DESIGN No. U905

HOISTWAY ENCLOSURE

Design No. U905

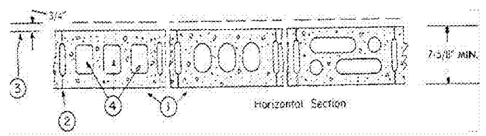
April 09, 2018

Bearing Wall Rating — 2 HR.

Nonbearing Wall Rating — 2 HR

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

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



1. **Concrete Blocks*** — Various designs. Classification D-2 (2 hr).

See **Concrete Blocks** category for list of eligible manufacturers.

2. **Mortar** — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster** — Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).

4. **Loose Masonry Fill** — If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

5. **Foamed Plastic*** — (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).

ATLAS ROOFING CORP — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", EnergyShield CGF Pro and EnergyShield Ply Pro

CARLISLE COATINGS & WATERPROOFING INC — Type R2+ SHEATHE

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

HUNTER PANELS — Types Xci-Class A, Xci 286

RMAX OPERATING L L C — "TSX-8500", "TSX-8510", "Thermasheath-XP", "ECOMAXci", "Thermasheath-3", "Durasheath-3"

THE DOW CHEMICAL CO — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP) and TUFF-R™ ci Insulation

5A. **Building Units** — As an alternate to Items 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.

RMAX OPERATING L L C — "Thermasheath-SI", "ECOBASEci", "ThermaBase-CI"

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

Last Updated on 2016-04-09

DESIGN No. U371

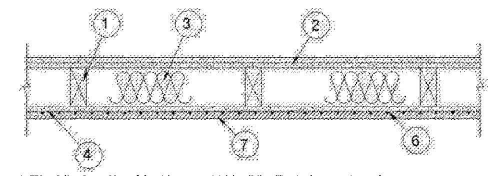
STAIR ENCLOSURE WALL

Design No. U371

April 07, 2014

Bearing Wall Rating --- 2 Hr.

Finish Rating --- 41 Min.



1. **Wood Studs** --- Nom 2 by 4 in. spaced 16 in. OC, effectively cross-braced.

2. **Gypsum Board*** --- 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1-1/4 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 6 in. from base layer. Vertical joints located over studs. Vertical and horizontal joints between inner and outer layers staggered. Outer layer joints covered with joint tape and compound, nailheads covered with joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. Wallboard other than 48 in. wide must be applied horizontally.

NATIONAL GYPSUM CO --- Types FSK, FSK-C, FSK-G, FSW, FSW-3, FSW-8, FSW-C, FSW-G, FSMR-C, FSL, SoundBreak XP Type X Gypsum Board.

3. **Batts and Blankets*** --- Min 3 in. thick mineral wool batt insulation friction fit between studs.

THERMAFIBER INC --- Type SAFB

4. **Gypsum Sheathing*** --- 5/8 in. thick exterior gypsum sheathing, 48 in. wide sheets. Attached directly to studs horizontally or vertically with 1-3/4 in. long, 11d, 7/16 in. diam flathead galv roofing nails spaced 8 in. OC or 2 in. long Type S steel screws spaced 8 in. OC. When wood structural panel sheathing (Item 5) is used gypsum sheathing to be installed over wood structural panel sheathing. Gypsum sheathing attached to studs, through wood sheathing, horizontally or vertically with 2-1/4 in. long, 11d, 7/16 in. diam flathead galv roofing nails spaced 8 in. OC or 2-1/2 in. long Type S steel screws spaced 8 in. OC Vertical joints located over studs and staggered between adjacent rows.

NATIONAL GYPSUM CO --- Types FSK, FSMR-C, FSW, FSW-3, FSW-6, FSW-8.

5. **Wood Structural Panel Sheathing** --- (Optional, not shown, for use with Item 4) - Nom 15/32 in. thick, 4 ft wide, min grade "C-D" or "Sheathing". Installed with long dimension of sheet (strength axis) or face grain of plywood parallel with or perpendicular to studs. Vertical joints centered on studs.

6. **Prefurred Stucco Netting** --- Nom 1-1/2 in. by 1-1/2 in., min 17 gauge galvanized steel netting applied over gypsum sheathing to wood studs with 1-1/4 in. by 1 in. steel staples spaced 7 in. OC. (Note If optional wood structural panel sheathing is used, fastener length must be increased such that penetration into framing members shall be not less than 3/4 in.)

6A. **Metal Lath** --- As an option to the stucco netting, min 2.7 lb/sq yd expanded steel lath fastened to the wood studs through the gypsum sheathing with 1-1/4 in. long Type S [illegible] steel screws spaced 7 in. OC. (Note If optional wood structural panel sheathing is used, fastener length must be increased such that penetration into framing members shall be not less than 3/4 in.).

7. **Stucco** --- Portland cement type stucco mixed at a rate of 3 parts sand to 1 part portland cement to 1.7 liters water. Thickness of stucco to be min 3/4 in. as measured to face of netting or lath.

