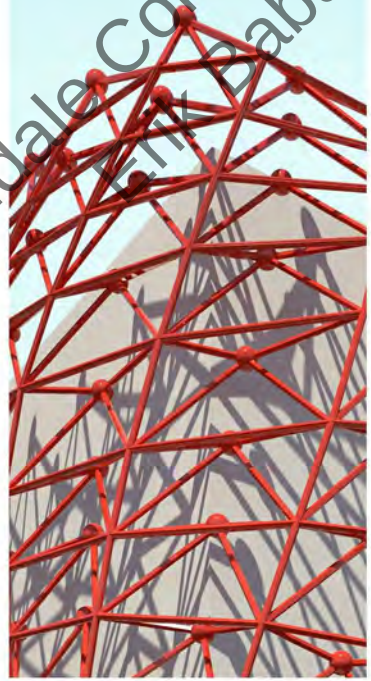
GLENDALE COMMUNITY COLLEGE

ARCHITECTURE PORTFOLIO

ERIK BABAKHANI

2016 - 2020



I'm Erik,

My name is Erik Babakhani, I am Armenian born in Iran and moved to Los Angeles in 2013. Since childhood, my dream was to be an architect. I was constantly drawing and sketching buildings and houses. My goal is to achieve my dream to become an architect.

Skills:

AUTODESK® REVIT®
SketchUp
Adobe Photoshop
Twinmotion
AUTODESK® AUTOCAD®
Rhinoceros® modeling tools for designers
Adobe Lightroom
Java
Laser Cut
3D Printer
Building Model

Achievements/Education:

Glendale Community College - IGETC* Graduate Degree - 2020

Glendale Tech Week - Project Exhibitions - 2018

Glendale Community College - Scholarship - 2017

* The Intersegmental General Education Transfer Curriculum (IGETC) is an educational plan for California community college students designed to facilitate transferring to a four-year public university. Public universities include all UC and CSU schools.

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CURUTCHET HOUSE
RESIDENTIAL CASE STUDY

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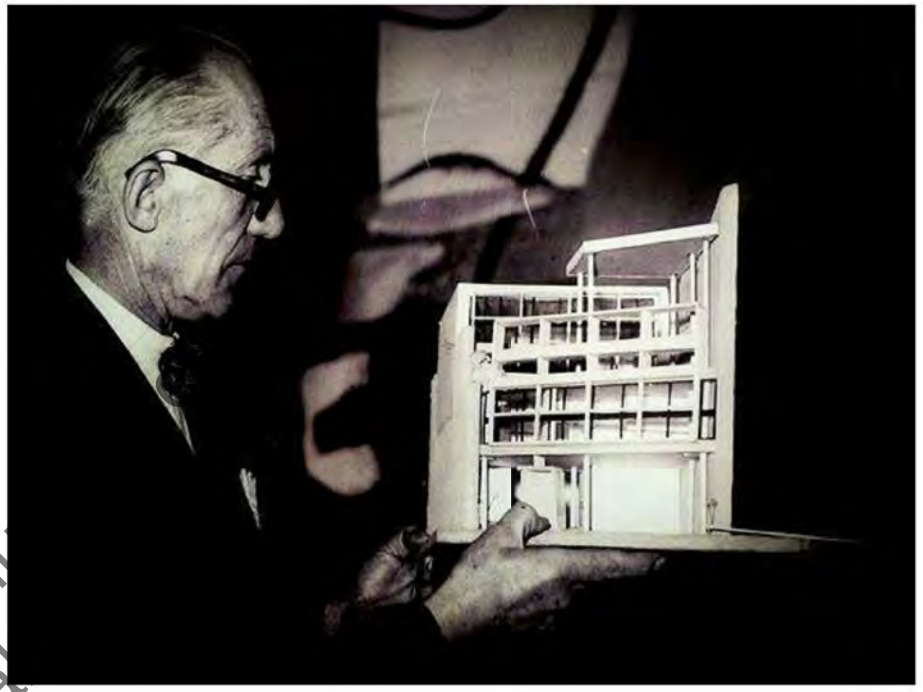
RESIDENTIAL CASE STUDY

In this course, I was assigned to study and analyze the Curutchet House, one of Le Corbusier's well-known projects.

