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AAS Architectural Technology
SUNY Orange
2023-2026

Architectural Design 1

Experience Problem

Project Objective: Incorporating lessons on Primary Elements and from the Repetitive Parts Project, design one space which creates a unique experience.

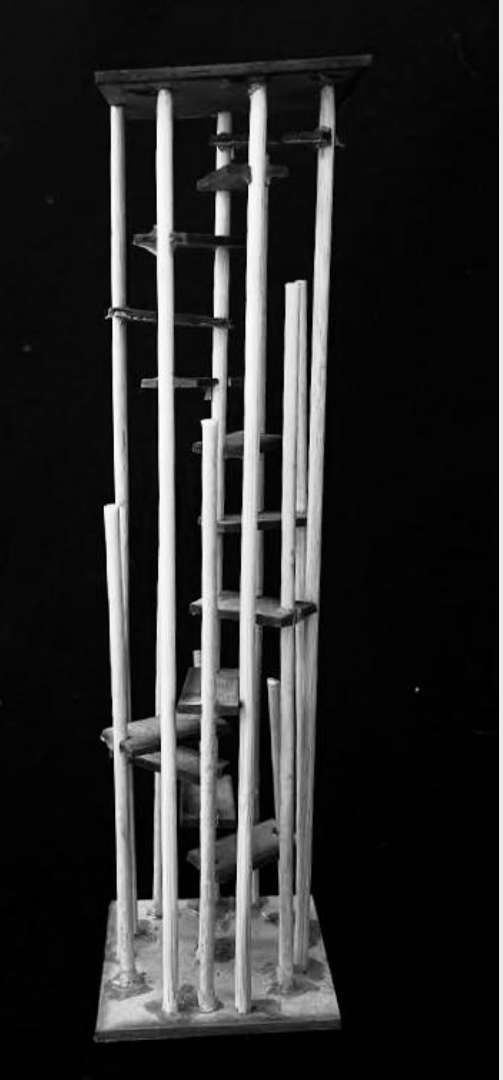
Using only primary elements (point, line, plane, volume), design three separate, distinct spaces, each based on an adjective. Spaces may be no smaller than 40 s.f. and no larger than 200 s.f.

In each space, you are required to differentiate the base plane (floor) from the ground plane. In each space, there should be a clear path of circulation, and a two defined points of entry. Consider the view from each space. How are you framing the view?

Proposed Solution:

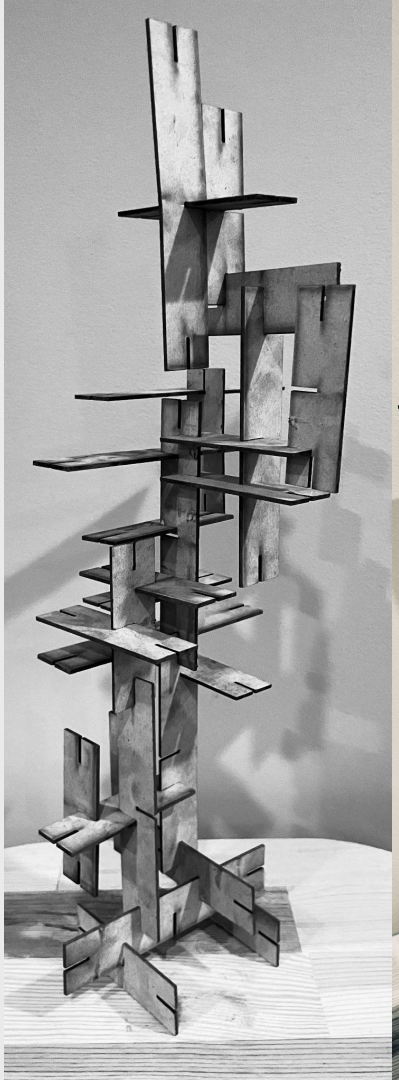
The Komorebi Experience

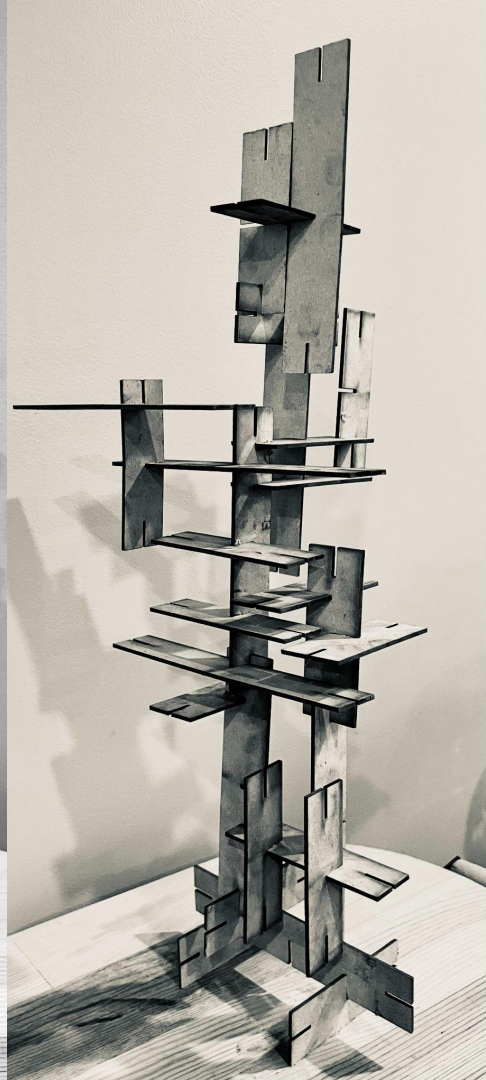
(Komorebi is a Japanese word referring to the light that filters through the levels of a tree). The properties overall goal is to make the partaker of the experience feel closely connected to nature through different perspectives. The structures also manipulate simple design concepts, in order to effect the emotions of the one experiencing it.



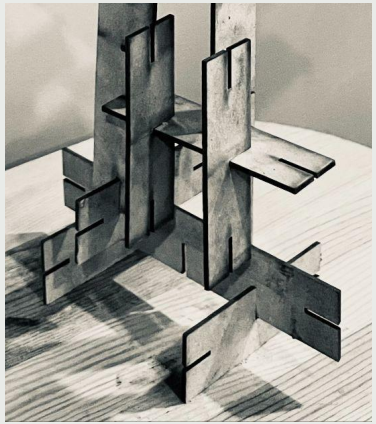
Iteration 1

Iteration 2

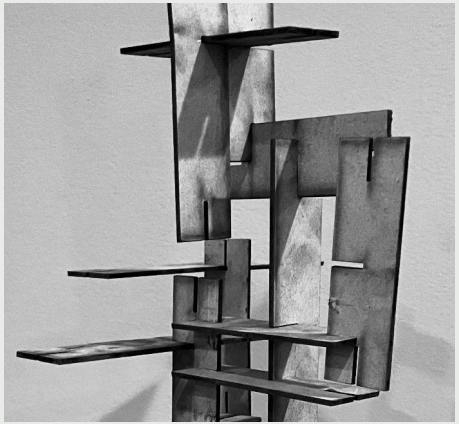




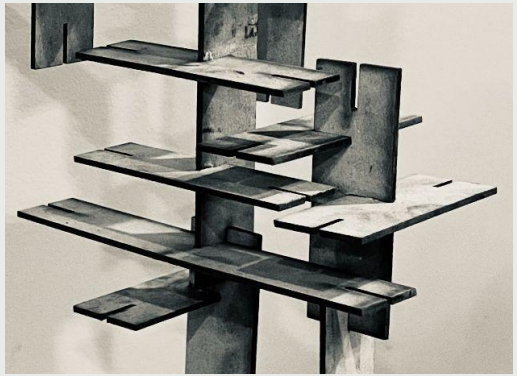
Original Repetitive Parts Moments



Moment 1 = Joyous



Moment 2 = Claustrophobic



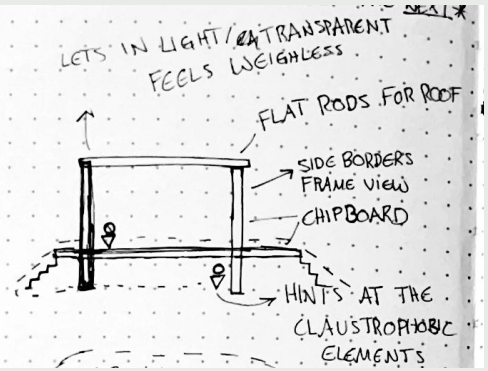
Moment 3 = Layered

White Oak Wood
- Water & rot resistant (perfect for exterior uses)
- Reads warmly

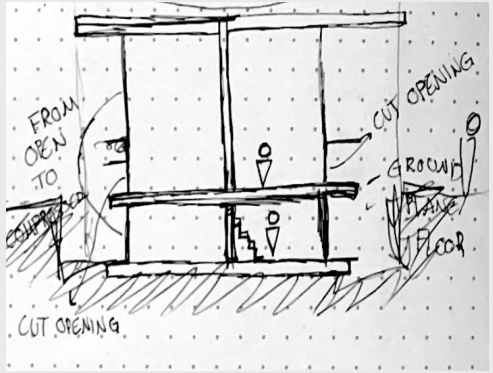
Buttglazed Glass & Textured Glass
- Blends interior & exterior spaces (textured glass manipulates this concept by preventing a visual connection to the exterior)

Concrete
- Versatile
- Long lasting
- Plasticity

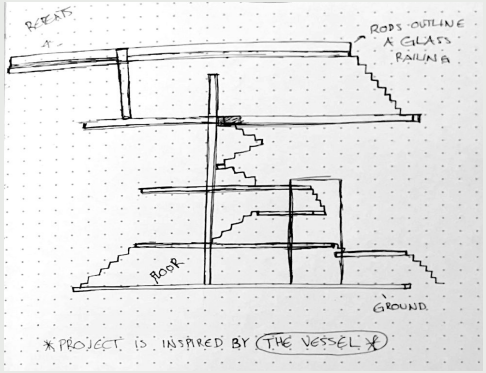
Schematic Process:



Joyous

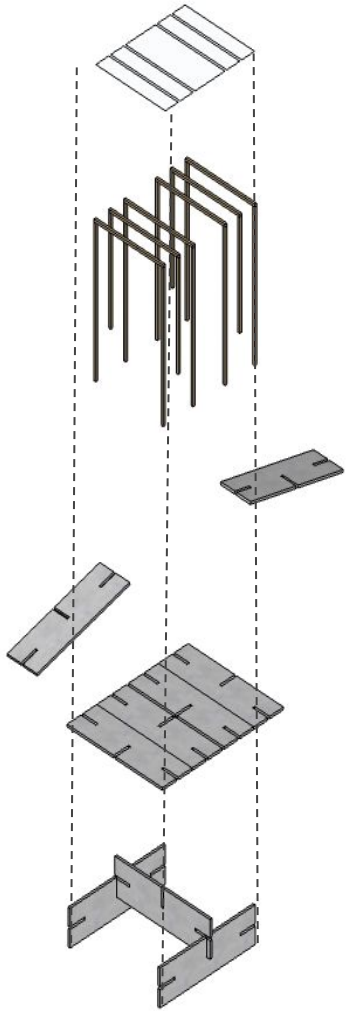


Claustrophobic

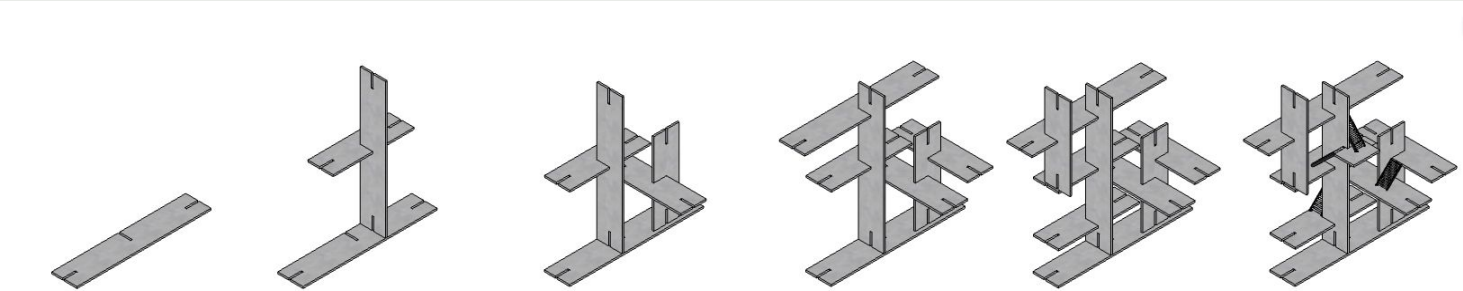


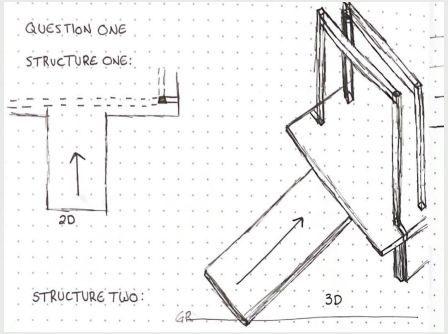
Layered

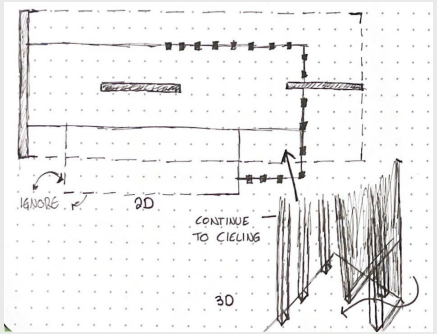
Exploded Axonometric:

