

 Nailheads — Exposed or covered with joint finisher. 2. Joints — Exposed or covered with fiber tape and joint finisher. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. 3. Nails — 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam, 1/4 in. diam heads, and 8d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam heads. 4. Gypsum Board — * — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with the 1-7/8 in. nails spaced 6 in. OC. Outer layer attached to studs over inner layer with the 2-3/8 in. long nails spaced 8 in. OC. Vertical joints located over studs. All joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base

When Steel Framing Members* (Item 6) are used, base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced max 24 in. OC; face layer attached with 1-5/8 in. long Type S bugle-head steel screws spaced max 12 in. OC.

When used in widths other than 48 in., gypsum board to be

AMERICAN GYPSUM CO — Types AGX-1, AG-C, AGX-11.

BEIJING NEW BUILDING MATERIALS PUBLIC

LTD CO — Type DBX-1.

layer on opposite side.

installed horizontally.

CERTAINTEED GYPSUM INC — Types 1, FRPC, EGRG, ProRoc Type C or ProRoc Type X.

CERTAINTEED GYPSUM CANADA INC — ProRoc Type C, ProRoc Type X, ProRoc Type Abuse-Resistant.

CANADIAN GYPSUM COMPANY — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6.

LAFARGE NORTH AMERICA INC — Types LGFC-C, LGFC2, LGFC2A LGFC6, LGFC6A., LGFC-C/A, LGFC-WD

NATIONAL GYPSUM CO — Types FSK, FSK-C, FSK-G, FSW, FSW-3, FSW-5, FSW-6, FSW-C, FSW-G, FSMR-C.

PABCO BUILDING PRODUCTS L L C. DBA

PABCO GYPSUM — Type C, PG-2, PG-3, PG-3W, PG-4, PG-5, PG-5W, PG-5WS, PG-9, PG-11 or PG-C.

PANEL REY S A — Type PRC

PANEL REY S A — Type PRX.

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

TEMPLE-INLAND FOREST PRODUCTS CORP — Type TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X.

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, USGX.

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

4A. Gypsum Board* — (As an alternate to Item 4) — Nom 3/4 in. thićk, installed as described in Item 4. CANADÍAN GYPSUM COMPANY — Types AR, IP-AR.

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

4B. Gypsum Board* — (As an alternate to Items 4 and 4A)—5/8

in. thick, 2 ft wide, tongue and groove edge, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 4. Joint covering (Item 2) not

CANADIAN GYPSUM COMPANY — Type SHX

UNITED STATES GYPSUM CO — Type SHX

USG MEXICO S A DE C V — Type SHX

4C. Gypsum Board* — (As an alternate to Items 4, 4A or 4B -not shown) For Direct Application to Studs Only- For use on one or both sides of the wall as the base layer or one or both sides of the wall 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 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 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 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". 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

RAY-BAR ENGINEERING CORP — Type RB-LBG.

4D. Gypsum Board* — As an Alternate to Item 4 - 5/8 in. thick applied either horizontally or vertically. Inner layers 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 srcrew 1 in. from edge of board. Outer layers fastened to framing with 1-7/8 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 other than 48 in., gypsum board to be installed horizontally. All joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base layer on

opposite side.
AMERICAN GYPSUM CO — Types AGX-1, AG-C.

4E. Gvpsum Board* — (As an alternate to Items 4 through 4D) - 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically and secured as described in Item 4.
TEMPLE-INLAND FOREST PRODUCTS CORP — Type X ComfortGuard Sound Deadening Gypsum Board.

4F. Gypsum Board* — (As an alternate to Items 4 through 4E) - 5/8 in. thick, 4 ft. wide, two layers applied vertically as described in Item 4. GEORGIA-PACIFIC GYPSUM L L C — Type 6

5. Molded Plastic* — Not shown, Optional — Solid vinyl siding mechanically secured over the outer layer to framing members in accordance with manufacturer's recommended ALSIDE, DIV OF ASSOCIATED MATERIALS

GENTEK BUILDING PRODUCTS LTD

VYTEC CORP

NEBRASKA PLASTICS INC

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

A. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 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. Wallboard attached to furring channels as described in Item 4. B. Steel Framing Members* — Resilient sound isolation clip used to attach furring channels (Item 6a) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.
PAC INTERNATIONAL INC — Type RSIC-1.

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 Gypsum Board.

QUIET SOLUTION INC — Type QuietRock QR-510.

