### Atomic Beer Lab

#### Allyson Fisher and Deja Quiller

DES 384: Commercial Design & DES 386: Lighting

Prof Meirav Goldhour and Prof Jerome Gomez





# Codes: Occupancy and Sq Ft

### Total Occupancy: 276 Occupancy Classifications:

- Main Classification: A-2
- <u>Subclassifications:</u>
  - Bar = A-2
    - <u>Occupants:</u> 65
  - Lounge = A-2 and A-4(Upstairs Lounge Area with Pool Tables)
    - Occupants: 63
  - Dining = A-2
     <u>Occupants:</u> 52
  - Stage = A-3
    - <u>Occupants:</u> 60
  - Patio = A-5
    - <u>Occupants:</u> 126
  - Balcony = A-5
    - Occupants: 75
  - Conference Room = B
    - Occupants: 6
  - Break Room = B
    - Occupants: 11
  - Offices =B
    - Occupants: 8
  - Lab = H
    - Occupants: 1
  - Kitchen = A-2
    - <u>Occupants:</u> 2
  - Brewing Area = F
    - <u>Occupants:</u> 12
  - Store = M
    - Occupants: 5
  - Storage = H
    - Occupants: 1
  - Hallways = B(Hallway to Offices) and A-2
    - Occupants: 64

### Total Square Footage: 20308 sq ft

### Main Interior: 13907 sq ft

- Bar = 449 sq ft
- Lounge = 1842 sq ft
- Dining = 1654 sq ft
- Stage = 899 sq ft
- Conference Room = 542 sq ft
- Break Room = 153 sq ft
- Offices = 664 sq ft
- Lab = 165 sq ft
- Kitchen = 240 sq ft
- Brewing Area = 2381 sq ft
- Store = 256 sq ft
- Storage = 294 sq ft
- Hallways = 2853 sq ft

### Outdoor Space: 6401 sq ft

- Patio = 4029 sq ft
- Balcony = 2372 sq ft



# PROGRAMMING

### **Concept Statement:**

This design is meant to achieve a modern industrial look, along with a science and indoor-outdoor aesthetic. This is shown through a color palette of earth tones, purples, blues, and wood tones, with accents of gold and silver. The plants decor gives the brewery an indoor-outdoor feel, while the artwork and wall art aid in creating an atmosphere that represents the values of Las Vegas and an underlying science theme. This science aesthetic is furthered implemented with the use of circle motifs that mimic the shape of atoms and resemble the logo. With the use of windows and glass walls, there is a lot of natural light implemented in the space.

	Squ Foota Need	Daylight	Public	Privacy	
Bar	449 sq ft	н	N	Y	
Lounge	2638 sq ft	м	N	Y	
Dining	1654 sq ft	м	N	Y	
Patio	4029 sq ft	н	N	Y	(
Balcony	2372 sq ft	н	N	Y	>
<b>Conference Room</b>	542 sq ft	L	Y	N	-
Break Room	153 sq ft	L	Y	Ν	٢
Offices	664 sq ft	М	Y	Ν	1
Lab	165 sq ft	М	Y	Ν	F
Kitchen	240 sq ft	н	Y	N	L
Brewing Area	2381 sq ft	L	Y	N	
Store	256 sq ft	L	N	Y	
Stage	899 sq ft	М	N	Y	
Storage	294 sq ft	L	Y	N	
Hallways	2853 sq ft	М	I	I	

- IMMEDIATE ADJACENCY
- × REASONABLY CONVENIENT
- REMOTE
- Y YES

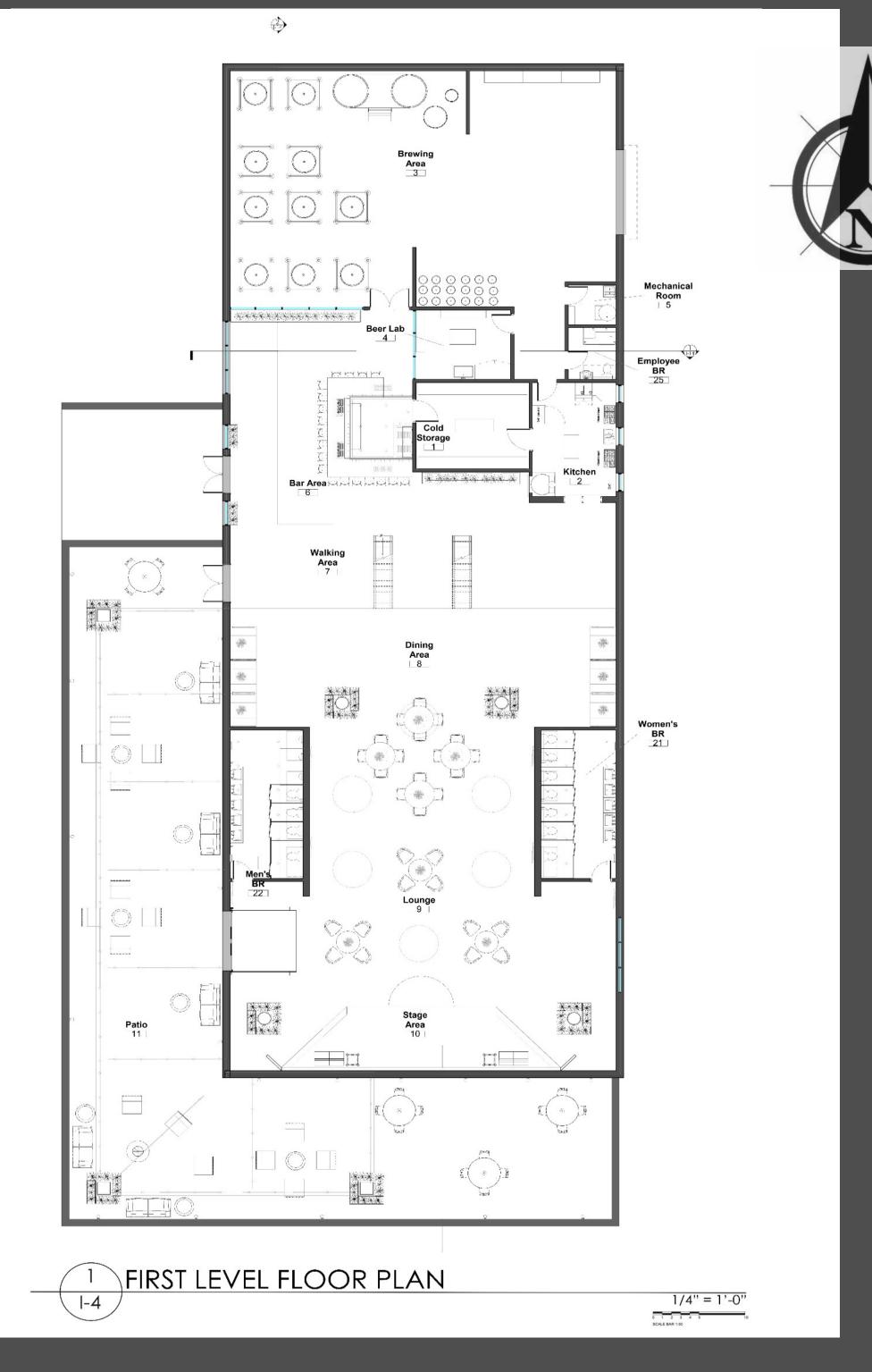
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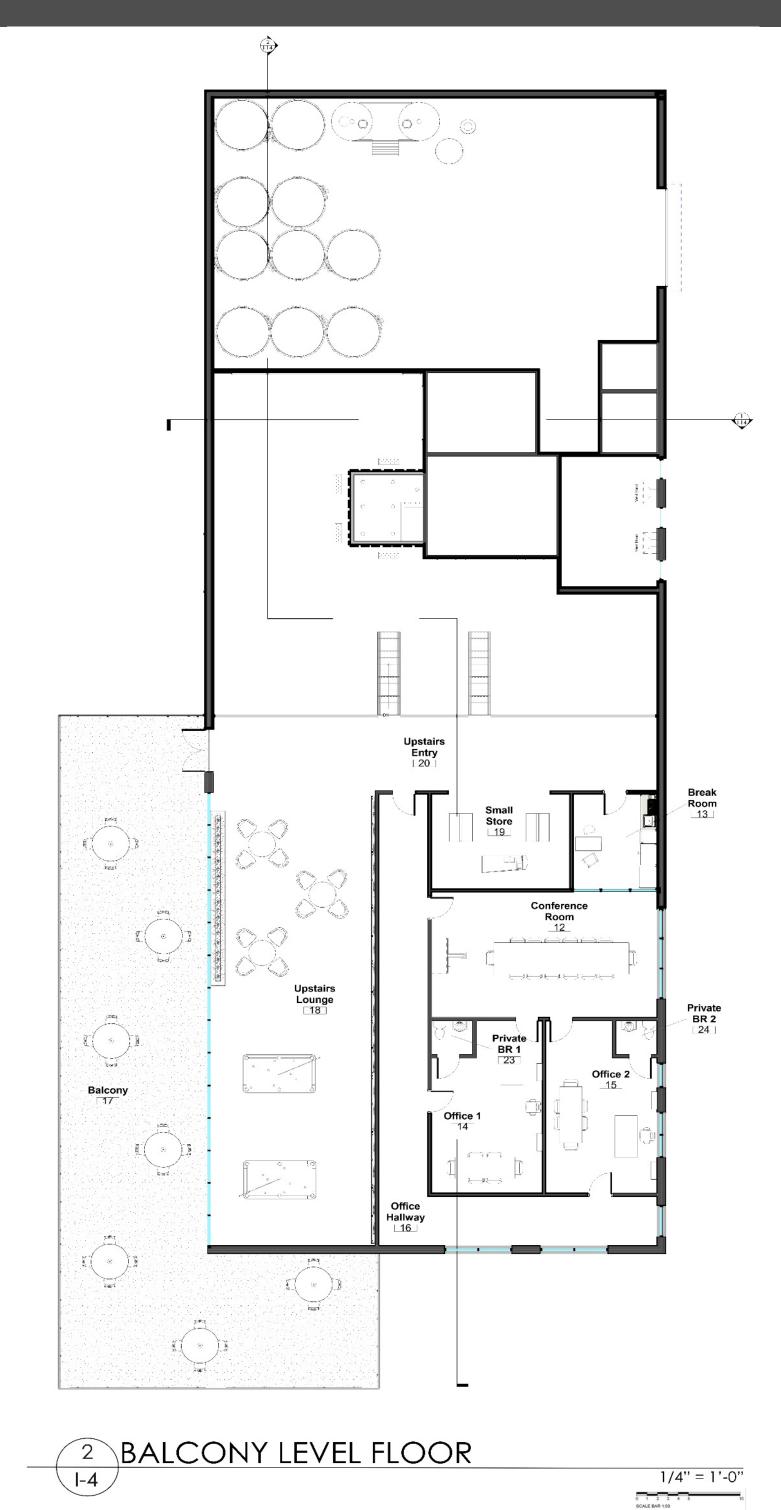
- N NO
- I YES BUT NOT REQUIRED
- H HIGH M MEDIUM
- L LOW

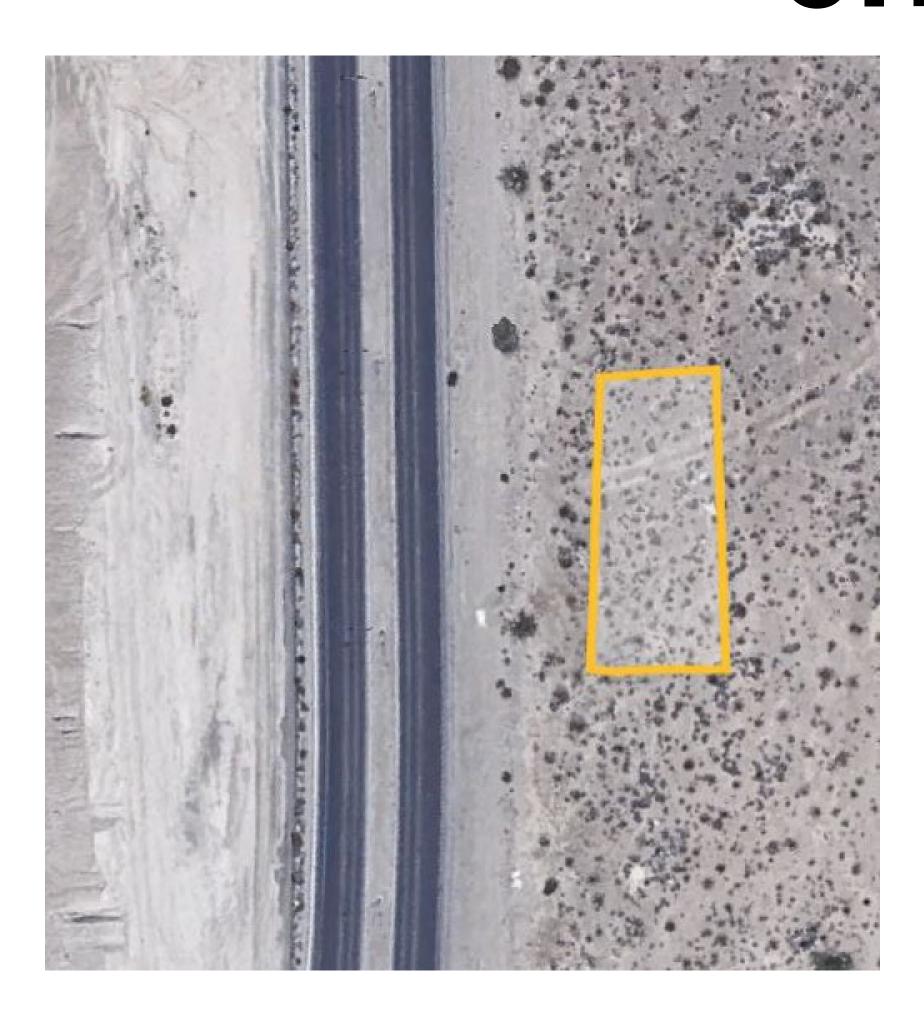




### FLOOR PLANS



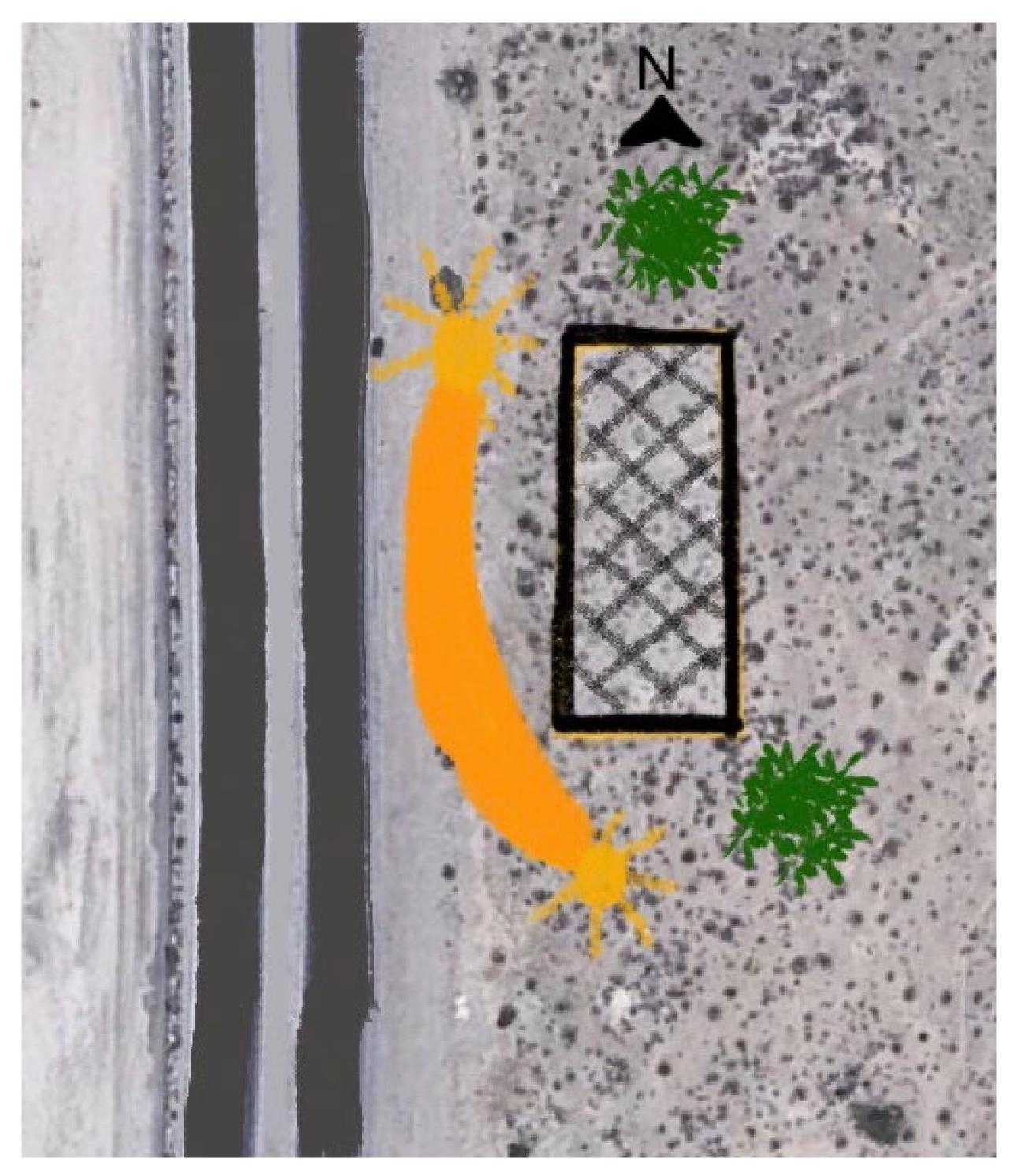




The site is at 6075 N Durango Dr, Las Vegas, NV. The lot we chose is by the car dealership.

The brewery will face west, with the entrance facing the road.

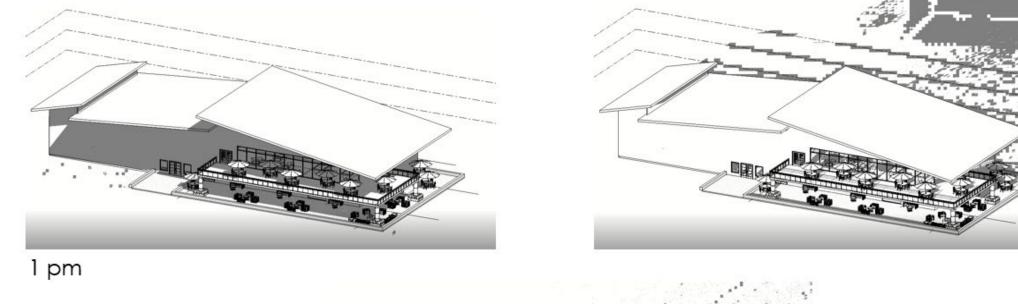
The first level is 10,000 sq ft.

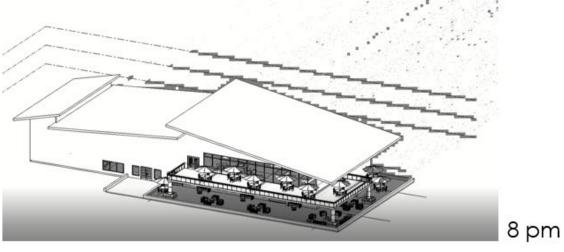


# SITE PLAN

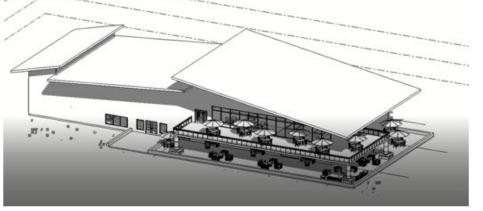
# SOLAR STUDY

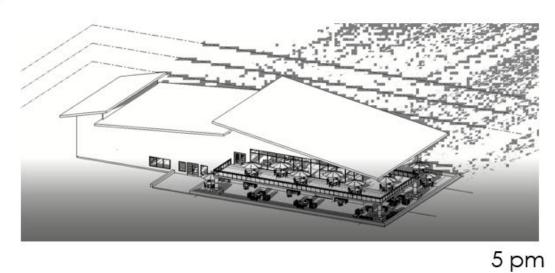
### Spring (March 21st)



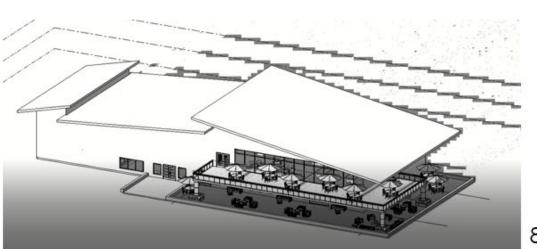


Fall (September 21st)



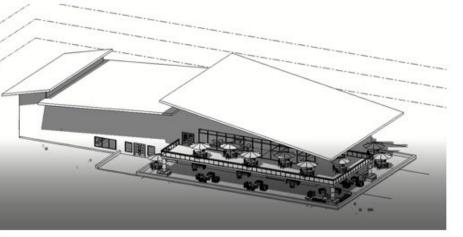


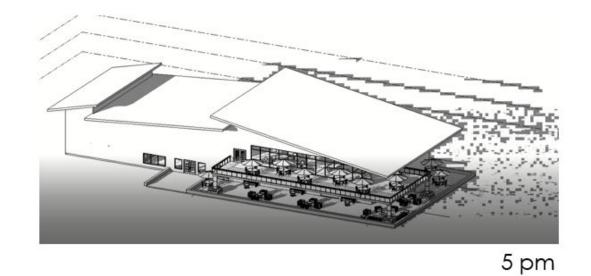
1 pm



8 pm

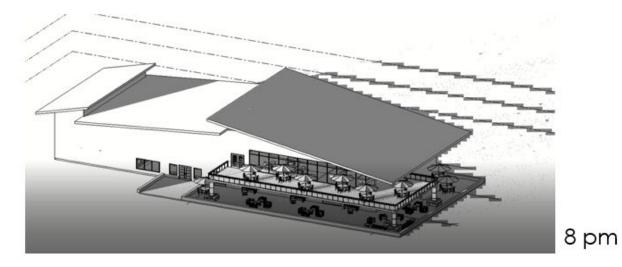
### Summer (June 21st)





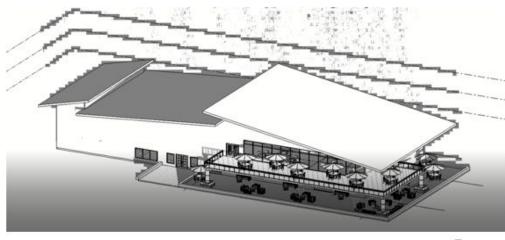
1 pm

5 pm



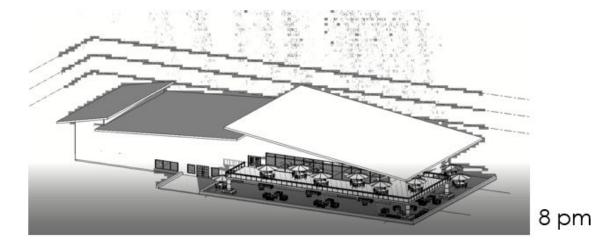
Winter (December 21st)





1 pm

5 pm



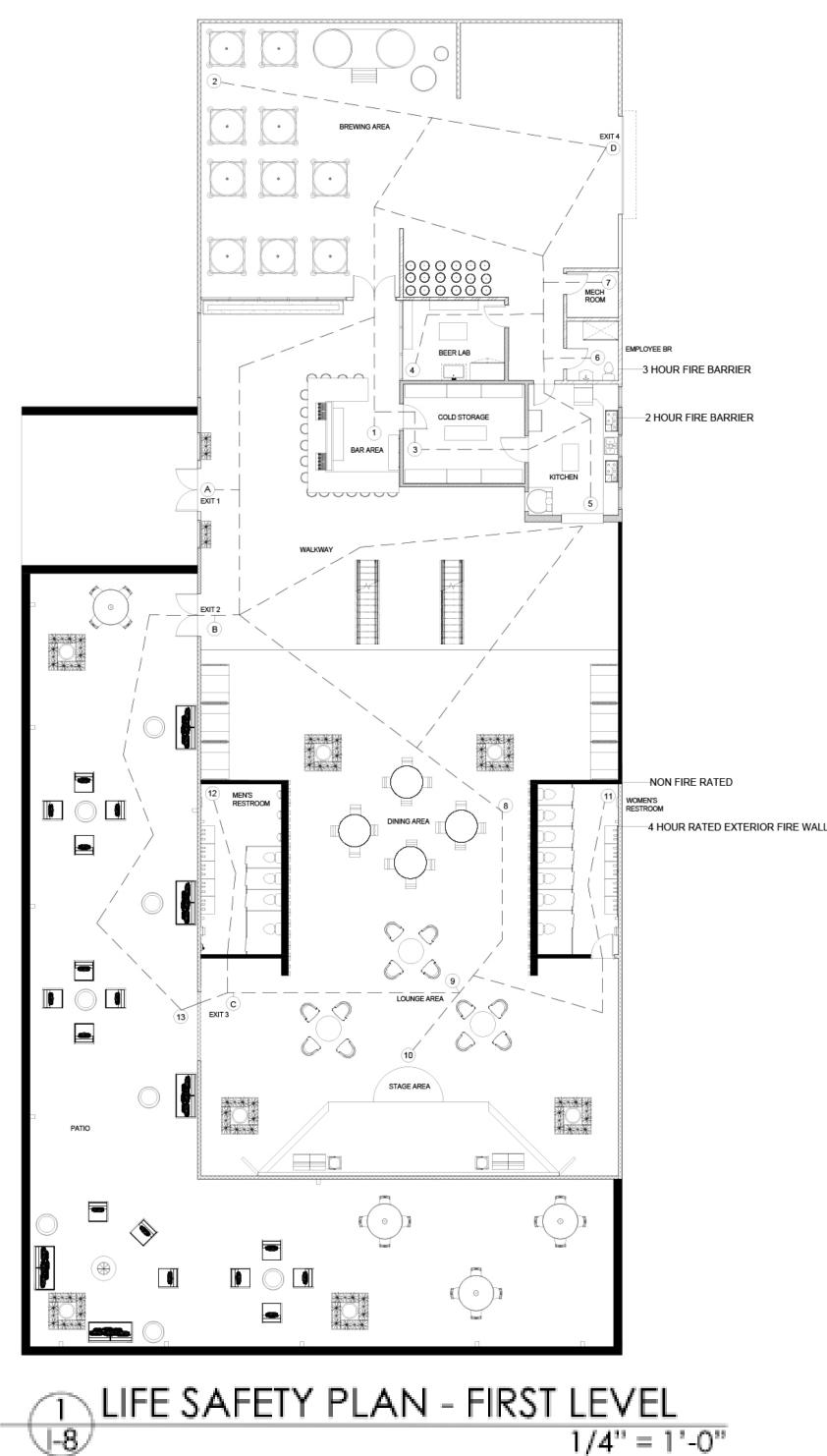
# **AXONOMETRIC VIEWS**



This view is from the east side of the brewery, showing the loading area that is in the brewing area of the building. This view is from the west side of the brewery, showing the entrance, patio, and balcony of the building.

