Portfolio

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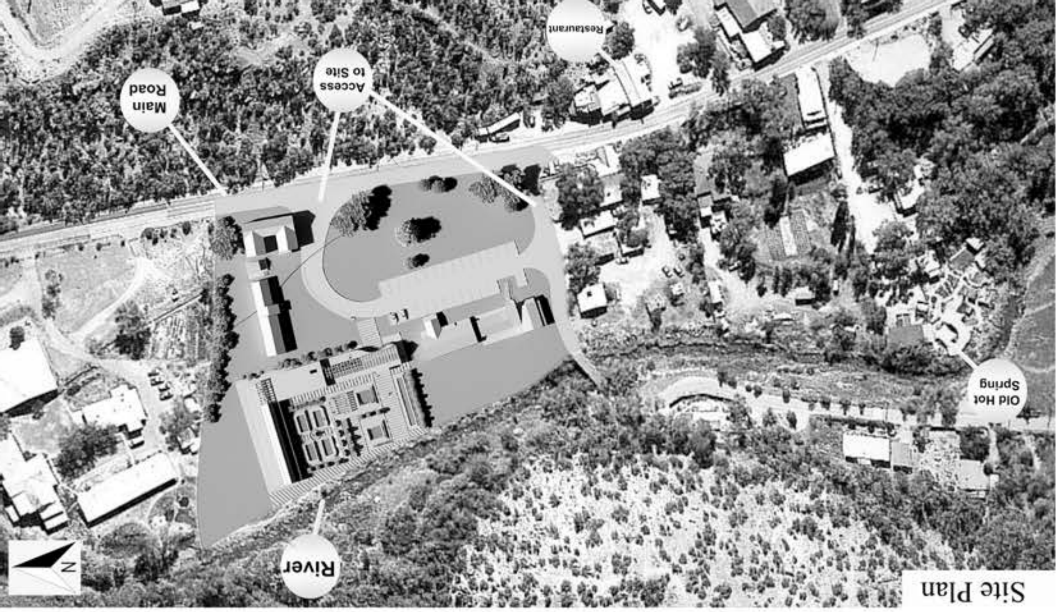

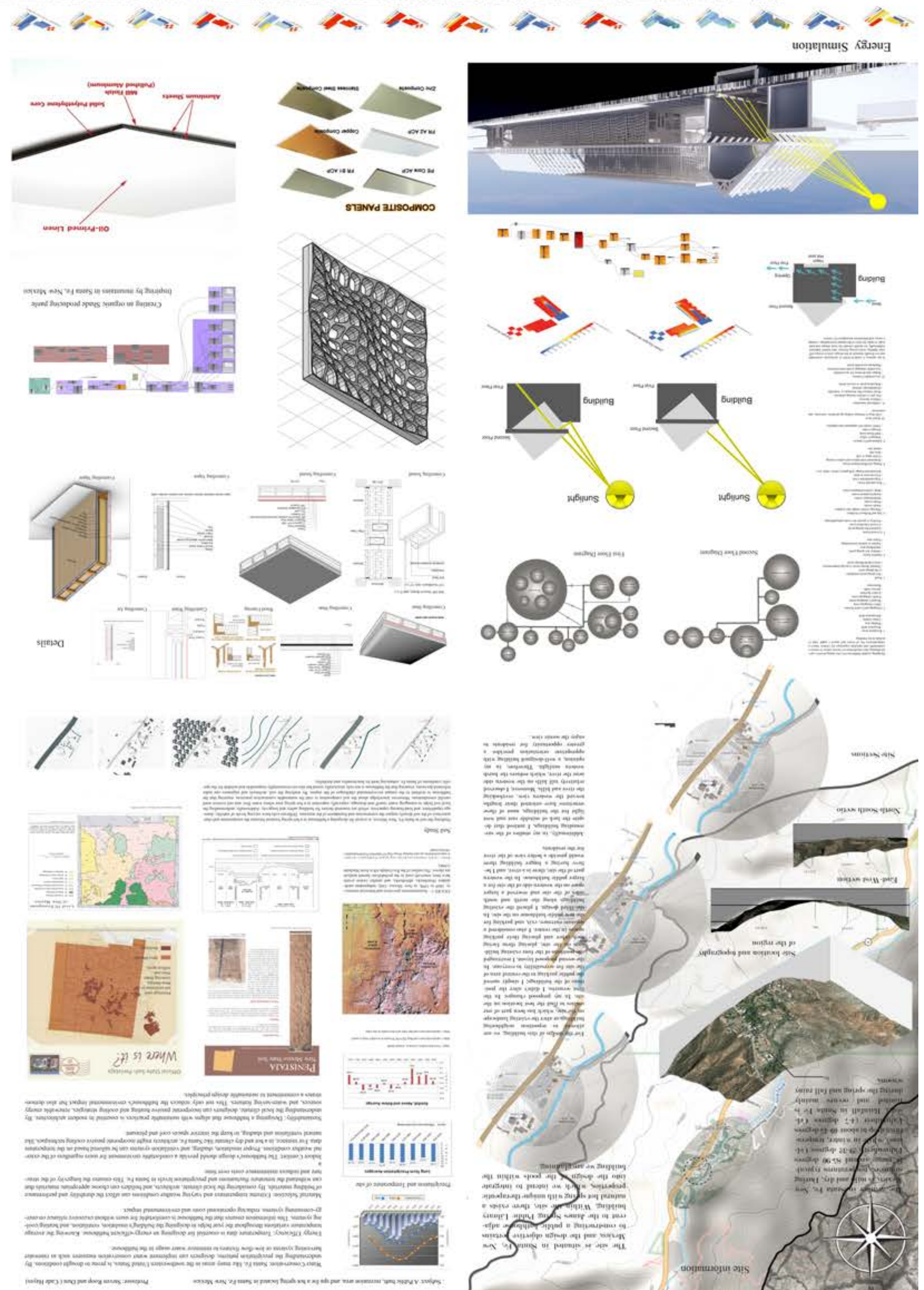

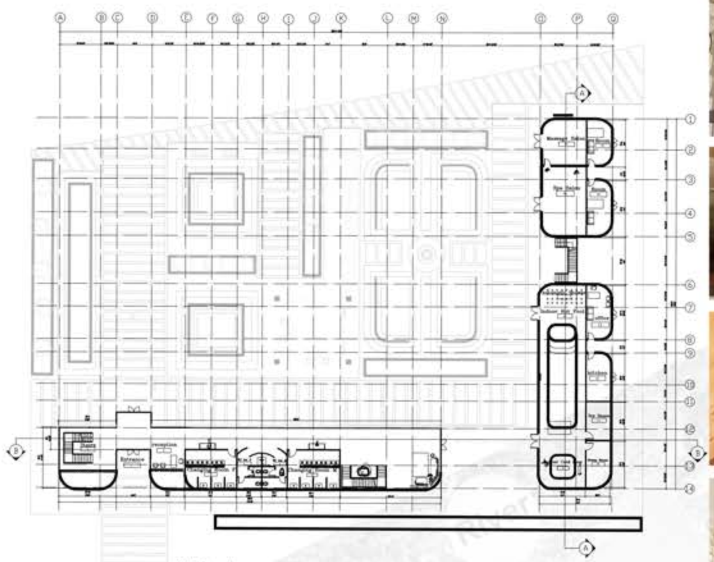

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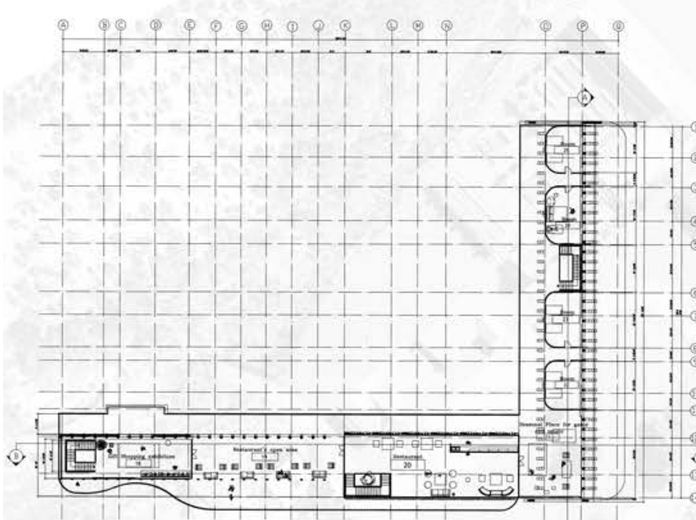

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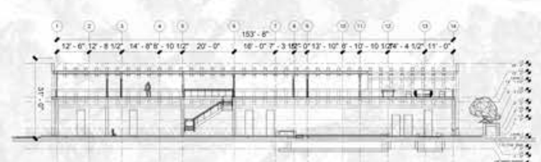

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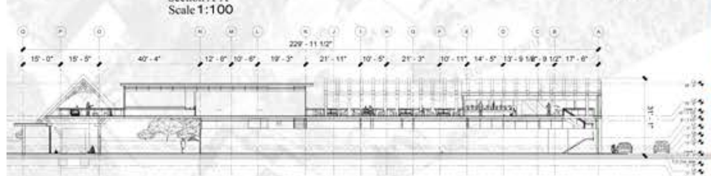
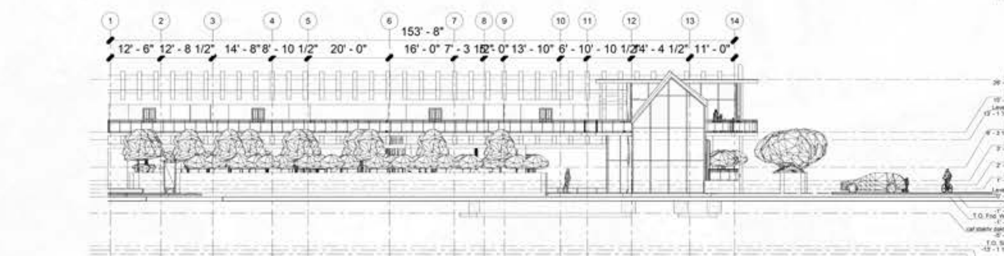
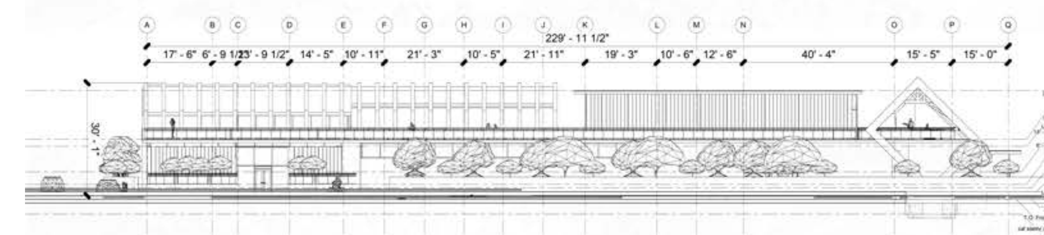


Section B-B
Scale1:100

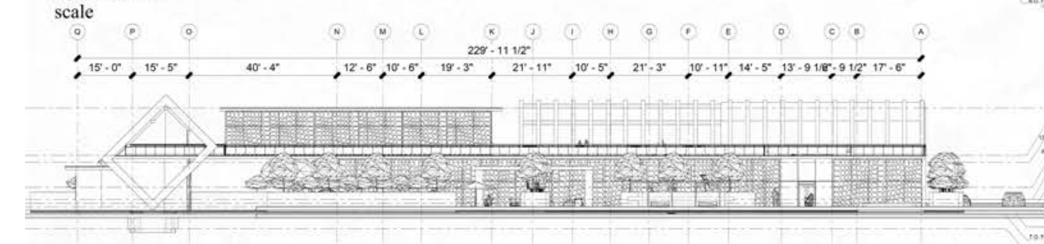
North Elevation
scale



South Elevation
scale



East Elevation
scale



West Elevation
scale

Research

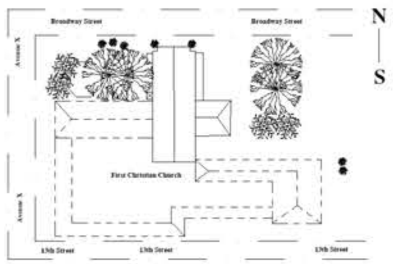
The first project that I undertook was related to the course ARCH 5321 (Historic Building Technology and Documentation). Our objective was to identify a historical building that the Library of Congress did not have any drawing documents about and to create a comprehensive Historic Structure Report (HSR) for the building. After careful consideration, I chose the First Christian Church, which was roughly the same age as Texas Tech University.

Given the size of the church, Professor Hadighi recommended that I focus on a particular aspect of the building. I decided to research and draw a part of the building, the beautiful historical windows and wooden ceiling structures, which involved taking X-ray measurements, conducting extensive research, and creating detailed drawings using Revit and AutoCAD.

I also prepared a 30-page HSR that included a comprehensive history of the building, its current condition, necessary treatments, and estimated preservation costs. Finally, I consulted with the building's owner or manager to discuss the recommended treatments and timelines for each section of the building.

The next seven projects that I completed were related to the course ARCH 5301 DETAILING. We were required to read various books recommended by the professor, such as Allen, Edward, and Patrick Rand's detailing book. Based on our research and observations, we added drawing details to our Revit models, which included wood framing, controlling water, heat, vapor, sound, air, and a parametric detail of a wood column connection, etc.

The final project that I completed was related to the course ARCH 5334 Advanced Architectural Technology II, which focused on researching and designing facades for buildings, including environmental or soundproofing facades. I researched and developed five different facades using various robots, and I attached one of my works in this part.

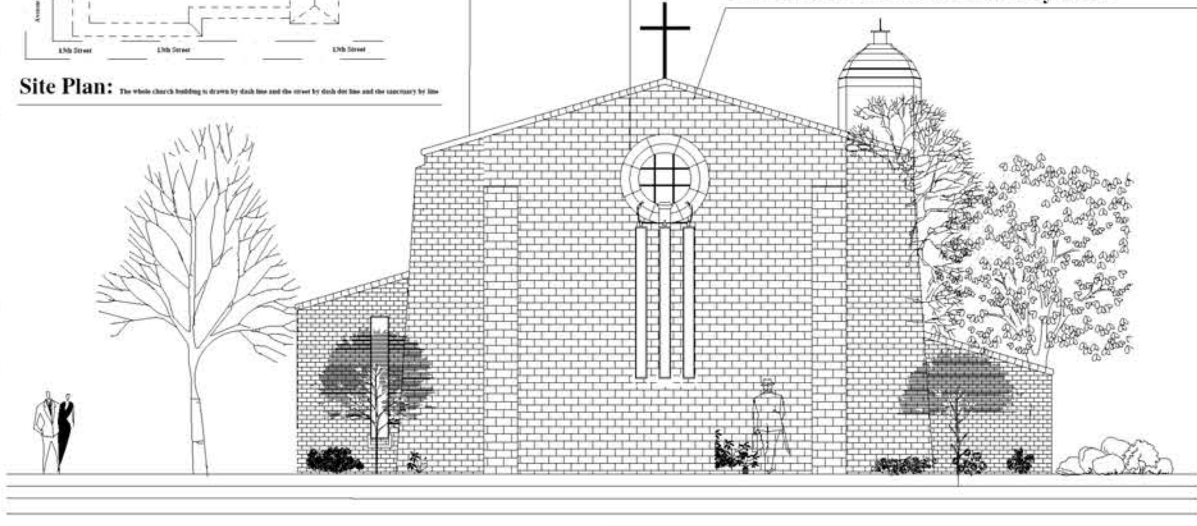


Site Plan: The whole church building is drawn by dash line and the street by dash dot line and the sanctuary by line

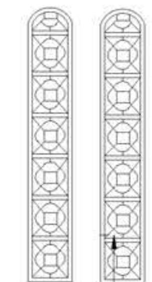
The roof is covered with clay.

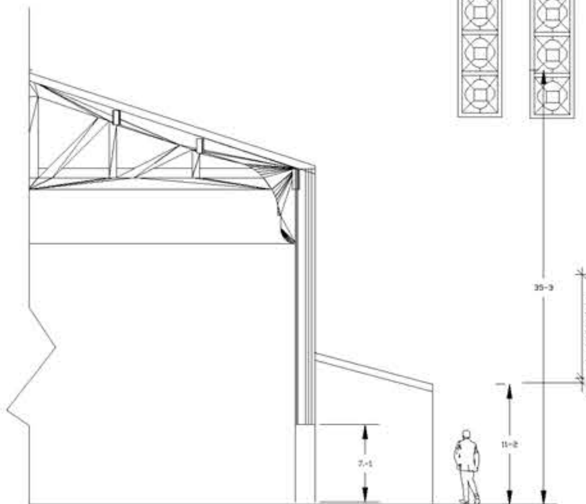
In the northern part, there are three tall vertical windows that are decorated inspired by the Holy father Jesus And Holy spirit and a large round window on top of them inspired by God.

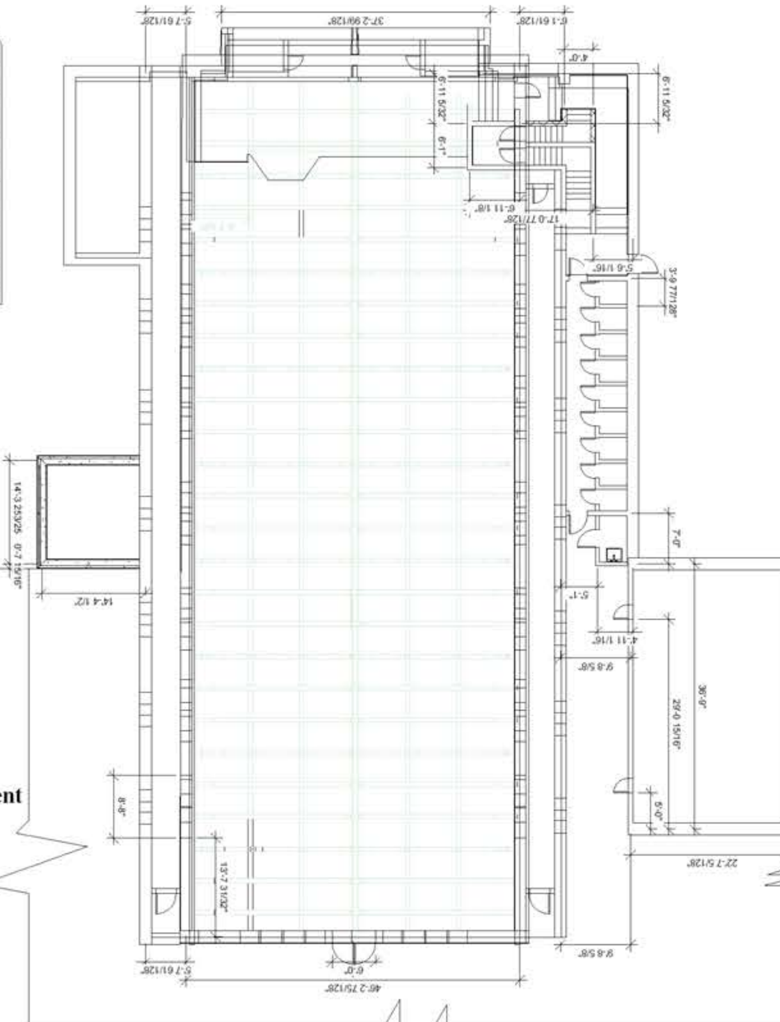
The exterior facade is covered by brick



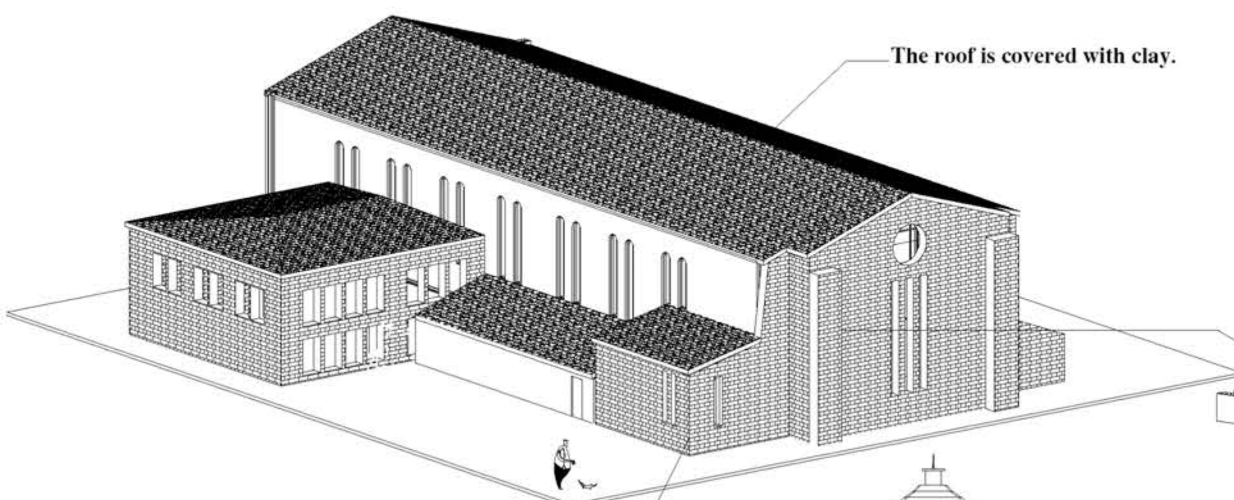
On the east and west sides of the sanctuary, there are fourteen tall windows.
The windows are decorated with stained glass.







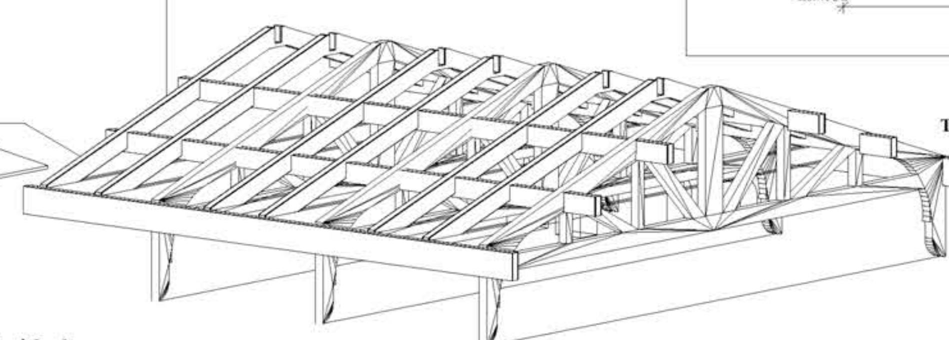
The roof is covered with clay.



The exterior facade is covered by brick

The roof structure is a combination of two different trusses:
1. King Post
2. Doublehowe

Below is a small part of the roof structure



The sanctuary of the first Christian church building was built in 1948

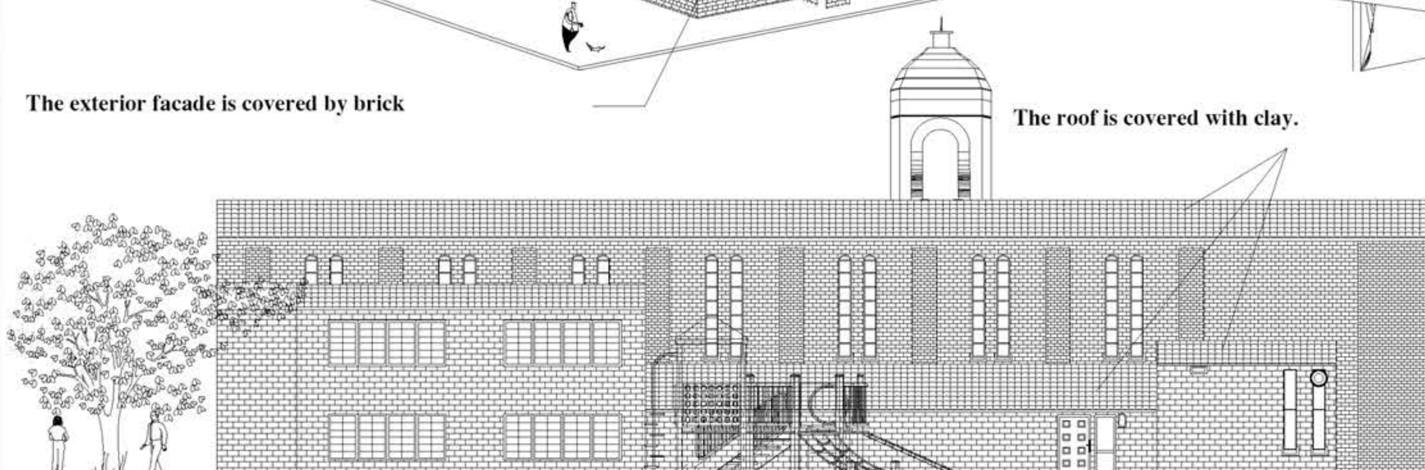
"Sixteen charter members formally organized the first Christian church of Lubbock in the Summer of 1901, for many years, members met in various homes, public buildings, and other area churches. In Aug 1908, the church announced the construction of a building of its own, A 40-BY-50-Foot frame building at 16th street and avenue J. IN June of 1909, the young congregation secured their first resident pastor, John C. Welch the new church held its formal dedication service on Sunday, February 6, 1910, and soon shared their new church house with other denominations.

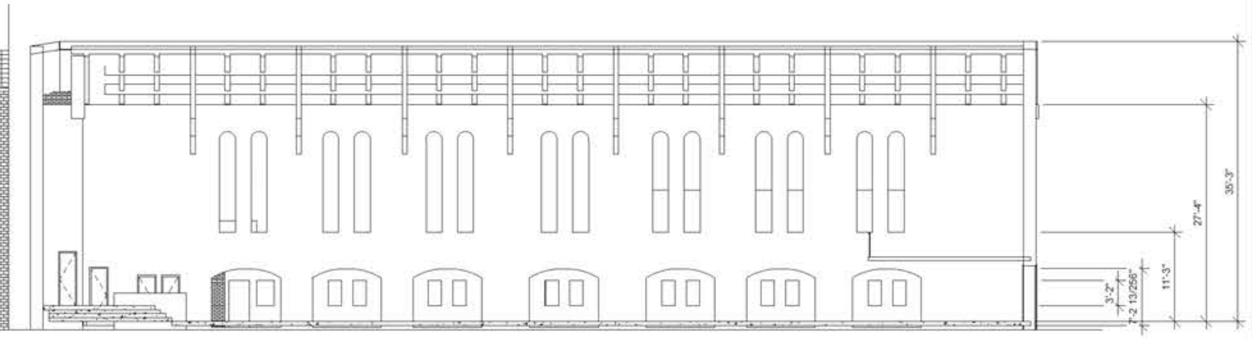
By the end of the decade, the need for more space turned critical. A new, larger church at the same location opened for worship on Sunday, Sep 30, 1923. this facility could seat up to 100people, and rooms included a pastors study, kitchen, dining room, and a unique second-story motion picture room above the Lonny. Texas technological college opened during the pastorate (1924-34)of Walter P. Jennings, who immediately reached out to students and faculty. Although welcomed, growth in the church once again strained existing facilities.

In 1940, the church secured lots at Broadway and Avenue X. Local architectural Firm Walker and Atcheson designed a new church in Spanish renaissance style, similar to the buildings on the nearby Texas tech campus. An initial phase was dedicated in 1942, but due to world war II, construction took longer than anticipated. Members held their first service in the completed church on June 13, 1948. the sanctuary expanded to seat 1,000 in 1967, and in 2001, the addition of a new family life center added to the centennial celebration of the churches official organization. Faith expressed through ministry and community interest HAS guided the first Christian church since its beginnings and continues to guide its future. "

Reference: Stone marker dscription

The roof is covered with clay.





The exterior facade is covered by brick

The church located in: 2323 Broadway, Lubbock, TX 79401 | Designed by: Shima Ramrzani | Professor: Mahyar Hadighi | Texas Tech University

CONTROLLING HEAT

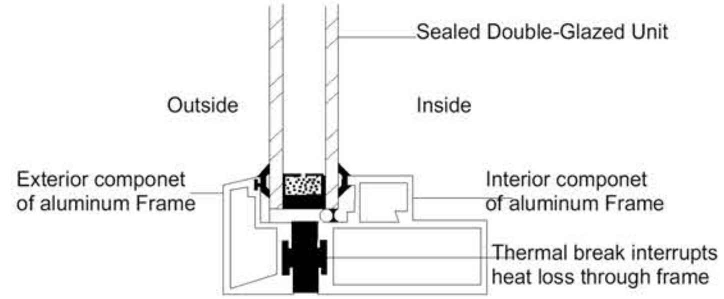
Chapter 3 of the book "Architectural Detailing" by Edward Allen and Patrick Rand discusses strategies for controlling heat flow in buildings. The chapter starts by explaining the basic principles of heat flow and thermal insulation.

The authors discuss different types of insulation materials and their properties, such as thermal conductivity, moisture resistance, and fire resistance. They also explain how insulation is installed and how it should be detailed to avoid thermal bridging, which occurs when heat flows through a material with a higher thermal conductivity than the insulation.

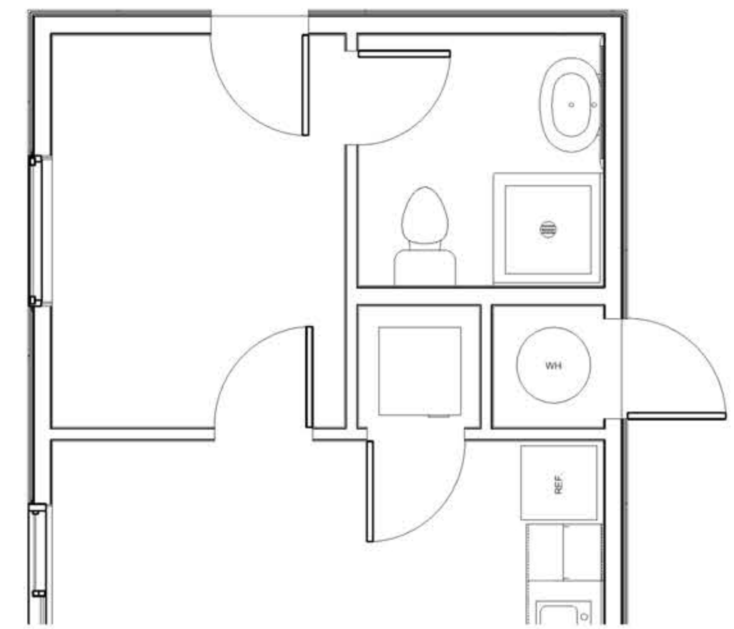
The chapter then covers different strategies for controlling heat flow in buildings, such as shading devices, ventilation, and thermal mass. The authors explain how these strategies work and give examples of their application in different building types and climates.

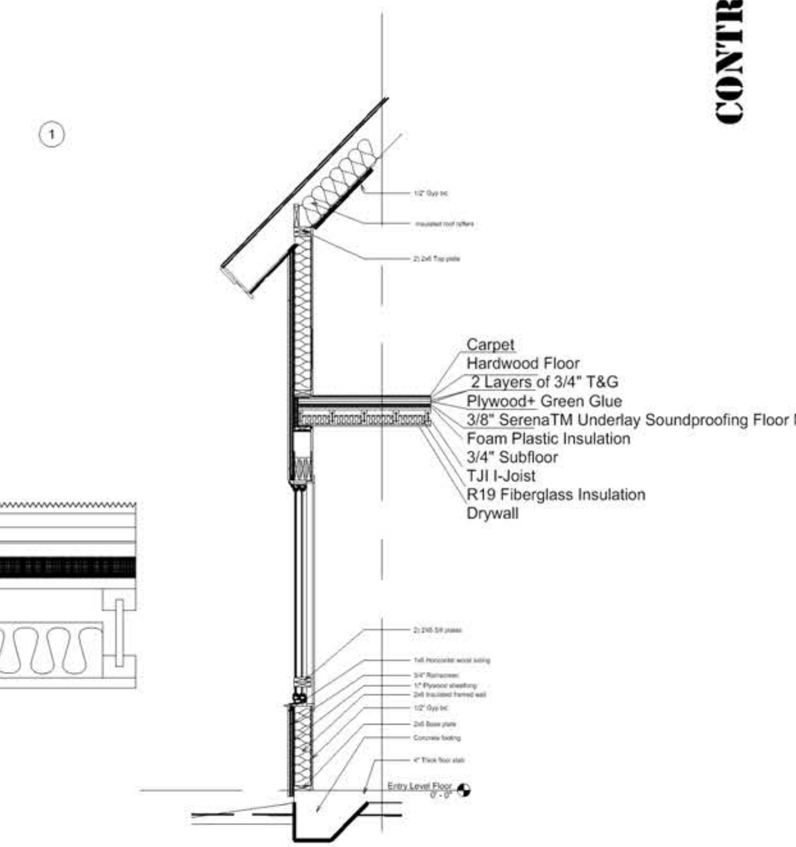
The chapter also discusses the importance of air barriers and vapor barriers in controlling heat flow and preventing moisture damage. The authors explain how these barriers should be detailed to ensure proper performance and durability.

