8 in. long Type S or S-12 steel screws to be used to install the face layer. Spacings of screws that same as described for nails.

AMERICAN GYPSUM CO (View Classification) — CKNX.R14196

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

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

LOUISIANA-PACIFIC CORP - Type LP FlameBlock 2-Side 5A. Foamed Plastic\* — (Optional — for use with Item 5) — Foamed plastic boards, faced or unfaced, may or may not be

5B. Building Unit\* - (Optional - for use with Item 5) - Polyisocyanurate composite foamed plastic insulation boards to

U349-3

U349-4

PANEL REY S A — Type PRC

THERMAFIBER INC — Type SAFB 14D. Adhesive — (For use with Item 14A) - Construction grade adhesive applied in vertical, serpentine, nomina 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 14A).

Board (Item 14A) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards w 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field o the Mineral and Fiber Board (Item 14A). Secured to outermost 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. Finish Rating 30 Min. AMERICAN GYPSUM CO - Type AG-C

CGC INC — Types C, IP-X2, IPC-AR

NATIONAL GYPSUM CO — Types FSK-C, FSW-C

THAI GYPSUM PRODUCTS PCL — Type C

UL U305-11

CERTAINTEED CORP **GUARDIAN FIBERGLASS INC** JOHNS MANVILLE INTERNATIONAL INC

**ROXUL INC** — Acoustical Fire Batts **THERMAFIBER INC** — Type SAFB.

U S GREENFIBER L L C — INS735& INS745 for use with wet or dry application. INS510LD, INS515LD, INS541LD, INS735, INS745, INS765LD, and INS770LD are to be used for dry application only.

described below:

center grommet. RSIC-V clips secured to studs with No. 8 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

UL U305-8

UL U305-9

CGC INC (View Classification) — CKNX.R19751

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

 $\textbf{LOADMASTER SYSTEMS INC}~\underline{(View~Classification)} - \texttt{CKNX.R11809}$ 

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

NATIONAL GYPSUM CO (View Classification) — CKNX.R3501 PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNX.R7094

 $\textbf{SIAM GYPSUM INDUSTRY (SARABURI) CO LTD } \underline{\text{(View Classification)}} - \text{CKNX.R19262}$ 

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

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

UNITED STATES GYPSUM CO (View Classification) — CKNX.R1319 USG MEXICO S A DE C V (View Classification) — CKNX.R16089

3. Joints and Nailheads — Gypsum board joints covered with tape and joint compound. Nail heads covered with joint

cavity between stud. plates, and cross bracing. If 2 by 6 in, studs (Item 1) are used, min. 5-1/2 in, of unfaced mineral

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

applied in multiple layers to achieve final thickness. See Batts and Blankets\* (BZJZ) category for names of Classified manufacturers 4A. Glass Fiber Insulation — (As an alternate to Item 4 when wood studs are used to frame the wall) — Faced or unfaced glass fiber batts 3-1/2 in. thick, nom 0.25 pcf, pressure fit in the wall cavity between stud, plates, and cross bracing may be used. If 2 by 6 in. study (Item 1) are used, min. 5-1/2 in. of unfaced glass fiber batts, nom 0.25 pcf

See Batts and Blankets\* (BZ)Z) category for names of Classified manufacturers 4B. Loose Fill Materials — Blown-in fiberglass loose-fill insulation material as an alternate to Item 4A. The insulation is blown into the wall cavity to a minimum thickness of 3-1/2 in. with a minimum density of 0.25 pcf. If 2 by 6 in. studs (Item 1) are used the minimum thickness is increased to 5-1/2 in. 5. Building Units\* - Building units 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 studs are used min. 1-7/8 in. long steel screws installed 6 in. OC on the

pressure fit in the wall cavity between stud, plates, and cross bracing. Insulation may be applied in multiple layers to

BARRIER TECHNOLOGY CORP - Type Blazeguard 2-Side

perimeter and 12 in. OC in the field.

bonded to fiberboard, plywood or OSB, and placed between building units (Item 5) and exterior facings (Item 6). RMAX OPERATING L L C — Types TSX-8500, TSX-8510, Thermasheath-XP, ECOMAXci, Thermasheath-3, Durasheath-3

CONTINENTAL BUILDING PRODUCTS OPERATING CO. L L C — Type LGFC-C/A

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

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 and/or Fire Resistance, placed to fill the interior of the wall. See Batts and Blankets (BKNV or BZJZ) 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.

**HOMASOTE CO** — Homasote Type 440-32

**HOMASOTE CO** — Homasote Type 440-32

**CERTAINTEED GYPSUM INC** — Type FRPC, Type C

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

ONLINE CERTIFICATIONS DIRECTORY

Design/System/Construction/Assembly Usage Disclaimer

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

(EXPOSED TO FIRE ON INTERIOR FACE ONLY)

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

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

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. 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,

CERTAINTEED GYPSUM INC (View Classification) — CKNX.R3660

in. shank diam and 15/64 in. diam heads.

covered with two layers of joint compound.

3J. Gypsum Board\* — (As an alternate to Items 3) - Not to be used with items 6 or 7. 5/8 in. thick paper surfaced

CERTAINTEED GYPSUM INC — Type SilentFX

through 6, except:

). Item 6, above - Steel Framing Members\* Type RSIC-1 clips shall be used to attach gypsum board to studs on either side of the wall assembly.

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

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

adhesive base coat. Thickness from 3/8 in. to 3/4 in. depending on system.

nails or screws, at the locations specified by the manufacture 6B. Particle Board Siding\* — (Optional) — Oriented strand board, wafer board, or hard board exterior building sidings 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) - Portland cement or synthetic stucco systems with self furring metal lath or

6E. Brick - (Optional - Not Shown) - Brick veneer, meeting the requirements of local code agencies. Brick veneer

RMAX OPERATING L L C — Types "Thermasheath-SI", "ECOBASEci", and "ThermaBase-CI" polyisocyanurate composite

6A. Vinyl Siding\* — (Optional) — UL Classified exterior plastic siding (molded plastic), fastened to the building units with

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification Last Updated on 2016-08-02