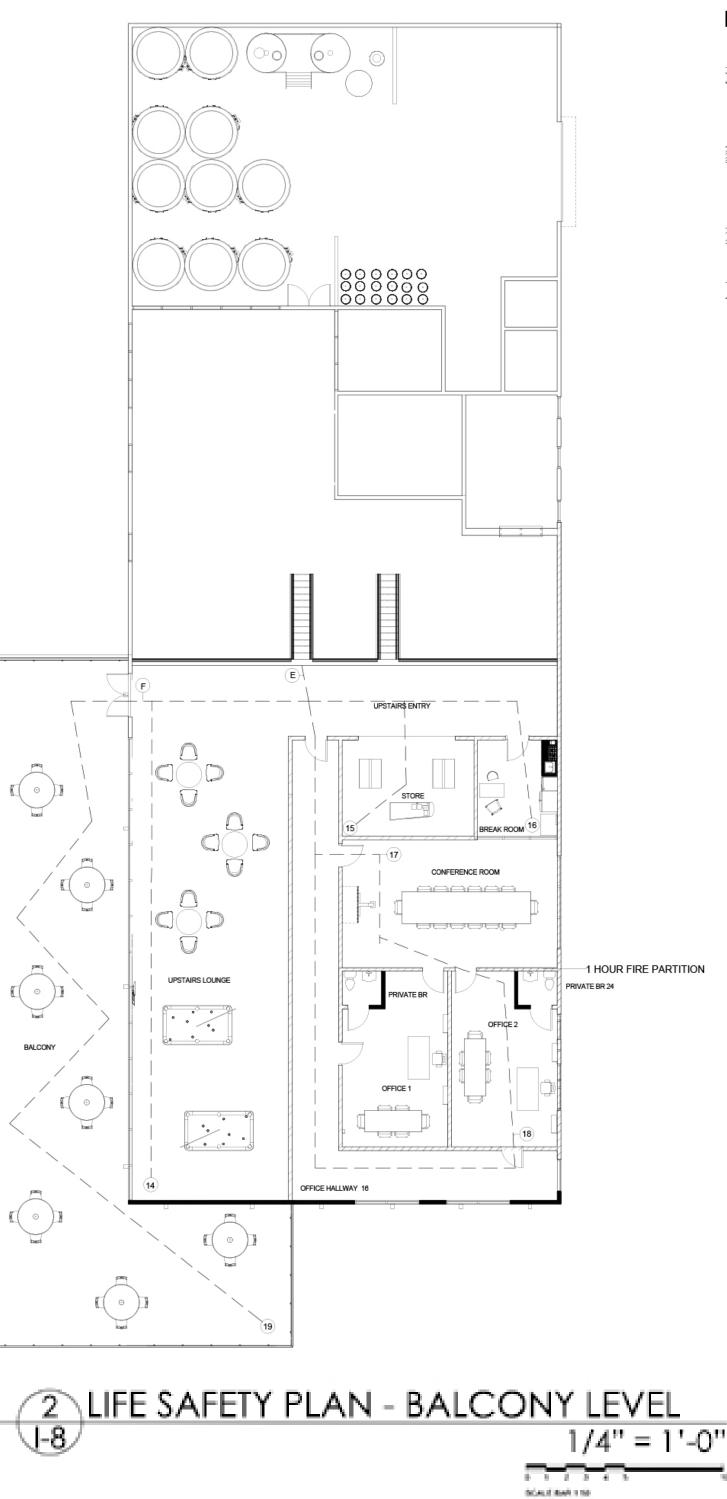


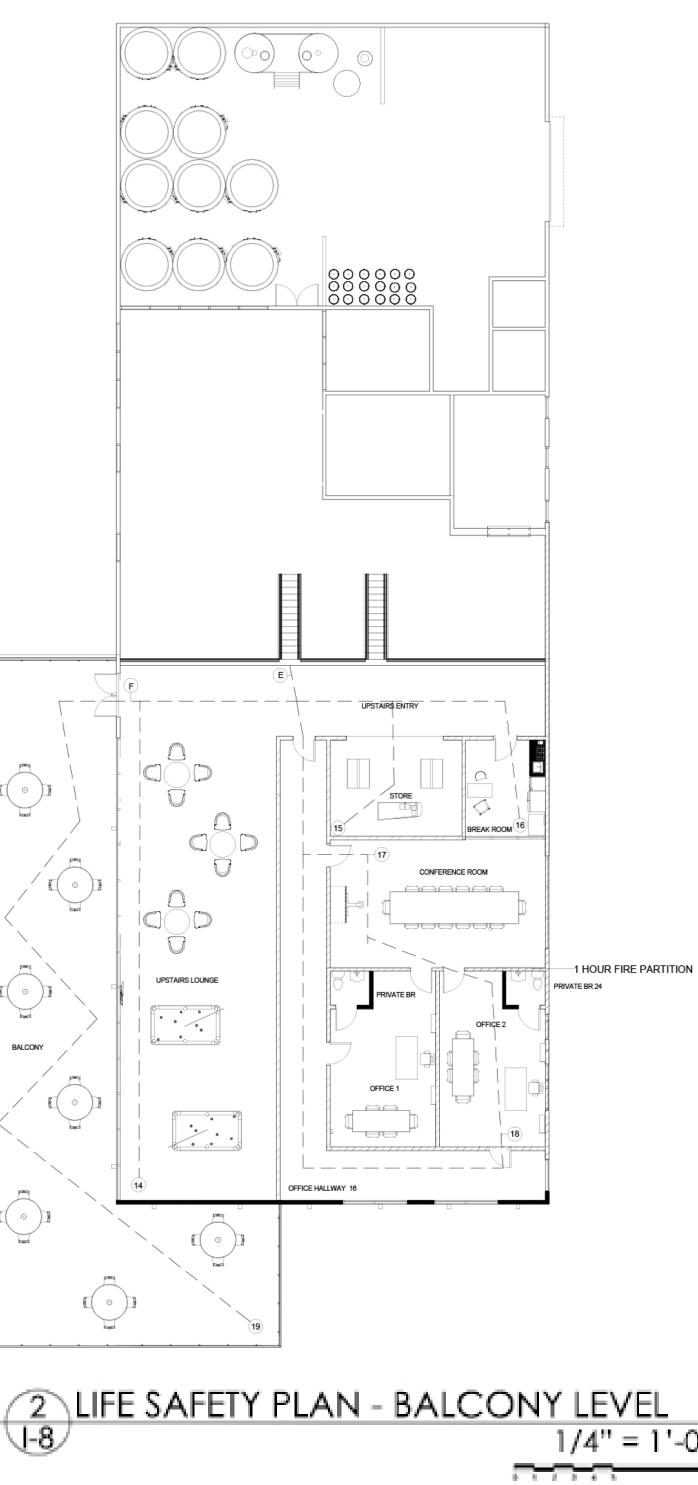
# LIFE SAFETY PLAN



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MALERALIZE.





#### HATCHING LEGEND

	NON FIRE RATED
	4 HOUR EXTERIOR FIRE WALL
	2 HOUR FIRE BARRIER
	3 HOUR FIRE BARRIER
	1 HOUR FIRE PARTITION
TRAVEL DISTAN • A1 = 59 ft • A2 = 116 ft • A3 = 69 ft	I <u>CE CODES</u> • D2 = 56 ft • D3 = 70 ft • D4 = 50 ft
• $A4 = 114$ ft	• D5 = 56 ft

- D6 = 39 ft • A5 = 120 ft • A6 = 103 ft • D7 = 30 ft • A7 = 94 ft • A8 = 68 ft • E14 = 94 ft • E15 = 39 ft • A9 = 96 ft • A10 = 106 ft • E16 = 51 ft • A11 = 142 ft • E17 = 36 ft • A12 = 157 ft • E18 = 125 ft • A13 = 99 ft • E19 = 156 ft • F14 = 70 ft • B1 = 72 ft • F15 = 59 ft
- B2 = 130 ft

• F16 = 71 ft

• F17 = 56 ft

• F18 = 145 ft

- B5 = 58 ft
- B8 = 53 ft
- B9 = 81 ft
- B11 = 127 ft F19 = 126 ft
- B12 = 141 ft
- B13 = 71 ft
- C1 = 183 ft
- C5 = 119 ft
- C8 = 65 ft
- C9 = 37 ft
- C10 = 48 ft
- C11 = 89 ft
- C12 = 32 ft
- C13 = 3 ft

### REFLECTED CEILING PLAN – FIRST FLOOR

NAME	ТҮРЕ	TAG	SYMBOL	IMAGE	LUMENS	QUANTITY	MANUFACTURER
Finire 4" Round LED Recessed Lighting, Downlight	Recessed Ceiling Light	R1			700-1000 lm	70	LUTRON
TeamLed Runline Recessed Luminaire	Recessed Ceiling Panel Light	R2			1890 lm	31	Radian
Troffer Light – 2x4 Parabolic	Recessed Ceiling Troffer Light	R3			78.75 lm	5	N/A
TeamLed Suspended Luminaire	Track Light	TR1			2940 lm	5	Radian
Dash L AC Track	Track Light	TR2	<u> </u>	T	1940 lm	42	Molto Luce
ALGORITHM 0840	Track Light	TR3	0,		2168 lm	14	Vibia
Bubble Ball 17- light Linear Canopy Pendant	Pendant Light	P1			135 lm	4	Pure Edge Lighting
RHYTHM 2141	Pendant Light	P2			2370.79 lm	16	Vibia
COSMOS 2502	Pendant Light	P3			512 lm	9	Vibia
COSMOS 2510	Pendant Light	P4			1471 lm	2	Vibia
Puck Wall Art LED 5491	Wall Sconce	S1			4307 lm	4	Vibia
Plant Wall Sconce	Wall Sconce	S2		-	822 lm	35	ZERO
L&E Track Light Spot97 L185	Spotlight	SP1			15750 lm	1	L&E
Lavoir 10' Outdoor LED Solar Powered 5-Bulb Globe String Lights	String Lights	SL1			300 lm	30	Ebern Designs
LEDSTRIP NEON	LED Strip Light	LE1			4955.36 lm	5	Solar
ASOKO LED Under Cabinet Lighting	Light Shelf	LS1			300 lm	11	ASOKO

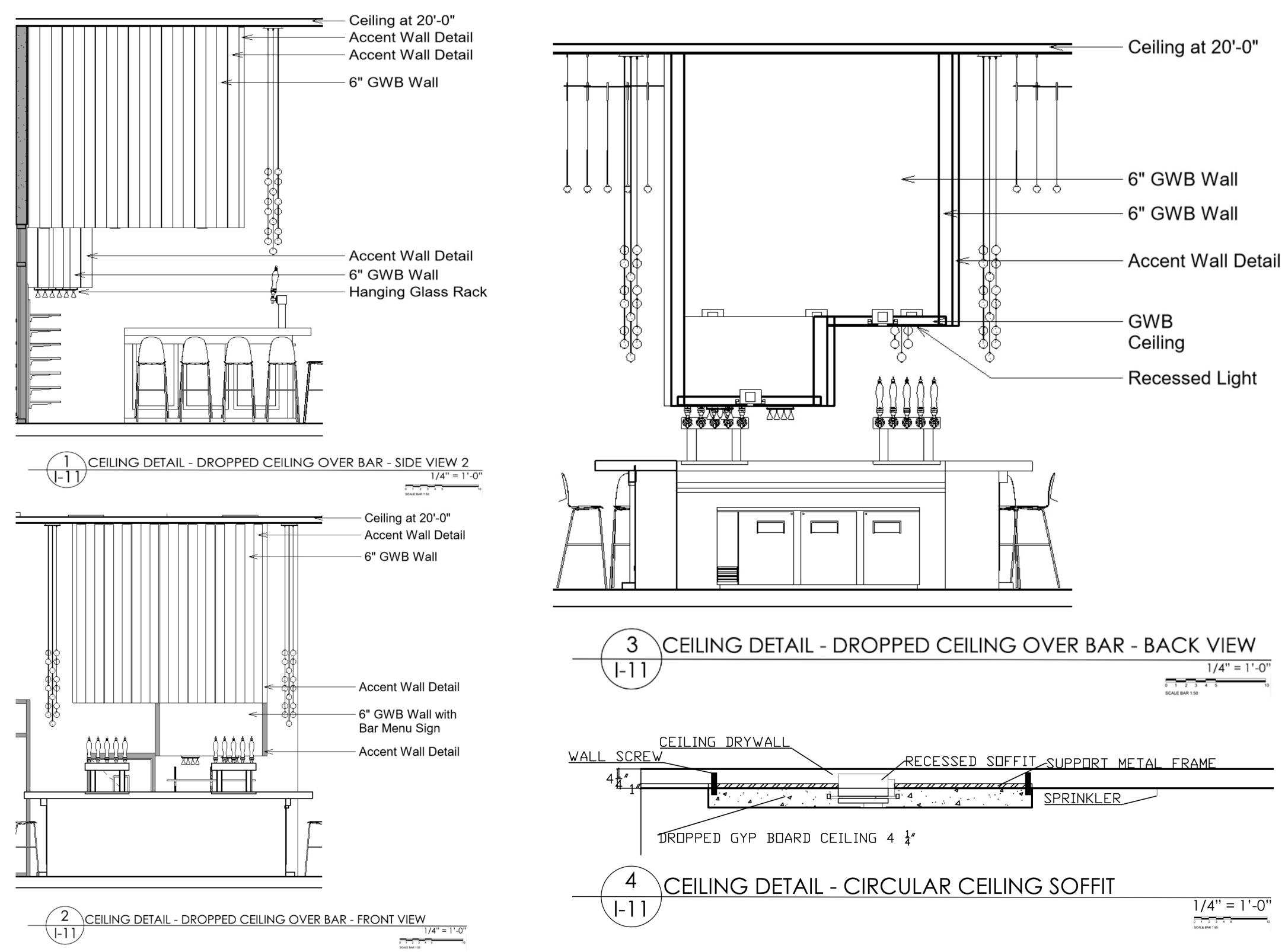


### **REFLECTED CEILING PLAN – BALCONY FLOOR**

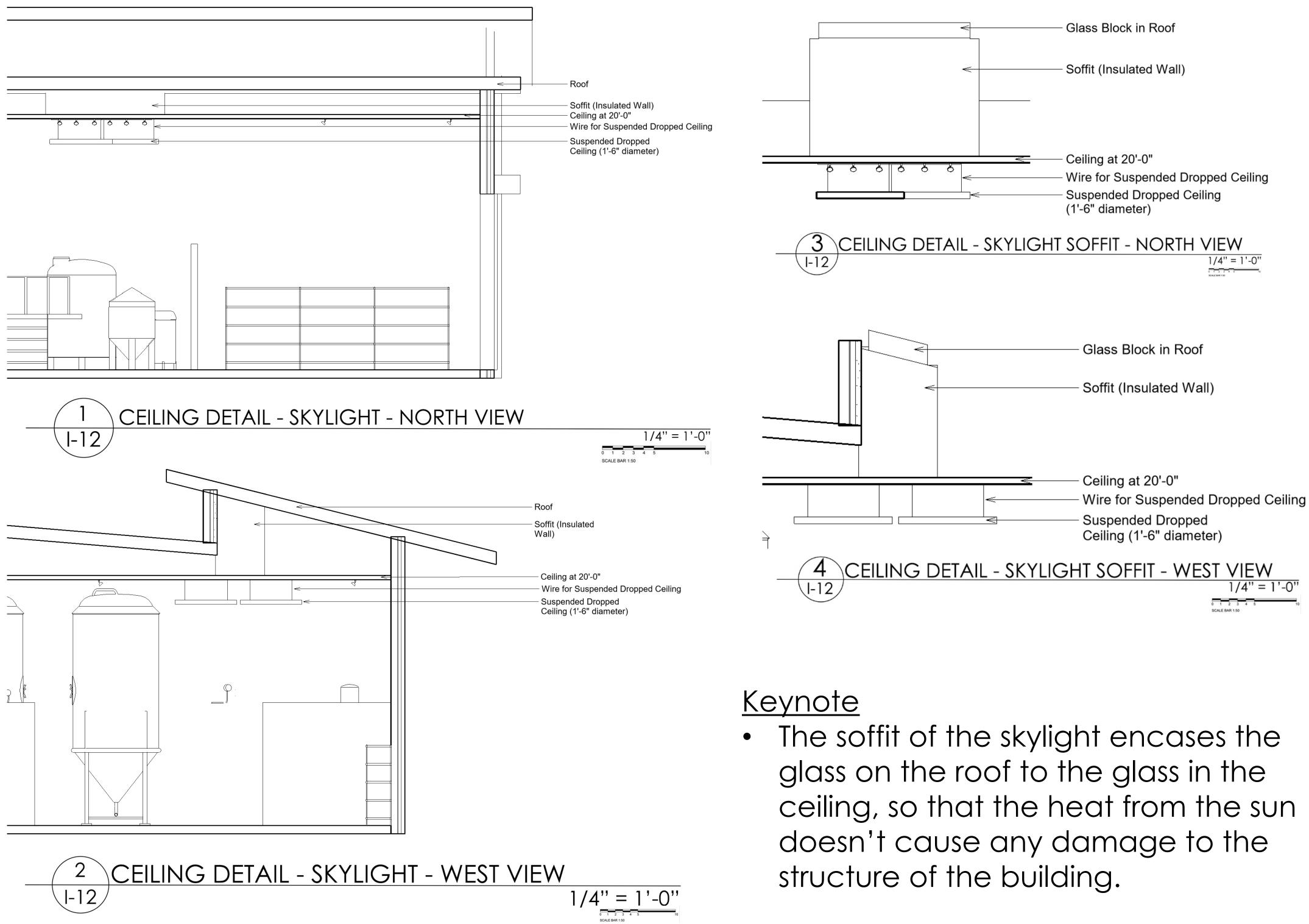
NAME	ТҮРЕ	TAG	SYMBOL	IMAGE	LUMENS	QUANTITY	MANUFACTURER
Finire 4" Round LED Recessed Lighting, Downlight	Recessed Ceiling Light	R1			700-1000 lm	70	LUTRON
TeamLed Runline Recessed Luminaire	Recessed Ceiling Panel Light	R2	· · ·		1890 lm	31	Radian
Troffer Light – 2x4 Parabolic	Recessed Ceiling Troffer Light	R3			78.75 lm	5	N/A
TeamLed Suspended Luminaire	Track Light	TR1			2940 lm	5	Radian
Dash L AC Track	Track Light	TR2	<u> </u>	T	1940 lm	42	Molto Luce
ALGORITHM 0840	Track Light	TR3	0, p, b, d, p, d,		2168 lm	14	Vibia
Bubble Ball 17- light Linear Canopy Pendant	Pendant Light	P1			135 lm	4	Pure Edge Lighting
RHYTHM 2141	Pendant Light	P2			2370.79 lm	16	Vibia
COSMOS 2502	Pendant Light	P3	· · · · · · · · · · · · · · · · · · ·		512 lm	9	Vibia
COSMOS 2510	Pendant Light	P4			1471 lm	2	Vibia
Puck Wall Art LED 5491	Wall Sconce	S1			4307 lm	4	Vibia
Plant Wall Sconce	Wall Sconce	S2		-	822 lm	35	ZERO
L&E Track Light Spot97 L185	Spotlight	SP1			15750 lm	1	L&E
Lavoir 10' Outdoor LED Solar Powered 5-Bulb Globe String Lights	String Lights	SL1	-)		300 lm	30	Ebern Designs
LEDSTRIP NEON	LED Strip Light	LE1			4955.36 lm	5	Solar
ASOKO LED Under Cabinet Lighting	Light Shelf	LS1			300 lm	11	ASOKO



