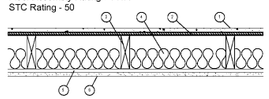
ICC File No. ER-3433, Assembly 1
Floor Assembly Rating - 1 HR
STC Rating - 50



1. Gyp-Crete Gypsum Cement: Minimum 3/4" thick; density 100 pounds per cubic foot (minimum)

2. Subfloor; 5/8" plywood installed in accordance with the code

3. 2x10 wood joists at 16 o.c.

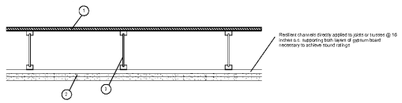
4. 2-1/2" fiberglass insulation; density, 1.5pcf (optional)

5. 1/2" deep by 1-1/2" wide, No. 25 gage resilient channels at 24" o.c. fastened to each joist with 1-1/4" long drywall screws

6. 5/8" gypsum board fastened to channel with 1" long drywall screws spaced at 12" o.c. All joints taped and sealed with compound

Note: In order to obtain 1-hour fire-resistive floor construction, the 1-1/2" wide No. 25 gage resilient channels must be fastened to each joist with 1-1/4" long Type W or S screws spaced 12" o.c. Additionally, the 5/8" Type 'X' gypsum wallboard must be fastened to channels with 1" long Type S screws.

ICC File No. ESR-1153, Assembly B, Option 2
Floor Assembly Rating - 1 HR
STC Rating - 58



1. 48/24 tongue-and-groove span rated sheathing (Exposure 1), nailed and glued to the TJI joists with construction adhesive conforming to ASTM D3498

2. Two layers of 1/2" thick Type C, or 5/8" thick Type X gypsum board

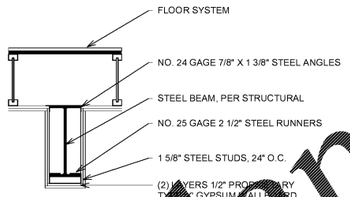
3. TJI Joist

4. Optional minimum 3-1/2" thick glass fiber insulation or glass fiber insulation rated R-30 or less, with resilient channels (not shown)

Note: In order to obtain an STC rating of 58, the assembly requires 3/4" gypsum concrete topping (minimum) and two layers of 5/8" thick Type X gypsum board with minimum 3-1/2" thick fiber insulation or glass fiber insulation rated R-30 or less.

Note: Assembly B, Option 2 has a minimum STC rating of 58 when constructed with resilient channels spaced at 16" o.c. to separate the ceiling membrane from the structural framing, and with a 3/4" floor topping of gypsum concrete recognized in a current evaluation report.

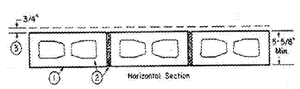
1-HOUR RATED
TYPICAL RATED STEEL BEAM SURROUND



BASED ON GA FILE NO: BM 1
1 HOUR RATED ASSEMBL

DESIGN NO. U906

Bearing Wall Rating--2HR. Nonbearing Wall Rating--2HR.

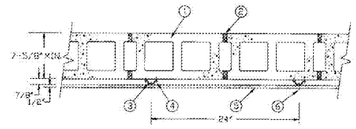


1. **Concrete Blocks* --** Nominal 6 by 8 by 16 in, hollow or solid. Classification D-2 (2 hr). **ANCHOR CONCRETE PRODUCTS INC GAGNE & SON CONCRETE BLOCK INC** Allowable compressive stress of 57% of max allowable compressive stress in accordance with the empirical design method. **BETCO BLOCK & PRODUCTS INC, DBA ARTHUR WHITCOMB WESTBROOK CONCRETE BLOCK CO INC** Allowable compressive stress of 75.6% of max allowable compressive stress in accordance with the empirical design method.
1 **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.
2 **Portland Cement Stucco or Gypsum Plaster --** Add 1/2 hr to Classifi\hichcation if used. Attached to concrete blocks (Item 1).
3 **Foamed Plastic* --** (Optional-Not Shown) -- 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).

BPB AMERICA INC --Type Thermax *Bearing the UL Classification Mark
*Bearing the UL Classification Mark

DESIGN NO. U914

Bearing Wall Rating--3HR. Nonbearing Wall Rating--3HR.



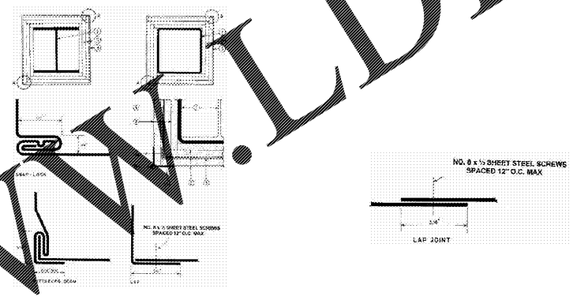
1 **Concrete Blocks* --** Various designs. Classification D-2 (2 hr). See **Concrete Blocks** category for list of eligible manufacturers.
2 **Mortar --** Blocks laid in full bed of mortar, nom 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
3 **Furring Channels --** Min 0.019 in. thick (25 gauge) galv steel, 1-3/8 in. wide on top and 2-3/4 in. wide at bottom by 7/8 in. deep. Spaced 24 in. OC perpendicular to floor with a channel parallel to and approximately 3 in. above floor and 3 in. below ceiling. Clearance between vertical and horizontal channels 1/2 in.
4 **Channel Fasteners --** 1-1/4 in. long masonry screws with 3/16 in. body and 5/16 in. diameter head. Fasteners spaced 24 in. O.C. with the fasteners staggered on each long leg of the furring channel.