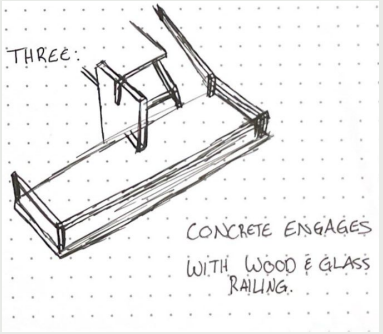


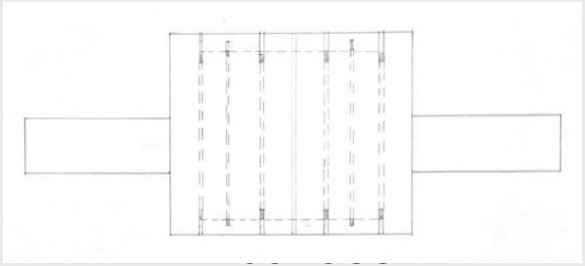
Transformation Of Parts:



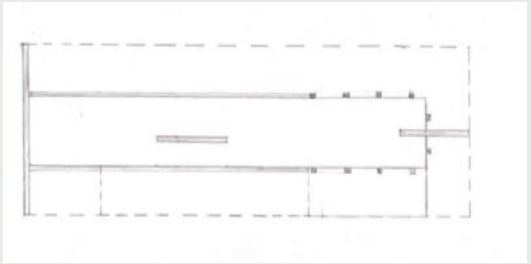




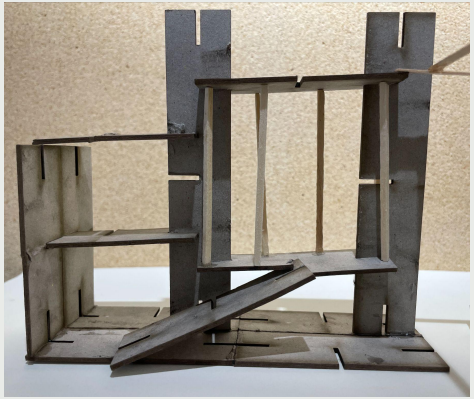


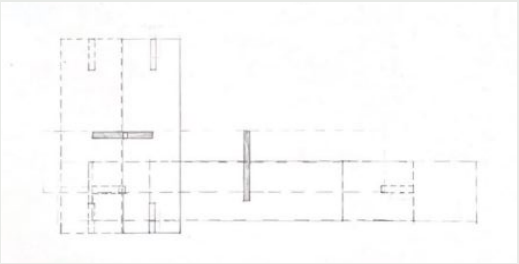


Joyous

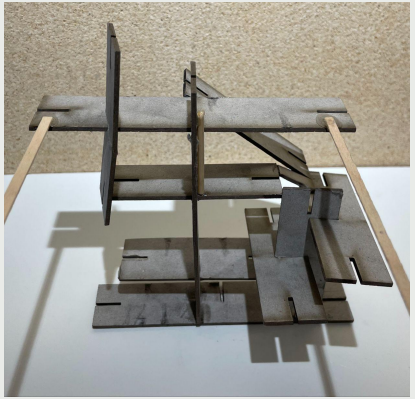


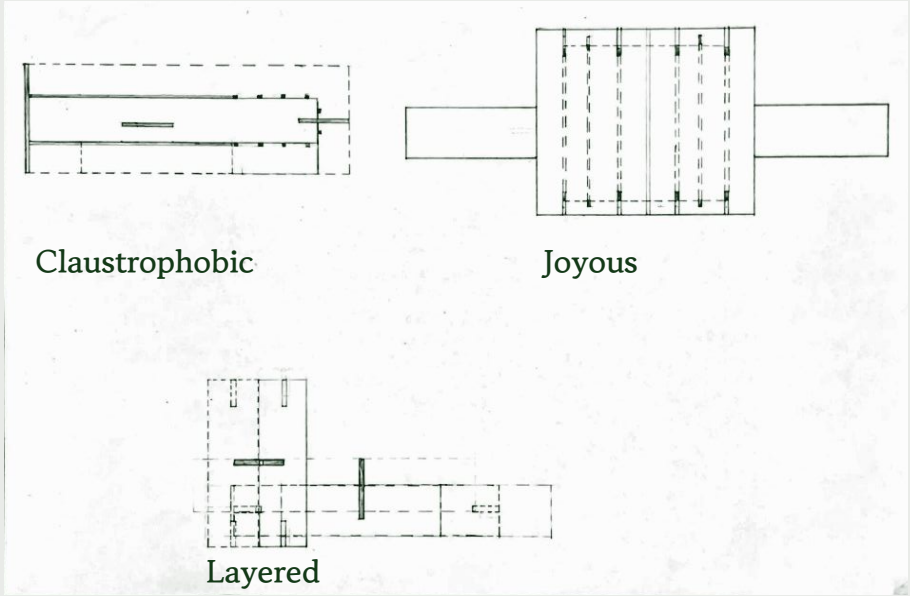
Claustrophobic



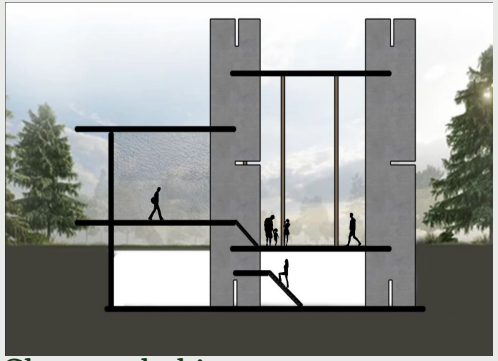


Layered





Site Plan



Claustrophobic

Joyous

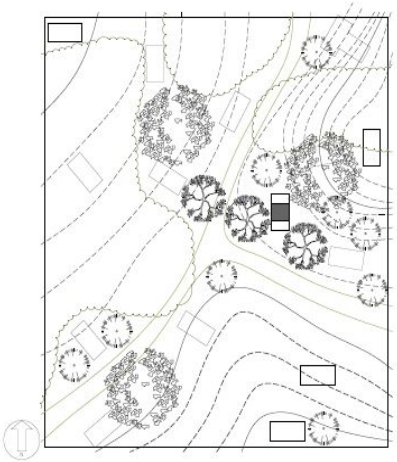
Layered

Architectural Design 2

Cabin In The Woods

Project Objective: To construct a cabin measuring 8,8,16 using only wood, masonry or straw. This cabin will be utilized for a relaxing activity.

Cabin CAD Drawings



SITE PLAN
SCALE:1"=20'-0"

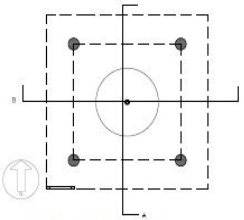




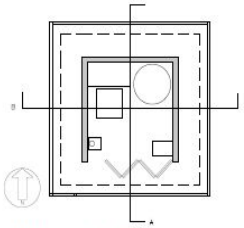

FURNITURE



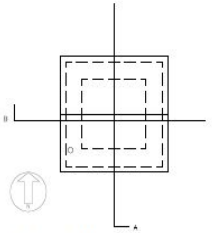
MATERIALITY



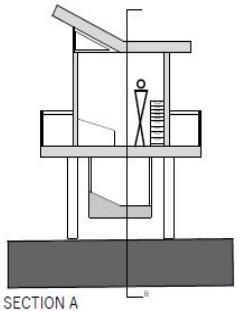
GROUND LEVEL PLAN



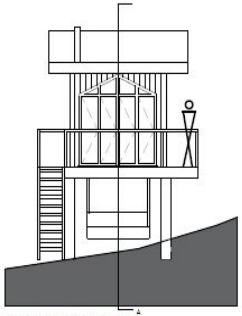
MAIN FLOOR PLAN



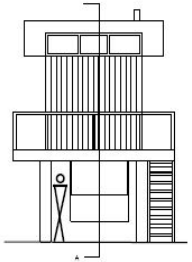
ROOF PLAN



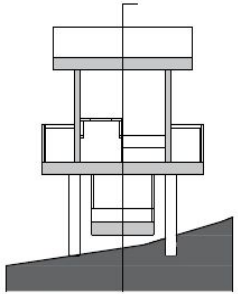
SECTION A



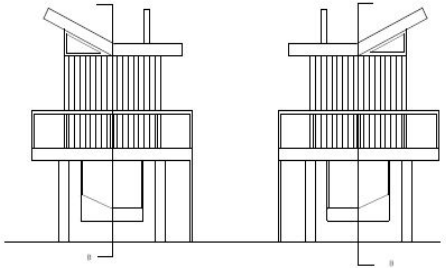
SOUTH ELEVATION



NORTH ELEVATION



SECTION B



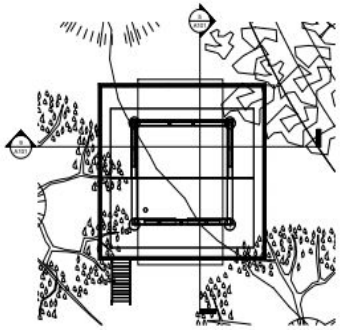
WEST ELEVATION

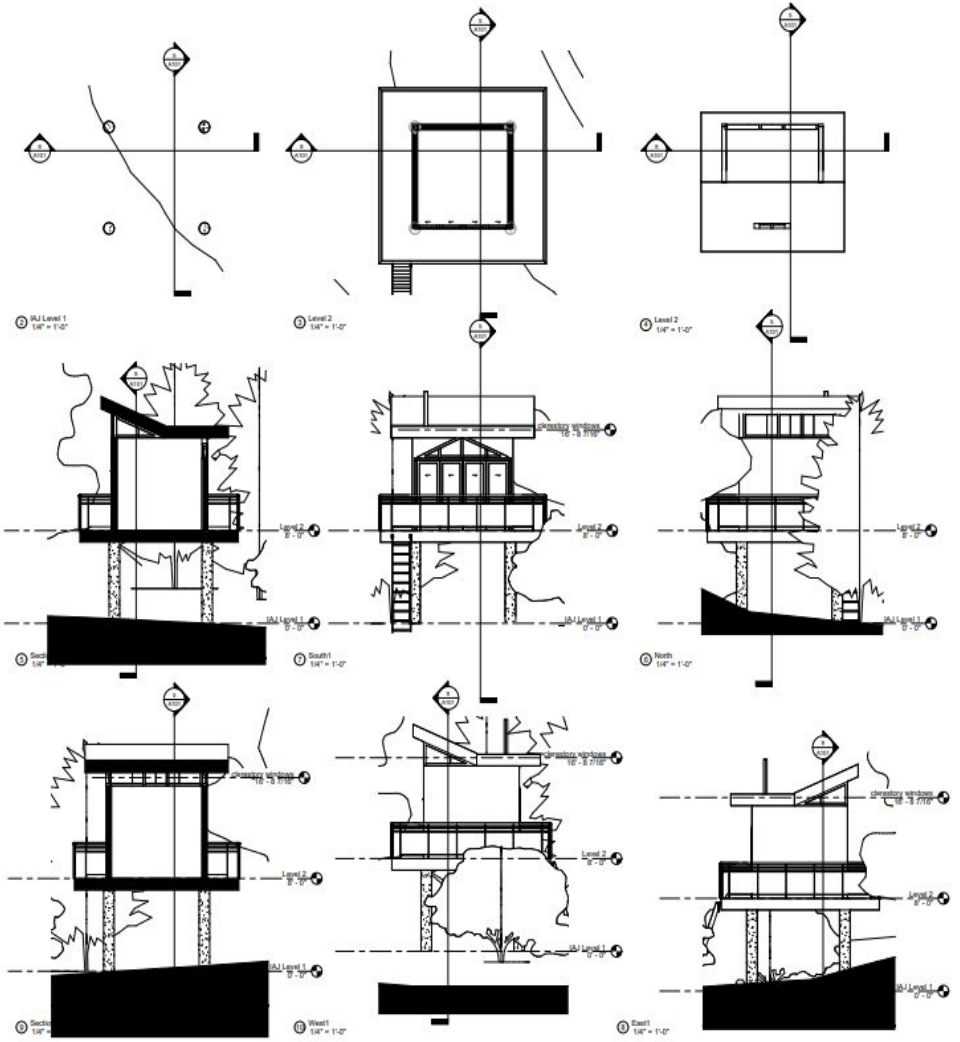
EAST ELEVATION

SCALE: 1/4"=1'-0"