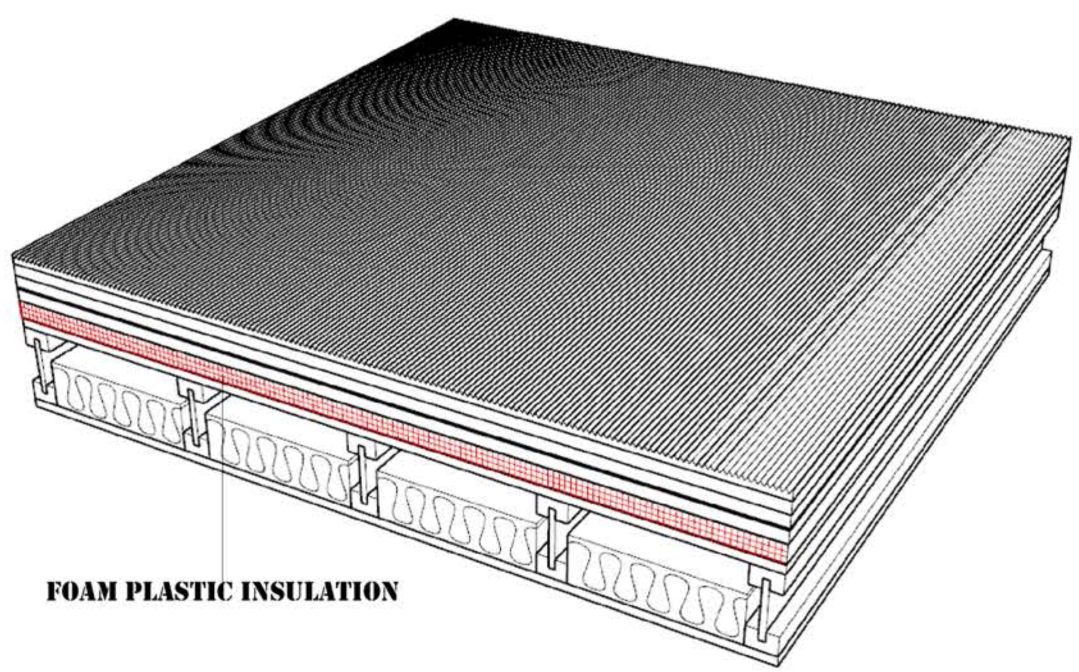
Overall, Chapter 3 of "Architectural Detailing" provides a comprehensive overview of the principles and strategies for controlling heat flow in buildings, with a focus on practical considerations for construction and detailing.

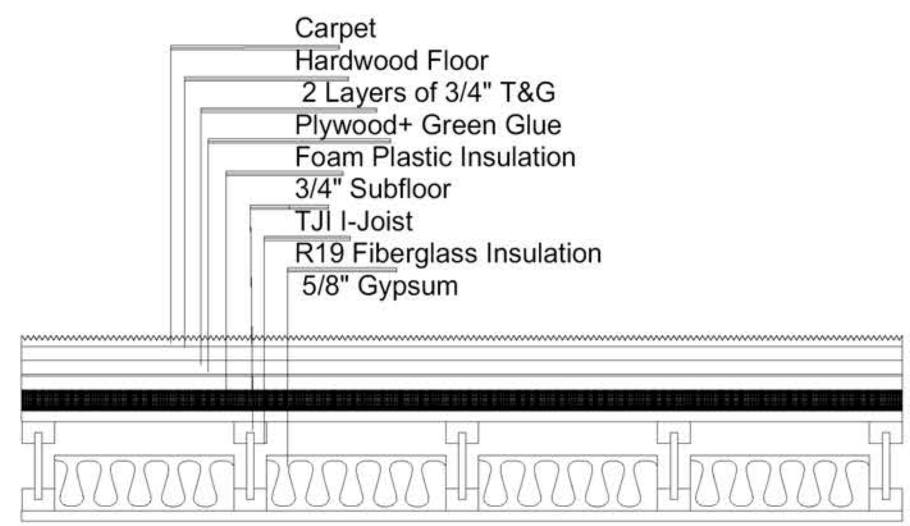


Thermal break window
Double_Glazed









Floor

CONTROLLING SOUND

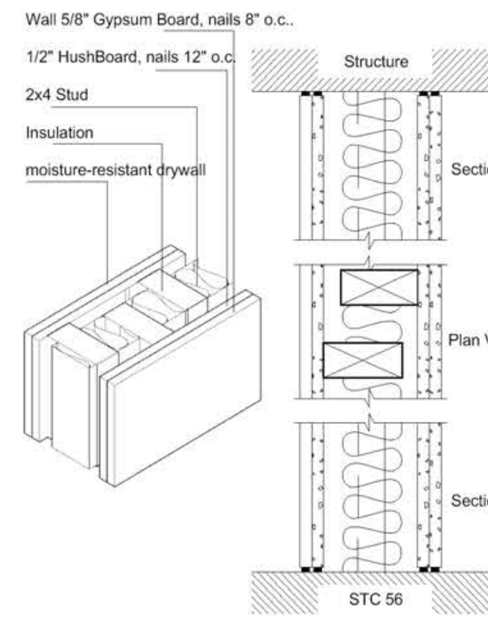
1. Washroom wall – wall build-up detail with a minimum STC rating of 50.
I can explain three ways of controlling sound in walls, specifically in washrooms, according to Allen, Edward, and Patrick Rand's book "Architectural Detailing: Function, Constructibility, Aesthetics" (2016):

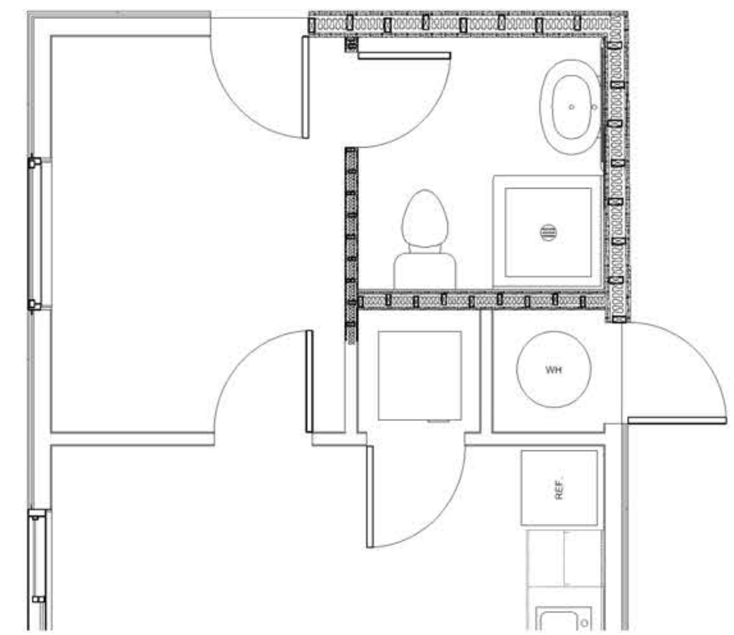
Use Sound-Resistant Materials: One effective way of controlling sound in walls is by using sound-resistant materials. For instance, you can use sound-absorbing insulation or mass-loaded vinyl (MLV) to reduce sound transmission. In washrooms, you can use ceramic tiles or moisture-resistant drywall to create a barrier between the noise source and the surrounding area.

Wall Assembly Design: The design of the wall assembly can also play a significant role in controlling sound in walls. For example, using staggered studs, double studs, or resilient channels can reduce the amount of sound that passes through the wall. Additionally, adding a layer of sound barrier material between the layers of drywall can also help to absorb and reduce sound transmission.

Sealants and Acoustic Caulking: Finally, using sealants and acoustic caulking can help to prevent sound from leaking through gaps and cracks in the wall assembly. For example, applying acoustic caulking around electrical outlets, plumbing fixtures, and ventilation ducts can help to create a more airtight seal, reducing the amount of sound that leaks through these areas.

Overall, these are three effective ways of controlling sound in walls, especially in washrooms, according to Allen, Edward, and Patrick Rand's book. By using sound-resistant materials, designing the wall assembly effectively, and sealing gaps and cracks, you can create a more comfortable and private space for occupants.

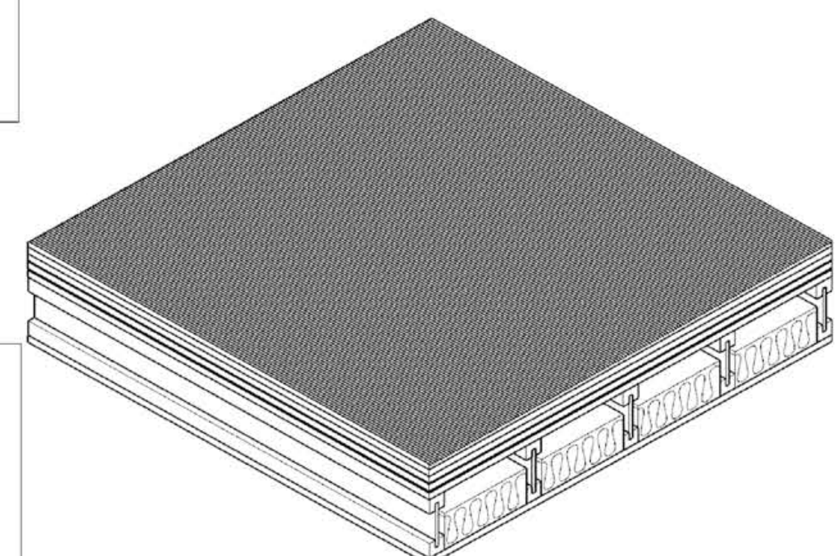


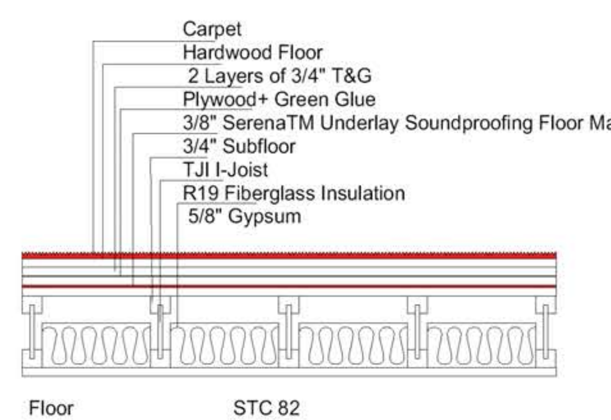


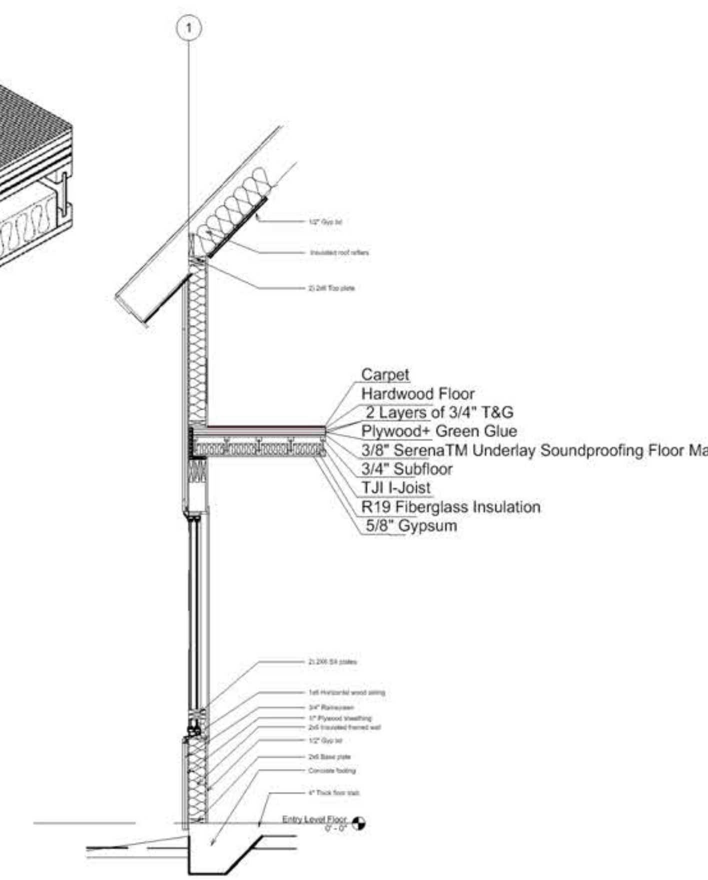
Acoustic Insulation: The first way to control sound on the floor is to install acoustic insulation material underneath the flooring. This will reduce the sound that passes through the floor and into the room below. Materials such as cork or rubber can be used to create a barrier between the floor and the subfloor. This method is particularly effective for reducing impact noise, such as footsteps or chairs being moved.

Resilient Channels: Another method for controlling floor sound is using resilient channels. These are metal strips that are installed horizontally on the underside of the joists. The channels create a gap between the subfloor and the ceiling below, which helps to reduce the amount of sound that is transmitted. This method is particularly effective for reducing airborne noise, such as voices or music.

Floating Floors: The third method for controlling sound in the floor is to install a floating floor. A floating floor is created by installing a layer of sound-absorbing material, such as cork or rubber, on top of the subfloor. The finished flooring is then installed on top of the sound-absorbing layer. This method is particularly effective for reducing both impact and airborne noise. However, it can be more expensive and complex to install than the other methods mentioned above.







CONTROLLING AIR

Chapter 2 of the book "Architectural Detailing" by Edward Allen and Patrick Rand discusses the principles and techniques involved in controlling air in building design. Air control is a crucial aspect of building design as it impacts the comfort, health, and energy efficiency of a building.

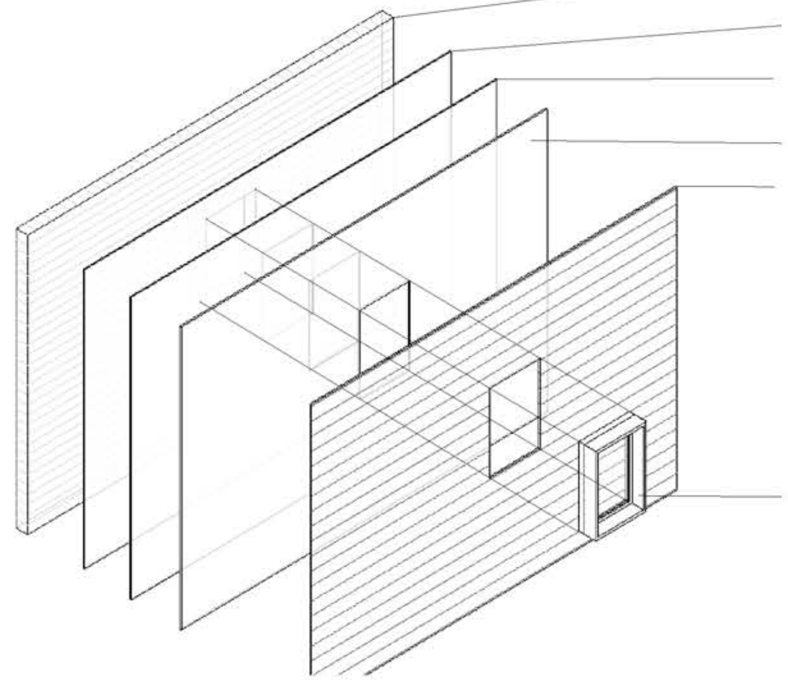
The chapter starts by discussing the various sources of air infiltration in a building and how they can be minimized or eliminated. The authors emphasize the importance of designing a building envelope that is airtight and resistant to moisture intrusion.

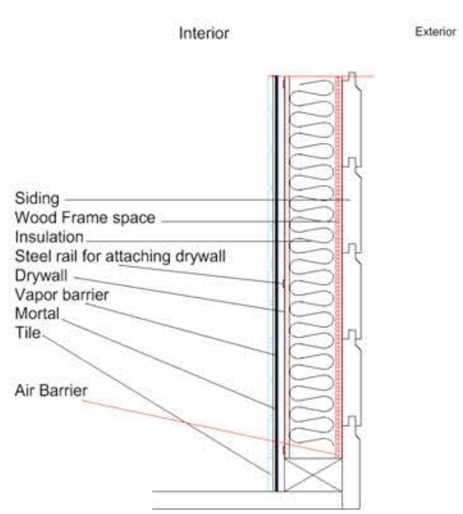
Next, the chapter delves into the different strategies for controlling airflow within a building. These include natural ventilation, mechanical ventilation, and a combination of both. The authors provide guidelines for selecting the most appropriate ventilation strategy based on the building's location, climate, and intended use.

The chapter also covers the design of air distribution systems, such as ductwork and diffusers, and how they can be optimized for maximum efficiency and comfort. The authors discuss the importance of proper sizing and placement of air distribution components to ensure adequate airflow and distribution.

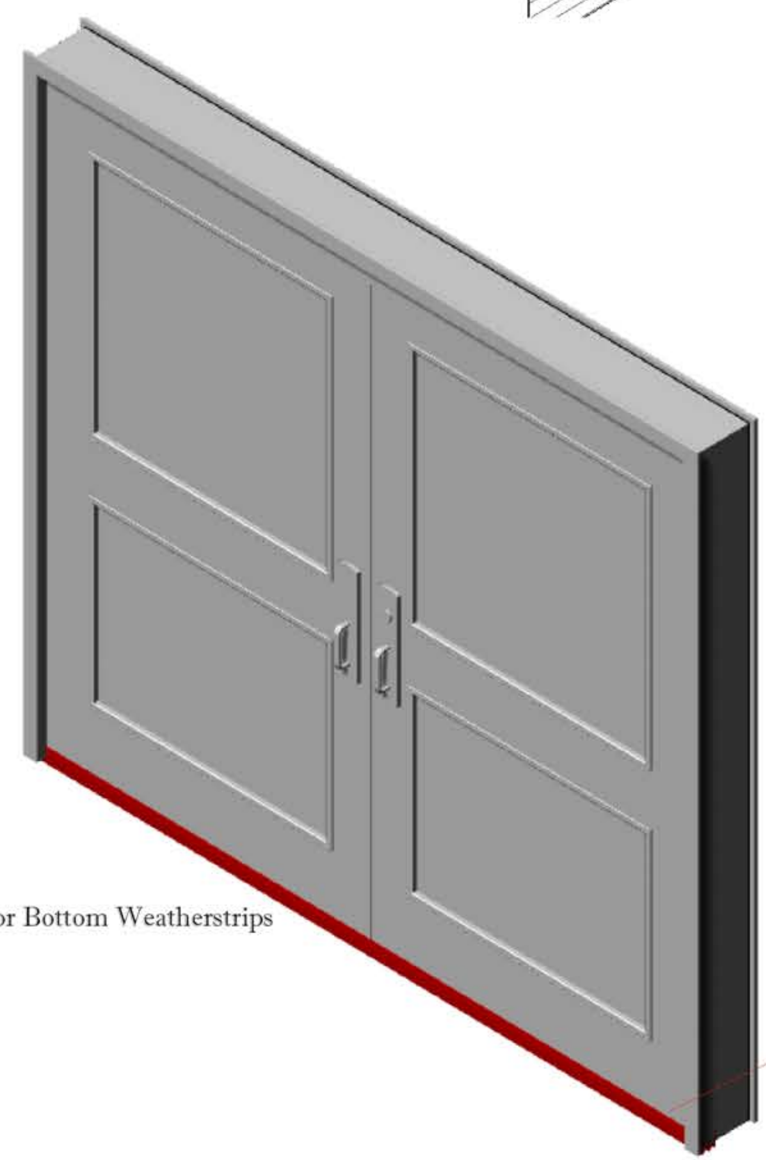
The final section of the chapter discusses the role of insulation in controlling airflow and thermal performance. The authors provide guidance on selecting appropriate insulation materials and thicknesses based on climate and building type.

Overall, Chapter 2 of "Architectural Detailing" provides a comprehensive overview of the principles and techniques involved in controlling air in building design. It is an essential resource for architects, engineers, and building professionals looking to design energy-efficient and comfortable buildings.

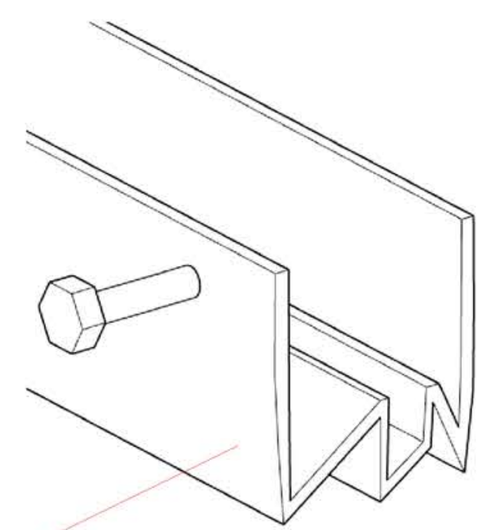




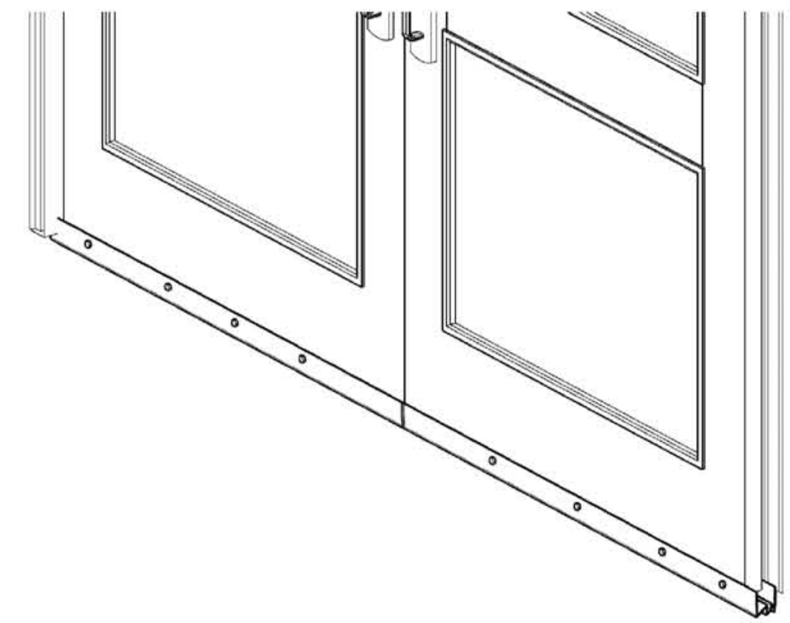
Vapor barrier between kitchen ceramic and exterior wooden walls



Door Bottom Weatherstrips



Door Bottom Weatherstrips



Door Bottom Weatherstrips

CONTROLLING VAPOR

According to Allen, Edward, and Patrick Rand in "Architectural Detailing: Function, Constructibility, Aesthetics," controlling water vapor is a critical aspect of building design and construction. Here are some strategies they recommend for controlling water vapor:

Vapor Barriers: A vapor barrier is a material designed to block water vapor from passing through a building's walls or roof. It is typically made of plastic sheeting or similar material and is installed on the warm side of the building's insulation. Vapor barriers are essential for controlling water vapor because they prevent it from entering the building's interior and causing moisture problems.

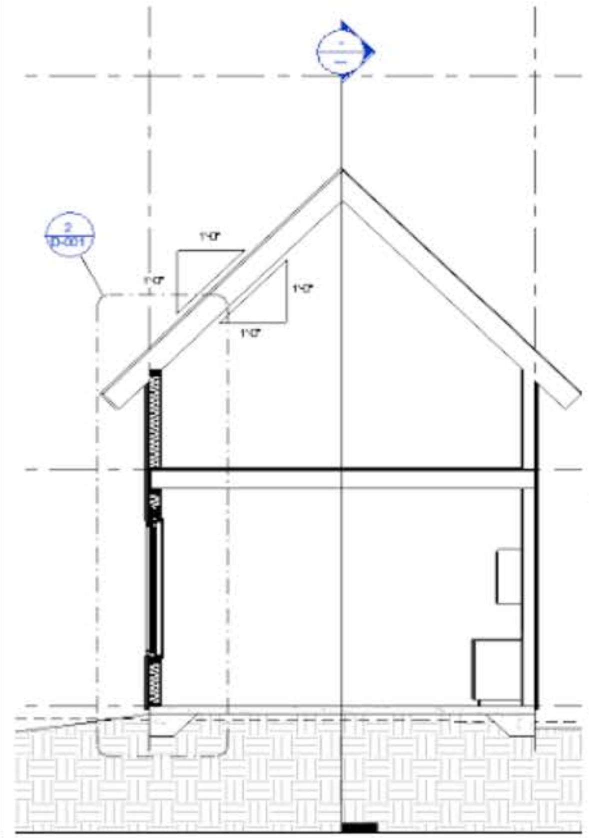
Ventilation: Proper ventilation is essential for controlling water vapor. Ventilation allows moisture to escape from the building's interior and helps to maintain a balanced humidity level. This can be achieved through natural ventilation, such as windows or vents, or mechanical ventilation, such as an HVAC system.

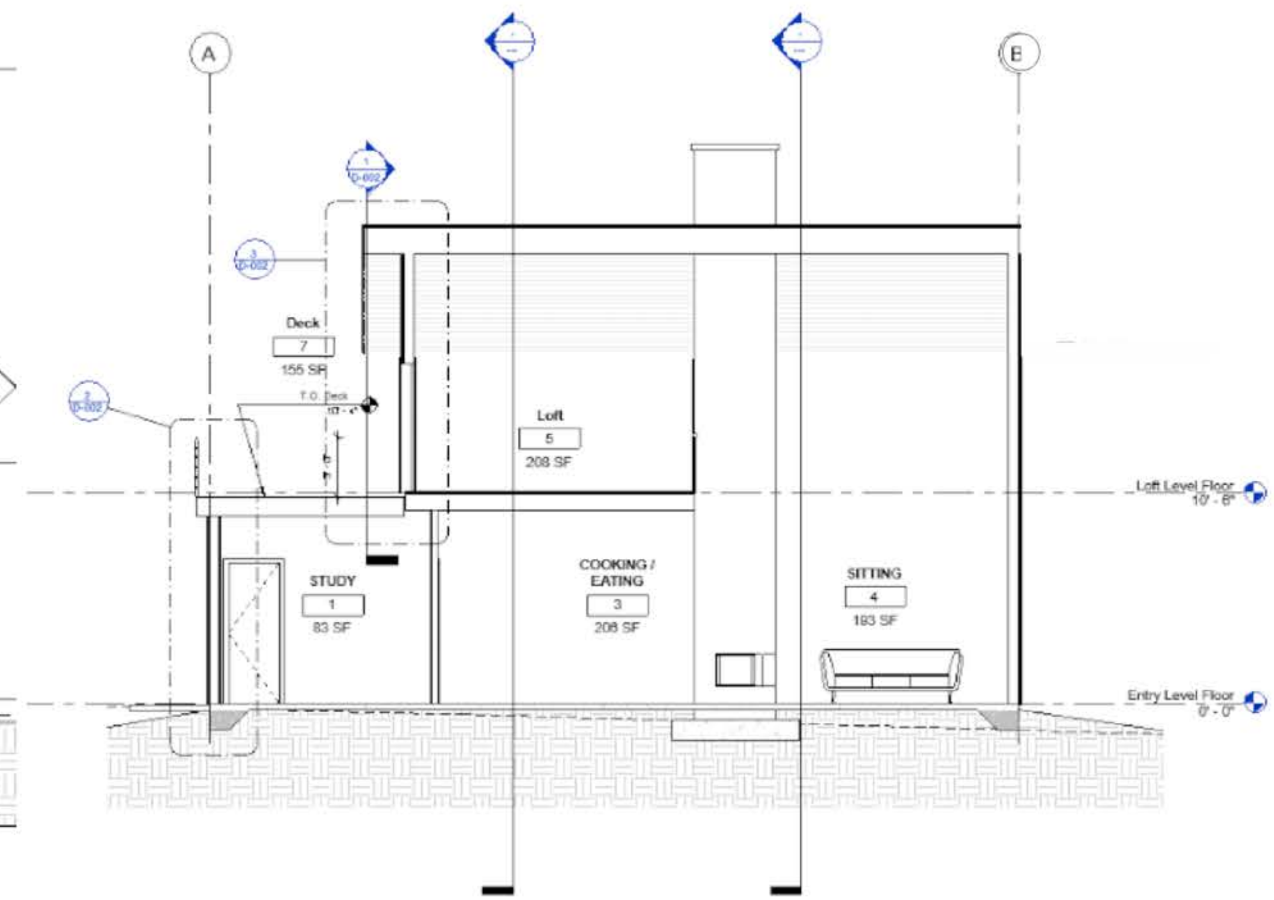
Moisture-resistant Materials: Using moisture-resistant materials in construction can help to control water vapor. Materials such as treated wood, cement board, and vinyl siding are less prone to moisture damage than other materials and can help to prevent moisture problems in the building.

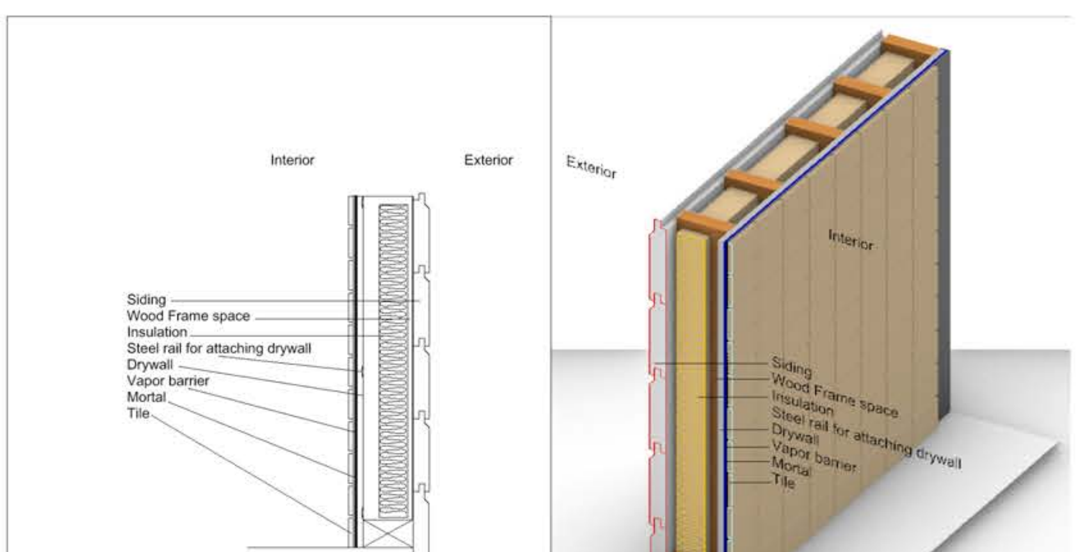
Proper Drainage: Proper drainage is critical for controlling water vapor. Building sites should be graded to ensure that water flows away from the building, and drainage systems should be installed to prevent water from collecting around the building's foundation. This can help to prevent moisture problems in the building's basement or crawl space.

Air Sealing: Proper air sealing can help to control water vapor by preventing air leaks that can allow moisture to enter the building. Air sealing can be achieved through the use of caulking or weatherstripping around doors and windows, or by sealing gaps and cracks in the building's walls or roof.

