

d, Min. 2-1/2 in. wide by 1-1/4 in. deep with 5/16 in. fo d from No. 25 MSG galv steel. Max stud spacing 2-sembly height. nners (Not Shown) Channel-shaped runners, 2-1/2 in. No. 20 MSG galv steel. Attached to floor and ce ent 25 MSG galv steel furring channels spaced vertically max 24 in. Iched to each intersecting stud with 1/2 in. long Type 5-12 pan head n, wide by 1-1/4 in. eiling with

4. Batts and Blarkets Placed in stud cavity, 1-1/2 in. min thickness.

THERMAFIBER L L C -- Type SAFB.

5. Gypsum Board 1/2 or 5/8 in. thick, 4 ft wide. Screw attached one side to furring channels with 1 in. long, Type 5 steel screws spaced 12 in. OC. Wallboard on direct attached side secured to studs with 1 in. long Type 5-12 steel screws spaced 12 in. Wallboard joints oriented vertically, located over studs and offset between layers.

AMERICAN GYPSUM COMPANY -- 1/2 in. Type C, IP-X2, IPC-AR or WRC, 5/8 in. Type AR, IP-AR or SCX.

CONTINENTAL GYPSUM COMPANY -- Types CG-C, CG5-5, CGTC-C.

G-P GYPSUM CORP -- Types 5, C.

JAMES HARDIE GYPSUM INC -- 1/2 in. or 5/8 in. Type Max"C".

BE GEORGIA-PACIFIC CORP -- Types 5, C.

JAMES HARDIE GYPSUM INC -- 1/2 in. or 5/8 in. Type Max"C".

AFARGE GYPSUM, DIV OF AFARGE CORP -- Type LGFC-C, LGFC-C/A. ATIONAL GYPSUM CO -- Type FSW-C.

PABCO GYPSUM, DIV OF
PACIFIC COAST BUILDING PRODUCTS INC -- Type
REPUBLIC GYPSUM CO -- Type RG-C.
STANDARD GYPSUM L L C -- Type SG-C.
TEMPLE-INLAND FOREST PRODUCTS CORP -- Typ
UNITED STATES GYPSUM CO -- 1/2 in. Type C, IP-X2
IP-AR or SCX. \vec{o}

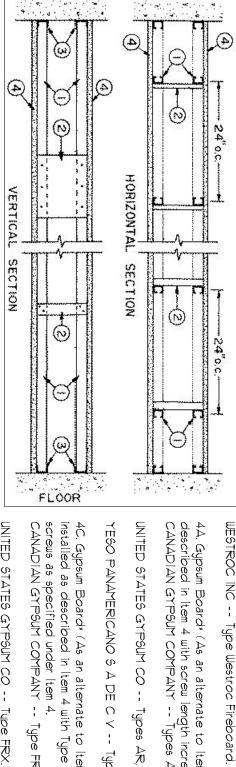
TERICANO S A DE C \vee -- 1/2 in. Type C, IP-X2, IPC-AR or WRC± 5/8 in. Type SCX. ; TG-C. , IPC-ΔR or WRC, 5/8 in. Type

Gypsum Board* (As an alternate to Item 5) -- Nom 3/4 in. thick, 4 ft wide, installed scribed in Item 5 with screw length increased to I-1/4 in.
NADIAN GYPSUM COMPANY -- Types AR, IP-AR.

UNITED STATES GYPSUM CO -- Types AR, IP-AR.
YESO PANAMERICANO S A DE C V -- Types AR, IP-AR.
6. Joint Tape and Compound Viryl, dry or premixed joint compound screw heads! paper tape, 2 in. wide, embedded in first layer of conds an alternate, nom 3/32 in. thick gypsum veneer plaster may be apsurface of Classified veneer baseboard. Joints reinforced.

1. Caulking and Sealants! (Optional, not shown) -- A bead of acous around the partition perimeter for sound control.
UNITED STATES GYPSUM CO -- Type AS.

21, 2004 | Wall Rating



. Bracing - Of two types, Type 1- Cut from the steel runners, 9 1/2 in. long. Fastened to the tuds with two No. 8 by 1/2 in. self-drilling, self-tapping steel screws in each stud. Type 2 - ut from the sypsum wallboard 9 1/2 in. long and 12 in. wide. Fastened to the studs with tree Type 5 wallboard screws at each ens. Vertical spacing of bracing not to exceed 48 to Co vannel - shaped | 5/8 in. wide | 3/8 in. legs and 1/4 in. stiffeningflanges. from No. 25 MSG galv steel. Studs to be cut 1/4 in. less than assembly height.