7A. **Brick Veneer** --- As an alternative to Items 6 and 7, any type of 4 in. wide brick may be used. Brick veneer fastened with corrugated metal wall ties attached over sheathing to wood studs with 1-1/4 in. Type S steel screws spaced not more than each forth course and a max 24 in. OC horizontally. (Note If optional wood structural panel sheathing is used, fastener length must be increased such that penetration into framing members shall be not less than 3/4 in.)

8. **Cementitious Backer Units*** --- (Optional Item Not Shown - For Use On Face Of 2 Hr System 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 with vertical joints centered over studs. Face layer fastened over gypsum board 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.

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

*Bearing the UL Classification Mark

Last Updated on 2014-04-07

DESIGN No. U340

UNIT DEMISING WALL

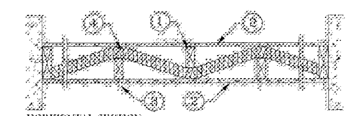
Design No. U340

December 05, 2005

Bearing Wall Rating --- 1 Hr.

Finish Rating --- See Item 2

Load Restricted for Canadian Applications --- See Guide BXUV7



HORIZONTAL SECTION

1. **Wood Studs** --- Nom 2 by 4 in. alternating on opposite sides of nom 2 by 6 in. wood plates. Spaced 24 in. OC max on each side of wood plates, staggered 12 in. OC on opposite side.

2. **Gypsum Board*** --- 5/8 in. thick wallboard, paper or vinyl faced with beveled, square, tapered or rounded edges. Wallboard nailed to each stud 7 in. OC with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam head. As an alternate, No. 6 bugle head drywall screws, 1-7/8 in. long, may be substituted for the 6d cement coated nails. When used in widths other than 48 in., wallboard to be installed horizontally.

When Steel Framing Members* (Item 5) are used, wallboard attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

AMERICAN GYPSUM CO --- Types AG-C.

BPB AMERICA INC --- Type FRPC (Finish rating 20 min), ProRoc Type C.

BPB CANADA INC --- ProRoc Type C.

CANADIAN GYPSUM COMPANY --- Types C, IP-X2 (Finish rating 26 min).

G-P GYPSUM CORP, SUB OF

GEORGIA-PACIFIC CORP --- Type 5 (Finish rating 26 min).

LAFARGE NORTH AMERICA INC --- Types L[illegible], LGFC-C/A.

NATIONAL GYPSUM CO --- Types FSK-C, FSW-C, FSW-G.

PABCO BUILDING PRODUCTS L L C, DBA

PABCO GYPSUM --- Type C or PG-C.

STANDARD GYPSUM L L C --- Type SG-C.

TEMPLE-INLAND FOREST PRODUCTS CORP --- Type TG-C.

UNITED STATES GYPSUM CO --- Types C, IP-X2 (Finish rating 26 min).

2A. **Wall and Partition Facings and Accessories*** --- (As an alternate to Item 2, not shown) - Nominal 5/8 in. thick, 4 ft wide panels, applied vertically to studs and bearing plates on one side of the assembly with 1-5/8 in. long Type S screws spaced 12 in. OC at perimeter of panels and 8 in. OC in the field. Horizontal joints of vertically applied panels need not be backed by studs. Panel joints covered with paper tape and two layers of joint compound. Screwheads covered with two layers of joint compound. Batts and Blankets placed in stud cavity as described in Item 4B. Not evaluated for use with Steel Framing Members, Furring Channels or Fiber, Sprayed.

QUIET SOLUTION INC --- Type QuietRock QR-530 (Finish rating 23 min).

3. **Joints and Nailheads** --- Wallboard joints covered with tape and compound. Nail heads covered with joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to entire surface of Classified veneer baseboard. Joints reinforced.

4. **Batts and Blankets*** --- (Optional) --- 3-1/2 in. min. thickness glass or mineral fiber batt insulation applied to studs.

See **Batts and Blankets** (BZJZ) category for list of Classified companies.

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 of 2.5 lb/ft³.

U S GREENFIBER L L C --- Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

4B. **Batts and Blankets*** --- (Required for use with Wall and Partition Facings and Accessories, Item 2A) --- 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 developed of 50 or less, friction-fitted to completely fill the stud cavities. See **Batts and Blankets** Category (BKNV) for names of manufacturers.

U S GREENFIBER L L C --- Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

5 **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. Wallboard attached to furring channels as described in Item 2.

b. **Steel Framing Members*** --- used to attach furring channels (Item a) to studs (Item 1). 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.

*Bearing the UL Classification Mark

Order Plans @ WWW.LDILine.com

R J T R

RULE JOY TRAMMELL + RUBIO

ARCHITECTURE + INTERIOR DESIGN

300 Galleria Parkway Suite 740 Atlanta, Georgia 303[illegible]

770-661-1492 (phone) 770-661-1493 (fax)

www.rjtrdesign.com

PRINTED	
DATE	ISSUE/REVISION
11/01/18	Issued for Permit

STATE OF GEORGIA
GREGORY T. BLAYLOCK
CERTIFICATE NO. [illegible]
REGISTERED ARCHITECT

ISSUED FOR CONSTRUCTION

UL ASSEMBLIES

EXTENDED STAY AMERICA

POOLER, GA

COMMISSION NO: 18-[illegible]

DRAWING NO:

AT.05B