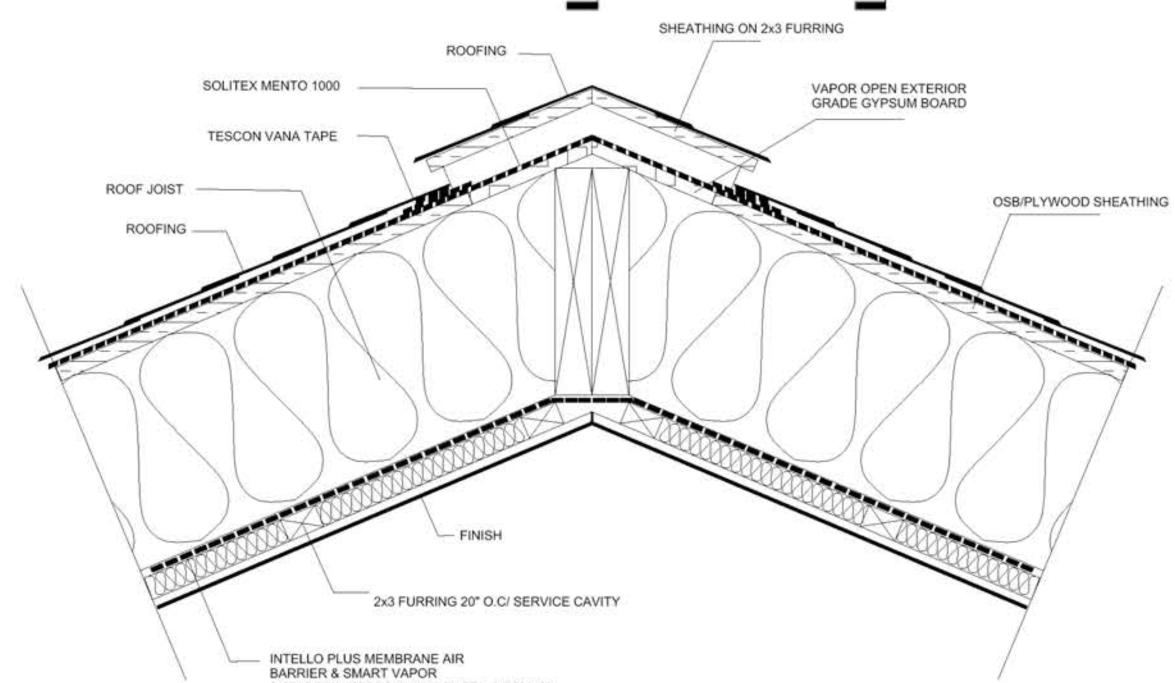
Overall, controlling water vapor is essential for maintaining a healthy and comfortable indoor environment and preventing moisture problems in buildings. By implementing these strategies, architects, and builders can ensure that their buildings are protected from water damage and provide a safe and comfortable space for occupants.







Vapor barrier between kitchen ceramic and exterior wooden walls



Ridge vapour vet aka "Vapour diffusion port" (adapted from BSC)

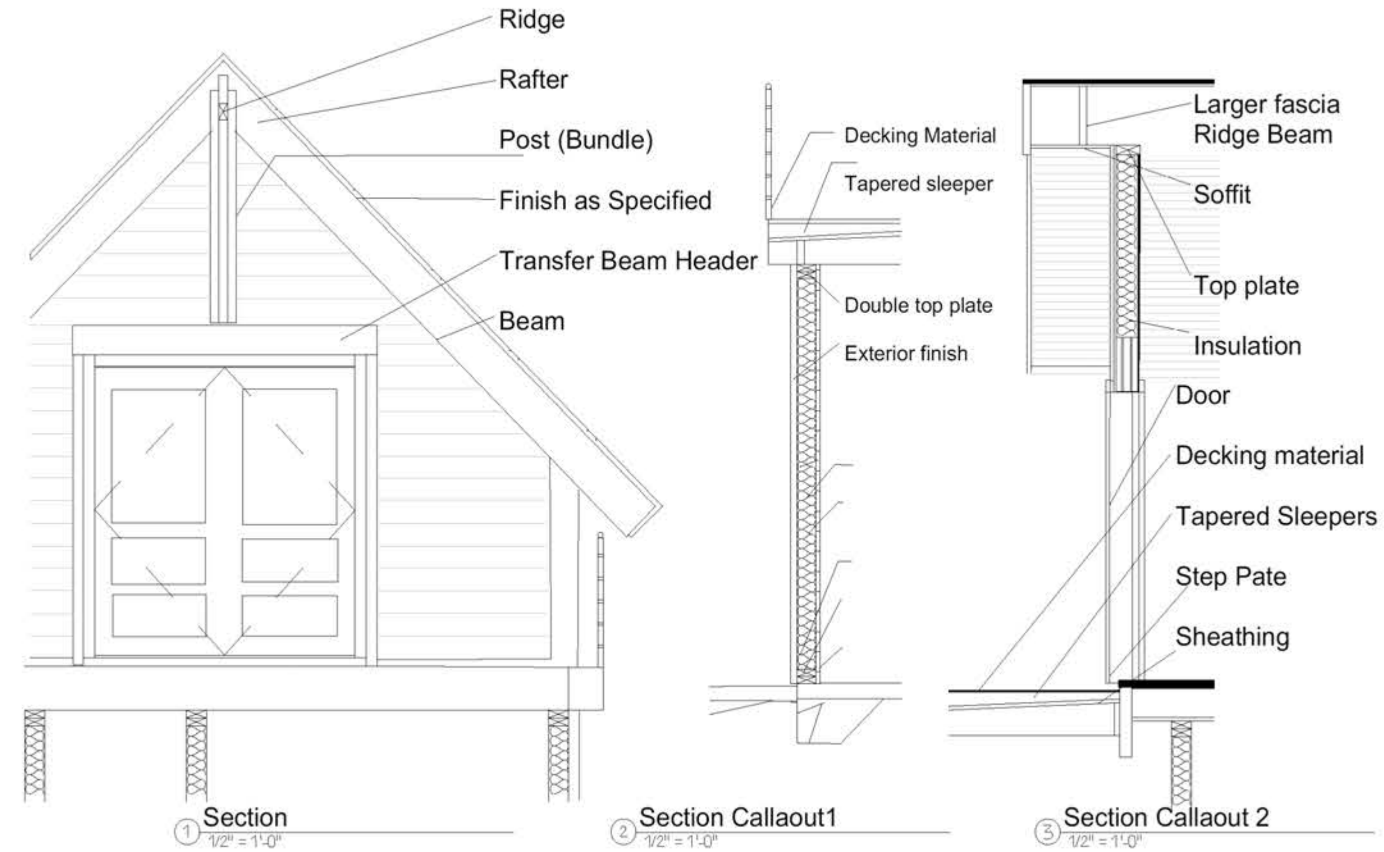
According to the book "Architectural Detailing: Function, Constructibility, Aesthetics" by Allen, Rand, and Patrick, wood framing is a common method used in building construction, particularly for residential buildings.

Wood framing involves the use of lumber, such as dimensional lumber and engineered wood products, to create a structural framework for the building. The wood framing system typically consists of vertical studs, horizontal beams, and diagonal braces that work together to distribute the weight of the building and provide stability.

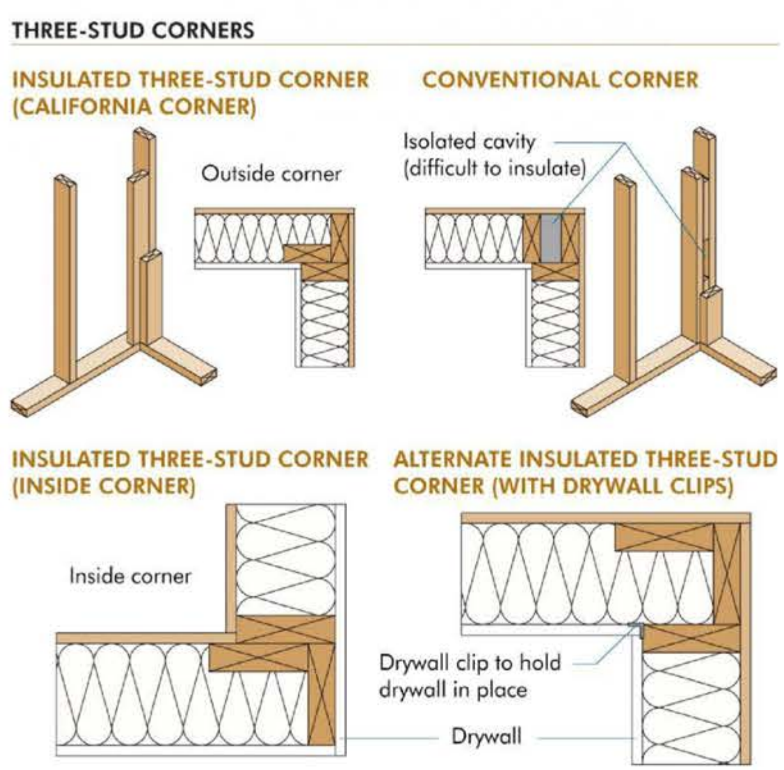
The authors highlight the importance of proper detailing in wood framing construction to ensure that the building is structurally sound and meets local building codes. This includes selecting appropriate materials, ensuring proper connections and fastenings, and considering factors such as wind and seismic loads.

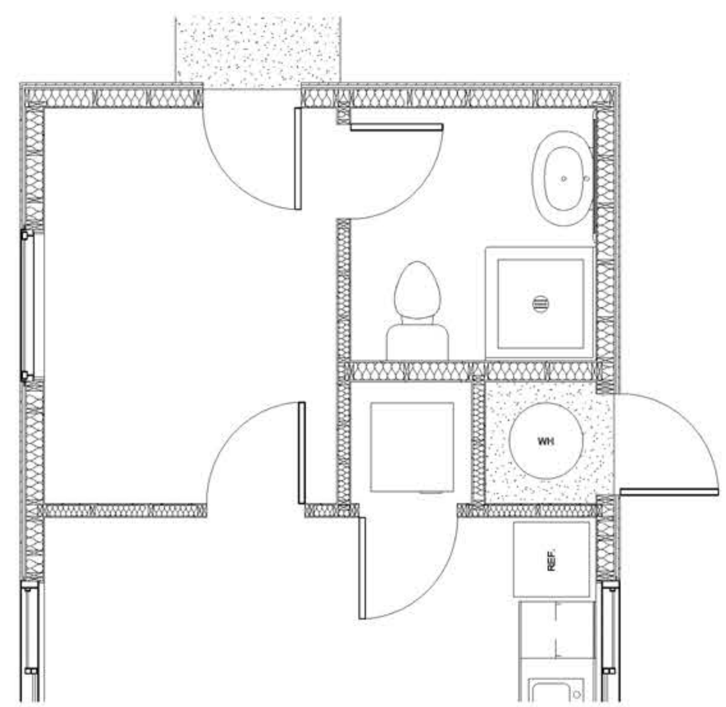
In addition to structural considerations, the authors also discuss aesthetic and functional considerations in wood framing detailing, such as the use of decorative trim and the incorporation of openings for doors and windows.

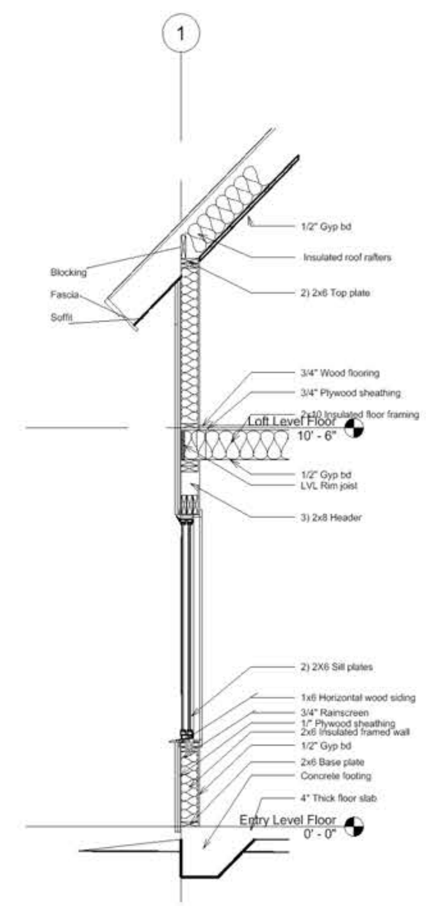
Overall, the book emphasizes the importance of thoughtful and detailed design in wood framing construction to ensure a successful and durable building.



WOOD FRAMING





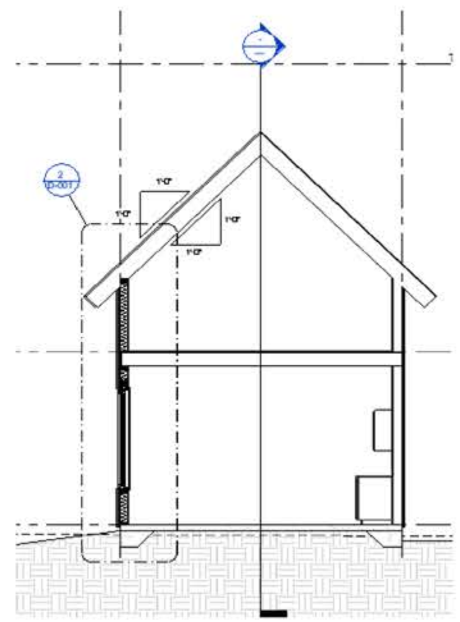


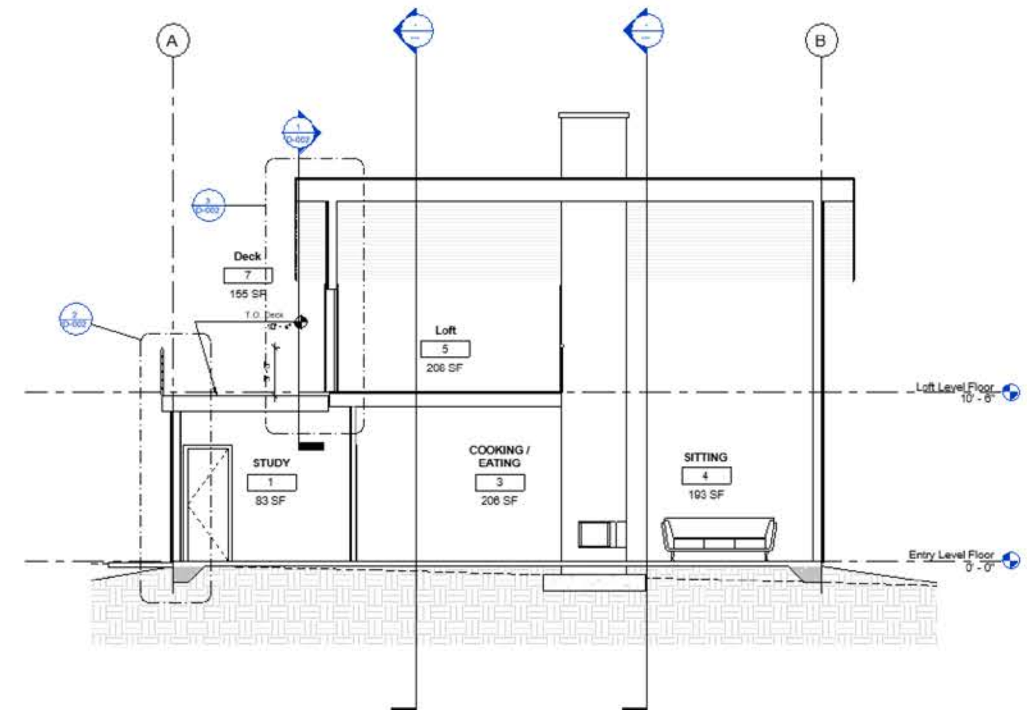
List and explain the three strategies for keeping water out of the building:

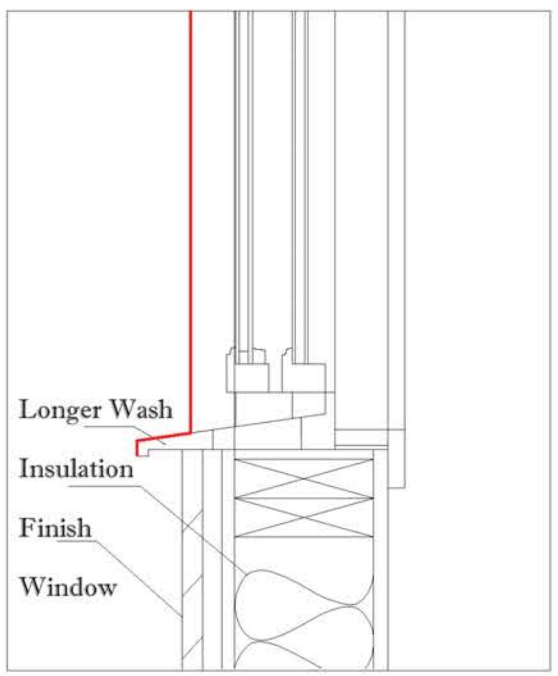
1.Gravity Control: This strategy involves the use of gravity to direct water away from the building through properly designed and installed roof and site drainage systems. This approach relies on the slope of the site and the materials used to channel water away from the building, such as gutters, downspouts, and drainage pipes.

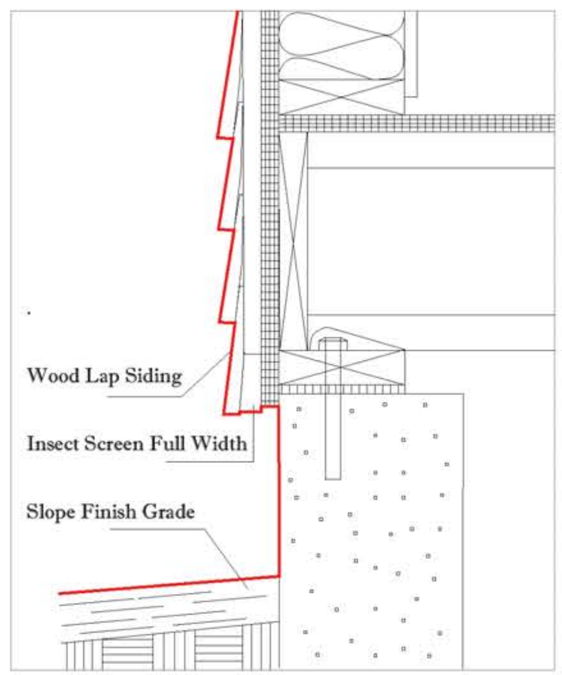
2. Barrier Control: This strategy involves the use of physical barriers to prevent water from entering the building. These barriers can be constructed from a variety of materials, such as masonry, concrete, or steel, and can be designed to resist water pressure and prevent water infiltration.

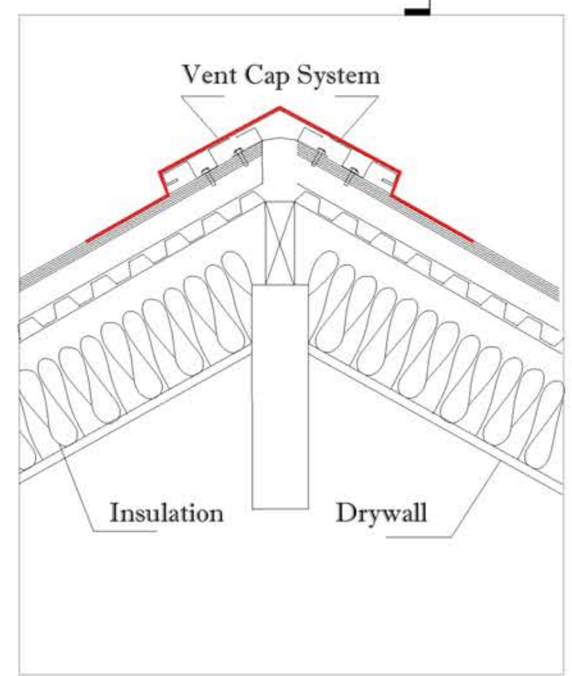
3.Drainage Control: This strategy involves the use of drainage systems, such as weep holes, vents, and interior drains, to remove water that has penetrated the building envelope. Drainage systems can help to prevent moisture buildup and mold growth by allowing water to escape from the building without causing damage or deterioration.

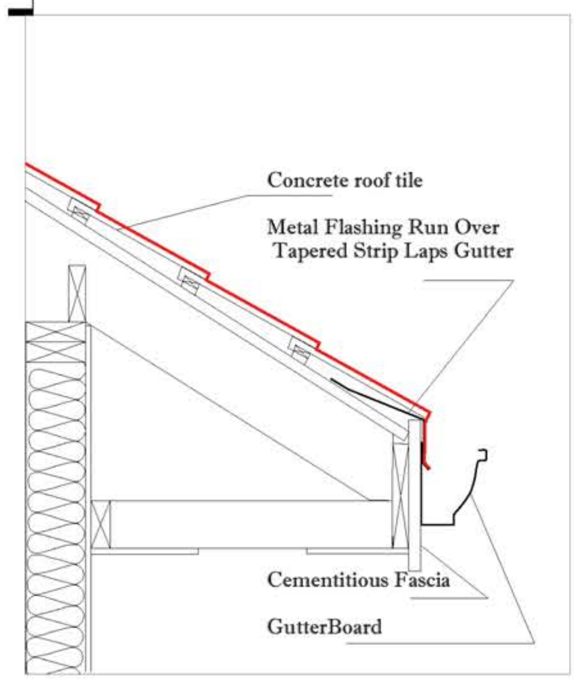








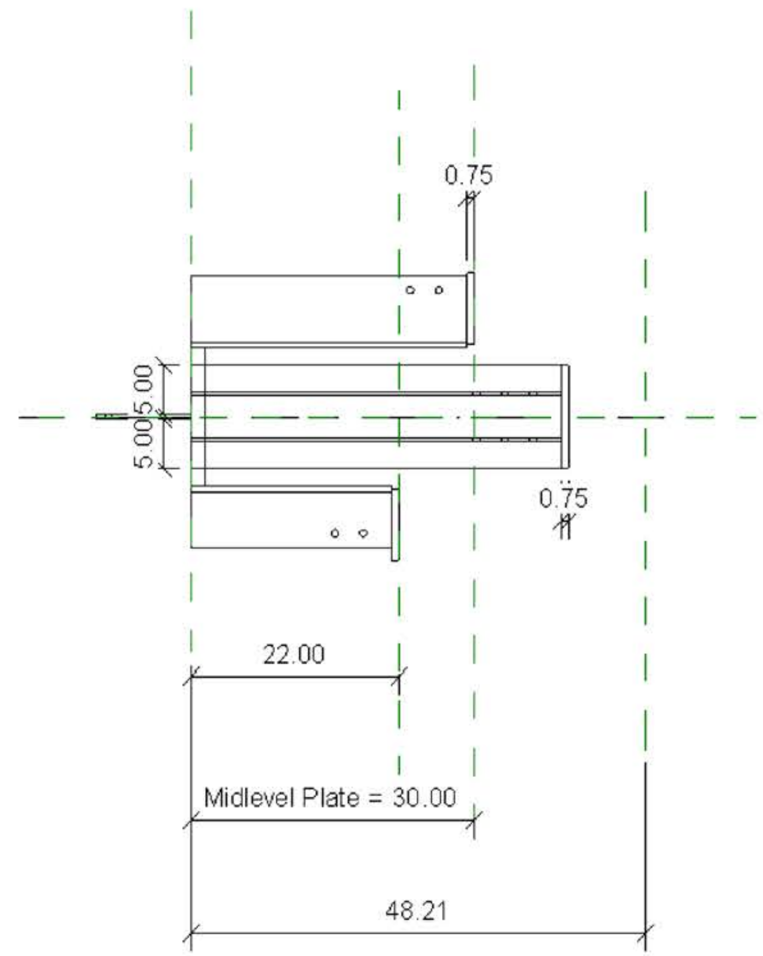


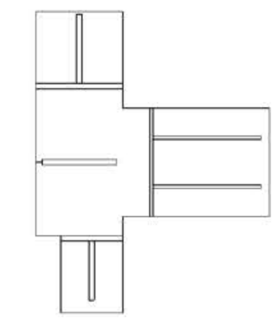


CONTROLLING WATER

To create a new parametric family in Revit, follow these steps:

Open a new Revit project or an existing project where you want to create the family.
Click on the "Family" button in the "New" tab of the ribbon menu.
In the "New Family" dialog box, select the appropriate template for the family you want to create. For example, if you want to create a new piece of furniture, select the "Furniture" template.
Click "OK" to create the new family.
In the "Family Editor" window, you will see a blank canvas. Use the tools in the "Create" tab to add geometry to your family. You can create basic shapes such as rectangles, circles, and lines, or you can use more advanced tools such as sweeps and blends.
Once you have created the basic geometry for your family, use the "Family Types" dialog box to create different variations of your family. In this dialog box, you can specify parameters for your family, such as height, width, and depth. These parameters can then be adjusted by the user when the family is loaded into a Revit project.
Save your family by clicking on the "Save" button in the "Family" tab of the ribbon menu.
With these steps, you should now have a new parametric family in Revit that can be loaded into your project and customized by adjusting its parameters.





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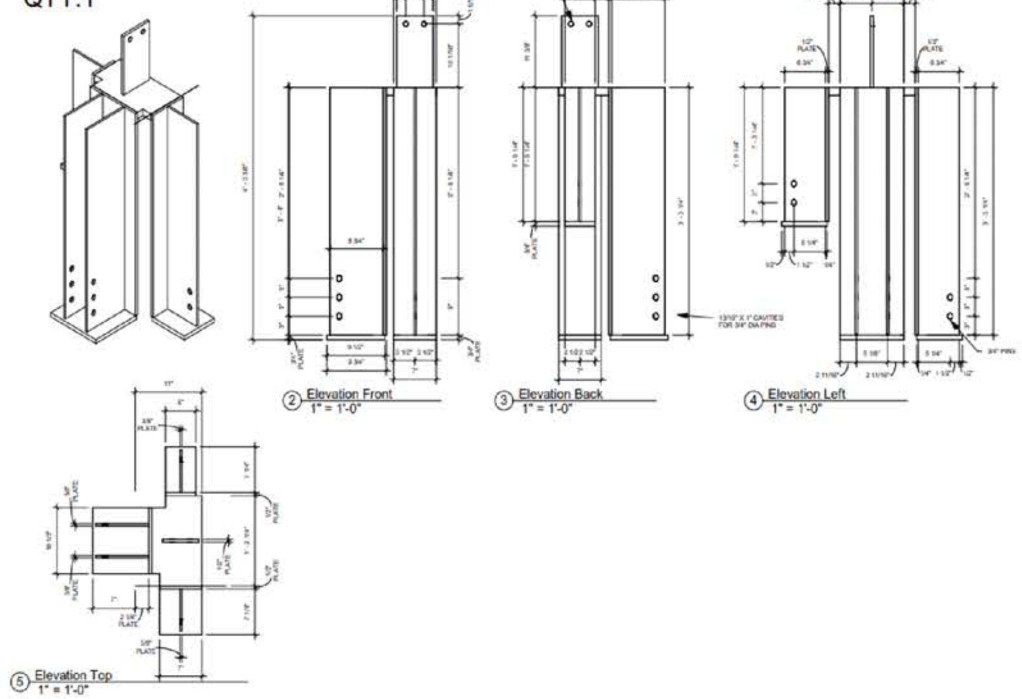
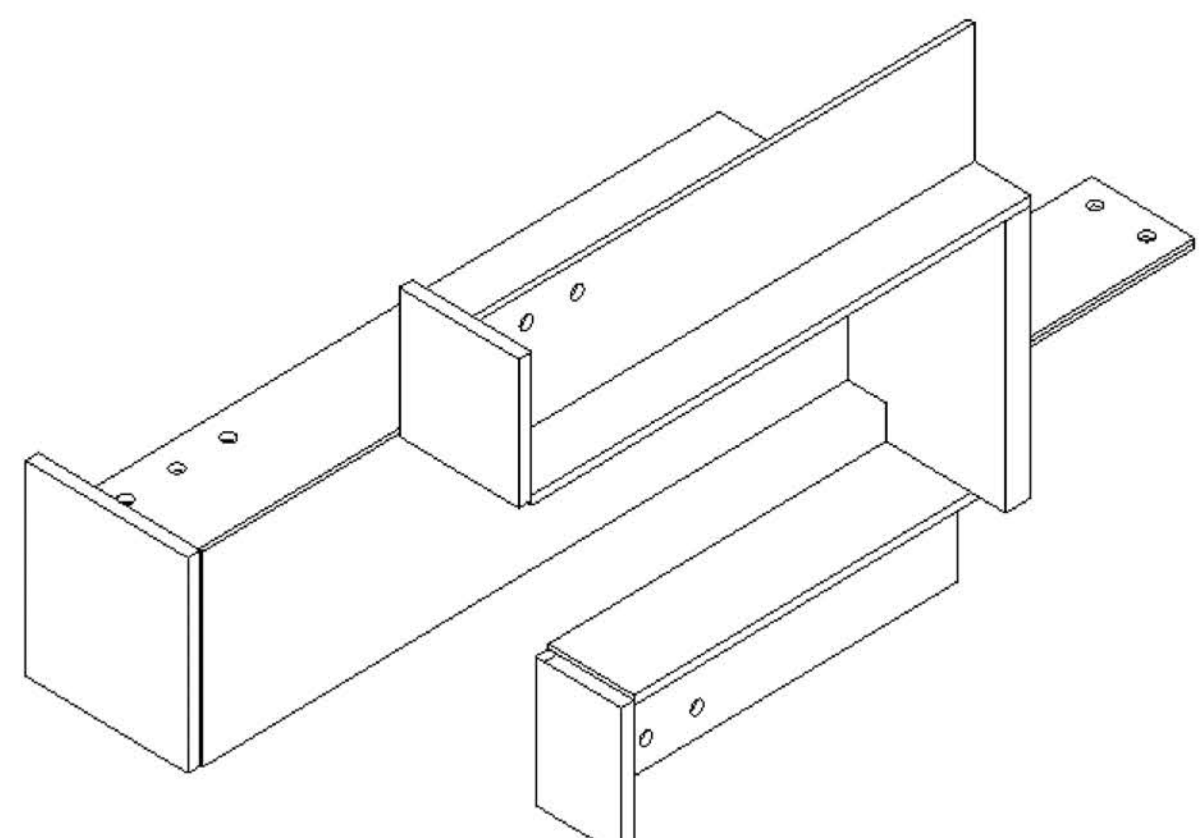




Research
Facade

Through the process of creating geometric panels, the position we undertook was how we could create shadows or textures with a single panel. As a team we created a variation of shapes such as rectangles, squares, and hexagons to create panels. Each panel had challenging moments and great outcomes. The first panel is a square with a triangles and sloped sides to create a start shape within the middle. By doing a 45-angle texture on the panel, it created a very settle design, and the robot only took 8 minutes each side. The challenge with this panel was seeing the design with light hitting the panel but with shadow you could see the panel very clearly. Another challenge we had when doing this panel was with the robot itself. Although it took 3 attempts before getting the robot to function correctly to create the cast, we learned more about how the bit can change the resolution based on speed. With a higher rotation on the bit, it created a smoother texture on the mold versus when it was slower and created rigids in the mold. Casting the mold was the easiest part due to having a wide area to pour. The first casting was successful and when removing the cast, we realized the tile was still radiating heat to the touch. When we casted the second time, the rockite was runnier that is took longer to be able to dry properly to remove. The second panel was a challenge due to learning how to use rhino properly to create the hexagonal shape with a 45-angle texture creating shadows within the tile. The challenge within this panel was allowing the robot to create the whole in the mold and because of the angle of the texture used it took 15 minutes to create each side of the mold. Casting the mold was different due to the entry for the rockite was in the middle of on side and had very little entry to be able to disperse the rockite. When removing the cast, we noticed steam coming out of the tile as it was still hot to be able to remove and waited to do so. The third casting is a Shell created by rectangles with different slopes and 90-angle texture to create the design. This tile took the shortest time for the robot to create because of the angles where linear like the shape of the mold, the robot was able to create a clean cast with no rigids. With this tile there were no challenges and had a wide opening to be able to cast. Through the process of each tile, we learned that is important to understand the program we are using as well as every tool used to create the panel. Understanding how the robot is the most challenging this to understand and although this project allowed us to know the robot very minimal, it's the biggest factor that we needed to understand to create the mold.

