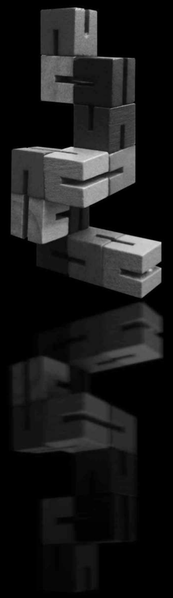
PORTFOLIO



Ana Desiree Guerrero Enciso
2025

CONTENTS

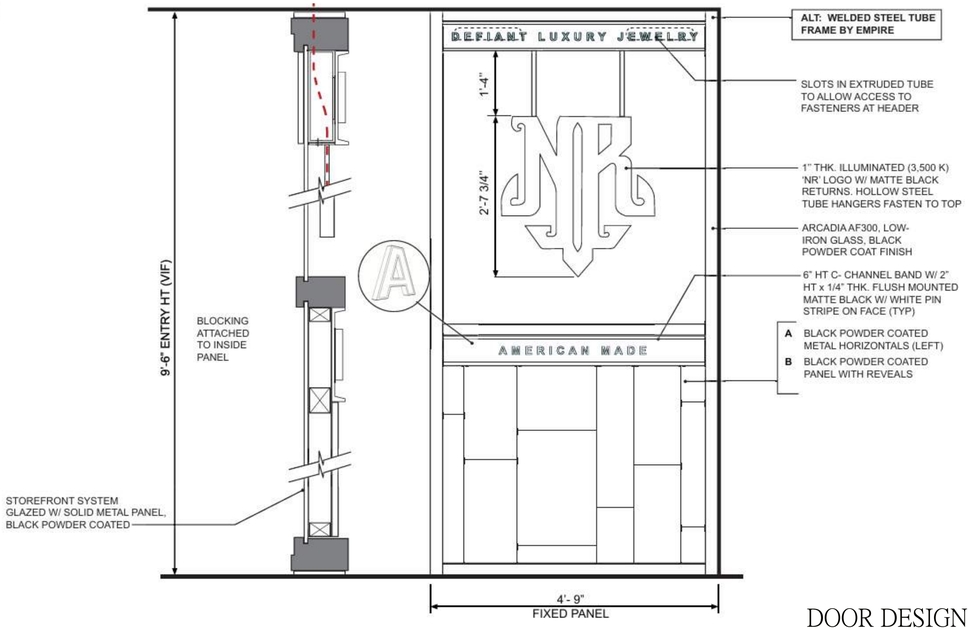
PROFESSIONAL PORTFOLIO

NIGHTRIDER JEWELRY HOUSTON

This tenant improvements in the Houston Galleria, Texas. The scope of work involved custom designed casework, artwork, doors, trusses, and lighting. This project opened its doors to the public on June 2024.

RIM Architects, TX, 2024

STOREFRONT DESIGN



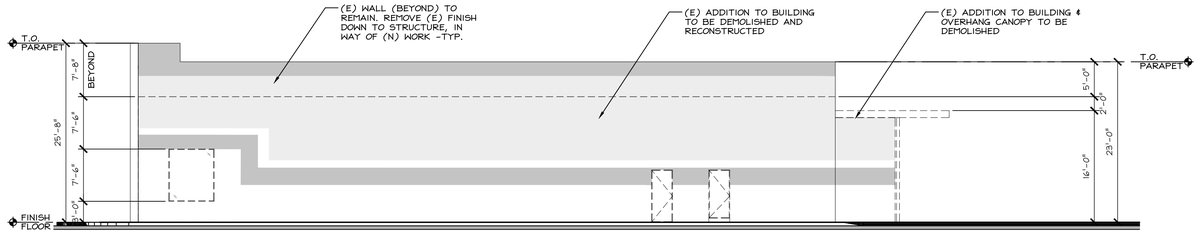
DOOR DESIGN

COLD SHELL IMPROVEMENTS AND PARKING GARAGE (under construction)

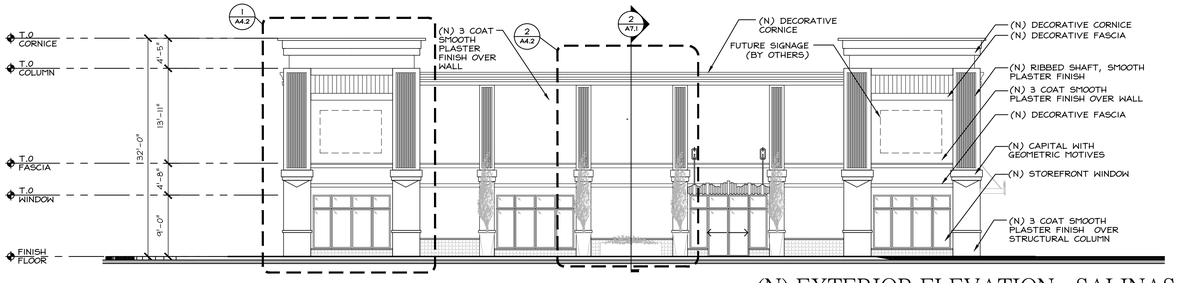
Originally built in the mid 1900s, the Old Greyhound Station was vacated for some years and cataloged as a structure in urgent need of seismic retrofit. The original concrete beams and columns showed significant area lost, dry rot, and sagging.

The project consisted of the removal of any non structural element from the building, the seismic retrofit of its structural elements, and the redesign of its cold shell to comply with the City Code of Ordinances.

Peartree+Belli Architects, CA, 2022



(E) EXTERIOR ELEVATION - SALINAS ST.



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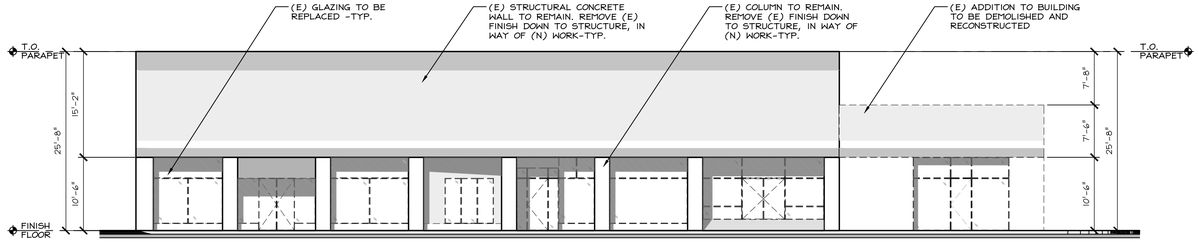

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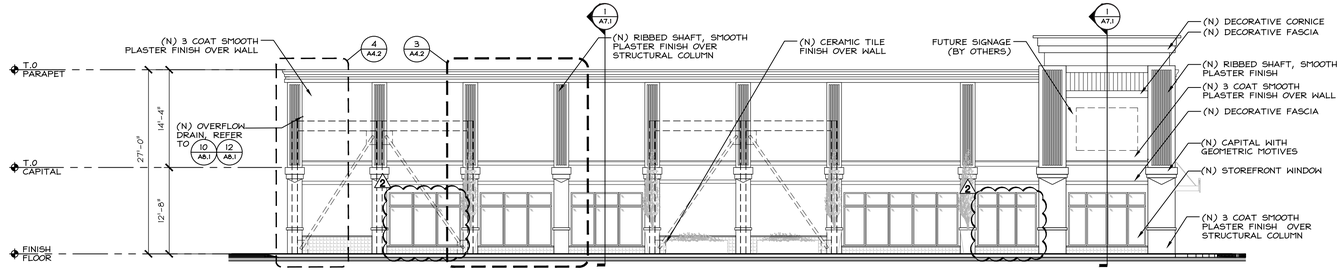

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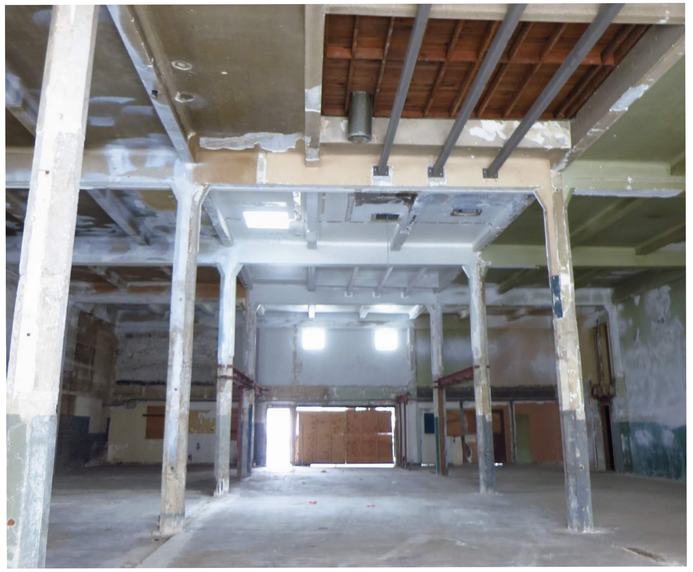
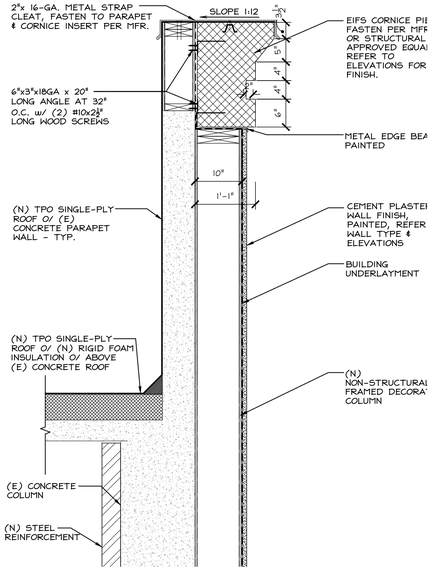
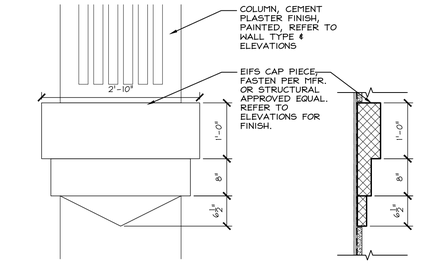


ORIGINAL BUILDING

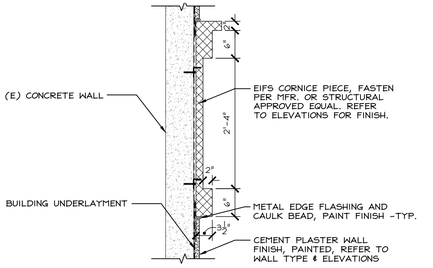
CURRENT CONSTRUCTION PROGRESS



DETAIL - CORNICE



DETAIL - COLUMN CAP



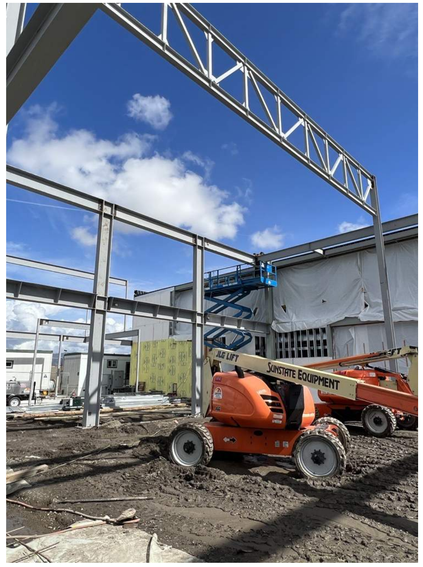
DETAIL - FASCIA

TAYLOR FARMS EMPLOYEE SERVICES BUILDING (under construction)