Le Corbusier developed a set of architectural principles that dictated his technique, which he called "the Five Points of a Architecture" and the building has used these principles.

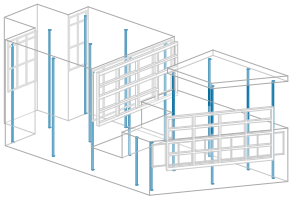
The house is located in La Plata, Argentina, the owner was a surgeon, and had his office and residence in one building.



Le Corbusier, holding the model of Curutchet House.

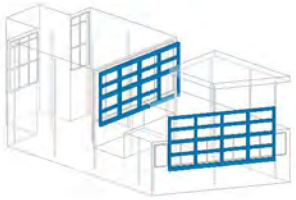
DEFINING THE FIVE POINTS OF LE CORBUSIER ARCHITECTURE:

1. The Piloti
2. The Free Plan / Open Floor Plan
3. The Free Façade
4. The Long Horizontal Windows
5. The Roof Garden

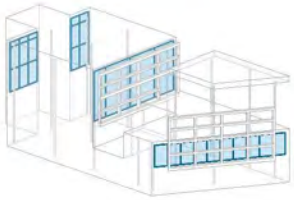


1. The building is supported by columns only. This means there is no wall on ground level and it can be used as an open/public space.

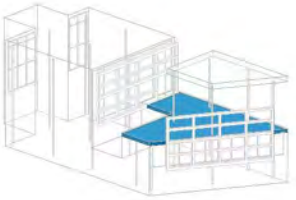
2. The Free Plan - The absence of supporting walls - means the house is unrestrained in its internal division of spaces.



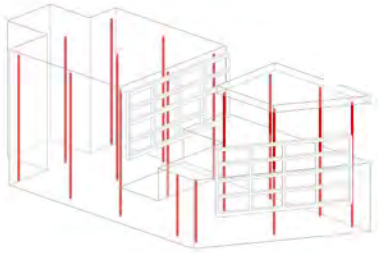
3. Since the floors are supported by column and not load bearing walls, the architect can have opening anywhere on the façade.



4. The Windows which cuts the façade along its entire length, lights rooms equally.



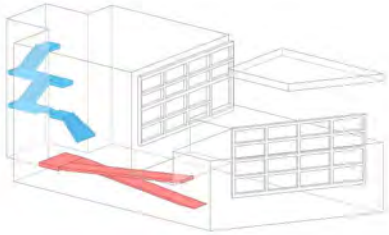
5. The Roof Garden serves for domestic purposes while providing essential protection to the concrete roof.



STRUCTURE DIAGRAM

Columns

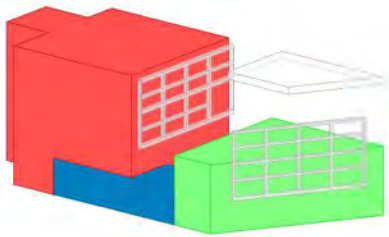
Columns and floors are the only supporting element of the entire building.