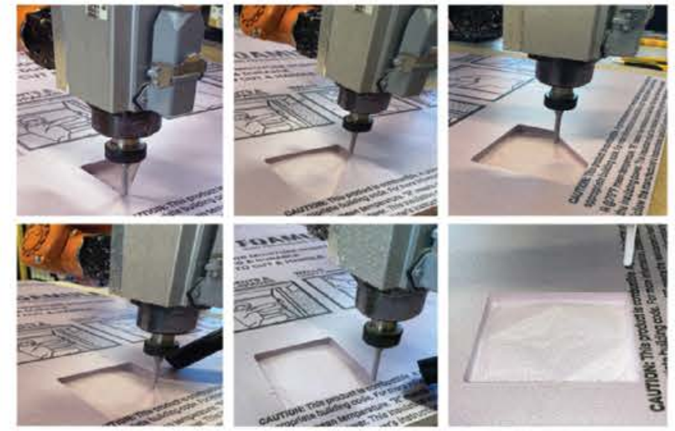
Research Question
How can we create interesting shadows or textures with a single tile?

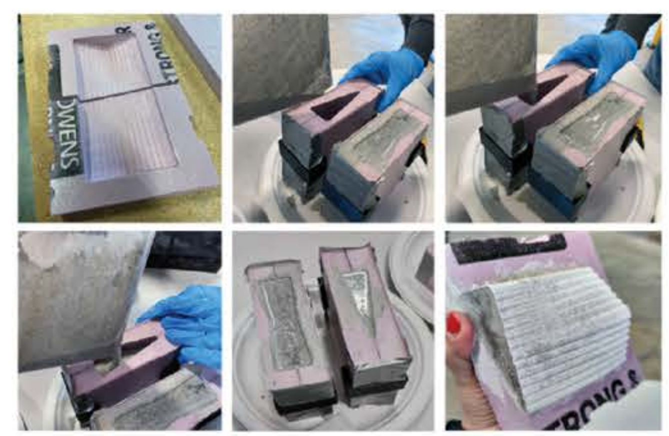
Keywords
Shadow, Texture, Rectangles, Square, Slope, 45-angle, 90-angle

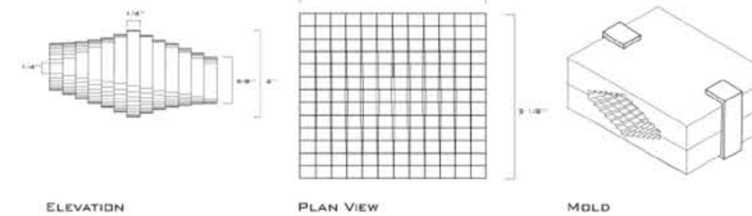
Position
Different geometries were explored and on a surface to create shadow moments outside a space.

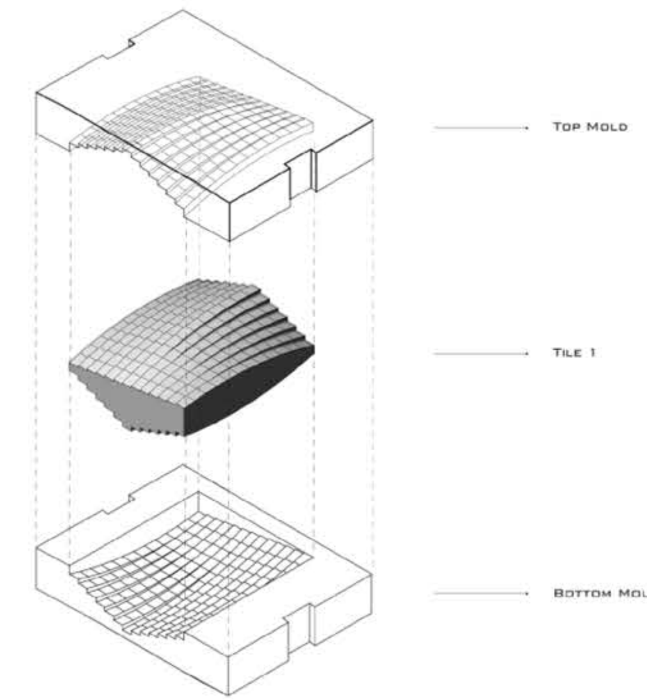
Tool Used:
Spindle with 1/4" Ball Nosed Bit on the KUKA KR 10 Robotic Arm

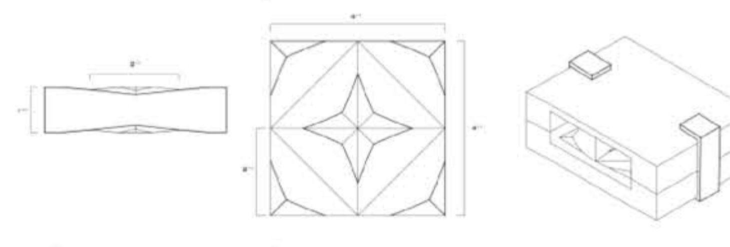
Time
1st panel - 4 Minutes for the first run, the second run took 8 minutes each side
2nd panel- 15 minutes each side
3rd panel- 7 minutes each side

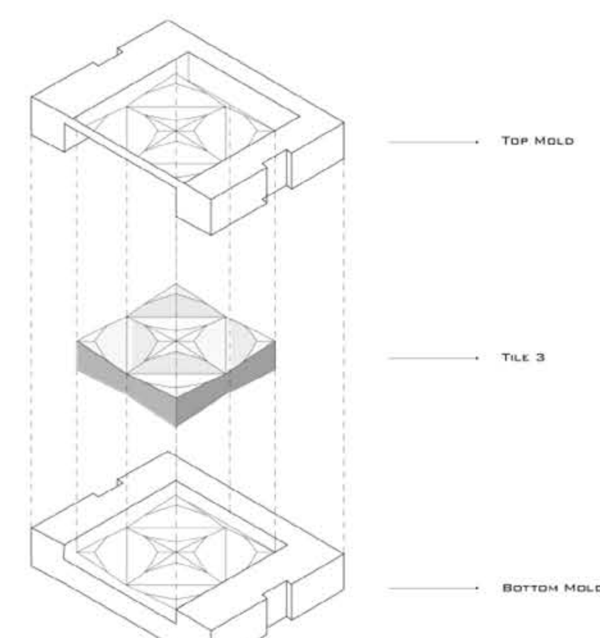












Design Synthesis

1.USer requirements
2.Regulatory requirements
3.Site conditions
4.Accessible design
5.Consideration of the measurable environmental impacts of their design decisions

The first project related to the ARCH 5600 course involved designing a Native American cultural center while considering user requirements, which are essential in designing a functional and practical building that caters to occupants' specific needs. We must consider factors such as room size, lighting, accessibility, and technologies during the design process to create a space that meets the occupants' needs. The design process involved dividing spaces according to user requirements, considering the building's orientation and area, and complying with guidelines and regulations.

The second project related to the architecture studio course Arch 5602, we learned about regulatory requirements, including building codes and safety regulations, while designing a college of architecture. We considered factors such as elevators and staircases, door directions, and zoning regulations to ensure the safety and welfare of the building's occupants and the surrounding community. Compliance with regulatory requirements is crucial in architecture, and architects must adhere to legal and regulatory standards set by various organizations to avoid legal and financial consequences therefore in this course we learned about using the building codes book.

In the third project for our cultural center project about Native American people Arch 5600, We conducted research on the history of the indigenous people in Texas and found two historical locations in San Antonio where San Antonio started to become a city from those spots. we chose to design the project on top of an old dam in Olmos Park and incorporated sustainable and passive design elements. The building design was inspired by Native American tents and seasonal migration and included a recycling plastic room in the craft room because the dam was used to collect waste plastics from the river where the first Native Americans lived and followed for food sources.

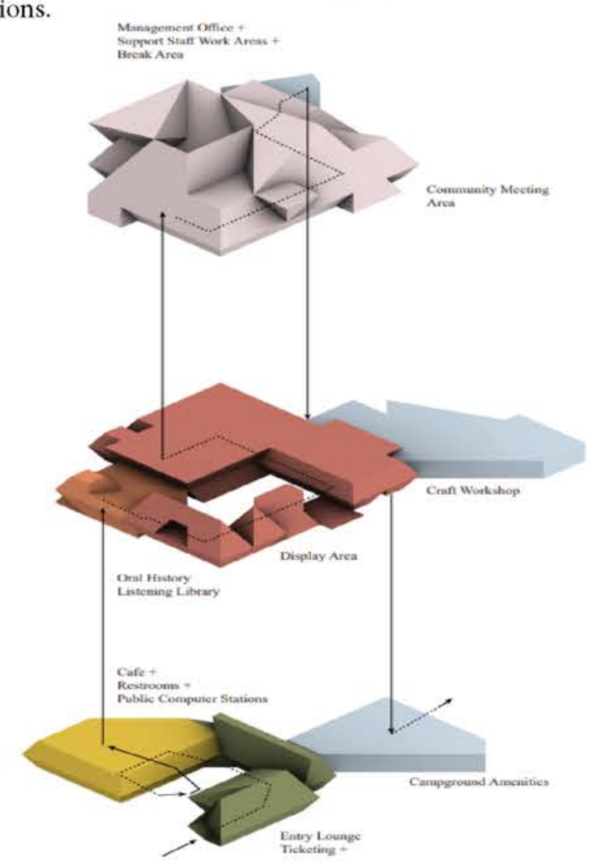
The fourth project related to course 5604 we studied accessible design in architecture which refers to designing inclusive spaces for people with disabilities or limited mobility, featuring elements like ramps, lifts, and handrails. In a small exhibition space resembling a passage with tables, we ensured wheelchair accessibility by carefully spacing tables from the main structure, selecting non-slip wood flooring, and making QR codes easily accessible for wheelchair users. Our inclusive design created a welcoming environment that catered to individuals of all physical abilities, with accessibility being a crucial consideration for safe and comfortable space usage.

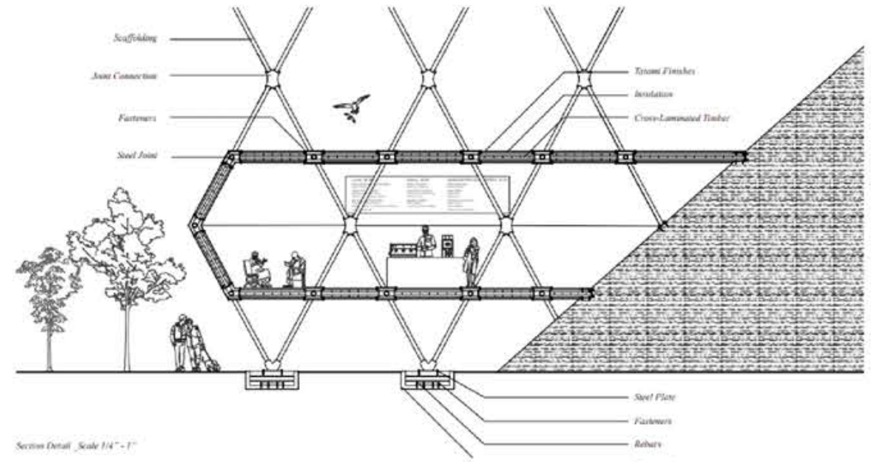
In the fifth project related to course Arch 5600, we learned about considering environmental impacts in design synthesis is crucial for creating sustainable buildings. In our Almos Park project, we incorporated a handcraft workshop for visitors to collect plastic waste and make their own crafts. To minimize our building's negative impact, we used prefabricated walls made of appropriate materials with different openings to reduce energy waste and minimize waste material. Additionally, we used scaffolding as a structural element to reduce the environmental impact of our building.

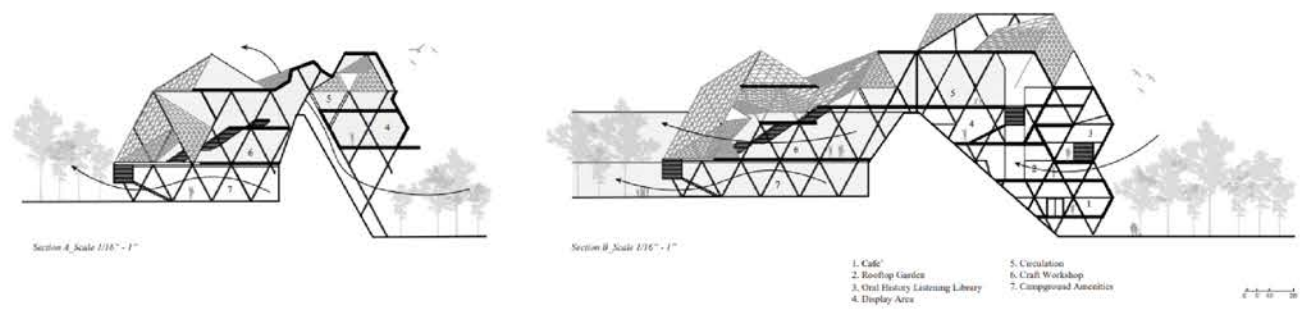
Design Synthesis
User Requirements

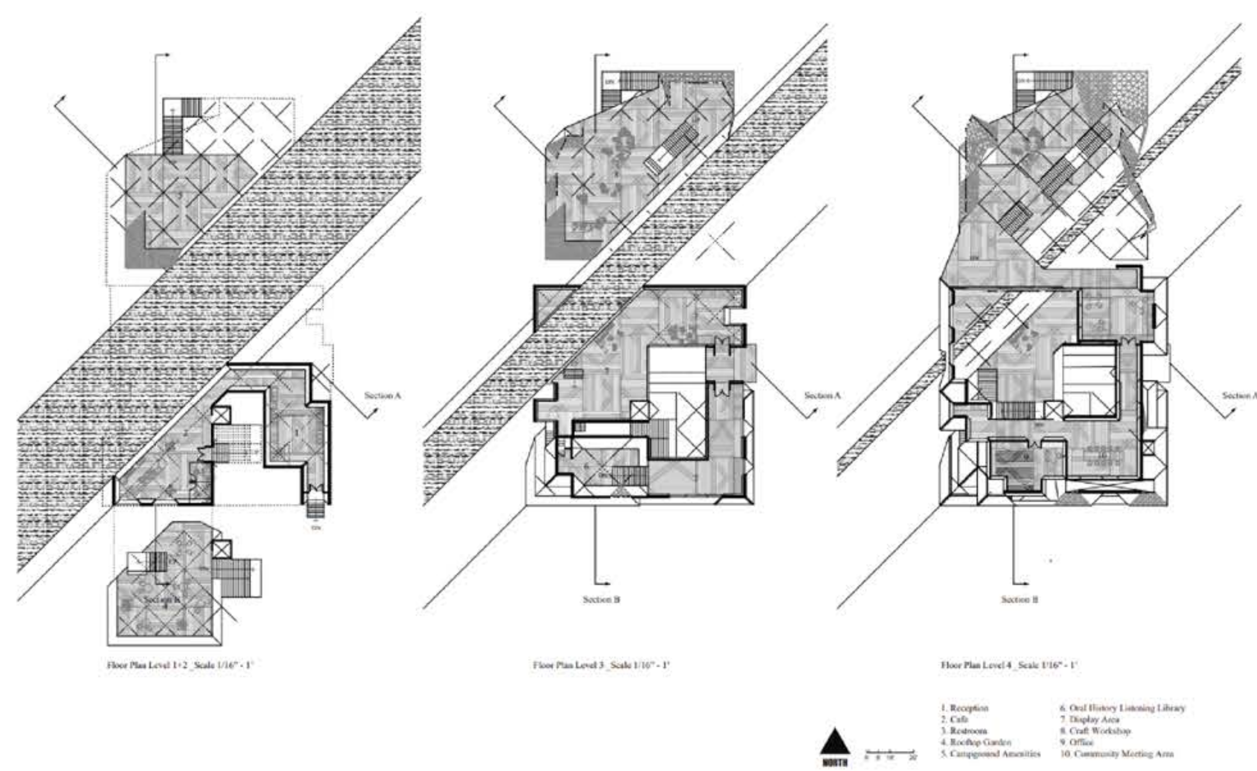
This project, which was related to the course ARCH 5600, aimed to design a cultural center dedicated to Native American culture. User requirements in the field of architecture refer to the specific necessities and inclinations of the individuals or groups who will be utilizing the building. These requirements encompass a variety of factors, such as the size and arrangement of different rooms, the type and quantity of natural lighting, the accessibility of the building, and the inclusion of specific features or technologies. The recognition and incorporation of user requirements are imperative to the successful design of a building that is practical, comfortable, and caters to the needs of its intended occupants. During the design process, architects should take into account these requirements to create a space that is not only aesthetically pleasing but also functional and appropriate for the building's intended use.

Based on the user requirements list provided by Professor Peter Raab and Sina Mostavai, which is attached to this page, we initiated our design process by working on a diagram and dividing the spaces according to the users' requirements. The building's orientation based on the sun direction and dam situation was also taken into consideration, as well as the whole building's area and the floors that were approved for consideration in this particular building. This process ensured that we designed a building that fully addressed the user requirements and met the needs of its occupants while adhering to the appropriate guidelines and regulations.









S.no.	Spaces	No. of users	Area(Sq.m	Remarks
	Cultural centre area program			
1	**Administration**			
	Director's office	1	30	Includes attached Toilets
	Staff Cubicles	5 - 8	40	
	Dean & Registrar	2	30	
	Chairperson	1	15	
	P.a. room	1	10	
	Accounts	4 - 5	15	
	staff Toilets	15-20	25	
	Store		20	
	Waiting Area	5-10	25	
	Conference room	50	80	
	Pantry	1	10	
	Seminar room	50	80	
	Total		380	
2	**Visitors admin and reception**			
	Reception/info desk	1	5	
	Waiting	10 - 15	40	
	Manager office	1	15	
	Cloak room	1	15	
	Ticket counter	1	5	For Exhibition and Shows
	Total		80	
3	**Art and Craft Center**			
	Studios		120	
	Workshops		120	
	Exhibition Area		400	
	Art Galleries		400	
	Printing Room		60	
	Manager's Cabin	1	40	Including Attached Toilets and pa.
	Total		1140	
	Music and Dance			
	Music Studio		400	
	Dance Studio		400	
	Rehersal hall		500	
	Changing Rooms and Toilets		40	
	Locker room		20	
	Section office		20	
	Recording Studio	20*2	40	
	Voice Studio		20	
	Total		1440	
	Drama			
	Studio		120	
	Rehersal hall		150	
	Toilets and Changing room		20	
	Locker room		10	
	Section office		30	
	Recording Studio		20	
	Music studio		20	
	Makeup studio		20	
	Voice studio		20	
	Total		410	
	Common Facilities			
	Workshops		200	
	Carpentry		100	
	Photography		100	
	Crafts		100	
	Costume Design		100	
	Archives		100	
	Library		150	
	Canteen		200	
	Shops	15 x 10	150	
	Guest House	20 x 5	100	
	Hostel		100	
	Mess & Kitchen		100	
	Toilets		30	
	Services		100	
	Total		1630	
	Auditorium			
	Foyer		100	
	Toilets		30	
	Green Room		20	
	Gathering Area		50	
	Projector room		6	
	Auditorium		800	
	Open Air Theatre		800	
	Total		1806	
	Total Area		6886	
	Circulation 30%		2065.8	
	Net Total		8951.8	

Design Synthesis

Regulatory Requirements

This was a studio course where we learned about building codes. For our project, we designed a college of architecture and learned about every regulatory requirement. We considered factors such as how many elevators and staircases we needed based on the building's area and the number of users. We also studied the details of door directions to ensure building safety in the event of a fire or earthquake.

In architecture, regulatory requirements refer to the legal and regulatory standards that architects must follow when designing buildings and structures. These requirements can be set by various organizations such as government agencies, building codes, and industry associations.

Regulatory requirements typically cover a wide range of topics, including safety, accessibility, energy efficiency, environmental impact, and zoning regulations. Architects must ensure that their designs meet all relevant regulatory requirements to ensure the safety and welfare of the building's occupants and the surrounding community.

Examples of regulatory requirements in architecture include building codes that set standards for structural integrity, fire safety, and accessibility, environmental regulations that govern the use of materials and energy, and zoning regulations that dictate how buildings can be used and where they can be located.

Meeting regulatory requirements is an essential part of the architectural design process, and failure to comply with these requirements can result in legal and financial consequences for both the architect and the building owner.

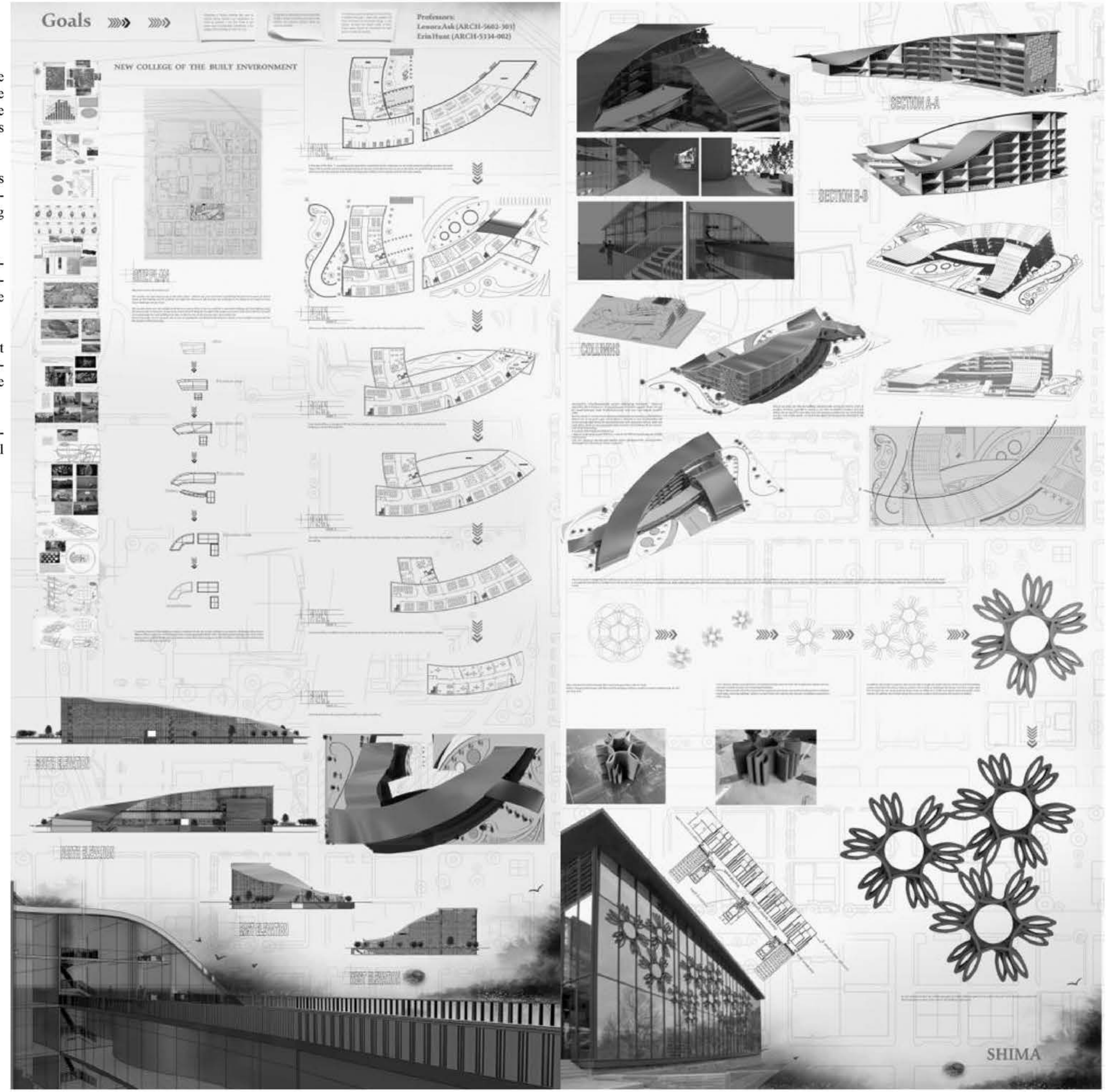
Phisical Planning & Programming of

COLLEGE OF ARCHITECTURE & URBAN DESIGN

Student Number
1200 ✓
1500
Faculty and Staff Number
75 ✓
94

Site 2
157,000 SQF Total Area
80,000 SQF Construction
Height Limitation
85 f
25.9 m = 6 Floor

	Main Area	Subspace	Subspace	Ratio	Number	People	SQ Feet Needs	Public Access	Daylight	Privacy	Plumbing
1	Administration	Lobby		15	1	10	150	✓	✓	✗	✗
2		Reception		100	4	1	400	✓	✓	✗	✗
3		Director	Main Office	40	20	1	800	✗	✓	✓	✗
4			Secretary	20	20	1	400	✓	✓	✓	✗
5			Meeting Area	90	20	1	1,800	✗	✓	✓	✗
6		Office		100	80	1	8,000	✓	✓	✓	✗
7		Meeting Room		15	4	12	720	✗	✗	✓	✗
8		Waiting Area		7	4	10	280	✓	✓	✗	✗
9		Copy Area		100	4	1	400	✗	✗	✗	✗
10		Restroom	Women	20	2	4	160	✓	✗	✗	✓
11			Men	20	2	4	160	✓	✗	✗	✓
12			Cleaning R	20	1	1	20	✗	✗	✗	✓
13		Kitchen		30	2	5	300	✗	✓	✗	✓
14		Dining Room		15	2	20	600	✗	✓	✗	✓
15		Coffee Station		15	2	10	300	✗	✓	✗	✓
16		Student Organization		15	4	10	600	✓	✓	✗	✗
17		Gym	3	100	1	10	1,000	✗	✓	✗	✗
18		Locker space / Shower	3	50	1	10	500	✗	✗	✗	✓
19		Storage		50	4	1	200	✗	✗	✗	✗
20	Education	Lobby		15	1	10	150	✓	✓	✗	✗
21		Classroom		20	4	150	12,000	✓	✓	✓	✓
22		Seminar room		20	4	30	2,400	✓	✗	✗	✗
23		Lecture Hall	3	20	1	500	10,000	✓	✗	✗	✗
24		General collection		30	2	30	1,800	✓	✓	✗	✗
25		Studio	2, 3	50	75	20	75,000	✓	✓	✗	✓
26		Screening Room		30	2	30	1,800	✓	✗	✓	✗
27		Gallery	3	30	2	100	6,000	✓	✗	✓	✓
28		Amphitheater	Entrance Waiting	12	1	100	1,200	✓	✓	✗	✗
29			Hall	50	1	100	5,000	✓	✗	✗	✗
30			Scene	7	1	20	140	✗	✗	✗	✗
31			Back Scene	50	1	20	1,000	✗	✗	✓	✗
32			Control Room	50	1	1	50	✗	✗	✗	✗
33			Rest room	20	2	8	320	✓	✗	✓	✗
34		Library	Study Hall	40	1	300	12,000	✓	✓	✗	✗
35			Stack Area	100	1	50	5,000	✓	✓	✗	✗
36			Group Work	10	1	100	1,000	✓	✓	✗	✗
37			Lounge	10	1	50	500	✓	✓	✓	✗
38		Book store		60	1	30	1,800	✓	✓	✗	✗
39		Material casting Workshop		200	1	15	3,000	✓	✓	✗	✓
40		Wood Workshop		50	1	50	2,500	✓	✓	✗	✓
41		Multi Media Workshop		50	1	50	2,500	✓	✓	✗	✓
42		Print house		50	1	20	1,000	✓	✗	✗	✗
43		Computer Site		20	1	60	1,200	✓	✓	✓	✗
44		Activities room		20	1	30	600	✓	✓	✗	✓
45		Gym	Exercise	100	1	20	2,000	✓	✓	✗	✗
46			Locker	50	1	20	1,000	✓	✗	✗	✗
47			Shower	20	2	5	200	✓	✗	✗	✓
48			Rest room	20	2	5	200	✗	✓	✗	✓
49		Restroom	Women	20	6	10	1,200	✓	✗	✗	✓
50			Men	20	6	10	1,200	✓	✗	✗	✓
51			Cleaning R	20	5	1	100	✗	✗	✗	✓
52		Storage		50	1	1	50	✗	✗	✗	✗
53	Recreation	Café		15	1	100	1,500	✓	✓	✗	✓
54		Food court		15	1	200	3,000	✓	✓	✗	✓
55		Gathering Room		7	1	30	210	✓	✓	✗	✗
56		Kitchen		200	1	10	2,000	✗	✓	✗	✓
57		Restroom		20	2	8	320	✓	✗	✗	✓
58		Storage		50	2	1	100	✗	✗	✗	✗
59	Residential	Dorm / Rooms		200	2	1	400	✗	✓	✗	✗
60		Kitchen		200	1	1	200	✓	✓	✗	✓
61		Restroom		20	2	8	320	✓	✗	✗	✓
62		Storage		50	1	1	50	✗	✗	✗	✗
63	Access	Elevators		3	1	1500	4,500	✓	✗	✗	✗
64		Stairs		3	1	1500	4,500	✓	✓	✗	✗
65		Corridors (30%)		60000	1	1	60,000	✓	✓	✗	✓
66		Lobby		15	4	20	1,200	✓	✓	✗	✓
67	Facilities	Mechanical Room		800	1	1	800	✗	✗	✗	✓
68		Electrical Room		500	1	1	500	✗	✗	✗	✗
69		Control room		100	1	1	100	✗	✓	✗	✗
70		Security		50	2	1	100	✓	✓	✗	✗
71		Server Rooms and Network Closets		50	1	1	50	✗	✗	✗	✗
72		Storage		50	2	1	100	✗	✗	✗	✗
73	Outdoor	Patio						✓	✓	✗	✓
74		Sitting area						✓	✓	✗	✗
75		Parking		1 for each 600 SQF			836	✓	✓	✗	✗
				SUM SQF			250,650				
				Each Student			209				
				SUM SQM			23,288				
				Each Student			19				



Design Synthesis

Site Conditions

Project: A Cultural Center About Native American People:

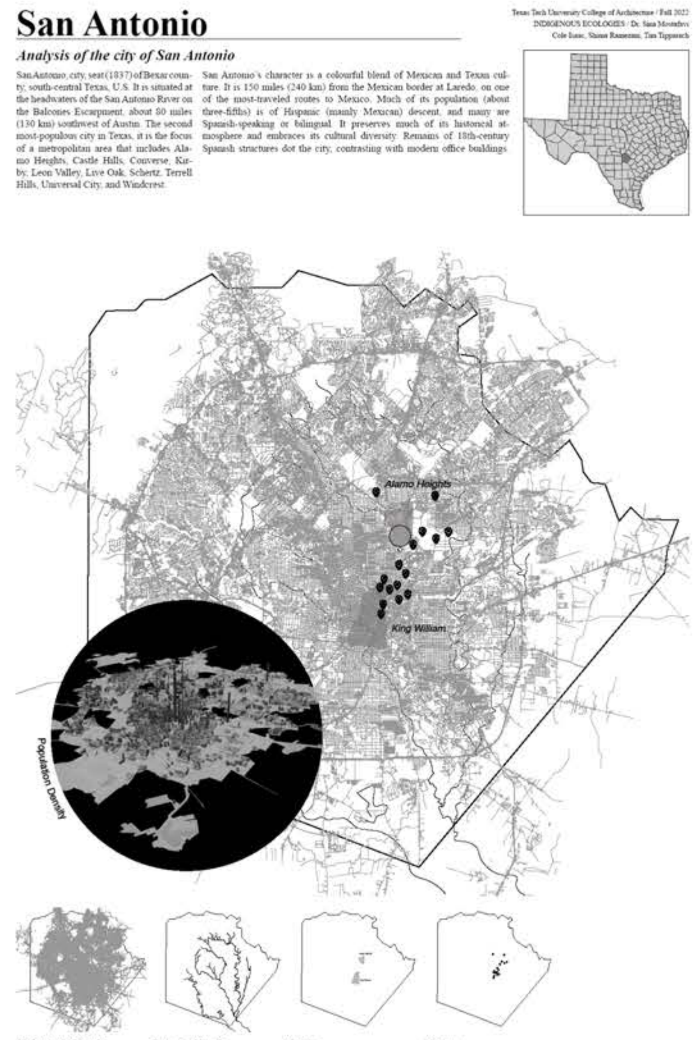
To begin our project, we conducted extensive research on Native American peoples who migrated to Texas approximately 7000 years ago. Based on our findings regarding similar areas and groups of people, we formed our studio group.