ISABELLA
JOORABCHI
2-27-25
AD2
PROFESSOR
PASSAROTI

Cabin Revit Drawings





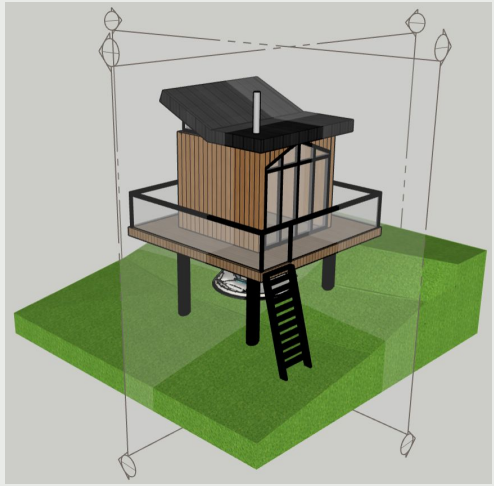
ISABELLA JOORABCHI

THREE LITTLE PIGS

CABIN STUDIO

A101

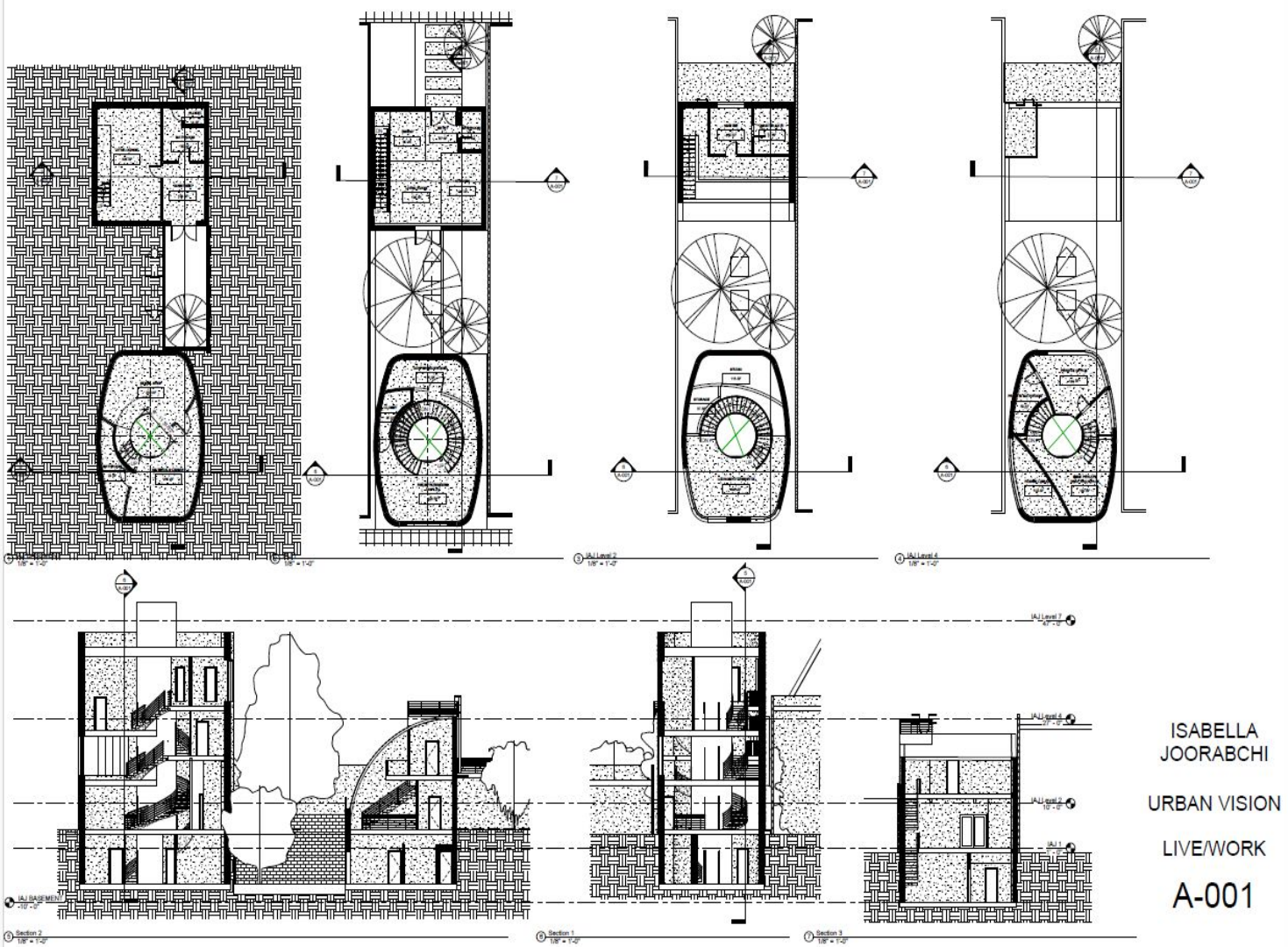
Cabin Sketchup & Revit Renderings



Live/Work Project

Project Objective: Design an office for your architecture firm that exemplifies your style and design philosophy

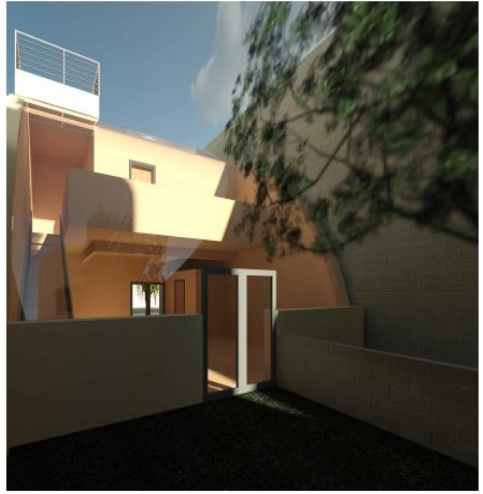
Live/Work Revit Drawings



Live/Work Revit Renderings

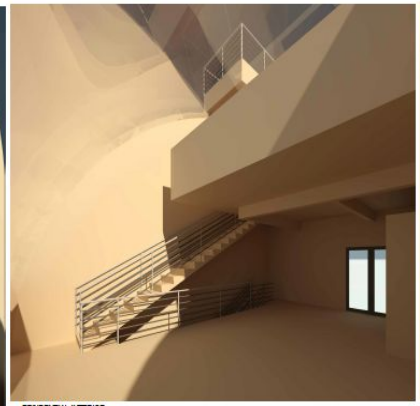
1 SOUTH WEST VIEW
1/2" = 1'-0"

2 STREET VIEW RESIDENTIAL
1/2" = 1'-0"



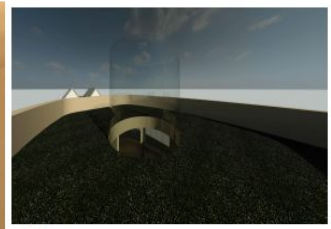
3 COURTYARD VIEW RESIDENTIAL
1/2" = 1'-0"

4 NORTH EAST VIEW
1/2" = 1'-0"



7 RESIDENTIAL INTERIOR
1/2" = 1'-0"

5 VERTICAL CIRCULATION
1/2" = 1'-0"



6 ROOF
1/2" = 1'-0"

ISABELLA JOORABCHI

URBAN VISION

LIVE/WORK

A-002

Architectural Design 3

Sustainable House

Project Objective: Your clients, a married couple, have purchased a five-acre wooded parcel of land in New York's Hudson Valley and has asked you to design a house on the site. The house is to depend minimally on the utility grid and is to be designed with passive and active green building design systems.

Inspiration

The Solar Hemicycle designed by Frank Lloyd Wright

Elements I plan to implement in my design include:

- Organic shape
- Earth sheltered North side
- Glazing on South side to maximize lighting
- Integration with the site

The Tassel House:

- Utilized vertical circulation to bring light into the space

Design Response

- Create a space that not only fits the functions but also expresses the creativity of the couple
- Create a sanctuary separate from the busy world around them

Materials

- Structural glazing including sliding glass walls)
- Stained oak wood
- Concrete

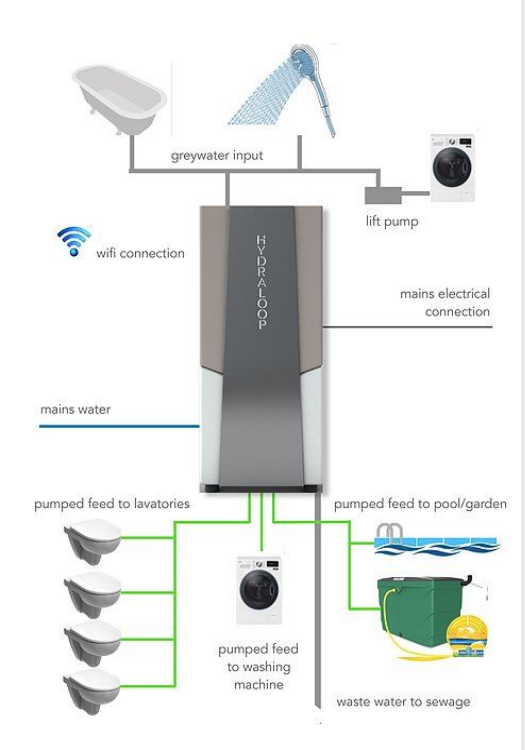
Sustainable Systems

Concrete?

- Tom Schuler
- Same raw materials, same equipment
- Less limestone, lower kiln temperature
- Cured with CO_2 from captured waste gas produced by industrial facilities (in the form of citric acid)
- The reaction with the cement breaks the carbon apart to form limestone (the main binding agent)
- This means that if a bridge made of this concrete were ever destroyed no CO_2 would be emitted because it doesn't exist within the concrete anymore
- Results in a 30% reduction of CO_2 emissions, reduces cement footprint by 70%, and saves trillions of gallons of water
- Stronger, more durable concrete and instead of a near month curing time, it only takes 24 hours
- A little more than half a mile of road made from this concrete consumes more carbon than 100.000 trees would in a year

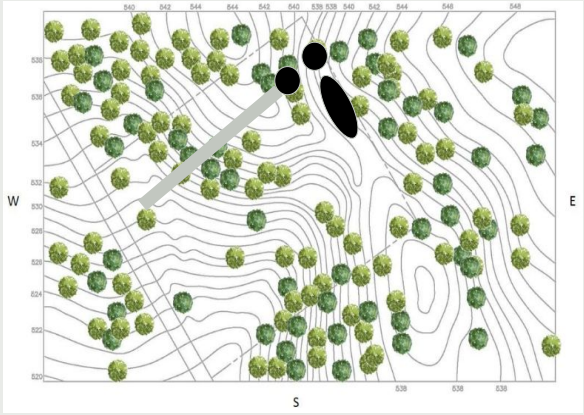
Hydraloop H300 Grey Water System:

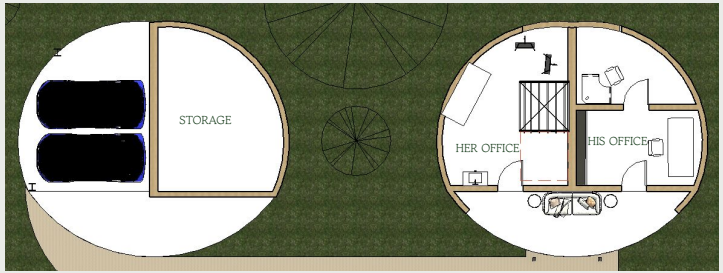
- Volume = 80 gallons
- Cleaning Capacity per day = 95 gallons
- Takes grey water from a shower, bath, and washing machine
- Distributes reusable water to toilets and washing machine
- Recycles up to 95% of shower water, and 50% of water from the washing machine
- LED light indications
- Will use back up water inlet if grey water system doesn't produce enough water
- Controlled using a mobile device