### CEILING DETAIL – DROPPED CEILINGS

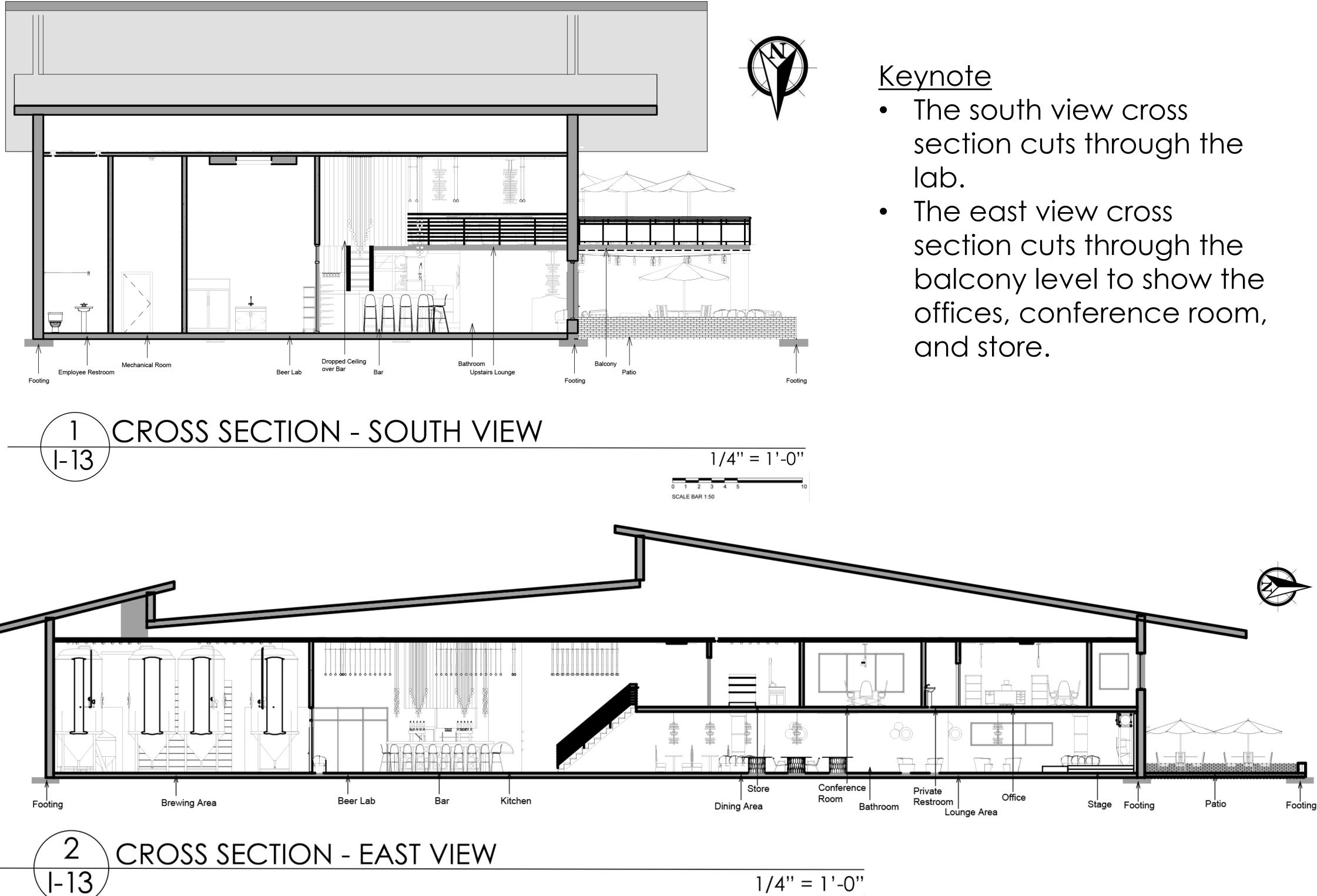


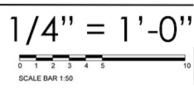
### BREWING AREA – CEILING DETAIL - SKYLIGHT



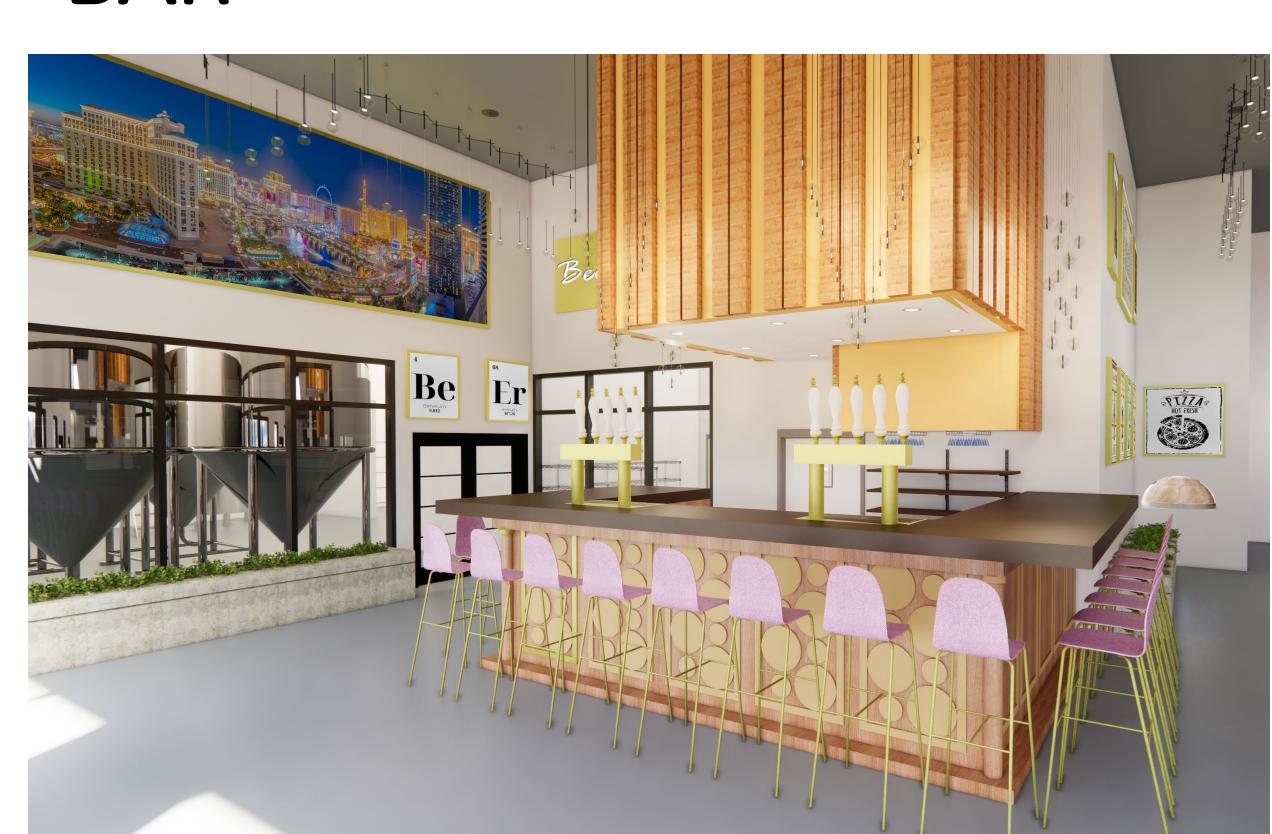
ceiling, so that the heat from the sun

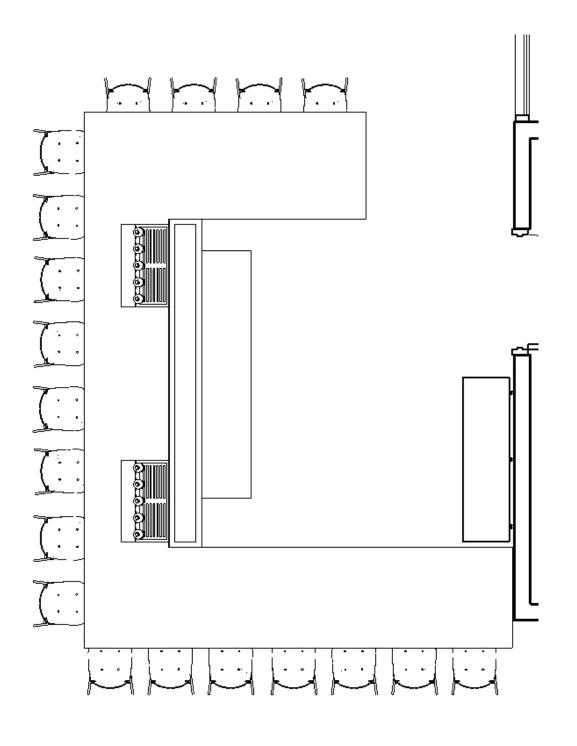
### **CROSS SECTIONS**

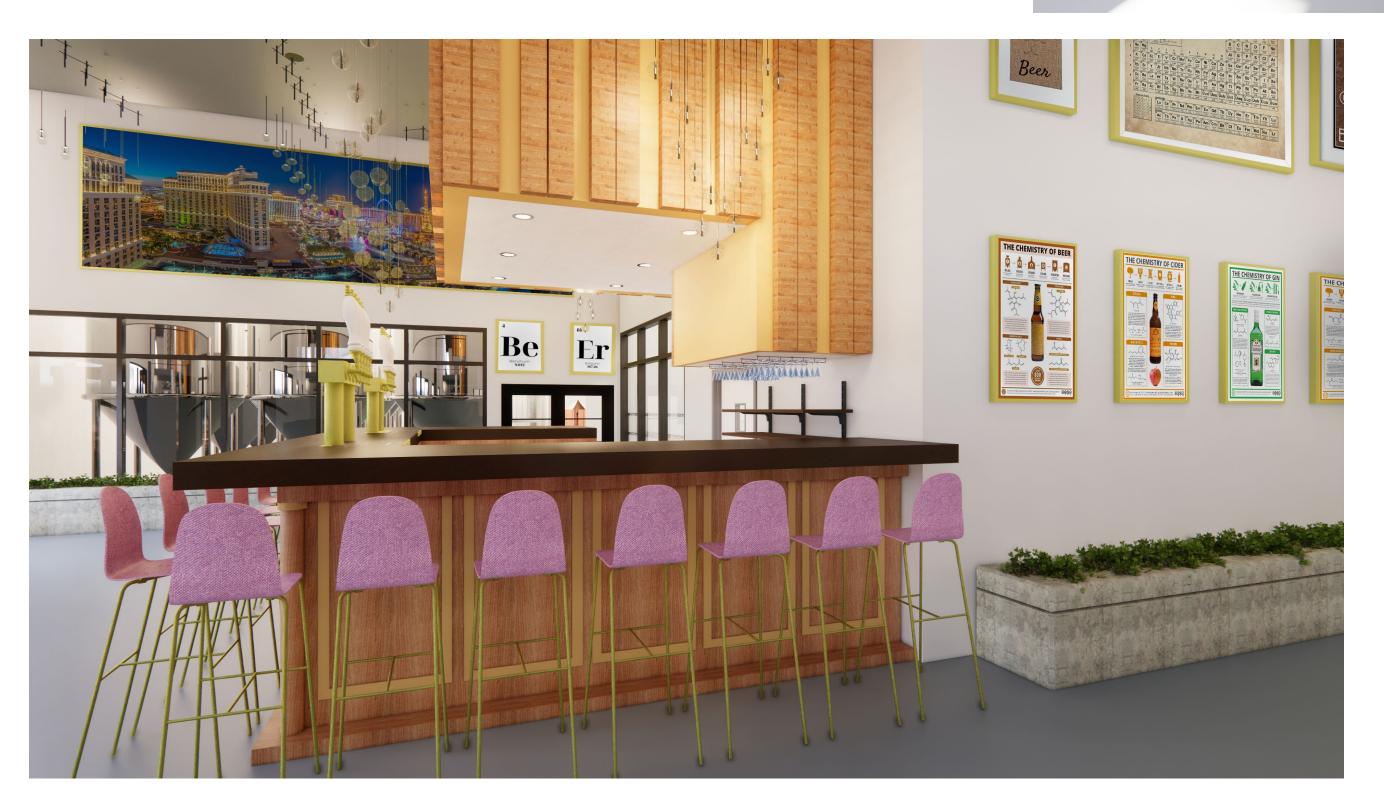


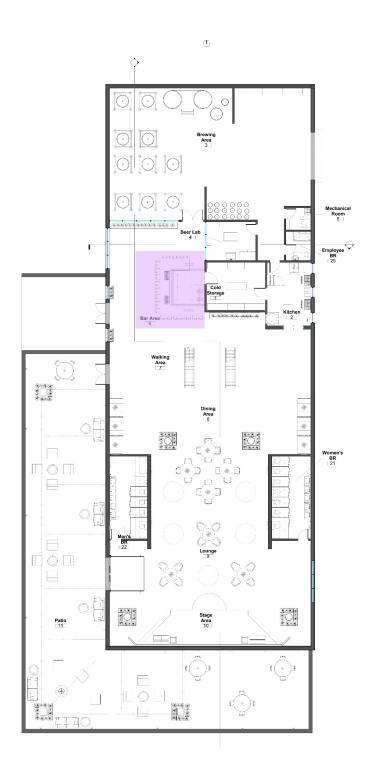


### BAR



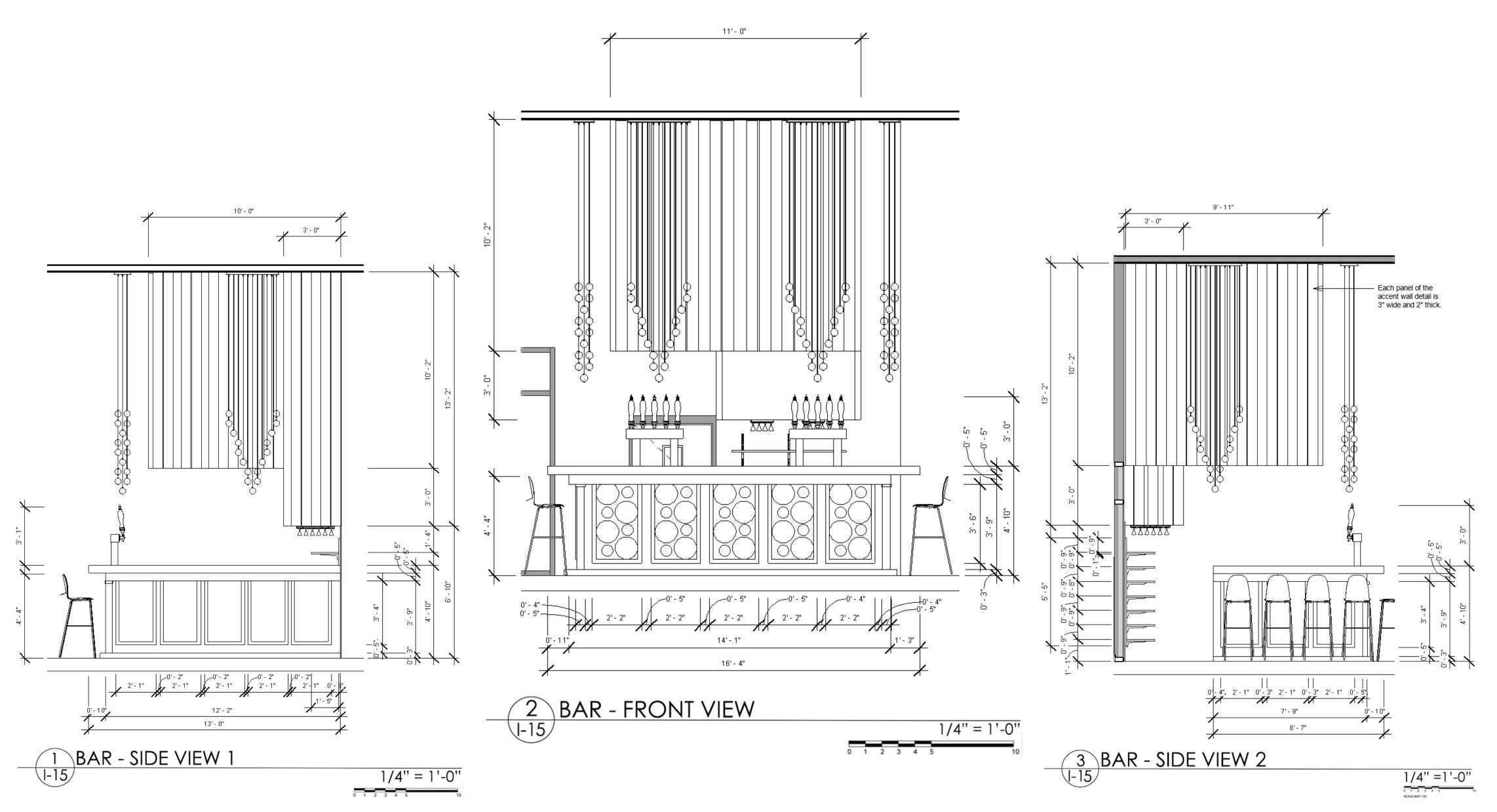






# **BAR - ELEVATIONS**

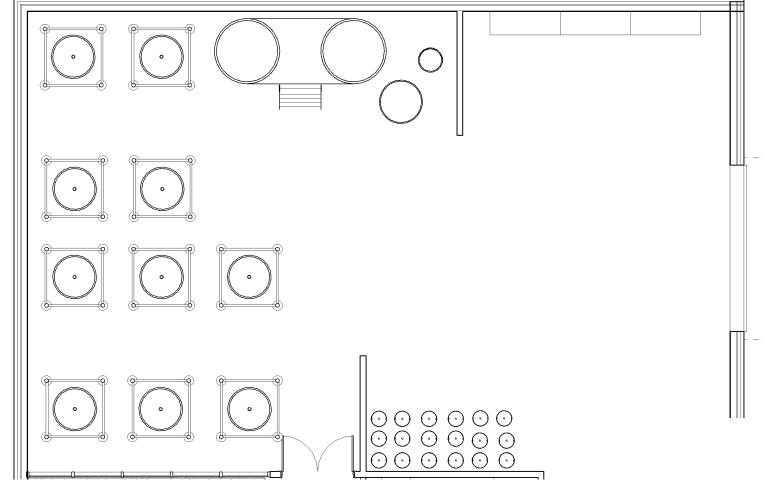
- The bar is a "J" shape with one side being longer than the other, by 3'-5". • There is a lower portion of the dropped ceiling that 2'-10" lower than the overall ceiling. Its
- purpose is glass storage.
- The dropped ceiling over the bar is a grounding element.

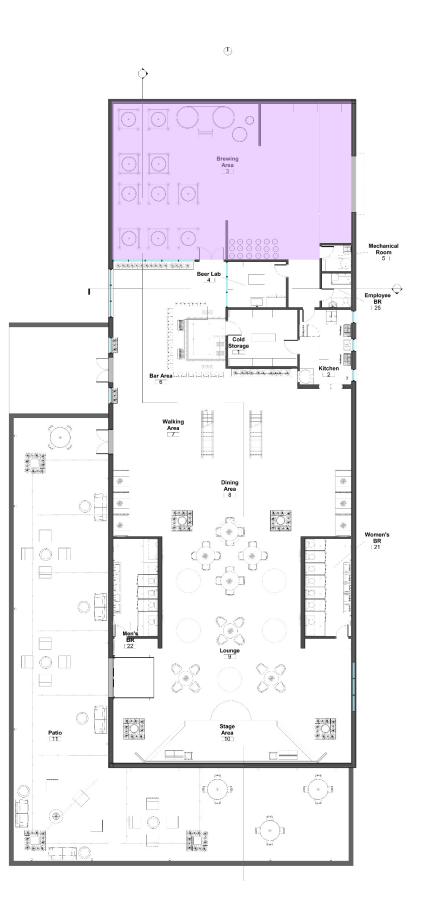


### **BREWING AREA**

- This rendering shows the entrance of the brewing area, which isn't open to public.
- Since the brewing area isn't open to the public, there is a glass wall to allow customers to see into the area; as well as the beer lab.

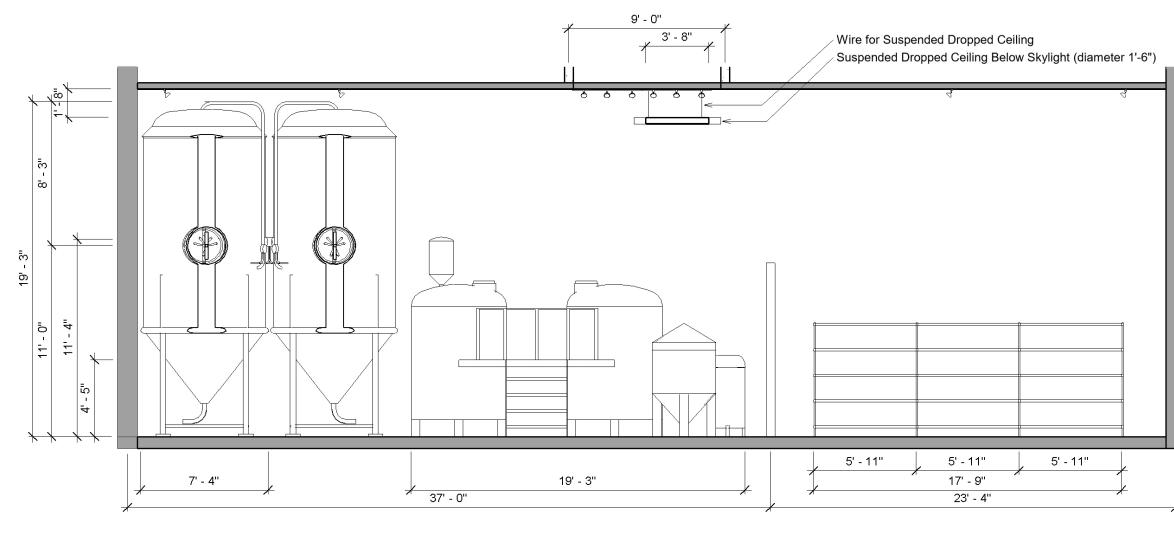




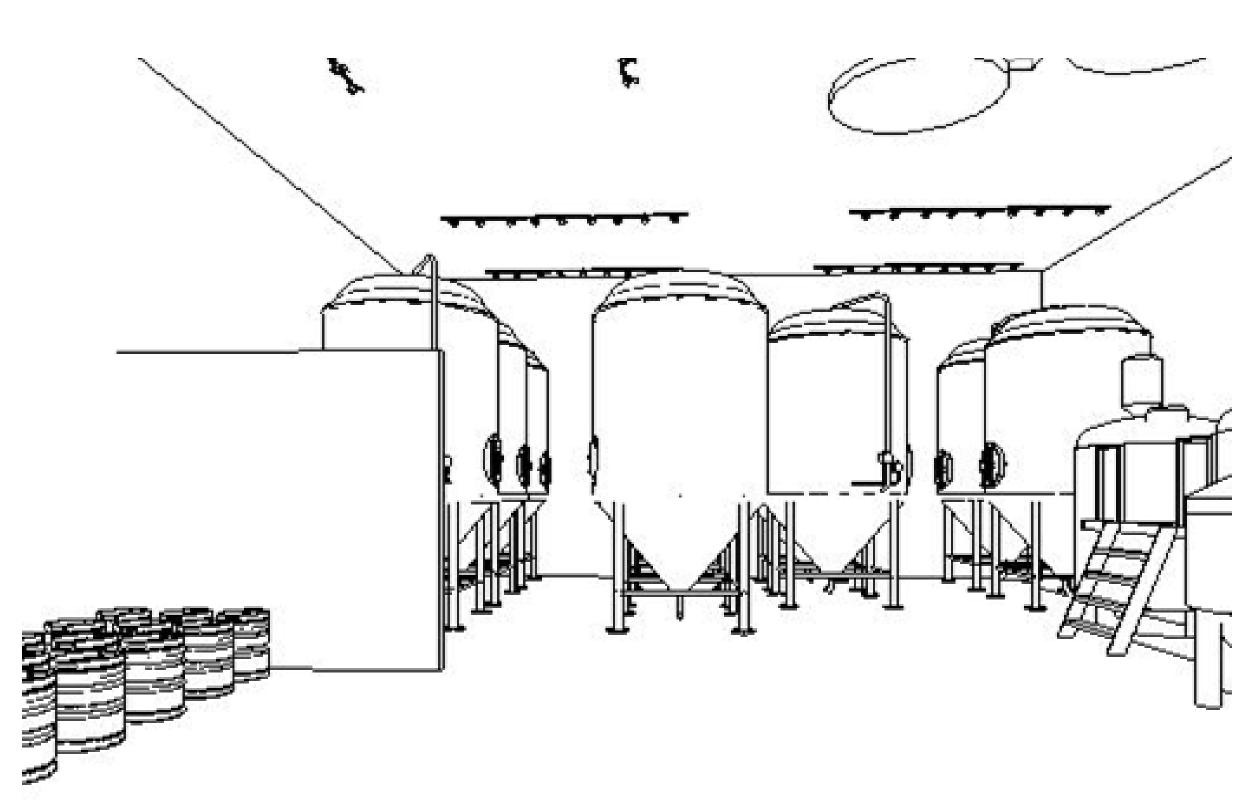


## BREWING AREA

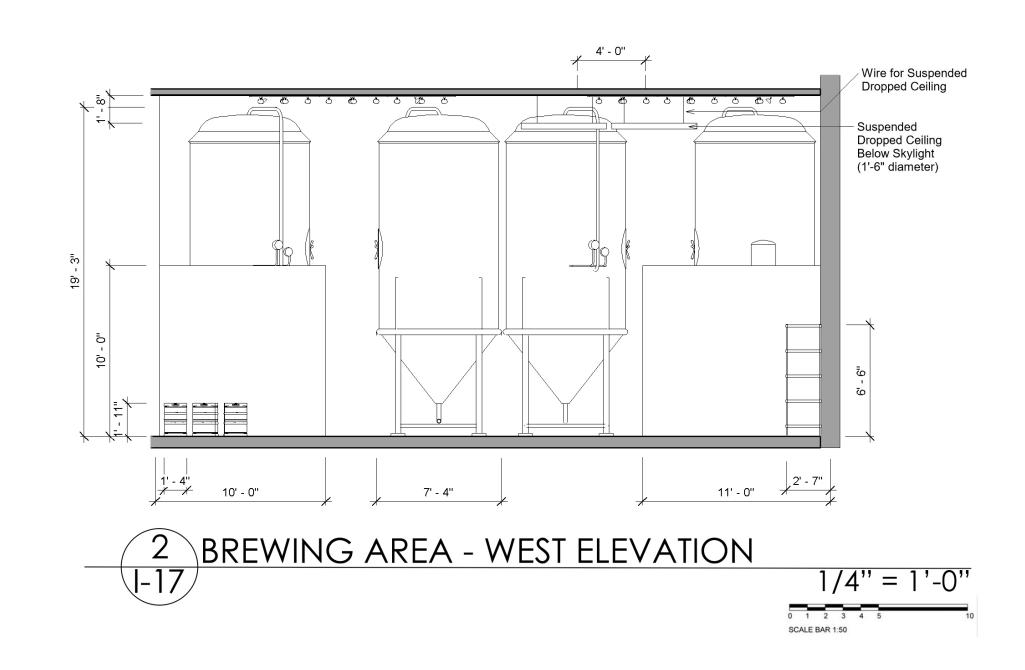
6' - 6"



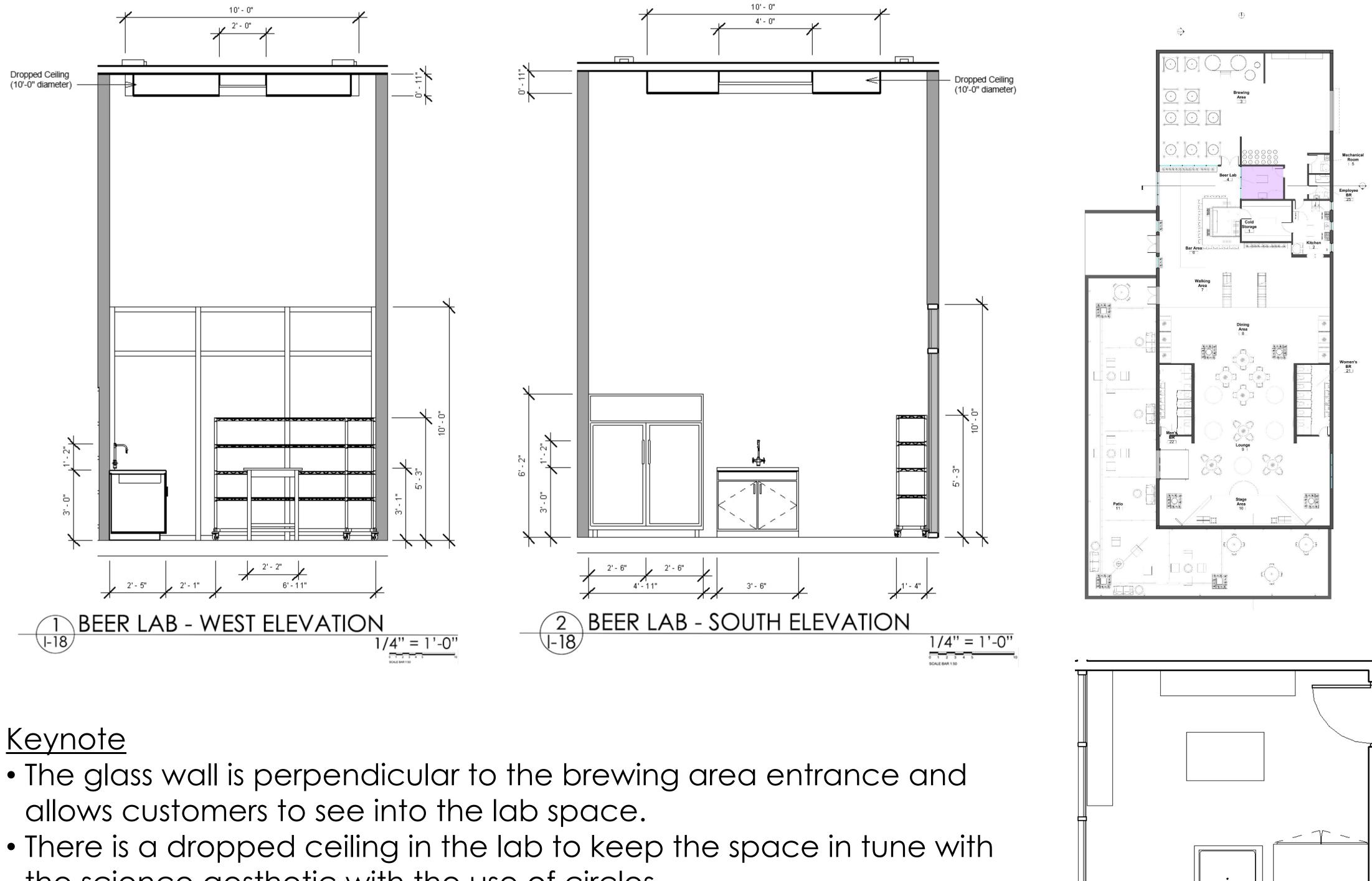




- The north elevation shows the location of the fermentation tanks, the brewhouse, and the grain storage.
- The west elevation shows the keg storage and its location in relation to the fermentation tanks and grain storage.