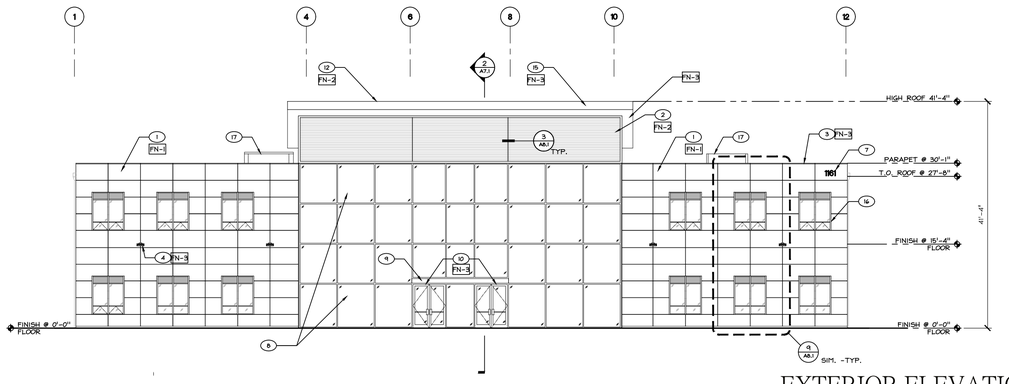
As part of a series of buildings integrating the upgrade of a large agricultural processing facility, the ESB seeks to provide a space for offices, conference rooms, locker rooms, a cafeteria, and rest areas. The 25,688 sq.ft. steel building will be completed in two phases and started operations together with the rest of the complex on April 2024.