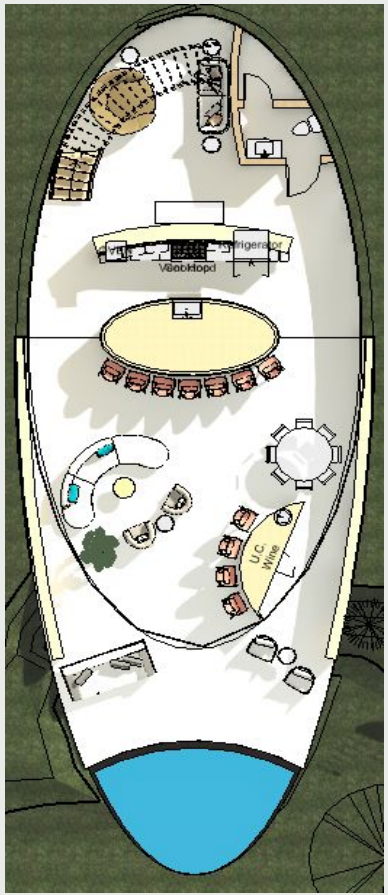
Site Orientation & Floorplans

- Main house is 3,248 Sq ft
  (justified because every space has a purpose)
- Office is 532 Sq Ft

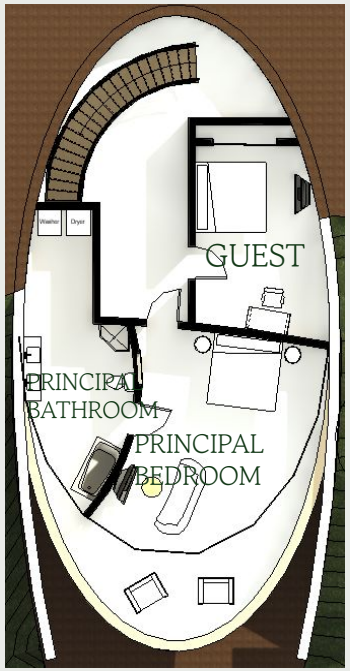




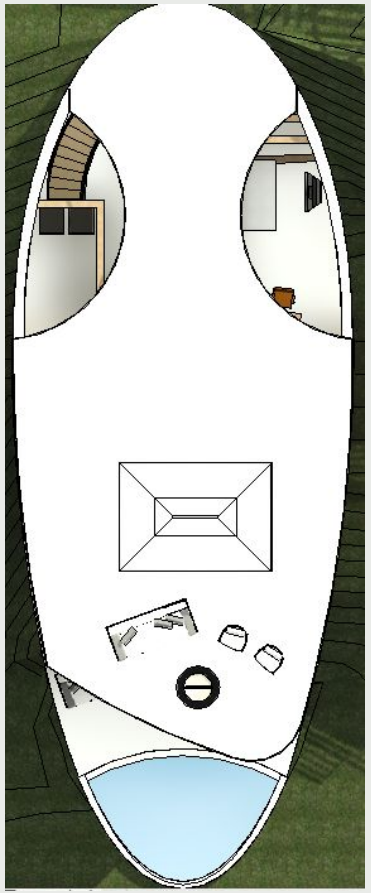
SHED/CARPORT & OFFICE



FIRST FLOOR

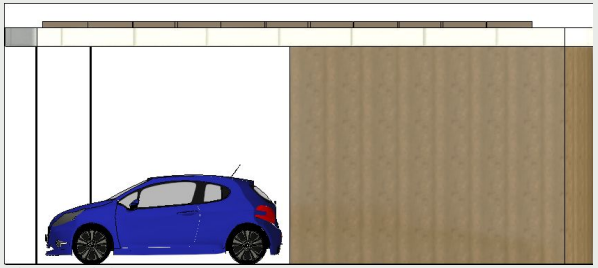


SECOND FLOOR



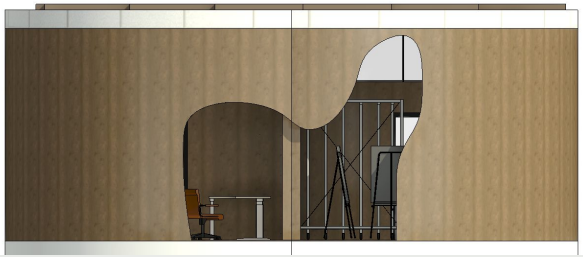
ROOF TERRACE

Shed & Office Elevations



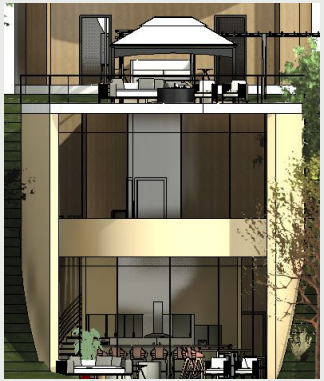
SHED SOUTH ELEV.

OFFICE SOUTH ELEV.

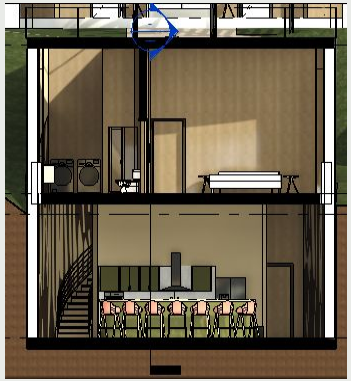


OFFICE NORTH ELEV.

Main House Elevation & Sections



HOUSE SOUTH ELEV.

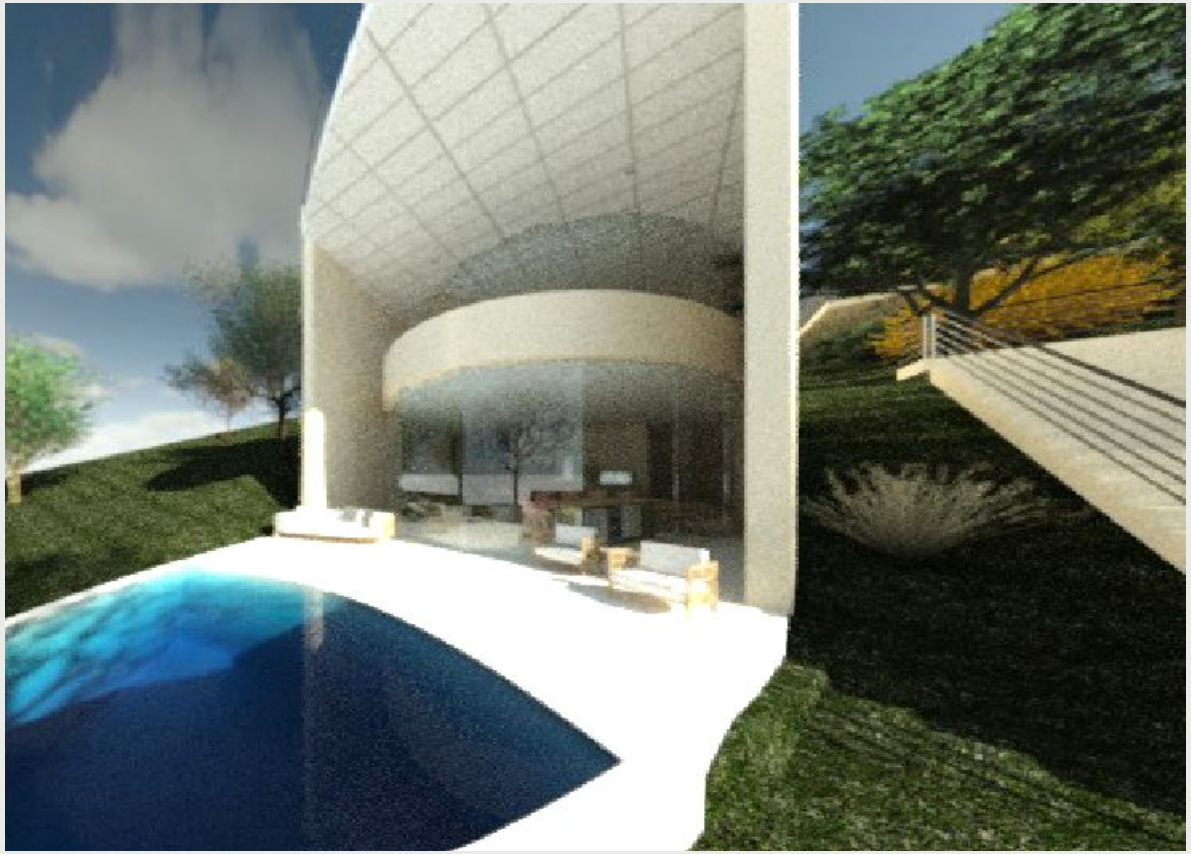


CROSS SECTION

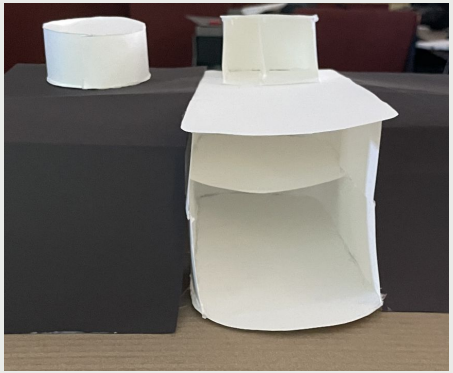
LONG SECTION

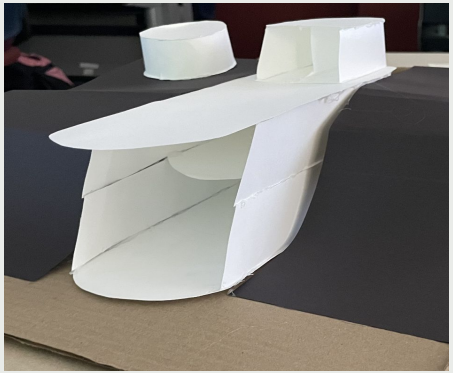
Renderings

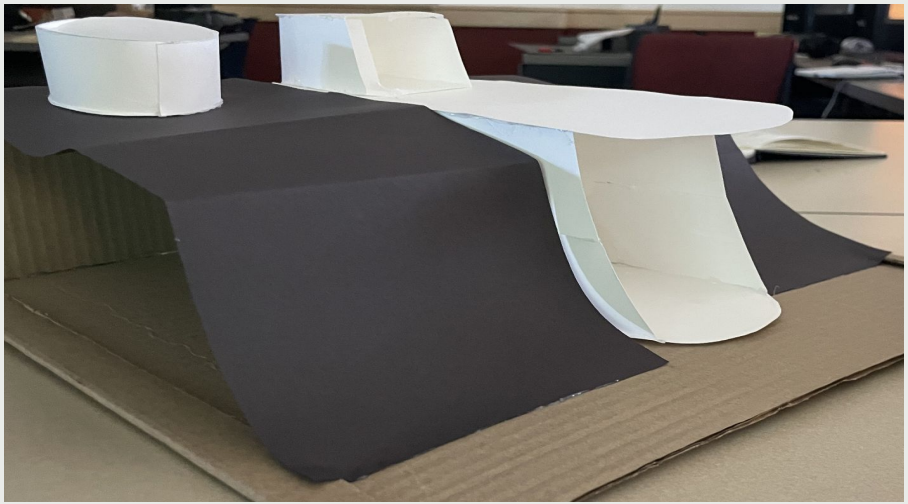
Renderings



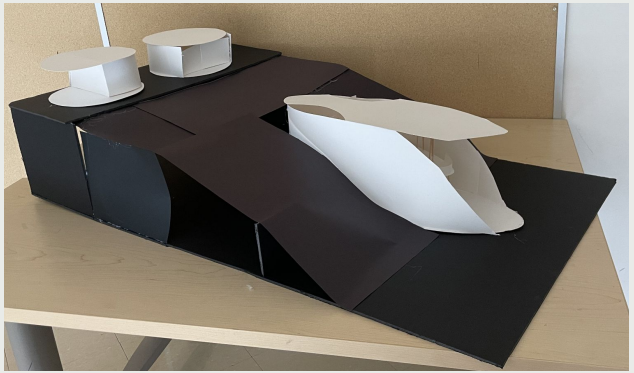
Model Representations ⅛” = 1’-0”

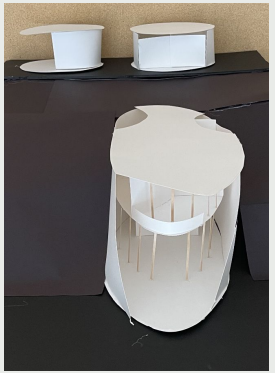


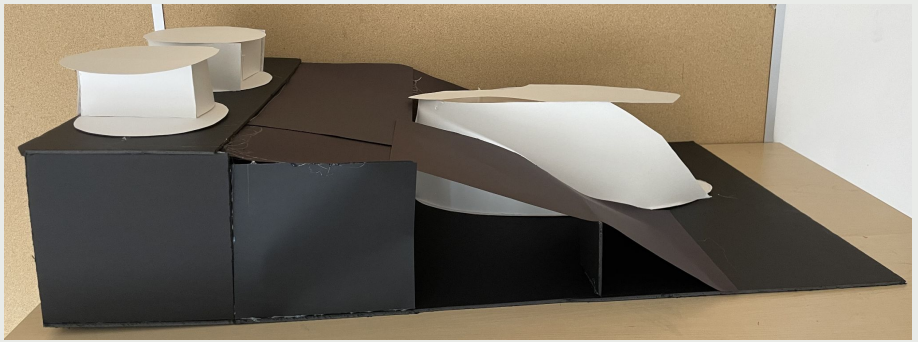




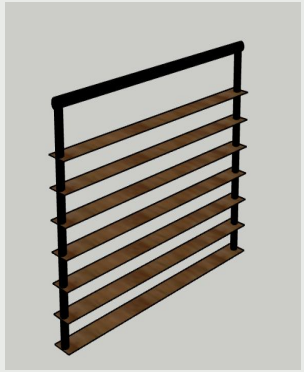
Model Representations ¼” = 1’-0”