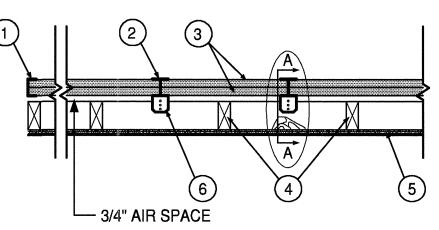
 Cementitious Backer Units* — (Optional Item Not Shown -For Use On Face Of 2 Hr Systems With All Standard Items Required) - 1/2 in., 5/8 in., 3/4 in. or 1 in. thick, min. 32 in. wide.- Applied vertically with vertical joints centered over studs. Face layer fastened over gypsum board to stude and runners 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. NATIONAL GYPSUM CO — Type PermaBase

Last Updated on 2009-07-25

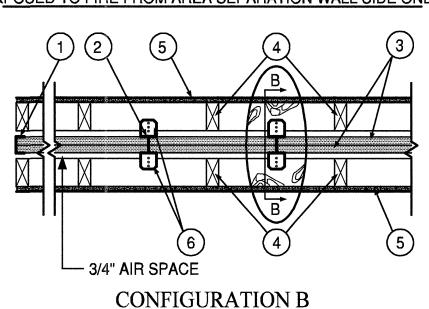
PLEASE REFER TO UL.COM FOR MOST UP-TO-DATE UL REVISIONS

Design No. U347 Fire Resistance Ratings - ANSI/UL 263 December 08, 2008

Wall Rating — 2 Hr (See Items 4, 4A and 4B) Finish Rating — 120 Min (See Item 4) STC Ratings — 61, 69, 70 (See Items 7 - 7B)



CONFIGURATION A EXPOSED TO FIRE FROM AREA SEPARATION WALL SIDE ONLY



EXPOSED TO FIRE FROM EITHER SIDE

SECTION B-B

SEPARATION WALL: (Non-bearing, Max Height - 66 ft - see Item

1. Steel Track — Floor, sidewall or top wall track. Nom 2 in. wide channel shaped with nom 1 in. long legs, formed from No. 25 MSG galv steel, secured with suitable fasteners spaced 24 in. OC

SECTION A-A

2. Steel Studs — "H" shaped studs formed from No. 25 MSG ly steel having an overall depth of approximately 2 in. and flange width 1-3/8 in.

3. Gypsum Board* — Two layers of 1 in. thick gypsum wallboard liner panels, supplied in nom 24 in. widths. Vertical edges of panels friction fit into "H" shaped studs.

NATIONAL GYPSUM CO — Types FSW. FSW-B. FSW-7. PROTECTED WALL: (Bearing or Nonbearing Wall, as indicated in Items 4, 4A and 4B)

4. Wood Studs — For 2 Hr. Bearing or Nonbearing Wall Rating - Nom 2 by 4 in. max spacing 24 in. OC. Studs cross braced at mid-height where necessary for clip attachment. Min 3/4 in. separation between wood framing and fire separation wall. Finish rating evaluated for wood studs only. 4A. Steel Studs — (As an alternate to Item 4, not shown) —
For 2 Hr. Bearing Wall Rating - Corrosion protected steel
studs, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min 3- 1/2 in. wide, min No. 20 GSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, cold formed, shall be designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC. Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications. Top and bottom tracks shall consist of steel members, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 GSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, that provide a sound structural connection between steel studs, and to adjacent assemblies such as a floor, ceiling, and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. O.C. Studs cross-braced with stud framing at midheight where necessary for clip attachment. Min 3/4 in. separation between steel framing and area separation wall. Finish rating has not been evaluated for Steel Studs.

4B. Steel Studs — (As an alternate to Items 4 and 4A, for use in Configuration B only, not shown) — For 2 Hr. Nonbearing Wall Rating - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min 3-1/2 in. wide, min 1-1/4 in. flanges and 1/4 in. return, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height. Top and bottom tracks shall be channel shaped, fabricated from min 25 MSG corrosion-protected steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max. Studs cross-braced with stud framing at midheight where necessary for clip attachment. Min 3/4 in. separation between steel framing and area separation wall. Finish rating has not been evaluated for Steel Studs.

5. Gypsum Board — Classified or Unclassified — Min 1/2 in. thick, 4 ft wide, applied horizontally or vertically. Wallboard attached to wood studs (Item 4) with 1-1/4 in. long steel drywall screws spaced 12 in. OC. Wallboard attached to steel studs (Item 4A or 4B) with 1 in. long Type

S steel screws spaced 12 in. OC. Vertical joints located over studs. Horizontal joints shall be butted tight to form a closed joint. As an option, joints covered with paper tape and joint compound. As an option, screw heads covered with

5A. Plywood Sheathing or OSB — (not shown) — As an alternate to Item 5, Min 1/2 in. thick plywood or OSB applied horizontally or vertically to wood or steel studs. Vertical joints located over studs. Horizontal joints shall be butted tight to form a closed joint. Fastened to studs with nails or screws of sufficient length, spaced 12 in. OC. Joints and fastener heads are not required to be treated. Aluminum clips shall be spaced as described in Item 6.