Peartree+Belli Architects, CA, 2021

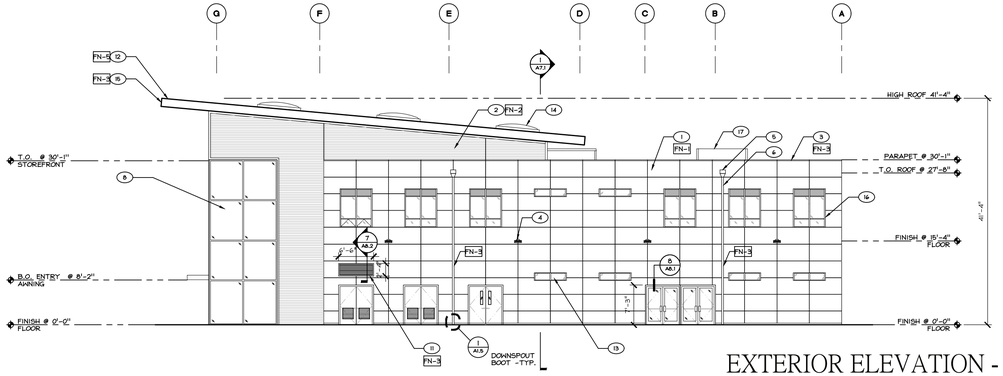
COMPLETED PROJECT



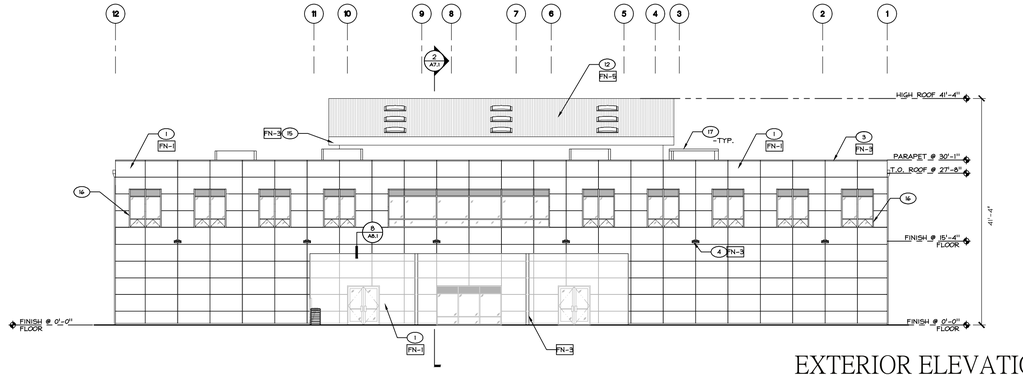
CONSTRUCTION PROCESS



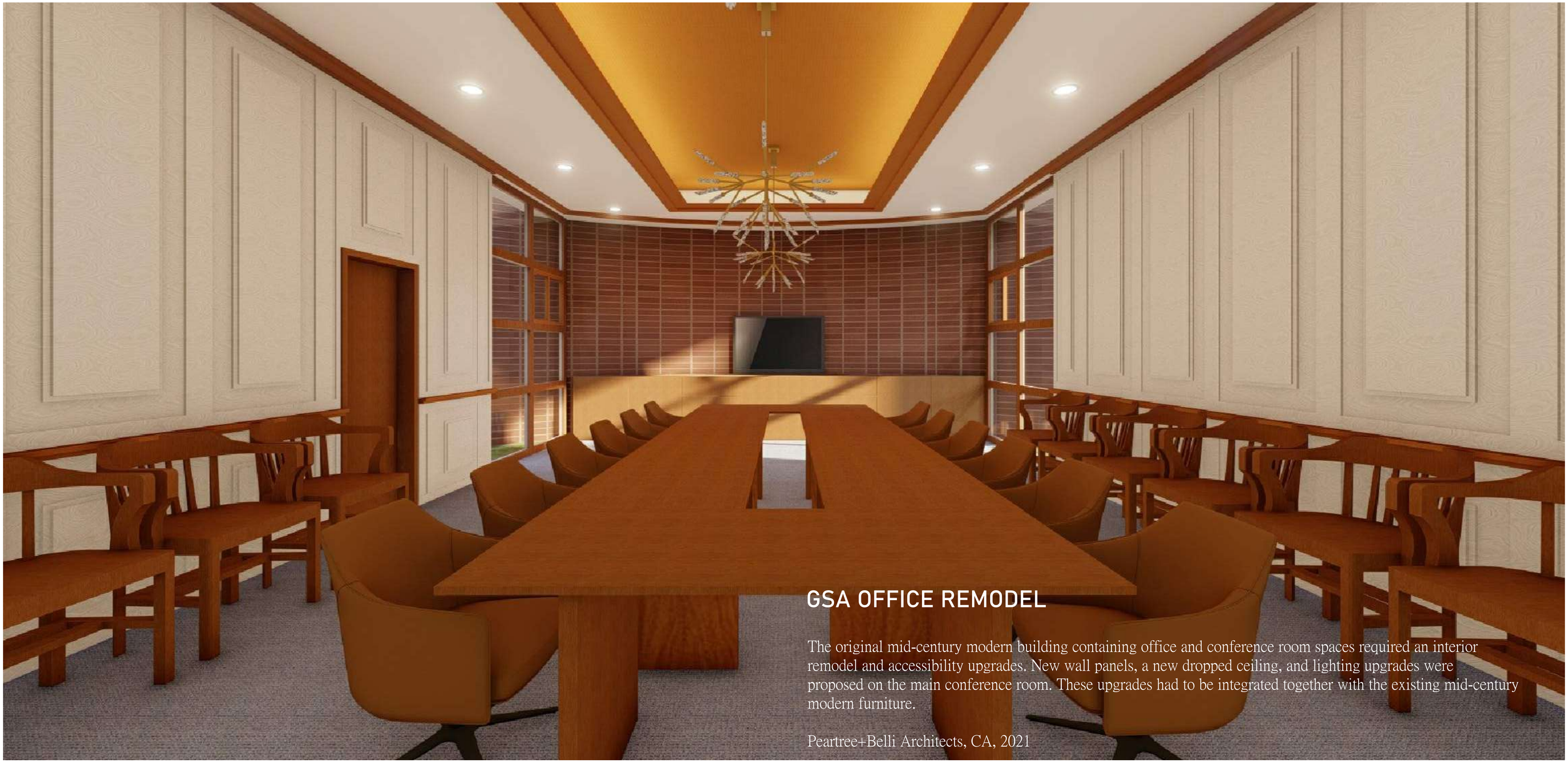
EXTERIOR ELEVATION - FRONT



EXTERIOR ELEVATION - RIGHT SIDE



EXTERIOR ELEVATION - REAR

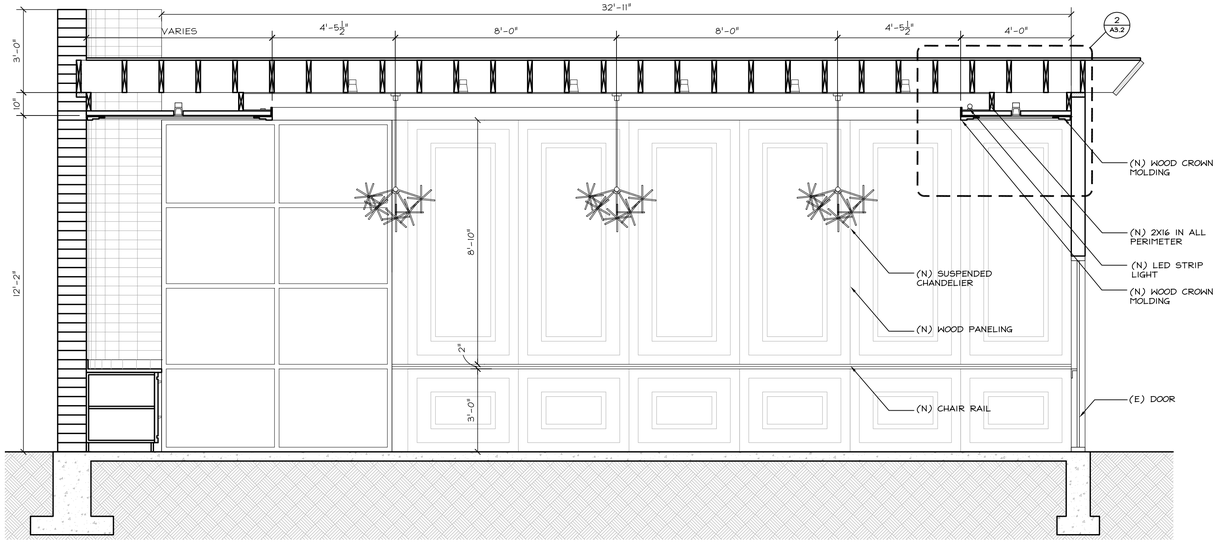


GSA OFFICE REMODEL

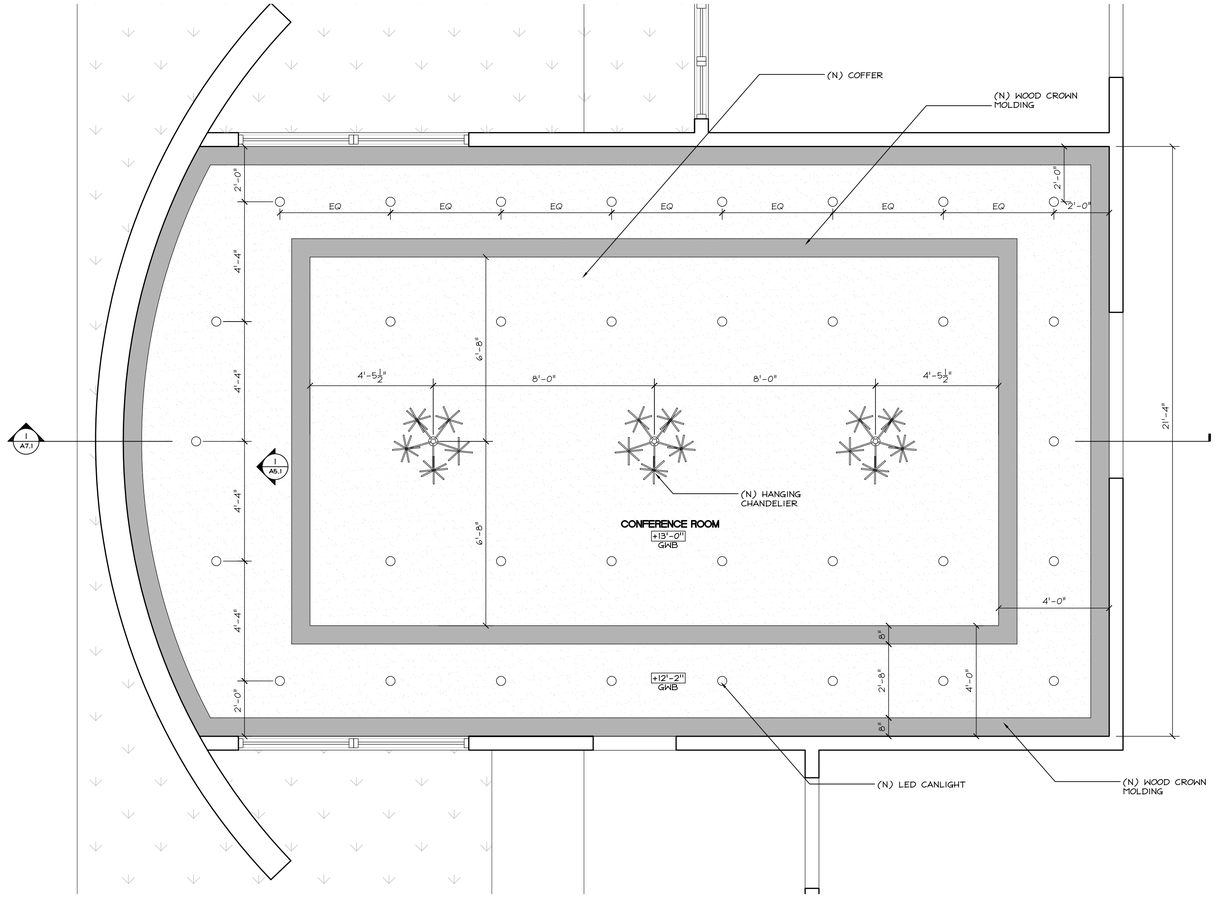
The original mid-century modern building containing office and conference room spaces required an interior remodel and accessibility upgrades. New wall panels, a new dropped ceiling, and lighting upgrades were proposed on the main conference room. These upgrades had to be integrated together with the existing mid-century modern furniture.

Peartree+Belli Architects, CA, 2021

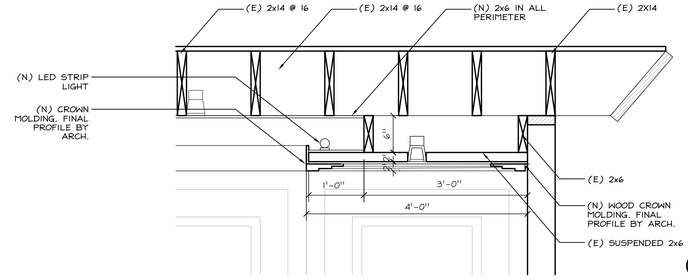
PERSPECTIVE - CONFERENCE ROOM



SECTION - CONFERENCE ROOM



REFLECTED CEILING PLAN - CONFERENCE ROOM



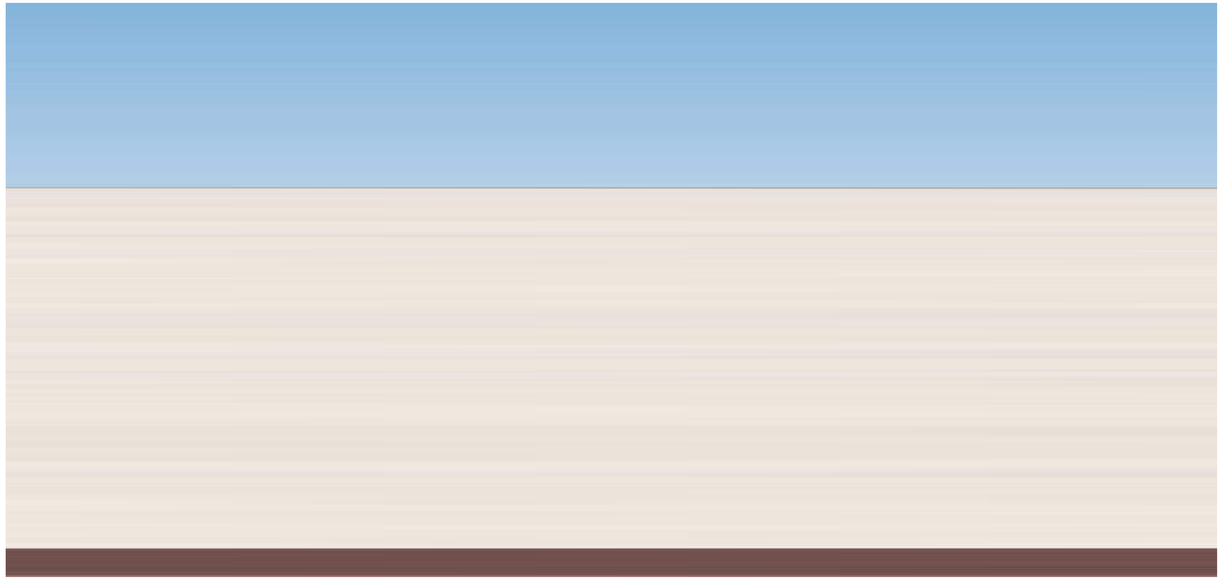
COFFIN CEILING DETAIL - CONFERENCE ROOM

221 MAIN ST. BUILDING REMODEL

This schematic design project intended to propose a variety of new exterior options for an existing building over 30 years old. New finishes, signage, and landscape were proposed in order to create a more inviting look on the building.

Peartree+Belli Architects, CA, 2021

(E) EXTERIOR - REAR



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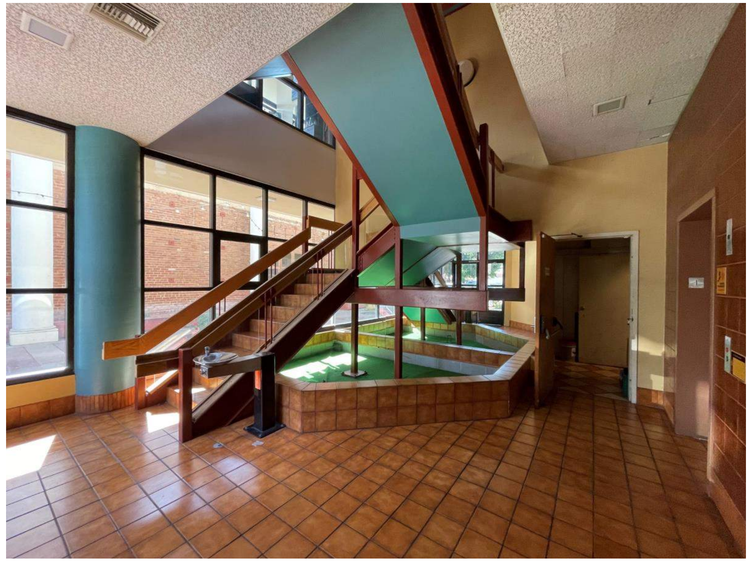
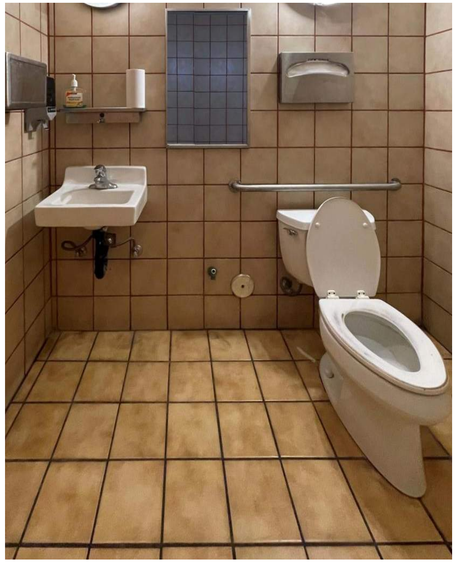
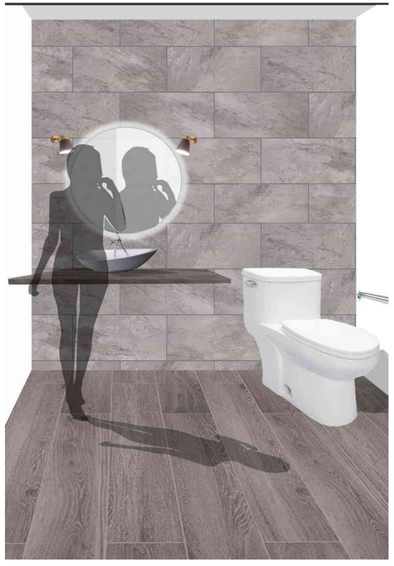


(E) INTERIOR - LOBBY



(E) INTERIOR - RESTROOM

(N) INTERIOR - LOBBY



(N) INTERIOR - RESTROOM

LA NOPALERA HOTEL

La Nopalera is a project designed for Zannier Hotels, a company with hotels in Vietnam, Cambodia, and France. The company seeks to open a new hotel in Puerto Vallarta, Mexico.

The site has an area of 10 hectares and a total development area of 20, 000 square meters. The design was inspired by Mogollon Native American culture with the goal to create a relaxing and private environment.