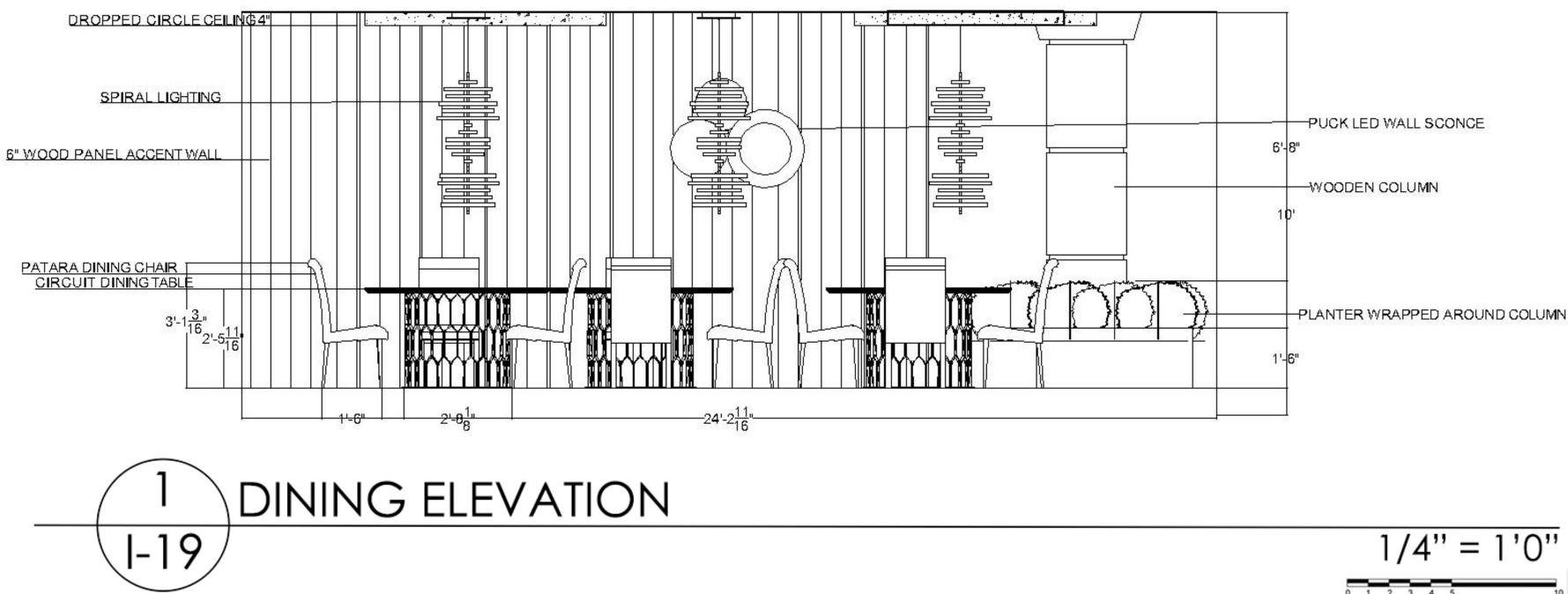


## LAB - ELEVATIONS



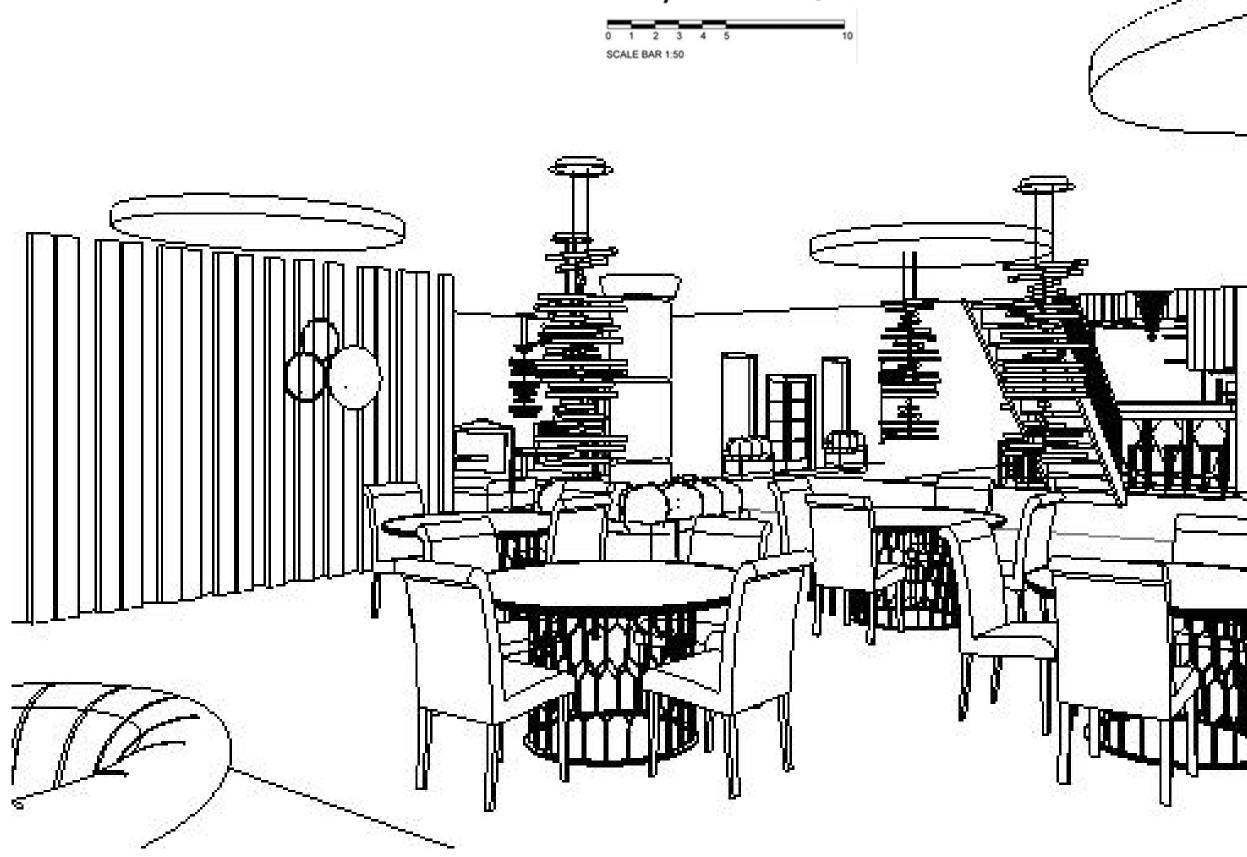
- the science aesthetic with the use of circles.

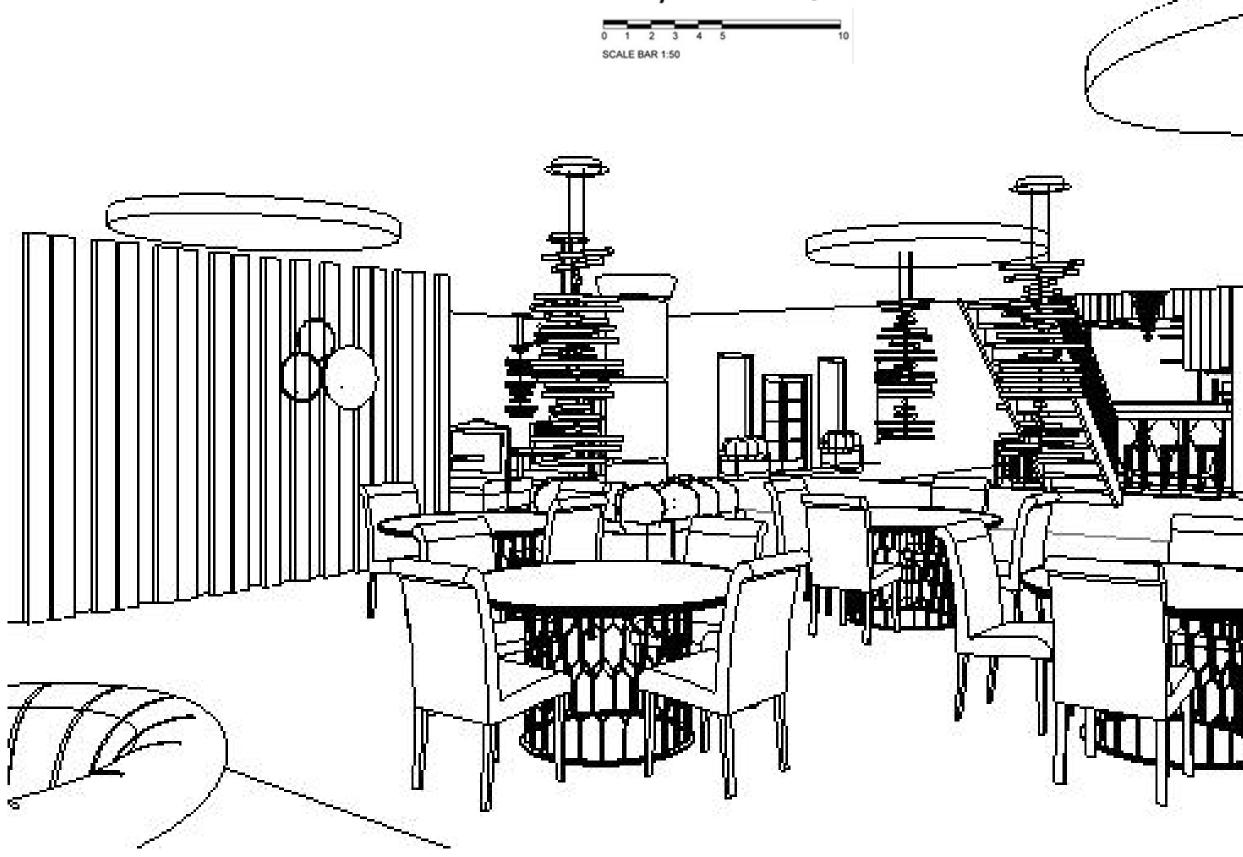


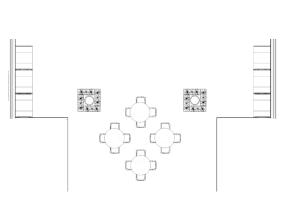


### <u>Keynote</u>

- In the dining hall, the accent wall is located on the walls as wells as sconces for extra light.
- The tables are organized to resemble the atomic symbol.







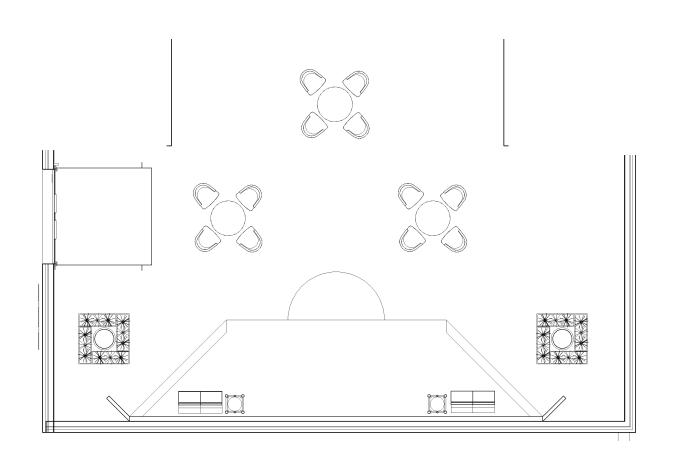


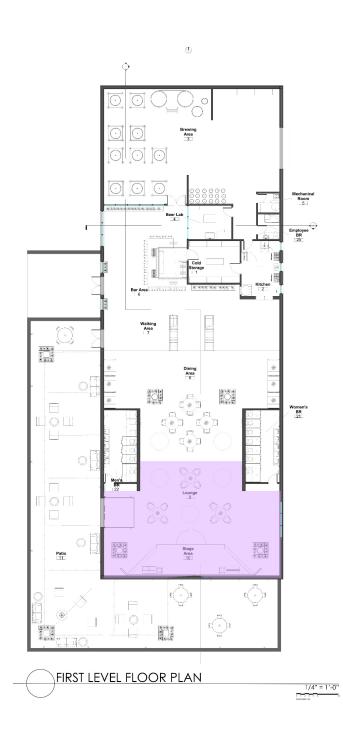
1/4" = 1.-0"

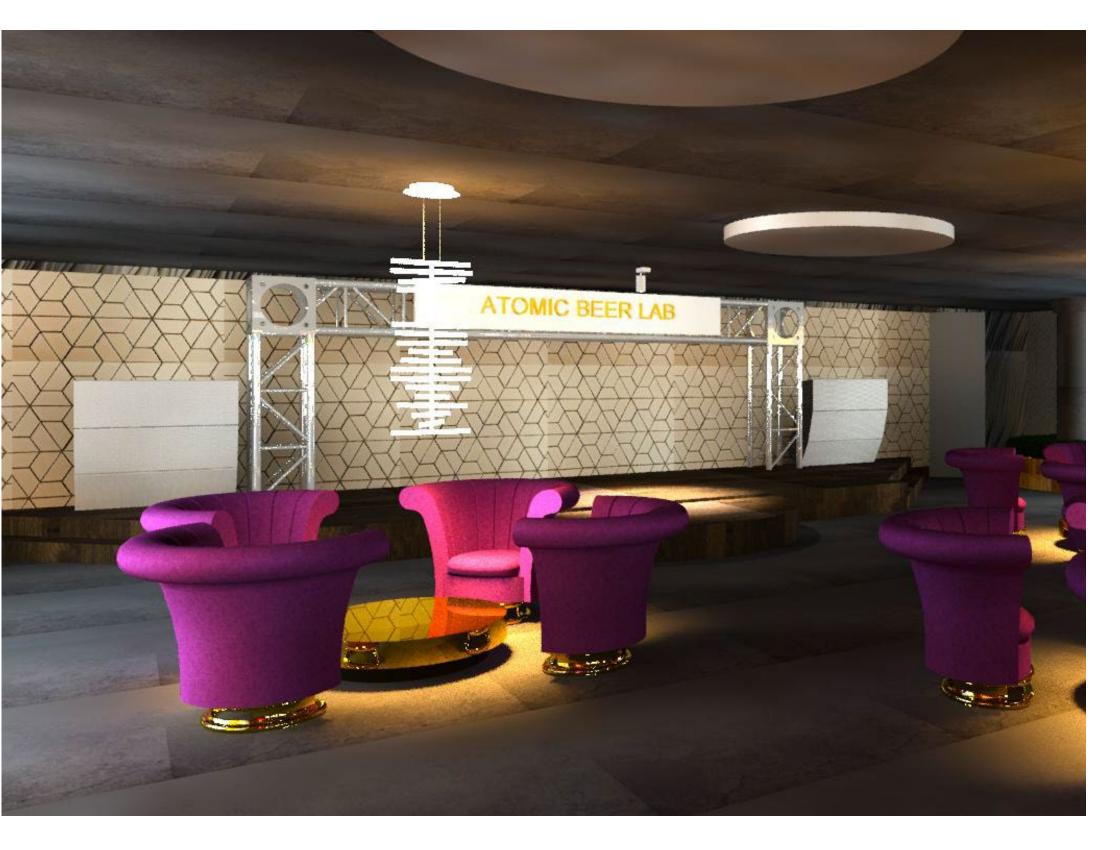
# LOUNGE AND STAGE



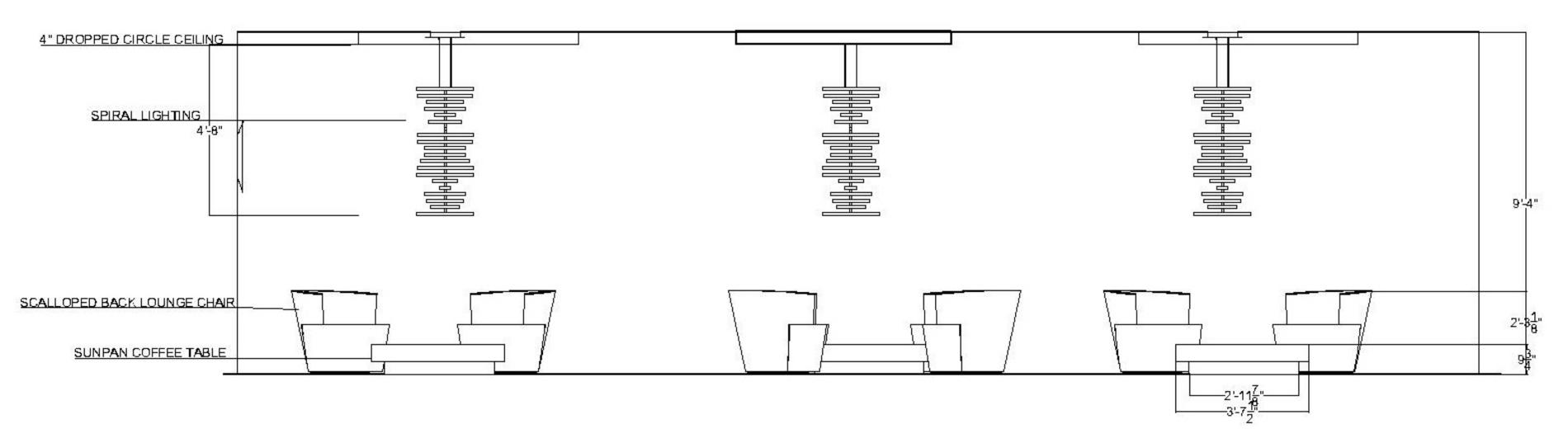
- The lounge is located right next to the stage for any events hosted.
- The chairs are also oriented in the atomic symbol.

