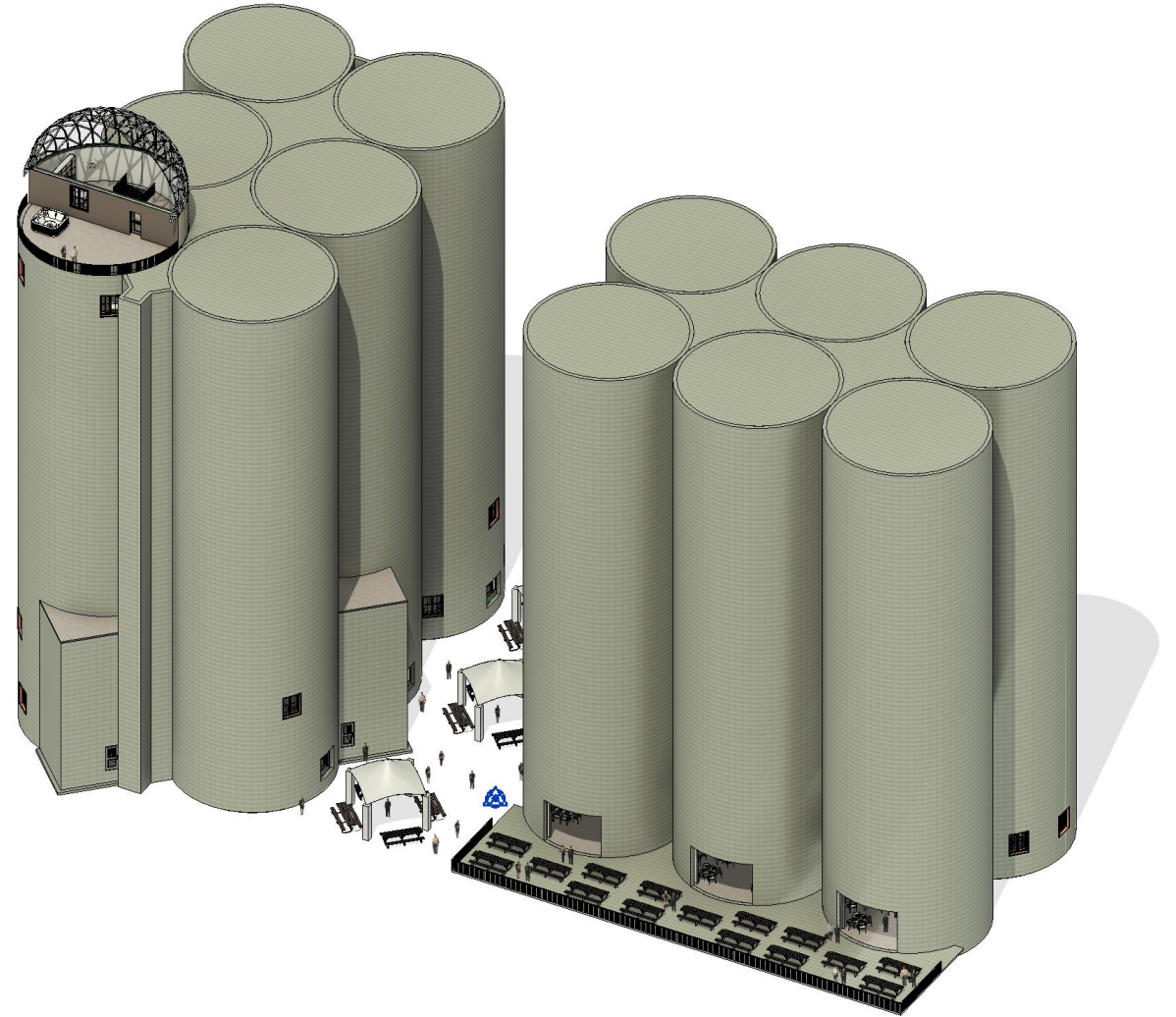


# Grain Silo Adaptive Reuse

Final Presentation

May 8, 2026



**IOWA**

Civil and Environmental  
Engineering

# Our Team



**Brady Adams**  
Project Manager



**Alexis Isenberg**  
Architectural Design



**Jack Muller**  
Structural Design



**Alexa Vekich**  
Civil Engineering Design

# Presentation Outline

Project  
Description

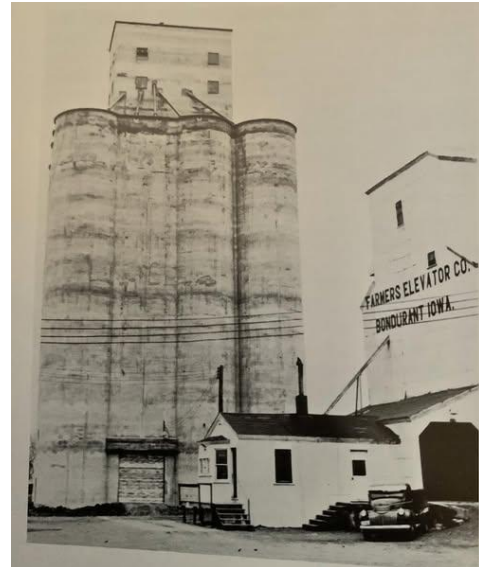
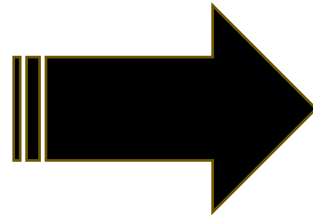
Design  
Alternatives