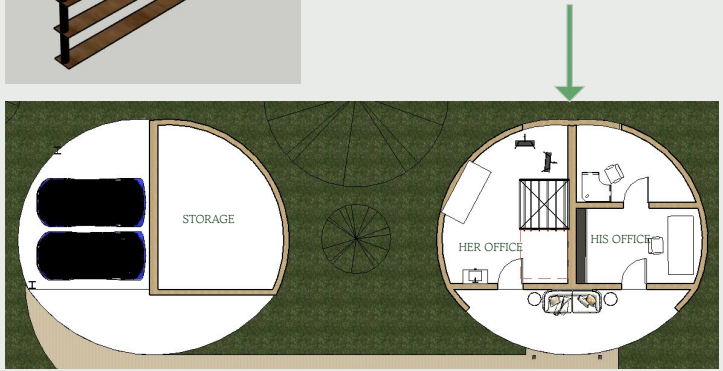




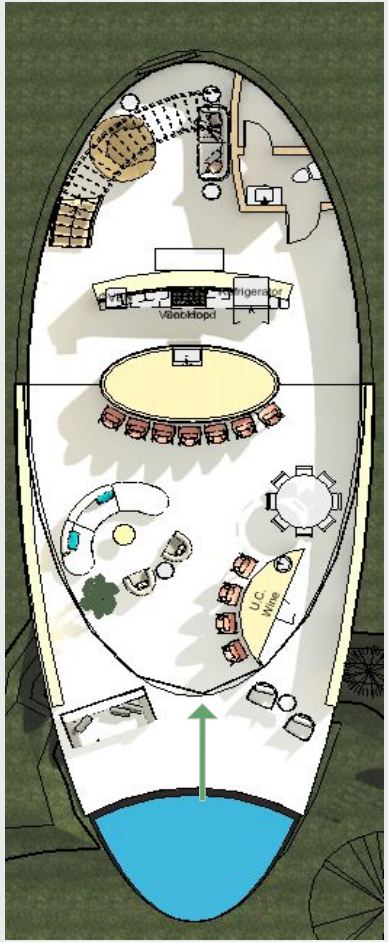


Screening System Locations

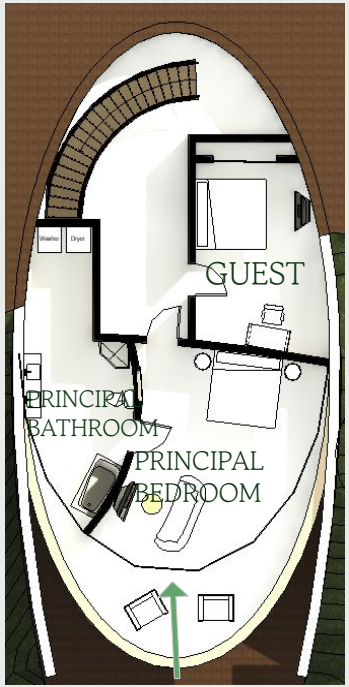




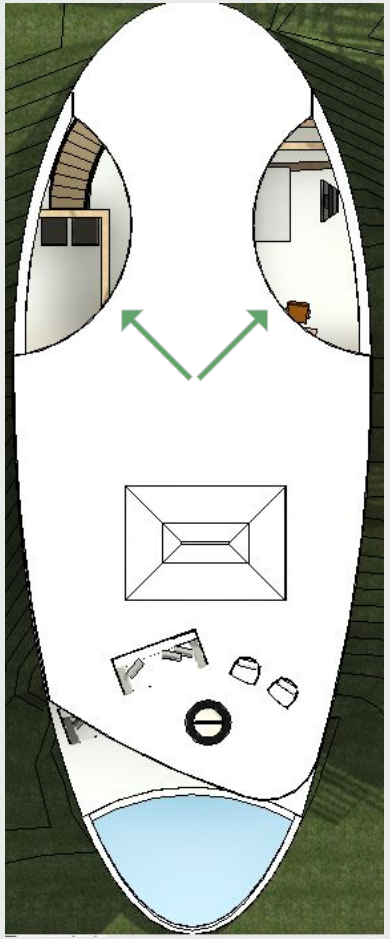
SHED/CARPORT & OFFICE



FIRST FLOOR

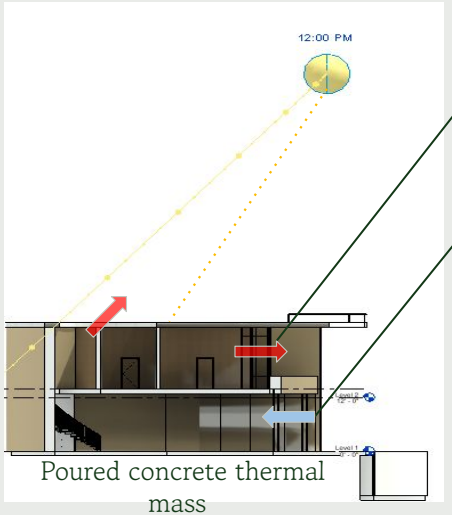


SECOND FLOOR



ROOF TERRACE

Passive Heating & Cooling Sections (Daytime/Nightime In Summer)



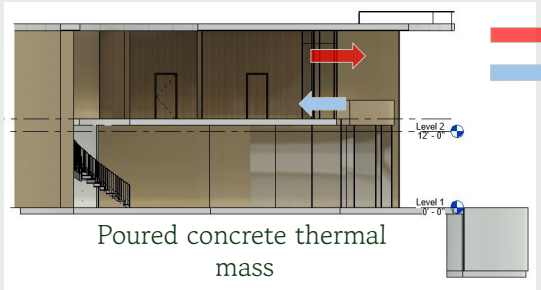
Operable sliding glass wall released hot air

Operable glass wall draws in cool air

Passive heat release

Passive cooling

Poured concrete thermal mass

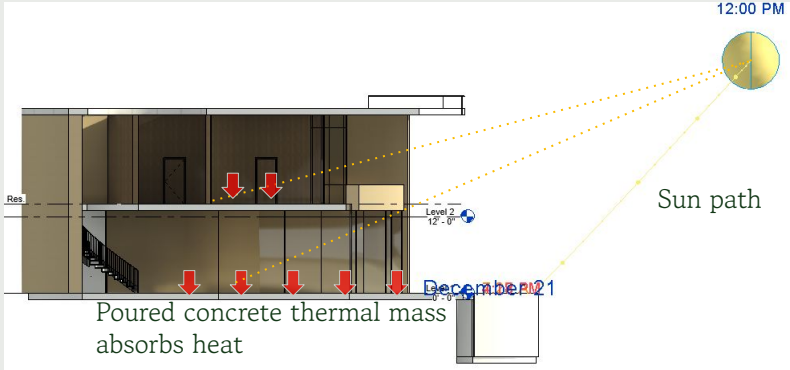


Passive heat release

Cooling

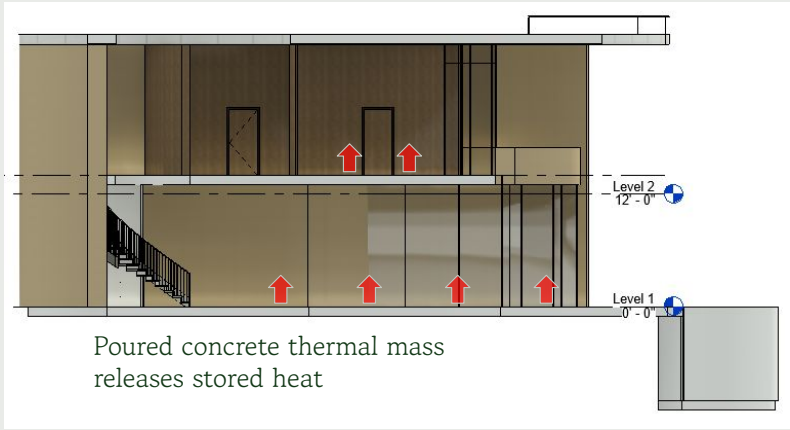
Poured concrete thermal mass

Passive Heating & Cooling Sections (Daytime & Nighttime In Winter)



Sun path

Poured concrete thermal mass absorbs heat

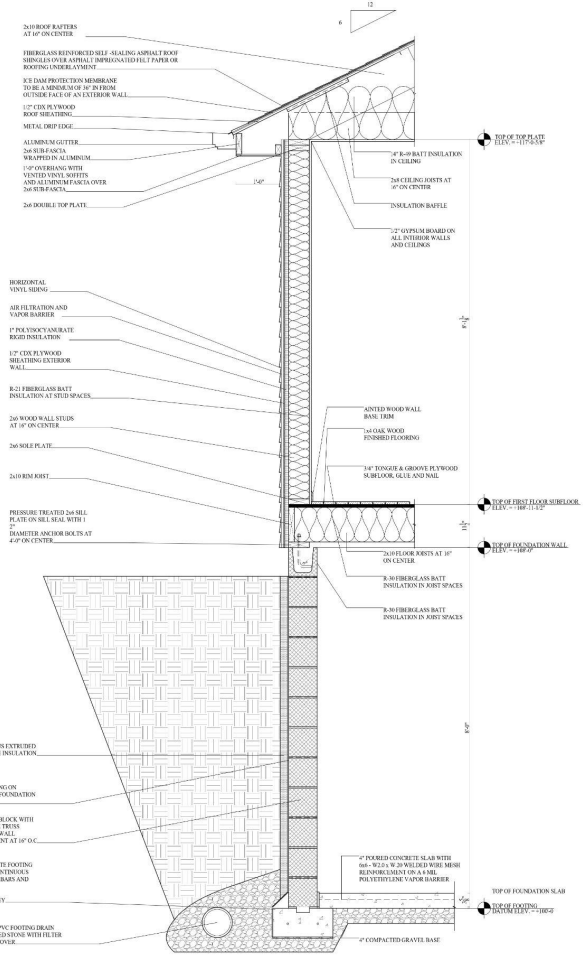


Poured concrete thermal mass releases stored heat

Construction Drawings

ARC 106 - Building Materials 2
ARC 205 - Working Drawings 1
ARC 206 - Working Drawings 2

Building Materials



LAB PROJECT #1 TYPICAL WOOD FRAMED WALL SECTION

REVISIONS

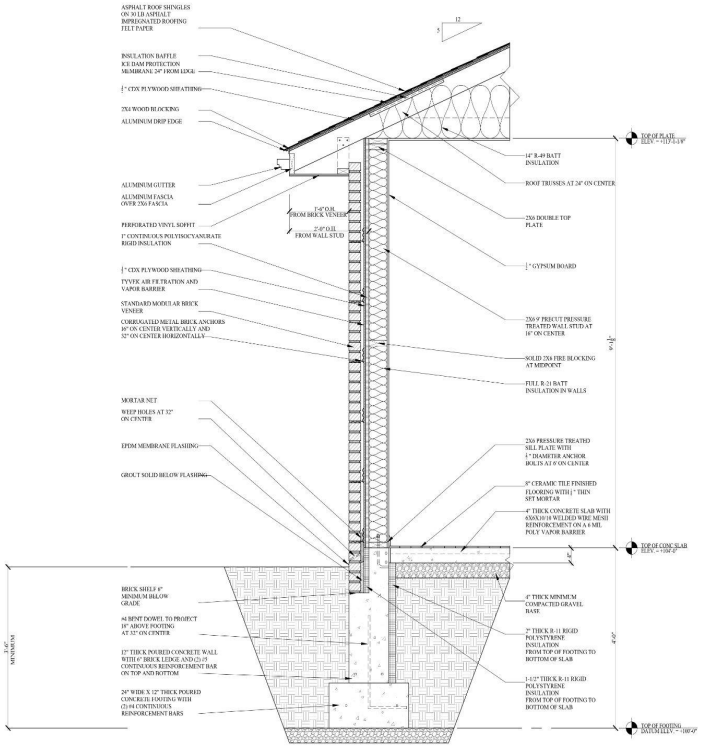
NO.	DESCRIPTION	DATE

ISSUED DATE:	01/29/2024
DESIGN BY:	AW
DRAWN BY:	IJ
CHECKED BY:	AW
REVIEWED BY:	AW

SHEET NO.