. Floor and Ceiling Runners - Channel - shaped | 5/8 in. wide with I in. legs, fabricated rom No. 25 MSG galv. steel. Atatched to floor and ceiling with fasteners spaced 24 in.

4. Wallboard, Gypsum* - Any 5/8 in. thick wallboard for the fire resistance Classified with beveled, suare, or tapered edges.

For I Hr Rating - One layer of wallboard to be used, Applied vertically with joints centered over studs. Fastened to studs with I in. long, Type 5, wallboard screws spaced 8 in. OC at the joints, located 3/8. from the edges, and I2 in. OC in the field. Fasteners to be spaced 8 in. OC at the runners.

For 2 Hr Rating - Two layers of wallboard to be used. The inner layer to be applied in the same manner as for the I Hr Rating. The outer layer to be fastened to the studs (through the inner layer) using I/58 in. long, Type 5, wallboard screws spaced 8 in. OC at the joints, located 3/8 in. from the edges and I2 in. OC in the field.

Fasteners to be spaced 8 in. OC at the runners. Joints to be staggered 24 in. from the r layer. : Wallboard, Gypsi

4A. Wallboard, Gypsum* - (As an alternate to Item 4) described in Item 4 with I-1/4 in. long Type 5 screws long Type 5 screws for outer layer.

Canadian Gypsum Company - Type AR.

United States Gypsum Co. - Type AR.

Yeso Paramaericano SA de CV - Type AR. (CKNX) category for names

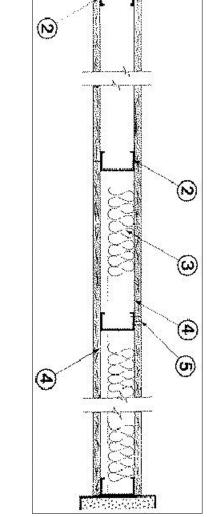
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Wallboard, Gypsum* - (As an alternate to items described in Item 4. Joint covering (Item 5) not Canadian Gypsum Company - Type WSX.
United States Gypsum Co. - Type WSX.
Yeso Panamericano SA de CV - Type WSX.

6. Batts and Blankets* - Optional, not interior or walls cavity. The max thickne Hr. assembly ratings and 3 1/2 in. for the wallboard with wire staples spaced how Certainteed Corp.

Johns Manville International Inc.
Owens-Corning Fiberglas Corp. . Joint Tape and Compound -uo coats to joints and screw ompound over all joints. onal, not shown) Glass fiber batts may be installed in the x thickness of the batts shall be 2 1/2 in. for the walls with 2 in. for the walls with 1 Hr assembly ratings. Attached to vaced horizontally 12 in. OC and vertically 24in. OC. Vinyl or casein, dry or premixed heads. Paper tape, 2 in. wide, em

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in. legs, formed from min No. 25 MSG (min No. 20 MSG when Item 4C is used) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

2. Steel Studs Channel shaped, 3-5/8 in. wide (min), I-1/4 in. legs, 3/8 in. folded back returns, formed from min No. 25 MSG (min No. 20 MSG when Item 4C is used) galv steel, and in. OC max.

3. Batts and Blankets* (Optional) -- Mineral wool or glass fiber batts partially or completely filling stud cavity.

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

4. Gypsum Board* 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with I in. long, Type 5 steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to item 6 (furring channels), wallboard is screw attached to furring channels with I in. long, Type 5 steel screws spaced 12 in. OC.

BPB AMERICA INC BPB CELOTEX -- Type

CANADIAN GYPSUM COMPANY WRX. , V V V V

GEORGIA-PACIFIC CORP --CONTINENTAL GYPSUM COMPANY JAMES HARDIE GYPSUM INC Types 5, 9, C, DGG, DS, GPFS6

PABCO GYPSUM, DIV OF PACIFIC COAST BUILDING PRODUCTS INC NATIONAL GYPSUM CO -- Types FSK-C, FSK-G, FSW-.AFARGE GYPSUM, DIV OF .AFARGE CORP -- Types LGFC2, LGFC2A, LGFC6,

a

STANDARD GYPSUM L L C -- Type SG-C. TEMPLE-INLAND FOREST PRODUCTS CORP SIAM GYPSUM INDUSTRY CO LTD -- Type JBLIC GYPSUM CO -- Type RG-C