Final  
Design

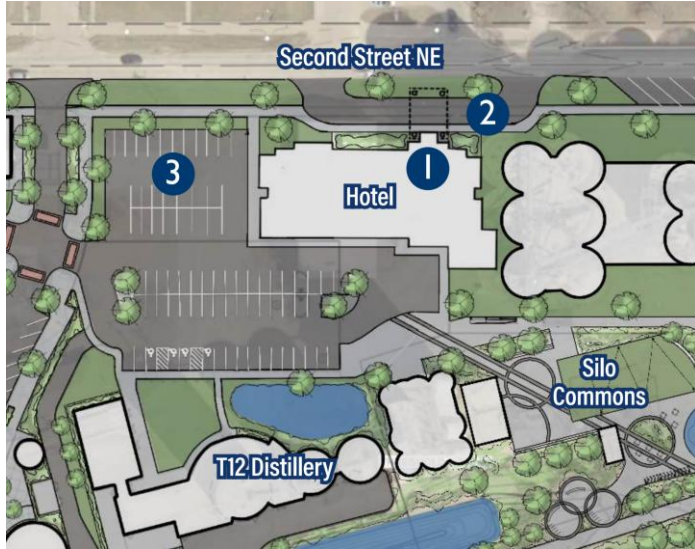
Project  
Cost



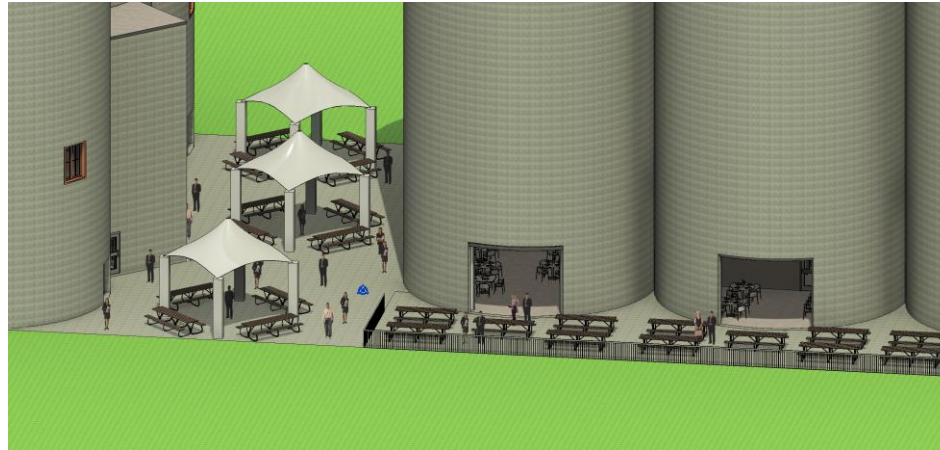
# Project Goals



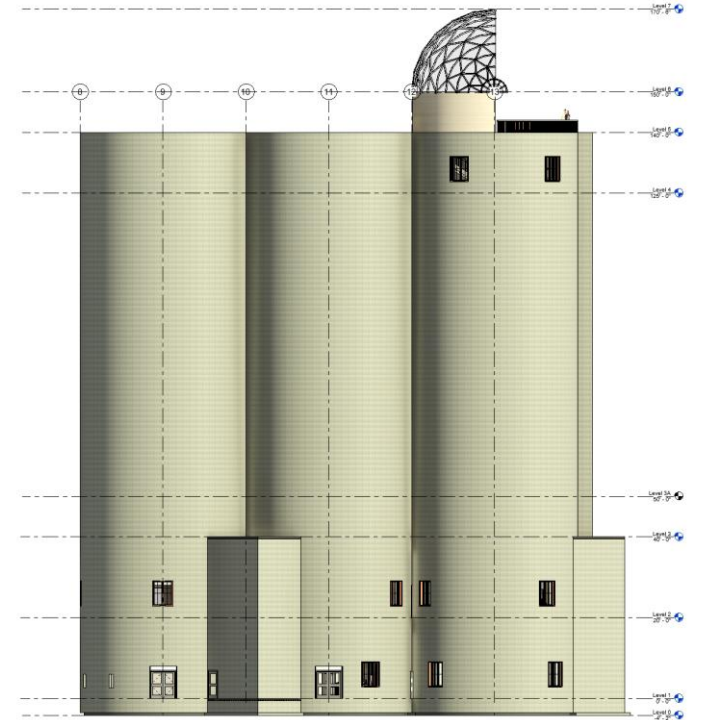
# Project Requirements



**Integration with proposed Grain District & Silo Commons**



**Interaction with outdoor space**



**Functionally support multi-level mixed-use spaces**

# Design Alternatives to Final Design



**Alternative 1**

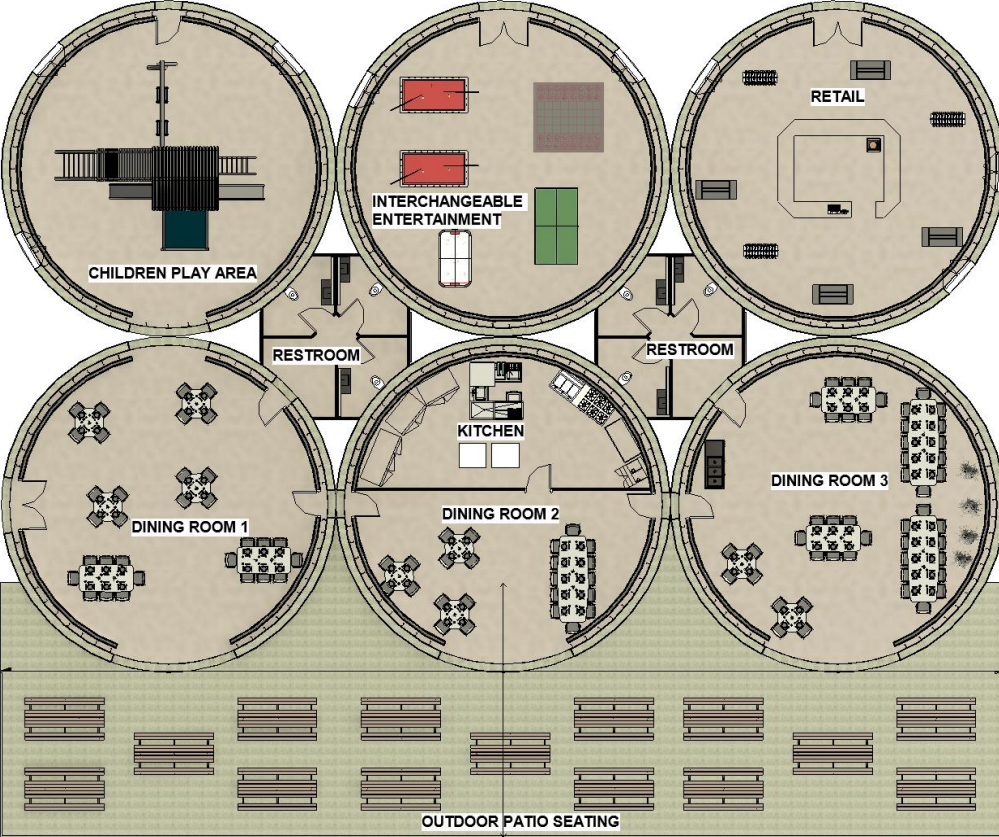
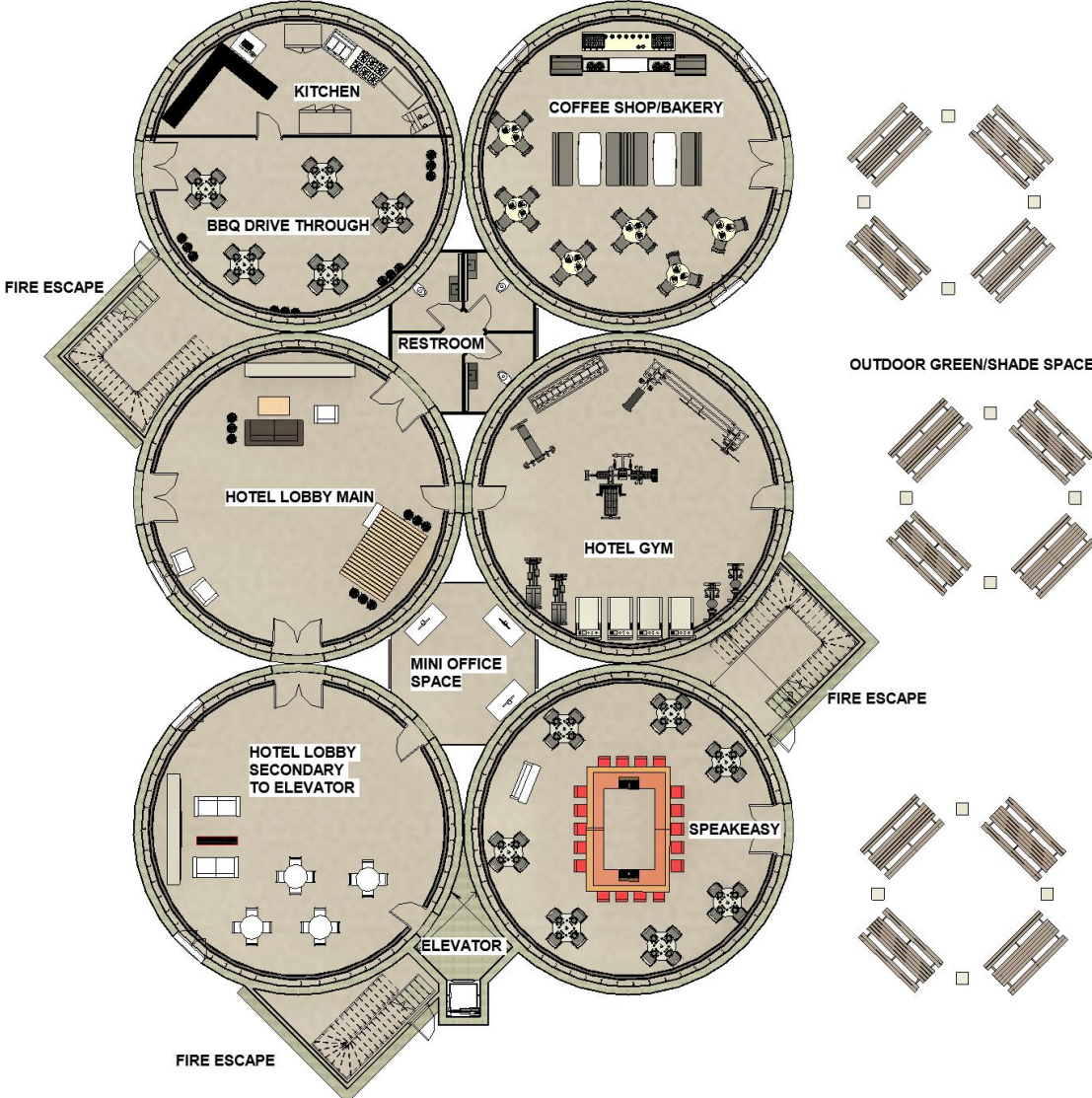


**Alternative 2**

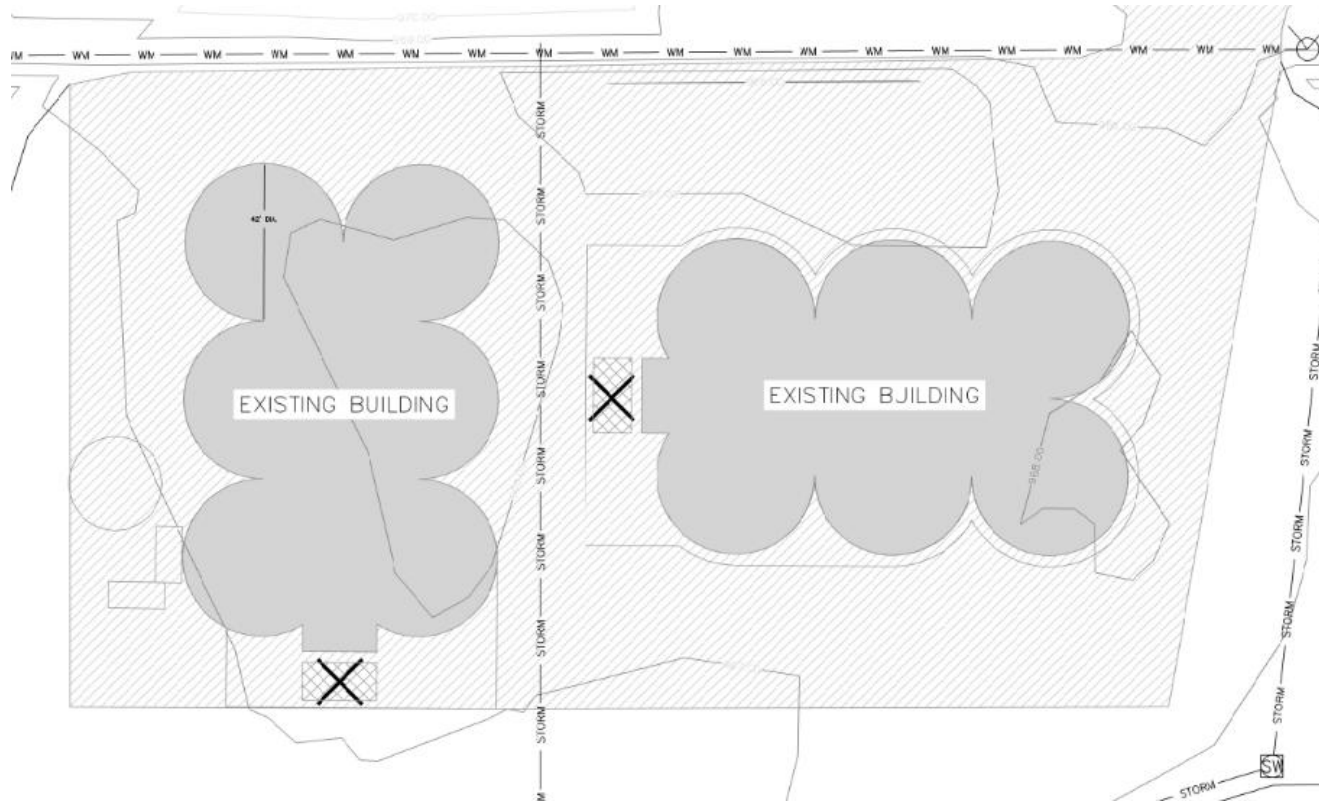


**Alternative 3**

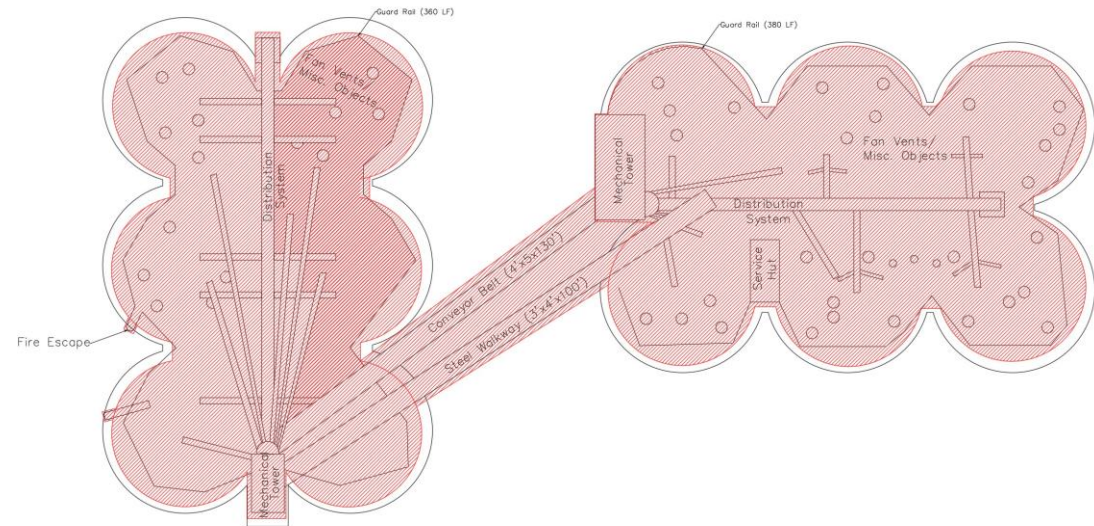
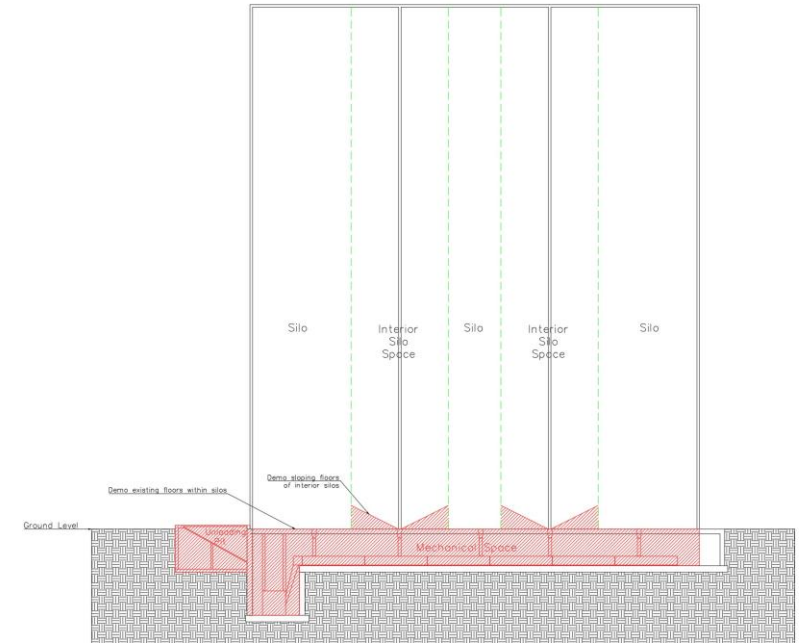
# Design Alternatives to Final Design



