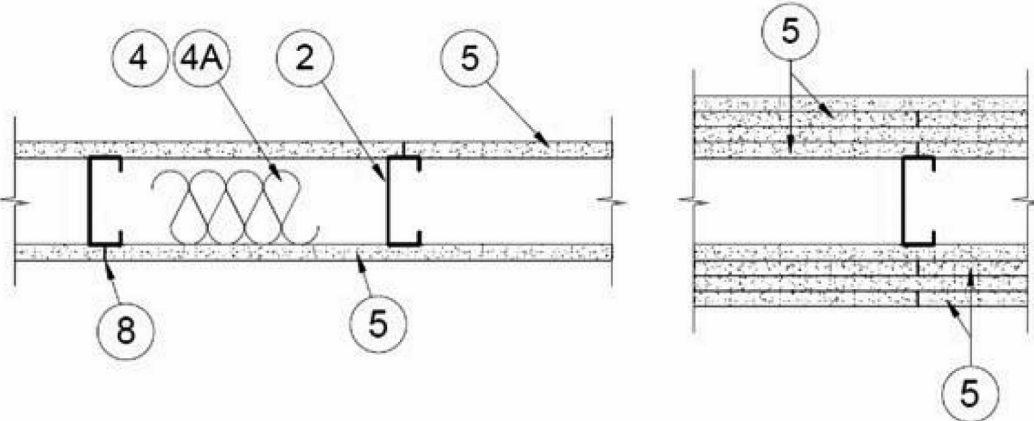


## Design No. U419

May 28, 2020

### Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5K)

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



1. **Floor and Ceiling Runners** — (Not Shown) — For use with Item 2 — Channel shaped, fabricated from min 25 MSG corrosion-protected steel min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

2. **Steel Studs** — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated in Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

3. **Wood Structural Panel Sheathing** — (Optional, For use with Item 5 Only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with CPD P51 or P52, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screw with a min. head diam. of 0.292 in. at maximum 6 in. OC in the perimeter and 12 in. OC in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. **Batts and Blankets** — (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5.

4C. **Fiber, Sprayed** — (Optional) and as an alternate to Batts and Blankets (Item 4B) where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (CCAZ), AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

5. **Gypsum Board** — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall				
Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)	
1	3-1/2	1 layer, 5/8 in. thick	Optional	
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.	
1	1-5/8	1 layer, 3/4 in. thick	Optional	
2	1-5/8	2 layers, 1/2 in. thick	Optional	
2	1-5/8	2 layers, 5/8 in. thick	Optional	
2	3-1/2	1 layer, 3/4 in. thick	3 in.	
3	1-5/8	3 layers, 1/2 in. thick	Optional	
3	1-5/8	2 layers, 3/4 in. thick	Optional	
3	1-5/8	3 layers, 5/8 in. thick	Optional	
4	1-5/8	4 layers, 5/8 in. thick	Optional	
4	1-5/8	4 layers, 1/2 in. thick	Optional	
4	2-1/2	2 layers, 3/4 in. thick	2 in.	

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WLX, USGX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WLX, USGX, WRC, FRX-C, IP-AR, IP-X2, IP-AR, 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C, 5/8 in. Types C, SCX, SGX, ULTRACODE

USG MEXICO S A DE CV — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX or 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, **Steel Framing Members**\*, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

6. **Fasteners** — (Not Shown) — For use with Items 2 and 2F — Type 5 or 5-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). **Single layer systems**: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Two layer systems**: First layer: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer: 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. **Three layer systems**: First layer: 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer: 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer: 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer: 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. **Four layer systems**: First layer: 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer: 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer: 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer: 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. **Furring Channels** — (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type 5-12 steel screws. Not for use with Item 5A.

7A. **Framing Members** — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:  
a. **Furring Channels** — Formed of No. 25 MSG galv steel, 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC, perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members** — Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSC-1 and RSC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, 5-12 steel screw through the center grommet. RSC-V and RSC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, 5-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSC-1 and RSC-V clips for use with 2-9/16 in. wide furring channels. RSC-1 (2.75) and RSC-V (2.75) clips for use with 2-23/32 in. wide furring channels.  
PAC INTERNATIONAL L L C — Types RSC-1, RSC-V, RSC-1 (2.75), RSC-V (2.75).

7B. **Framing Members** — (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only 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. 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 5. Not for use with Item 5A.