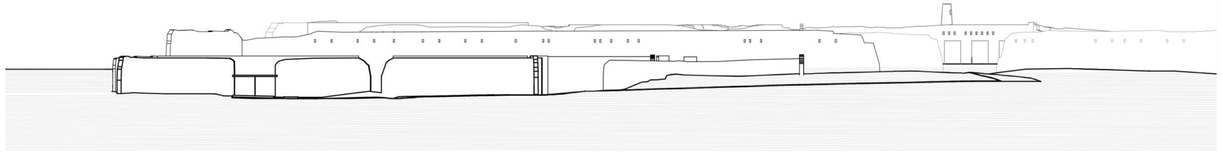
Broissin Architects and Barba+Ramírez, Mexico, 2020

SITE PLAN

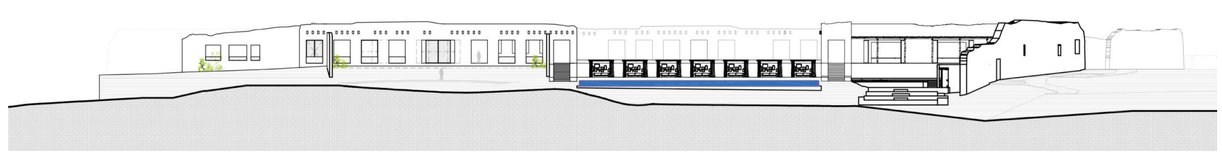
3D PERSPECTIVE - POOL

BUILDING SECTION - LOBBY

BUILDING SECTION - POOL



EXTERIOR ELEVATION - ENTRANCE

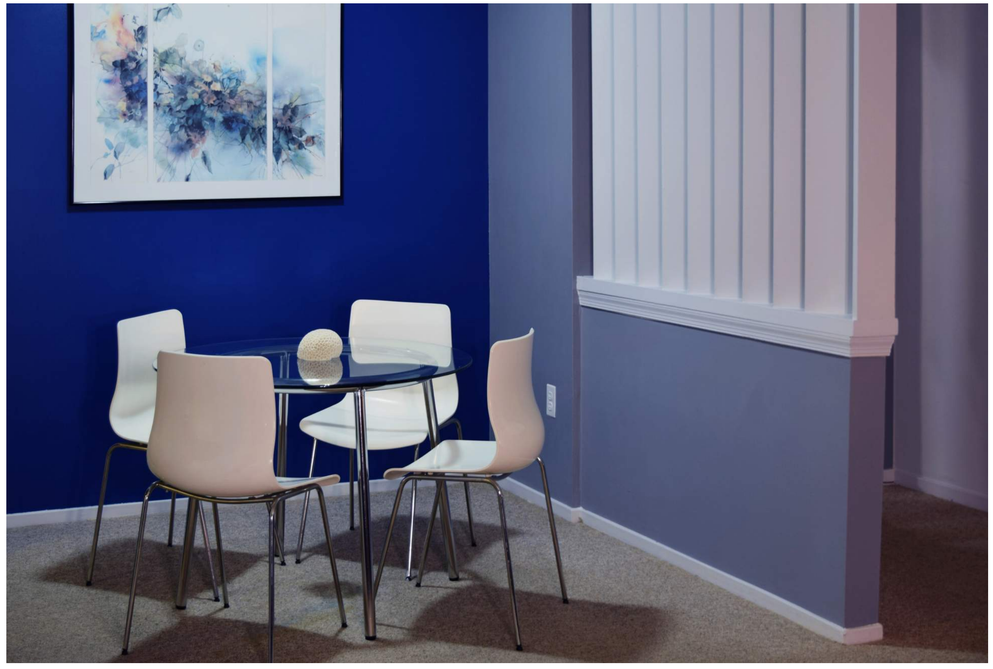


EXTERIOR ELEVATION - POOL AND LOBBY

BLUE APARTMENT

This interior design project was executed in 5 days. The apartment, located inside a 1970's building needed to be redecorated according to its new inhabitant’ s art collection. Painting and electrical outlets were upgraded. Existing furniture was repaired and integrated into the new design.

Independent project, MD, 2017



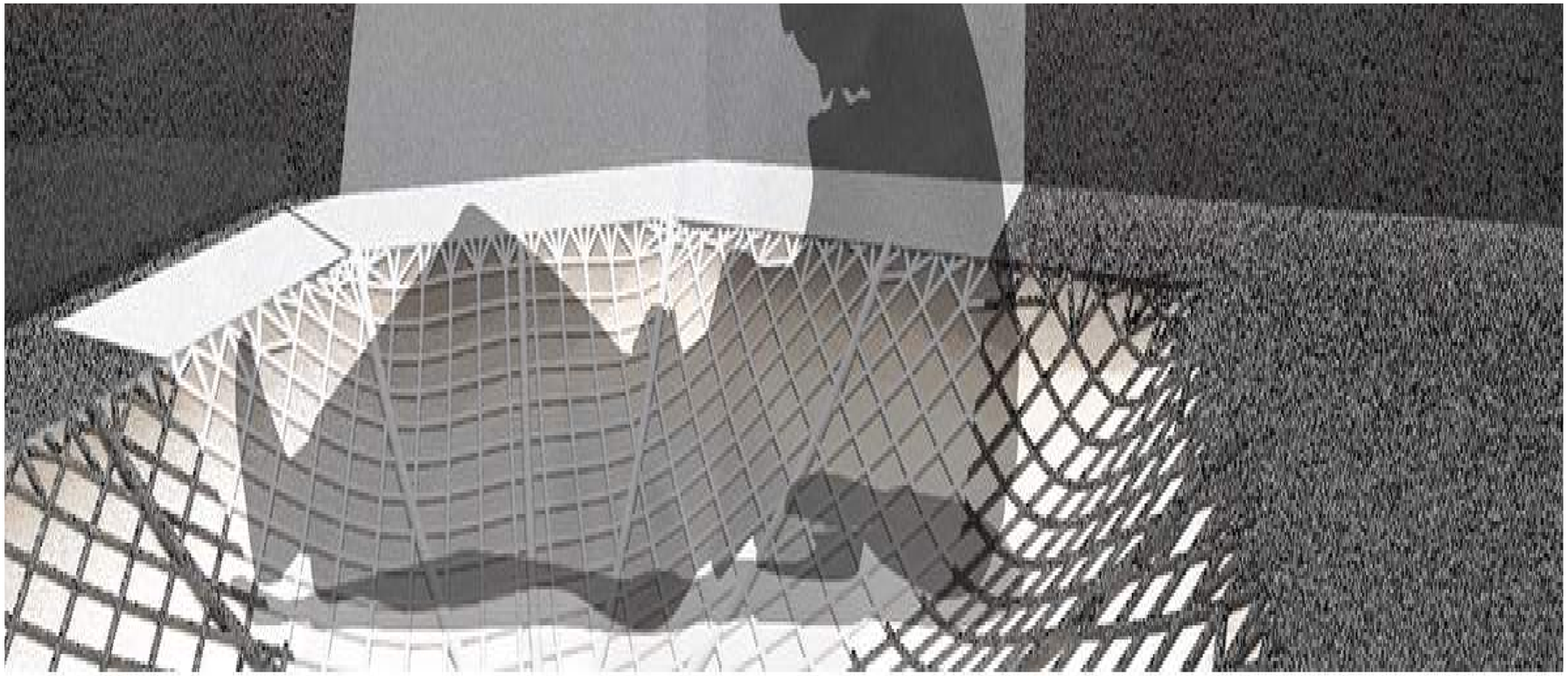
ACADEMIC PORTFOLIO

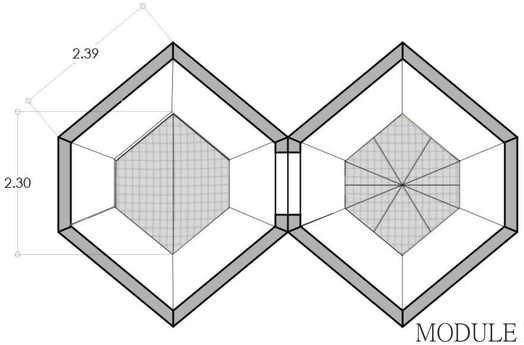
NORDIC CAMPING

This project demonstrates a form-finding technique used to conceptualize structures based on a pattern. The pattern is created by defining “genes” (objects) and “rules” (behavior).

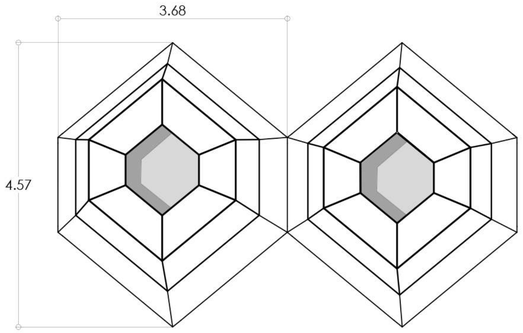
In this exercise, the generated pattern and shape were the result of observing the existing topography and the use of parametric design tools, in which the resulting 3D shape transformed into a camping and rest area for hikers in Norway. Its aim was to provide each visitor with a capsule for resting and observing the night sky.

Graduated Studies, UNAM, 2021.
Tools: RhinoVault 2, Rhinoceros+Grasshopper, Affinity Suite.

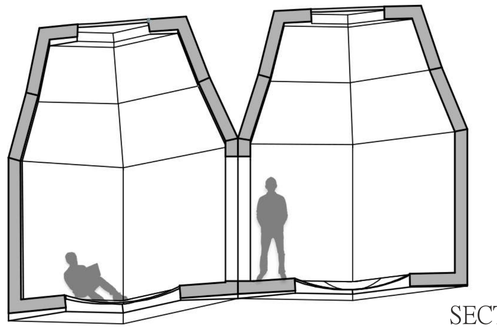




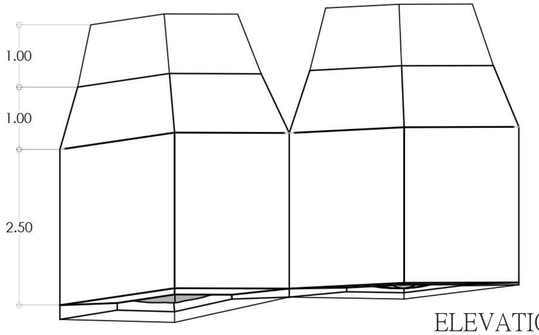
MODULE FLOOR PLAN



MODULE ROOF PLAN



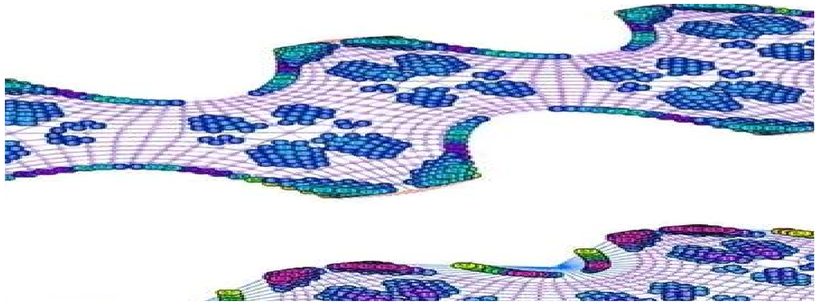
SECTION



ELEVATION

Form-finding process:

1) Select topography aerial view and sketch a basic <skull> structure.
2) Transform line work into a geometrical pattern.
3) Insert the 2D geometrical pattern into RhinoVault 2 and define a height and fixed points.
4) Generate form and force diagrams using RhinoVault 2.
5) Generate 3D surface based on the form and force Static Analysis.
6) Transform surface into a mesh and insert the geometry into Grasshopper.
7) Subdivide the mesh into hexagonal areas or “modules”.
8) Assign a module depth.
9) Assign a standard thickness to the hexagonal perimeters.
10, 11) Modify <direction> and <grow> parameters according to Tangent and Normal lines.
12) Apply <scale> parameter to the top hexagonal surfaces to create a roof system.
13) <Bake> 3D geometry.