# Demolition

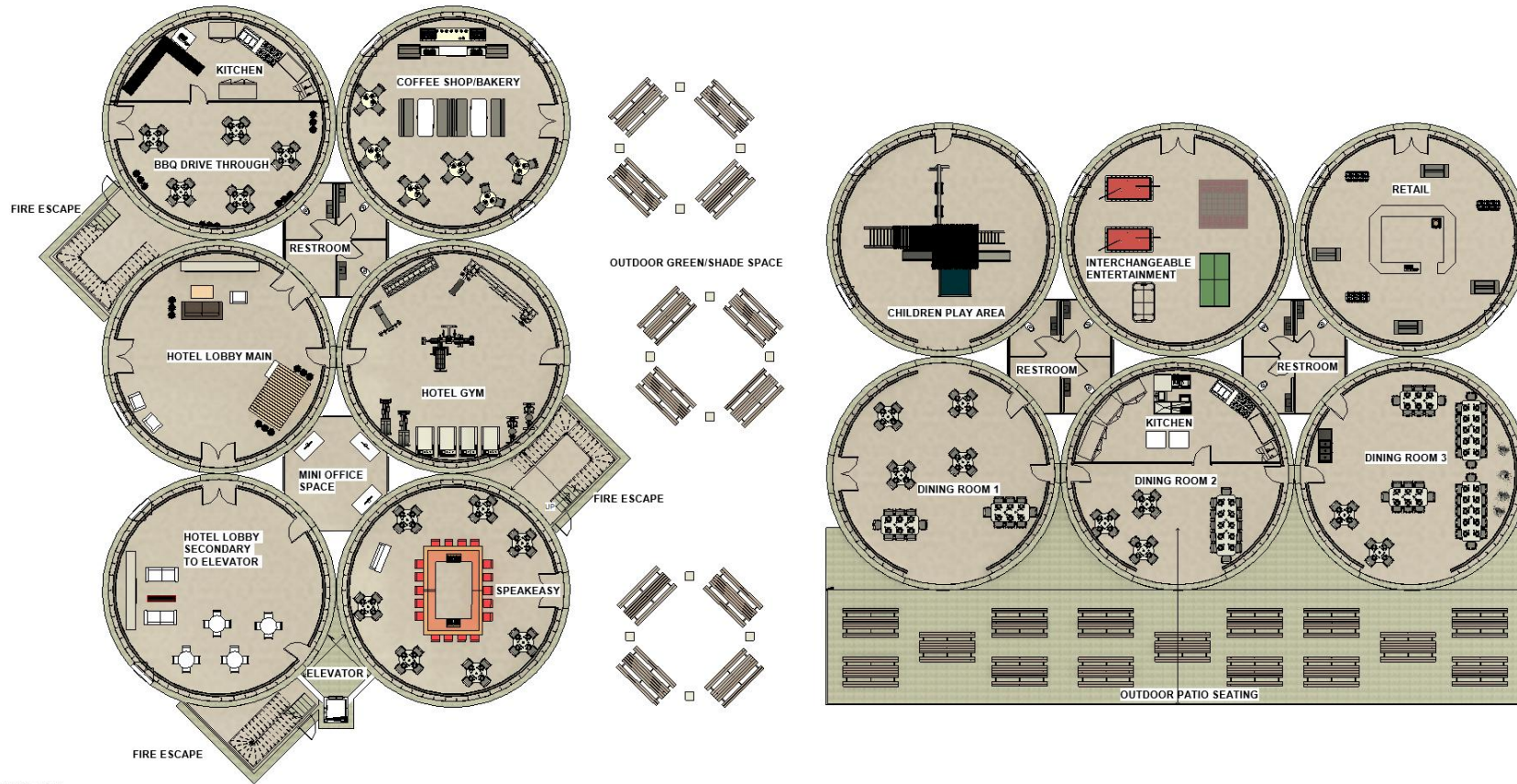


Site Demolition

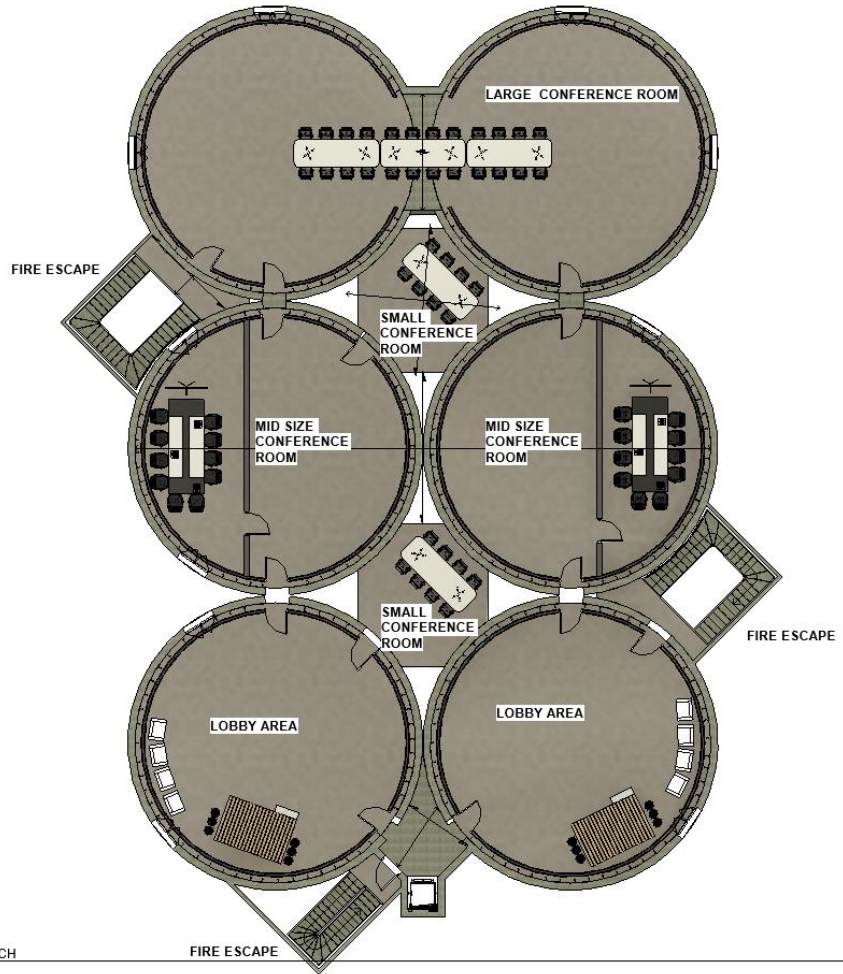


Structural Demolition

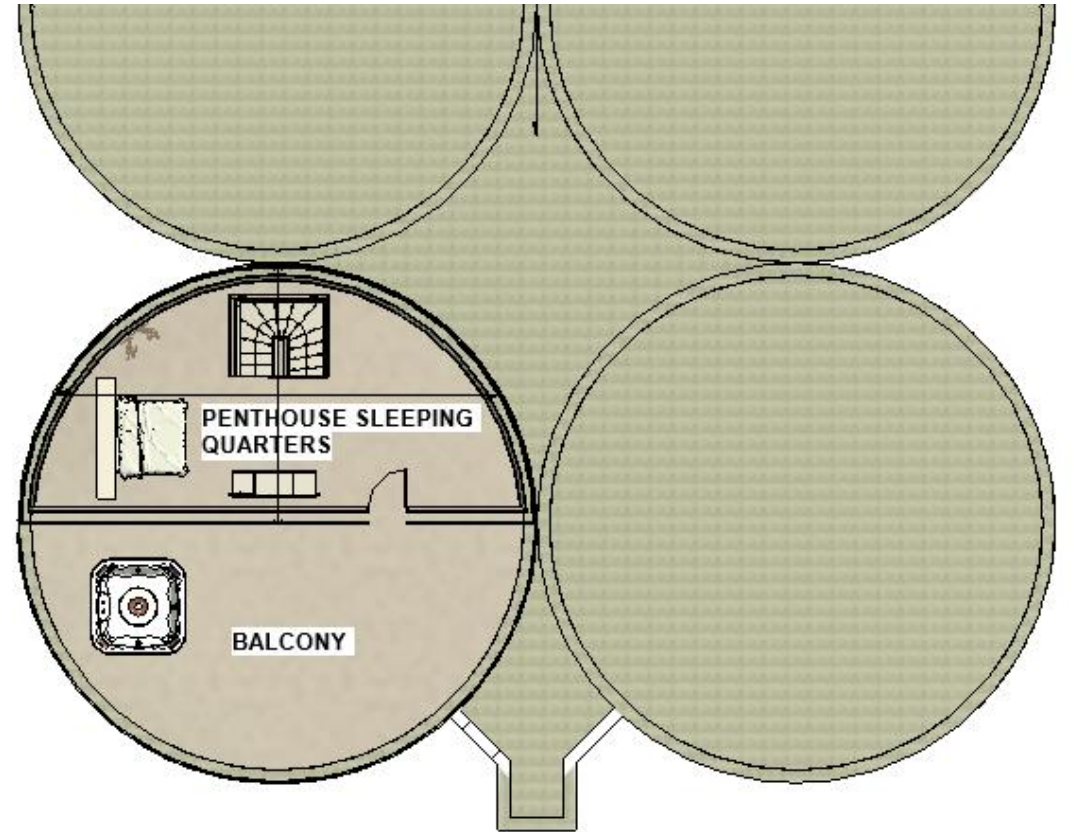
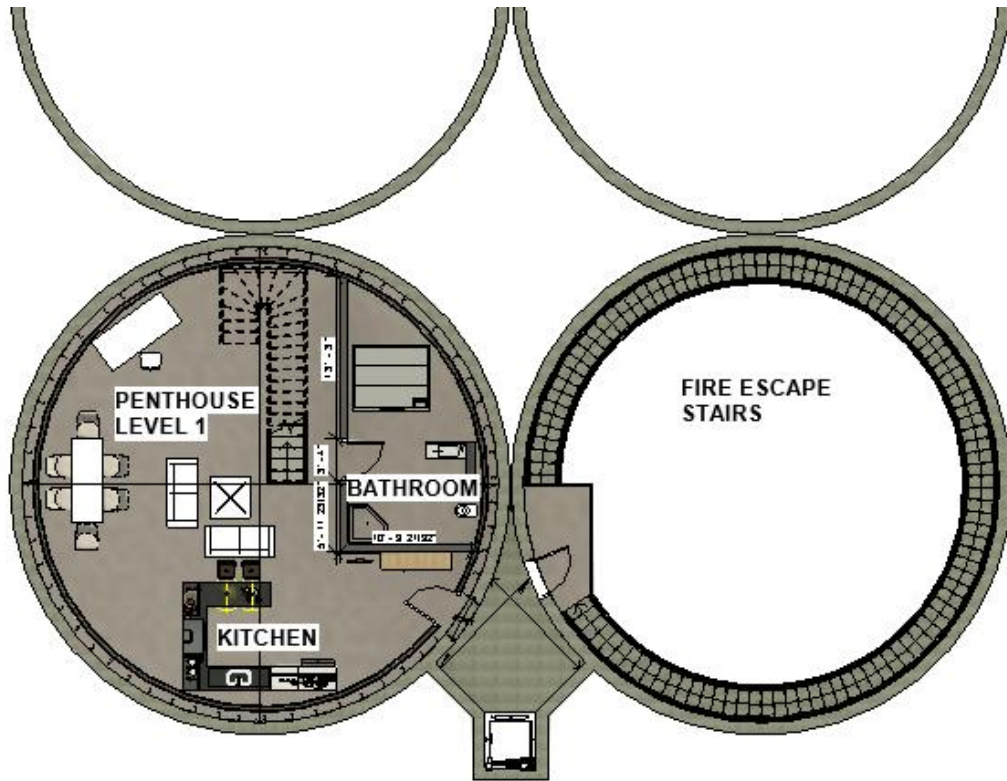
# Architectural Level 1 (Mixed-Use Space)



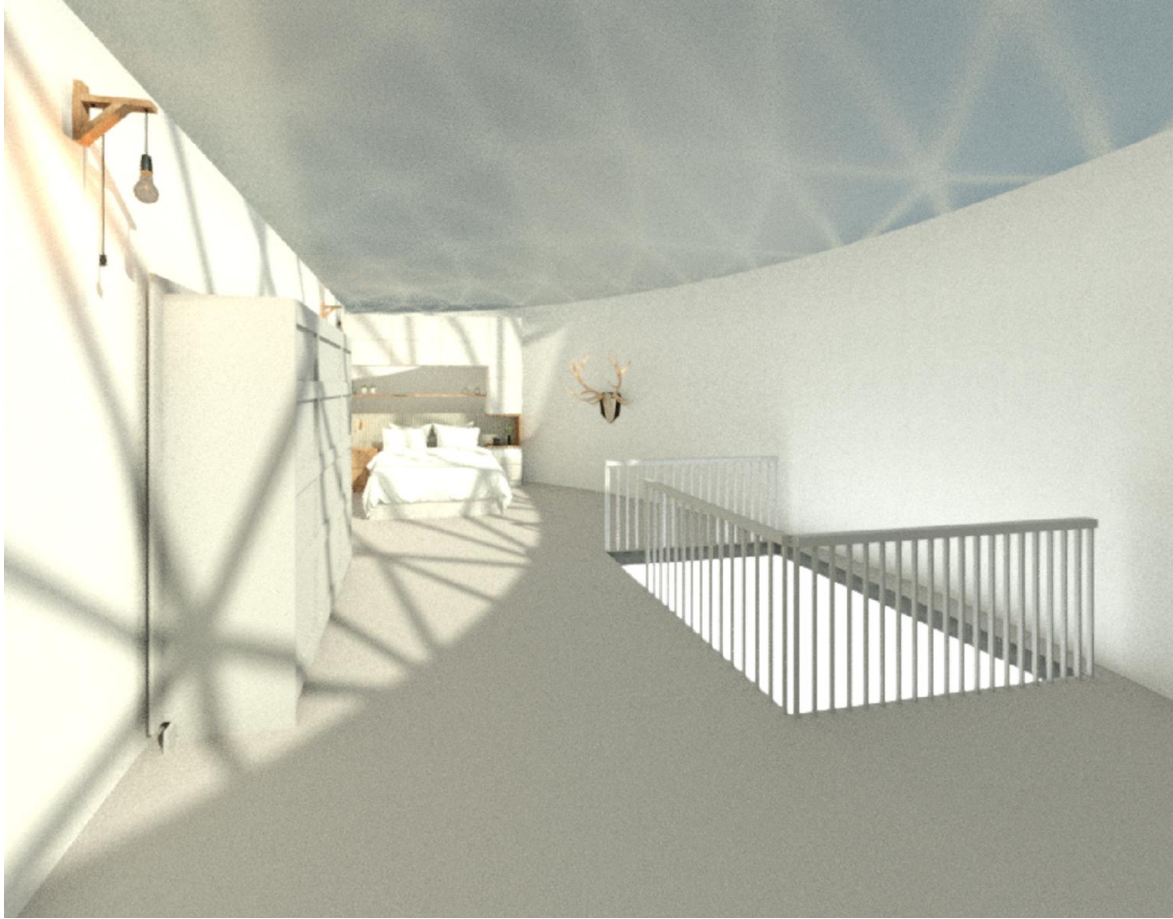
# Architectural Level 2 (Conference Space)