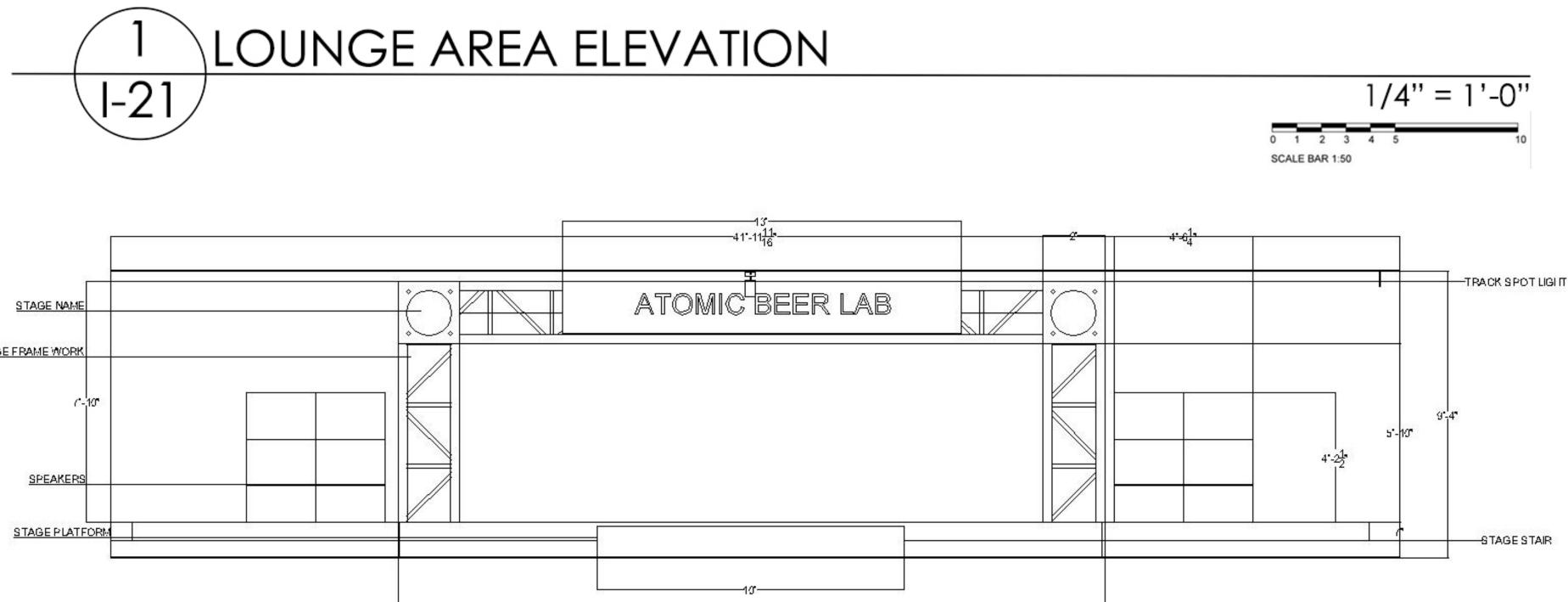


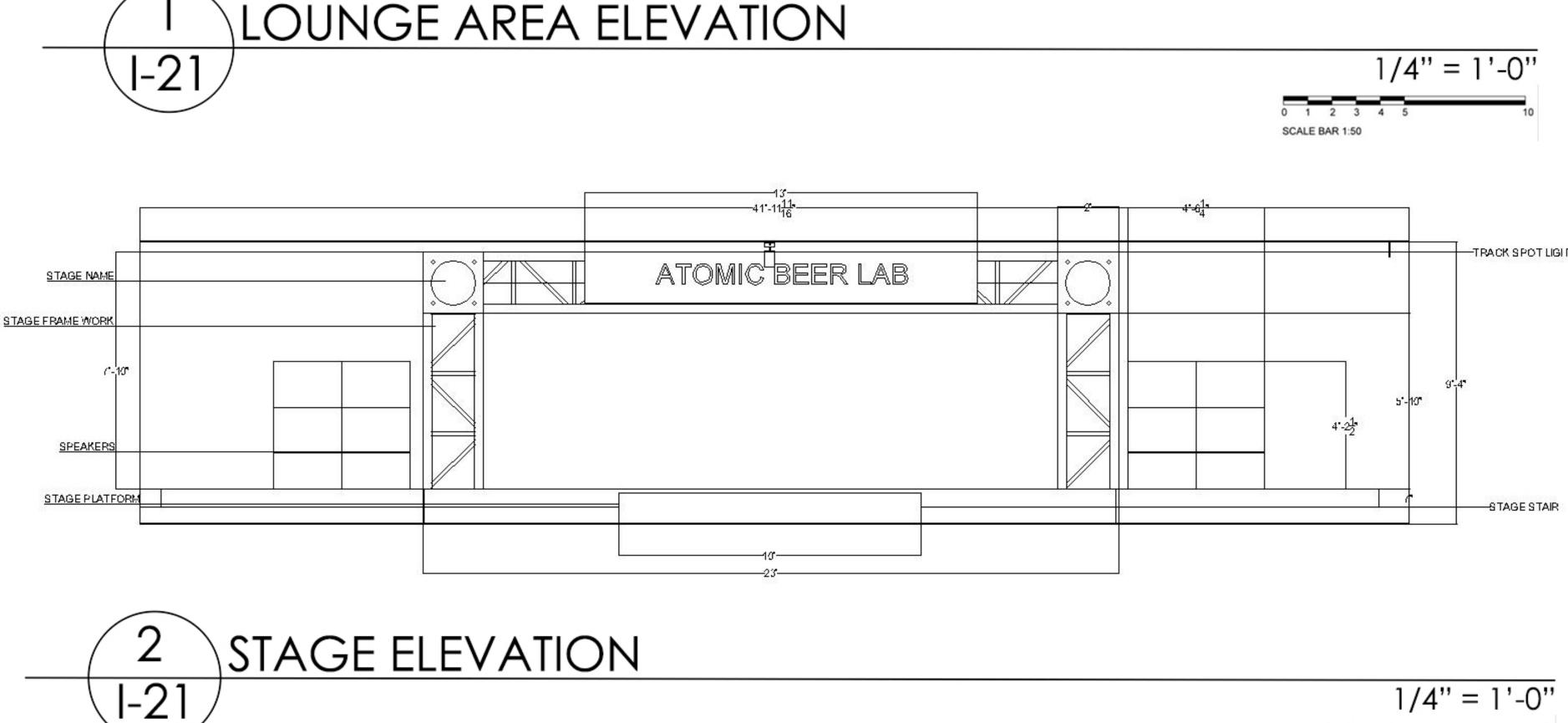






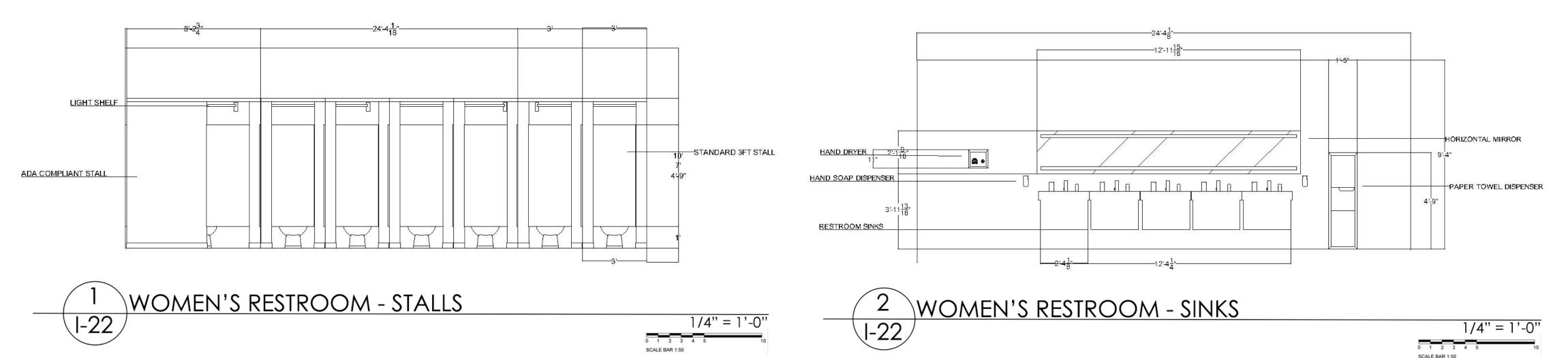


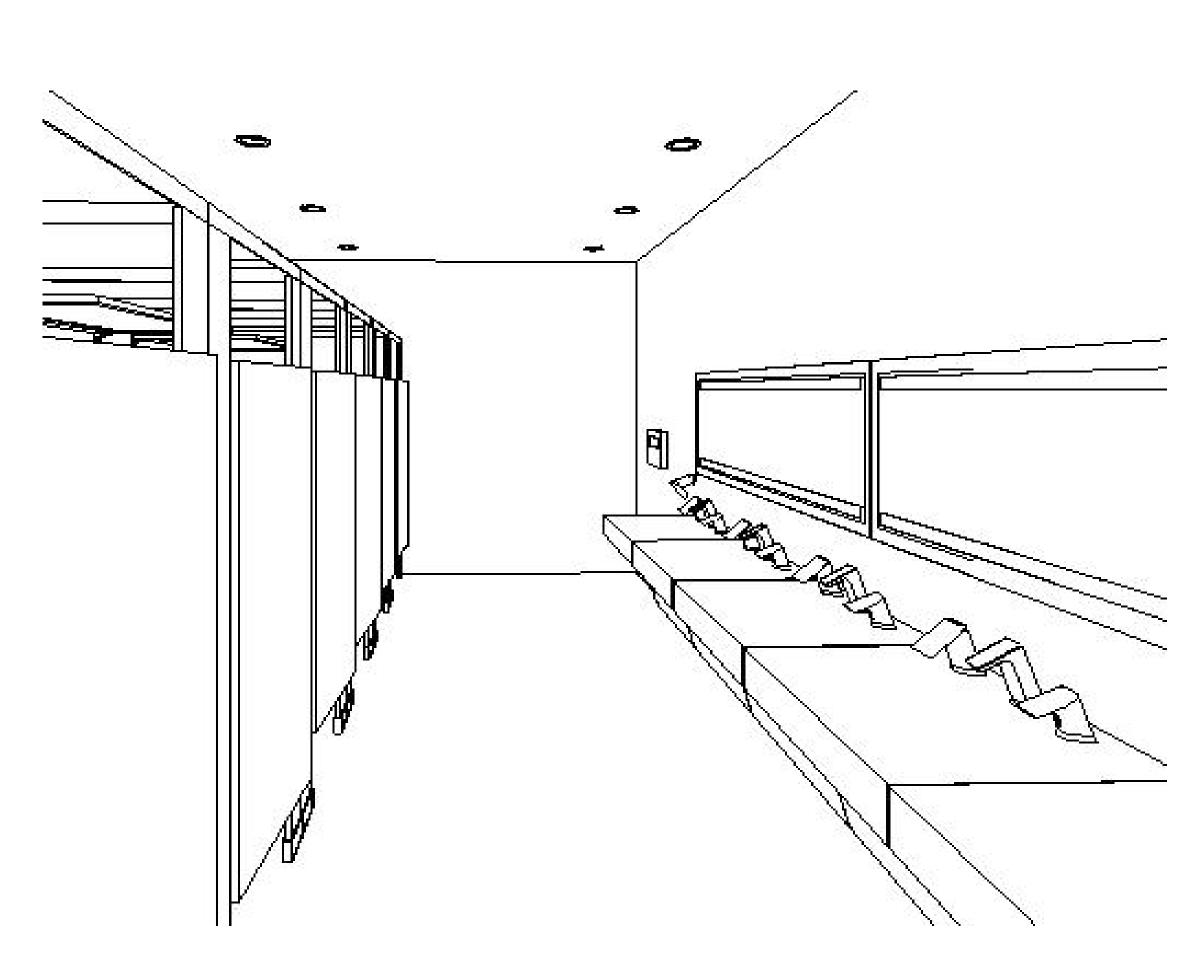




$$1/4" = 1'-0"$$
  
 $1/4" = 1'-0"$   
SCALE BAR 1:50

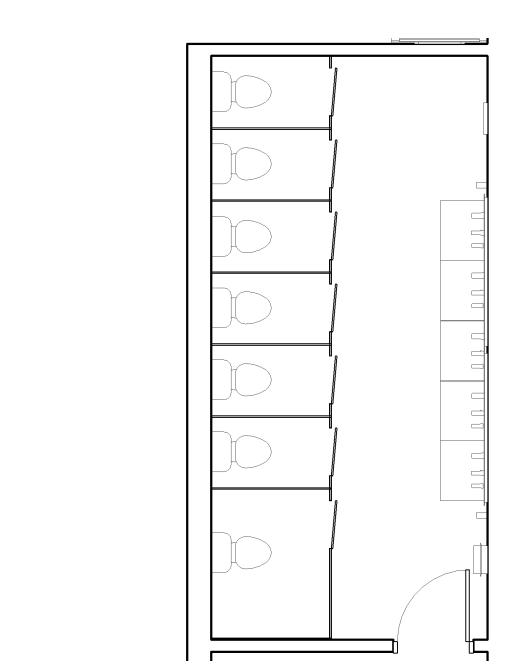
## WOMEN'S RESTROOM





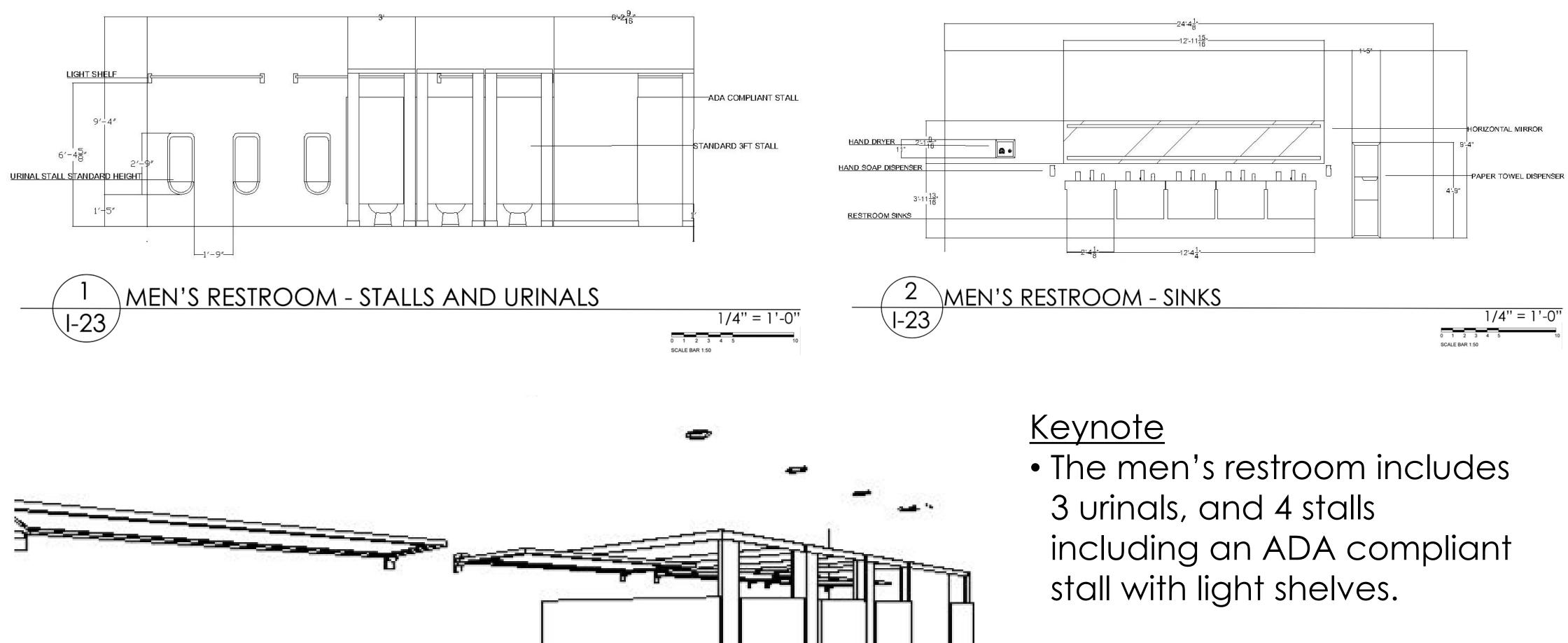
#### <u>Keynote</u>

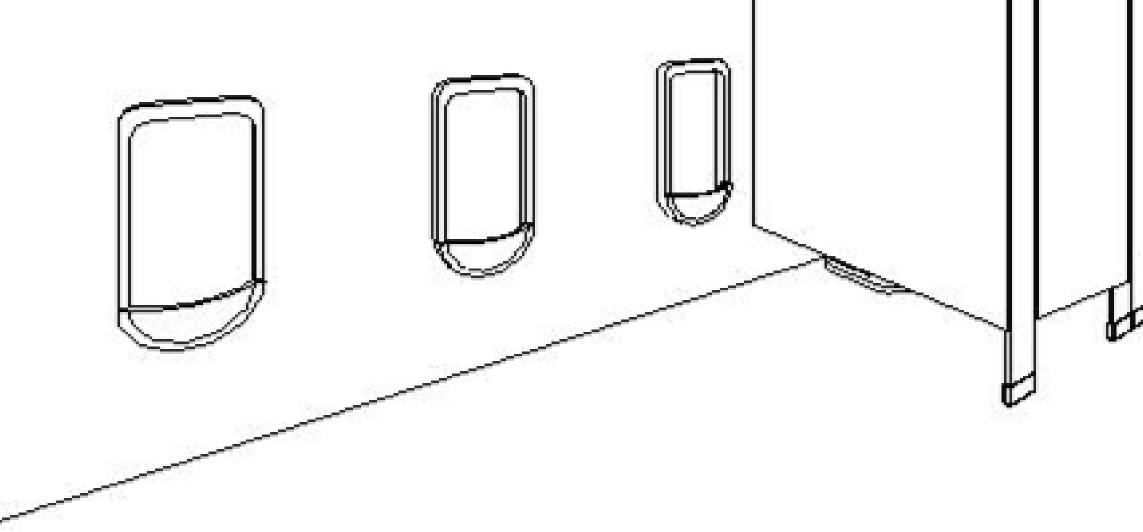
• In the women's bathroom there are 7 stalls, including an ADA compliant

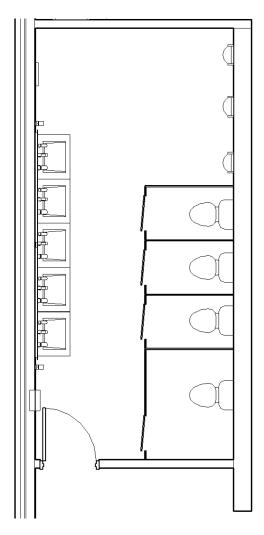


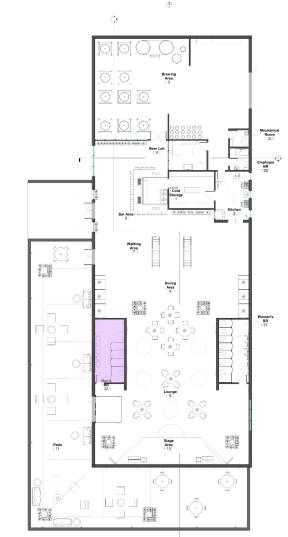


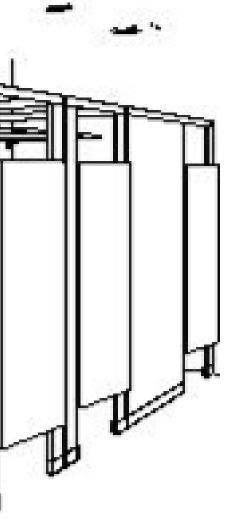
## MEN'S RESTROOM







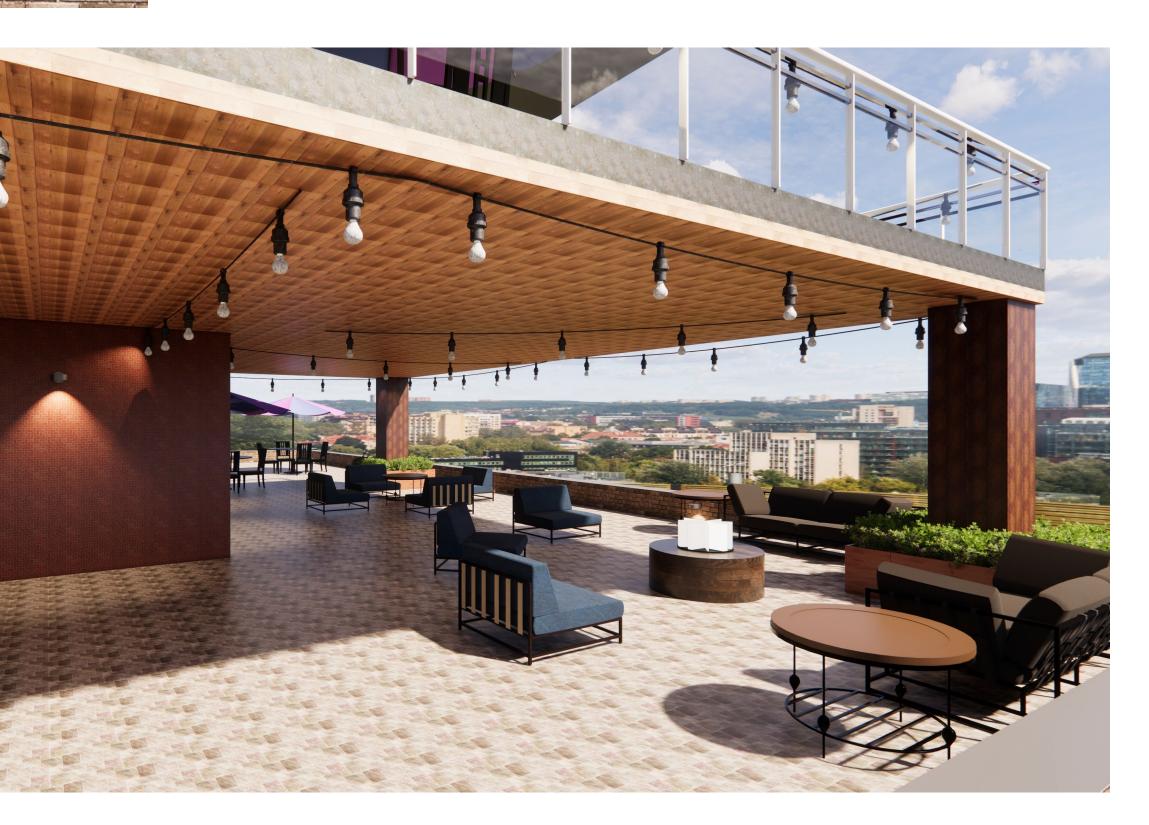




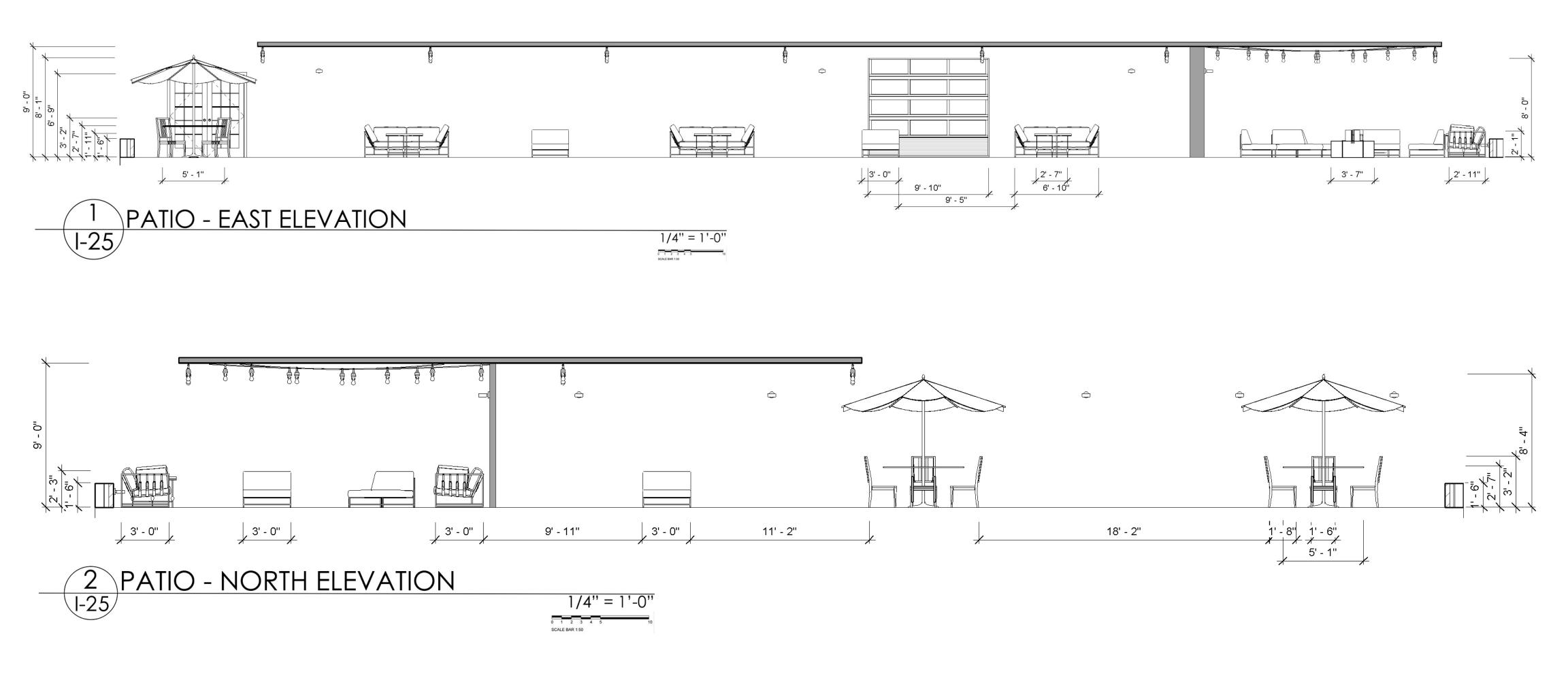


### <u>Keynote</u>

• The artificial light sources in this area are string lights and sconces, located along the edge of the ceiling and the exterior walls.



# PATIO – ELEVATIONS

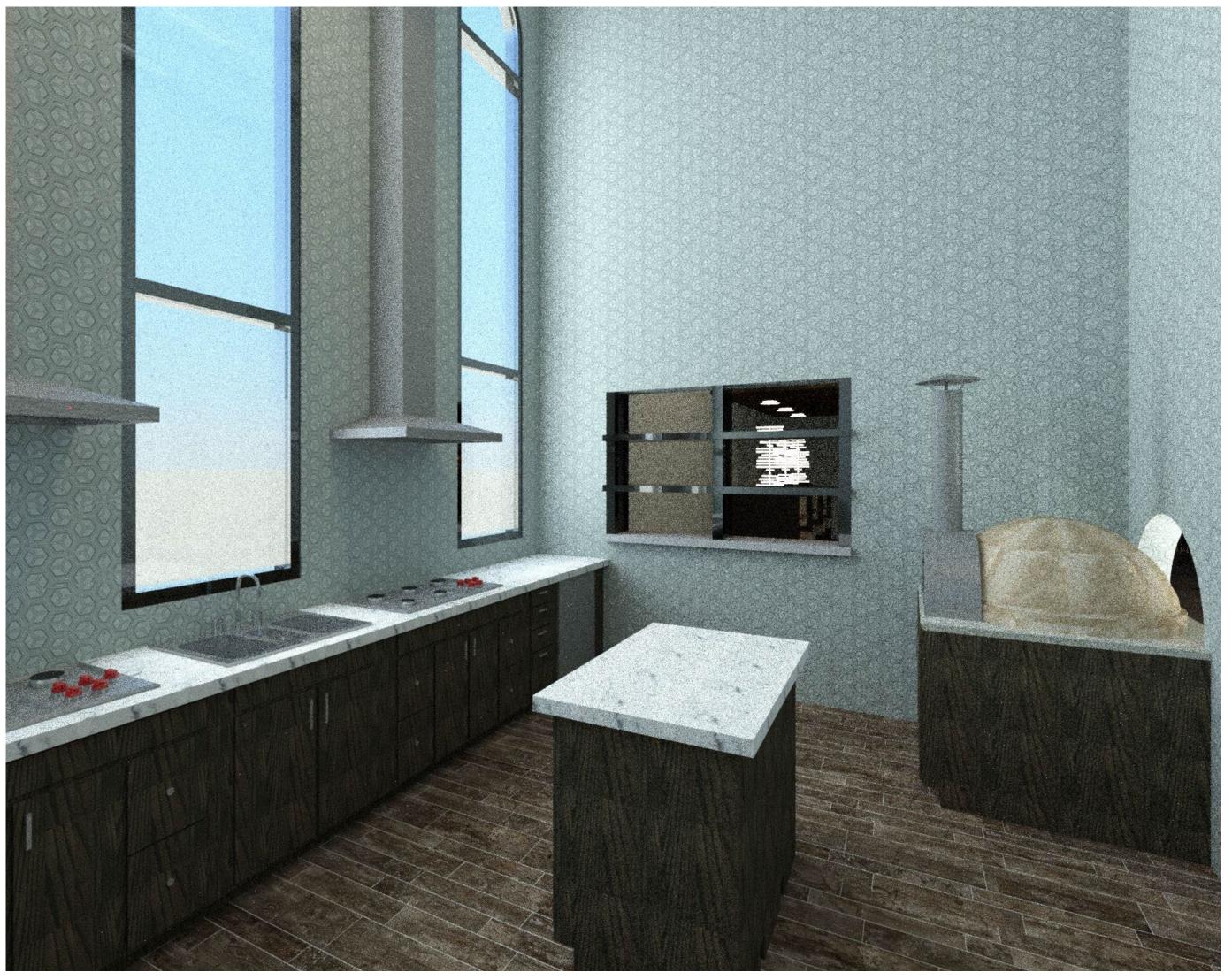


#### <u>Keynote</u>

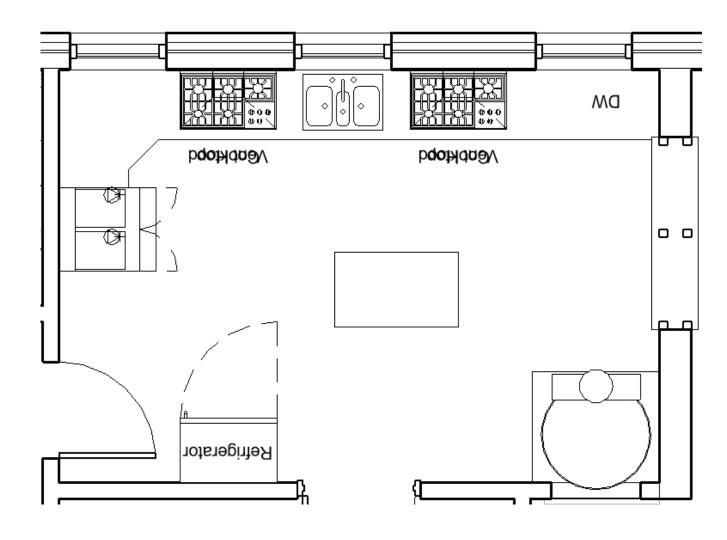
- The garage door, located near the stage and the lounge area, opens the space by allowing customers to have more than one entrance/exit into the building.
- The patio ceiling is 9'-0" and the umbrellas reach up to 8'-4". So, in the event of one being moved, there is some clearance for the umbrella under the patio ceiling.

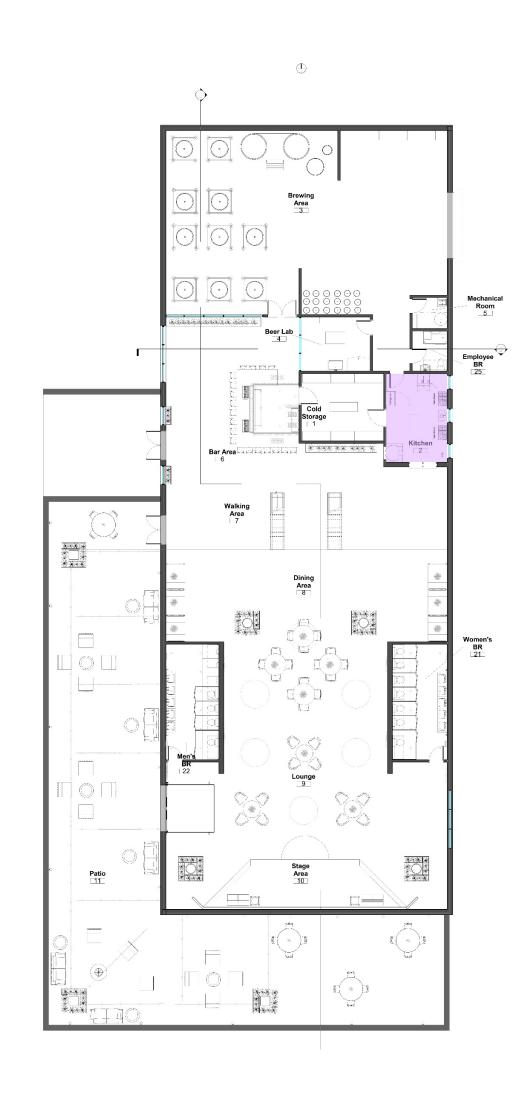
nd the lounge area, opens the space by entrance/exit into the building. each up to 8'-4''. So, in the event of one ne umbrella under the patio ceiling.

## **KITCHEN**

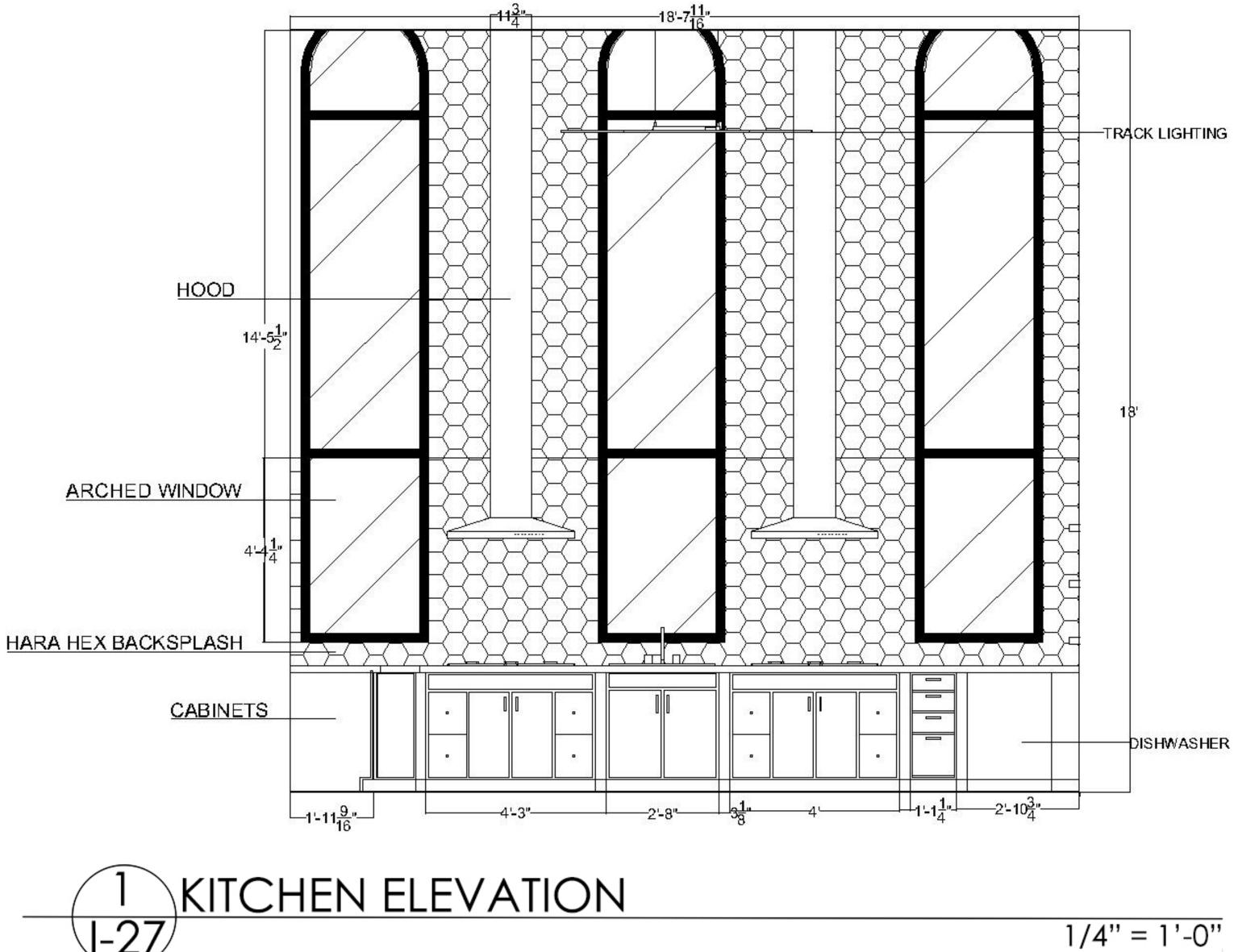


- The kitchen includes a serving window for food pick up and a pizza oven.
- The cold storage is attached for easy access and comes with a deep fryer.