CIRCULATION DIAGRAM

Ramps

Stairs



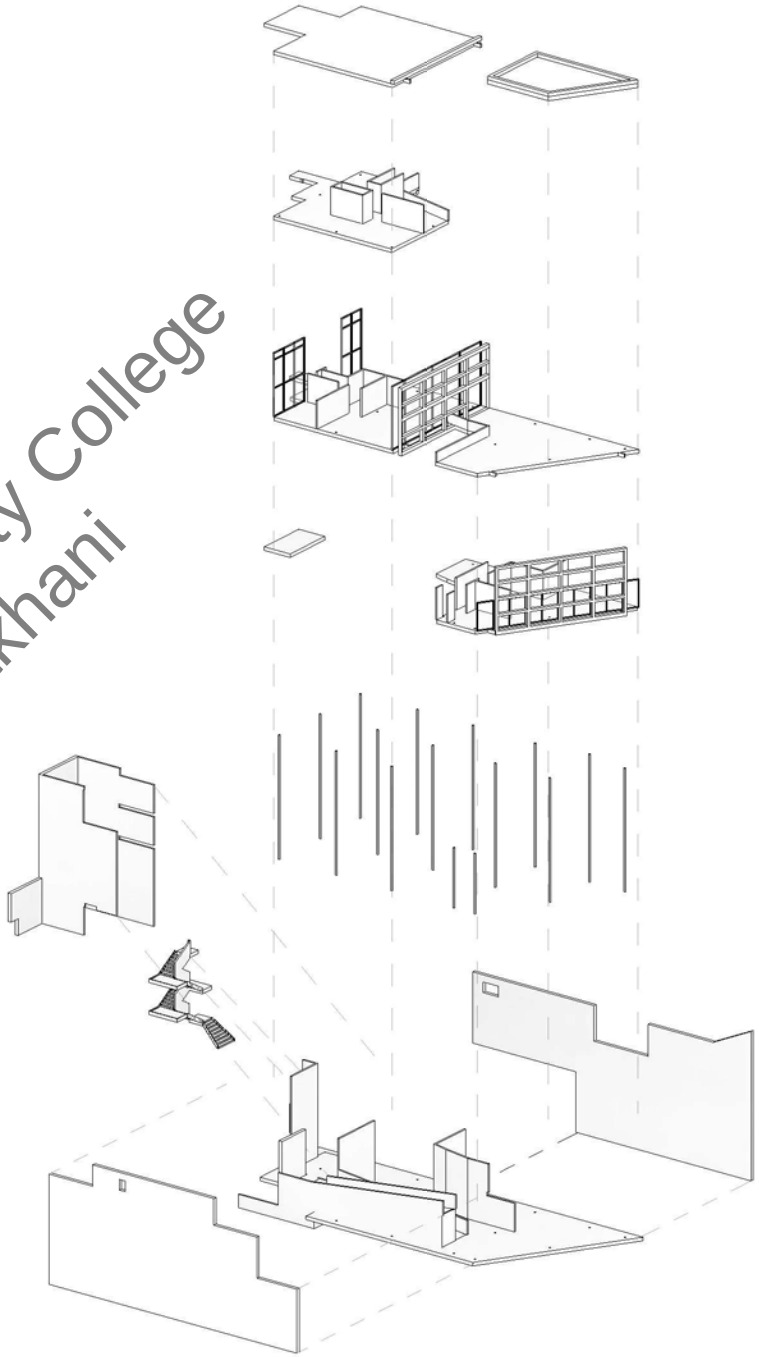
PROGRAM DIAGRAM

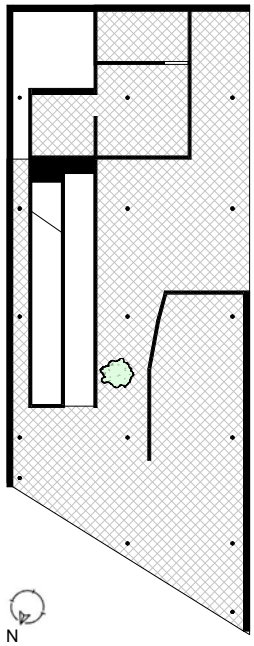
Private (Resident)

Public (Surgeon Office)

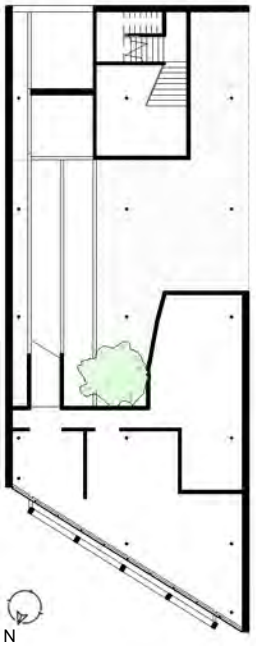
Ramp (Connection of the Two Programs)

Since the owner is a surgeon, the concept of the building is divided into two building and ramp is the connection between the two segments.