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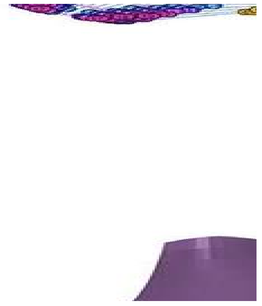

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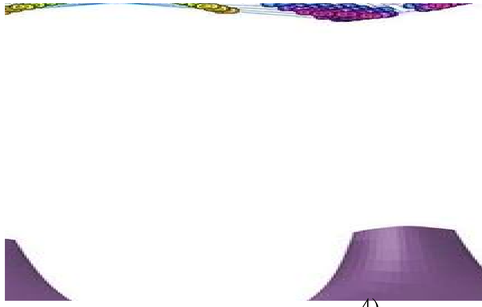


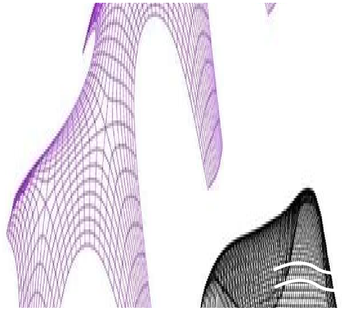
4)

5)

6)

7)

8)



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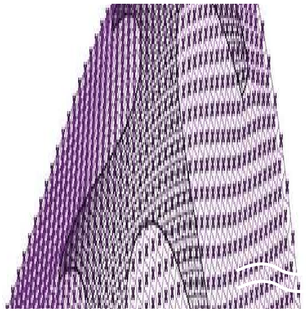

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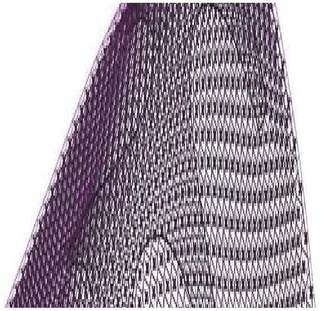

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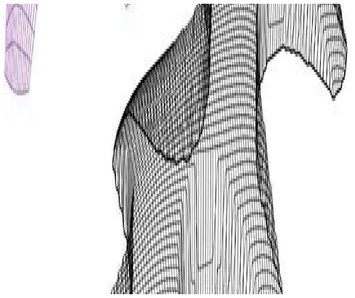

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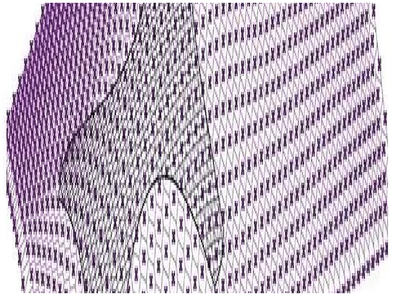

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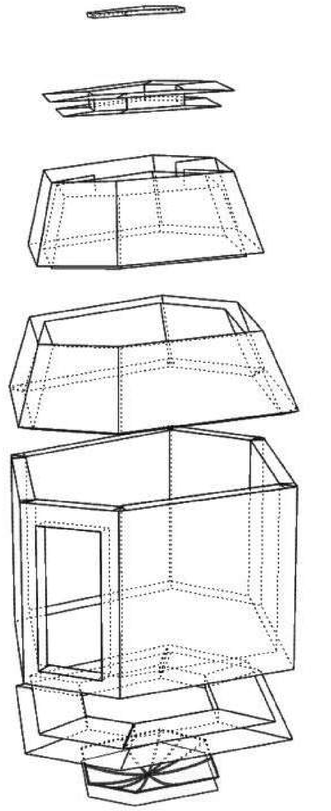
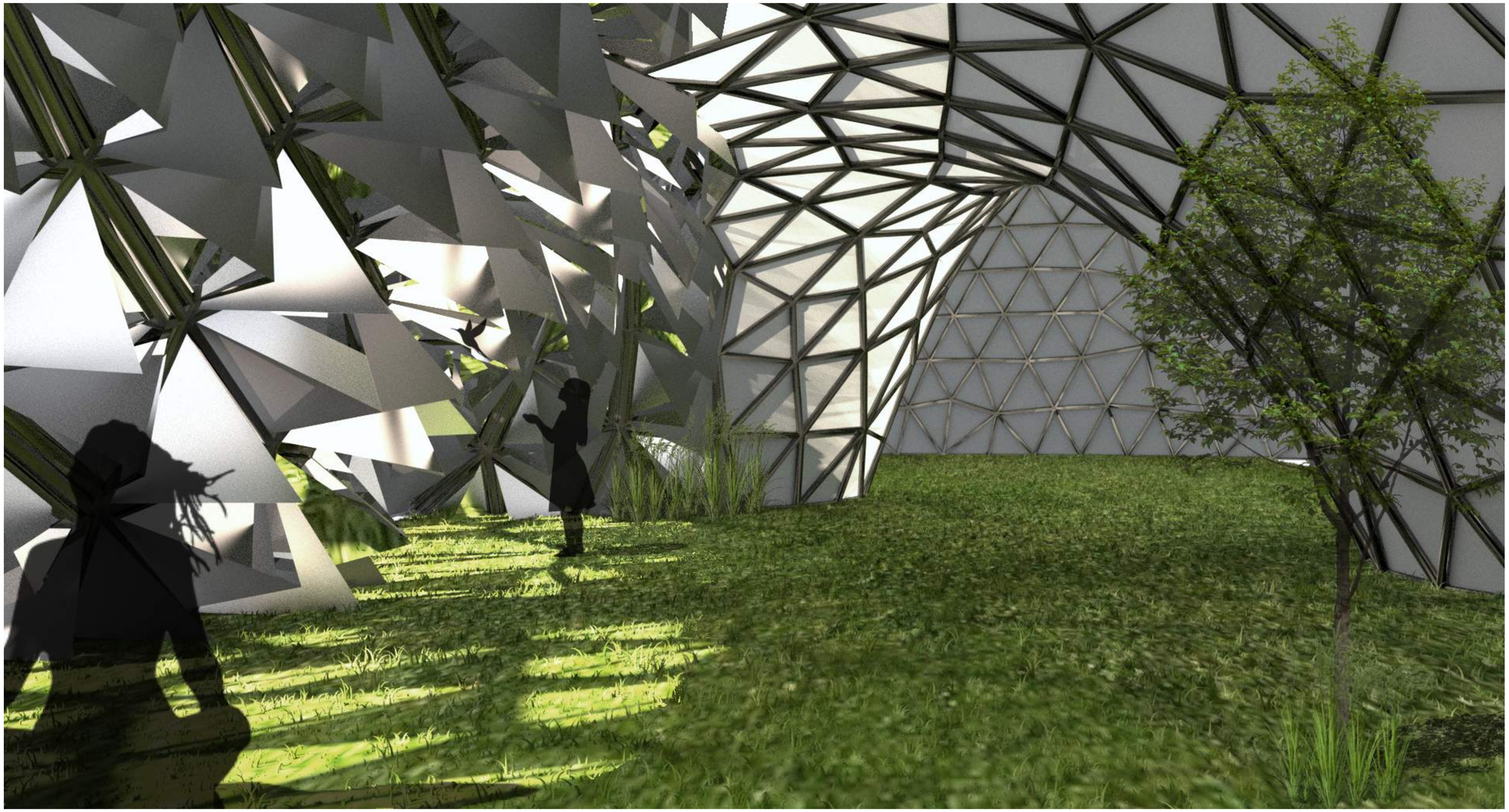


FINAL MODULE EXPLOSION

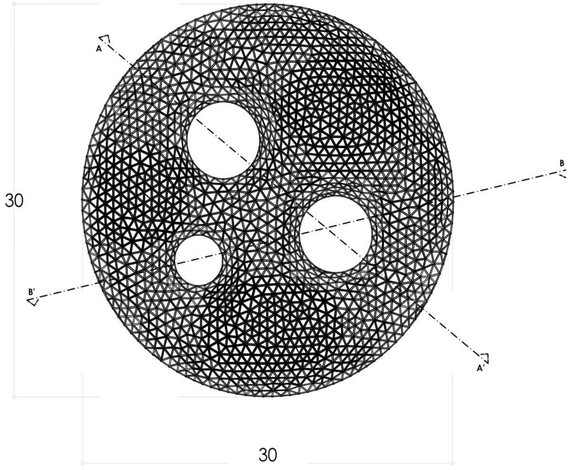


TRANSFORMABLE DOME

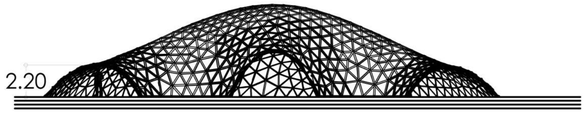
This adaptable structure was designed to provide humans with a solution to living in extreme climates.

In order to meet that goal different solutions were implemented:
1) Phase changing materials.
2) A mechanical system.
3) Geometry optimized to work under compression only.

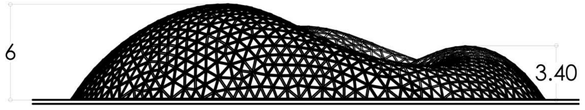
Graduated Studies, UNAM, 2021.
Tools: Rhinoceros+Grasshopper, RhinoVault2.
Therm, WUFI, Karamba 3D, Arduino.



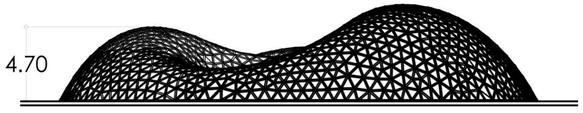
SECTION A-A'



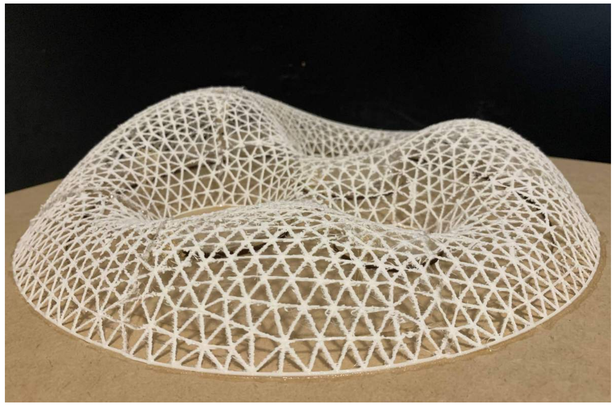
SECTION B-B'



ELEVATION 1

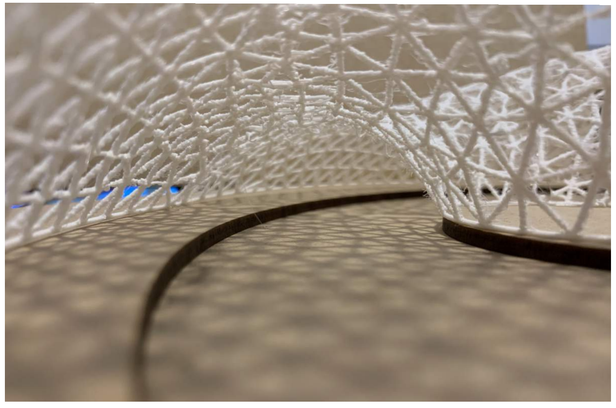


ELEVATION 2



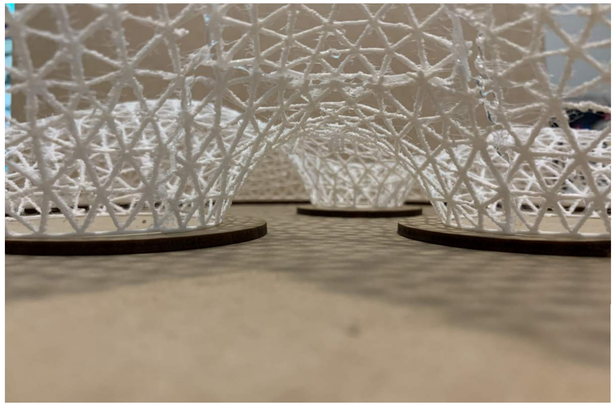
The geometric solution was obtained by using RhinoVault 2. Its floor plan is defined by one external circumference and three internal circumferences as supports. The maximum height parameter established was 6 meters while the minimum was 2 meters.