# KITCHEN - ELEVATION

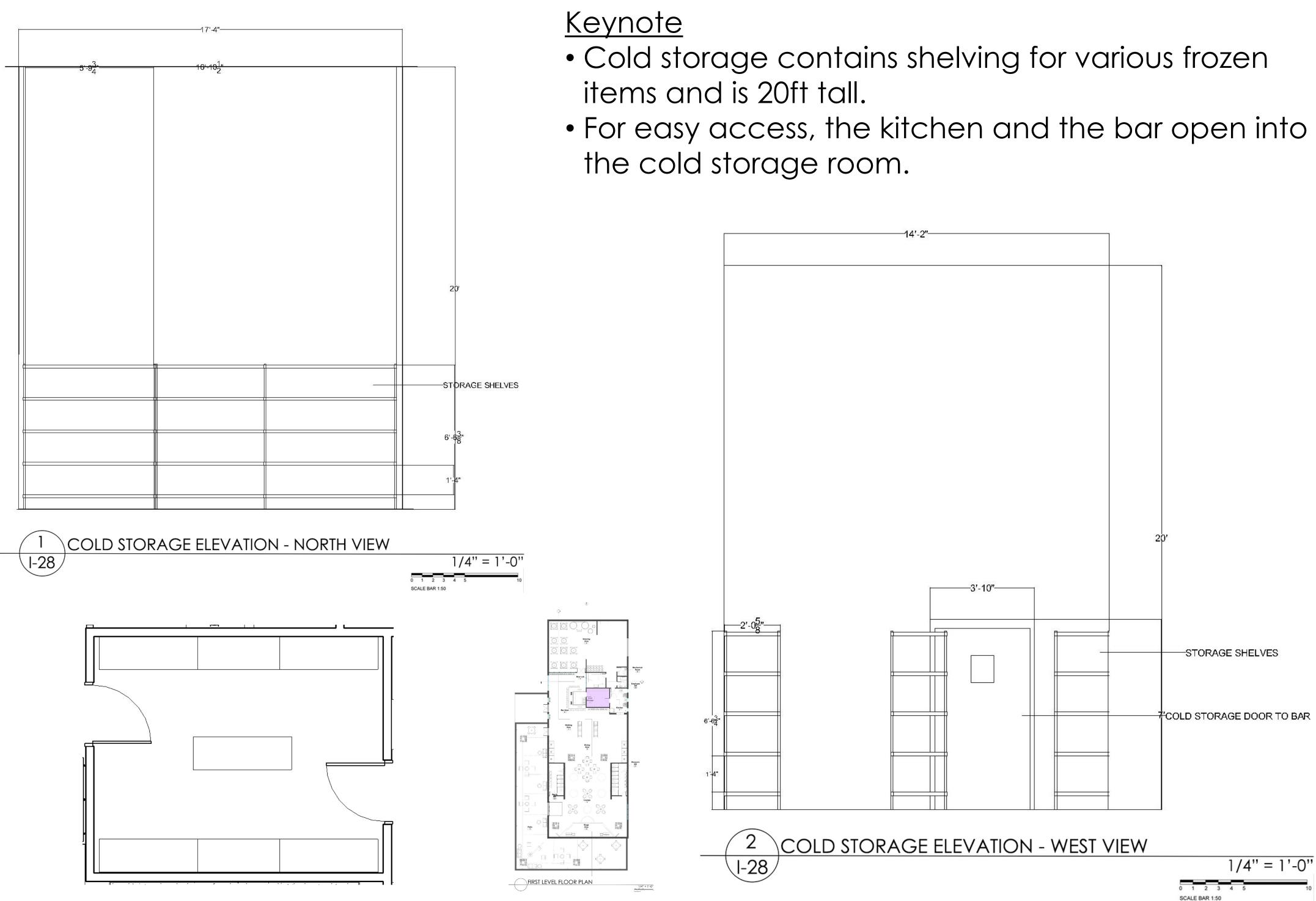


#### <u>Keynote</u>

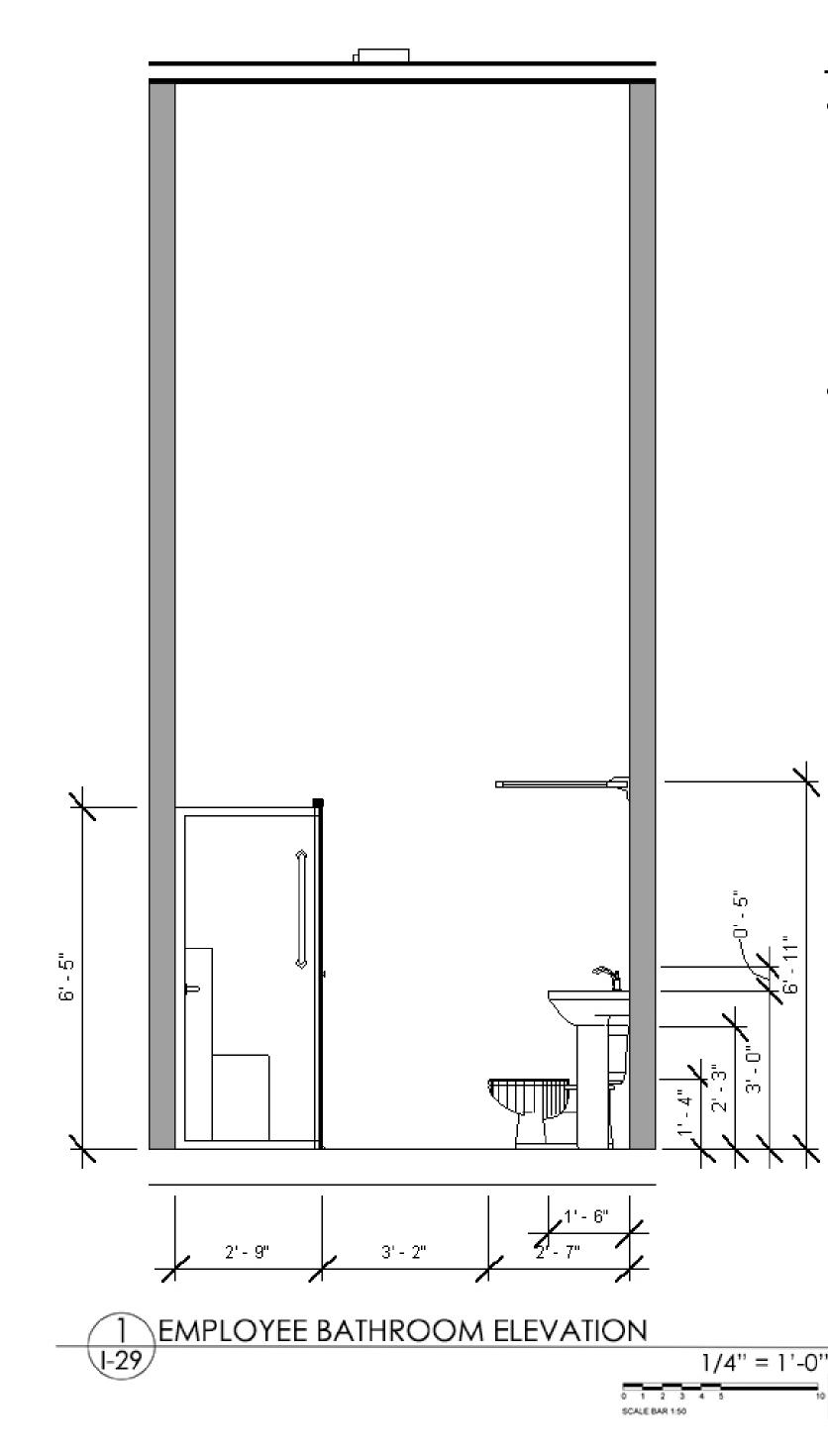
• The kitchen is decorated with a hex backsplash and wood beam on the ceiling. The windows are long arched to allow maximum light.

' = 1'-0'	/4"	1,			
1	5	4	3	2	1
				BAR 1	

## **COLD STORAGE - ELEVATIONS**



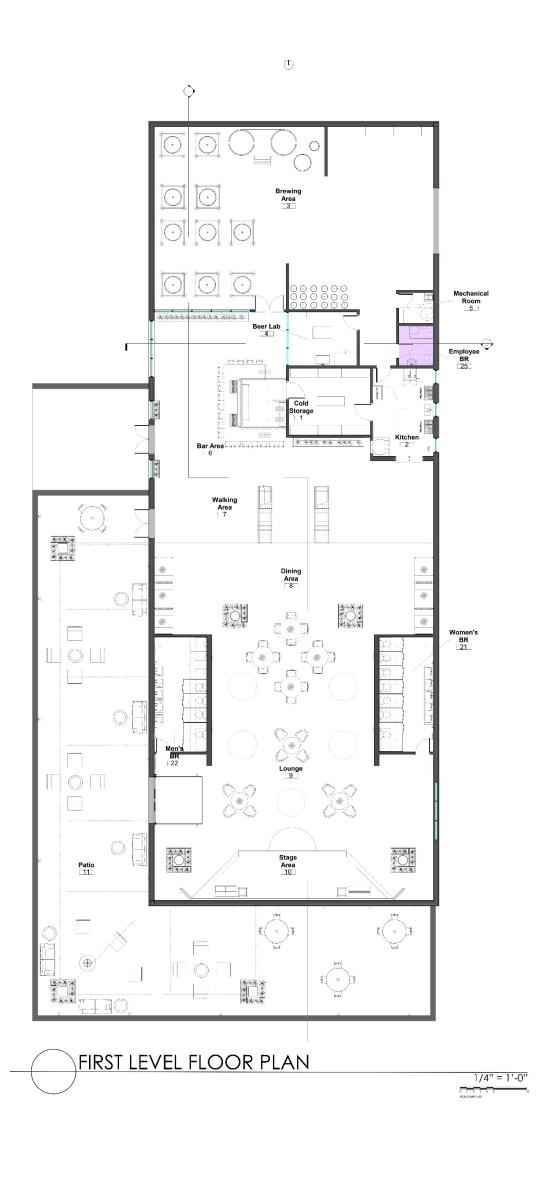
# **EMPLOYEE RESTROOM - ELEVATION**

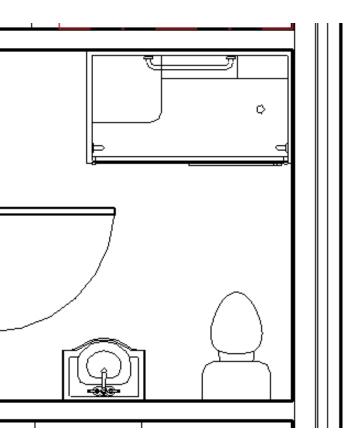


<u>Keynote</u>

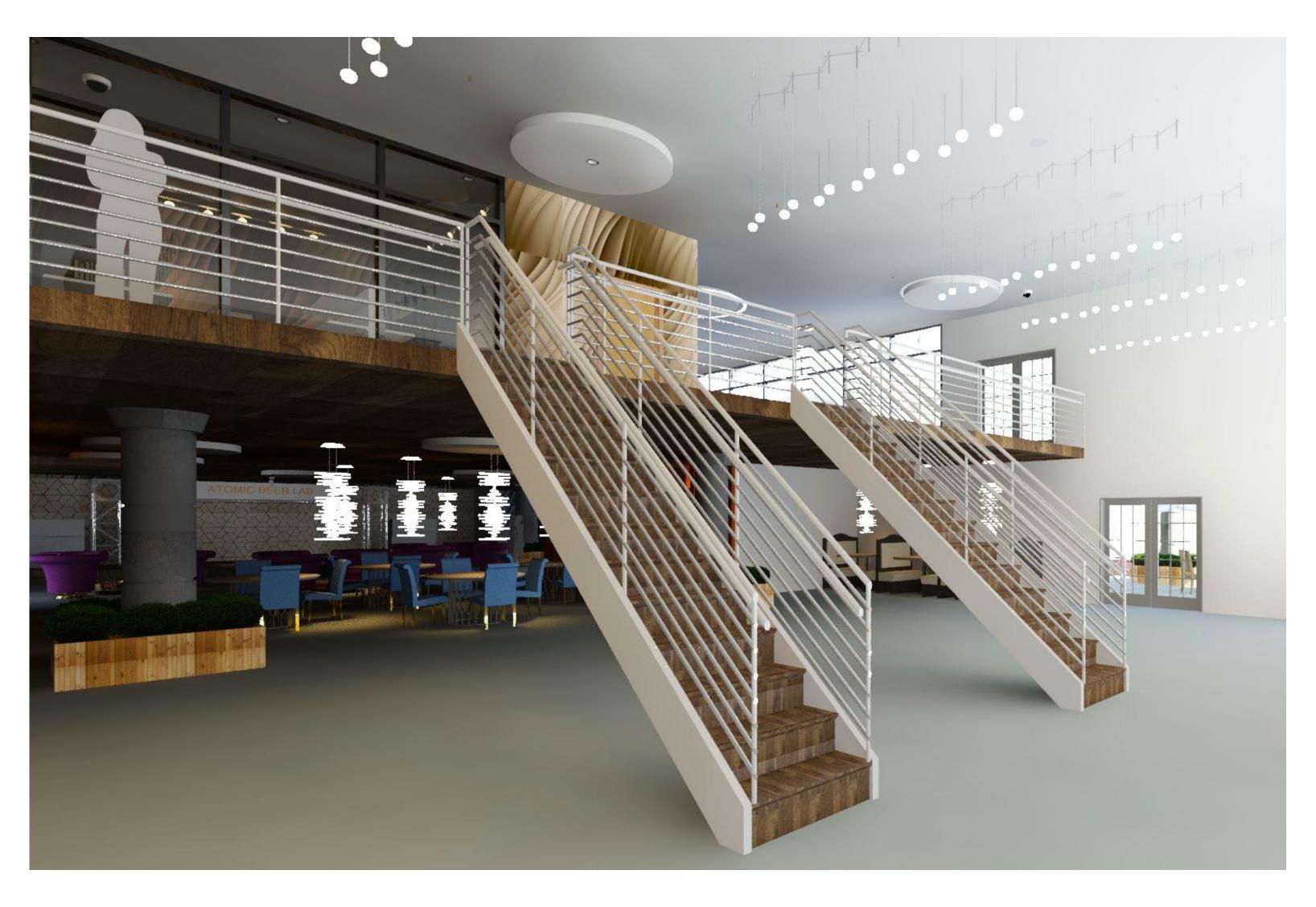
- only and can be accessed through the brewing area storage into the kitchen.
- illumination to the room, sink.

• This bathroom is for employees entrance or through the cold • The light shelf helps to add more especially over the toilet and

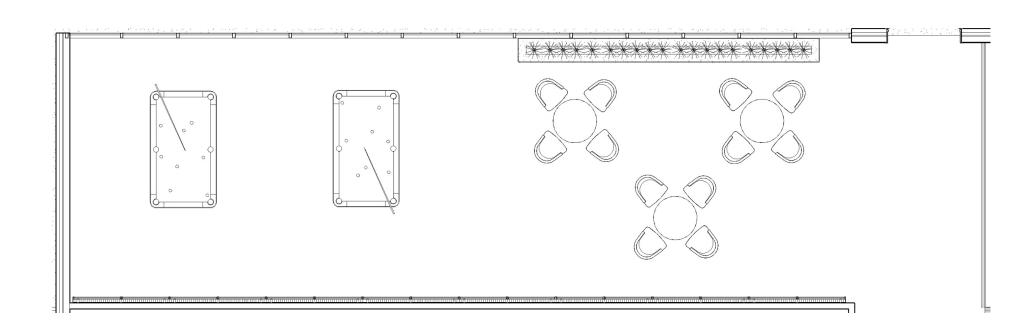


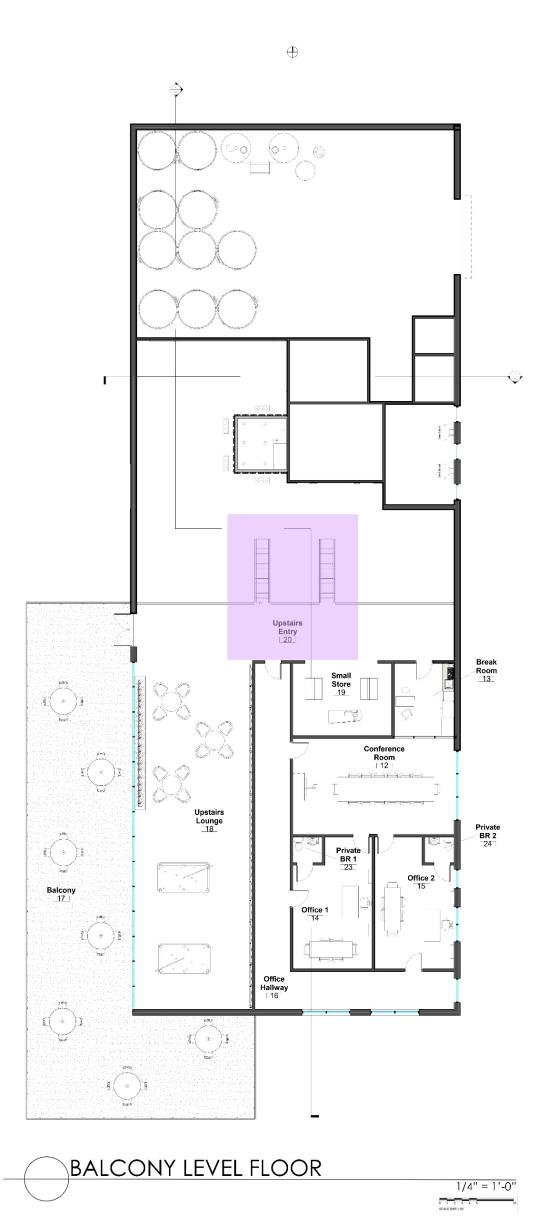


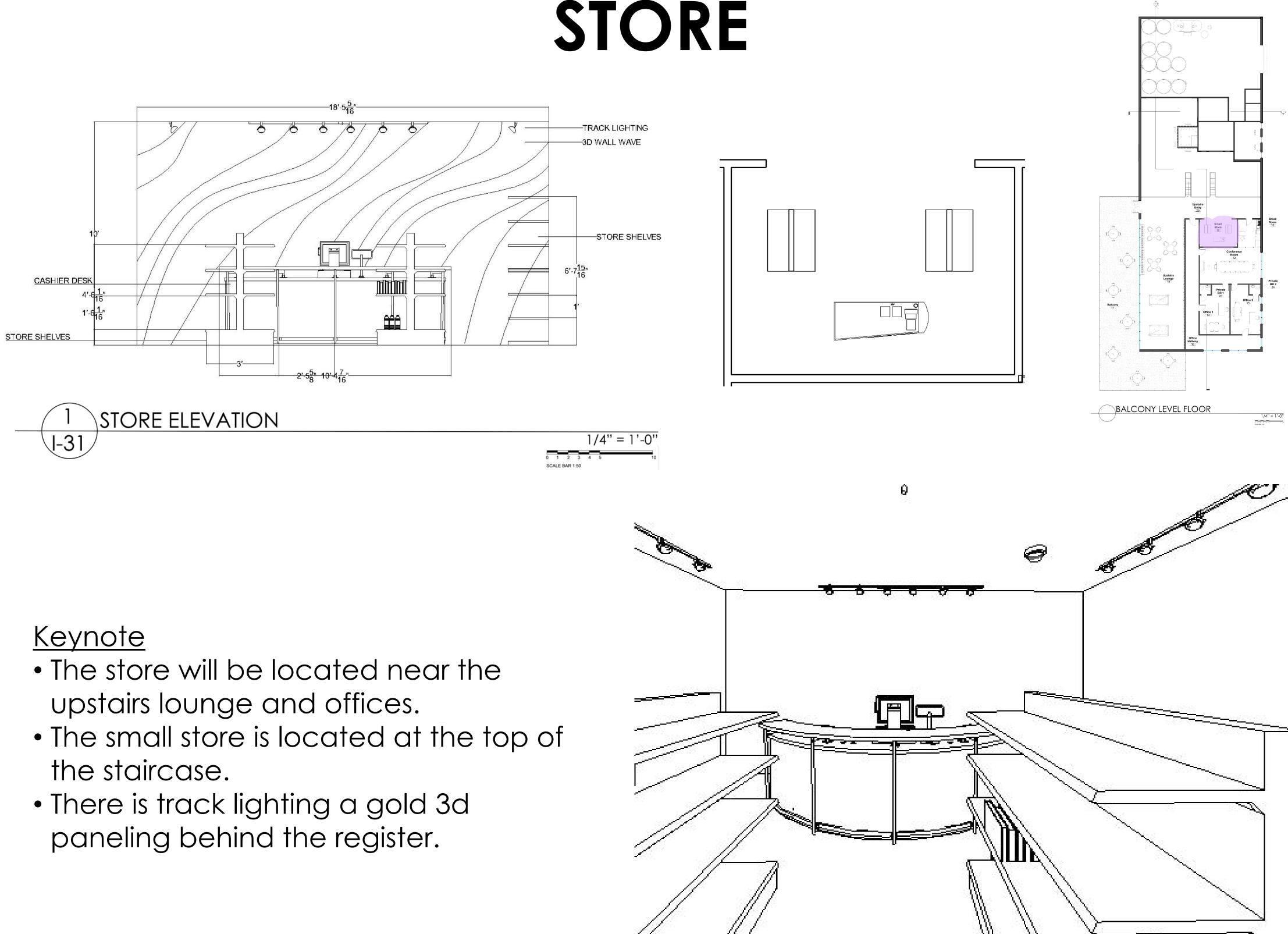
### **STAIRS**



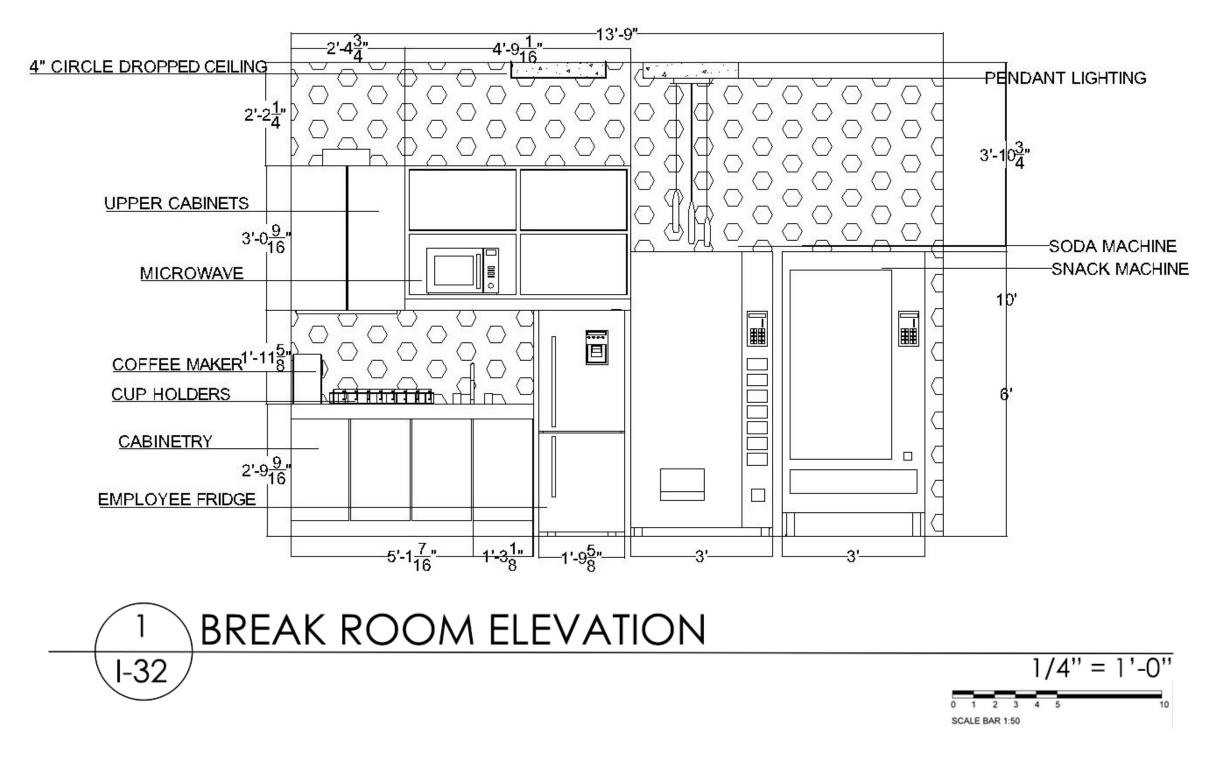
- The stairs are a mixture of wood and metal for an industrial look.
- The stairs have been placed closer together for easier access to the upstairs.