7G. **Framing Members** — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:  
a. **Furring Channels** — Formed of No. 25 MSG galv steel, 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced max. 24 in. OC, perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members** — Used to attach furring channels (Item 7Ga) to studs (Item 2). Clips spaced max. 48 in. OC. Clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, 5-12 steel screw through the center hole. Furring channels are friction fitted into clips.  
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

8. **Joint Tape and Compound** — Vinyl or casen, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

9. **Siding, Brick or Stucco** — (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal ties attached to each stud with steel screws, not more than each sixth course of brick.

10. **Caulking and Sealants** — (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.  
UNITED STATES GYPSUM CO — Type AS

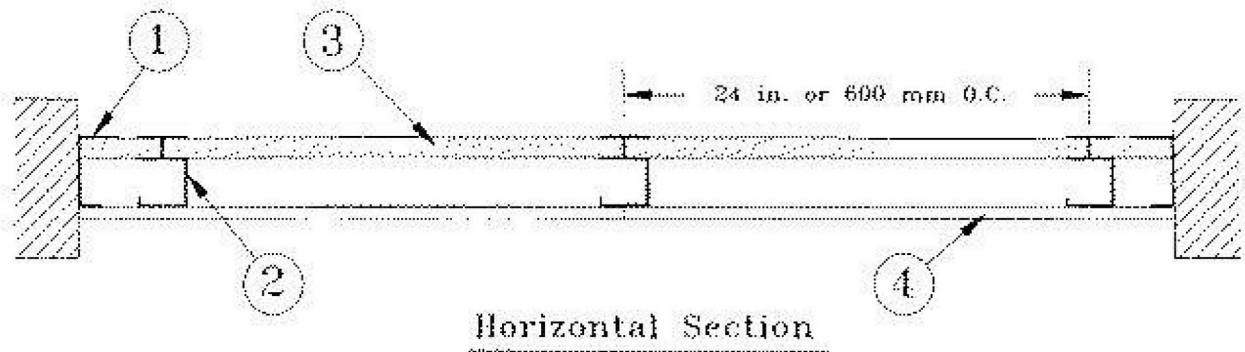
## Design No. U415

July 12, 2018

### Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr

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

### System A — 1 Hr.



1. **Floor, Side and Ceiling Runners** — "J" - shaped runner, min 2-1/2 in. deep (min 4 in. deep when System C is used), with unequal legs of 1 in. and 2 in., fabricated from min 24 MSG (min 20 MSG when Item 4A, 4B, 4C, 4D or 7 are used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. "E" - shaped studs (Item 2A) may be used as side runners in place of "J" - shaped runners.

2. **Steel Studs** — "C" - shaped studs, min 2-1/2 in. deep (min 4 in. deep when System C is used), fabricated from min 25 MSG (min 20 MSG when Items 2B, 4A, 4B, 4C, 4D or 7 is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor-to-ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when Items 4A, 4B, 4C, or 4D are used).

3. **Gypsum Liner Panels** — Gypsum liner panels, nom 1 in. thick, 24 in. or 600 mm (for metric spacing) wide. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" portion of "C" studs or the gap between the two 3/4 in. legs of the "E" studs. Free edge of end panels attached to long leg of vertical "J" - runners with 1-5/8 in. long Type 5 steel screws spaced not greater than 12 in. OC. When wall height exceeds liner panel length, liner panel may be butt jointed to extend to the full height of the wall. Horizontal joints need not be backed by steel framing. In System 1, butt joints in liner panels are staggered min 36 in. Butt joints backed with 6 in. by 22 in. strips of 3/4 in. thick gypsum wallboard (Item 4). Wallboard strips centered over both joints and secured to liner panels with six 1-1/2 in. long Type 6 steel screws, three screws along the 22 in. dimension at the top and bottom of the strips.

CGC INC — Type SLX

UNITED STATES GYPSUM CO — Type SLX

USG BORAL DRYWALL SFZ LLC — Type SLX

USG MEXICO S A DE CV — Type SLX

4. **Gypsum Board** —

### System A — 1 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type 5 steel screws spaced 24 in. When installed vertically or 8 in OC when installed horizontally. Horizontal joints need not be backed by steel framing.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WLX, USGX, WRC, WRX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, WLX, ULX, WRC, WRX, USGX. When ULX is used insulation, Item 5, **Batts and Blankets**\* is required and minimum stud depth is 4 in.

USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

USG MEXICO S A DE CV — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WLX, USGX, WRC, WRX

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 4 ft wide (or 1200 mm for metric spacing), wallboard with square or tapered edges. Total of four layers to be used. First and second (inner) layers applied vertically or horizontally over the steel studs. Horizontal joints need not be backed by steel framing. When applied vertically, joints centered over studs and staggered min 12 in. In first layer secured to studs with 1-1/4 in. long Type 5 self-drilling, self-tapping bugle-head steel screws spaced 24 in. OC. Second layer secured to studs with 2-1/4 in. long Type 5 self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Third layer applied vertically over the furring channels (Item 2C) with a 1-1/4 in. long Type 5 self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Fourth layer applied vertically or horizontally with 2-1/4 in. long Type 5 self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. When applied vertically, joints to be staggered min 24 in. from third layer, otherwise all joints staggered min 12 in.

CGC INC — Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE CV — Types IP-X3 or ULTRACODE

5. **Joint Tape and Compound** — (Not Shown)

### Systems A, B, C, E, F, G, H, I

Joints on outer layers of gypsum boards (Item 4 and 4A) covered with paper tape and joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. Exposed screw heads covered with joint compound.

6. **Batts and Blankets** —

(Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt mineral bearing the UL Classification Marking as to Fire Resistance.

### System A With Type ULIX Gypsum Board

Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BWN or BZJ) Categories** for names of Classified companies.

AER-09038

### One Hour Corridor Ceiling or Underside Stair Applications, See Figure 8

1. A minimum 2-1/2 in. deep 24 gauge J-runner attached horizontally to perimeter or boundary walls with a power actuated fasteners.
2. Gypsum Wall Board:
  - a. For a one (1) hour assembly: Attach one (1) layer of 5/8-in thick SHEETROCK® Brand FIRECODE® Core Gypsum Panel (Type X), to the underside of the "Corridor Ceiling" of the C-H stud and the perimeter J-runner. Use 1-in long Type 6 screws that are spaced 12-in o.c. in the field and at the edges.
  3. Install the C-H studs perpendicular to the J-runner spaced 24-in o.c. with the C-section of the C-H stud facing downward towards the corridor side of the assembly with two (2) screws a minimum 10-in long Type 5-12 screws, one on each side.
  4. 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.
  5. Ripper Board:
    - a. Where the liner panel (Item 4) is cut short to be installed, gaps must be filled by using a strip of 1-in thick SHEETROCK® Brand Gypsum Liner Panel.
    - b. As an alternative you can use mineral fiber insulation to prevent exposure to the top leg of the J-runner that forms the ceiling.
    - c. Where the wall section extends above the corridor ceiling, above corridor height a rip of board must be used to cap the opening between studs and a strip of mineral fiber insulation as described in Item 6 must be used.
6. In order to prevent the passage of heat and gases, a 12-in long strip of mineral fiber insulation must be used to fill in the stud cavity of the walls.