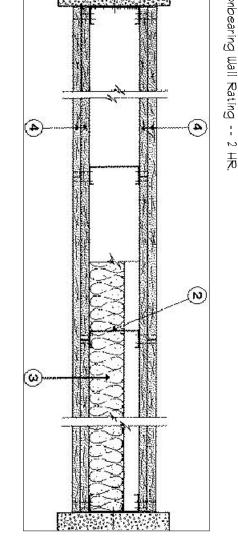
YESO PANAMERICANO S A DE C \vee -- Type or WRX. UNITED STATES GYPSUM CO -- Type AR, C, FRX-G, IP-AR, IP- or WRX. AR, C, IP-TX, WTO

4A. Gypsum Board* (As an alternate to Item 4) -- No described in Item 4 with screw length increased to I CANADIAN GYPSUM COMPANY -- Types AR, IP-AR. UNITED STATES GYPSUM CO -- Types AR, IP-AR. WESTROC INC -- Type

5. Joint Tape and Compound Vinyl, dry or premixed joint compoun to joints and screw heads to paper tape, 2 in. wide, embedded in forer all joints. As an alternate, nominal 3/32 in. thick gypsum venees to the entire surface of Classified veneer baseboard. Joints reint 6. Furring Channel (Optional-Not Shown) -- Resilient 25 MSG galvepaced vertically max 24 in. OC, flange portion attached to each in. long type 6-12 panhead steel screws. Not for use with Type FRV 4C. Gypsum Board* (As an alternate to Item 4, 4A and 4B) -- 5/8 installed as described in Item 4 with Type 5-12 steel screws. The Isscrews as specified under Item 4.
CANADIAN GYPSUM COMPANY -- Type FRX. UNITED STATES GYPSUM CO -- Type FRX. of compound may be applied panels, ing of the

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5, U411 20, 2000 9 Wall Ratir \sim



AMERICAN GYPSUM CO -- Type AG-C or AGX-11.

BORAL GYPSUM INC -- Type BG-C, DDDG3, DDG2 or DDN1.

B AMERICA INC

G-P GYPSUM CORP, SUB OF GEORGIA-PACIFIC CORP -- Types 5, 9, C, DGG, D5, GPFS6

JAMES HARDIE GYPSUM INC -- Types Fire X, Max"C". _AFARGE GYPSUM, DIV OF _AFARGE CORP -- Types LGFC2, LGFC2A, LGFC3, LGFC6,

'ABCO GYPSUM, DIV OF 'ACIFIC COAST BUILDING PRODUCTS INC ---9 1 C, PG-3, PG-5,

WESTROC INC -- Type Westroc Fireboard. YESO PANAMERICANO S A DE C \vee -- Type AR, C, FCV, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

CANADIAN GYPSUM COMPANY -- Types AR, IP-AR.

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

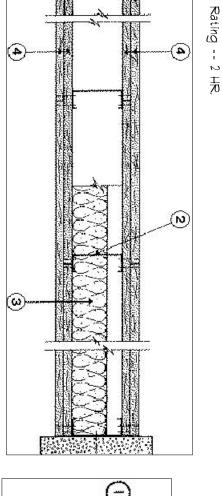
YESO PANAMERICANO S A DE C V -- Types AR, IP-AR.

4B. Gypsum Board* (As an alternate to Item 4 and 4A) -installed as described in Item 4 with Type S-12 steel screscews as specified under Item 4. /8 in. thick gypsum panels, length and spacing of the

UNITED STATES GYPSUM CO -- Type FRX.

4C. Gypsum Board* (As an alternate to Item 4, 4A and 4B)--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 for the direct attached system.

CANADIAN GYPSUM COMPANY -- Type SHX. JNITED STATES GYPSUM CO -- Type SHX.



J. Floor and Ceiling Runner (Not Shown) -- Min, 25 MSG (min 20 MSG when Item 4B is used) galv steel I in, high, return legs 2-1/2 in, wide (min), attached to floor and ceiling with fasteners 24 in, OC.