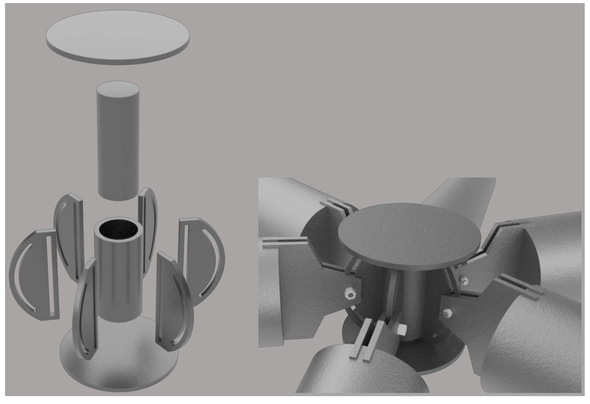
The generated mesh was subdivided into equilateral triangles, each one conceptualized as a thermal module. The resulting geometry is capable of resisting 20 times its own weight.

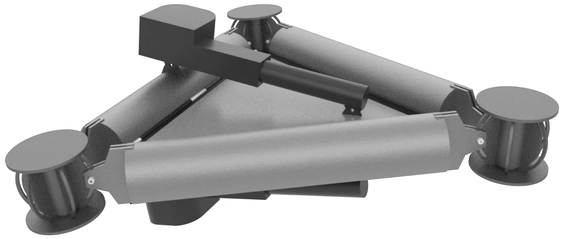


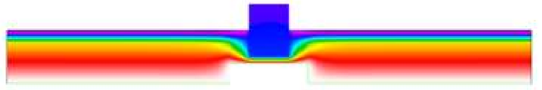
A free-form steel grid-shell was selected as construction system due to its capability of joining different surfaces into a single vertex independently of their rotation.

Once the geometry and the construction system were designed, a Static Analysis was developed using Karamba 3D . The resulting maximum displacement of the structure was 1 mm.

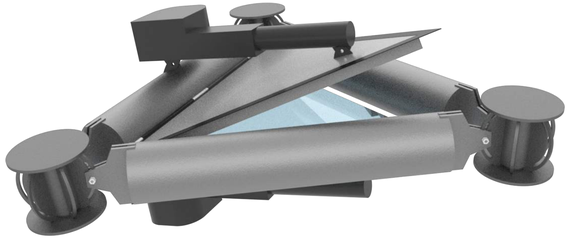




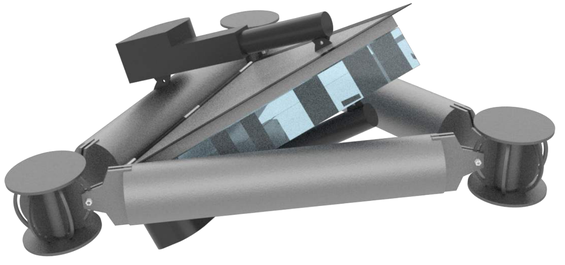




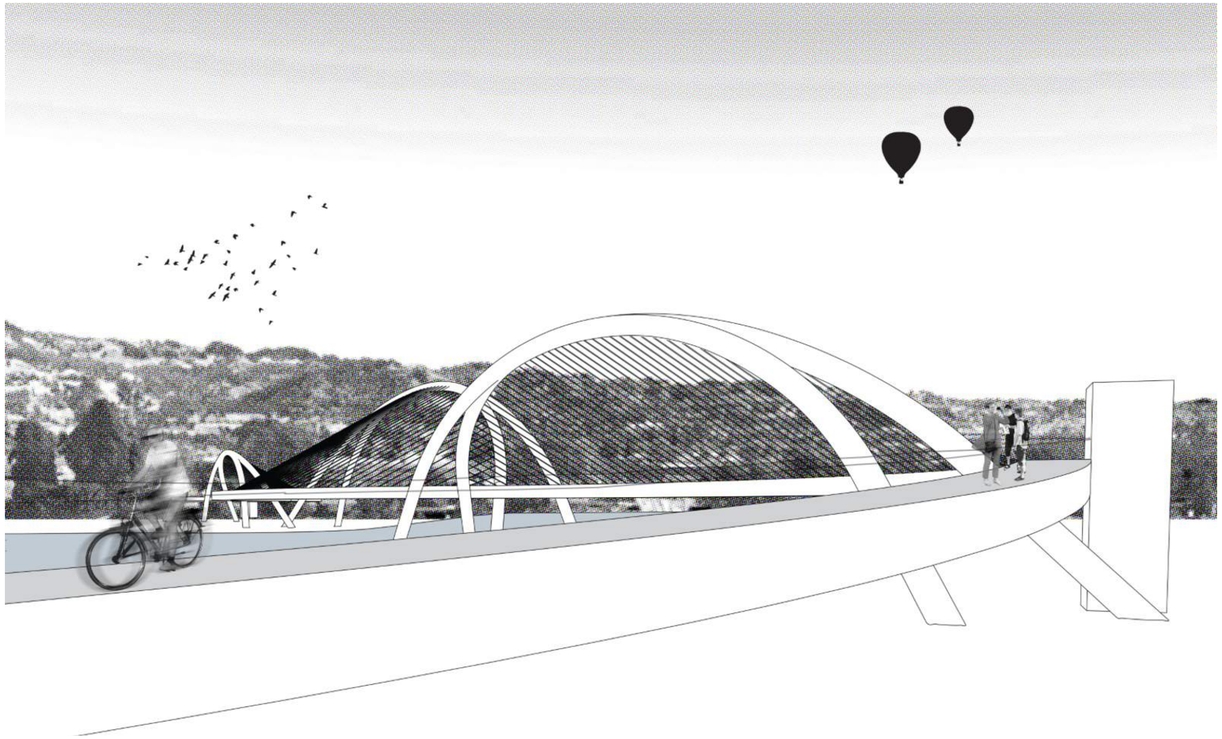
As a thermal control strategy, each module was conceptualized as a Heat Storage System by filling it with a phase-changing material. The assembly was analyzed by Therm and WUFI in order to visualize its thermal behavior.



A mechanical Rotation System was designed in order to modulate the amount of air coming from the exterior of the dome.



The system provides each module and its component with movement capacity without affecting the system’ s hermeticity.

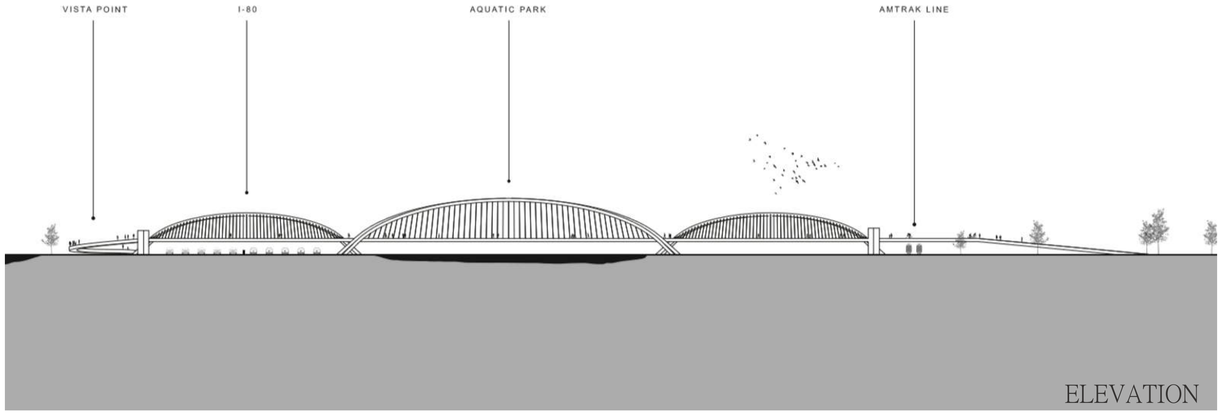


PEDESTRIAN BRIDGE

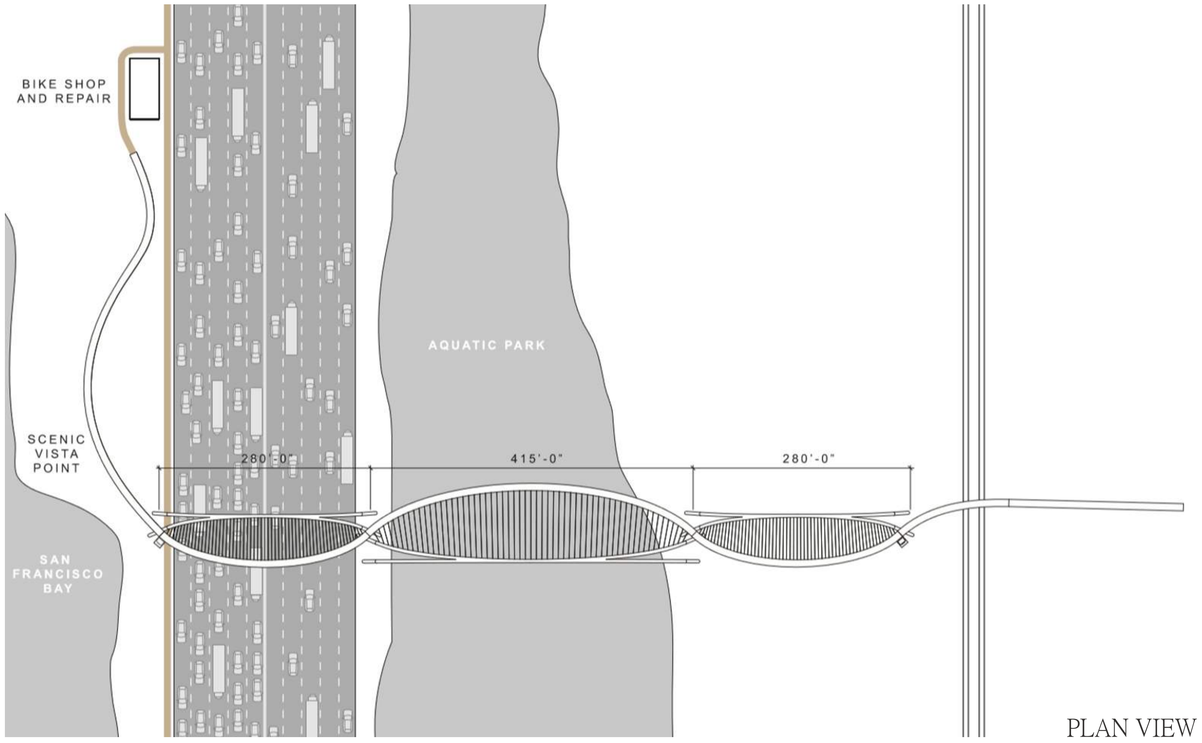
This conceptual bridge was designed to safely connect Berkeley, CA and the Scenic Vista Point across the river. The structural solution needed to span 975 ft. while being statically stable.

The designed structure consisted of three horizontal conjoined arches, supported by three inclined vertical supports, in order to generate equilibrium. The structure was proposed on hollow steel sections, steel cables, and concrete footings.

Undergraduate Studies, UC Berkeley, 2018.
Tools: SAP 2000, AutoCAD, Rhinoceros, Adobe Photoshop.