# Architectural Level 4 & 5 (Penthouse)



# Architectural Level 4 & 5 (Penthouse)



**Sleeping Quarters**



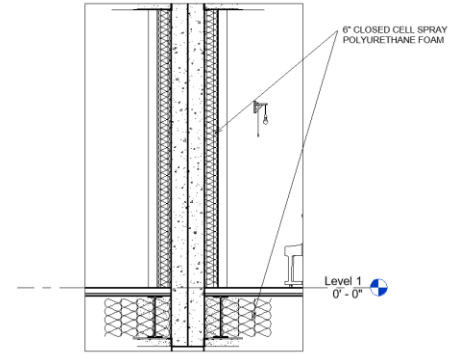
**Bathroom**



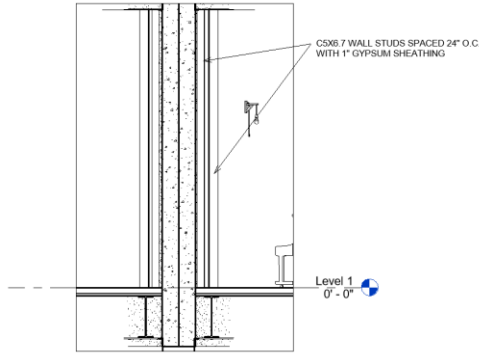
**Living Space**

# Insulation Details & Interior Wall Framing

## Level 1 & 2

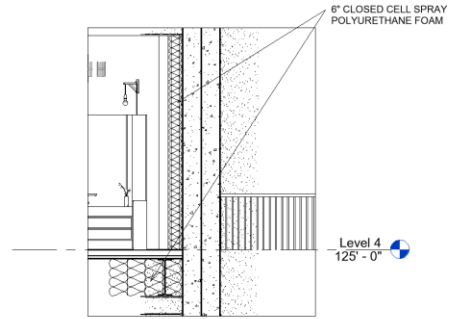


② INSULATION - LEVEL 1  
1/4" = 1'-0"

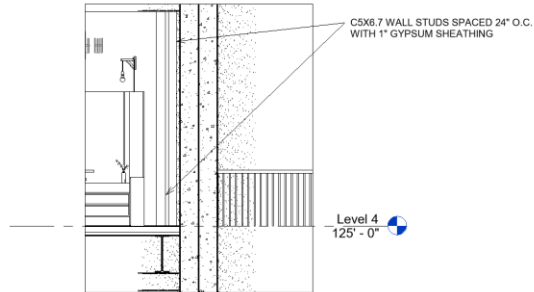


③ WALL FRAMING - LEVEL 1  
1/4" = 1'-0"

## Level 4

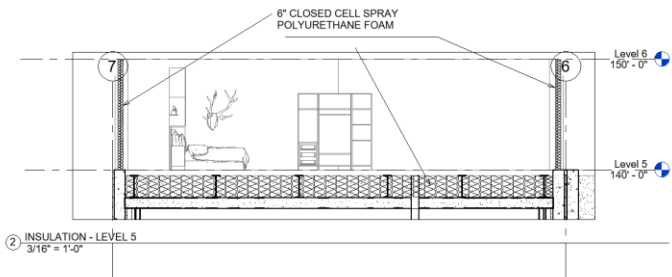


② INSULATION - LEVEL 4  
1/4" = 1'-0"

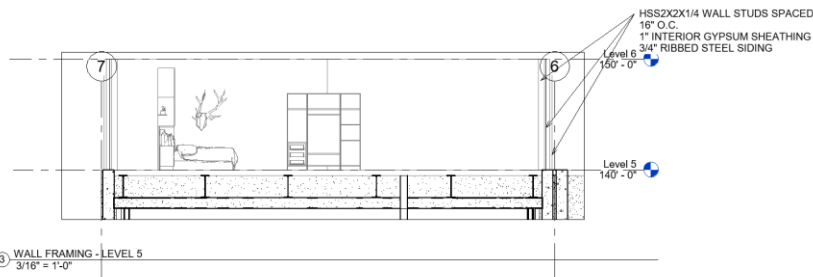


③ WALL FRAMING - LEVEL 4  
1/4" = 1'-0"

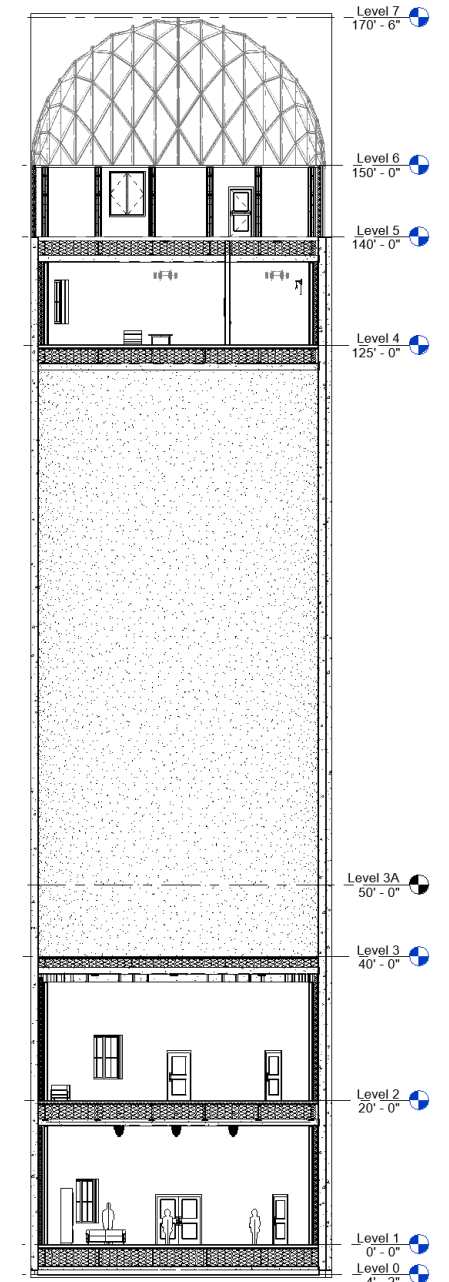
## Level 5



② INSULATION - LEVEL 5  
3/16" = 1'-0"

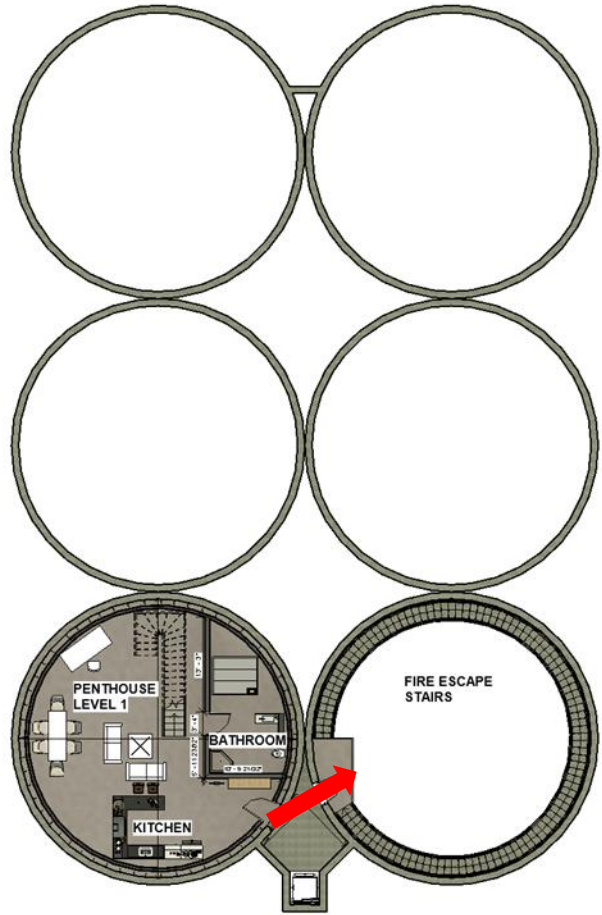
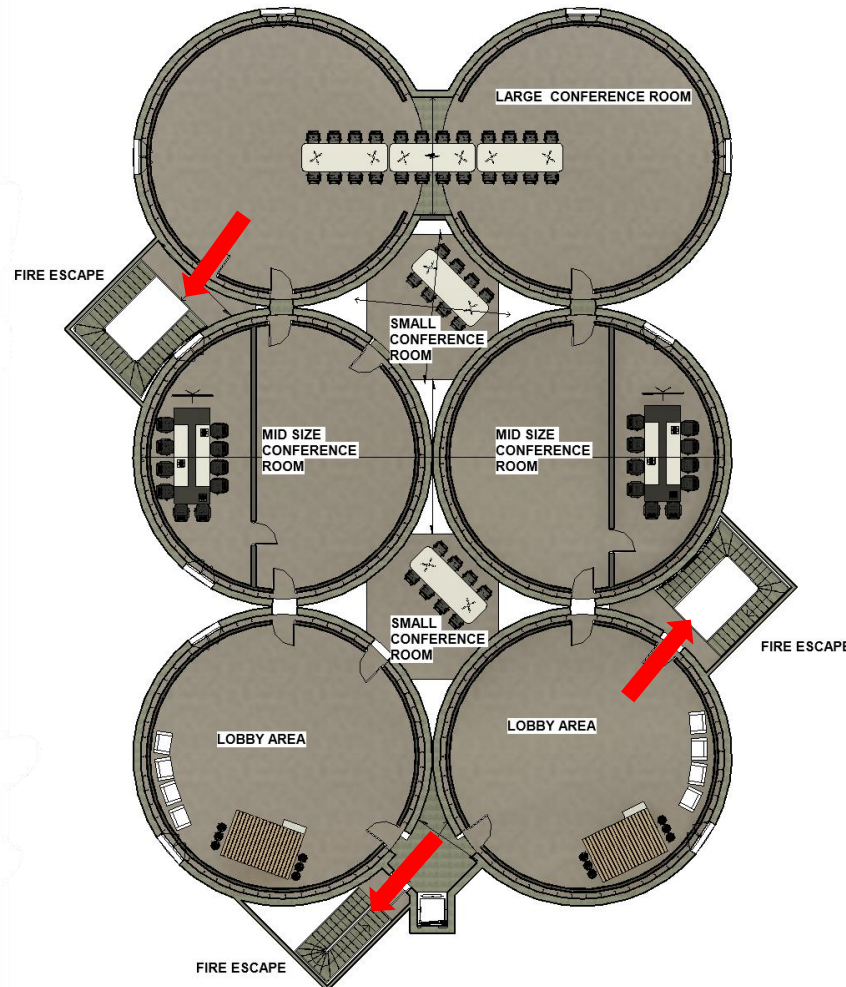
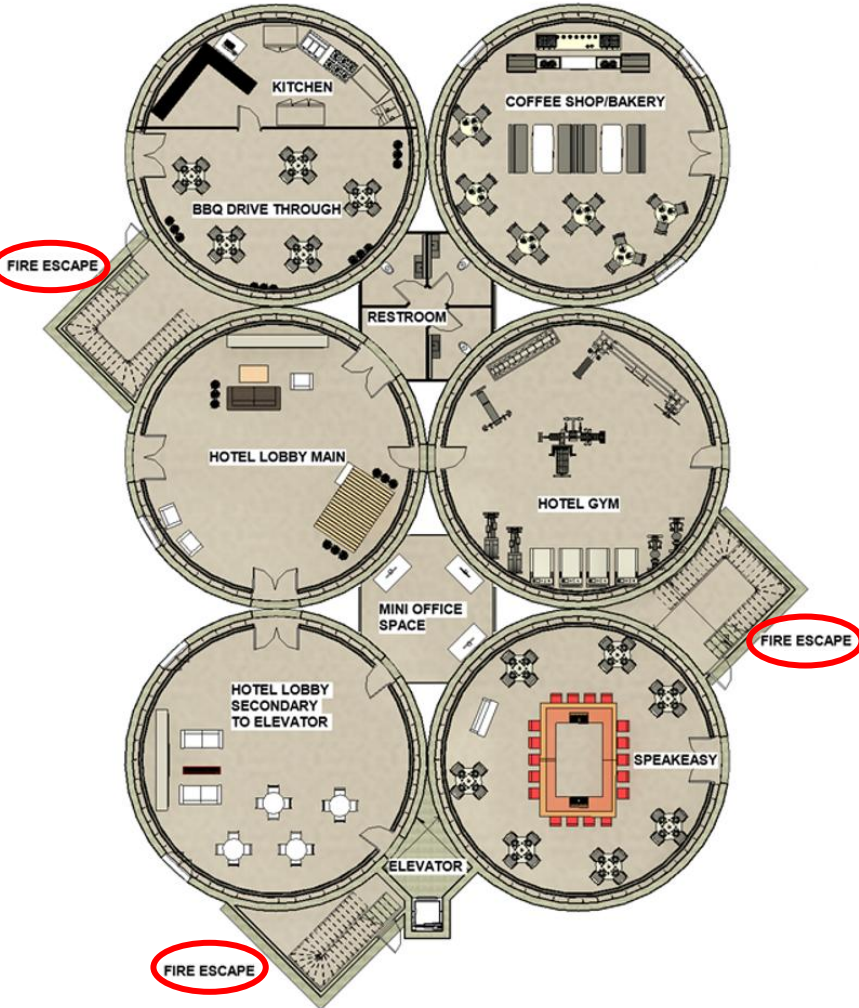