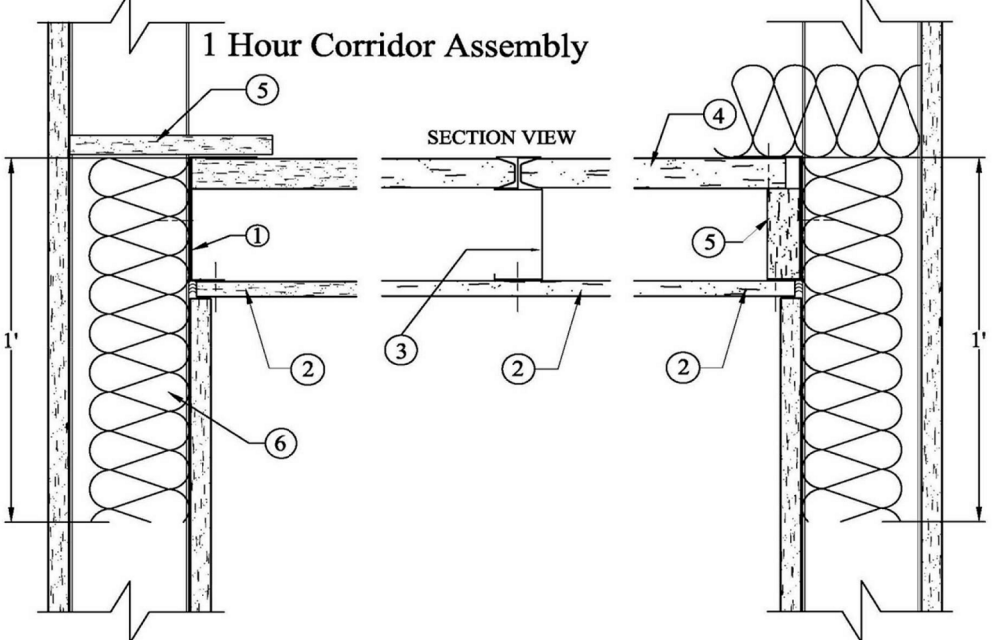


Figure 8 - One Hour Corridor Ceiling or Underside Stair Assembly and Limiting Spans

1-Hour Exit Corridor Ceiling and Stair Soffits*		
Single layer 5/8-in gypsum panels	Maximum Span	
212CH20-18"	8-ft - 6-in	
212CH20-34"	10-ft - 4-in	
400CH25-18"	8-ft - 3-in	
400CH20-34"	14-ft - 11-in	
600CH20-34"	20-ft - 10-in	

- Notes:
1. Based on L/240 allowable deflection with studs at 24-in o.c. and JRD4 runner.
  2. J-Runner connection to wall/ceiling must meet or exceed 180-lbs capacity at every stud location (24-in o.c.).
  3. J-Runner connection to wall/ceiling must meet or exceed 380-lbs capacity at every stud location (24-in o.c.).

## Design No. U905

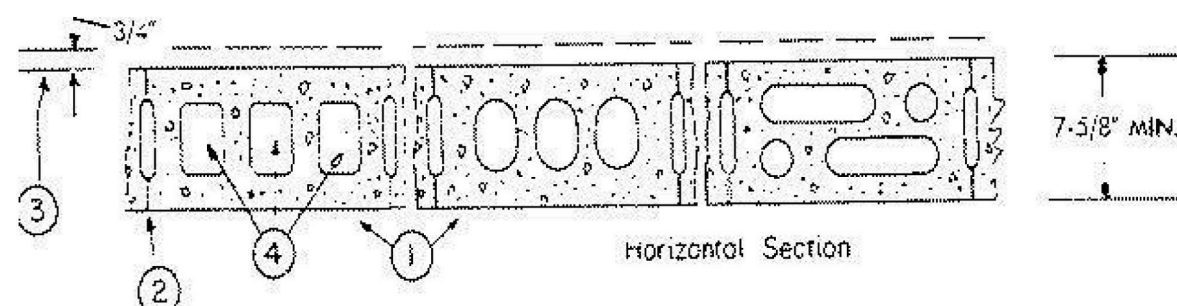
March 02, 2020

### 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.

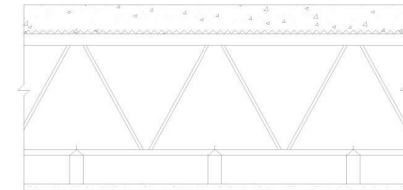
2. **Mortar** — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

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 Kilm Process), water repellent vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

## FLOOR-CEILING SYSTEMS, NONCOMBUSTIBLE

GA FILE NO. FC 1105	GENERIC	1 HOUR FIRE	50 to 54 STC SOUND
GYPSUM WALLBOARD, STEEL JOISTS, CONCRETE SLAB			
One layer 1/2" Type X gypsum wallboard or gypsum veneer base applied at right angles to 3/8" steel studs 24" o.c. with 1" Type S drywall screws 12" o.c. Studs wire tied with double strand 16 gauge wire 8" o.c. to steel joists 24" o.c. supporting 3/8" re metal lath and 2 1/2" concrete slab. (One hour restrained and unrestrained.)			
Approx. Ceiling Weight: Fire Test: Sound Test:		2 pcf FM FC-134, 12-16-69 See FC-2030 (NSC 4075, 3-25-69)	



## CODE REVIEW

APPLICABLE CODES:  
2018 International Building Code  
2018 International Plumbing Code  
2018 International Mechanical Code  
2018 International Fire Code  
2017 National Electrical Code  
ICC/ANSI A117.1-2009, Accessible and Usable Buildings and Facilities

CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION  
BUSINESS, GROUP B

CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS (TABLE 503)