4A. **Steel Framing Members* --** (Not Shown) -- Alternate method used to attach furring channels (Item 3) to concrete blocks (Item 1). Clips spaced 48 in. OC., and secured to blocks with 1/4 in. dia. By 3 in. long concrete expansion anchor (Item 4B) through the center grommet. 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 in each edge of the channel. Furring channels are friction fitted into clips.
PAC INTERNATIONAL INC --Type RSIC-1.
4B. **Concrete Expansion Anchor --** (Not Shown) -- 1/4 in. dia. by 3 in. long carbon steel, pre-assembled, nail drive expansion anchor with mushroom head driven into the web of the concrete block. Min. embedment in concrete block of 1-3/8 in. and evaluated in accordance with ASTM E 488 to have ultimate load capacities of 980 lbs (tension) and 1400 lbs (shear) when used in 2,000 psi concrete.
5. **Gypsum Board* --** 1/2 in. thick, 4 ft wide, secured to furring channels with wallboard fasteners (Item 6). Gypsum plaster not more than 1/16 in. thick may be applied to wallboard in addition to joint
AMERICAN GYPSUM CO --Types AG-C, AGX-C. **BPB AMERICA INC --** ProRoc Type C. **BPB CANADA INC --** ProRoc Type C. **CANADIAN GYPSUM COMPANY --**Type[illegible]-X2, IPC-AR. **G-P GYPSUM CORP, SUB OF GEORGIA-PACIFIC CORP --**Type 5. **LAFARGE NORTH AMERICA INC --**Types LGFC-C, LGFC.
C/A. **NATIONAL GYPSUM CO --**Types FSK-C, FSW-C, FSMR-C. **PABCO GYPSUM, DIV OF PACIFIC COAST BUILDING PRODUCTS INC--**Type PG-C -- **STANDARD GYPSUM L L C --**Types PG-C. **TEMPLE-INLAND FOREST PRODUCTS CORP --**Type TG-C. **UNITED STATES GYPSUM CO --**Types C, IP-X2, IPC-AR. **USG MEXICO S ADE C V --**Types C, IP-X2, IPC-AR
1 **Wallboard Fasteners --** 1 in. long, self-drilling, self-tapping steel screws with bugle heads. Fasteners attached to each furring channel and spaced 8 in. OC at wallboard joints and 12 in. OC in the field of the board parallel with furring channels. Clearance between fasteners and edges of wallboard 3/4 in.
2 **Joint System -- (Not shown) --** Paper tape embedded in cementitious compound over joints. Paper tape and exposed screw heads covered with two layers of compound. Edges of compound feathered out.

*Bearing the UL Classification Mark

DESIGN NO. X526

1, 2, 3 and 4 Hr.



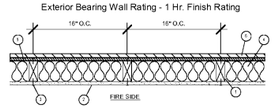
1 **Steel Column --** Min sizes of W shape and tubular steel columns in the AISC Steel Construction Manual as shown under Item 2.
2 **Gypsum Board --** Any 5/8 in. thick or 1/2 in. thick wallboard bearing the Underwriters Laboratories Inc. Fire Resistance Classification Marking. Min total thicknesses of layers in inches for the various ratings and min column sizes are as follows:

W Shape Columns Min Column Size Rating Hr Dsg Outside Flange Web In.2 Total Thkns of Dimen-Thkns Thkns Area Layers of Wallboard In. sions In. In. 1234In.
W4x13 4-1/8x4 0.345 0.280 3.82 1 1-1/2 2-1/4 -- W6x15.5 6x6 0.269 0.235 4.56 1 1-1/2 2-1/4 3-1/8 W10x49 10x10 0.558 0.340 14.4 1/2 1-1/8 1-7/8 2-1/2
Tubular Shape Columns Min Column Size Rating Hr Outside Total Thkns of Dsg Dimensions Thkns In.2 Layers of Wallboard In. In.In.Area1 2 3 4
TS4X4X0.188 4X4 0.188 2.74 1 1-5/8 2-1/2 -- TS8X8X0.250 8X8 0.250 7.48 5/8 -- -- --
Applied in layers as shown in above illustration. Each layer held together with paper masking adhesive tape during erection to allow placement of succeeding layers. For column ratings of 2 hr or less, one layer of wallboard may be applied to the outer surface of steel cover. Boards applied vertically, without horizontal joints, attached to cover with screws located 1 in. from the board edge and 8 in. OC. See **Gypsum Board (CKNX)** category for names of manufacturers. 2A. **Gypsum Board* --** As an alternate to Item 2, 3/4 in. thick applied as described in Item 2. **CANADIAN GYPSUM COMPANY --**Type IP-X3, ULTRACODE, UTRACODE SHC OR ULTRACODE WRC. **UNITED STATES GYPSUM CO --**Type IP-X3, ULTRACODE, UTRACODE SHC OR ULTRACODE WRC. **USG MEXICO S ADE C V --**Type IP-X3, ULTRACODE, UTRACODE SHC OR ULTRACODE WRC.
1 **Steel Covers -- For seamed joints --** 0.024 in. min thickness (No. 24 MSG) uncoated, galv or stainless steel, for column ratings of 3 hr or less. For 4 hr ratings, only stainless steel cover to be used. Covers consist of two L-shaped sections with Snap-Lock or Pittsburgh sheet steel joints. Width to be determined on the basis of protection thickness and column size. Length of sections to provide 1/8 in. clearance per lineal foot of column length between cover and any restraint. For lapped joints -- (Max ratings 2 hr) -- No. 22 MSG (0.027 in. thick) uncoated or galv steel. Fasteners used at laps to be No. 8 by 1/2 in. steel sheet metal screws spaced a max of 12 in. O.C. Other details to be the same as those stated for seamed joints as shown above.
2 **Corner Bead --** For columns with outer layer of wallboard attached to outside surface of metal cover, No. 28 MSG galv steel, 1-1/4 in. legs corner beads attached to wallboard with screws spaced 12 in. O.C.
3 **Screws --** For columns with outer layer of wallboard attached to outhichside surface of metal cover, self-drilling Phillips bugle head, 1 in. long screws for 1/2 or 5/8 in. thick wallboard (1-1/4 in. long screws for 3/4 in. thick wallboard) are used to attach wallboard to steel cover, and corner bead to wallboard.
4 **Sodium Silicate Solution --** (Not shown, optional) -- Used to adhere one layer of wallboard to inside of steel cover prior to assembly.
5 **Finishing System --** (Not shown) -- Joint compound applied over cor

ner beads to a thickness of 1/16in. *Bearing the UL Classification Mark

DESIGN NO. U356

Exterior Bearing Wall Rating - 1 Hr. Finish Rating



1. 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).

2. Gypsum Board* - Any Classified 5/8 in. thick, 4 ft wide, applied vertically and nailed to studs and bearing plates 7 in. OC with 6d cement-coated nails, 1-7/8 in. long with 1/4 in. diam head.

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.

5. Wood Structural Panel Sheathing - Min 7/16 in. thick, 4 ft wide wood structural panels, min grade "C-D" or "Sheathing".

6. Exterior Facings - Installed in accordance with the manufacturer's installation instructions. One of the following exterior facings is to be applied over the sheathing:
A. Vinyl Siding - Molded Plastic*
B. Particle Board Siding
C. Wood Structural Panel or Lap Siding
D. Cementitious Stucco
E. Brick Veneer
F. Exterior Insulation and Finish System (EIFS)
G. Siding - Aluminum or steel siding
H. Fiber-Cement Siding

* Bearing the UL Classification Mark

Order Plans @ WWW.LDILINE.com

MISHRA ARCHITECTURE PLLC
6800 South Creek Dr, Charlotte, NC 28277
Ph:(704) 625-6548 Fax:(704) 919-5822
Email: ashish@mishraarch.com
WEB: www.mishraarch.com

CIVIL:
Choctaw Engineering, Inc.
112 Truxton Avenue
Fort Walton Beach, FL 32547
Phone: (850) 862-6211
Fax: (850) 863-8059
Email: msiner@choctaweng.com

STRUCTURAL:
Whisonant Engineering Services, LLC
122 Nut Tree Court
Lexington, SC 29074
Phone: (803) 957-4008
Email: bill@weslex.com

MEP:
Allied Consulting Engineers
2905-D Queen City Drive
Charlotte, NC 28208
Phone: (704) 399-3943
Email: dbelk@allied-engineers.com

REVISIONS		
No.	Date	Description

Information contained on this drawing and in all digital files associated is authorized for use on the project named herein only and is the property of MISHRA ARCHITECTURE PLLC and may not be reproduced in any manner without express written or verbal permission from authorized individuals. Original drawing is 24"x36" and scales are as indicated.© 2008 MISHRA ARCHITECTURE PLLC

STATE OF FLORIDA ASHISH MISHRA 94080 REGISTERED ARCHITECT

KEY PLAN

VTM Hotels, LLC

Home2Suites

2630 Wilde Lake Blvd.
Pensacola, FL 32526

Drawing Title
UL Listings

Phase
Construction Documents

Project No.	17-101
Prepared by	Author
Checked by	Checker
Date	Aug 06,2018

Review

Sheet No. T001

Home2Suites

8/8/2018 10:34:25 PM