③ WALL FRAMING - LEVEL 5  
3/16" = 1'-0"

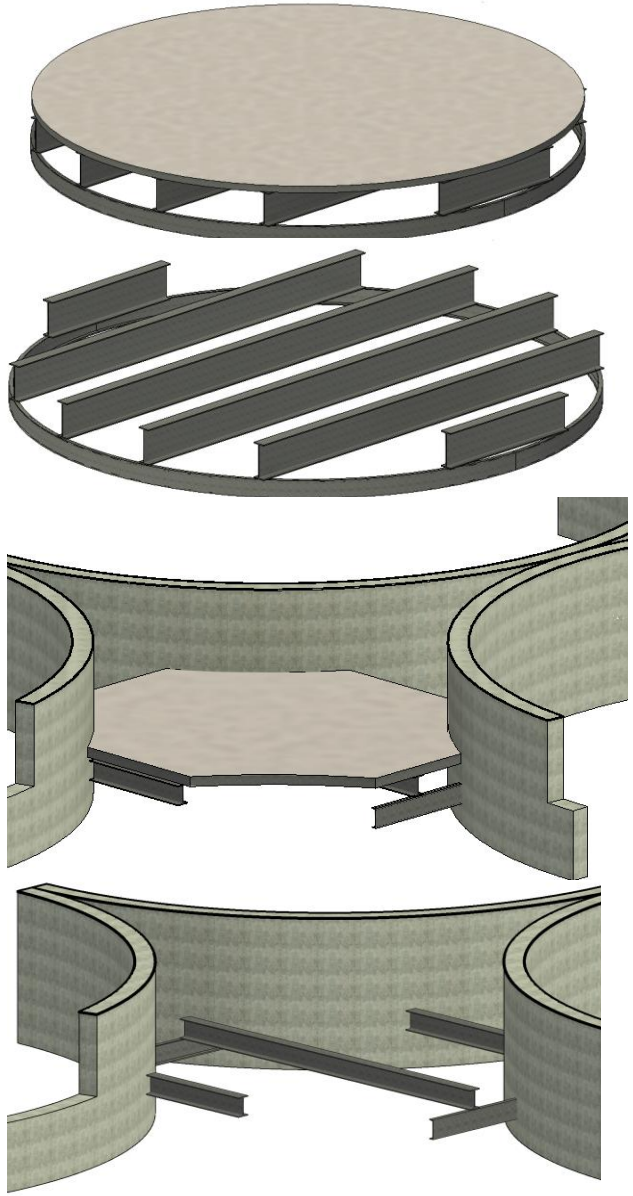
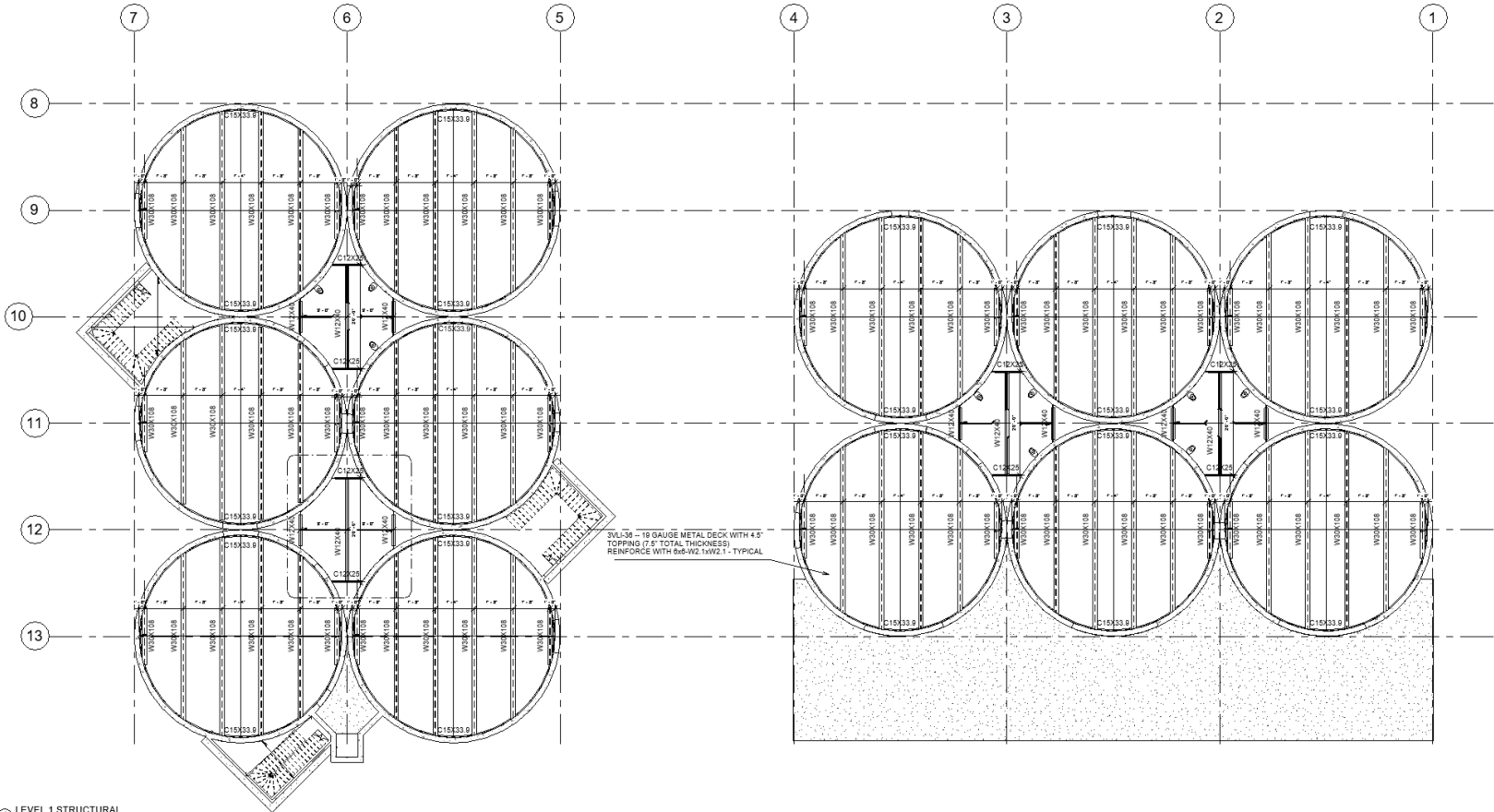


Insulation Story Pole

# Means of Egress & Fire Escape

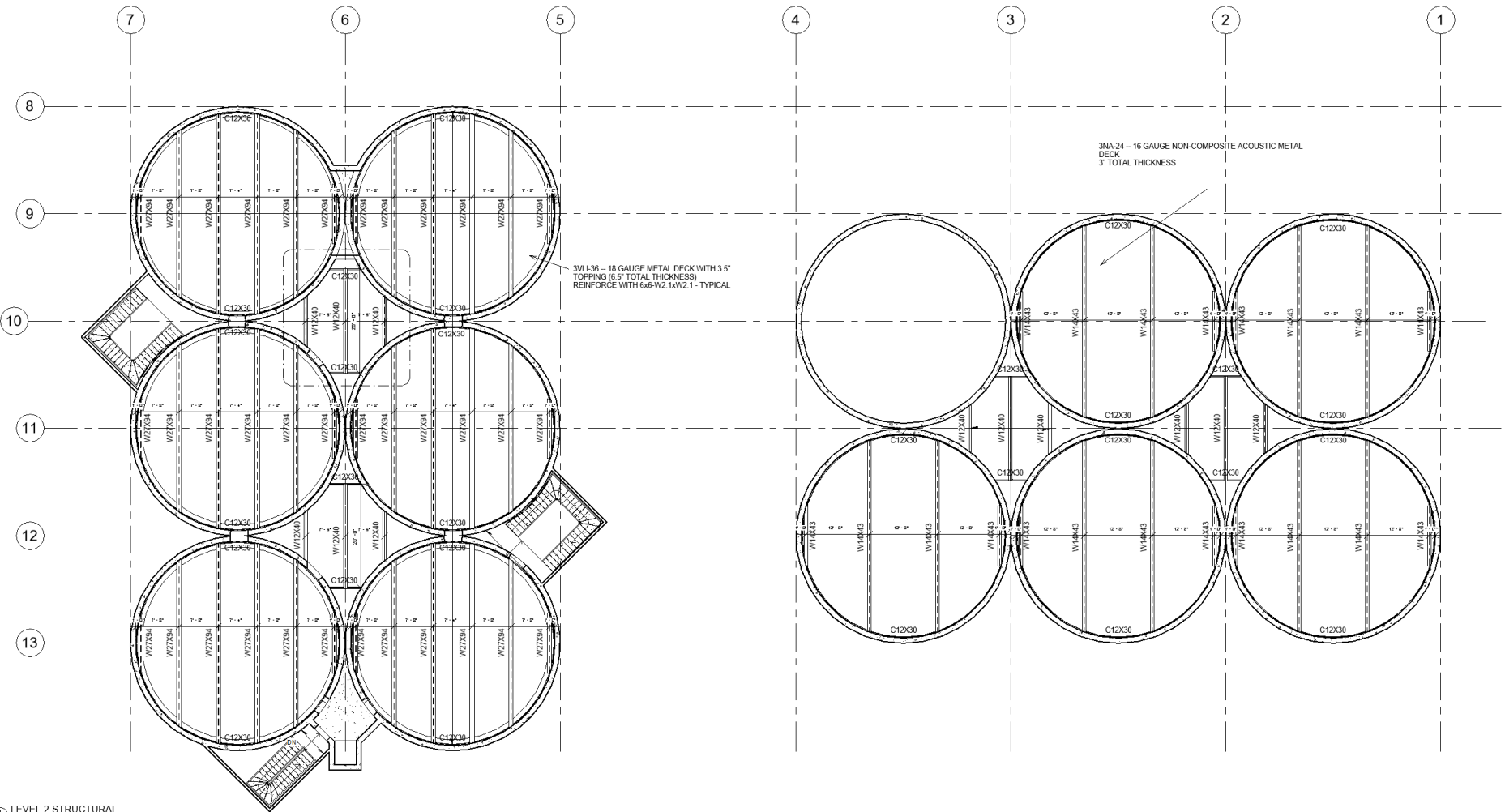


# Structural – Level 1 (Mixed-use space)

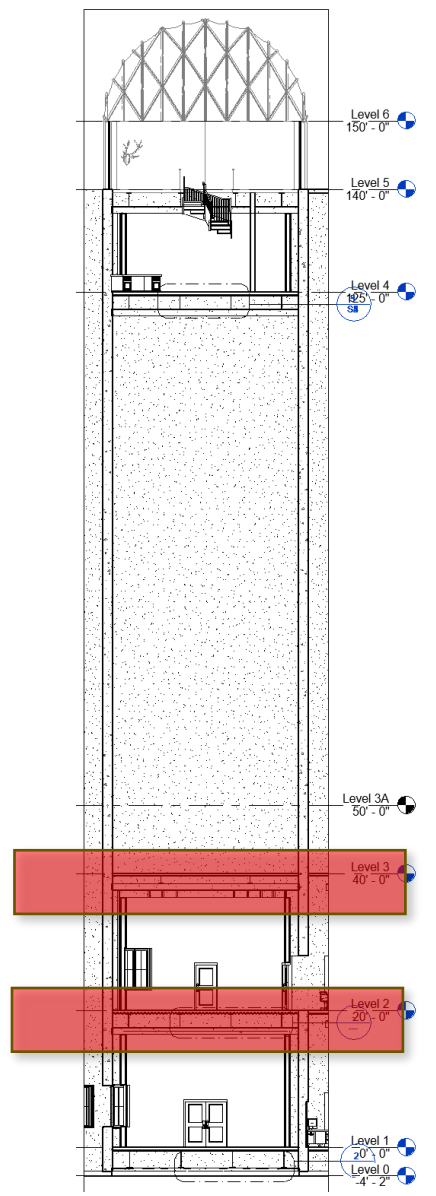


LEVEL 1 STRUCTURAL  
3/32" = 1'-0"