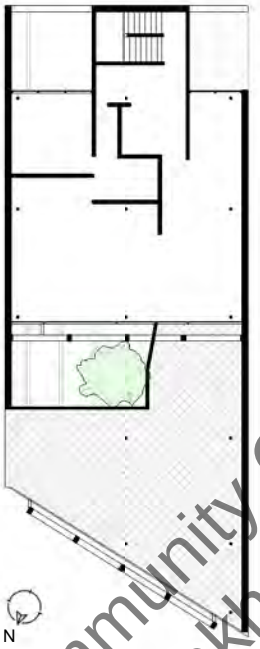




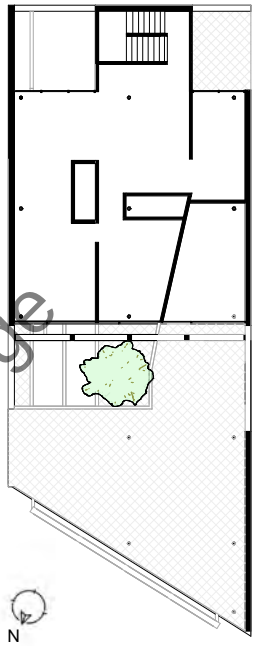
1st FLOOR
Scale: 1/32" = 1'-0"



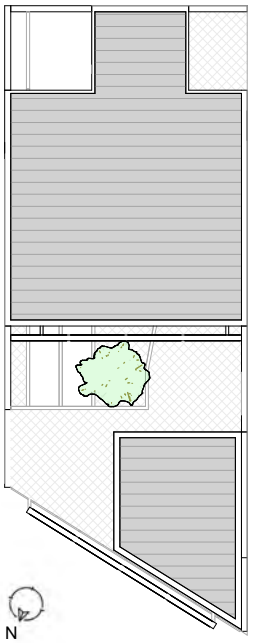
2nd FLOOR
Scale: 1/32" = 1'-0"



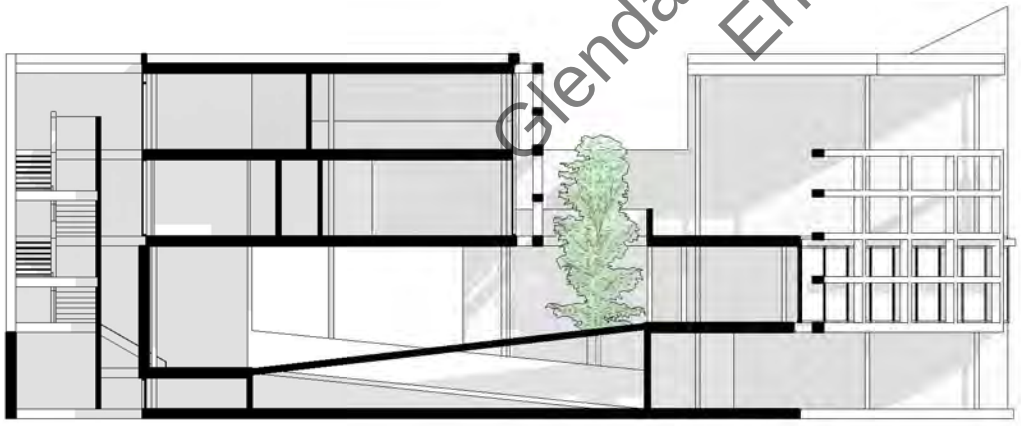
3rd FLOOR
Scale: 1/32" = 1'-0"



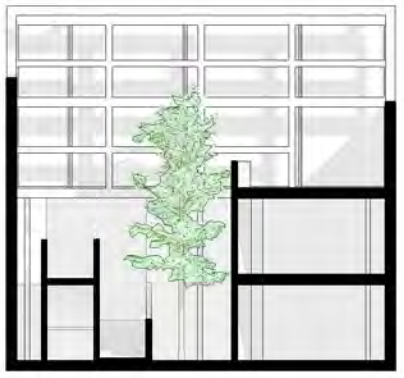
4th FLOOR
Scale: 1/32" = 1'-0"