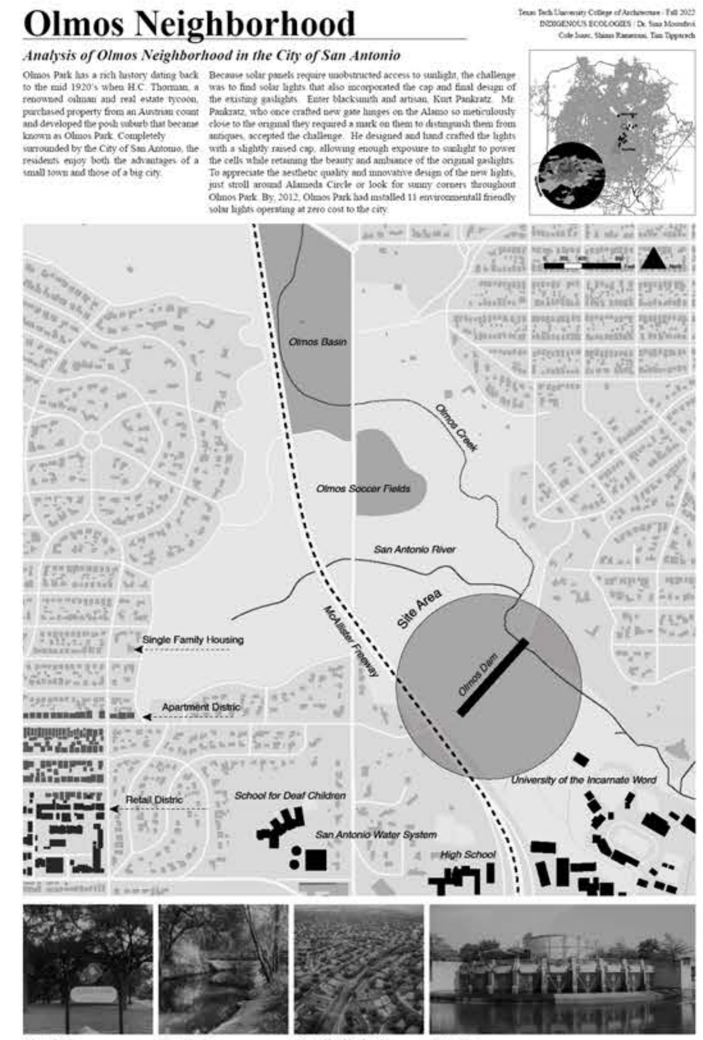
Through our research, we discovered that our Native American people primarily settled in San Antonio and relied on tracking rivers to locate food sources, which predominantly consisted of buffalo. Therefore, we aimed to identify a suitable site for our project and discovered that two ancient locations, King William and Alamo Heights, situated near downtown, where San Antonio originated, were ideal. We selected Olmos Park, a park located between these two areas, as our site. This park also houses many of San Antonio's museums, making it an interesting location for our project.

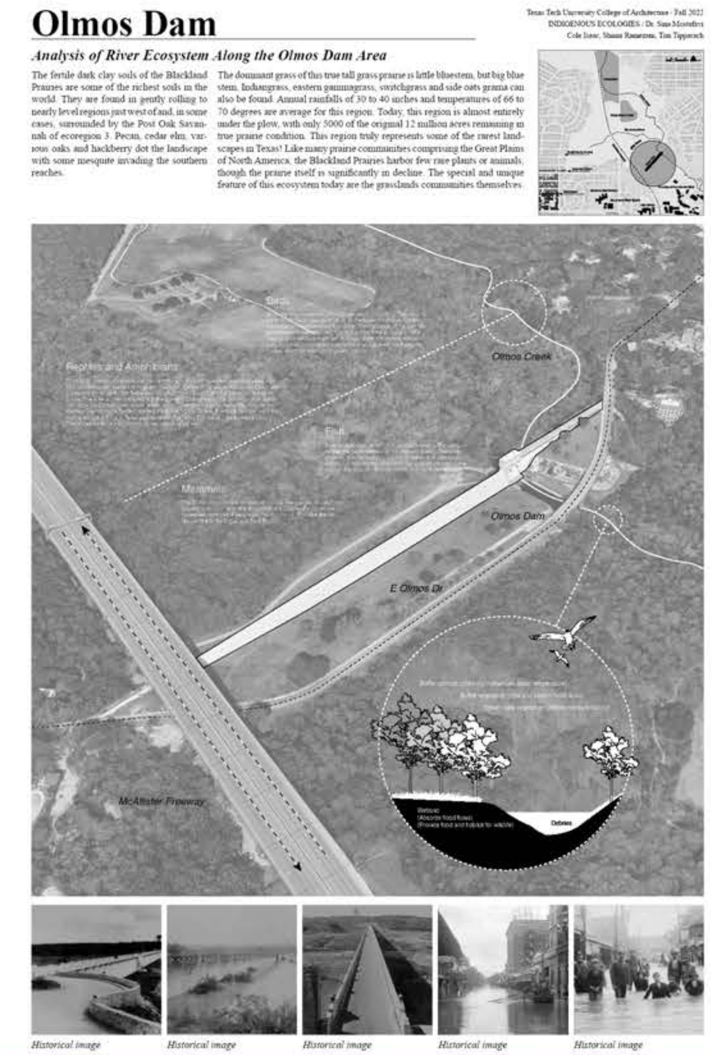
As we worked to design our building, we discovered an old dam in Olmos Park that collects plastic waste from the river. To connect two sides of the ground, we decided to build our building on top of this dam. To add more interest to our design, we included a recycling plastic room in the craft room of our building and focused on camping areas to allow visitors to collect plastics from the park around the river and use them to make handicrafts inside our workshops.

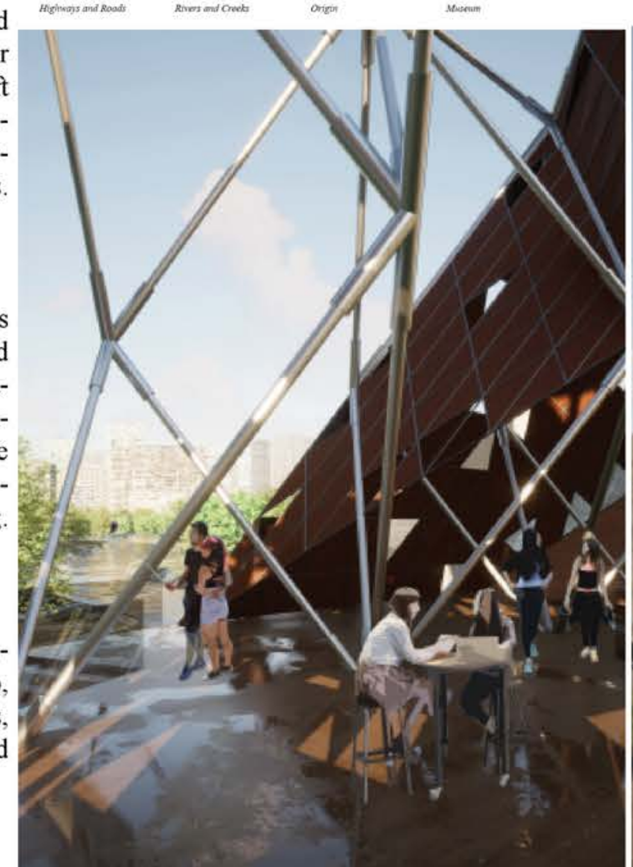
The idea of using scaffolding in our building design was inspired by Native American people's tents. We also aimed to create seasonal areas inspired by the seasonal migration of Indiana people. Additionally, we followed sustainability rules for our building, making it more passive. We studied energy simulations and analyzed the sun's movement to determine the best orientation for our building.

Overall, despite the limited time we had during one semester, our design proved to be one of the best in our studio, with the help of Professor Sina Mostafavi. Nonetheless, there is always room for improvement, and we look forward to further developing our design.









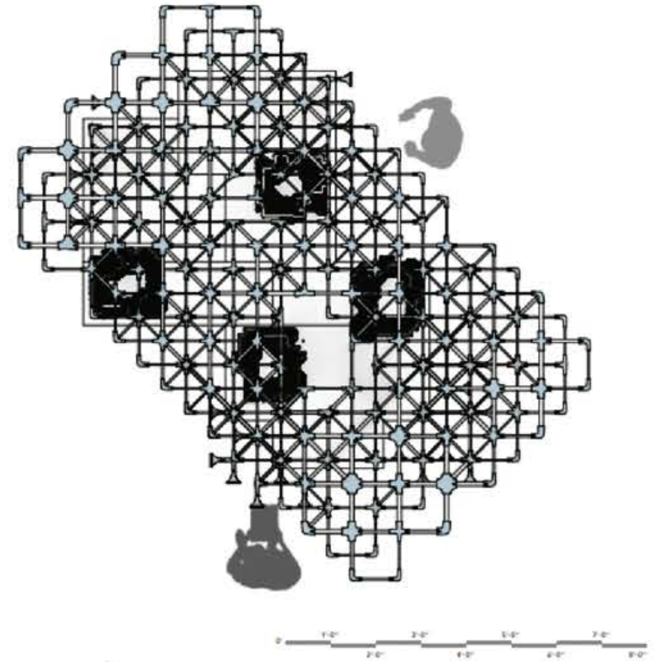
Design synthesis

Accessible design

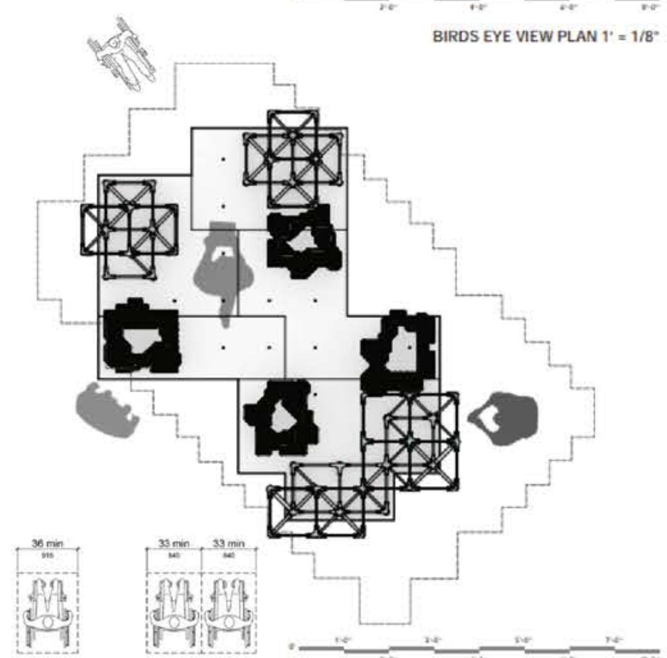
In architecture, accessible design refers to designing buildings and spaces that are inclusive and accommodating to people with disabilities or limited mobility. This entails creating spaces that are easily navigable, safe, and usable by individuals with a range of physical abilities. Accessible design can include various features, such as ramps, lifts, grab bars, handrails, visual and auditory cues, furniture placement, non-slip flooring, and adequate lighting.

In the context of an interior design project for an exhibition, we faced the challenge of designing a small area that resembled a passage with tables on both sides. To accommodate individuals with disabilities, we carefully designed the distance between the tables and the main legs of the structure to allow for wheelchair access. We also selected wood flooring material with sufficient friction to prevent accidents and ensure stability while passing through the passage. Additionally, we made sure that QR codes were easily accessible for those sitting in wheelchairs.

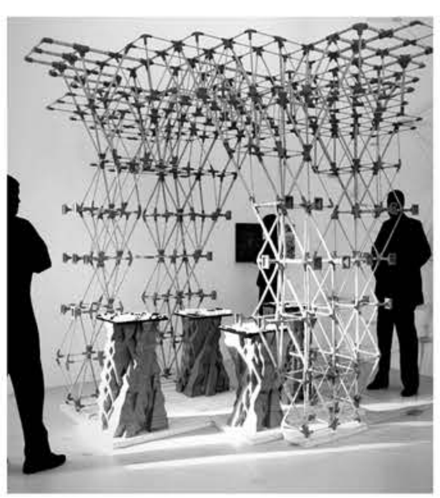
Overall, our goal was to create an inclusive and welcoming environment that catered to people of all physical abilities. Our design considered accessibility as a key factor to ensure that everyone could access and use the space safely and comfortably.

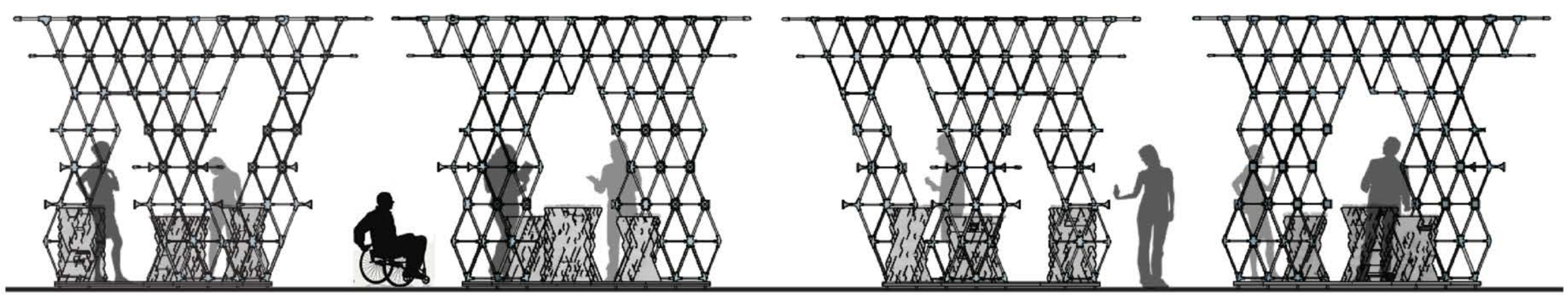


BIRDS EYE VIEW PLAN 1' = 1/8"



FLOOR PLAN 1' = 1/8"





FRONT ELEVATION 1' = 1/8"

RIGHT ELEVATION 1' = 1/8"

BACK ELEVATION 1' = 1/8"

LEFT ELEVATION 1' = 1/8"

Design synthesis

Consideration of the Measurable Environmental Impacts of Their Design Decisions

In the context of design synthesis in architecture, considering the measurable environmental impacts of design decisions is crucial in creating sustainable buildings and structures. This involves assessing the potential effects that the building or structure will have on the environment, such as energy consumption, waste generation, and carbon emissions, and making informed choices about materials, building systems, and other design features.

For our studio project located in Almos Park in San Antonio TX, we discovered that the dam in the area was used to collect waste plastic material from the river. To address this issue, we decided to incorporate a handcraft workshop in our cultural center building, which would allow people to camp near the river and collect plastic waste to create their own handcrafts.

We also wanted to minimize the negative impact of our building on the environment. Instead of using regular concrete walls, which can be harmful to the environment, we conducted extensive research to find appropriate materials to make prefabricated walls with different openings. This allowed us to use waste material for fabrication and create walls that could be adjusted for different seasons, making the building more passive and reducing energy waste. Furthermore, we utilized scaffolding as a structural element to further reduce the negative impact of our building on the environment.

LOCATION:
OLMOS DAM, SAN ANTONIO, TX.

Bacteria remain the largest single pollution problem in the San Antonio River basin, according to the San Antonio River Authority's most recent Clean Rivers Report. Of the 33 stream and river segments in the report, 57 percent are officially considered impaired because of bacteria. Bacteria, such as E. coli, serve as indicators for fecal contamination in outdoor waterways. This can lead to skin infections and gastrointestinal illness, especially if a swimmer accidentally swallows contaminated water.

Although a great deal of the vegetation is as it was over 250 years ago during Spanish Colonial times, the vegetative landscape has been altered by the increase of settlement bringing increased exotic vegetation, the increase in biomass along the historic acequias, and the rechannelization of the San Antonio River.


Massachusetts Girl Ready to Wed Herrick

MANY DEAD, $10,000,000 DAMAGE, IN TEXAS FLOOD

HERRICK GETS SPICY PROPOSAL

VET SOLD AS SLAVE SATISFIED

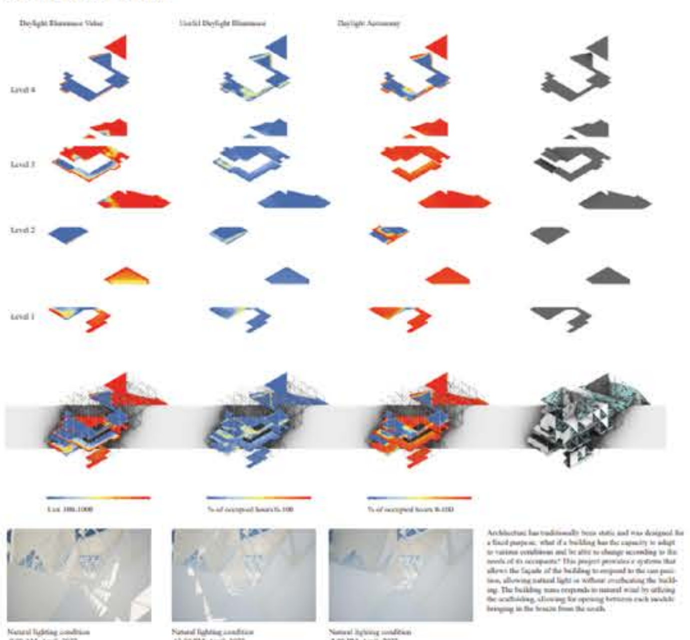
HOW SAN ANTONIO, TEXAS, LOOKED DURING FLOOD OF OCTOBER 1913

TROOPS SEEK BODIES AND DRIVE HOMELESS FROM INUNDATED AREA

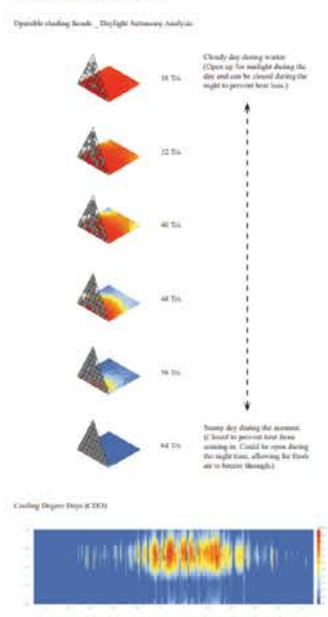
Despite clean annual averages, daily fluctuations can contribute to unhealthy pollution events. The San Antonio area had 49 days of unhealthy, 'nonattainment' air pollution in 2018. Unhealthy days are defined as days in which either PM2.5 or ozone levels exceeded the federal threshold for 8-hour pollution. Most often, unhealthy days were the result of high ozone.

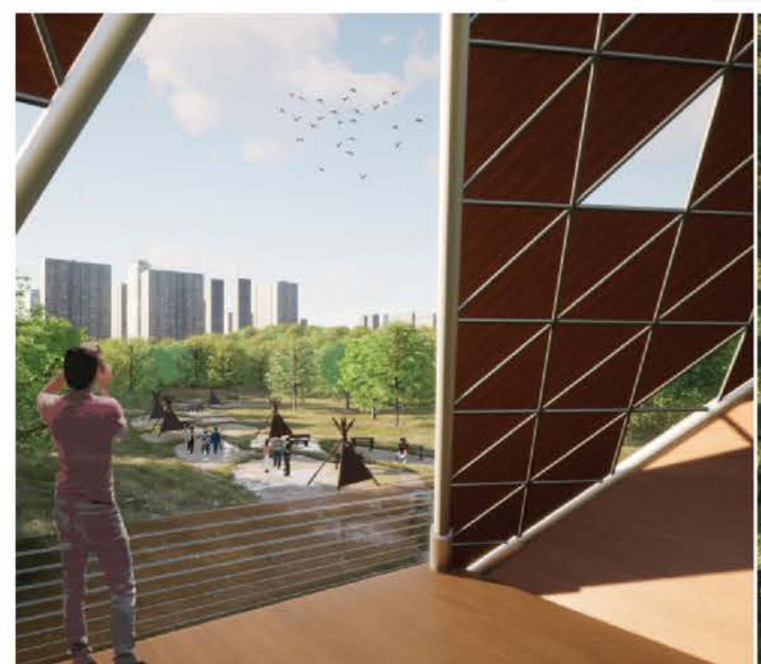
"This city's biggest problem is trash," Nefi Garza, San Antonio's assistant director of public works, declared in a Wednesday interview. "People at River Walk bars and restaurants are casual and thoughtless about the trash they create and litter. The central commercial district is the big problem." Trash washed downstream from the city's suburban reaches and its extensive creek network, he said, also is a problem, but it is collected and removed at the Olmos Dam.

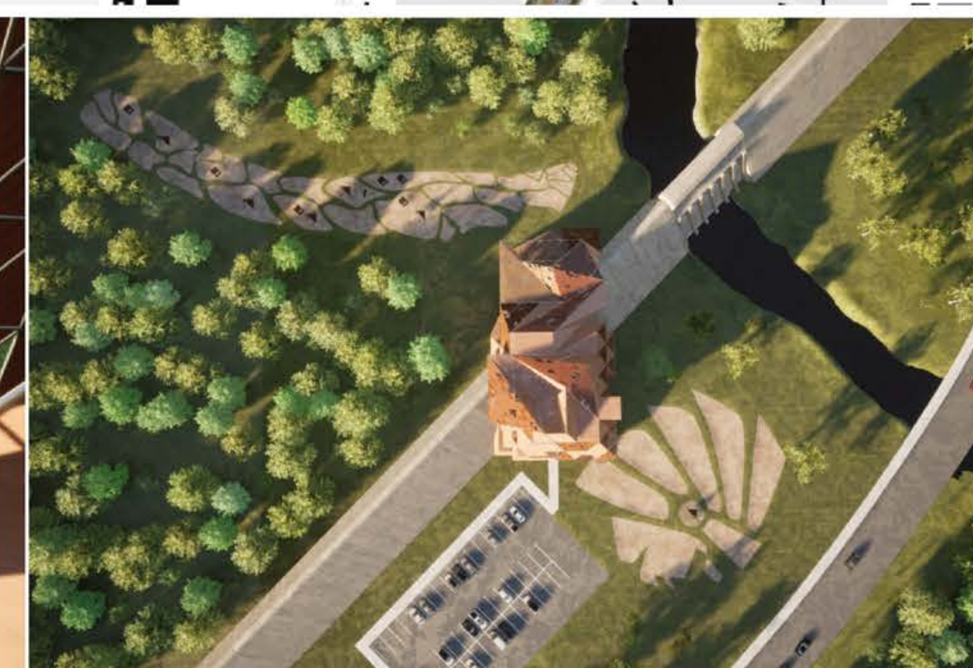
DAYLIGHT SIMULATION



SHADING DEVICE







Building Integration

1. INTEGRATION OF BUILDING ENVELOPE SYSTEMS AND ASSEMBLIES
2. STRUCTURAL SYSTEMS
3. ENVIRONMENTAL CONTROL SYSTEMS
4. LIFE SAFETY SYSTEMS
5. THE MEASURABLE OUTCOMES OF BUILDING PERFORMANCE

The first project related to the ARCH 5604 course, we employed building integration principles to achieve both efficiency and stability in this structure. We aimed to minimize the number of branches while ensuring the stability of the structure. To do this, we altered the sizes and thickness of some branches, which consequently changed the joint design and table sizes. We also sought to maintain consistency in the geometric shape of the structure and concrete tables, even though they were built using different materials and methods. By doing so, we achieved a seamless integration of the building envelope system and assemblies, resulting in a more efficient and sustainable design.
The second project that I also considered for the integration of building envelope systems and assemblies' part and related to course 5334 we learned to design the interlock tiles and façade which different heights to make different shadows and how we can design and make it by the 3D printer in a way to create the assembly façades.

The third project is related to the ARCH 5600 course. The project aimed to design a cultural center honoring Native American culture, with scaffolding as a unique and functional feature inspired by traditional tent structures. Challenges included ensuring the structure could withstand the building's load and integrating the design with the historical old dam site. However, scaffolding allowed for a large interior space without columns and added a visually striking diamond-shaped pattern that tied into the center's cultural theme. The result was a functional and aesthetically pleasing building that respected the site's historical significance while honoring Native American culture.

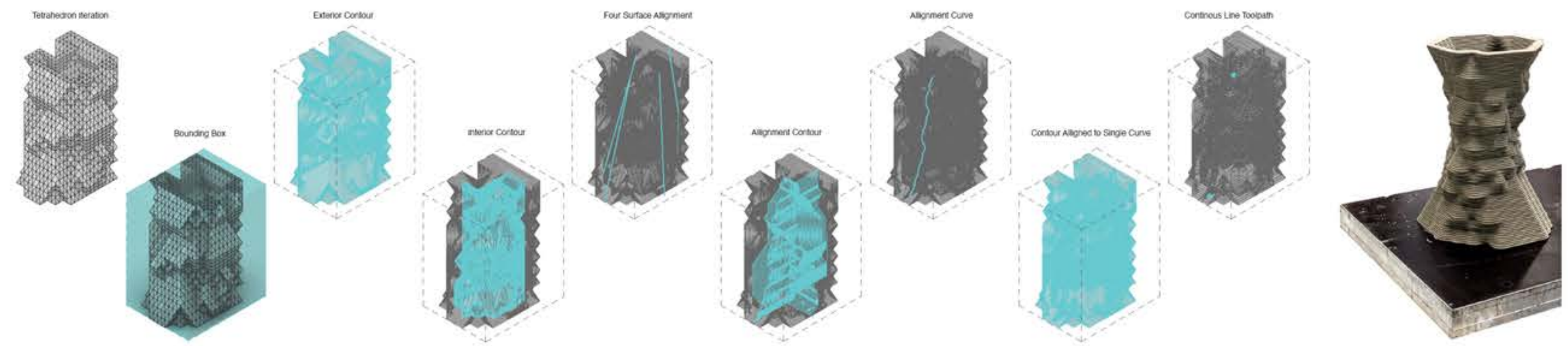
In the fourth project related to course ARCH 5600, we used Grasshopper software to study the sun and wind direction and determine the best orientation for the cultural center building based on our data we designed the energy simulation board which helped us to find the buildings' direction and opening orientation. We also learned that ECS is key for a comfy indoor environment while reducing energy use and environmental impact. It includes heating, cooling, ventilation, lighting, and water systems. We must consider location, climate, efficiency, and sustainability. Proper ECS design can optimize energy performance, cut costs, and lower the carbon footprint.

The fifth project related to course 5600 which was a cultural center, that featured a complex structure, we encountered challenges in designing stairs and elevators to allow occupants to safely evacuate every 50 meters from the bottom to the top of the building in case of fire or earthquake. Based on building codes, we first calculated the average number of visitors expected and determined the necessary number of stair boxes and elevators based on building area and occupancy. Due to the building's unique shape, we sometimes encountered difficulties in finding a way to connect stairs and elevators from the bottom to the top of the building in a straight line. We overcame this challenge by finding ways to connect stair boxes from the first floor to those on the second floor, which required careful planning and coordination.

In the sixth project related to course 5354, we designed shadow-producing interns for the north gate of our school to address issues such as providing shadow for the robotic lab, which struggled with annoying afternoon sunlight, and creating a comfortable space for students to communicate during sunny days. The design also aimed to enhance the aesthetics of the school bridge by adding a curvy structure to its simple shape. By measuring and analyzing the measurable outcomes of the building's performance, architects and designers can identify areas for improvement and make informed decisions to optimize building performance and efficiency. This can lead to lower operating costs, improved occupant comfort and health, and reduced environmental impact.

Building Integration
Integrtion of Building Envelope System and Assemblies

In this structure, we employed building integration principles to achieve both efficiency and stability. We aimed to minimize the number of branches while ensuring the stability of the structure. To do this, we altered the sizes and thickness of some branches, which consequently changed the joint design and table sizes. We also sought to maintain consistency in the geometric shape of the structure and concrete tables, even though they were built using different materials and methods. By doing so, we achieved a seamless integration of the building envelope system and assemblies, resulting in a more efficient and sustainable design.