2. Steel Studs Min 2-1/2 in, wide, I-1/4 in, legs, 3/8 in, return, formed of min 25 MSG (min 20 MSG when Item 4B is used) galv steel max stud spacing 24 in, OC. Studs to be cut 3/4 in, less than assembly height.

3. Batts and Blankets (Optional) -- Mineral wool or glass fiber batts partially or completely filling stud cavity. Fasten each batt to waliboard base layer with a min 3/6 in, long staple. Use five staples for each 4 ft piece. Drive one staple in the center of each piece and a staple at each corner, approx 3 in from eadges.

5ee Batts and Blankets (BZ/Z) category for names of manufacturers.

4. Gypsum Board-5/8 in, thick, outer layer paper or virul surfaced. (Laminated System) will liboard applied vertically in two layers, Inner layer attached to studs with I in, long Type 5 steel screws spaced 8 in, OC along vertical edges, and 12 in, OC in the field and outer layer influence of the studs over the inner layer offset 12 in, from inner layer joints Outer layer wallboard attached to floor and ceiling runner track with I-5/8 in, long Type 5 steel screws spaced 16 in, OC in the field and along the vertical edges. Outer layer attached to the studs over the inner layer with I-5/8 in, long Type 5 steel screws spaced 16 in, OC in the field and along the vertical edges. Outer layer attached to the field and along the vertical edges. Outer layer attached to the field and along the vertical edges. Outer layer attached to the field and along the vertical edges. Outer layer attached to the field and along the vertical edges. Outer layer attached to the field and along the vertical edges. Outer layer offset from inner layer joints. Joints of outer layer may be taped or untaped.

BEIJING NEW BUILDING MATERIALS CO LTD -- Type DBX-1.

BPB CELOTEX -- Type I or FRP. CANADIAN GYPSUM COMPANY -- Type AR, C, FCV, IP-AR, IP-XI, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

CONTINENTAL GYPSUM COMPANY -- Types CG-3, CG-C, CG3-3, CG5-5, CG6-6, CG9-9,

NATIONAL GYPSUM CO -- Types FSW, FSW-3, FSW-C, FSW-

REPUBLIC GYPSUM CO -- Type RG-C.

SIAM GYPSUM INDUSTRY CO LTD -- Type EX-1

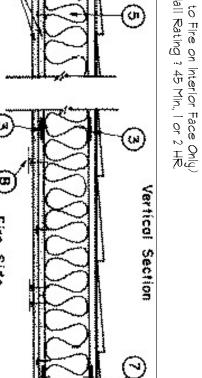
STANDARD GYPSUM L L C -- Type SGC, SG-C or SGC-G.

TEMPLE-INLAND FOREST PRODUCTS CORP -- Types T, TG-C,

UNITED STATES GYPSUM CO -- Type AR, C, FCV, FRX-G, IP-AR, IP-X1, SHX, WRC or WRX.

4A. Gypsum Board* (As an alternate to Item 4) -- Nom 3/4 in thick, installed as described in Item 4 with I-1/4 in long Type S screws for inner layer and 2-1/4 in long Type S screws for outer layer.

Design No. U418 August Ø2, 2006 (Exposed to Fire on Interior F Bearing Wall Rating ? 45 Min., 1 **(**



I. Floor and ceiling tracks. Channel shaped, 3-5/8 in, or 5-5/8 in, wide with 1-1/2 in, flanges. Fabricated from No. 18 GSG galv steel. Attached to floor and ceiling with fasteners spaced 24 in, OC.

2. Steel Studs ? C-shaped, fabricated from min No. 18 GSG (ØØ5) in, thick) galv steel, 3-1/2 in, or 5-1/2 in, wide with 1-1/2 in flanges and 1/2 in, returns (stiffening flanges). Yin yeld strength 40,000 psi. See III. 12 of Report RT160-1, -2 dated Dec. 11, 1975 or III. 15 of Report RT160-3, -4 dated Aug. 23, 1976 for tables containing max allowable axial loads. Report III. 15 and attached from U. 5 Steel Corp., Rm. 1846, 600 Grant St., Pittsburgh, PA 15230.

3. Steel Strapping ? Flat stock, 2 in, wide, flabricated from No. 18 GSG galv steel. Located horizontally and attached to both sides of the studs at the third points using one No. 6-20 by 1/2 in, self-drilling steel screw at each intersection.