5B. Batts and Blankets* — (not shown) — As an alternate to Items 5 and 5A. Glass fiber or mineral wool insulation, min. 3-1/2 in. thick, placed to completely fill the wood or steel stud cavities. When Batts and Blankets are used in place of Items 5 and 5A, the max height is 54 ft and the aluminum clips (Item 6) shall be spaced a max of 5 ft OC vertically. See Batts and Blankets (BKNV) category in the Building Materials Directory and Batts and Blankets (BZJZ) category in the Fire Resistance Directory for name of Classified Companies.

5C. Wall and Partition Facings and Accessories* — (not shown) — As an alternate to Items 5, 5A and 5B, 4 ft wide panels, applied vertically. Panels attached to wood studs (Item 4) with 1-5/8 in. long steel drywall screws spaced 16 in. OC. Vertical joints located over studs. Joints covered with paper tape and joint compound. As an option, screw heads covered with joint compound.

QUIET SOLUTION INC — Types QuietRock QR-510, QuietRock

6. Aluminum Clips — Aluminum angle, 0.049 in. thick, 2 in. wide with 2 in. and 2-1/2 in. legs. Clips secured with Type S screws 3/8 in. long to "H" studs and with 1-1/4 in. long screws to wood framing or steel framing through holes provided in clip.

6A. Clip placement for separation walls up to 23 ft high: Space clips a max of 10 ft OC vertically between wood or steel framing and "H" studs. 6B. Clip placement for separation walls up to 54 ft high: Space clips as described in Item 6A for upper 24 ft. Remaining wall area below requires clips spaced a max of 5 ft OC vertically between wood or steel framing and "H"

6C. Clip placement for separation walls up to 66 ft high: Space clips as described in Item 6A for upper 24 ft, space clips as described in Item 6B for middle 30 ft. Remaining wall area below requires clips spaced a max of 39 in. OC vertically between wood or steel framing and "H" studs.

7. STC Rating — The STC Rating of the wall assembly is 61 when it is constructed as described by Items 1 through 6, A. Item 4, above - Wood Studs - Shall be spaced 16 in. OC. B. Item 5, above - Gypsum Board - Min. weight 1.5 psf. Shall be applied vertically and attached to study with 1-1/4 in. long steel drywall screws spaced 16 in. OC. Joints and

screwheads shall be covered with paper tape and joint C. Item 6, above - Aluminum Clips - Spaced a max of 10 ft OC D. Batts and Blankets* - The cavities formed by the wood studs shall be friction fit with 3-1/2 in. thick fiberglass insulation batts, min. 0.80 pcf. See Batts and Blankets (BKNV) category in the Building Materials Directory and

Batts and Blankets (BZJZ) category in the Fire Resistance Directory for name of Classified Companies. E. Max Height of Separation Wall is 23 ft.
F. The STC rating applies to Configuration B only.
G. Steel Studs (Items 4A, 4B), Plywood Sheathing or OSB (Item 5A) and Batts and Blankets (Items 5B) not evaluated as alternatives for obtaining STC rating.

7A. STC Rating — The STC Rating of the wall assembly is 69 when it is constructed as described by Items 1 through 6,

A. Item 4, above - Wood Studs - Shall be spaced 16 in. OC. 3. Item 5C, above - Wall and Partition Facings and Accessories* - Type QuietRock QR-510 panels shall be C. Item 6, above - Aluminum Clips - Spaced a max of 10 ft OC

D. Batts and Blankets* - The cavities formed by the wood studs shall be friction fit with 3-1/2 in. thick fiberglass insulation batts, min. 1.0 pcf. See Batts and Blankets (BKNV) category in the Building Materials Directory and Batts and Blankets (BZJZ) category in the Fire Resistance Directory for name of Classified Companies. E. Max Height of Separation Wall is 23 ft.
F. The STC rating applies to Configuration B only.
G. Steel Studs (Items 4A, 4B), Plywood Sheathing or OSB (Item 5A) and Batts and Blankets (Items 5B) not evaluated as àlternatives for obtaining STC rating.