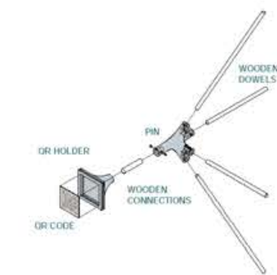
COMPUTATIONAL WORKFLOW

JOINT MATRIX DIAGRAM

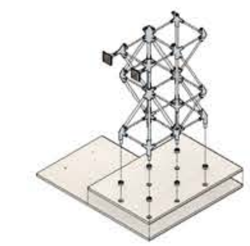
WOODEN DOWELS

5 PIECE TOP BOARD SET

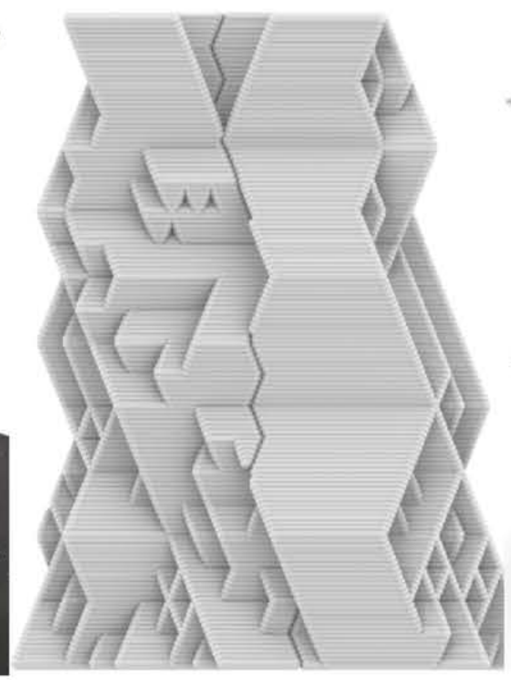
4 PIECE BOTTOM BOARD SET

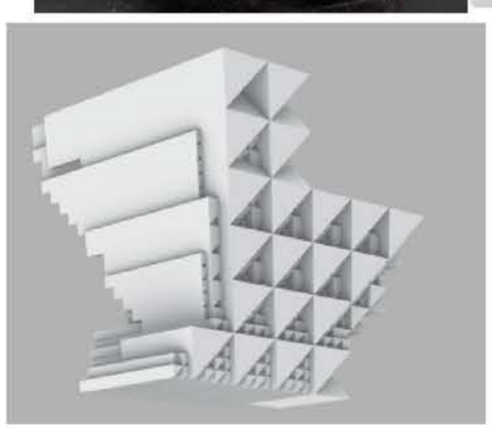


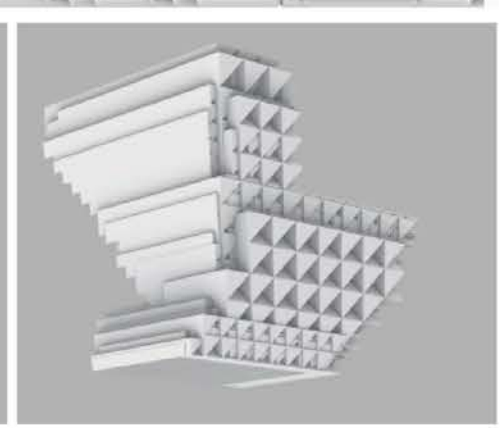
EXPLODED JOINT DIAGRAM

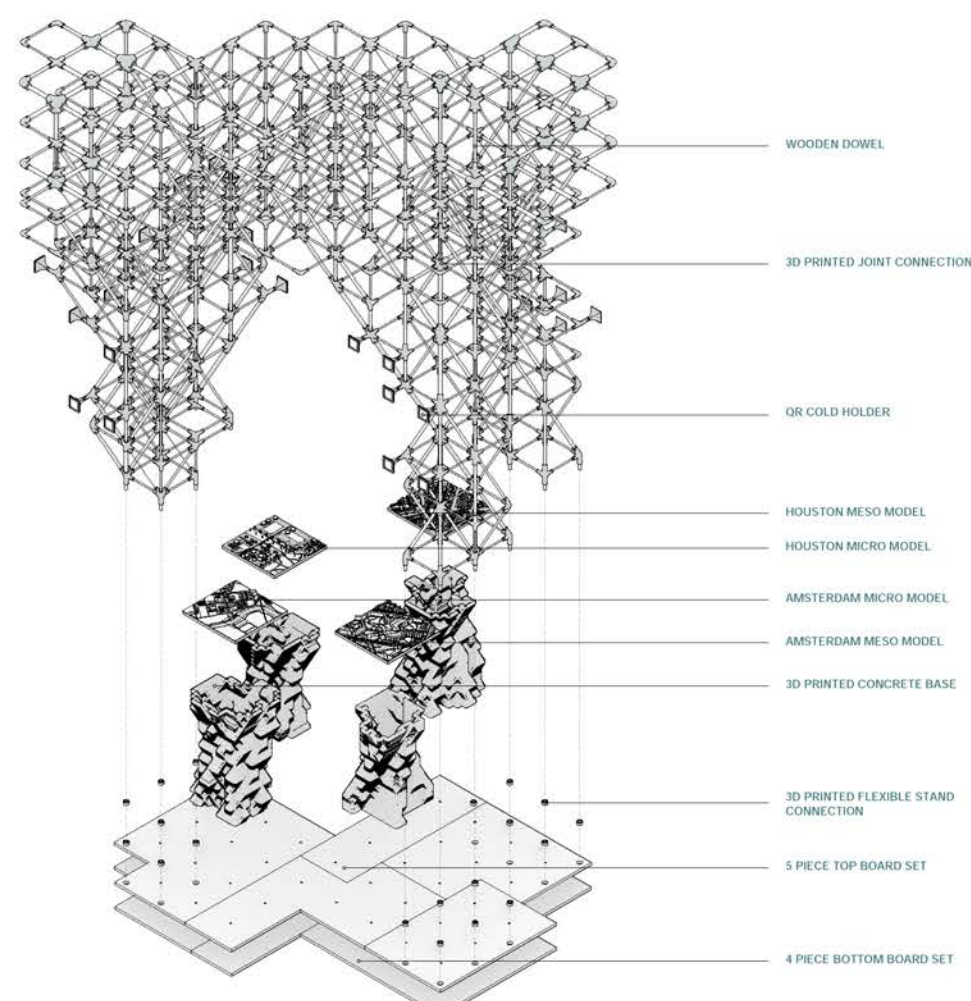


STRUCTURE TO BOARD CONNECTION

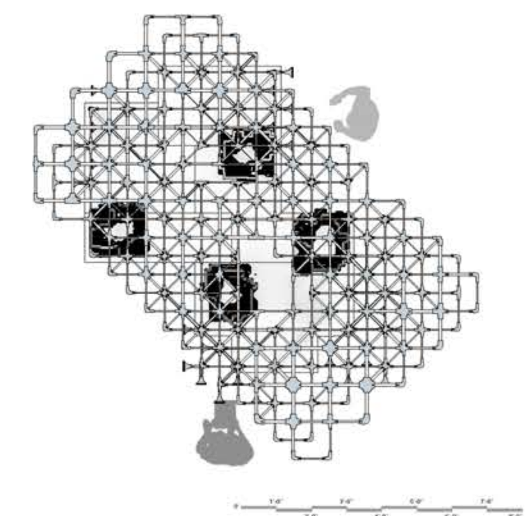




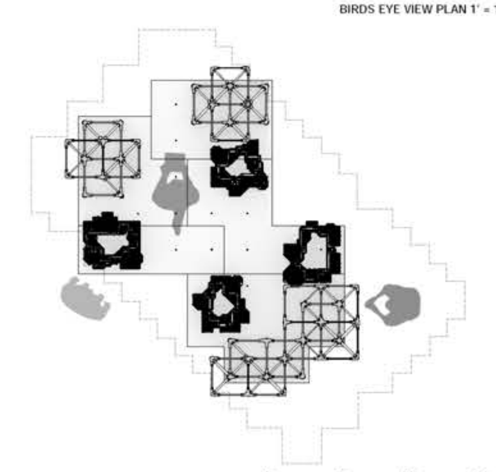




EXLPODED ISOMETRIC DIAGRAM



BIRDS EYE VIEW PLAN 1' = 1/8"



FLOOR PLAN 1' = 1/8"

Building Integration

Integrtion of Building Envelope System and Assemblies

Interlock Assembly Facade related to course 5334 and Studio

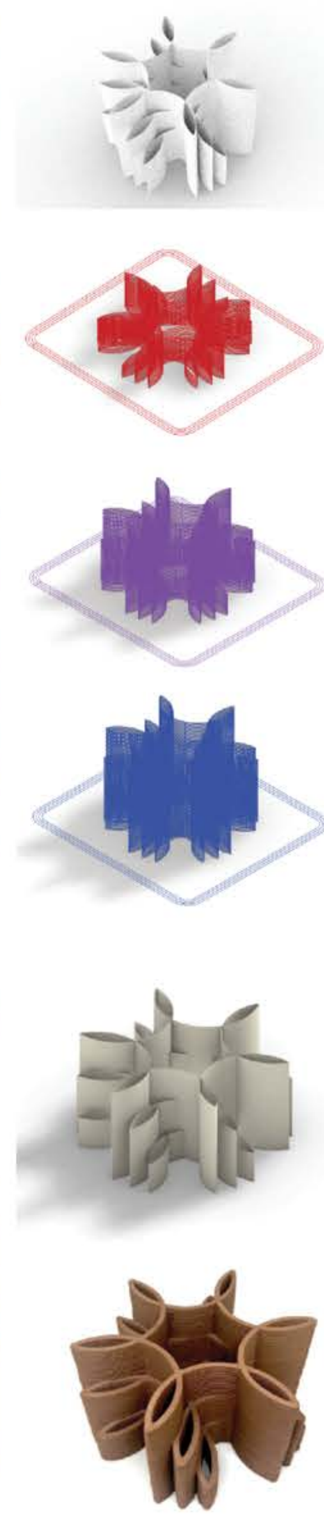
As a final project, each of us could choose between Polystyrene Rockite casting, Clay Slump Tiles or 3D Printed Ceramic Blocks to create a facade for the new college of the built environment we designed for our studio class. My building had glazing curtain walls around all sides, so I needed to create a shadow-producing curtain wall to address the not appropriate light, especially from the east and west sides.

My first step was to draw an interlocking facade in Rhino. As a result of using circles and triangle rolls to match three tiles together, I made my facade look like an enamel flower, so I called it Enamel Curtain. In addition, it became evident that the only way to produce this facade was through 3D printing. Therefore, we used a nozzle with 2milimeter in diameter and a layer height of 1.2mm. Grasshopper was used to determine the pattern of the nozzles' movement, and a glassy plate was used for beneath, which was a change from our last project where we used a woody plate. The complex design of the façade could only get done through the use of the clay 3D printer that used Cinco Rojo clay, however the design was meant to be made of grey concrete that could potentially be stronger and last longer.

Furthermore, movement in the direction of the X-axis and Y was from the bottom of the robot while the arm on which the nozzle was placed, was responsible for moving on Z-axis. At first, the clay did not stick to the plate very well but overall the tiles were printed successfully. There were three tiles I had to print in a dimension of 6*6 and a height of 6 inches. It was a time-consuming process plus it needed lots of material to print it, suddenly I decided to print each of them at different heights then I decided to have a tall, medium, and short size in the order of height 6-4-2. The edges of the flower were printing at the same height and after two inches each edge of the flower started to print with a different height. It took a half-day to print three of them and because of the high volume of the material it consumed two days for all of them to dry and they have been in a plastic cover to prevent the crack on them.

My goal was to create a shadow-producing curtain wall to have a different shadow for each part of my building so changing the height of each tile helped me to be closer to my goal. For example, the tall tile would make a deeper and longer shade. The tiles would be used as more or less dense depending on the amount of shade the building needed on each side.

I learned that 3D printing is one of the best methods to produce the complicated designed tiles and if we had much more time I preferred to have them in different widths and lengths too because it was part of my design process for my studio.



Building Integration Structural Systems

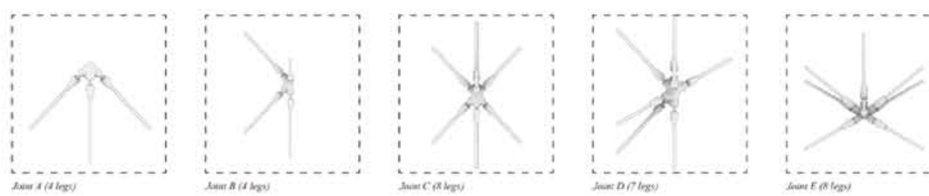
This project, which was related to the course ARCH 5600, aimed to design a cultural center dedicated to Native American culture. As we delved into our research, we decided to incorporate a scaffolding system into our design, inspired by the tent structures used by Native Americans. We were particularly drawn to the diamond shape of this kind of structure, which not only gave our design a unique look but also served a functional purpose.

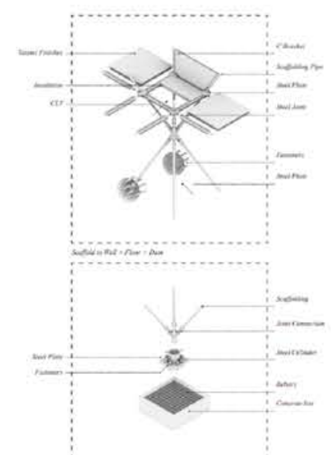
The use of scaffolding presented a number of challenges, however. We had to carefully consider the thickness and length of each leg to ensure that the structure could withstand the load of the building for each square foot. Despite the difficulty, we were determined to incorporate this system into our design, as we recognized the benefits it would provide.

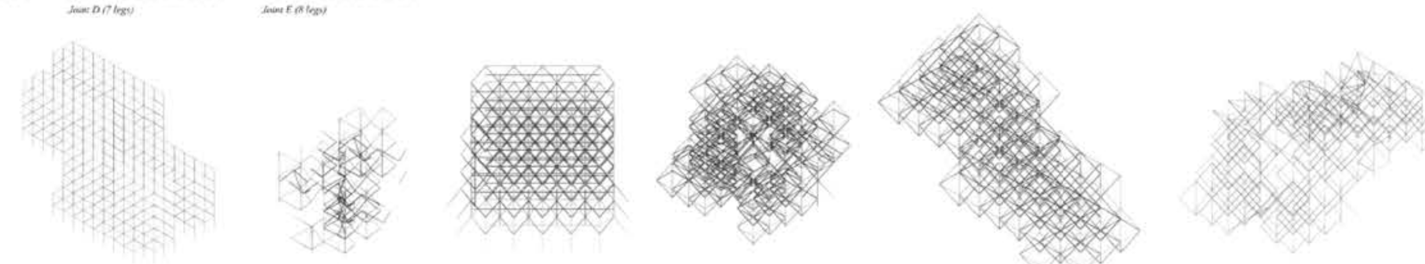
One of the key benefits of using scaffolding was that it allowed us to have a large area inside the building without any nuisance columns. This was particularly important for this building, as we faced the challenge of locating it on top of a historical old dam. We wanted to ensure that the building's load did not compromise the dam's structure, and using scaffolding allowed us to achieve this goal.

In addition to its structural benefits, the use of scaffolding also gave our design a unique aesthetic. The diamond-shaped pattern created by the scaffolding added an interesting visual element to the building and helped to tie in the Native American cultural theme of the center.

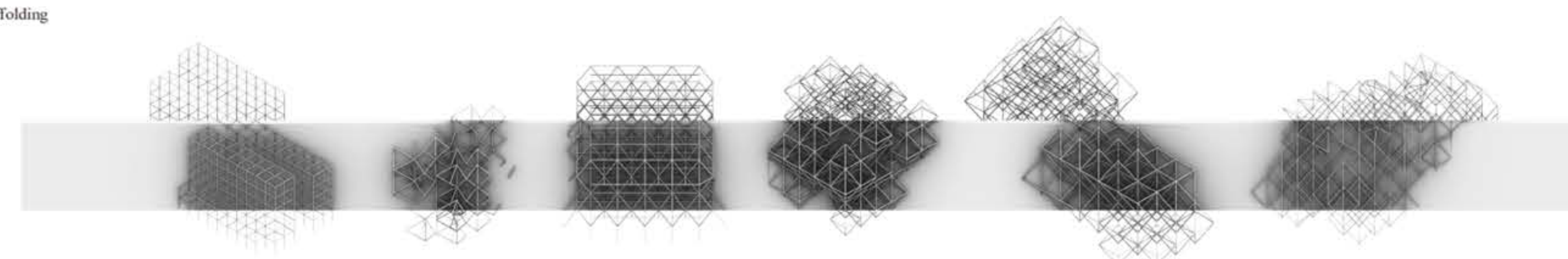
Overall, this project was a challenging but rewarding endeavor. By incorporating a scaffolding system into our design, we were able to create a functional and visually striking building that paid tribute to Native American culture while also respecting the historical significance of the site.



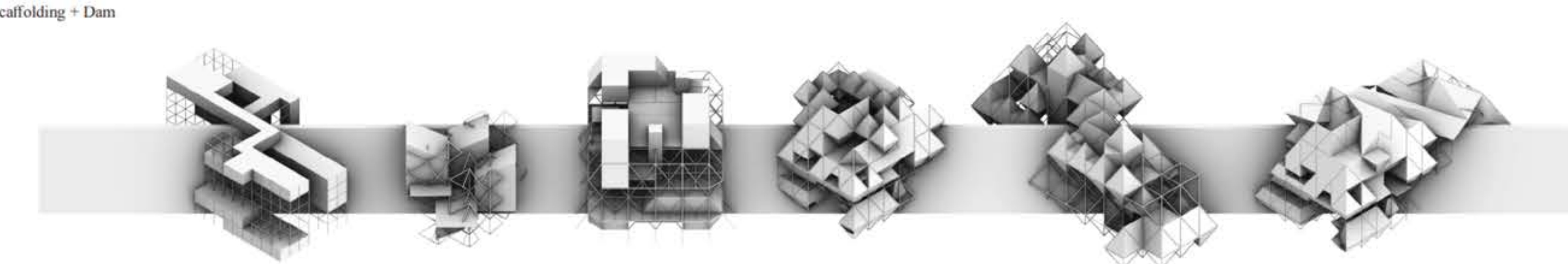




Scaffolding



Scaffolding + Dam



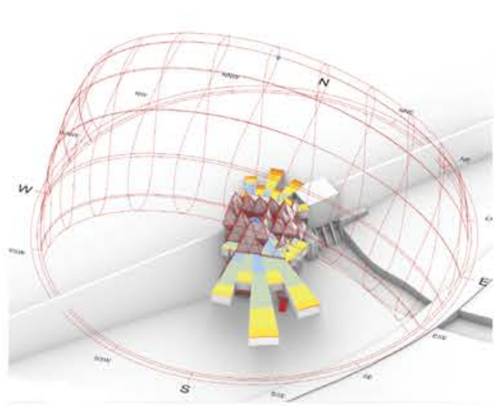
Scaffolding + Dam = Massing

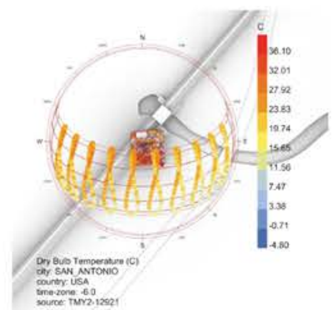
Building Integration
Environmental Control Systems

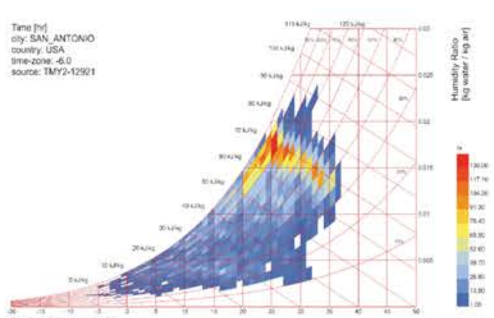
In the architectural design of a building, environmental control systems (ECS) play a crucial role in ensuring that the building's occupants are comfortable and healthy, while also minimizing energy use and environmental impact. ECS is an integral part of building design, and it involves the selection and integration of various systems and technologies to regulate and maintain the indoor environment.

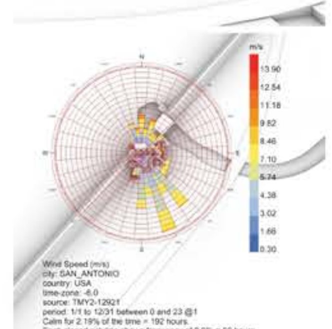
ECS can include various components, such as heating, cooling, and ventilation systems, lighting, water systems, and building automation systems that control and monitor the performance of these systems. Architects need to consider various factors when designing ECS for a building, such as the building's location, orientation, climate, energy efficiency, and sustainability goals. Therefore in this project, with the help of Grasshopper software, we were trying to find the best direction according to the sun and wind direction in each season.

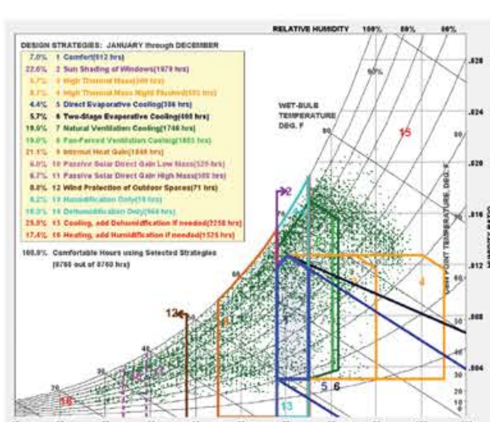
The goal of integrating ECS into the architectural design is to create a comfortable, healthy, and energy-efficient indoor environment that supports the building's intended use while minimizing the impact on the environment. By using appropriate ECS technologies and design strategies, architects can optimize the building's energy performance and reduce energy consumption, leading to lower operating costs and a reduced carbon footprint.

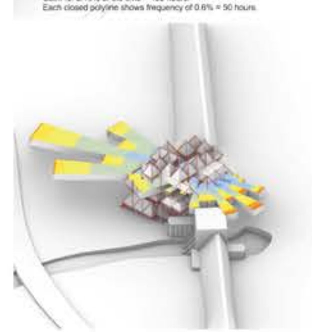






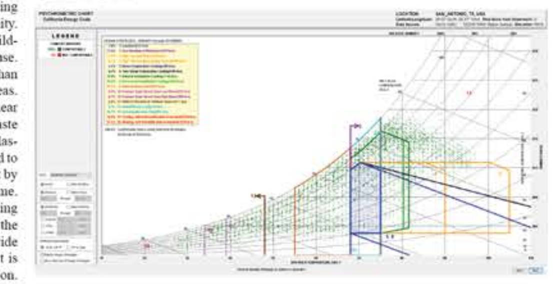






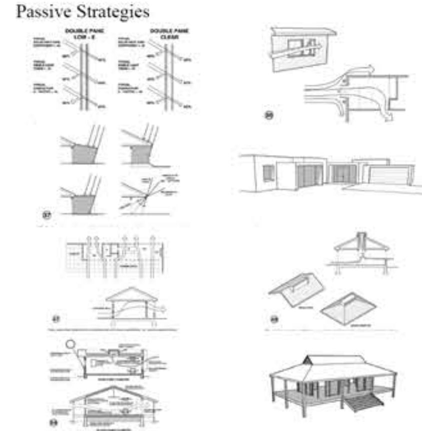
The building is located on top of Olmos dam, San Antonio, Texas [Hot/Humid Climate]. It is a bridge between two neighborhoods. Its geometry and position set it apart from the surrounding context, and place it as a building that is easy to recognize and can bring together the community. It connects the people to nature by providing access across the Olmos dam. The shape of the building creates multiple shaded areas beneath the dam, allowing for multi-purpose and mixed-use. The idea of this project is to utilize the scaffolding technique as a permanent structure rather than a temporary structure. The scaffolding framework allows for multiple series of an enclosed areas. Which could be adjustable according to the social needs of the community. Since it's located near the dam and there's usually a lot of trash or plastic waste gathered in that area, there's a plastic waste treatment plant included in the program of the building, allowing the community to drop their plastic and re-cycle and re-use/create the old plastic into something useful. This project is imagined to improve the lives of people, generating alternatives for personal and community development by becoming a city landmark for people to access nature and recycle plastic waste at the same time. Utilizing the idea of symbiotic architecture, and reinforcing the building by using the scaffolding technique, allows for a generative design that could keep evolving and continue to grow from the resources. The more plastic it could process, the more it could keep building itself and provide more and more social spaces to the community. The main purpose of designing this project is not to only design a building but rather a system (framework) for future occupants to build upon.

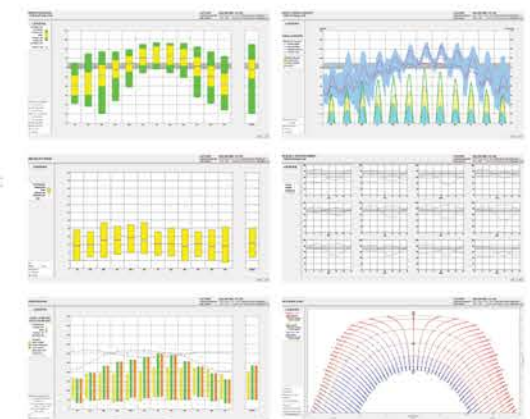
Climate Data



Extra Credit

Passive Strategies





Simulation Narrative

Ladybug was utilized to generate a script that could analyze different massing scenarios based on the fixed typology of the various building options. After testing multiple design strategies, we found the most efficient passive design geometry to be option "C." As we move forward we plan to add windows in the cooler areas of the façade that are indicated in blue on the "direct sun hour" diagram.

Energy Narrative

The glazing is facing east and south which allows for sufficient daylight quality throughout the day. The project invisions the use of PV panels as shading device in the south-facing facades to control the amount of heat gain while producing energy for the building in attemp to become carbon neutral. There's a series of enclosed spaces (module), allowing for the use of a spilt system and wind to flow by each module, creating breezes for both the building and its occupants, reducing the use of AC systems while providing fresh air ventilation for its occupants.

Citation

https://pvwatts.nrel.gov/pvwatts.php

https://climate-consultant.informer.com/6.0/

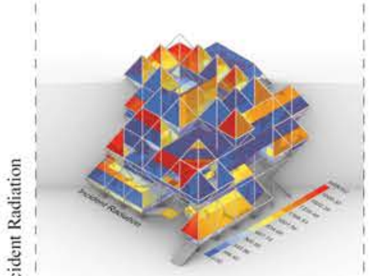
https://www.ladybug.tools/

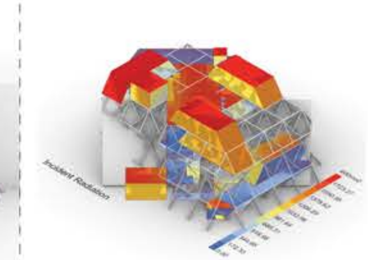
Massing C [Latest Iteration]

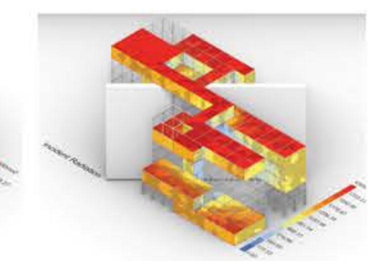
Massing B [Progress Iteration]

Massing A [Original Iteration]

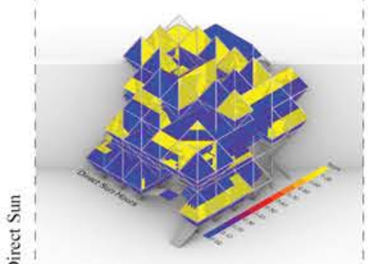
Incident Radiation

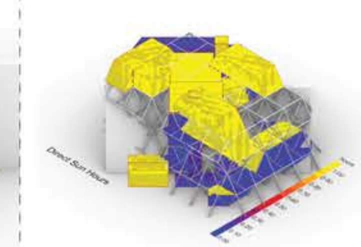


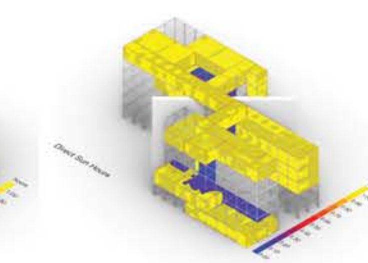




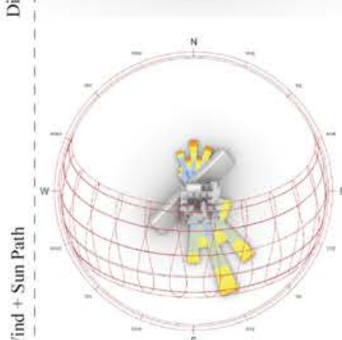
Direct Sun



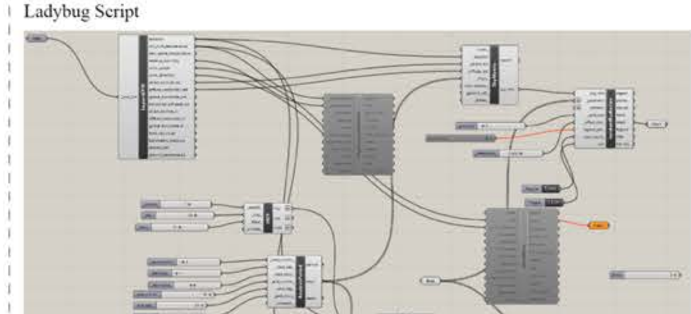




Wind + Sun Path



Ladybug Script



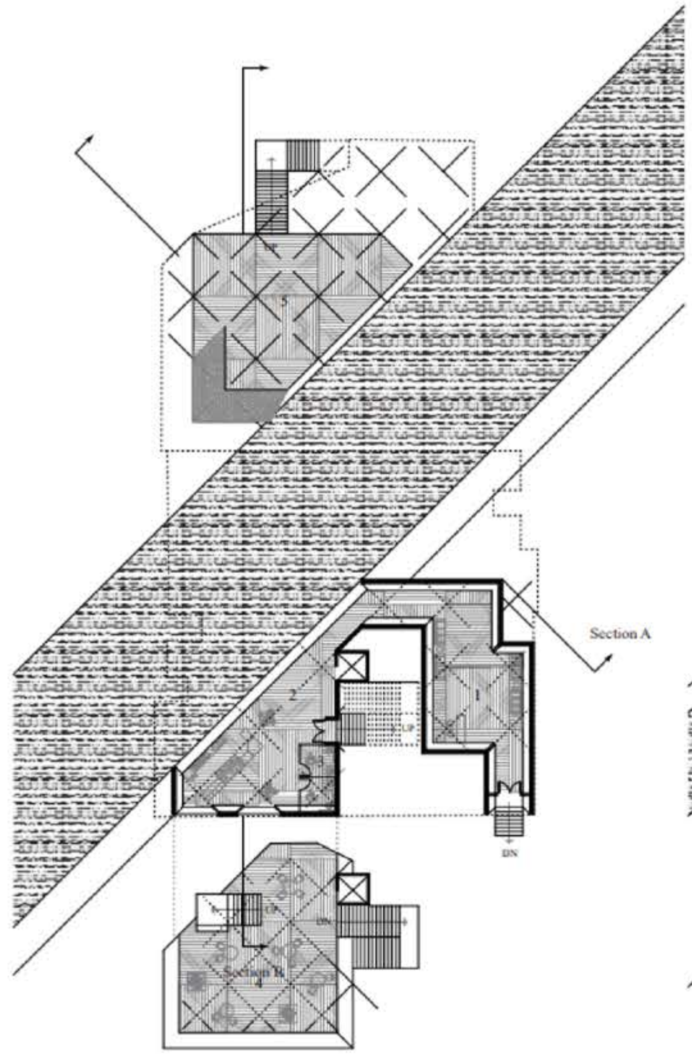
Building Integration
Life Safety Systems

In architectural design, life safety systems are critical features and systems integrated into a building to ensure the safety of occupants during emergencies. These systems are designed to identify and mitigate potential hazards, such as fire, smoke, and gas leaks, and provide a safe evacuation route for building occupants.

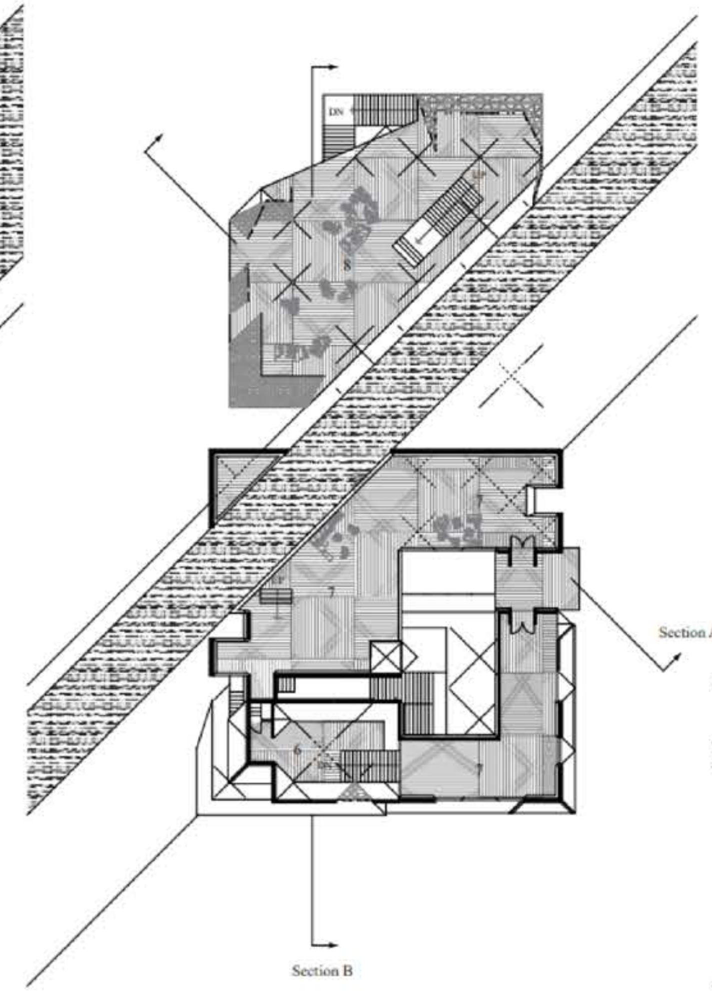
Examples of life safety systems in building integration include fire alarm systems, fire suppression systems like sprinklers, emergency lighting, and exit signage. These systems are typically interconnected and work together to provide a comprehensive approach to life safety.

The integration of life safety systems into building design is crucial to ensure the safety and well-being of occupants in emergency situations. To ensure effectiveness and reliability, these systems must be designed, installed, and maintained in compliance with relevant building codes and standards.