4. Gypsum Boards ? Any classified gypsum wallboard with bevelsed, square, or tapered edges. The thickness, number of layers and method of attachment of the wallboard for the 2 Hr., Hr., and 45 Min ratings are: 1 Hr. Rating ? Three layers of 1/2 in, thick wallboard applied vertically, linen layer attached to the studs and tracks with 1 in long, 0/142 in, diam, 1ype 5-12 bugle head screws spaced 12 in, OC. Middle layer attached to the intersection wallboard with 1-1/2 in, long, 0/20 in, cliam, 1ype 5-12 bugle head screws spaced 12 in, OC. Middle layer of willboard edge joints staggered 2 ft from Joints of inner and lower layer. IHr Rating ? Turb alloward with 1-1/2 in, long, 0/20 in, cliam, 1ype 5-12 bugle head screws spaced 12 in, OC. Middle layer of willboard edge joints staggered 2 ft from joints of inner and lower layer. IHr Rating ? Turb alloward with 1-1/2 in, long, 0/20 in, cliam, 1ype 5-12 bugle head screws spaced 12 in, OC beginning 6 in, from the edge. In addition, the outer layer to be attached to the inner layer at the joints with 1-1/2 in, long, 0/20 in, cliam, 1ype 3-12 bugle head screws spaced 12 in, OC beg

5. Batts and Blankets* ? 3-1/2 in. thick, 2 ft wide, glass fiber batts. Inserted stud to fill the wall cavity. CERTAINTEED CORP See Gypsum Board (CKNX) Category for names of manufacturers.

OWENS CORNING JOHNS MANVILLE INTERNATIONAL INC

vertically and secured to the studs and runner tracks with 1 in. long, Ø,142 in. diam, Type \$-12 bugle head screws spaced 12 in. OC along the studs and the runner tracks.

1. Exterior Facings?

1. A Aluminum Siding? Horizontal lap type 9 in. wide fabricated from Ø,013 in. thick or Ø,024 in. thick painted aluminum. Interior face of Ø,019 in. thick siding lined with 3/8 in. thick unbonded insulation material. Attached to the studs with 1-1/8 in. long, Ø,118 in. diam steel screws spaced 9 in. OC. along the studs. A starter strip to be fastened to floor runner with 0,118 in. diam screws spaced 12 in. OC.

13. Steel Siding? Same description as above (No. 11 GSG) gauge Ø,011 in. thick 12. Brick Veneer? Any type 4 in. wide brick Metal ties used as every fourth course spaced 24 in. OC horizontally. Fastened to steel studs through gypsum sheathing.

10. Stucco? Portland cement type? 3,44 in. min thickness. Metal lath or mesh base attached to studs with No. 6-20 steel screws. "T-Nails," or staples approved by local building codes. Spaced 6 in. OC max and driven through gypsum sheathing.

11. Mineral and Fiberboards? (Not Shown)? Exterior hard board bareling, chemically treated, with primed or finished face, 11/6 in. thick by 48 in. wide. Attached to studs with 1-1/8 in. long, bugle-head TEK fasteners 16 in. OC. at the intermediate supports. Or, exterior lap siding, chemically treated, 11/6 in. thick by 8 in. or 12 in. wide. Attached to studs with 1-1/8 in. long, bugle-head Type TEK fasteners at each lap. Panels lapped minimum 1 in.

TF. Fiber-Cement Siding? (Not Shown)? Fiber-cement exterior sidings including smooth and patterned panel or lap siding.

8. Joint Tape and Compound? Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads. Perforated paper tape, 2 in. wide, embedded in first layer of compound over all joints.

*Bearing the UL Classification Mark

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Ceiling

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Supporting Angles 7/8 by 1-3/8 in., fabricated from 22 MSG galv steel, short leg ttached to concrete or masonry with fasteners spaced 24 in. O.C.
Gypsum Board* I in. thick, 2 ft wide, V-shaped 7*G edges. Attached to supporting ngles with 0.117 in. diam by 1-5/8 in. long, self-drilling, self-tapping Phillips head steel crews, spaced 5 ft O.C. along the side walls and at the edges of each sheet along the oor and ceiling.

ANADIAN GYPSUM COMPANY -- Type R.

UNITED STATES GYPSUM CO -- Type R.