A-001

PROJECT # 25-000 PHASE# 01-01



1 / A-3 DETAIL WALL SECTION

SCALE: 1" = 1'-0

LAB PROJECT #3 TYPICAL BRICK VENEER WALL SECTION

REVISIONS

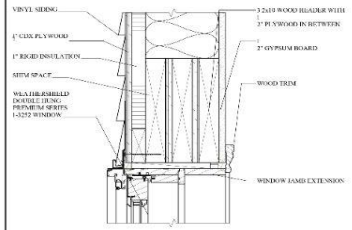
NO.	DESCRIPTION	DATE

ISSUED DATE:	5-10-25
DESIGN BY:	IJ
DRAWN BY:	IJ
CHECKED BY:	AW
REVIEWED BY:	AW

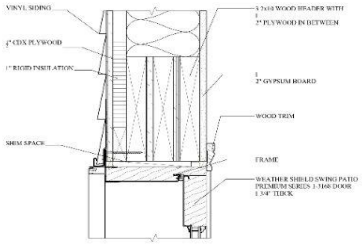
SHEET NO.

A-3

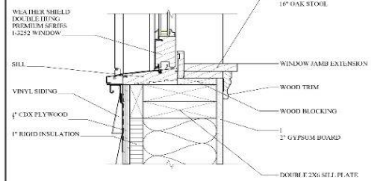
PROJECT # 25-000 PHASE# 01-01



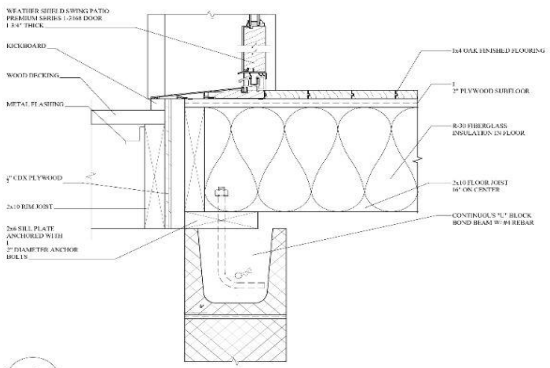
1 A-2 WINDOW HEAD DETAIL
SCALE: 3"=1'-0"



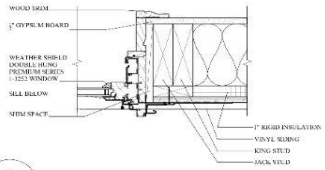
4 A-2 DOOR HEAD DETAIL
SCALE: 3"=1'-0"



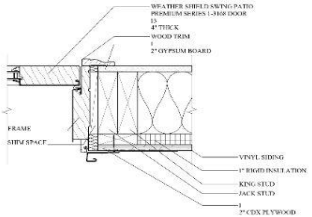
2 A-2 WINDOW SILL DETAIL
SCALE: 3"=1'-0"



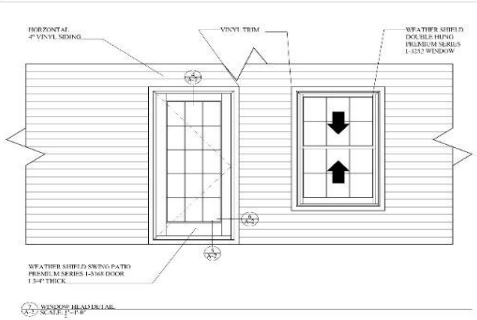
5 A-2 DOOR SILL DETAIL
SCALE: 3"=1'-0"



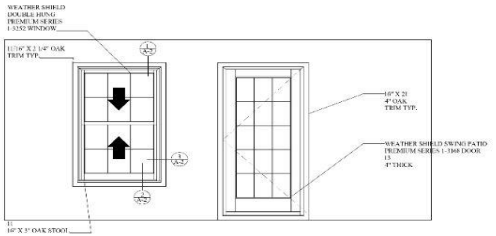
3 A-2 WINDOW JAMB DETAIL
SCALE: 3"=1'-0"



6 A-2 DOOR JAMB DETAIL
SCALE: 3"=1'-0"



1 A-2 WINDOW HEAD DETAIL
SCALE: 3"=1'-0"



1 A-2 INTERIOR ELEVATION
SCALE: 1"=1'-0"

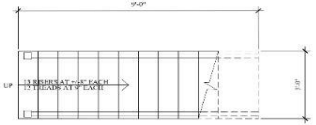
LAB PROJECT #2 DOOR & WINDOW DETAILS, & INT. AND EXT. ELEVATIONS

REVISIONS

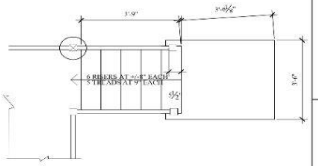
NO.	DESCRIPTION	DATE

ISSUED DATE:	02/19/23
DESIGN BY:	JJ
DRAWN BY:	JJ
CHECKED BY:	AW
REVIEWED BY:	AW
SHEET NO.	

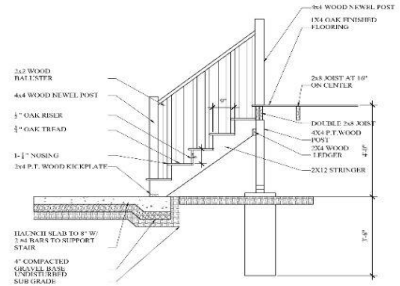
PROJECT # 25-008 PHASE# 01-01



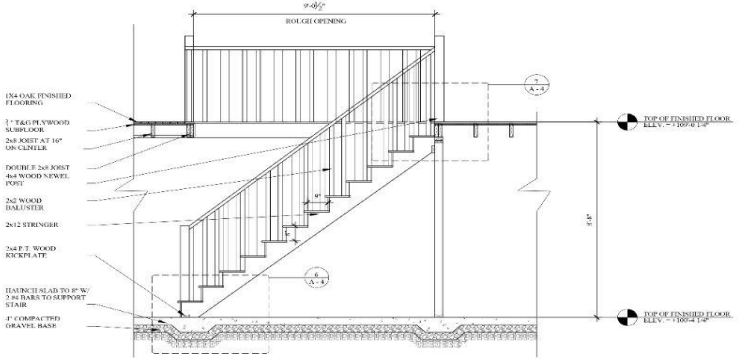
2 A-4 STAIR PLAN - INTERIOR
SCALE: 1/4" = 1'-0"



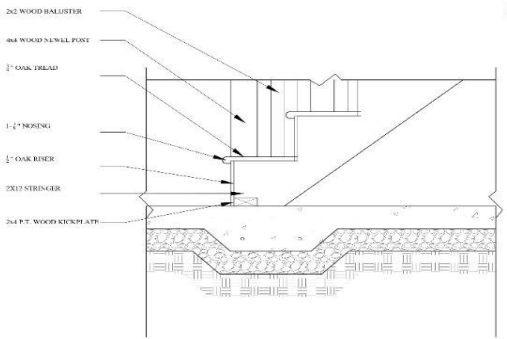
3 A-4 STAIR PLAN - EXTERIOR
SCALE: 1/4" = 1'-0"



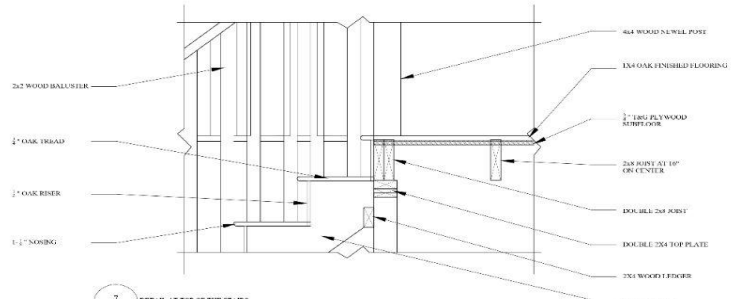
4 A-4 LONGITUDINAL SECTION EXT. STAIR
SCALE: 3/4" = 1'-0"



5 A-4 LONGITUDINAL SECTION INT. STAIR
SCALE: 3/4" = 1'-0"



6 A-4 DETAIL AT BOTTOM OF THE STAIRS
SCALE: 1-½" = 1'-0"



7 A-4 DETAIL AT TOP OF THE STAIRS
SCALE: 1-½" = 1'-0"

LAB PROJECT 4
STAIR DETAILS

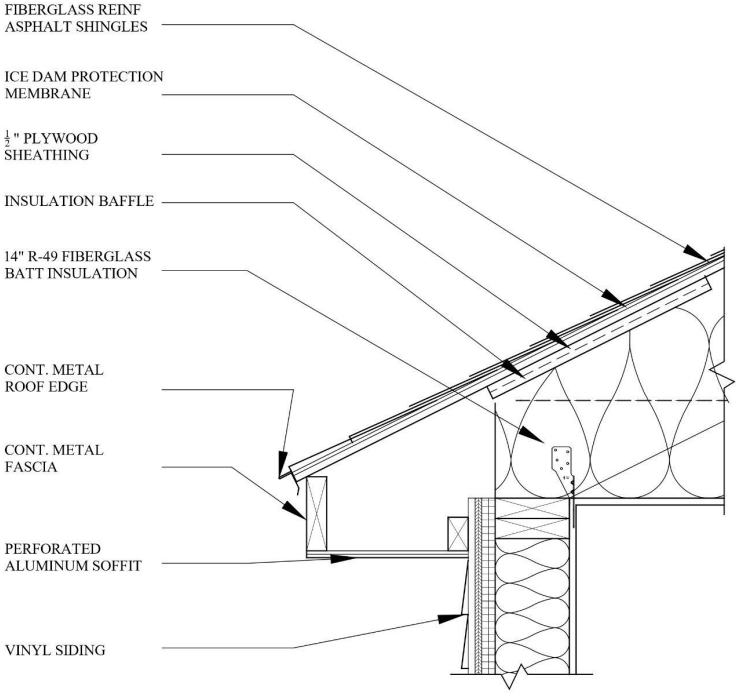
REVISIONS		
NO.	DESCRIPTION	DATE

ISSUED DATE:	3-26-25
DESIGN BY:	AW
DRAWN BY:	IJ
CHECKED BY:	AW
REVIEWED BY:	AW

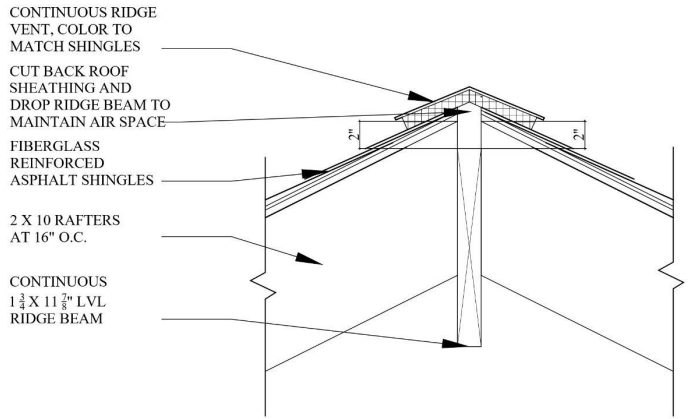
SHEET NO.

