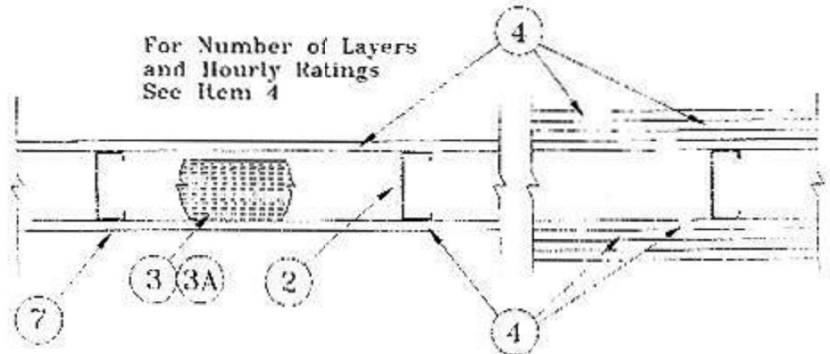


REV	ISSUE	DATE
1	Revision 1	02.16.2022
2	Revision 2 / RFI 59	03.17.2022
3	Revision 3	04.05.2022

Design No. U419  
Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 3 & 4)



- Floor and Ceiling Runners** — (Not shown) — Channel shaped, fabricated from min 25 MSG (min 20 MSG when Item 4A is used) 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.
- Steel Studs** — Channel shaped, fabricated from min 25 MSG (min 20 MSG when Item 4A is used) corrosion-protected steel, min width as indicated under Item 4, 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.
- Batts and Blankets\*** — (Required as indicated under Item 4) — Mineral wool batts, friction fitted between studs and runners. Min nom. thickness as indicated under Item 4. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.
- Batts and Blankets\*** — (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.
- 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:

Rating	Min Stud Depth	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 3)
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.

CANADIAN GYPSUM COMPANY — 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, WRX or WRC; 3/4 in. thick Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.

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

USG MEXICO S A DE C V — 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, WRX, WRC or; 3/4 in. thick Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.

- Gypsum Board\*** — (As an alternate to Item 4) — 5/8 in. thick gypsum panels, installed as described in Item 4 with Type S-12 steel screws. The length and spacing of the screws as specified under Item 5.

CANADIAN GYPSUM COMPANY — Type FRX

UNITED STATES GYPSUM CO — Type FRX

- 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 5. Joint covering (Item 7) not required.

CANADIAN GYPSUM COMPANY — Type SHX

UNITED STATES GYPSUM CO — Type SHX

USG MEXICO S A DE C V — Type SHX

- Fasteners** — (Not shown) — Type 5 or 5-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 6). **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., 5/8 in. thick panels or 2-5/8 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.
- 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 S-12 steel screws. Not for use with Item 4A.
- Joint Tape and Compound** — Vinyl or casein, 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.
- 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 wall ties attached to each stud with steel screws, not more than each sixth course of brick.
- 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