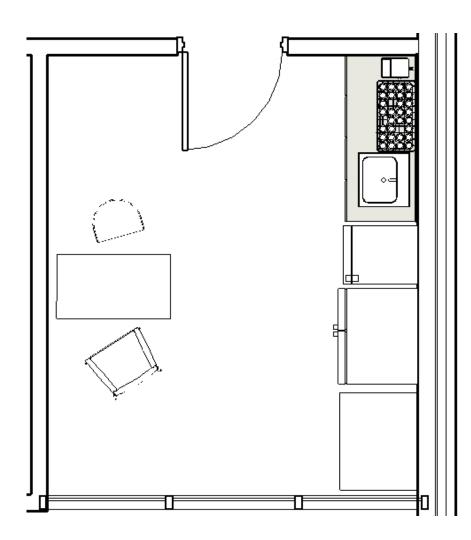


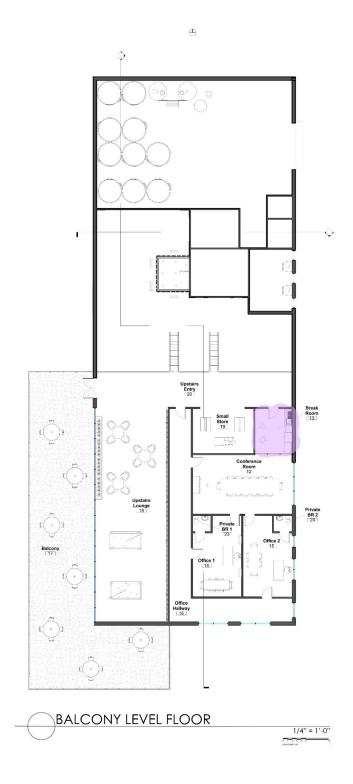


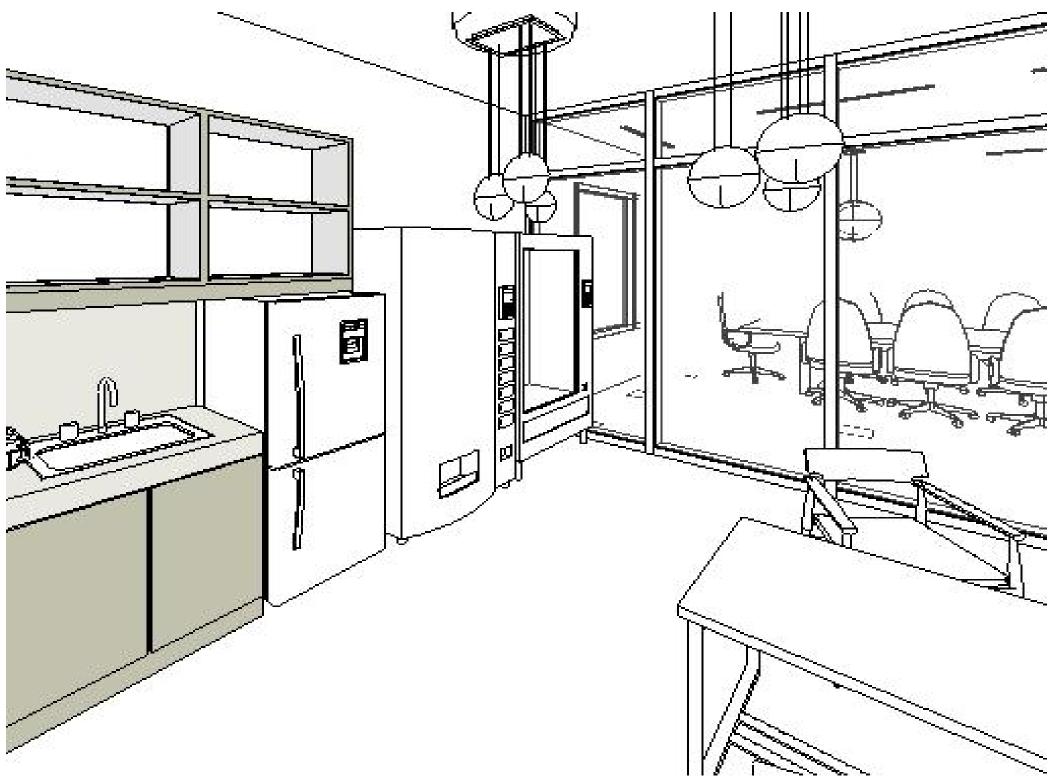
## **BREAK ROOM**



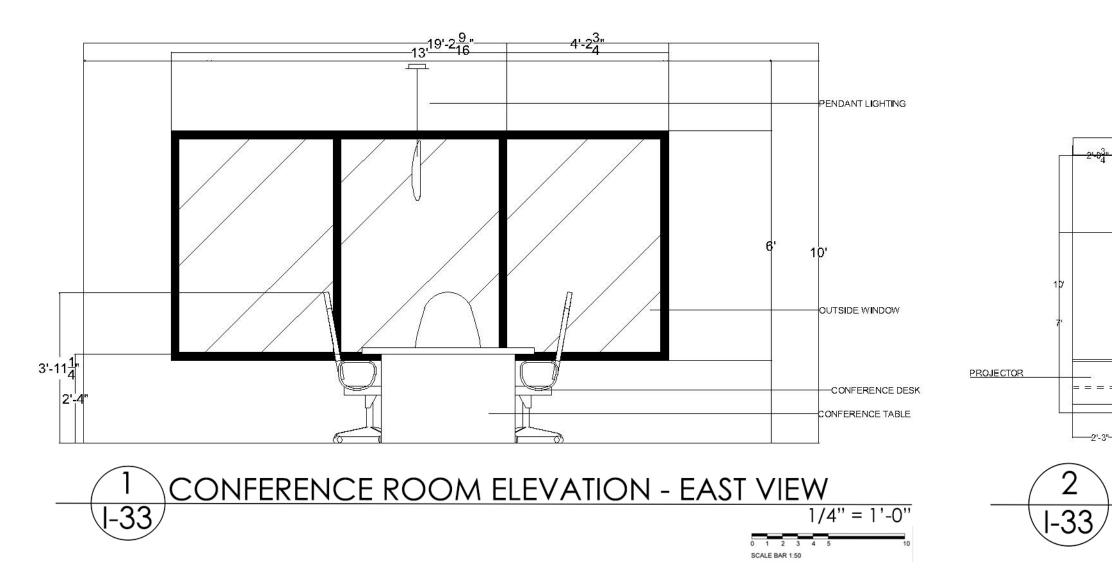
- The break room is located upstairs. The employees will be able to use a mini fridge, microwave, and vending machines.
- A glass wall is located on the side of the break room next to the conference room.

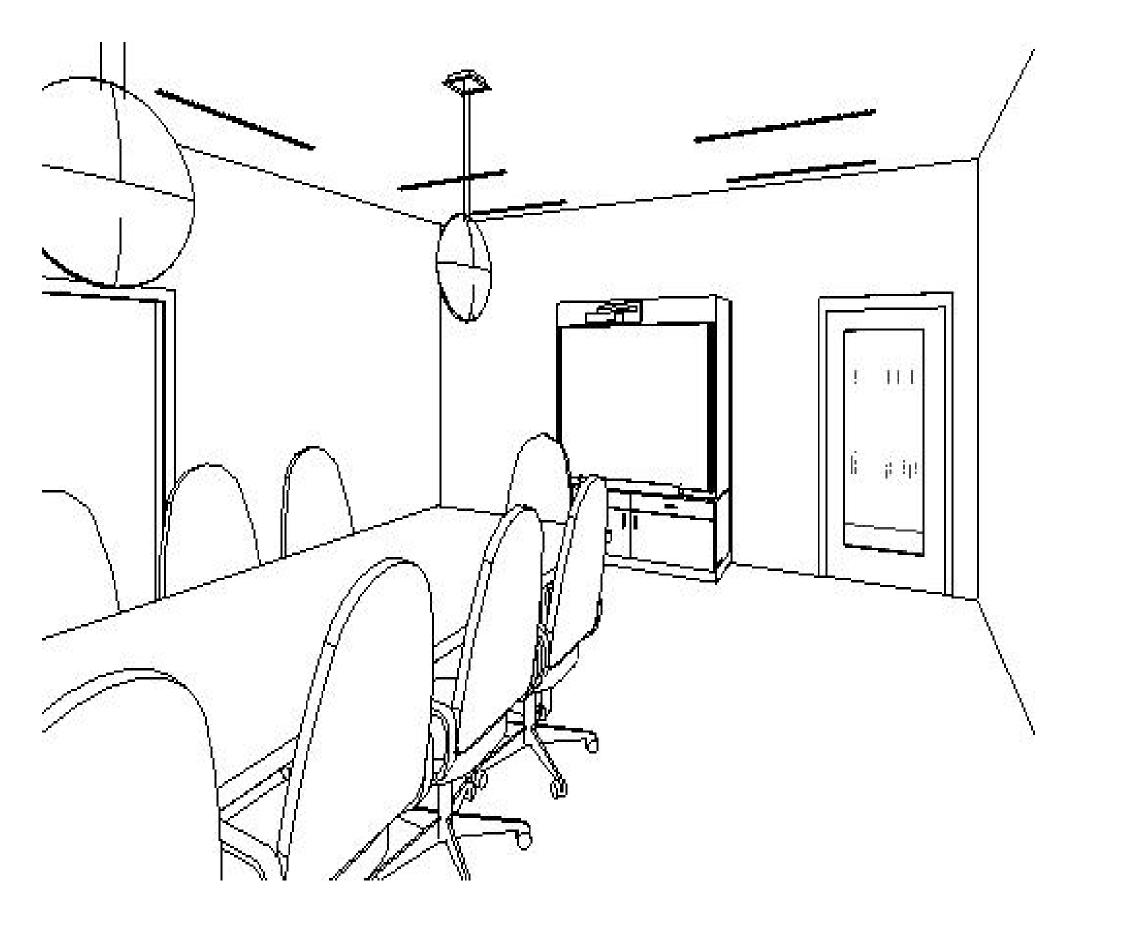




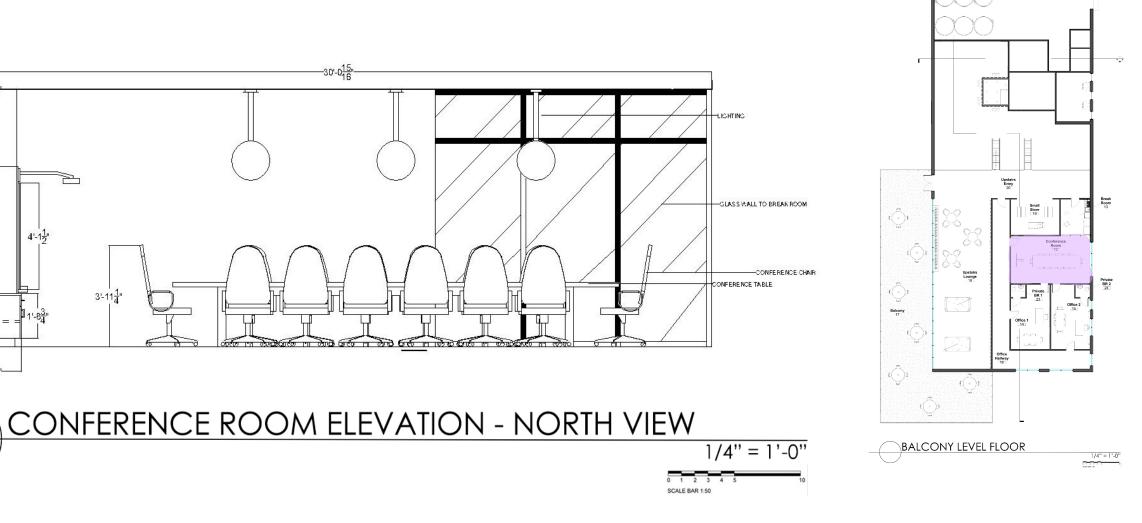


### **CONFERENCE ROOM**

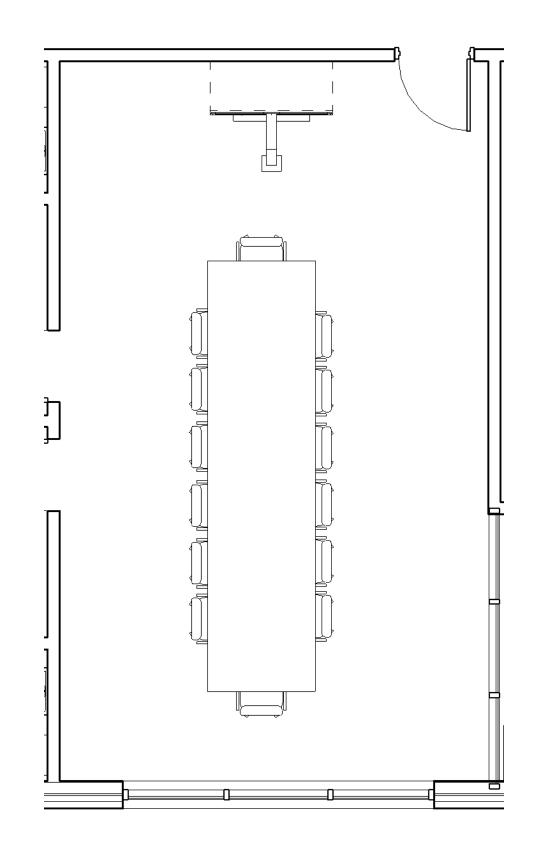




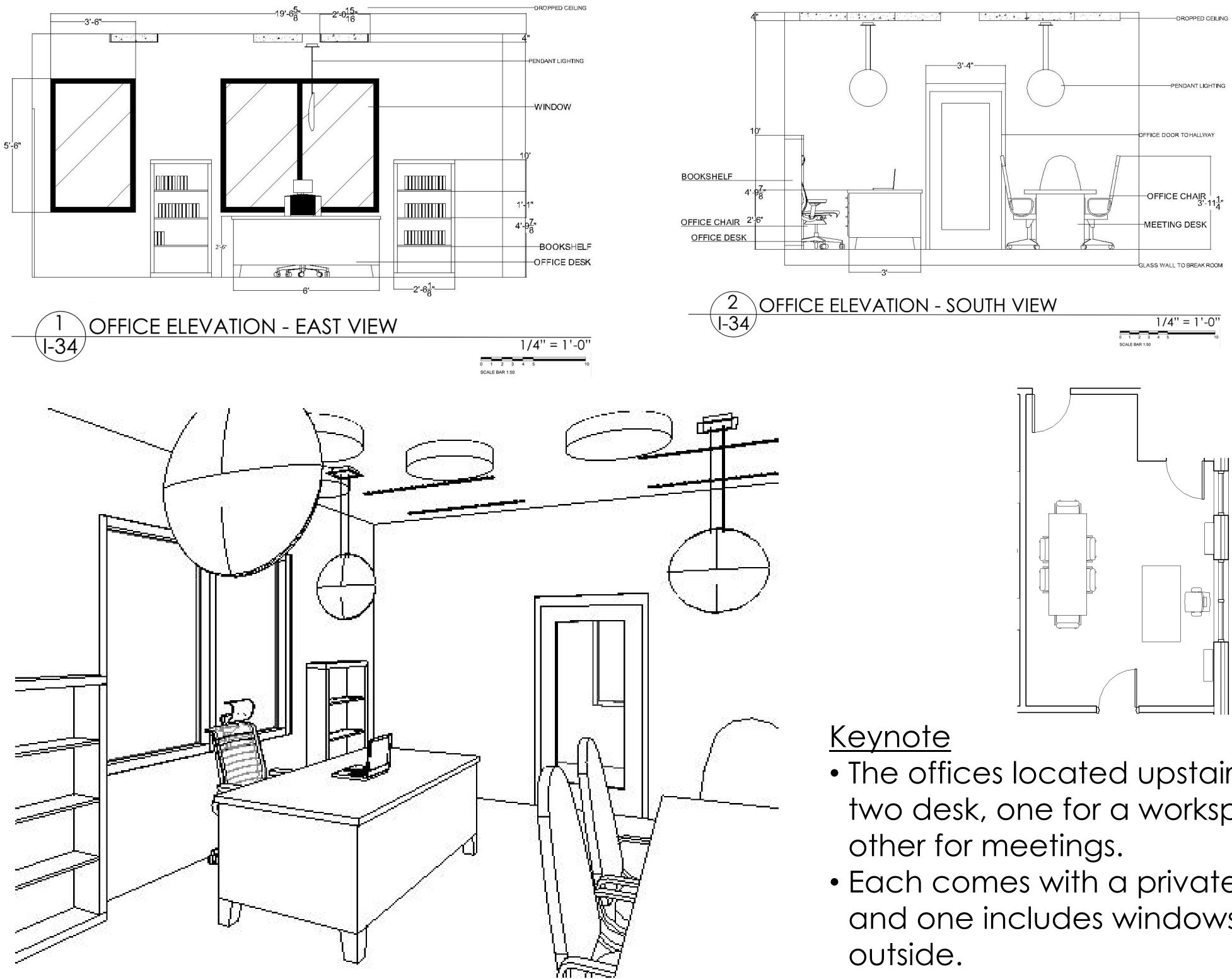




<u>Keynote</u> • The conference room is located upstairs with a projector for presentations. • It is accessed by the hallway that also leads to the offices.



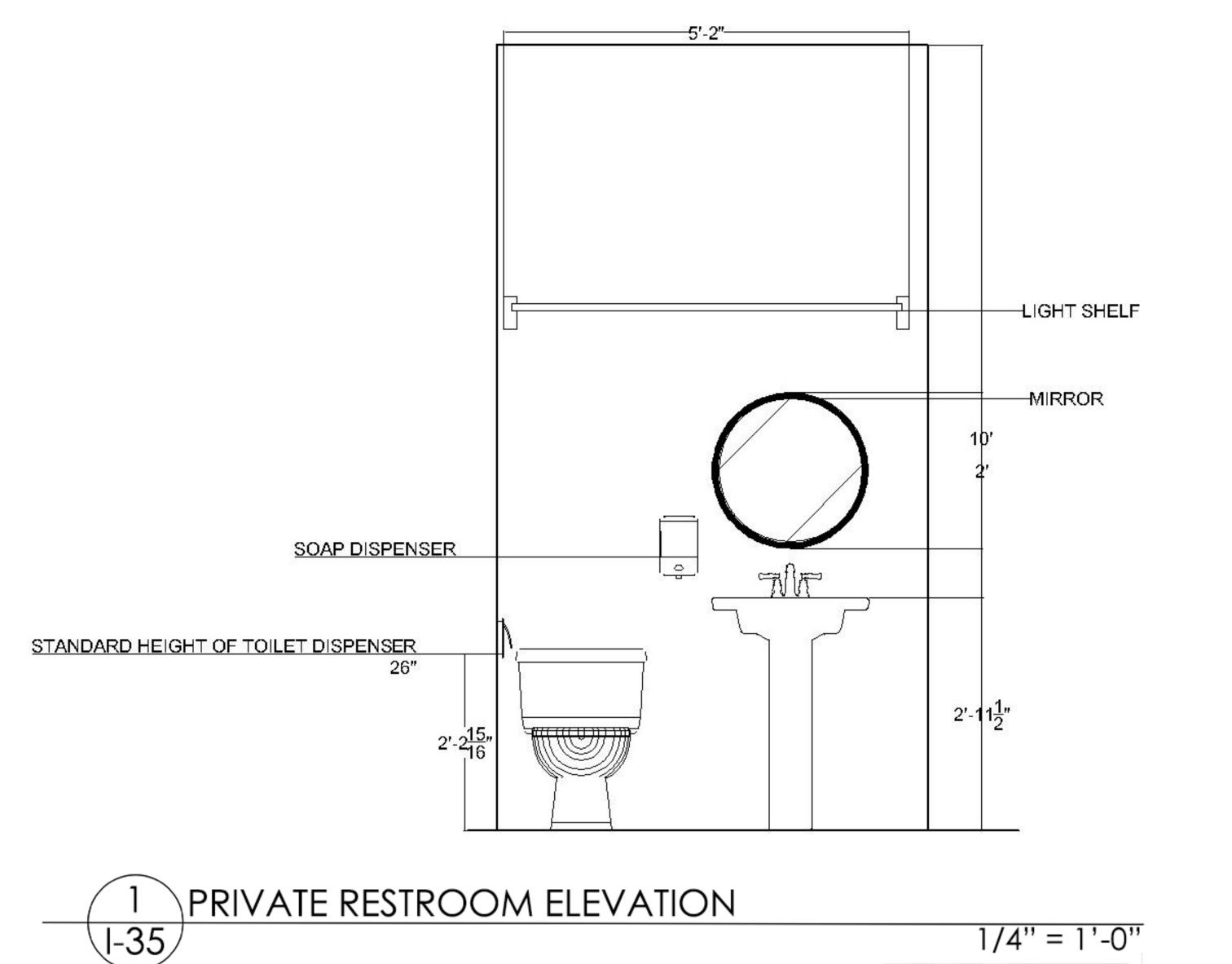
### OFFICE





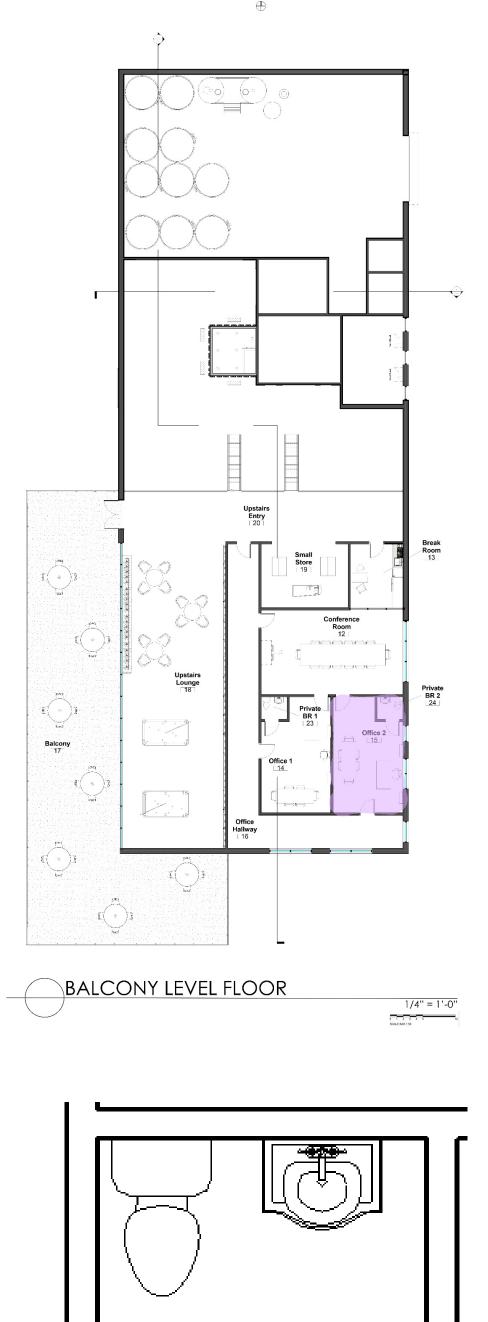
- The offices located upstairs include two desk, one for a workspace the
- Each comes with a private bathroom, and one includes windows to the

### **PRIVATE RESTROOM - ELEVATION**

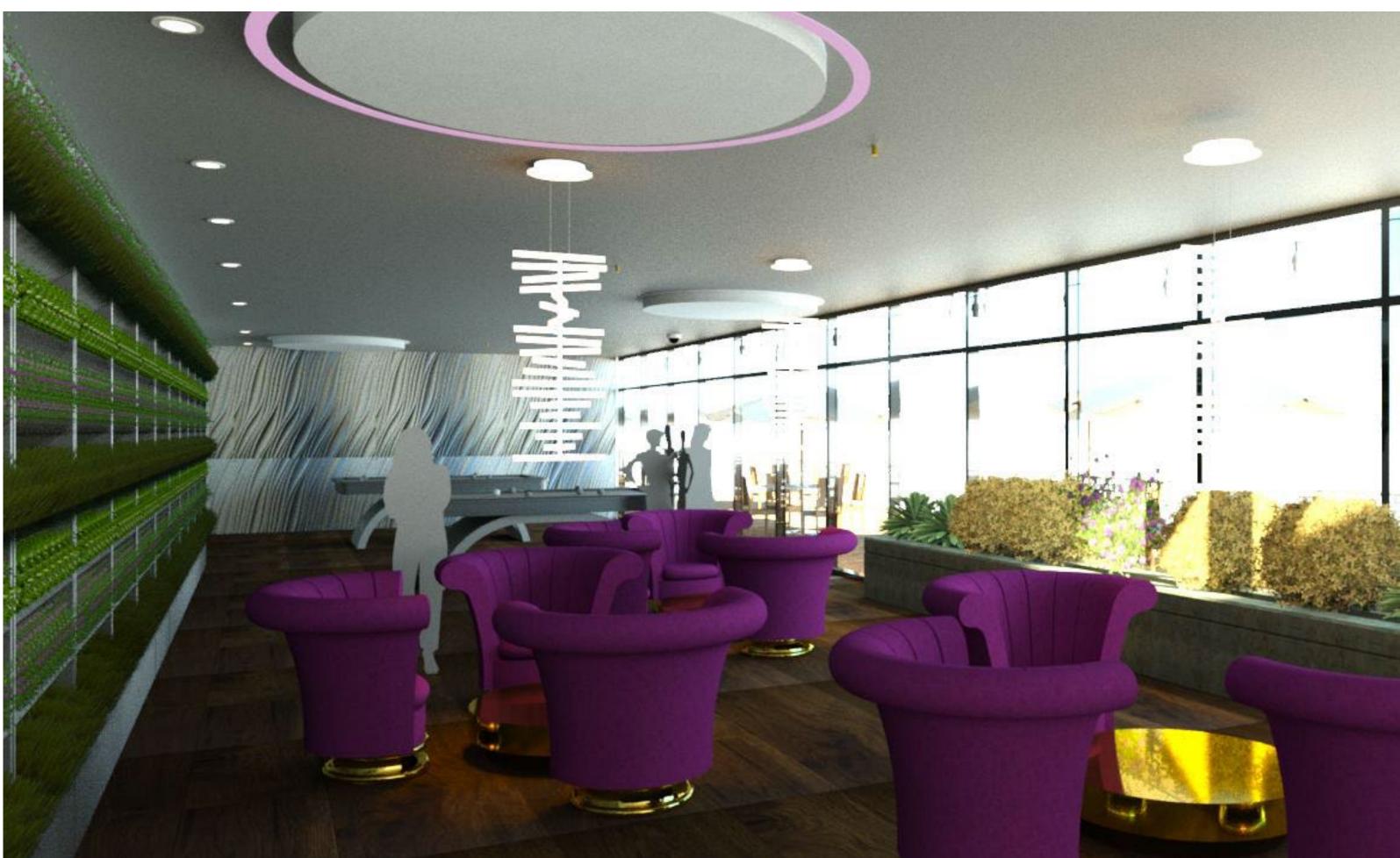


<u>Keynote</u>

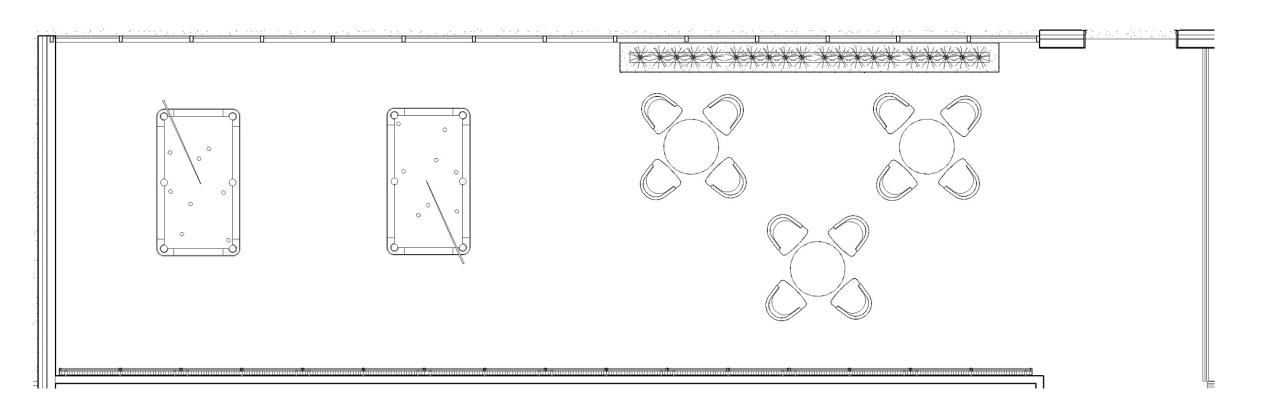
• The private restrooms are attached to the offices. Each contains a single sink, a light shelf, and single mirror for the occupant to use.