A-001

PROJECT #: 25-000 PHASE#: 01-01



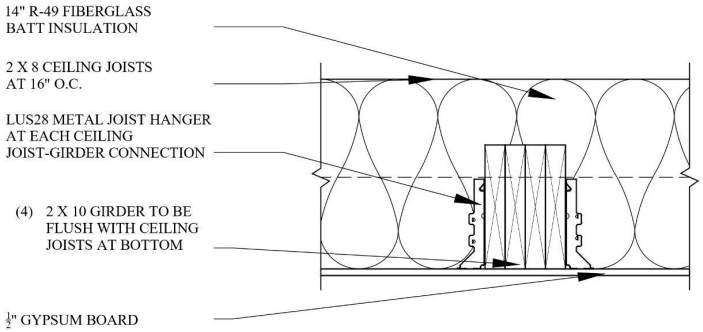
1 / A-5 ROOF EAVE DETAIL
SCALE: 1 ½ " = 1'-0"



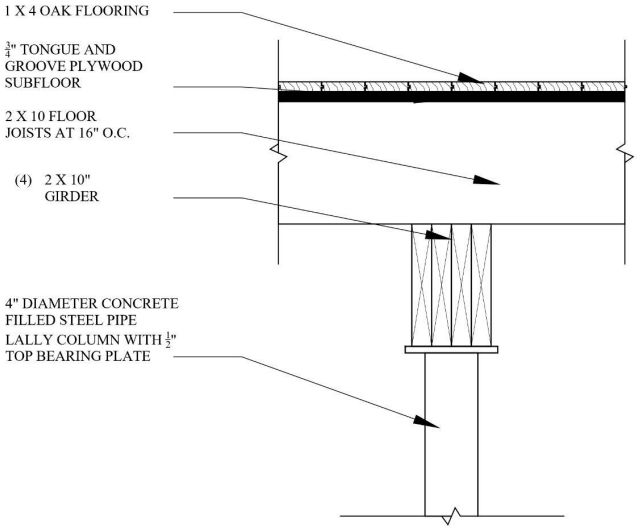
2 / A-5 ROOF EAVE DETAIL
SCALE: 1 ½ " = 1'-0"

TYPICAL STRUCTURAL DETAILS	CLASS: ARC 106 - LAB	A-5
DRAWN BY: ISABELLA JOORABCHI	REVIEWED BY: AW	
	PROJECT # 5	
	REV. DATE	DATE: 04-09-25

TYPICAL STRUCTURAL DETAILS	CLASS: ARC 106 - LAB	A-5
DRAWN BY: ISABELLA JOORABCHI	REVIEWED BY: AW	
	PROJECT # 5	
	REV. DATE	DATE: 04-09-25



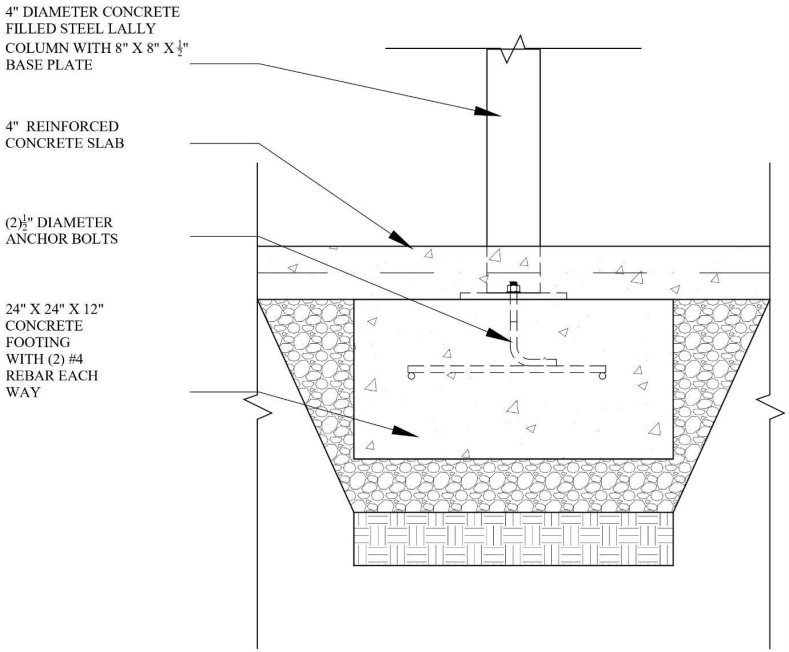
3 / A-5 FLUSH GIRDER DETAIL
SCALE: 1 ½ " = 1'-0"



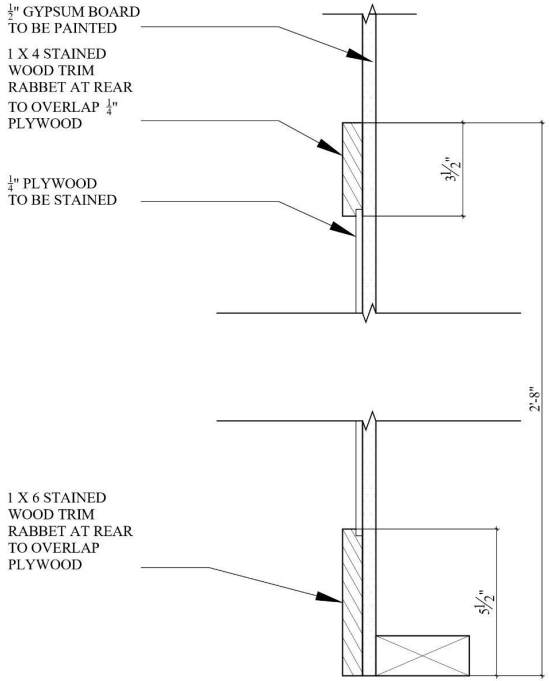
4 / A-5 DROP GIRDER DETAIL
SCALE: 1 ½ " = 1'-0"

TYPICAL STRUCTURAL DETAILS	CLASS:	ARC 106 - LAB	A-5
DRAWN BY: ISABELLA JOORABCHI	REVIEWED BY:	AW	
	PROJECT #	5	
	REV. DATE		DATE: 04-09-25

TYPICAL STRUCTURAL DETAILS	CLASS:	ARC 106 - LAB	A-5
DRAWN BY: ISABELLA JOORABCHI	REVIEWED BY:	AW	
	PROJECT #	5	
	REV. DATE		DATE: 04-09-25



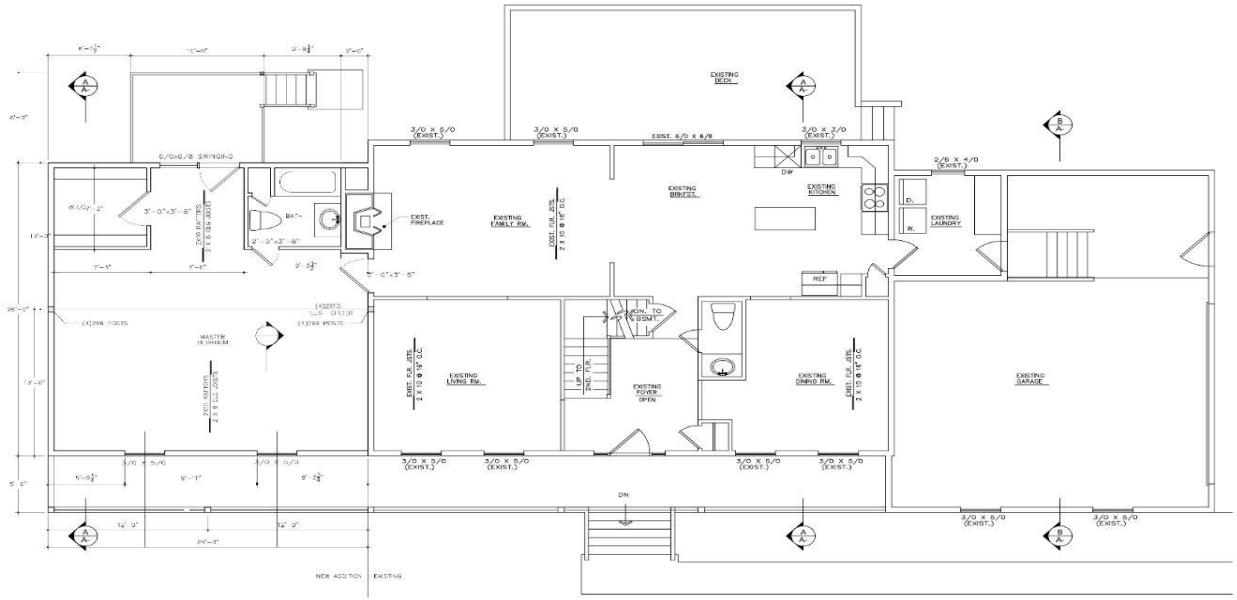
5 / A-5 COLUMN FOOTING DETAIL
SCALE: 1 ½ " = 1'-0"



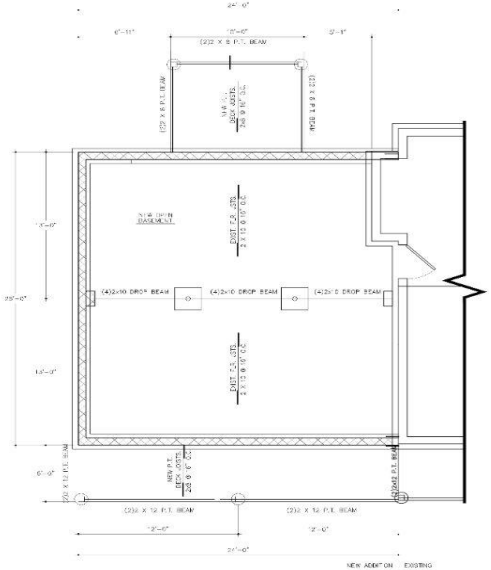
6 / A-5 WAINSCOT DETAIL
SCALE: 3" = 1'-0"

TYPICAL STRUCTURAL DETAILS	CLASS: ARC 106 - LAB	A-5	
DRAWN BY: ISABELLA JOORABCHI	REVIEWED BY: AW		
	PROJECT # 5		
	REV. DATE	DATE: 04-09-25	

TYPICAL STRUCTURAL DETAILS	CLASS: ARC 106 - LAB	A-5	
DRAWN BY: ISABELLA JOORABCHI	REVIEWED BY: AW		
	PROJECT # 5		
	REV. DATE	DATE: 04-09-25	



FIRST FLOOR PLAN



FOUNDATION PLAN

FINAL PROJECT ADDITION TO EXISTING

REVISIONS		
NO.	DESCRIPTION	DATE

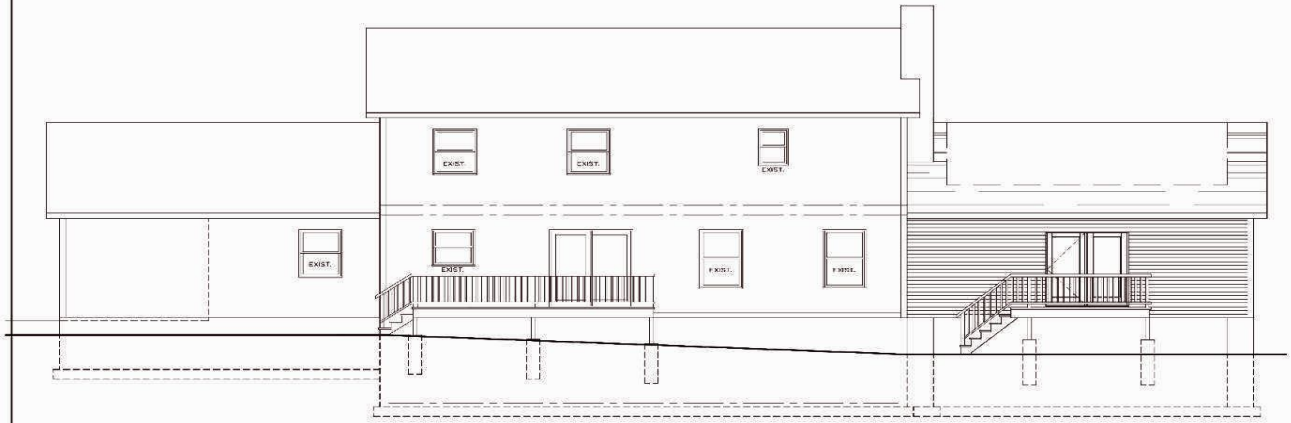
ISSUED DATE:	05-07-25
DESIGN BY:	AW
DRAWN BY:	D
CHECKED BY:	AW
REVIEWED BY:	AW

SHEET NO.