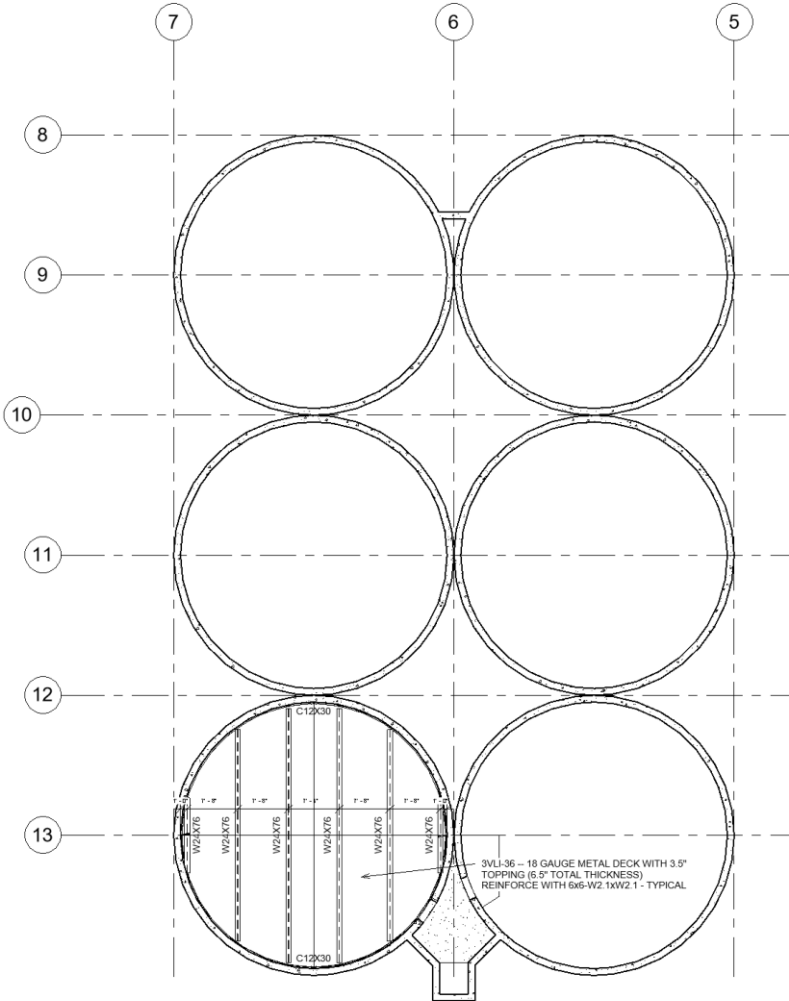
# Structural – Level 2 (Western Conference Level)



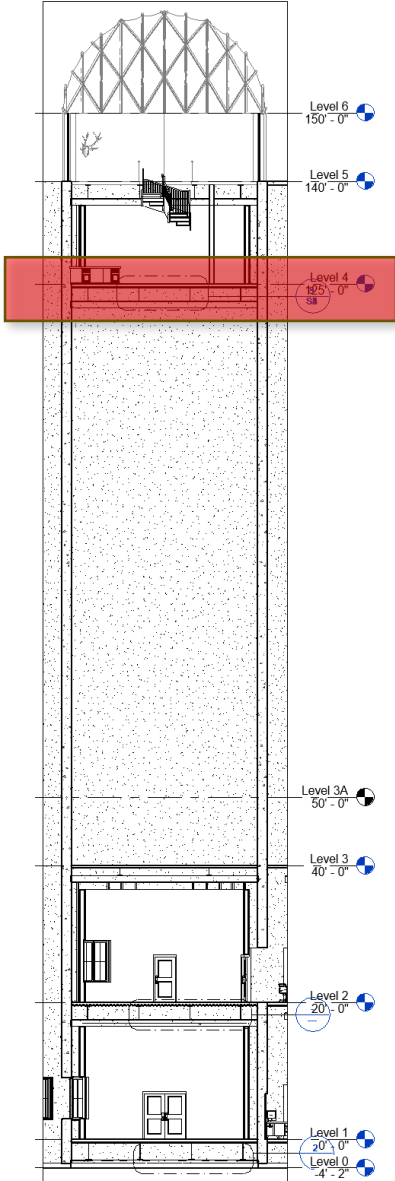
① LEVEL 2 STRUCTURAL  
3/32" = 1'-0"



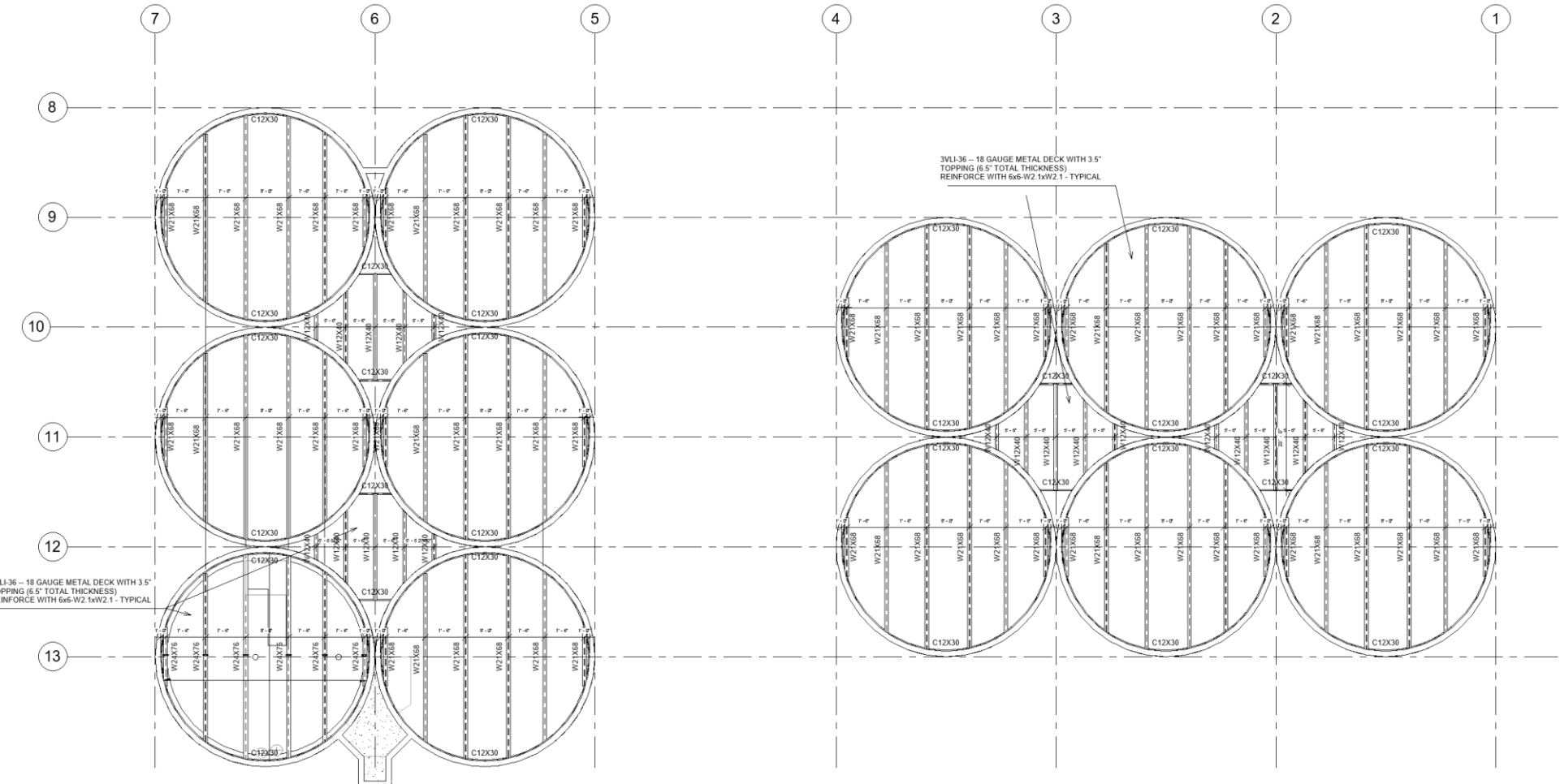
# Structural – Level 4 (Penthouse First-Floor Framing)



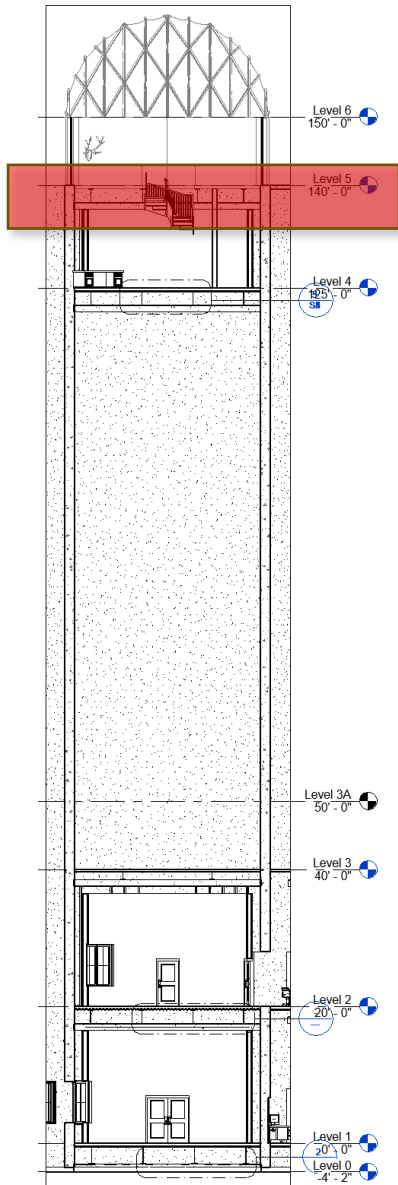
1 LEVEL 4 STRUCTURAL  
3/32" = 1'-0"



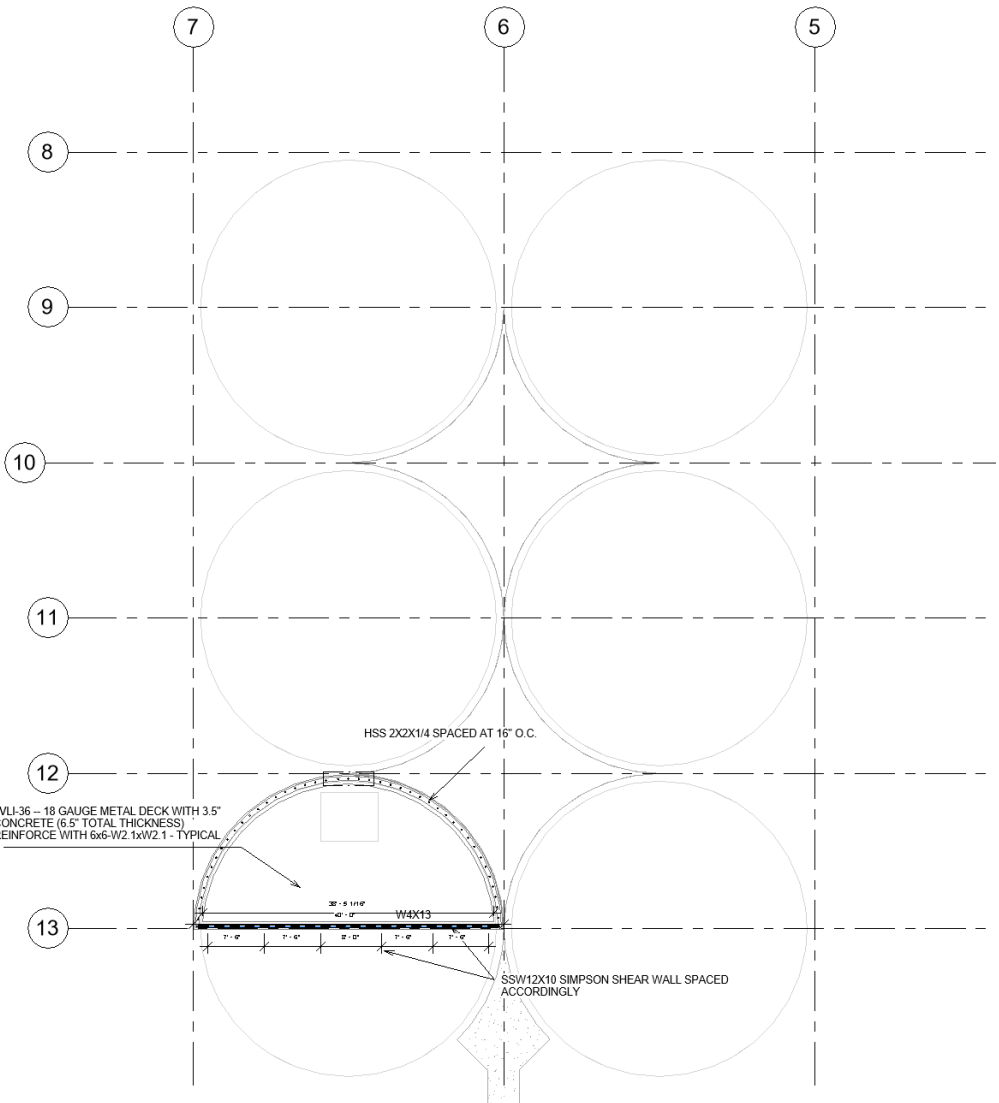
# Structural – Level 5 (Penthouse Sleeping Quarters & New Roof Floor Framing)