GROUP:	B		
TYPE:	IIB		
ALLOWABLE HEIGHT:	55'	ACTUAL:	34'
ALLOWABLE STORIES:	3	ACTUAL:	2
ALLOWABLE AREA:	23,000	ACTUAL:	6,175 SF

CHAPTER 6 TYPE OF CONSTRUCTION  
IIB, UNPROTECTED

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (IBC 601):

BUILDING ELEMENT	RATING
PRIMARY STRUCTURAL FRAME	0 HR
BEARING WALLS	
EXTERIOR	0 HR
INTERIOR	0 HR
NONBEARING WALLS	
EXTERIOR	0 HR
INTERIOR	0 HR
FLOOR CONSTRUCTION AND ASSOCIATED	0 HR
ROOF CONSTRUCTION AND ASSOCIATED	0 HR

FIRE RESISTANCE RATING REQUIREMENT FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (IBC 602):  
GROUP B X>30 0 HR

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

MAXIMUM AREA OF EXTERIOR OPENINGS (IBC 705.8)	
FIRE SEPARATION DISTANCE	DEGREE OF OPENING PROTECTION
30' OR GREATER	UNPROTECTED, NON-SPRINKLERED
	NO LIMIT

706 - FIRE WALLS:  
706.1.1 PARTY WALLS, EXCEPTION 2:  
PARTY WALLS ARE NOT REQUIRED WHERE THE COMBINED AREAS ON BOTH SIDES OF THE WALL ARE LESS THAN THE ALLOWABLE AREA BY CODE (IN THIS INSTANCE, THE WHOLE BUILDING FALLS UNDER THE ALLOWABLE AREA. THE INTENT IS TO HAVE SEPERATE OWNERSHIP OF EACH PORTION OF BUILDING).

CHAPTER 9 FIRE PROTECTION SYSTEMS

907 - FIRE ALARMS  
907.2.2 GROUP B  
FIRE ALARMS NOT REQUIRED AS THE BUILDING HAS FEWER THAN 500 TOTAL OCCUPANTS, AND THE LEVEL ABOVE HAS FEWER THAN 100 OCCUPANTS.

FIRE EXTINGUISHERS TO BE PROVIDED IN ACCORDANCE WITH THE IBC NFPA TO REQUIRED SMOKE DETECTORS TO BE PROVIDED  
ALL PROVIDED AND INSTALLED BY GENERAL CONTRACTOR

CHAPTER 10 MEANS OF EGRESS

BUILDING AREAS AND OCCUPANT LOAD (IBC 1004):

BASED ON BUSINESS FUNCTION:	
1 OCC PER 150 SF	
ROOFTOP PATIO BASED ON ASSEMBLY WITHOUT FIXED SEATS	
1 OCC PER 15 SF	
AREAS AND OCCUPANCIES INDICATED ON PLAN	

EXIT ANALYSIS:  
GROUND LEVEL:  
2 MEANS OF ACCESSIBLE EGRESS PROVIDED, MINIMUM OF 1 REQUIRED.  
MAXIMUM TRAVEL DISTANCE TO EXIT NOT EXCEED 75

SECOND LEVEL:  
TABLE 1006.3.3(2) - ONE EXIT ACCESS ALLOWABLE WITH FEWER THAN 29 OCCUPANTS & TRAVEL DISTANCE NOT TO EXCEED 75  
INTERIOR EXIT STAIRS USED DUE TO LONGER TRAVEL DISTANCE.

1023 - INTERIOR EXIT STAIRS  
1023.2 - CONSTRUCTION  
STAIRS CONNECTING LESS THAN 4 STORIES TO HAVE A 1HR FIRE BARRIER

1023.4 - OPENINGS  
PER TABLE 716.1(2) - DOORS TO BE 60 MIN RATED  
1023.7 - INTERIOR EXIT STAIRS EXTERIOR WALLS  
NON-RATED, NON PROTECTED.  
NO WALLS / BUILDINGS WITHIN LESS THAN 180 DEGREES.

1009.3.3 - AREA OF REFUGE AT TOP OF EXIT ACCESS STAIRS

EGRESS WIDTH PER OCCUPANT SERVED (IBC 1005), WITHOUT SPRINKLER:  
STAIRWAYS 3 INCHES PER OCC.  
OTHER EGRESS COMPONENTS 2 INCHES PER OCC.

OCCUPANT LOAD TO BE POSTED IN CONSPICUOUS LOCATION.

CHAPTER 29 PLUMBING SYSTEMS