7B. STC Rating — The STC Rating of the wall assembly is 70 when it is constructed as described by Items 1 through 6,

A. Item 4, above - Wood Studs - Shall be spaced 16 in. OC. B. Item 5C, above - Wall and Partition Facings and Accessories* - Type QuietRock QR-525 panels shall be installed as described in Item 5C.
C. Item 6, above - Aluminum Clips - Spaced a max of 10 ft OC

D. Batts and Blankets* - The cavities formed by the wood studs shall be friction fit with 3-1/2 in. thick fiberglass studs shall be friction fit with 3-1/2 in. thick fiberglass insulation batts, min. 1.0 pcf. See Batts and Blankets (BKNV) category in the Building Materials Directory and Batts and Blankets (BZJZ) category in the Fire Resistance Directory for name of Classified Companies.

E. Max Height of Separation Wall is 23 ft.

F. The STC rating applies to Configuration B only.

G. Steel Studs (Items 4A, 4B), Plywood Sheathing or OSB (Item 5A) and Batts and Blankets (Items 5B) not evaluated as alternatives for obtaining STC rating

alternatives for obtaining STC rating.

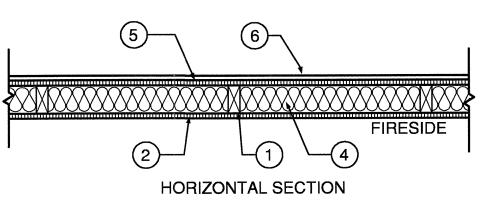
8. Non-Bearing Wall Partition Intersection — (Optional) Two nominal 2 by 4 in. stud or nominal 2 by 6 in. stud nailed together with two 3in. long 10d nails spaced a max. 16 in. OC. vertically and fastened to one side of the minimum 2 by 4 in. stud with 3 in. long 10d nails spaced a max 16 in. OC. vertically. Intersection between partition wood studs to be flush with the 2 by 4 in. studs. The wall partition wood studs are to be framed 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

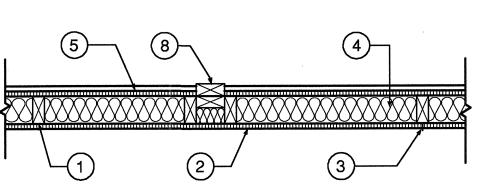
*Bearing the UL Classification Mark

PLEASE REFER TO UL.COM FOR MOST **UP-TO-DATE UL REVISIONS**

Design No. U356 Fire Resistance Ratings - ANSI/UL 263 December 17, 2008

(Exposed to Fire on Interior Face Only) Bearing Wall Rating — 1 Hr Finish Rating — 23 Min or 25 Min (See Item 2C) Load Restricted for Canadian Applications — See Guide BXUV7





. Wood Studs — Nom 2 by 4 in. spaced 16 in. OC with two 2 by 4 in. top and one 2 by 4 in. bottom plates. Studs laterally-braced by wood structural panel sheathing (Item 5). When Mineral and Fiber Boards* (Item 5A) are considered as bracing for the studs, the load is restricted to 76% of allowable axial load. Walls effectively fire stopped at top and bottom of wall.

2. Gypsum Board* — Any Classified 5/8 in. thick, 4 ft wide, applied vertically and nailed to stude and bearing plates 7 in. OC with 6d cement-coated nails, 1-7/8 in. long with 1/4 in. diam head. When Item 7, Steel Framing Members*, is used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

When Item 7A, 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.

See Gypsum Board (CKNX) Category for names of Classified Companies.

2A. Gypsum Board* — (As an alternate to Item 2, not shown) Any 5/8 in. thick 4 ft wide gypsum panels supplied by the Classified Companies listed below shown Gypsum Board* (CKNX) category. Applied vertically and attached to stude and bearing plates 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. CANADIAN GYPSUM COMPANY

UNITED STATES GYPSUM CO

USG MEXICO S A DE C V

2B. Gypsum Board* — (As an alternate to Item 2, not shown) 5/8 in. thick 4 ft wide gypsum panels applied vertically and attached to stude and bearing plates 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, AG-C

CERTAINTEED GYPSUM INC — ProRoc Type C or ProRoc

CERTAINTEED GYPSUM CANADA INC — ProRoc Type C or ProRoc Type X

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-11

TEMPLE-INLAND FOREST PRODUCTS CORP — Types X, Veneer Plaster, Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X

2C. Gypsum Board* — (As an alternate to Item 2, not shown) - For Use with Item 5A only - 5/8 in. thick 4 ft wide gypsum panels applied horizontally and attached to stude and bearing plates with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screws 1 in.and 4 in. from edges of board. Finish Rating is

PABCO BUILDING PRODUCTS L L C, DBA

PABCO GYPSUM — Type PG-11

TEMPLE-INLAND FOREST PRODUCTS CORP — Type X, Veneer Plaster, Base-Type X, Water Rated-Type X, Sheathing Type-X,Soffit-Type X

3. Joints and Nailheads — (Not Shown) — Wallboard joints covered with tape and joint compound. Nail heads covered with joint compound.