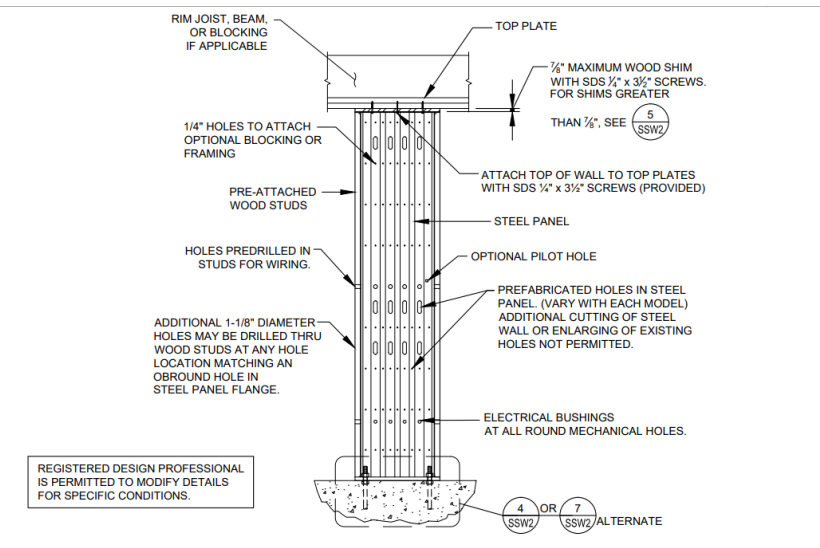
① LEVEL 5 STRUCTURAL  
3/32" = 1'-0"



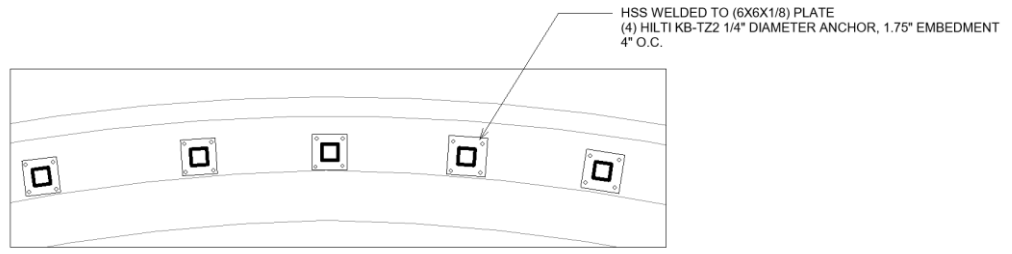
# Structural – Level 6 (Penthouse Suite Wall Framing)



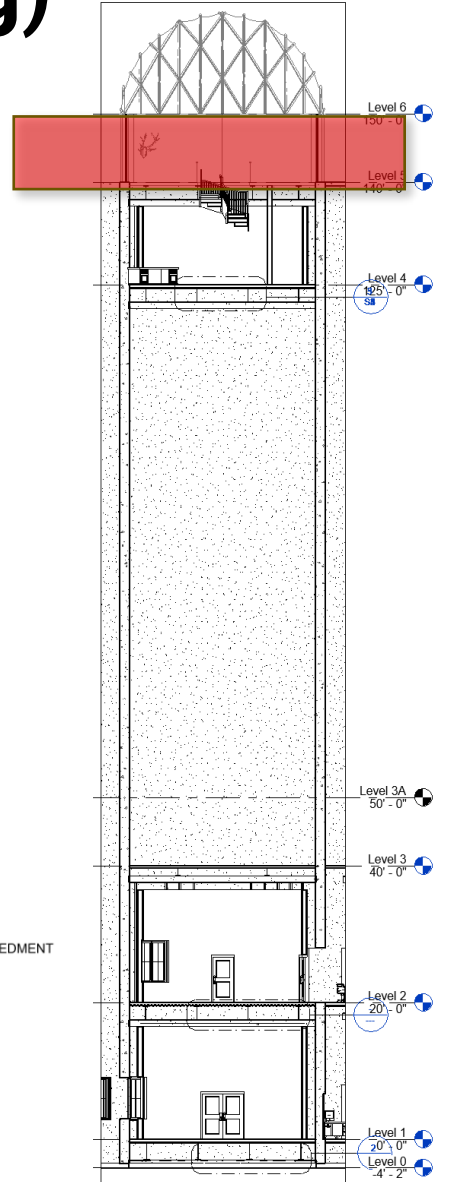
① LEVEL 6 STRUCTURAL  
3/32" = 1'-0"



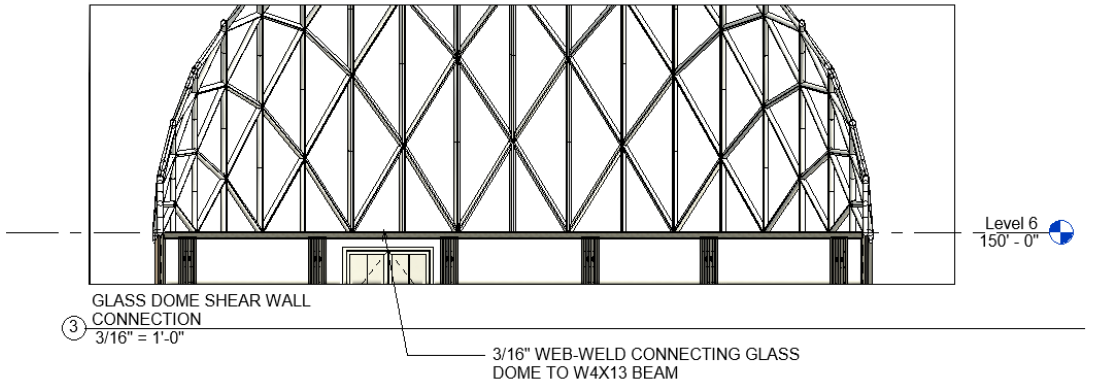
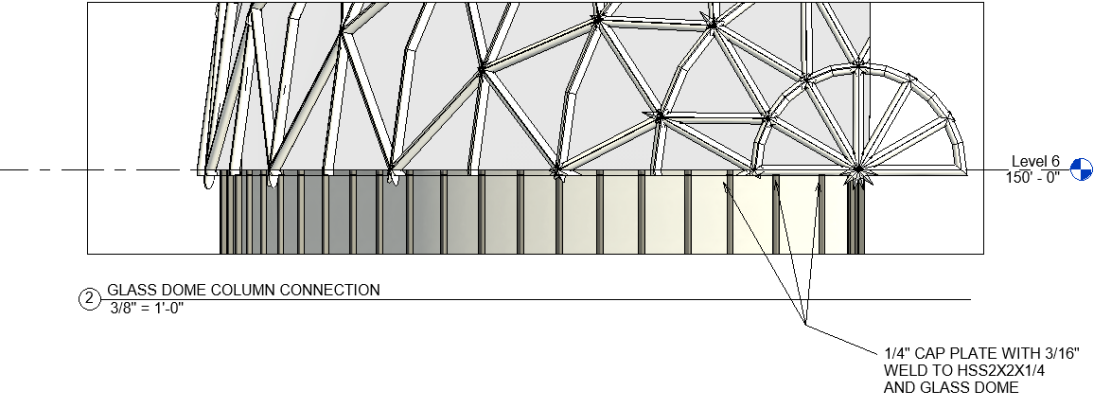
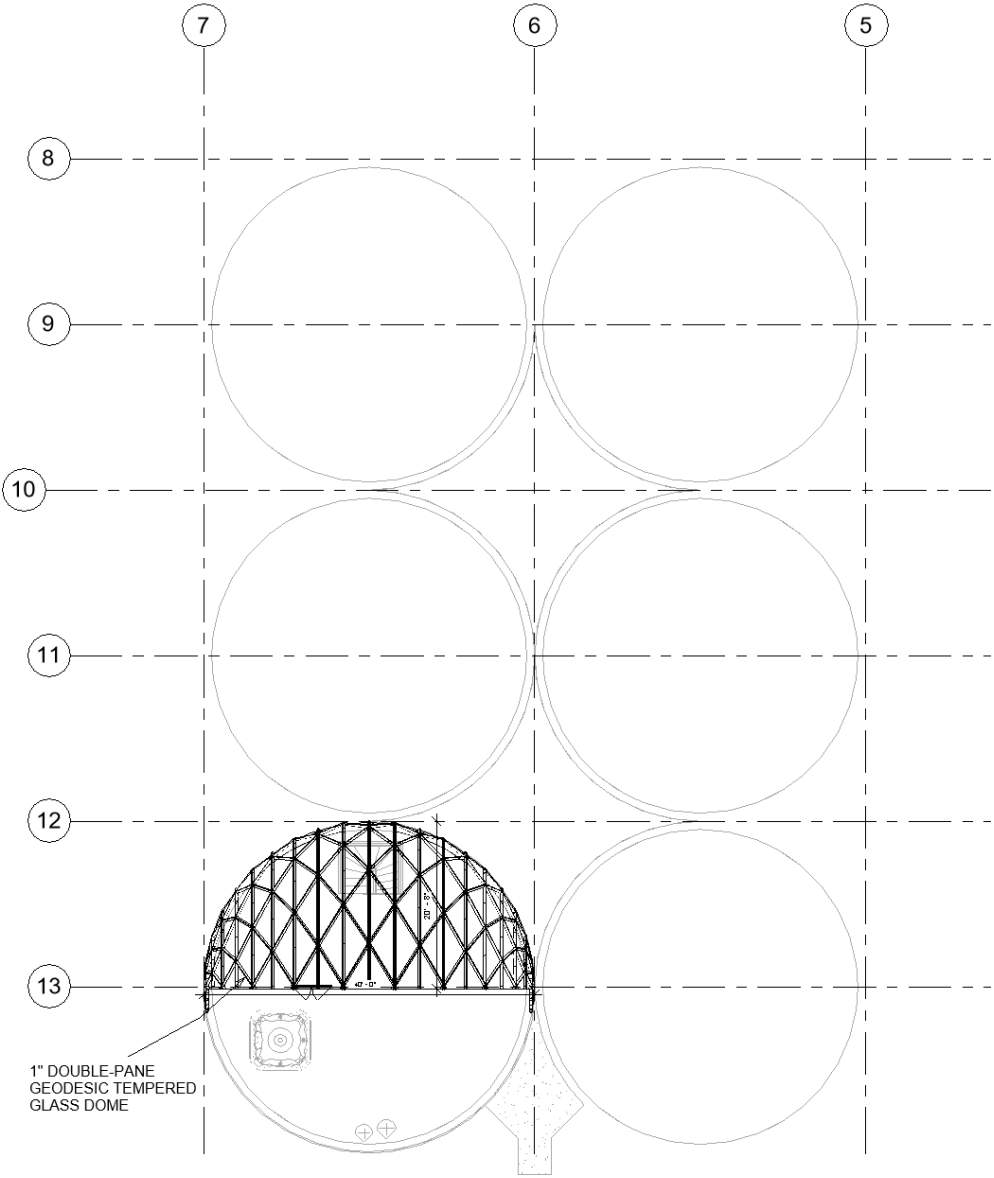
**SINGLE-STORY SSW ON CONCRETE** 2



② LEVEL 6 COLUMN PLATE DETAIL  
1" = 1'-0"