ELEVATION

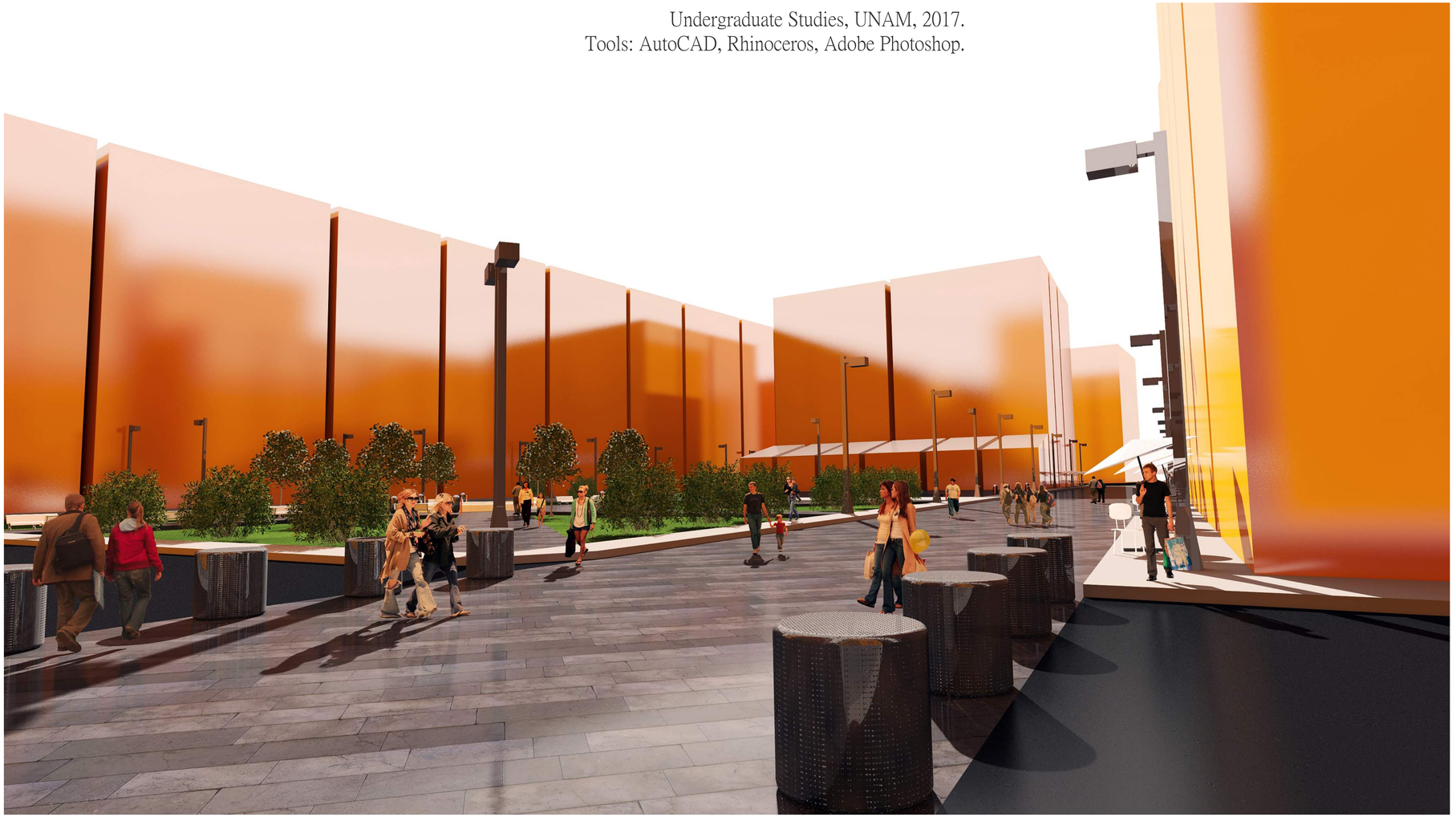


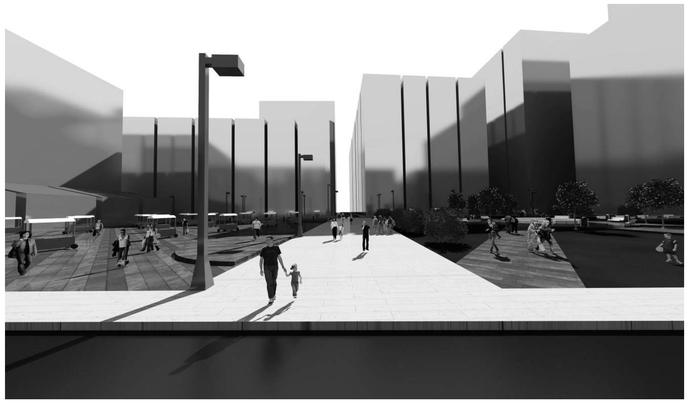
PLAN VIEW

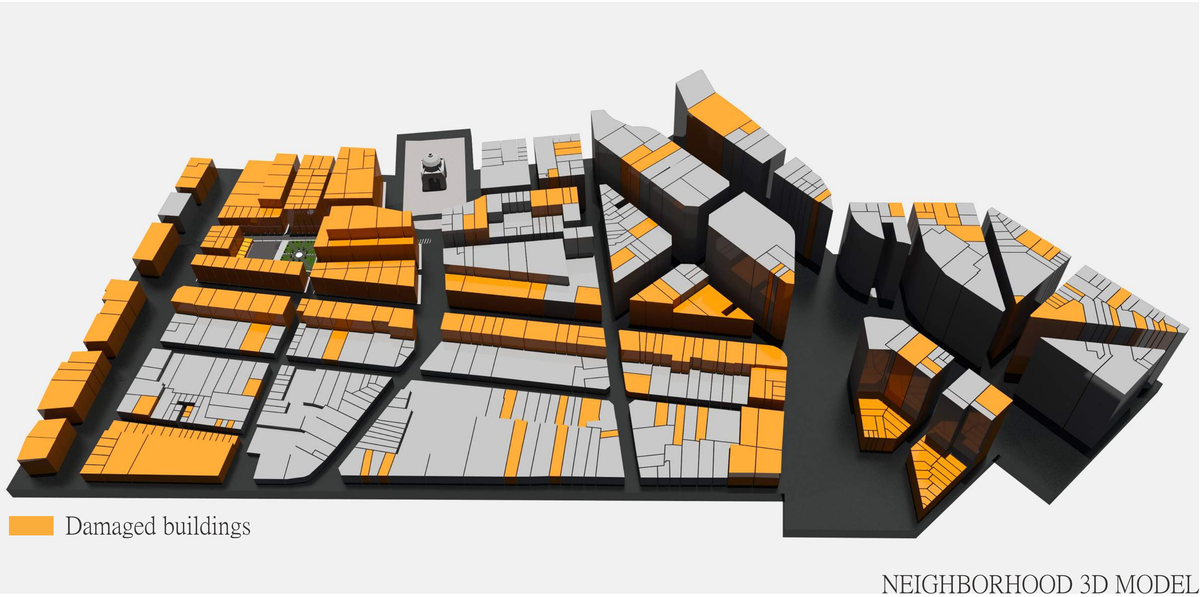
URBAN REGENERATION PROJECT AND CULTURAL CENTER

The project was developed as a response to the 2017 earthquakes in Mexico City. The goal was to propose a new Urban Plan for one of the most damaged neighborhoods. The new Urban Plan had three main purposes: to incentivize walking, to attract more young professionals to the area, and to increase safety.

Undergraduate Studies, UNAM, 2017.
Tools: AutoCAD, Rhinoceros, Adobe Photoshop.







NEIGHBORHOOD 3D MODEL

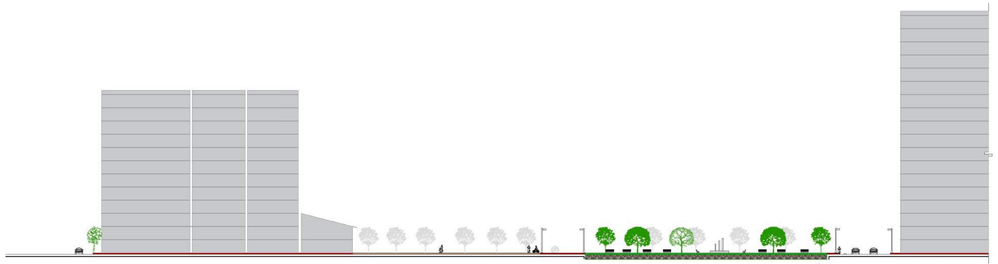
Site visits and surveys took place in order to identify each damaged building in the neighborhood.

A new Zoning Plan was developed, dividing the neighborhood as follows:

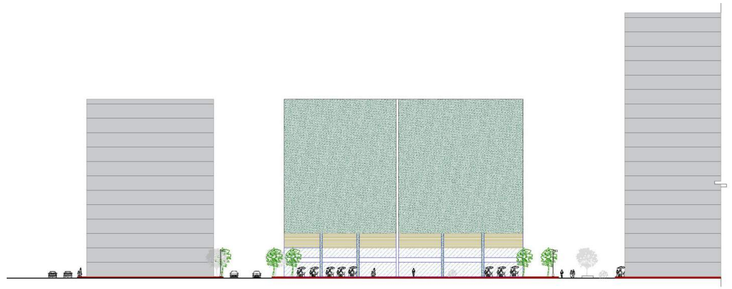
- Residential
- Commercial
- Mixed-use
- Transportation Terminal
- Commercial Studios
- Subway Station
- Corporate Offices
- Parking

A pedestrian-only street and a public garden were also proposed.