A-001

PROJECT # 25-000 PHASE# 01-00

FRONT ELEVATION



REAR ELEVATION

FINAL PROJECT ADDITION TO EXISTING

REVISIONS

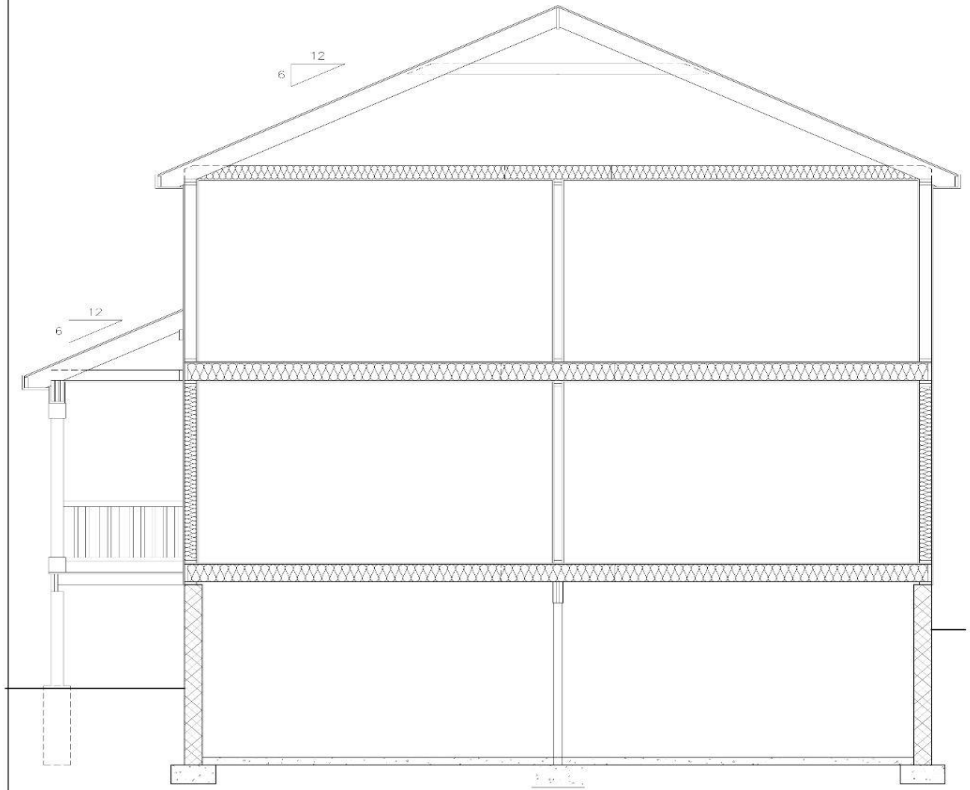
NO.	DESCRIPTION	DATE

ISSUED DATE:	05-07-25
DESIGN BY:	AW
DRAWN BY:	D
CHECKED BY:	AW
REVIEWED BY:	AW

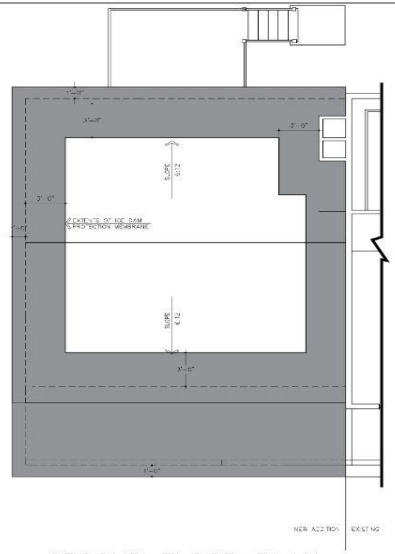
SHEET NO.

A-001

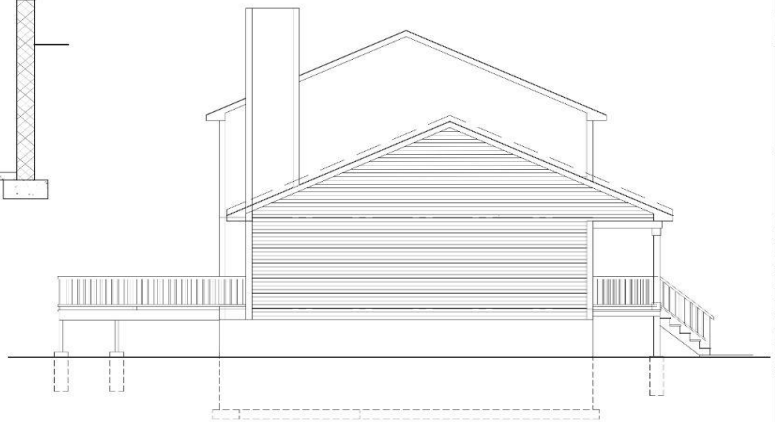
PROJECT # 25-000 PHASE# 01-0



SECTION A—A



SECOND FLOOR PLAN



LEFT SIDE ELEVATION

FINAL PROJECT ADDITION TO EXISTING

REVISIONS

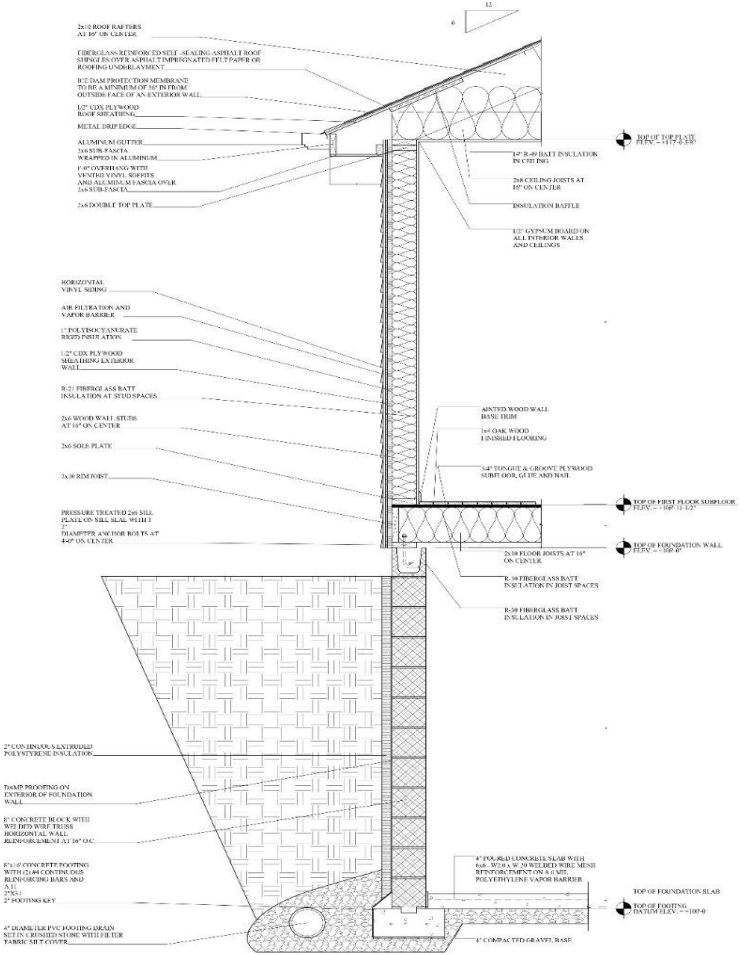
NO.	DESCRIPTION	DATE

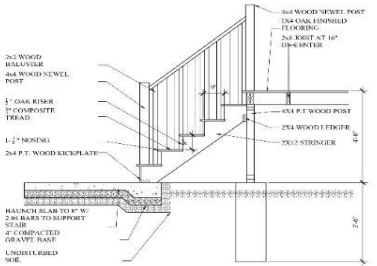
ISSUED DATE:	05-07-25
DESIGN BY:	AW
DRAWN BY:	JJ
CHECKED BY:	AW
REVISED BY:	AW

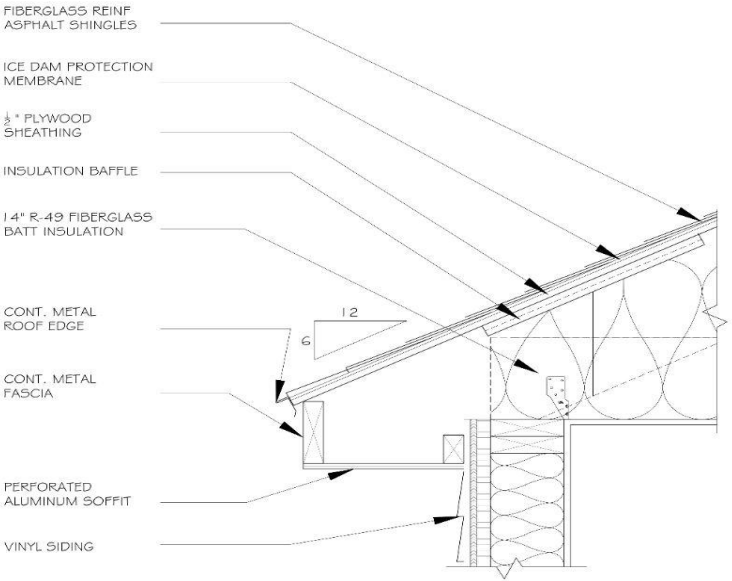
SHEET NO.

A-001

PROJECT # 25-000 PHASE# 01.01







1 / A-5 ROOF EAVE DETAIL
SCALE: 1 1/2" = 1'-0"

FINAL PROJECT ADDITION TO EXISTING

REVISIONS

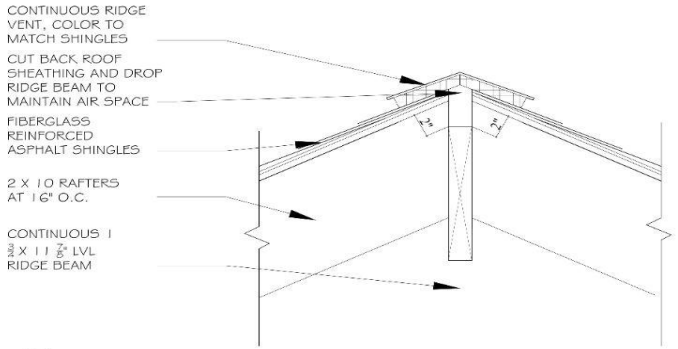
NO.	DESCRIPTION	DATE

ISSUED DATE:	05-07-25
DESIGN BY:	AW
DRAWN BY:	H
CHECKED BY:	AW
REVIEWED BY:	AW

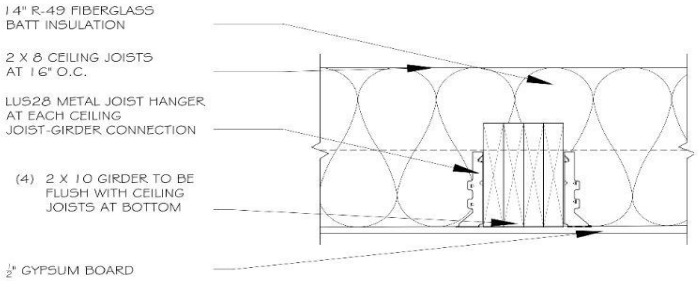
SHEET NO.

A-001

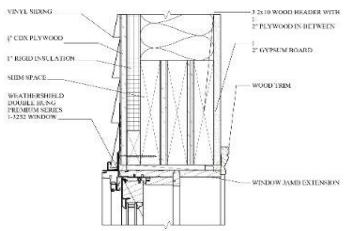
PROJECT # 25-000 PHASE 01-01



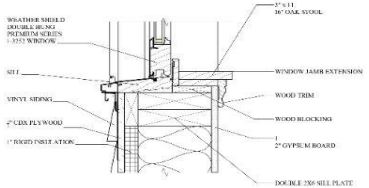
2 A-5 ROOF EAVE DETAIL
SCALE: 1 1/2" = 1'-0"



3 A-5 FLUSH GIRDER DETAIL
SCALE: 1 1/2" = 1'-0"



1 A-2 WINDOW HEAD DETAIL
SCALE: 3"=1'-0"



2 A-2 WINDOW SILL DETAIL
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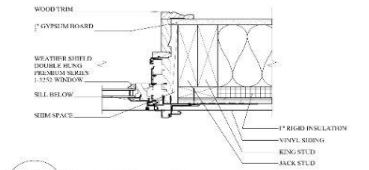
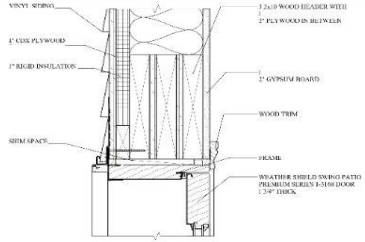
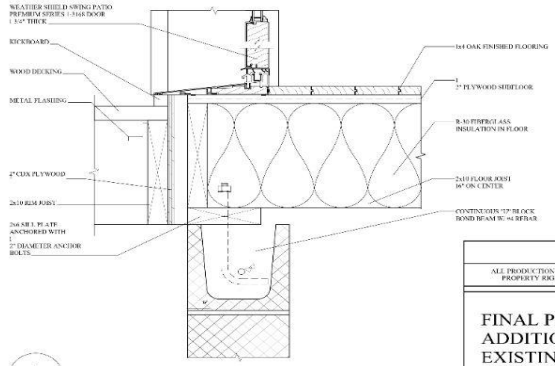


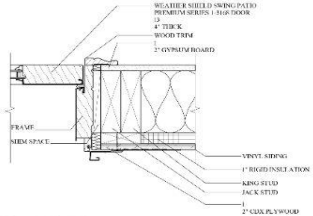
3 A-2 WINDOW JAMB DETAIL
SCALE: 3"=1'-0"



4 A-2 DOOR HEAD DETAIL
SCALE: 3"=1'-0"



5 A-2 DOOR SILL DETAIL
SCALE: 3"=1'-0"



6 A-2 DOOR JAMB DETAIL
SCALE: 3"=1'-0"

FINAL PROJECT ADDITION TO EXISTING

REVISIONS

NO.	DESCRIPTION	DATE

ISSUED DATE:	05.02.25
DESIGN BY:	AW
DRAWN BY:	IJ
CHECKED BY:	AW
REVIEWED BY:	AW

SHEET NO.

A-001

PROJECT # 25-000 PHASE# 01-01