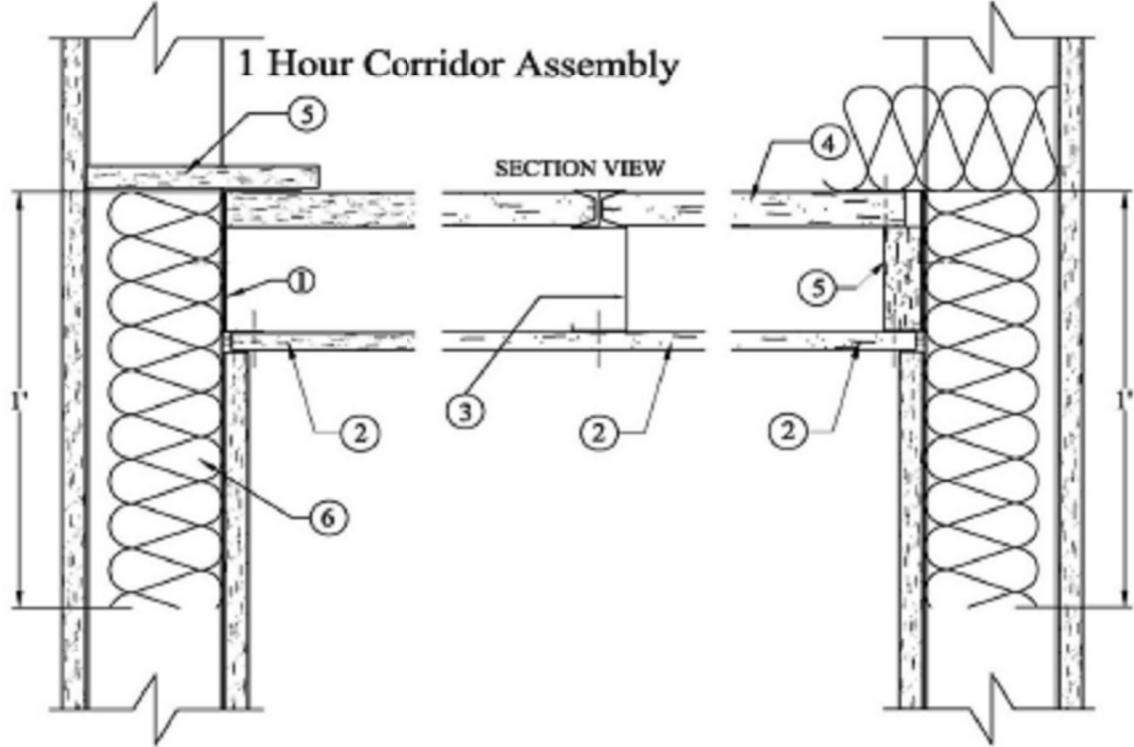
\*Bearing the UL Classification Mark

AER-09038

AER-09038

One Hour Corridor Ceiling or Underside Stair Applications. See Figure 8

- A minimum 2-1/2-in deep 24 gauge J-runner attached horizontally to perimeter or boundary walls with a power actuated fasteners.
- Gypsum Wall Board:
  - 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 "Common Ceiling" of the C-1 stud and the perimeter J-runners. Use 1-in long Type G screws that are spaced 12-in o.c. in the field and at the edges.
- 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 1/2-in long Type S-12 screws, one on each side.
- 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.
- Ripper Board:
  - 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.
  - As an alternative you can use mineral fiber insulation to prevent exposure to the top leg of the J-runner that forms the ceiling.
  - 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.
- 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.



1-Hour Exit Corridor Ceiling and Stair Soffits*	
Single layer 5/8-in gypsum panels	Maximum Span
212CH25-18 <sup>1,2</sup>	8-ft - 6-in
212CH20-34 <sup>2,3</sup>	10-ft - 4-in
400CH25-18 <sup>2,3</sup>	9-ft - 3-in
400CH20-34 <sup>2,3</sup>	14-ft - 11-in
600CH20-34 <sup>2,3</sup>	20-ft - 10-in

Notes:

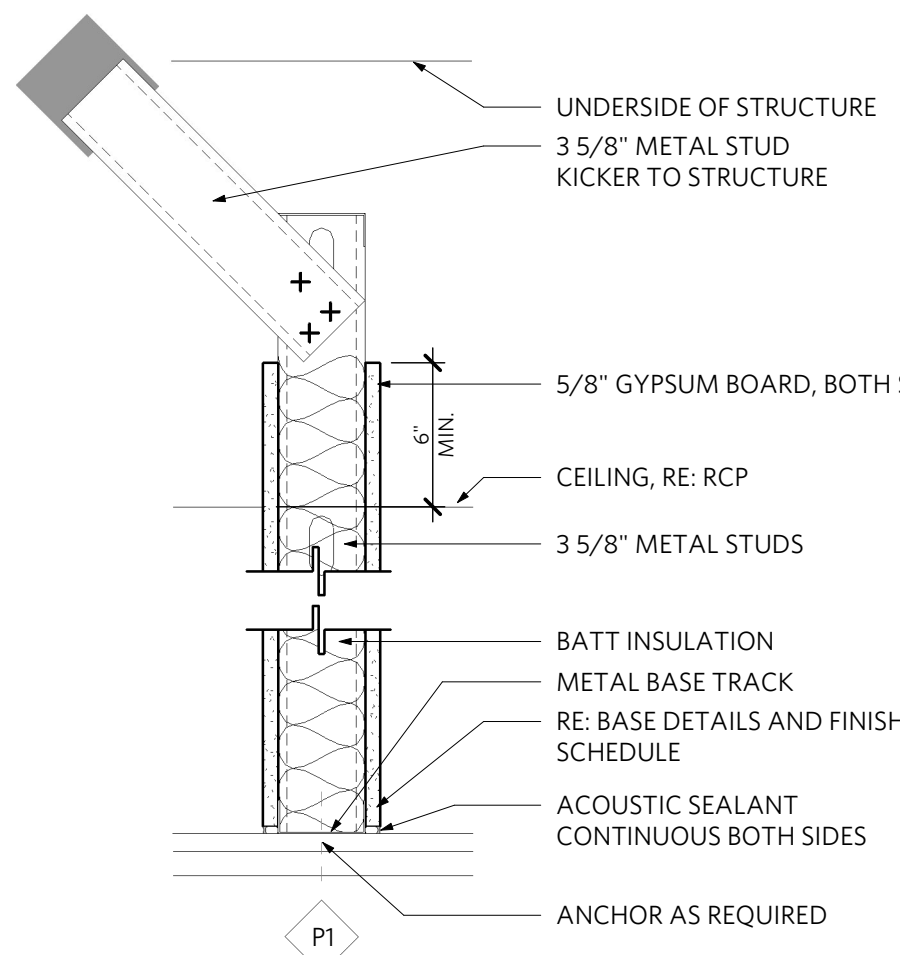
- Based on L/240 allowable deflection with studs at 24-in o.c. and JR24 runner.
- J-Runner connection to wall/building must meet or exceed 189-lbs capacity at every stud location (24-in o.c.).
- J-Runner connection to wall/building must meet or exceed 386-lbs capacity at every stud location (24-in o.c.).