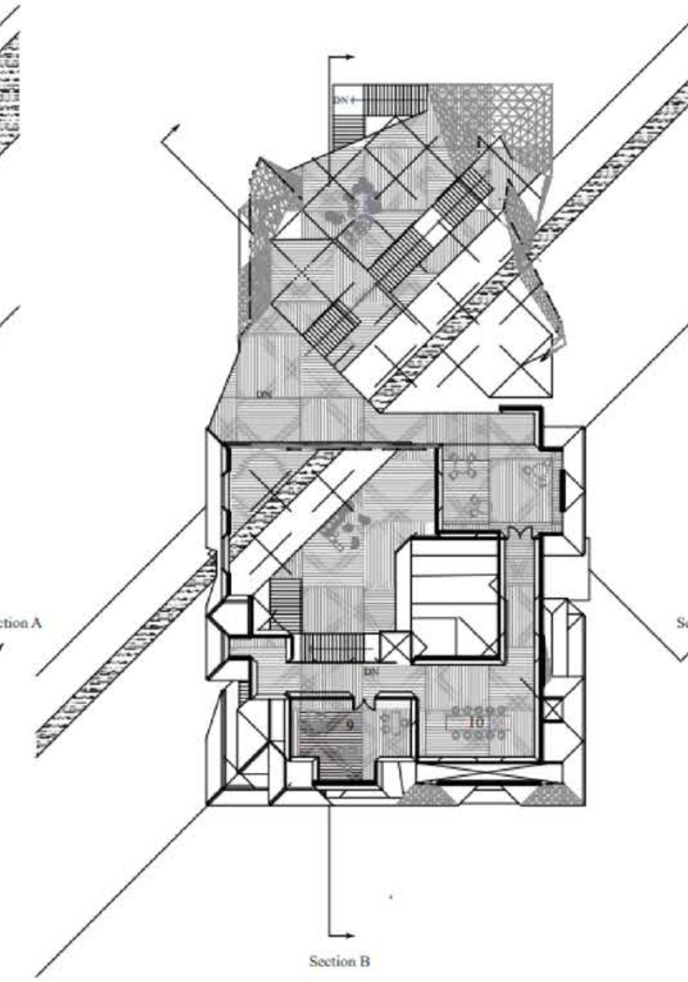
In this studio project that was a cultural center, which featured a complex structure, we encountered challenges in designing stairs and elevators to allow occupants to safely evacuate every 50 meters from the bottom to the top of the building in case of fire or earthquake. Based on building codes, we first calculated the average number of visitors expected and determined the necessary number of stair boxes and elevators based on building area and occupancy. Due to the building's unique shape, we sometimes encountered difficulties in finding a way to connect stairs and elevators from the bottom to the top of the building in a straight line. We overcame this challenge by finding ways to connect stair boxes from the first floor to those on the second floor, which required careful planning and coordination.



Floor Plan Level 1+2 _Scale 1/16" - 1'

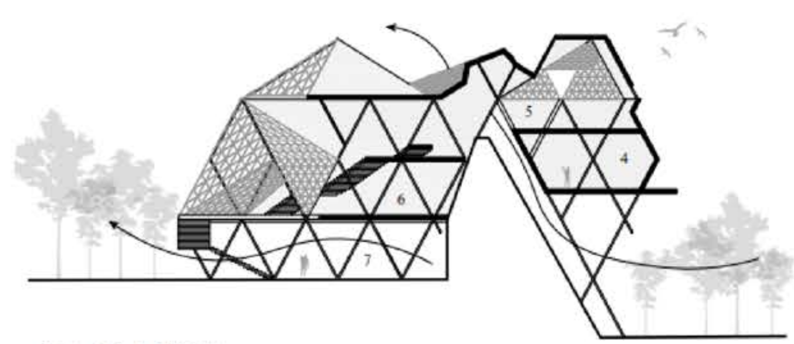


Floor Plan Level 3 _Scale 1/16" - 1'

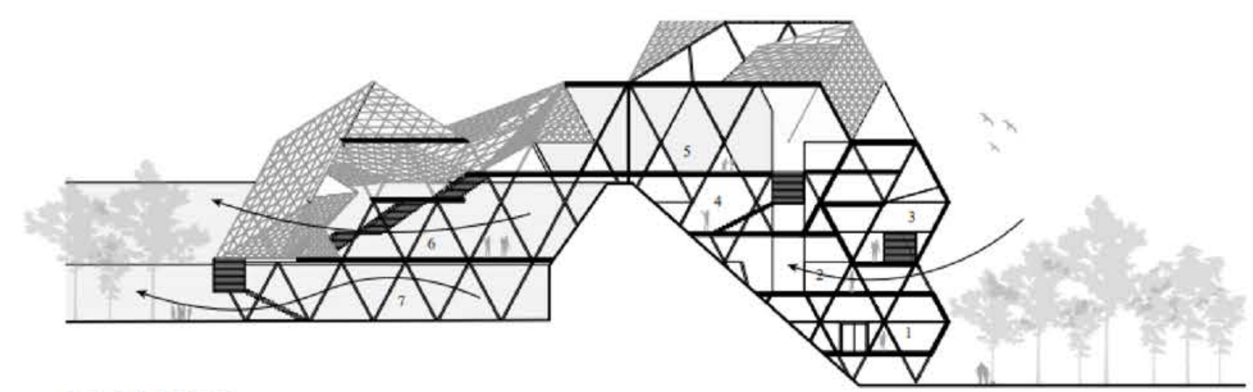


Floor Plan Level 4 _Scale 1/16" - 1'

Concrete box



Section A_Scale 1/16" - 1"



Section B_Scale 1/16" - 1"

1. Cafe'
2. Rooftop Garden
3. Oral History Listening Library
4. Display Area
5. Circulation
6. Craft Workshop
7. Campground Amenities

0 5' 10' 20'

Building Integration

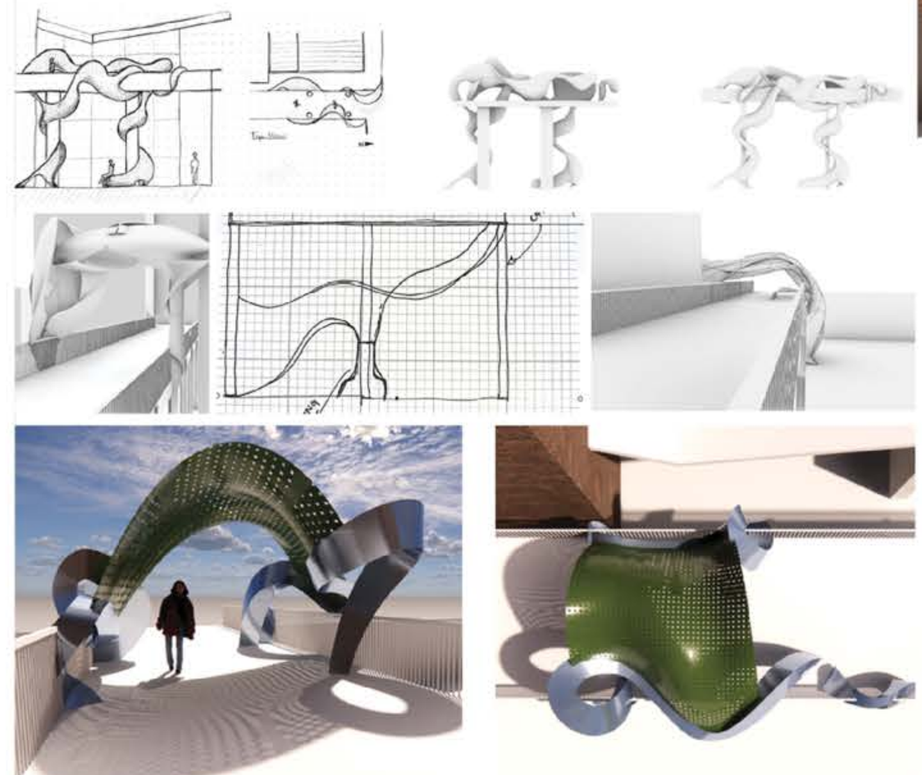
The measurable outcome of building performance

In architectural design, building integration involves incorporating various building systems and technologies into the design of a building to achieve optimal performance and efficiency. Measurable outcomes of building performance refer to quantifiable metrics used to evaluate the effectiveness of building integration strategies, such as energy efficiency, indoor environmental quality, occupant comfort, water efficiency, and sustainability.

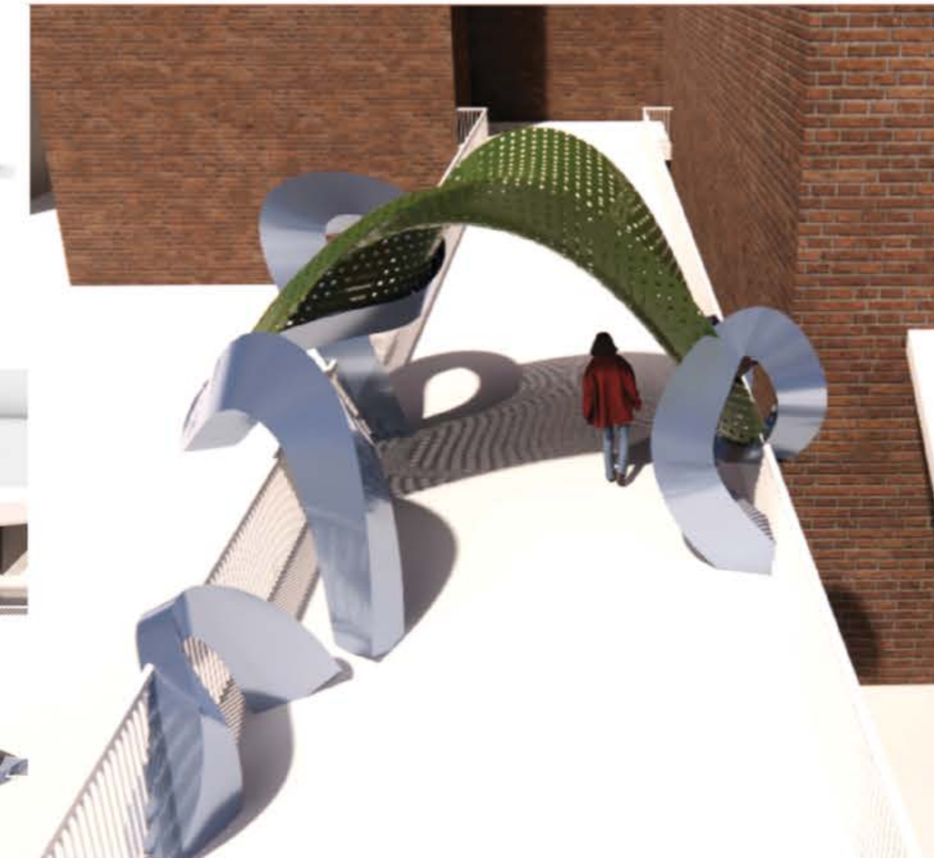
For example, in course 5354, we designed shadow-producing interns for the north gate of CCA to address issues such as providing shadow for the robotic lab, which struggled with annoying afternoon sunlight, and creating a comfortable space for students to communicate during sunny days. The design also aimed to enhance the aesthetics of the school bridge by adding a curvy structure to its simple shape.

By measuring and analyzing the measurable outcomes of the building's performance, architects and designers can identify areas for improvement and make informed decisions to optimize building performance and efficiency. This can lead to lower operating costs, improved occupant comfort and health, and reduced environmental impact.

Design Space: Preliminary

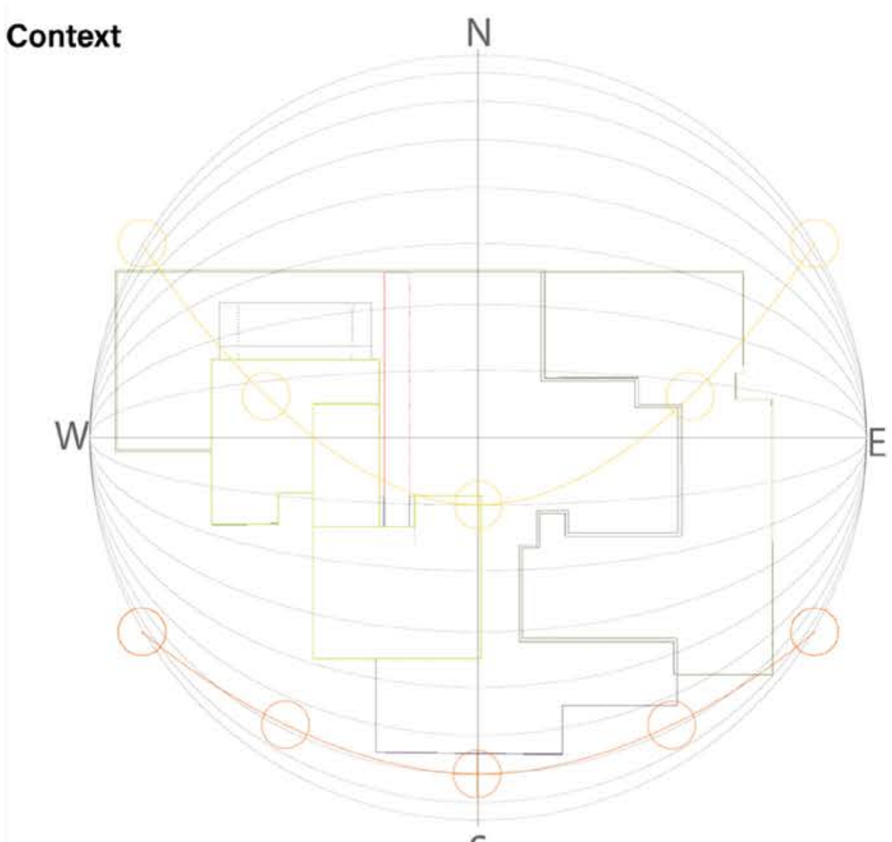


Final Bridge Perspectives



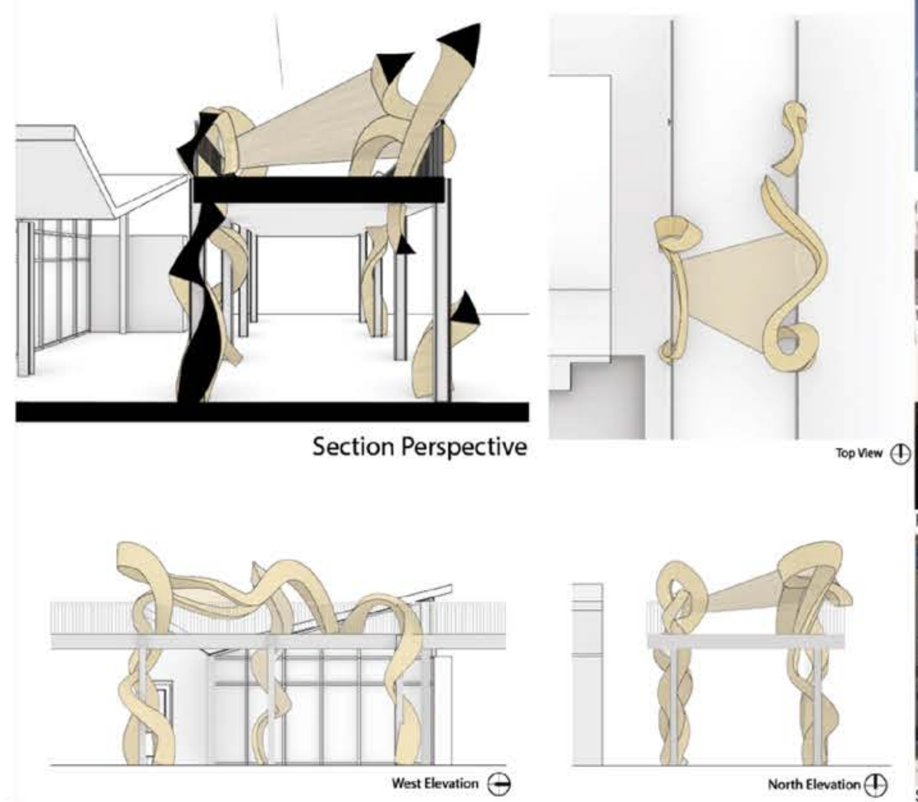
Perspective Render

Context



Annual Solar Study

Digital Design



Perspective Render

Natatorium In El Paso

School of Business TTU

Seattle Sculpture Richard Serra

Undergrad Portfolio

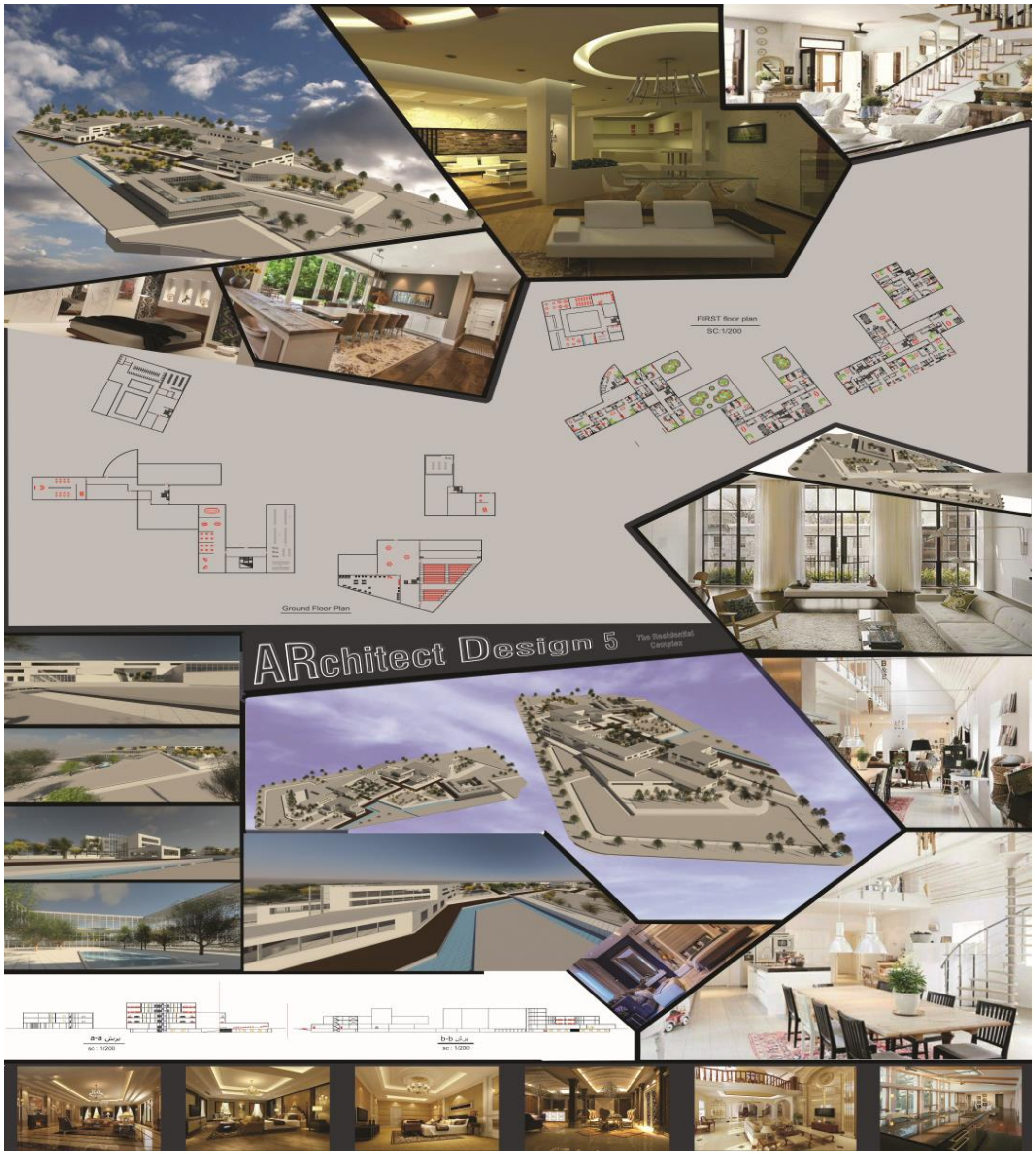
Bachelor of Architecture with the GPA: 19.08 (out of 20)

Islamic Azad University

Subjects Included in Degree:

Architectural Design 1, 2, 3, 4, 5 and final, Drawing software (REVIT), Adjust environmental conditions in the building , Analysis and study of urban space , Mechanical and electrical installations of the building , Recognition and design of village architecture and ancestral architecture formed over time due to climatic experience, Concrete structures, Human and Nature and Architecture, Knowledge of contemporary architecture, Management and organization of workshops and study of construction contracts of the employer, Theoretical Foundations of Architecture, metal structures, Specialized language of architectural terms, Industrial design and production methods such as assembly structures, History and architecture in the culture and civilization of Islam and the past of Iran, Familiarity with building renovation or rebuilt, Familiarity with Islamic architecture, Elements of building details, Freehand drawing, Art history (Helen Gardner and Will Durant 12 books), History of the analysis of the beginning of Islam, Cognition and study of Iran, Perspective design and a variety of freehand rendering techniques.

1



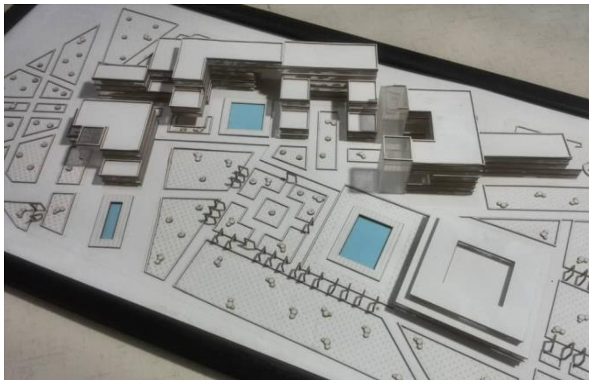
Residential complex

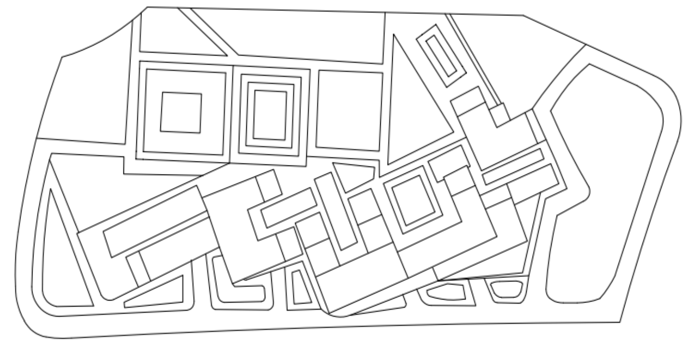
Includes: one-bedroom, two-bedrooms, three-bedrooms and duplex apartments.

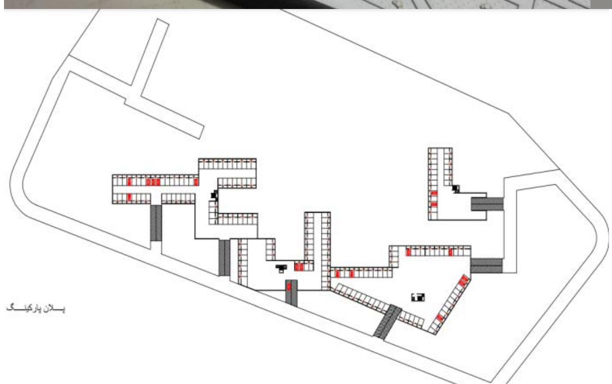
The geographical location of the site includes cold winds from the west in winter and warm winds from the northeast in summer.

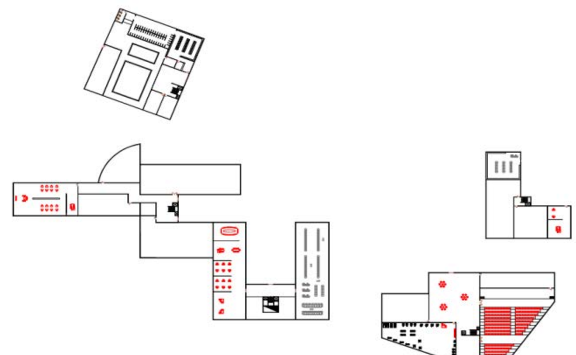
In a part of the site, a mall is considered, which includes: sales centers, a sports club, a gym, coffee shops, and restaurants for residents.

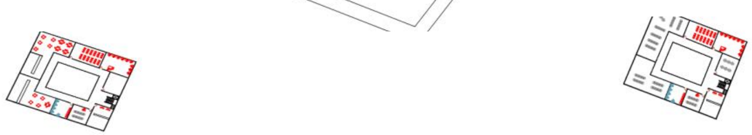
2

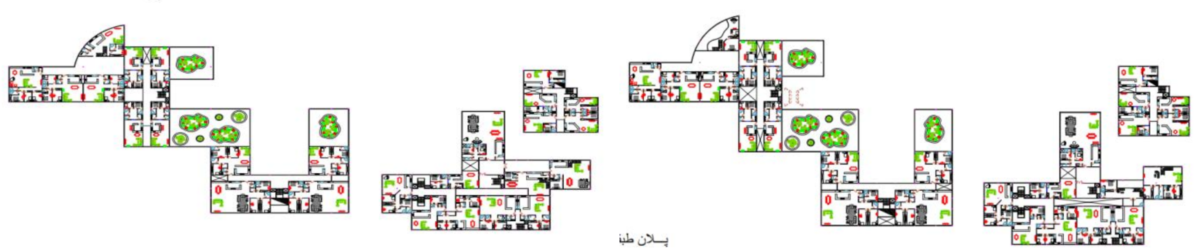












Landscape plan

Parking plan

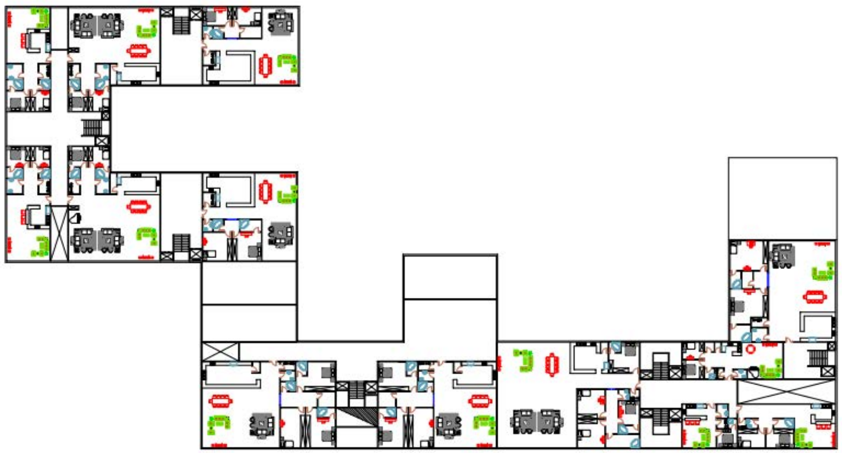
Ground floor plan

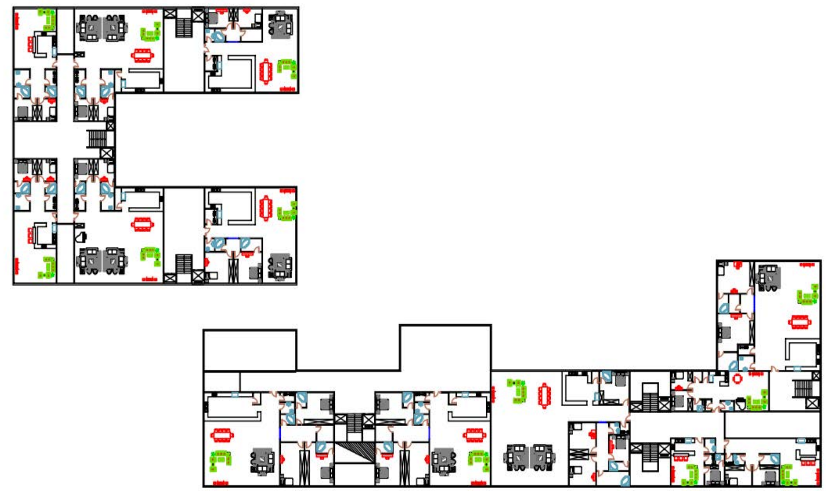
First floor plan

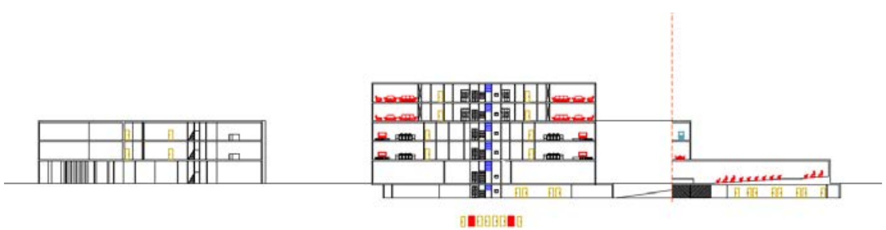
Second floor plan

3

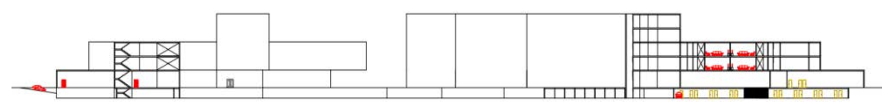
Two sections, Third and fourth floor plan







برش A-A



برش B-B

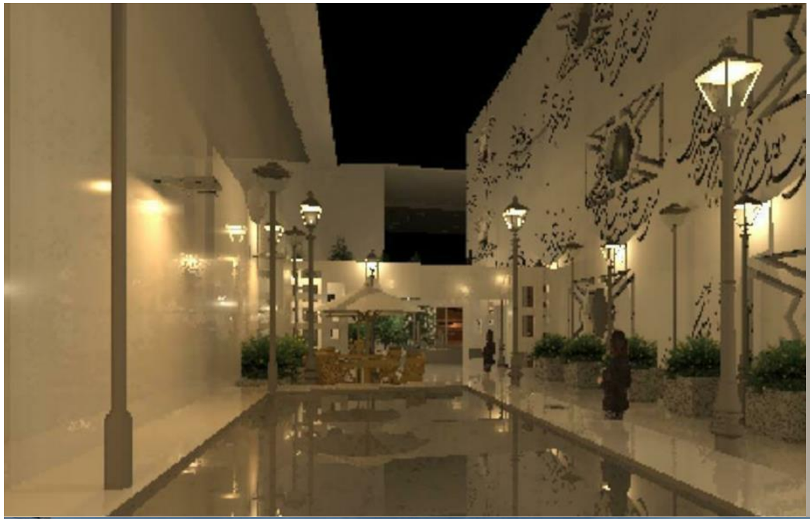
1

House of Iranian handwriting and calligraphy

2

Includes: temporary and permanent galleries

Galleries for introducing artists and their works

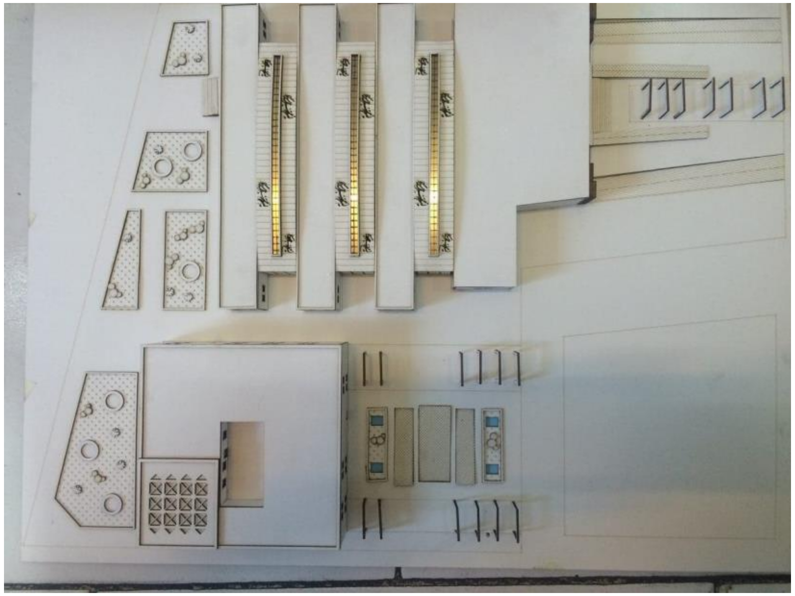


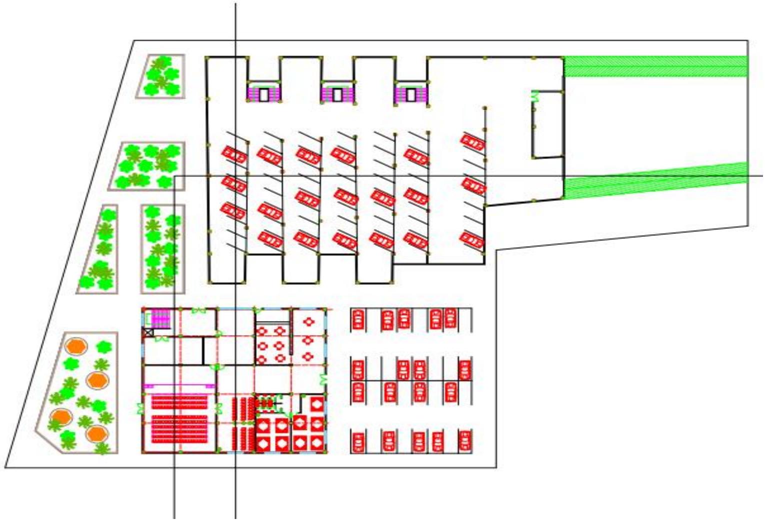
Educational and cultural spaces and a library