4. Batts and Blankets* — Mineral fiber or glass fiber insulation, 3-1/2 in. thick, pressure fit to fill wall cavities between studs and plates. Mineral fiber insulation to be unfaced and to have a min density of 3 pcf. Glass fiber insulation to be faced with aluminum foil or kraft

insulation rating). See Batts and Blankets (BKNV) Category in the Building Materials Directory and Batts and Blankets (BZJZ) Category in the Fire Resistance Directory for names of Classified Companies.

paper and to have a min density of 0.9 pcf (min R-13 thermal

4A. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 4) — 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. Nominal dry density of 3.0 lb/ft3. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density J S GREENFIBER L L C — Cocoon2 Stabilized or Cocoon-FRM

4B. Fiber, Sprayed* — As an alternate to Item 4 and 4A — 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. Nominal dry density of 4.58 lb/ft3. NU-WOOL CO INC — Cellulose Insulation

Fire Rated Material)

ft wide wood structural panels, min grade "C-D" or 'Sheathing" . Installed with long dimension of sheet (strength axis) or face grain of plywood parallel with or perpendicular to stude. Vertical joints centered on stude. Horizontal joints backed with nom 2 by 4 in, wood blocking. Attached to stude on exterior side of wall with 6d cement coated box nails spaced 6 in. OC at perimeter of panels and 12 in OC along interior studs. 5A. Mineral and Fiber Boards* — As an alternate to Item 5 -Min 1/2 in. thick, 4 ft wide sheathing, installed vertically to studs. Vertical joints centered on studs. Horizontal joints backed with nom 2 by 4 in, wood blocking. Attached to studs on exterior side of wall with 1-1/2 in. long galvanized roofing nails spaced 6 in. OC at perimeter of panels and 12 in. OC along interior studs. As an option a weather resistive barrier may be applied over the Mineral and Fiber Boards. TEMPLE-INLAND FOREST PRODUCTS CORP — Types FiberBrace or QuietBrace

5. Wood Structural Panel Sheathing — Min 7/16 in. thick, 4

6. Exterior Facings — Installed in accordance with the manufacturer's installation instructions. One of the following exterior facings is to be applied over the 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 Veneer — Any type on nom 4 in. wide brick veneer. When brick veneer is used, the rating is applicable with exposure on either face. Brick veneer fastened with corrugated metal wall ties attached over sheathing to wood studs with 8d nail per tie: ties spaced not more than each sixth course of brick and max 32 in. OC horizontally. One in, air space provided between brick veneer and sheathing Exterior Insulation and Finish System (EIFS) — Nom 1 in. Foamed Plastic* insulation bearing the UL Classification Marking, attached over sheathing and finished with coating system, or Portland cement or synthetic stucco systems, in accordance with manufacturer's instructions. See Foamed Plastic (BRYX and CCVW) categories for names of Classified

G. Siding — Aluminum or steel siding attached over sheathing

H. Fiber-Cement Siding — Fiber-cement exterior sidings including smooth and patterned panel or lap siding. 7. Steel Framing Members — (Optional, Not Shown)* — Furring Channels and Steel Framing Members as described below:
a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 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 2. b. Steel Framing Members* — Used to attach furring channels

(Item 7a) to stude . Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted PAC INTERNATIONAL INC — Type RSIC-1.

7A. Steel Framing Members (Optional, Not Shown)* — Furring channels and Steel Framing Members 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. Two layers of gypsum board attached to furring channels as described in

b. Steel Framing Members* — Used to attach furring channels (Item 7Aa) to interior side of studs. 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. KINETICS NOISE CONTROL INC — Type Isomax.

8. Non-Bearing Wall Partition Intersection — (Optional) Two nominal 2 by 4 in. stud or nominal 2 by 6 in. stud nailed together with two 3in. 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. Last Updated on 2008-12-17

> PLEASE REFER TO UL.COM FOR MOST **UP-TO-DATE UL REVISIONS**



REVISIONS

S **ADDIS** C

S

ISSUED UST 22, 2

BGO architects

4144 N. Central Expy. Suite 855 Dallas, TX 75204 214.520.8878 bgoarchitects.com

DATE 08-05-2011

PROJECT

11129 SHEET NUMBER

FIRE PROTECTION 🛓 U.L. U301, U356, U347 🛚