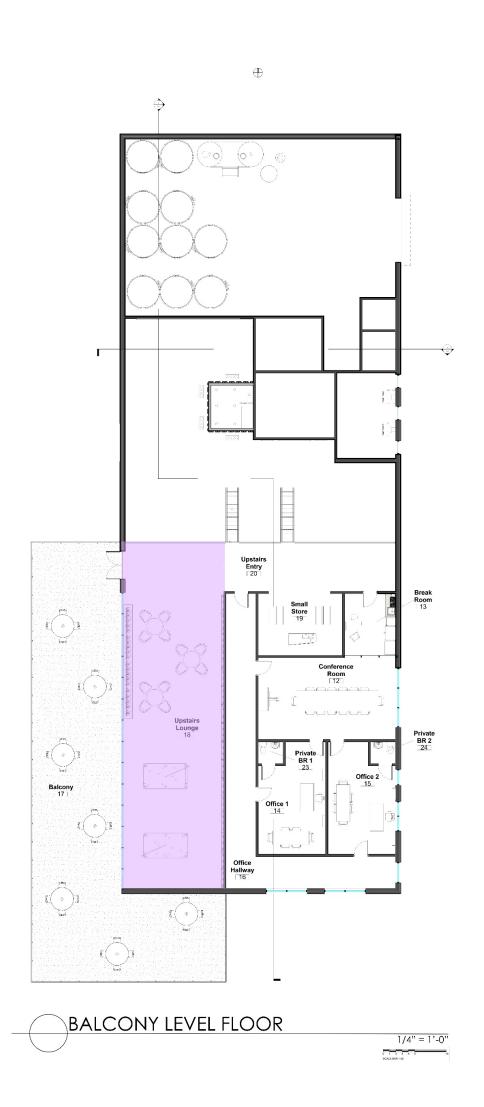


## UPSTAIRS LOUNGE

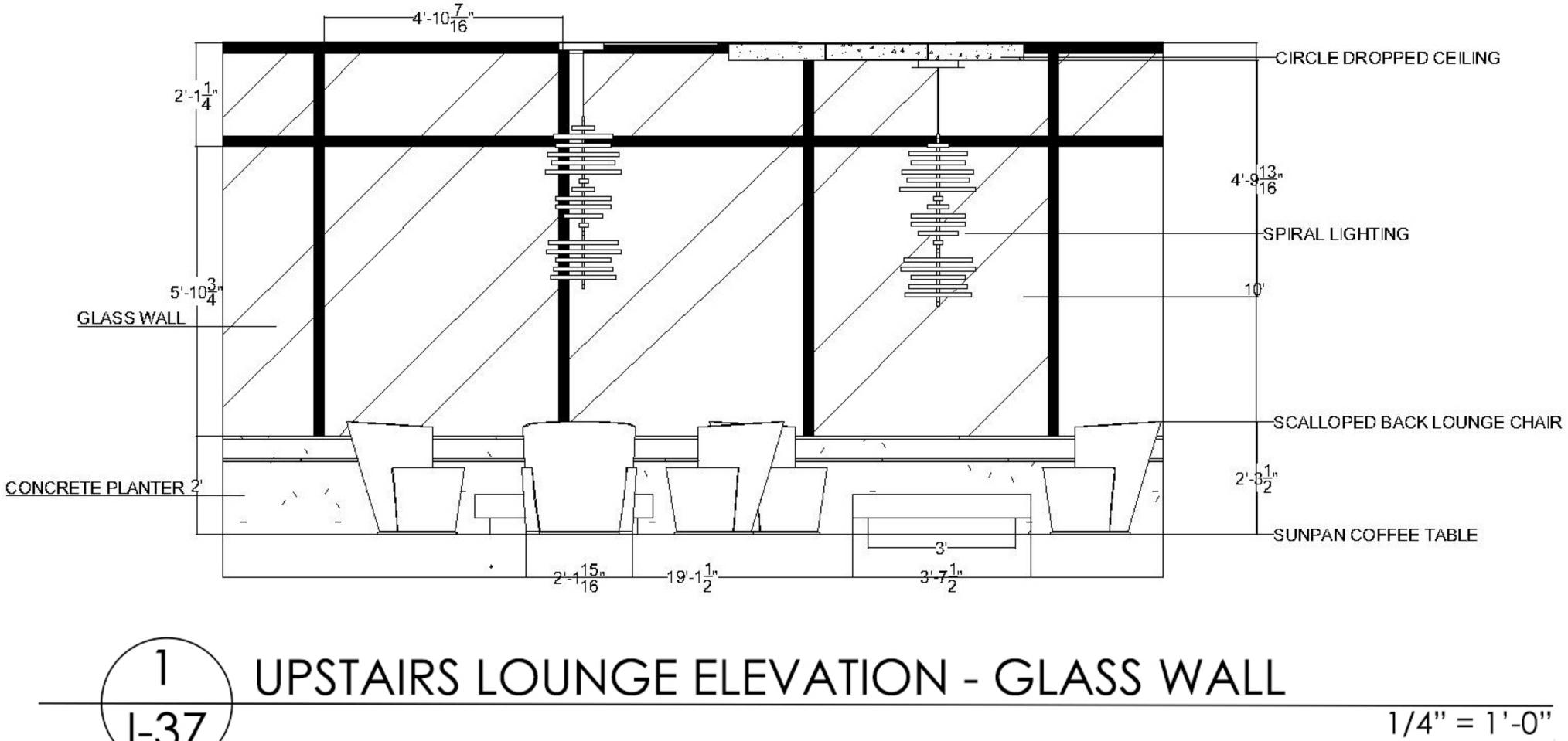


- Upstairs lounge includes green wall and is also a game room.
- The flooring is hardwood and wall is a 3D panel

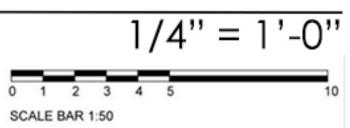




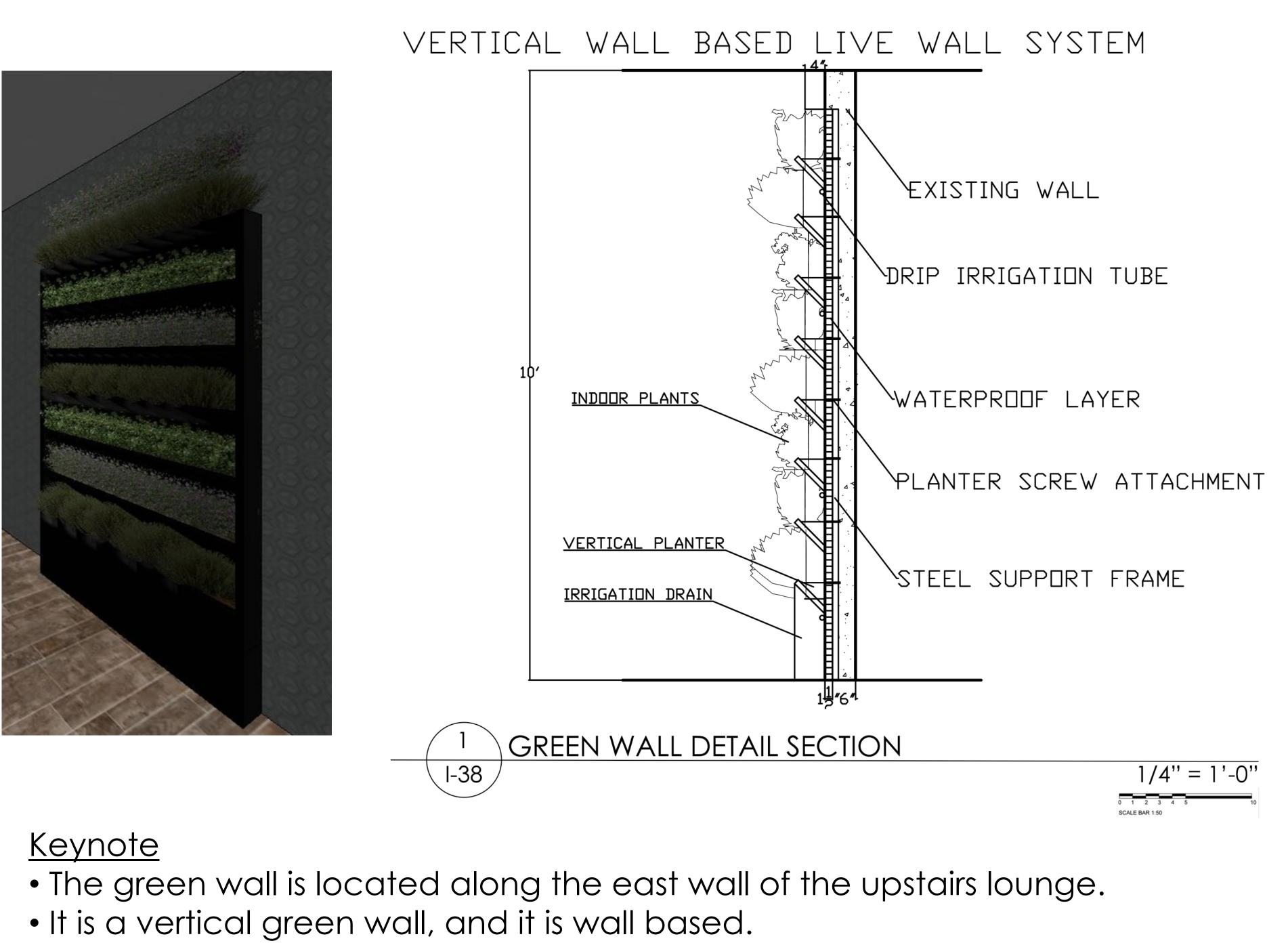
## **UPSTAIRS LOUNGE - ELEVATION**



- The upstairs lounge has a large window showing the outdoor balcony and patio.
- A planter with more biophilia is in front of the windows.
- Customers will be able to play games as well as relax indoors or outdoors.

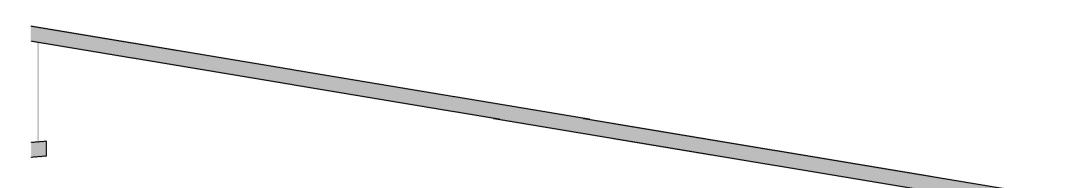


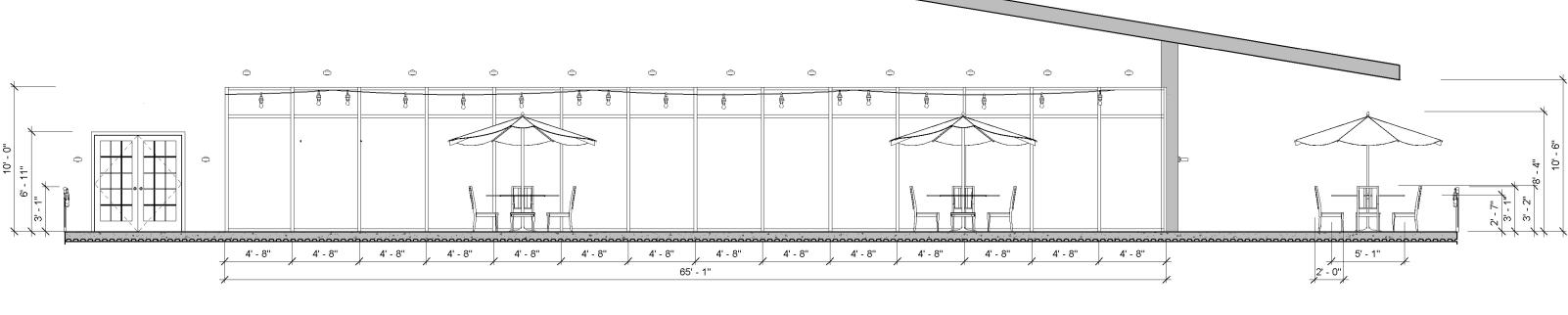
# UPSTAIRS LOUNGE – GREEN WALL DETAIL



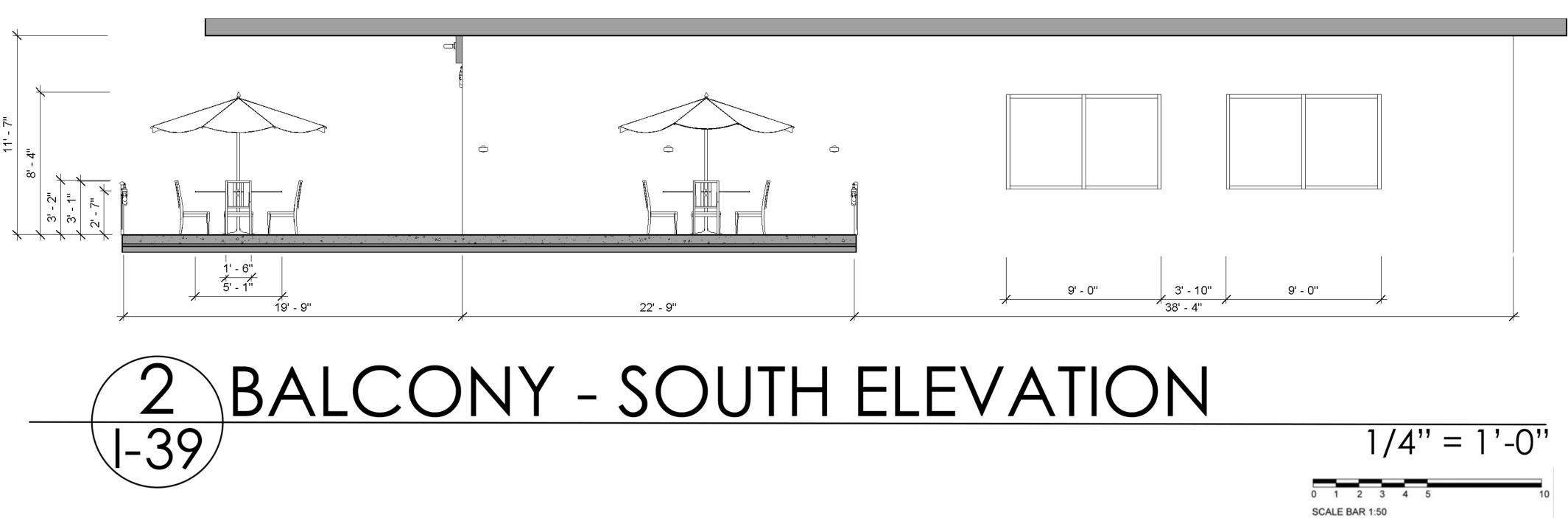
- Light from the window will provide enough sunlight to keep plants fresh.

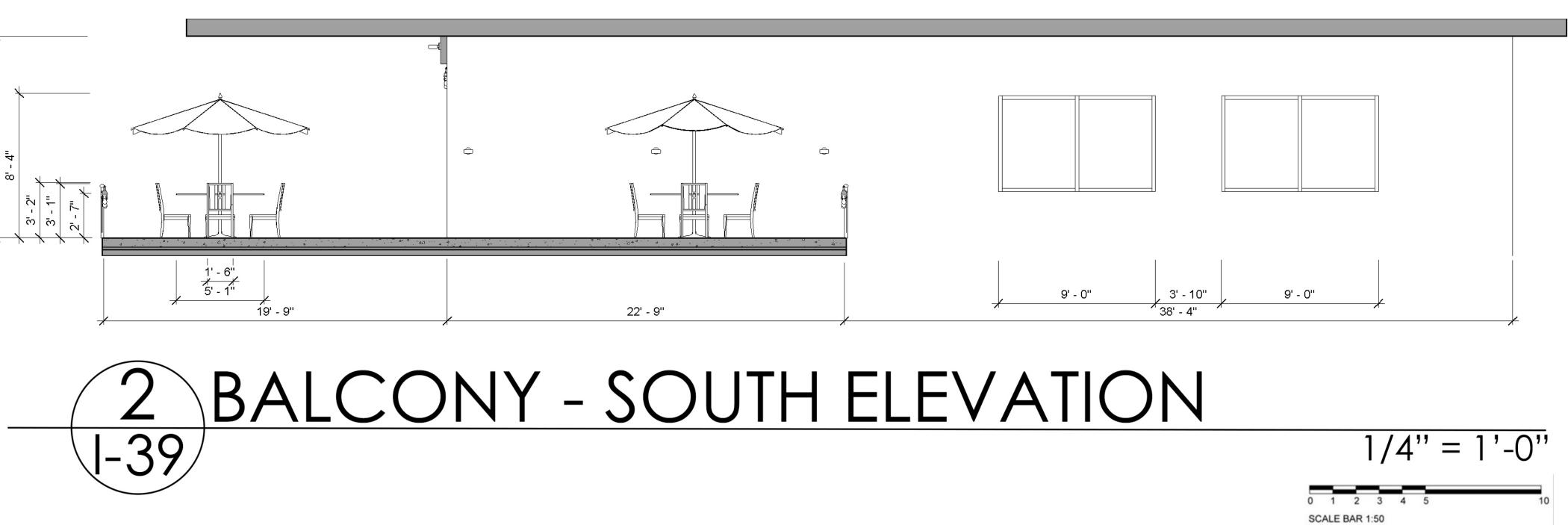
# **BALCONY - ELEVATIONS**











#### <u>Keynote</u>

1/4" =1'-0"

• The glass wall allows in natural light to the upstairs lounge as well as showing off the green wall feature.

		FURNI	TURE \$	SCHEDU	LE		
PRODUCT	MATERIAL	MANUFACTURE R	BRAND	IMAGE	SYMBOL	DIMENSIONS	PERFORMANC
SUNPAN MODERN BERNABY COFFEE TABLE	Metal/wood	Perigold	Sunpan Modern			13.75" H x 43.5" L x 43.5" W	Fire rated, weight capacity is 200lbs
PATARA STAR CHAIR	Leatherette/Gold Brass	Restaurant Furniture Plus	Soho Concept	T	TR () I	32"Hx21.5"Wx2 2.5"D	Flexible, strong, comfortable
CIRCUIT DINING TABLE	Brass/Stone composite	CB2	CB2	Carlos and a second	$\Pi(\underline{)})$	30"H x 60" DI	Surface easy to clean
CRESCENT BAR STOOL	Leatherette	Wayfair	Soho Concept	再	0	42" H x 23.5" W x 22" D	Flexibility and strength
RECLAIMED OAK WOOD BOOTH	Remade Oak Iaminate	Affordable Seating	N/A			42 <b>"</b> H	High Density Foam
CAPUCINE WIDE BARREL CHAIR	Manufactured Wood/Upholster y	Wayfair	Everly Quinn		ංදිස	36" H x 32" W x 31.5" D	Removable Cushion/250lb limit
MODERN WRITING DESK	Manufactured wood	HOMARY	Homary	7		27.6"dX55.1"w X29.5"H	Sturdy, strong
BOAT SHAPED CONFERENCE TABLE	Veneer/Wood	Office Furniture to go	Mayline Office Furniture		: <u>**************</u> )7	240 in W x 54 in D x 29-1/2 in H	Protected with 2 coats of lacquer
BRAYLEIGH WICKER PATIO SOFA	Wicker/Rattan	Wayfair	Joss and Main		8	46" H x 83" W x 27" D	Machine Washable
BENNINGTON 5 PIECE DINING SET	Metal/Wicker/Gl ass, Foam Cushion	Wayfair	Sol 72 Outdoor		:	Chair 35" H x 26.4" W x 24.4" D Table 29" H x 40" W x 40" L	Weather, UV, Rust Resistant
SENDEM CONFERENCE TABLE	Faux Leather	Overstock	Module Interior			23.0 In. W X 39.0 In. H X 25.0 In. D	Adjustable Height, Tilt

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		FINIS	HING SCH	IEDULE	
PRODUCT	BRAND	MATERIAL	MANUFACTURE	LOCATION	PERFORMANCE IMAGE
076HD-WAVE43 SILVER	3d Textures	MDF-Medium Density Fiberboard Hardwood composite & organic materials	3d Textures	Upstairs Lounge	No added formaldehyde
TRACELESS ACORN VELVET	Wilsonart	Wood Laminate	N/A	Bar Countertop	Durable easily cleanable
Effervesce Quartz Off- white Kitchen Countertop	Allen and Roth	Quartz	Lowes	Kitchen Countertop	Heat and Stain Resistant
ACCENT WALL	Calibamboo	wood	Calibamboo	Dining/bar	Sustainable wood
Corinth Hickory Odyssey Hardwood Flooring	Odyssey Hardwood	Engineered Bamboo Wood	Calibamboo	Upstairs Lounge	UV Oil Finish, Bamboo material
SEASON WOOD AUTUMN WOOD	Colorbody Porcelain	Colorbody porcelain	Daltile	Kitchen	Low maintenance
EPOXY CONCRETE FLOOR	concrete	Medium Gray Concrete	Red Rhino Flooring	Dining/lounge	Protected from chemical spills
Hara Hex Tile	Elite Tile	porcelain	Wayfair	Kitchen	Heat Resistant

## LIGHTING SCHEDULE

Name	Finire 4" Round LED Recessed Lighting, Downlight
Tag	R1
lmage	
Symbol	
Quantity	70
Lumens	700-1000 lm
Manufacturer	LUTRON
Dimensions	4" diameter

		,			
Name	TeamLed Runline Recessed	Name	Troffer Light – 2x4	Name	TeamLed Suspended Luminaire
	Luminaire	┨ ┣────	Parabolic	Tag	TR1
Tag	R2	Tag	R3	Image	
lmage		Image			
				Symbol	
Symbol		Symbol			
				Quantity	5
Quantity	31	Quantity	5	Lumens	140 lm/21 W
Lumens	1890 lm	Lumens	78.75 lm	Lomens	OR 2940 Im
Manufacturer	Radian	Manufacturer	N/A	Manufacturer	Radian
Dimensions	30 mm	Dimensions	1'-10" D x	Dimensions	1800 mm
	·		3'-10" W	L	
Namo	Pubble Pall 17				

Name	ALGORITHM0840
Tag	TR3
lmage	
Symbol	°, °, °, °, °, °, °, °, °, °, °, °, °, °
Quantity	14
Lumens	2168 lm
Manufacturer	Vibia
Dimensions	120 ½" W x 9 ¾" D

Name	Bubble Ball 17- Light Linear Canopy Pendant
Tag	Pl
lmage	
Symbol	
Quantity	4
Lumens	135 lm
Manufacturer	Pure Edge Lighting
Dimensions	7'-11' wire H; 11" D x 33" W canopy

Name	RHYTHM 2141
Tag	P2
lmage	
Symbol	
Quantity	16
Lumens	53 lm/W OR 2370.79 lm
Manufacturer	Vibia
Dimensions	42 ½" H x 18 ½" W/D

Name	Dash L AC Track
Tag	TR2
lmage	
Symbol	
Quantity	42
Lumens	1940 lm
Manufacturer	Molto Luce
Dimensions	65 mm diameter

Name	COSMOS 2502
Tag	Р3
lmage	
Symbol	
Quantity	9
Lumens	512 lm
Manufacturer	Vibia
Dimensions	19" W x 2 ¾" D x 157" max H

Name	COSMOS 2510
Tag	P4
lmage	
Symbol	
Quantity	2
Lumens	1471 lm
Manufacturer	Vibia
Dimensions	21 ¾" W x 9 ½" D x 157" max H

## LIGHTING SCHEDULE

Name	Puck Wall Art LED 5491
Tag	S1
lmage	
Symbol	
Quantity	4
Lumens	4307 lm
Manufacturer	Vibia
Dimensions	103 cm W x 84 cm H x 11 cm D

Name	Plant Wall
	Sconce
Tag	S2
lmage	
Symbol	
Quantity	35
Lumens	822 lm
Manufacturer	ZERO
Dimensions	156 mm W x 120 mm H x 211 mm D

LEDSTRIP NEON
LE1
5
575 lm/mOR 4955.36 Im
Solar
3' diameter x 2'' D

Name	ASOKO LED Under Cabinet Lighting
Tag	LS1
lmage	
Symbol	
Quantity	11
Lumens	300 Im
Manufacturer	ASOKO
Dimensions	12" L x .78" W x .23" H

Name	L&E Track Light Spot97 L185
Tag	SP1
lmage	
Symbol	
Quantity	]
Lumens	15750 lm
Manufacturer	L&E
Dimensions	97 mm W x 248 mm H x 185 mm D

Name	Lavoir 10' Outdoor LED Solar Powered 5- Bulb Globe String Lights
Tag	SL1
lmage	
Symbol	-000000
Quantity	30
Lumens	300 lm
Manufacturer	Ebern Designs
Dimensions	3" H x 2" W (bulb)