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

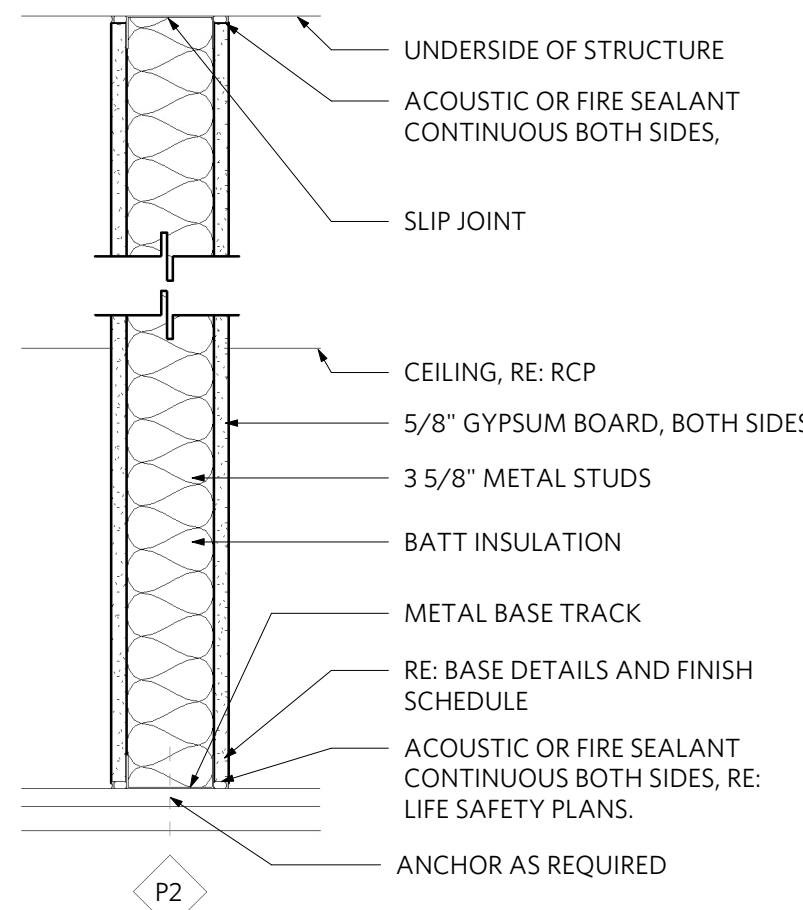
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WALL TYPES