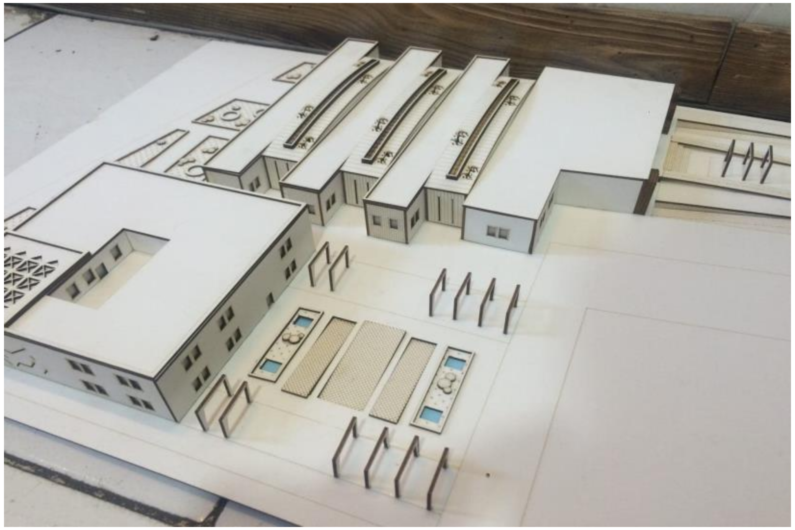
3

1 Center for teaching contemporary poetry and instruments such as piano, electric guitar and jazz

Design inspired by piano keys





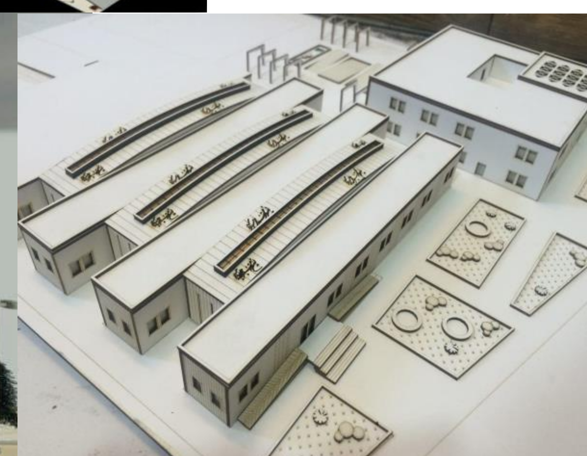


2

Music classes and acoustic rooms

Performance place

Gallery and cafe

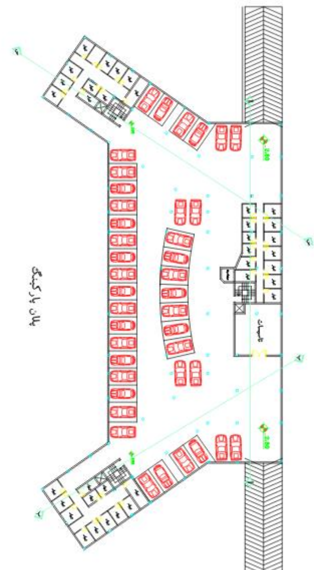


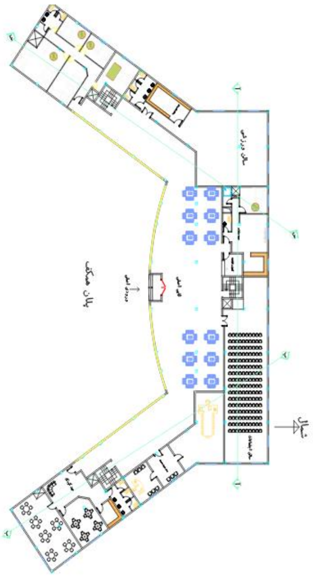
1

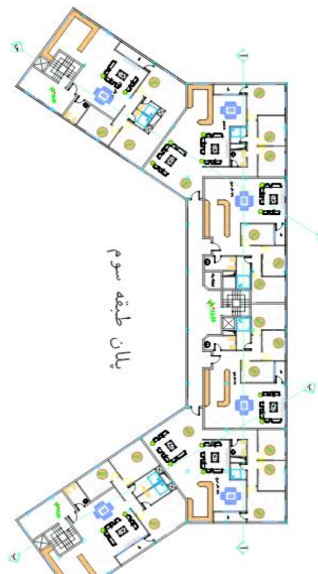

Apartment hotel
Exterior Design
Site plan
First Floor Plan
Ground Floor Plan
Parking Plan
Second Floor Plan
Third Floor Plan
Section A-A
Section B-B
Section C-C
West Elevation
North Elevation
Eset Elevation
South Elevation
Interior Design

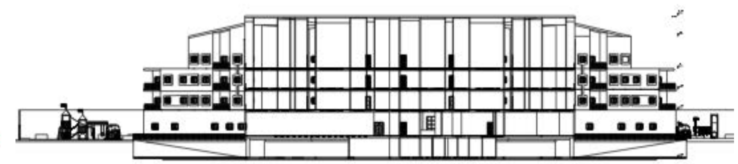
2

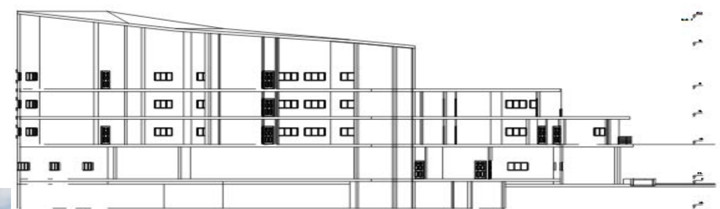
3



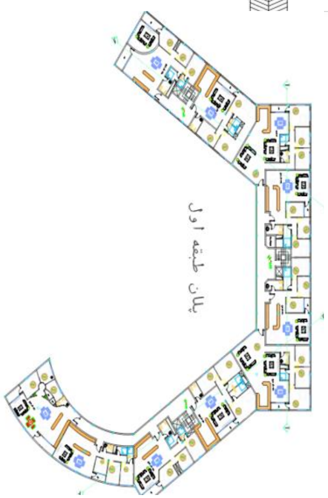


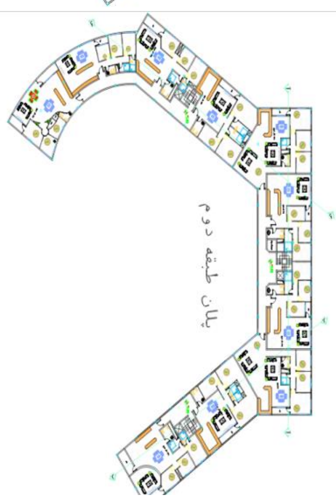






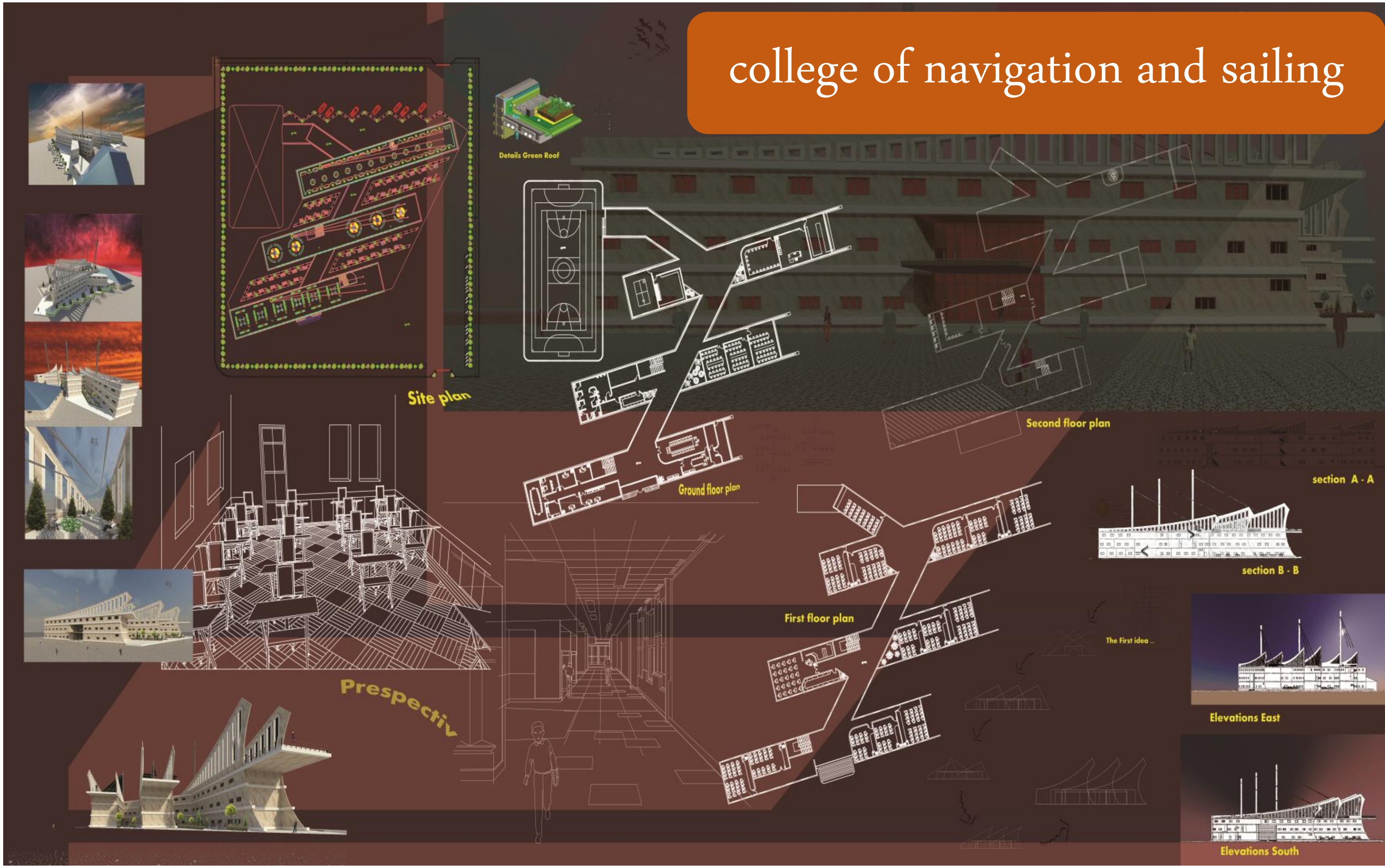
برش ب-ب





برش س-س

1



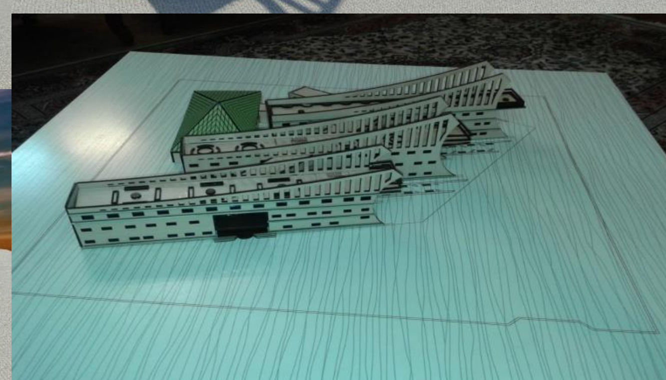
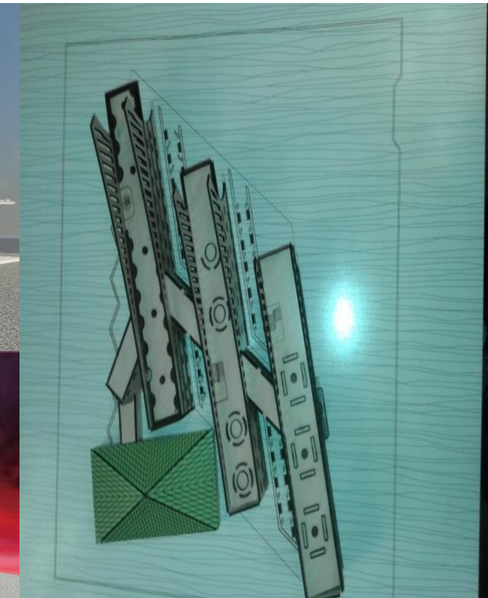
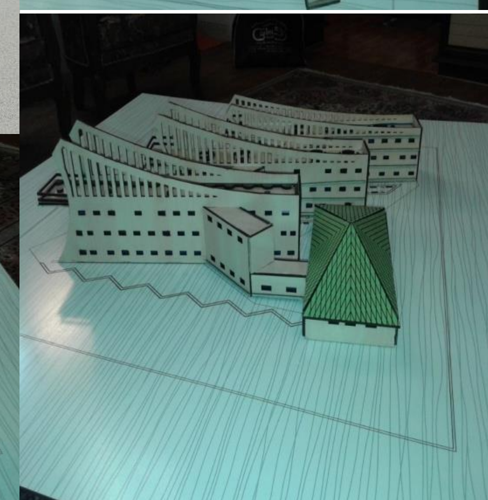
college of navigation and sailing
Details Green Roof
Site plan
Second floor plan
Ground floor plan
First floor plan
section A - A
section B - B
The First idea ...
Elevations East
Elevations South
Prespectiv

2



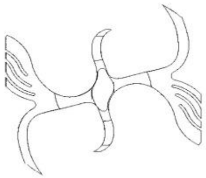


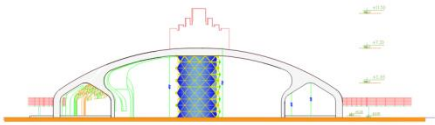


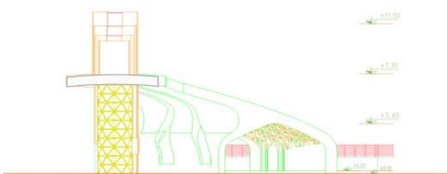




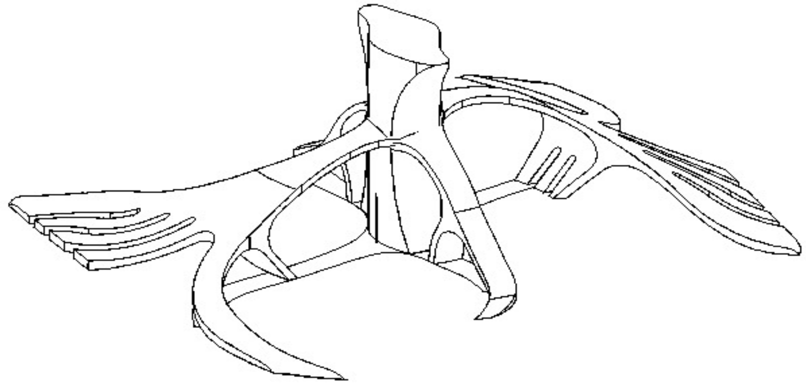
1

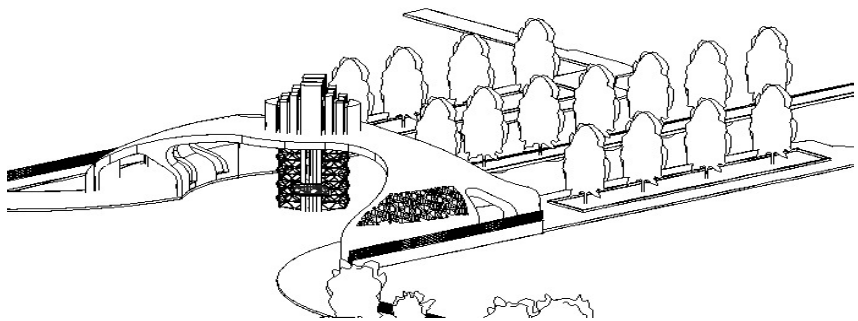
portal

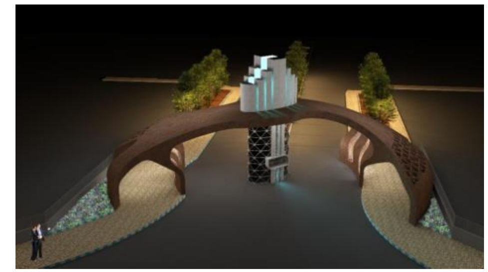








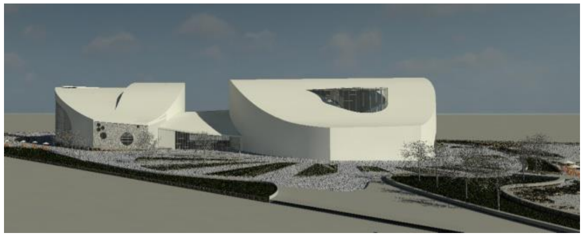


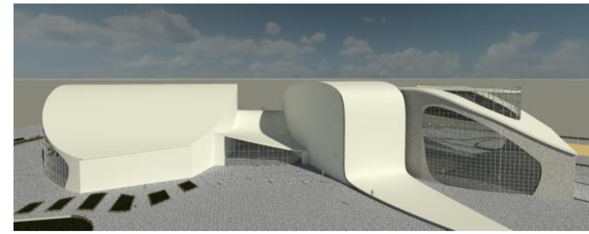


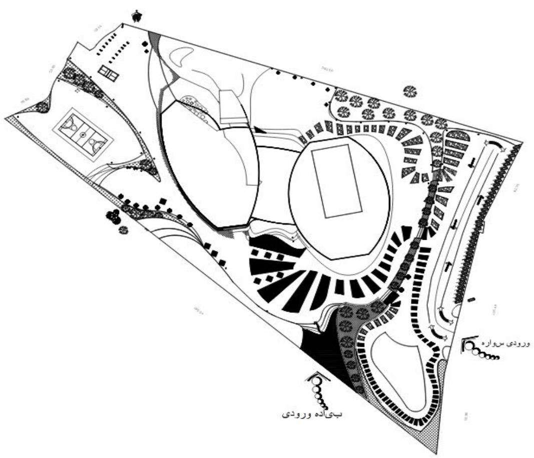
designing this portal was based on that blue logo

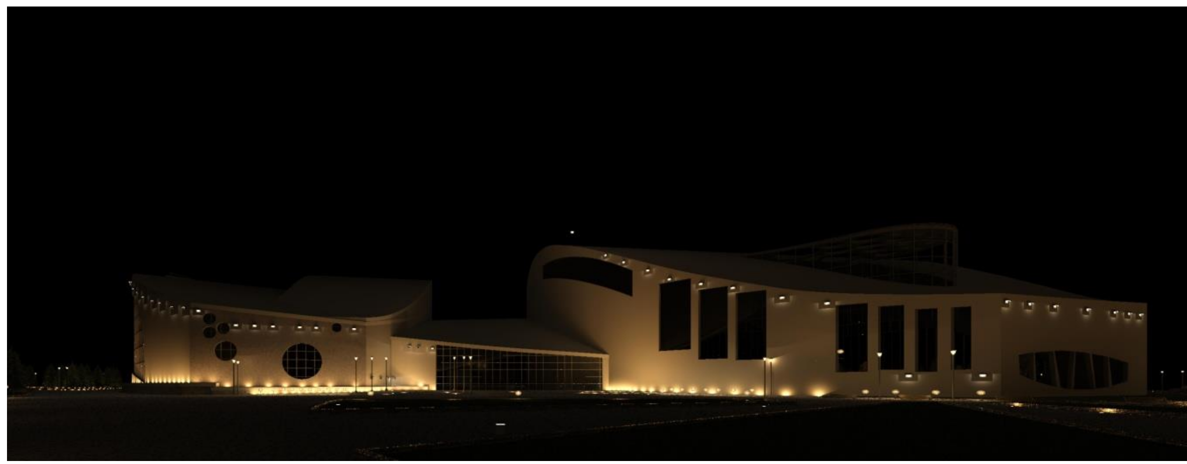
1

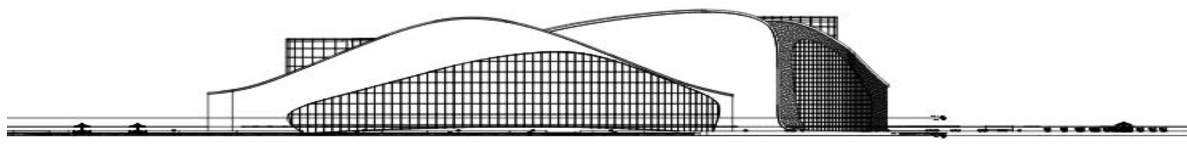
Sports complex

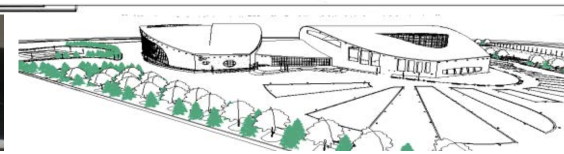












1

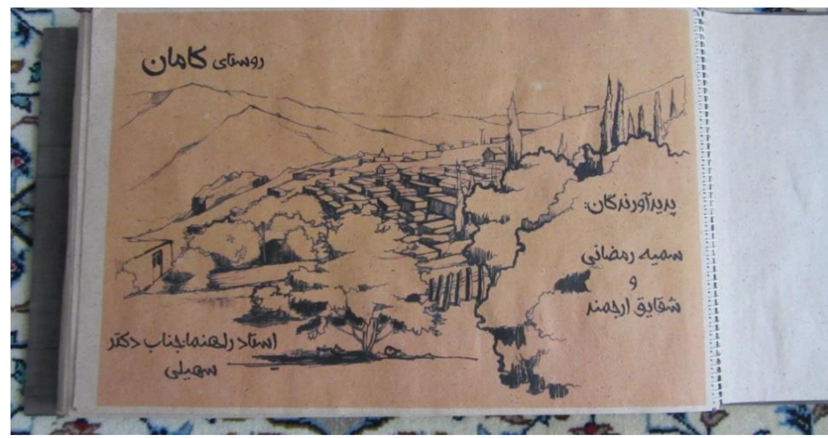
initial sketch of a Volleyball court and pool and sauna Jacuzzi

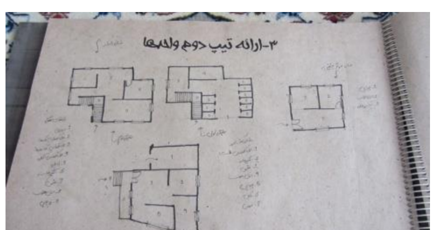
1

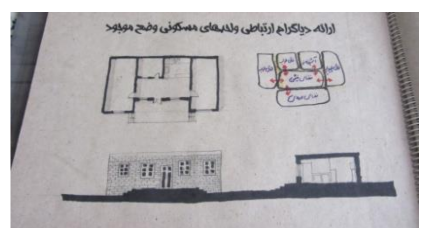
Recognition and design of village architecture and ancestral architecture formed over time due to climatic experience

I have had research and made this book with hand drawings about an old village, And studied about how people have built their houses by their experience used ...wooden columns

Design of alleys and passages to be useful ...especially in .winter

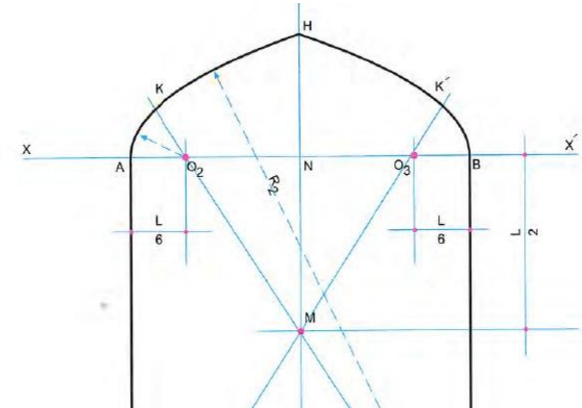


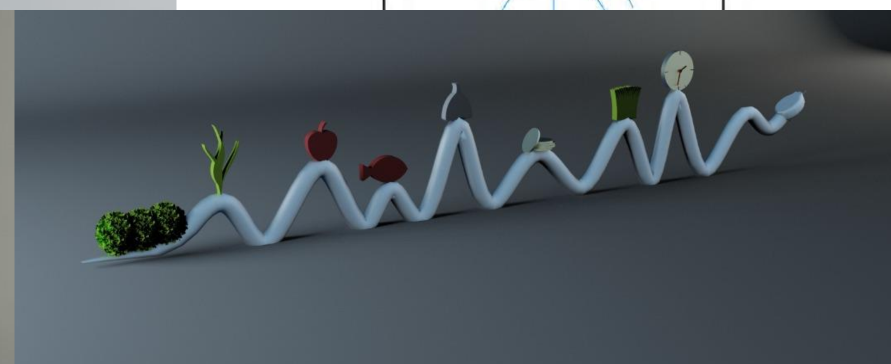


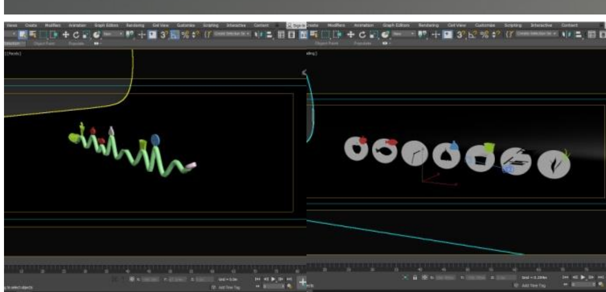


1

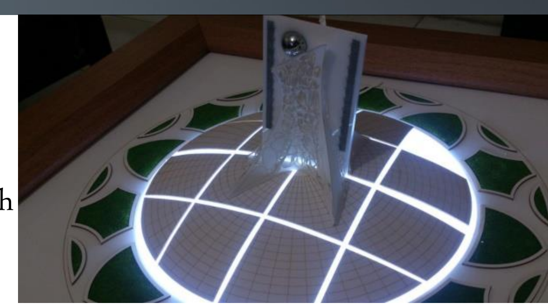
Design of square and urban symbolic elements







Iranians call the first day of spring Nowruz. And it consists of seven symbols, each of which refers to a story. Every year during Nowruz, the municipality designs the city with special elements. I designed two examples.



1 sketching and Rando

Black Pencil - Marker- Watercolor - Charcoal - Cosmetic Pencil - Bleach - Pencil - White Ink ...

Weatherl & Associates, PLLC
104 Pine Street, Suite 612
Abilene, Texas 79601
(325) 672-1050

To whom it may concern:

Weatherl & Associates employed Somayeh Ramezani (Shima) as an intern architect this summer and we are pleased to recommend her for opportunities on your team as well. In her time with the firm she contributed to the design and working drawings on several projects. From hand sketching early concepts to complex 3D renders of more developed designs, her solid ideas and talents have been invaluable.

She spends a lot of time on personal development and working on design problems outside of the office. She has a strong professional presence that makes her an asset to the firm in all environments. She consistently represented us well, both in-house and in client meetings.

Most importantly, Shima demonstrates character attributes that are difficult to train. She has a strong work ethic and determined drive to constantly grow and contribute at her highest potential. She accepts and gives guidance well and is attentive to the needs of those around her. She has a bright future and will be greatly missed as she returns to school this fall. Given the opportunity, I'm confident she will be a great resource for your team as well.

Sincerely,

Kevin Halliburton

Kevin Halliburton, AIA
Principal

TEXAS TECH UNIVERSITY
Architecture
Huckabee College

Recommendation for Shima Somayeh Ramezani

To whom it may concern,

It is my pleasure to recommend Shima for employment. During the Spring of 2023 Shima worked for me as a research assistant to create an assembly manual for the Terminal Lake Exploration Platform. In addition to updating and streamlining a complex digital model, Shima also exceled in organizing information, managing time, and prioritizing outputs. Shima is well poised to make significant contributions to the discipline of architecture through practice and research. Please give Shima your fullest consideration and let me know if I can address any specific questions you may have.

Travel well,

CHRIS TAYLOR

Chris Taylor
Architect, Associate Professor, and Director of
Land Arts of the American West at Texas Tech

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TEXAS TECH UNIVERSITY
College *of* Architecture

DATE: 02 January 2023

RE: Open Letter of Recommendation for Somayeh Ramezani (Shima Dibaa)

To Whom It May Concern,

This is a letter of recommendation for Somayeh Ramezani (Shima). My name is Glenn Hill. I am a retired Professor Emeritus at Texas Tech University College of Architecture. In the Fall semester of 2022, I taught a course in the College of Architecture, ARCH 2351 – Architectural Technology I with 120 students. Shima served as my Graduate Assistant in this course along with two other graduate students.

The course focus was on the Structure, Envelope, and Interior subsystems of 7 most used Building Systems (Timber Frame, Light Wood Framing, Light Gauge Metal Framing, Load Bearing Masonry, Structural Steel Frame, Site-Cast Concrete Frame, and Pre-Cast Concrete Frame). The students were required to do 8 assignments, which were to model in REVIT three buildings each using a different Building System (Light Wood Framing, Load Bearing Masonry, and Structural Steel Frame). Shima's primary task as my Graduate Assistant was to grade these 8 assignments and provide help to the students on their modeling in REVIT. Shima was extremely conscientious and diligent in the performance of this task which resulted in a very good job performance. I hope she will be available to work for me next Fall if I teach the course again.

Over the semester I feel I got to know Shima as a professional and was able to evaluate her as an employee. Her work ethic is excellent. She was enthusiastic about understanding her job and curious about how buildings are constructed in the USA. As mentioned earlier she took her grading very seriously. She was diligent about getting her assignments accurately graded and conscientious about returning them quickly to the students. With a class of 120 students, it is important that all the graduate assistants be team oriented and work as a team. She worked and communicated well with her two colleagues, and that made them a great team.

A very important concern of mine when she first joined the course was language proficiency. Would she have the technical vocabulary and language skills to communicate effectively with the students? While her conversational English was very good, her English professional language skills were not strong. Fortunately, there was a steady improvement throughout the semester, which I associated with the exposure to my course and her other architectural courses. By the end of the semester, I felt she had very good professional language and communication skills. She would be able to communicate with the firm's supervisors, colleagues, and clients.

I believe Shima would be an excellent intern hire for any design firm. Because of her previous professional education and experiences as well as her first year in our graduate program, I firmly believe she will be asset to any practice who is willing to give her an opportunity.

If you have any questions, please call or text me at the phone number below or write at my email address.

Sincerely,

Glenn E. Hill

Glenn E. Hill
Professor Emeritus
M 06-438-4181
E glenn.hill@ttu.edu

TEXAS TECH UNIVERSITY
College of Architecture
El Paso

August 2, 2022

To whom it may concern:

I gladly write this letter of recommendation for Somayeh Ramezani, a graduate student of mine at Texas Tech University. In my role as course instructor, I had the pleasure of working with Somayeh in the College of Architecture's Master of Architecture program in 2021-2022 academic year.

Mature, organized, motivated, self-confident, and success oriented, Somayeh has the ability to produce impressive results in a wide variety of areas. Her communication skills are very good, too, both graphically and verbally. Her passion for educating herself, and for always asking more of herself sets her apart from the other students.

In my opinion, based on her credentials, aptitude, and drive, Somayeh is well qualified for the Study Abroad Competitive Scholarship for Spring 2023. Should you have any questions regarding her candidacy, please do not hesitate to contact me.

Sincerely,

Mahyar Hadighi
Assistant Professor and Director of Historic Preservation and Design
College of Architecture
Texas Tech University El Paso Program
700 W San Francisco Ave
El Paso, TX 79901