ZONING PLAN

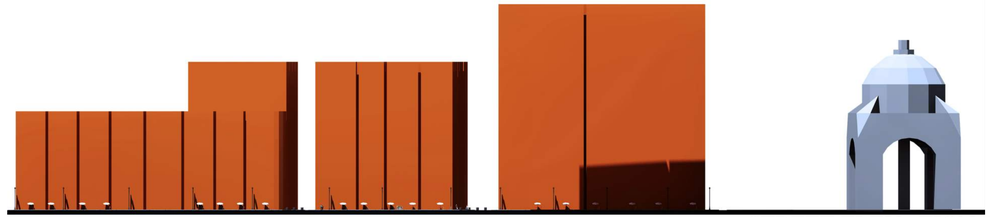


STREET ELEVATION 1



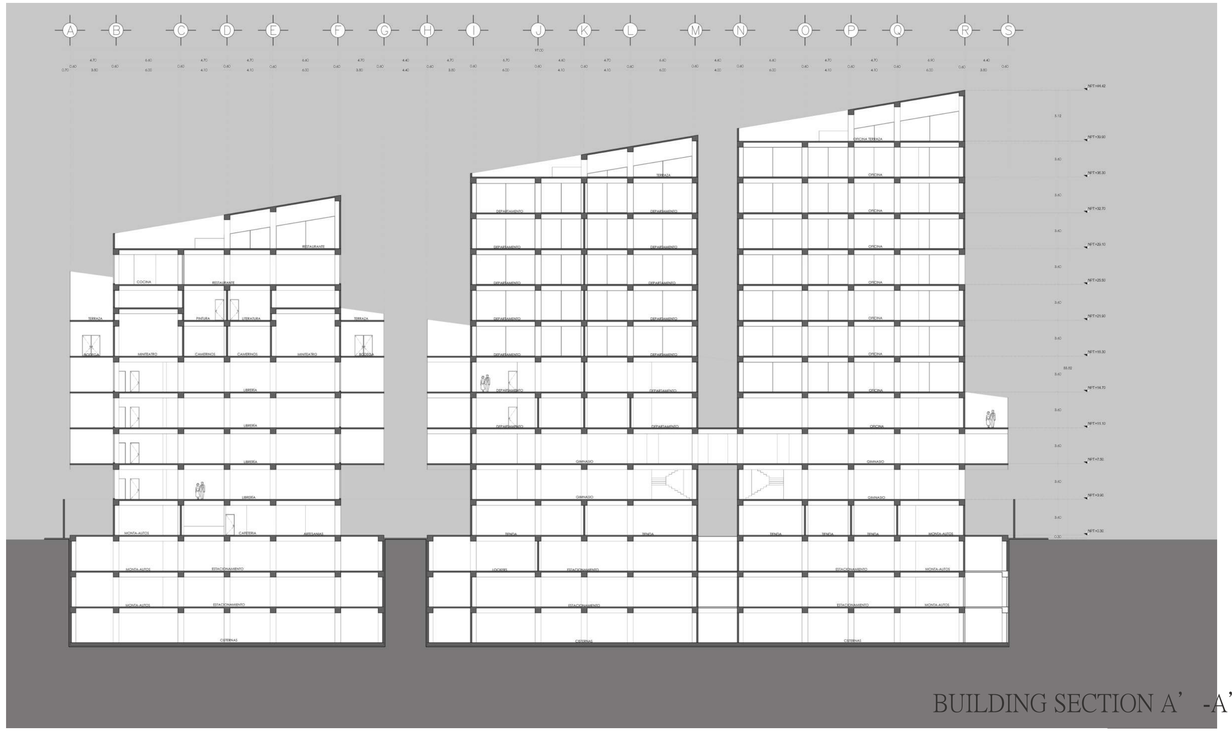
STREET ELEVATION 2

STREET ELEVATION 3.1

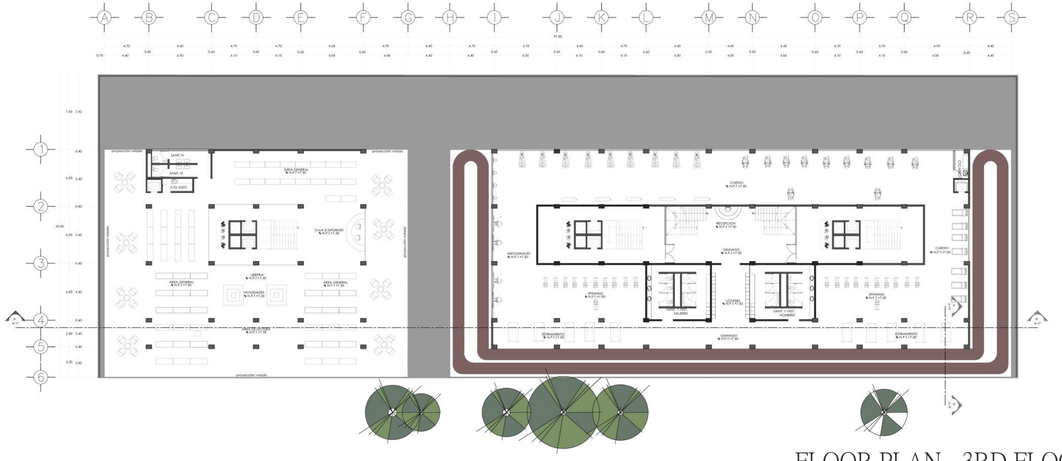


STREET ELEVATION 3.2

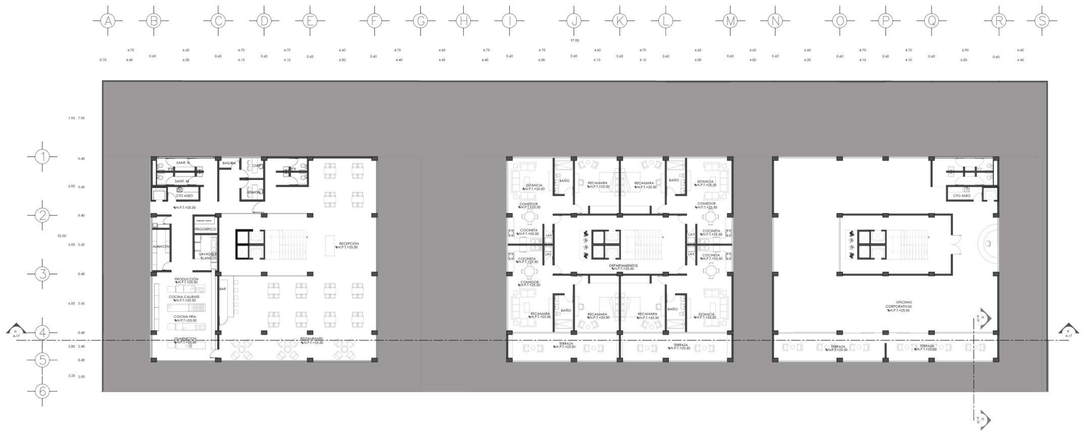
Once the Urban Plan was completed. a building set for an specific lot was developed. The selected mixed-use building was composed of a cultural center, a gymnasium, a restaurant, and multi-family housing.



BUILDING SECTION A’ -A’



FLOOR PLAN - 3RD FLOOR

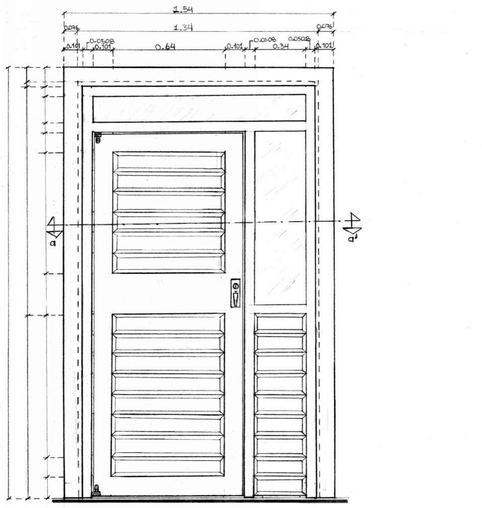


FLOOR PLAN - 9TH FLOOR

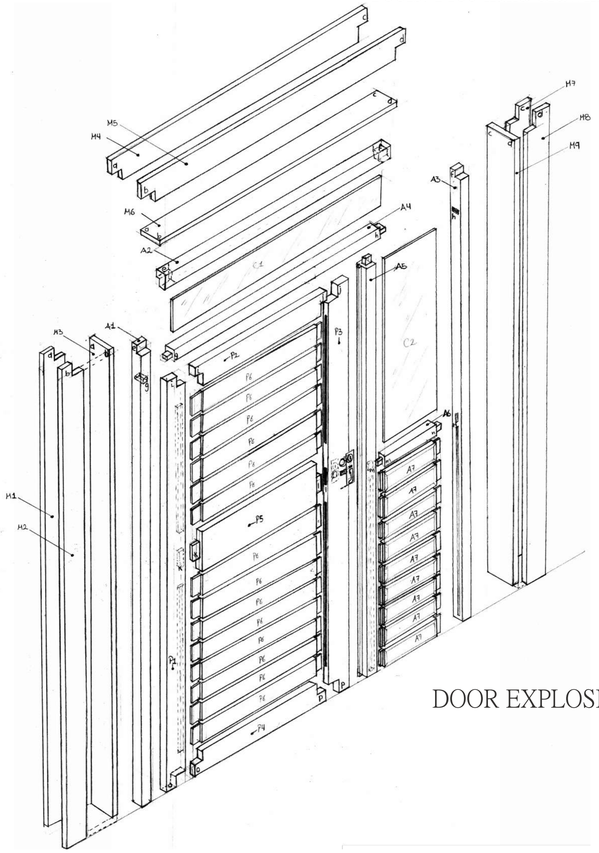
CARPENTRY DESIGN

The below free hand drawings show the conceptual design of a wood entrance door and a closet for a single-family residence, explaining the different pieces that compose each carpentry element and how they should be assembled together.

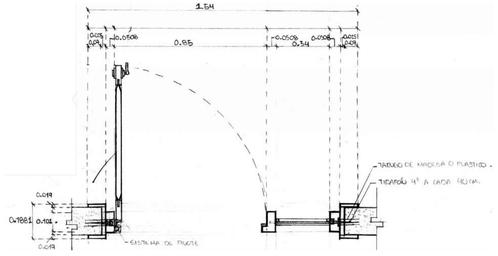
Undergraduate Studies, UNAM, 2016.
Tools: Free hand drawings.



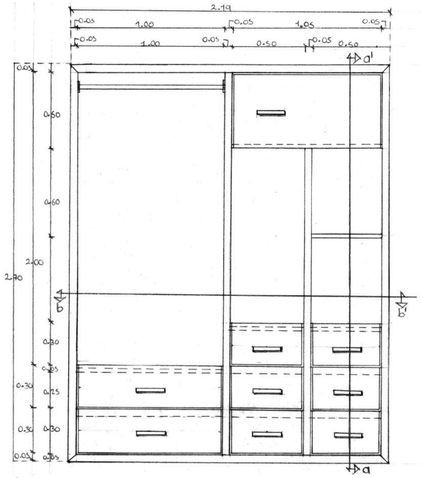
DOOR ELEVATION



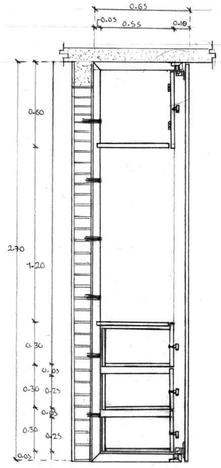
DOOR EXPLOSION



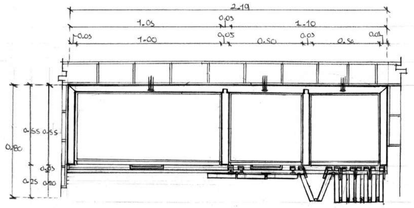
DOOR FLOOR PLAN



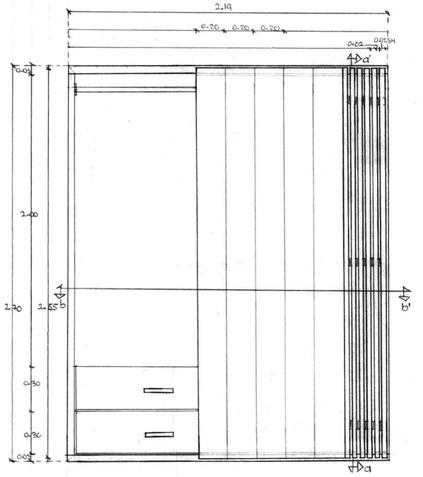
CLOSET ELEVATION



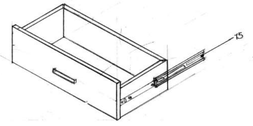
SECTION a-a'

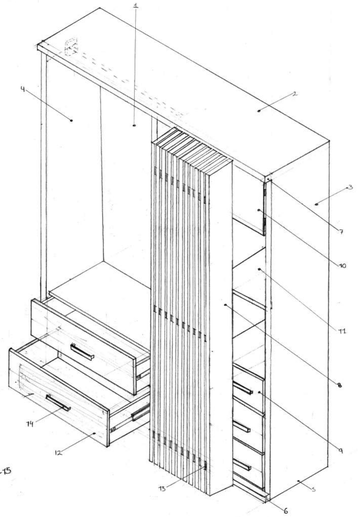


SECTION b-b'



CLOSET ELEVATION





CLOSET EXPLOSION

Ana Desiree Guerrero Enciso

2025