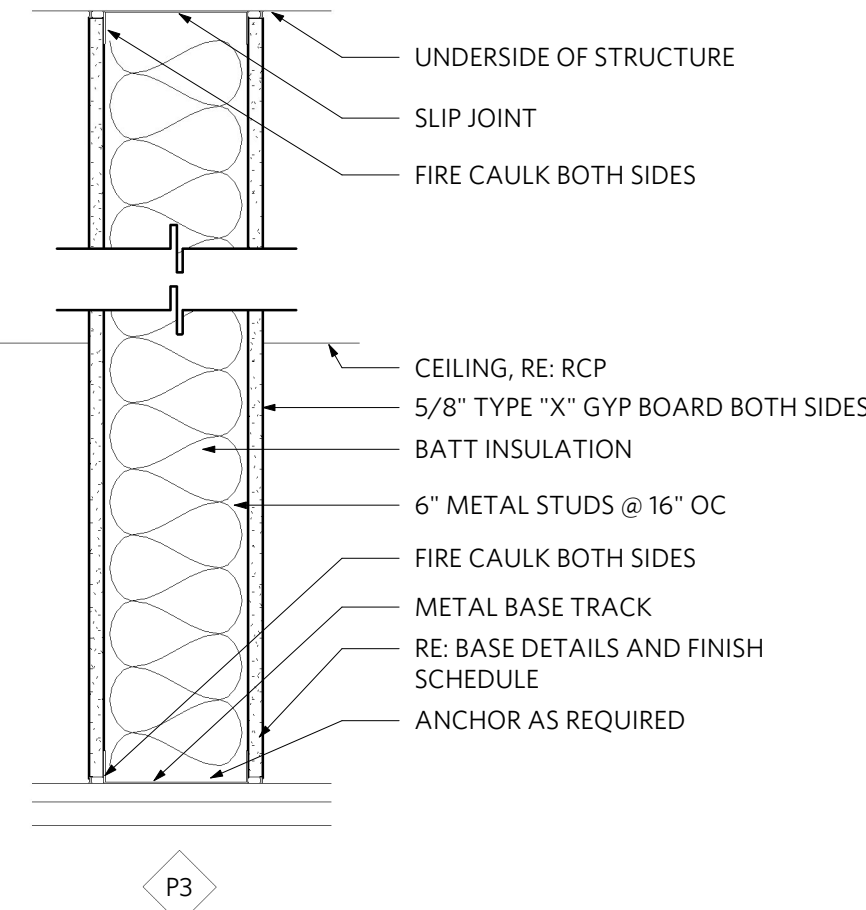
- GYP. BD. TO BE HELD OFF FINISH FLOOR 1/2" MIN. TYPICAL.
- METAL CORNER BEAD TO BE USED ON ALL OUTSIDE CORNERS OR TOP OF PARTIAL HEIGHT WALLS WHERE GYP. BD. WALLS.
- ALL BLOCKING SHALL SPAN FULLY BETWEEN BOTH ADJACENT STUDS AT A MINIMUM.
- ALL WALLS TO BE LEVEL 4 FINISH, U.N.O. WALLS TO RECEIVE VINYL GRAPHICS TO BE LEVEL 5 FINISH.
- PROVIDE ACOUSTICAL BATT INSULATION AT ALL RESTROOM WALLS AND ABOVE ALL RESTROOM CEILINGS
- PROVIDE MOISTURE RESISTANT GYP. BD. OR DUROCK IN ALL WET LOCATIONS (I. E. RESTROOMS)