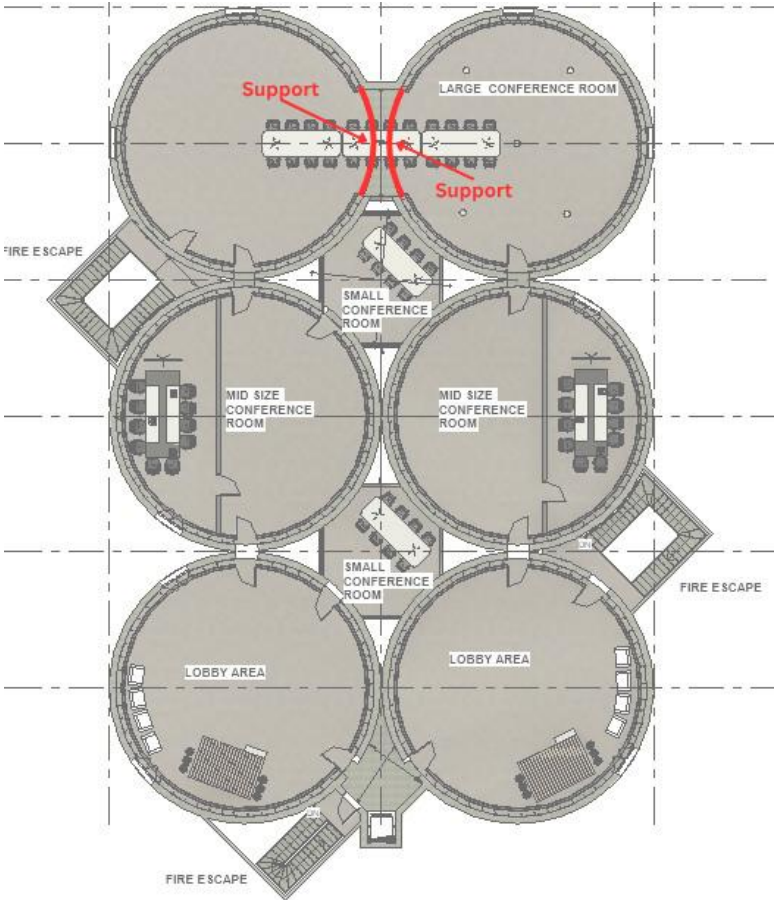
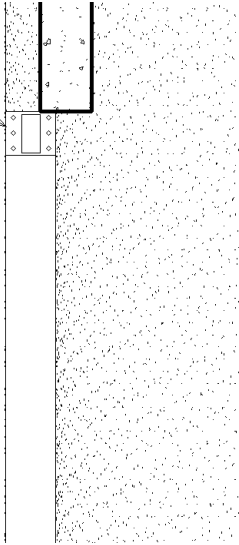


# Structural – Level 7 (Penthouse Dome Roof Framing)

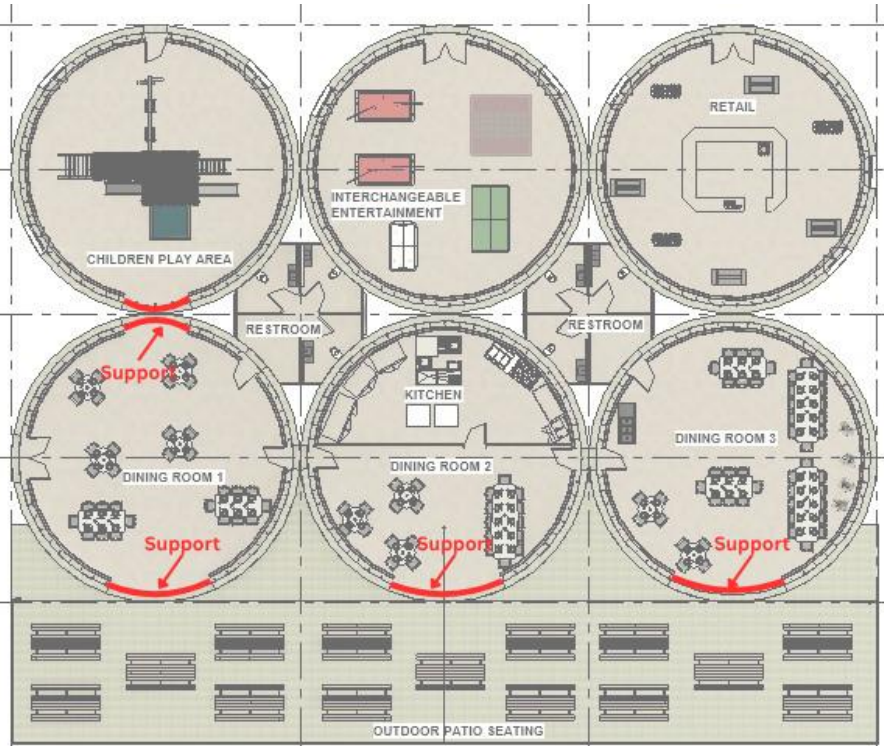
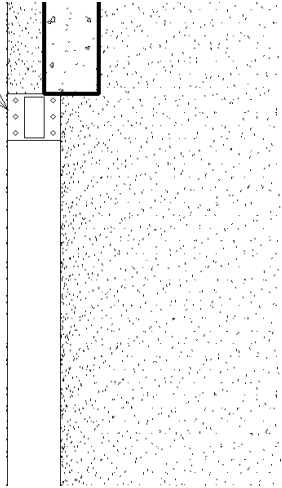


# Structural Reinforcement

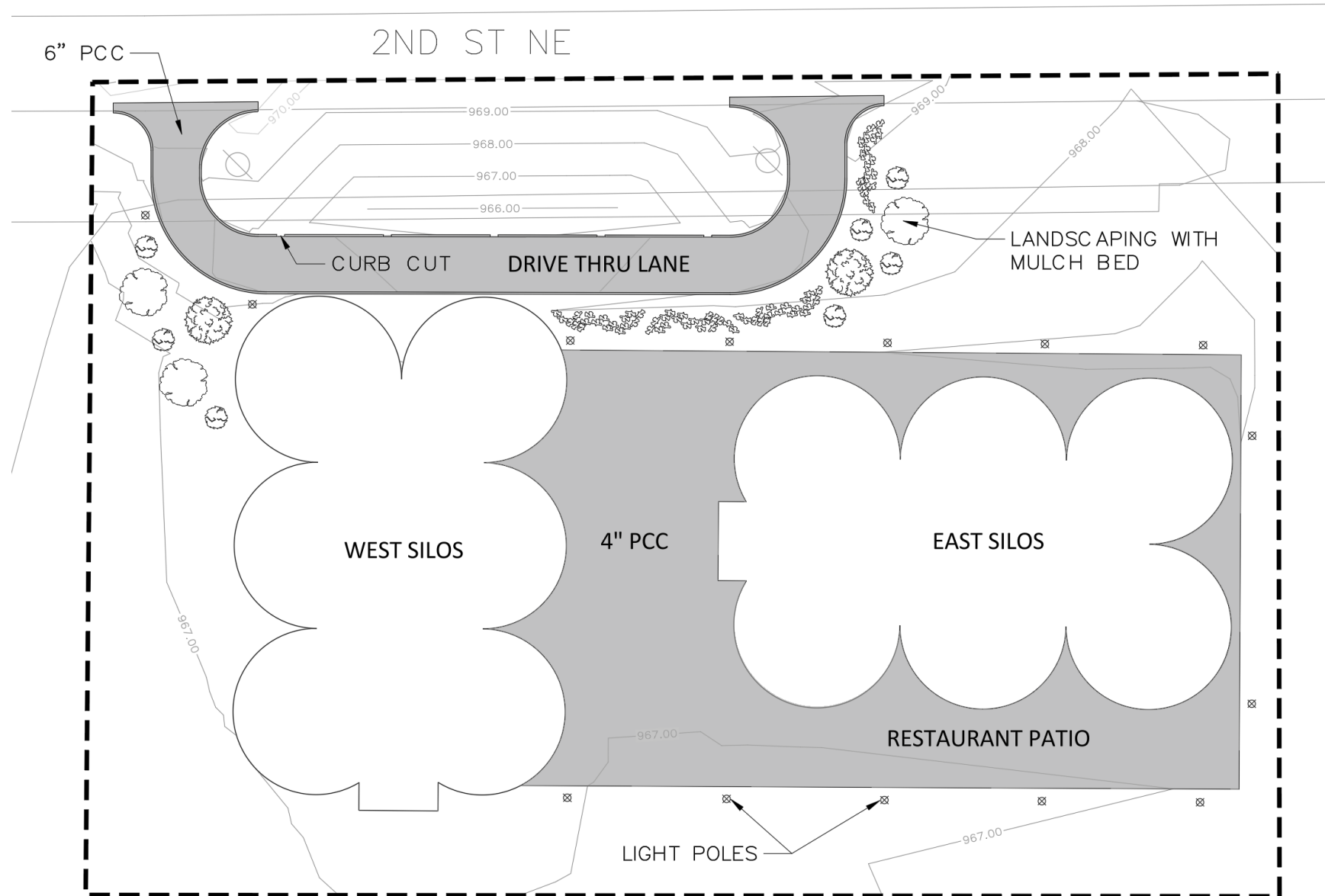
HSS6X4X5/16 WELDED TO 3/8" PLATE WITH  
(6) HILTI KB-TZ2 3/8" DIAMETER ANCHOR, 2" EMBEDMENT  
2.875" SPACING, 6.125" O.C.



HSS6X4X1/4 WELDED TO 3/8" PLATE WITH  
(6) HILTI KB-TZ2 3/8" DIAMETER ANCHOR, 1.5" EMBEDMENT  
2.875" SPACING, 6.125" O.C.



# Site Design



# Site Design Details



**Autumn Blaze Maple**



**Arborvitae**



**Boxwood**



**Ninebark**



**Light Pole**

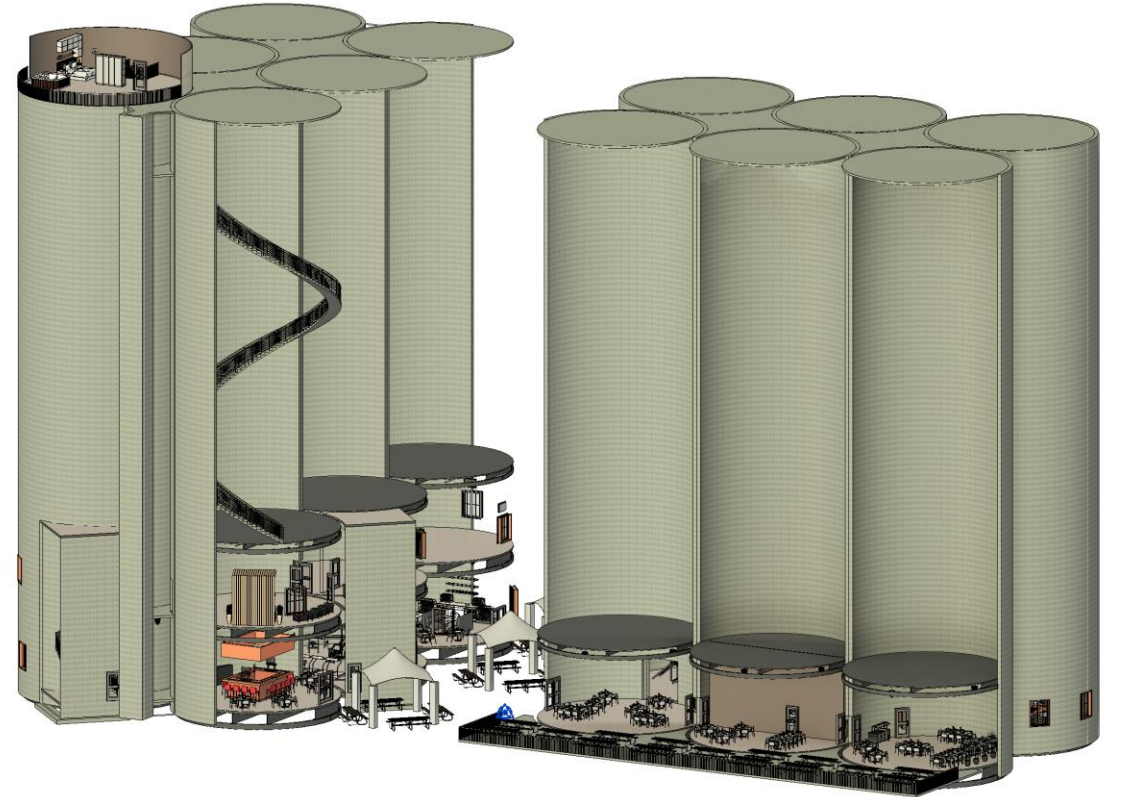
# Project Cost

<u>Item</u>	<u>Cost</u>
Demolition	\$ 345,812
Site Development	\$ 200,351
Concrete	\$ 109,670
Structural/Framing Steel	\$ 1,656,395
Floor/Roof Systems	\$ 299,411
Finishes	\$ 712,071
<b>Construction Cost</b>	<b>\$ 3,323,710</b>
Contingency (15%)	\$ 498,557
Administration Fee (10%)	\$ 332,371
<b>Total Project Cost</b>	<b>\$ 4,154,638</b>

Thank you!

**IOWA**

Civil and Environmental  
Engineering



**IOWA**