Gypsum Board* 1/2 in. thick, 4 ft wide. Attached to the supporting angles with Ø.117 in. liam by 2-1/8 in. long, self-drilling, self-tapping Phillips head steel screws spaced 12 in. 2C., and to the core board with laminating compound and No. 10 by 1-1/2 in. double lead hillips head steel screws, spaced 48 in. O.C. along the vertical edges and 30 in. from the nds along the vertical center line of each sheet. Joints between core board and allboard or lath, staggered. Outer layer wallboard joints covered with joint tape and ompound, and screw heads covered with joint compound. Lath joints covered with 2-1/2. wide pressure-sensitive glass fiber tape, or glass fiber tape attached with wire laples. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the ntire surface of Classified veneer baseboard. Joints reinforced.

NITED STATES GYPSUM CO -- Type R or IP-R. AN GYPSUM CON 1PANY -- Type IP-R or R.

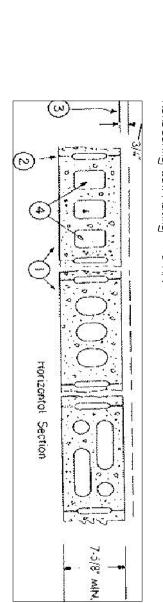
mater in accordance with instruction producing beads above 5/16 in. in 5. Batts and Blankets* (Optional) -- may be placed in interior of wall. CERTAINTEED CORP n) -- Of the type used in joint treatment ns shown on containers, applied with an adiam spaced 2 1/4 in. OC.

-- (Not Shown) -- 1, 1 1/2, or 2 in. thick min

OHNS MANVILLE INTERNATIONAL ARDIAN FIBERGLASS INC

KNAUF FIBER GLASS GMBH IBER L L C -- Type SAFB

esign No. U905 nuary 02, 1997 saring Wall Rating -- 2 nbearing Wall Rating -2 HZ 2 HZ 2 HZ

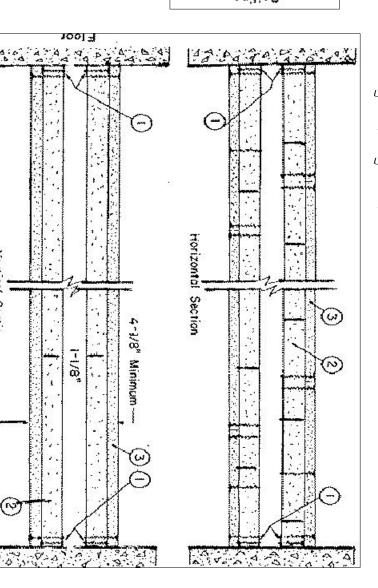


Concrete Blocks* Various designs. Classification D-2 (2 hr). se Concrete Blocks category for list of eligible manufacturers.

Mortar Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and no ore than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by olume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints aggered.

Portland Cement Stucco or Gypsum Plaster Add 1/2 hr to classification if used. Where ombustible members are framed in wall, plaster or stucco must be applied on the face pposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks. oose Masonry Fill If all core spaces are filled with loose dry expanded slag, anded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill ation, or silicone treated perlite loose fill insulation add 2 hr to classification. camed Plastic* (Optional-Not Shown) -- I-I/2 in thick max, 4 ft wide sheathing attaction concrete blocks (Item 1).

U5Ø7 2ØØ1 3 Wall Rat <u>S</u> 2



NO.

ISSUED

10/26/07

803 S. MOUNT MORIAH SUITE 100B MEMPHIS, TN 38117 (901) 683-7175 p. (901) 683-2385 f. Ilw@llwarchitects.com

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SK INTERNATIONAL, INC. 130 SOUTH MAIN STREET HUNTSVILLE, AL 35811 (256) 852-3098 CONSULTANTS STRUCTURAL:

MECHANICAL: CRABTREE ENGINEERING 726 S. MT. MORIAH MEMPHIS, TN 38117 (901) 767-9898

PLUMBING: CRABTREE ENGINEERING 726 S. MT. MORIAH MEMPHIS, TN 38117 (901) 767-9898

ELECTRICAL: CHS ENGINEERING 726 S. MT. MORIAH MEMPHIS, TN 38117 (901) 767-2557

Holday Dru BOSSIER CITY,

SHEET NAME LOUISIANA

UL DETAILS

FIRE RATED

DRAWN BY CHECKED BY PEL \mathbb{X} 10/26/07

DRAWING SCALE PROJECT NO FILE NAME NONE 1507-UL11