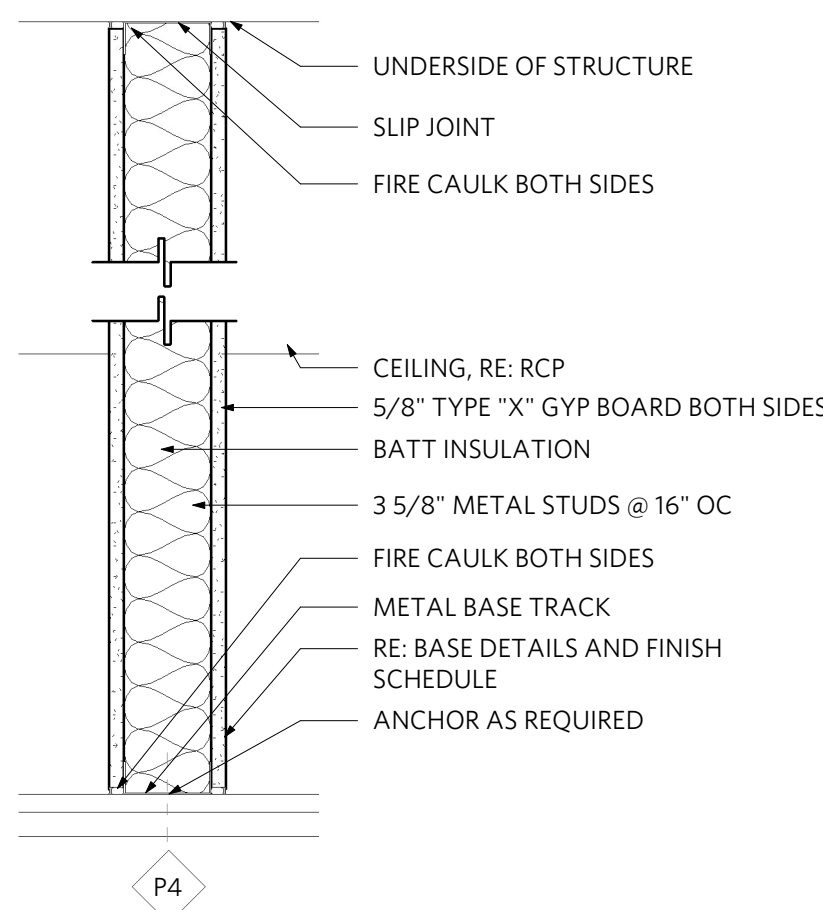
WALLS 6" ABOVE CEILING



WALLS TO DECK



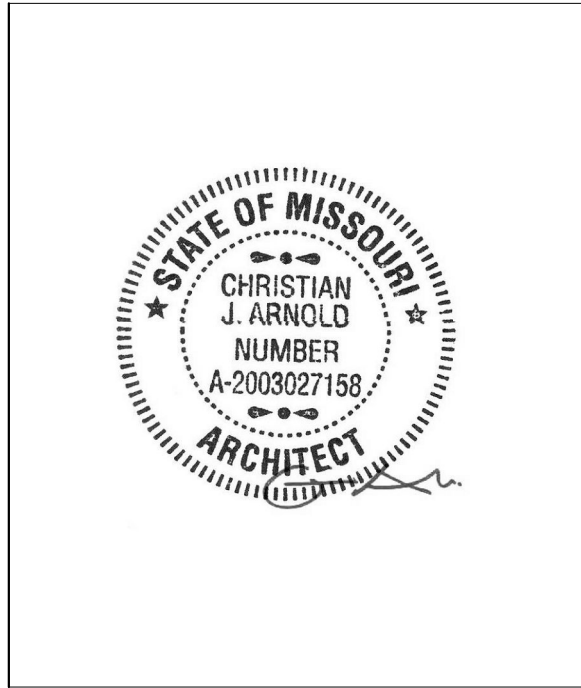
WALLS TO DECK  
UL DESIGN-U419  
1 HOUR RATING



WALLS TO DECK  
UL DESIGN-U419  
1 HOUR RATING







REV	ISSUE	DATE
	Permit Review	02.02.2022
1	Revision 1	02.16.2022
2	Revision 2 / RFI 59	03.17.2022
3	Revision 3	04.05.2022

REFLECTED CEILING  
PLAN & DETAILS

A150

GENERAL CEILING PLAN NOTES

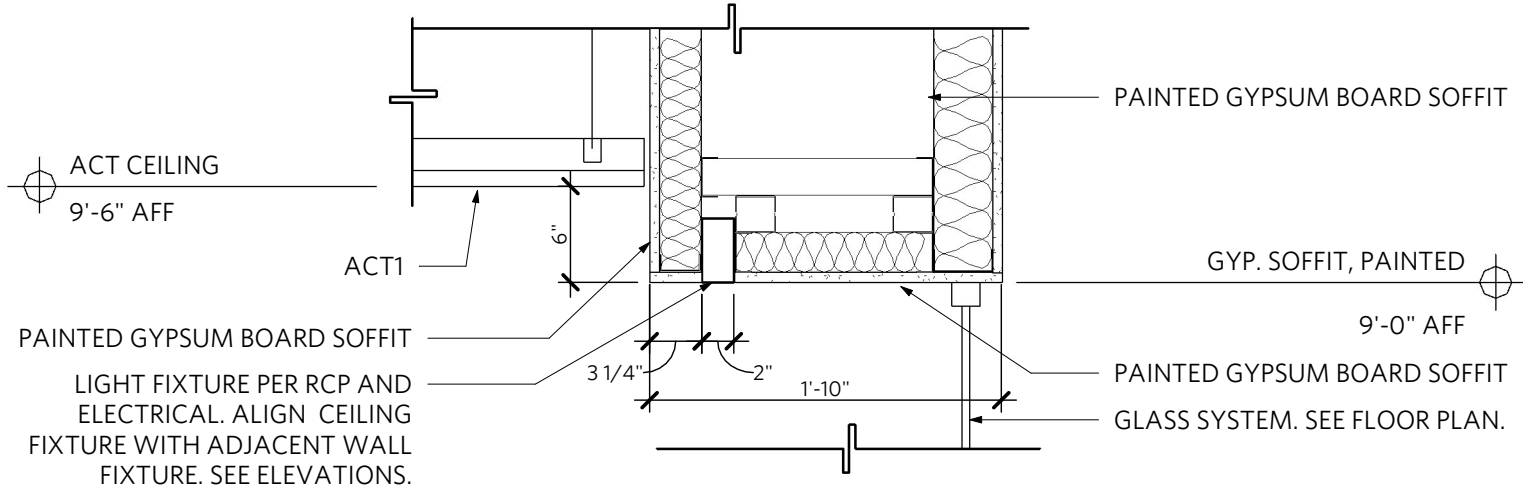
- CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT BACK TO ARCHITECT ANY CONFLICTS THAT MAY AFFECT DESIGN INTENTIONS SHOWN ON PROJECT DOCUMENTS.
- REFER TO MEP DRAWINGS FOR ALL EMERGENCY AND EXIT LIGHTING REQUIREMENTS.
- CONCEAL ALL CONDUIT TO LIGHT FIXTURES, EXIT DEVICES AND EMERGENCY LIGHTING IN WALL OR IN HARD PIPE CONDUIT.
- CEILINGS TO (PT2) UNLESS NOTED OTHERWISE.
- PROVIDE ACOUSTICAL BATT INSULATION ABOVE ALL OFFICES AND MEETING ROOM CEILINGS PER WALL TYPES ON SHEET A000.
- ALL WIRING AND CABLING TO BE IN HARD PIPE CONDUIT IN AREAS EXPOSED TO STRUCTURE, MC CABLING NOT ACCEPTABLE.
- ALL NEW GYP. CEILINGS TO BE PAINTED (PT2) UNLESS NOTED OTHERWISE.
- ALL EXPOSED TO STRUCTURE CEILINGS TO BE PAINTED (PT2) UNLESS NOTED OTHERWISE.
- CENTER LIGHTS WITHIN SOFFIT U.N.O.
- COORDINATE MOUNTING HEIGHTS OF ALL PENDANT LIGHTS IN FIELD WITH ARCHITECT U.N.O.
- PROVIDE NEW CLEAR, EDGE LIT EXIT SIGNS U.N.O. REFER TO ELECTRICAL DRAWINGS FOR SPECIFICATION
- HEADERS AND SOFFITS TO EXTEND TO DECK @ ALL AREAS WITHOUT CEILINGS.

REFLECTED CEILING PLAN KEYNOTES

- FIXTURE E TO TO RUN DOWN THE WALL RE ELVATIONS.
- FIXTURE J TO BE HUNG IN FIELD WITH ARCHITECT. FIXTURE IS TO BE HUNG AT ANGELS, TPY.
- RECESSED COVE LIGHT. RE MEP.
- GC TO ENSURE EXISTING STAIR ABOVE IS NOT PROTRUDING INTO RESTROOM CEILING/WALL. CEILING IS TO BE HELD TIGHT TO UNDERSIDE OF STAIR.
- HVAC RE-MEP.
- CEILING SHALL BE 1 HR SHAFT WALL ASSEMBLY AER-09038 CONSTRUCTED ALONG UNDERNEATH SIDE OF SLAB AND STAIRS, ENTIRE WIDTH AND LENGTH OF ROOMS. BELOW RATED CEILING, PROVIDE A 3 5/8" METAL STUD AND 5/8" GYP CEILING AT 7'-10".

LIGHT FIXTURE SCHEDULE

TAG	FIXTURE DESCRIPTION
A	6" LED CYLINDER PENDANT, WHITE FINISH
B	6" LED CYLINDER FLUSH MOUNT, WHITE FINISH
C	FOCAL POINT SEEM 4-LP LED RECESSED 48" OR APPROVED EQ.
D	FOCAL POINT SEEM 4-LP LED RECESSED 72" OR APPROVED EQ.
F	TAPE LIGHT - DIODE LED - DI-12V-BLSC2-30-016-IES W/ DIMMING POWER SUPPLY, PROVIDE INSTALLATION CHANNEL OR APPROVED EQ.
G	4" LED CAN LIGHT, WHITE
H	MUUTO, UNFOLD PENDANT LAMP, WHITE
J	SONNEMAN LIGHTING - THIN-LINE LED PENDANT LIGHT, 6" SATIN BLACK, ONE SIDED



02 | CEILING DETAIL

1" = 1'-0"

01 | REFLECTED CEILING PLAN

1/4" = 1'-0"