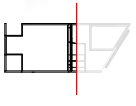
SITE VIEW
Scale: 1/32" = 1'-0"

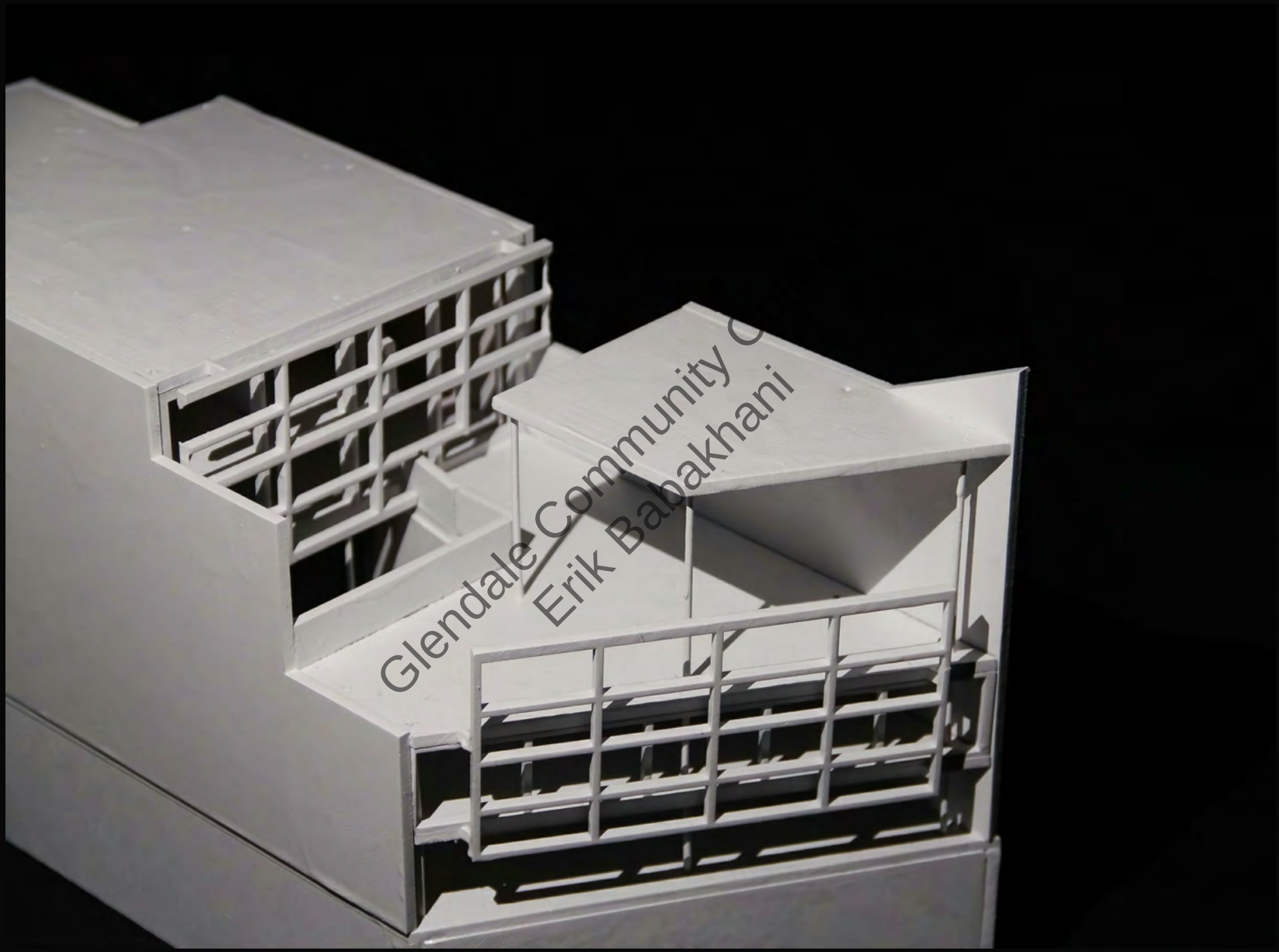


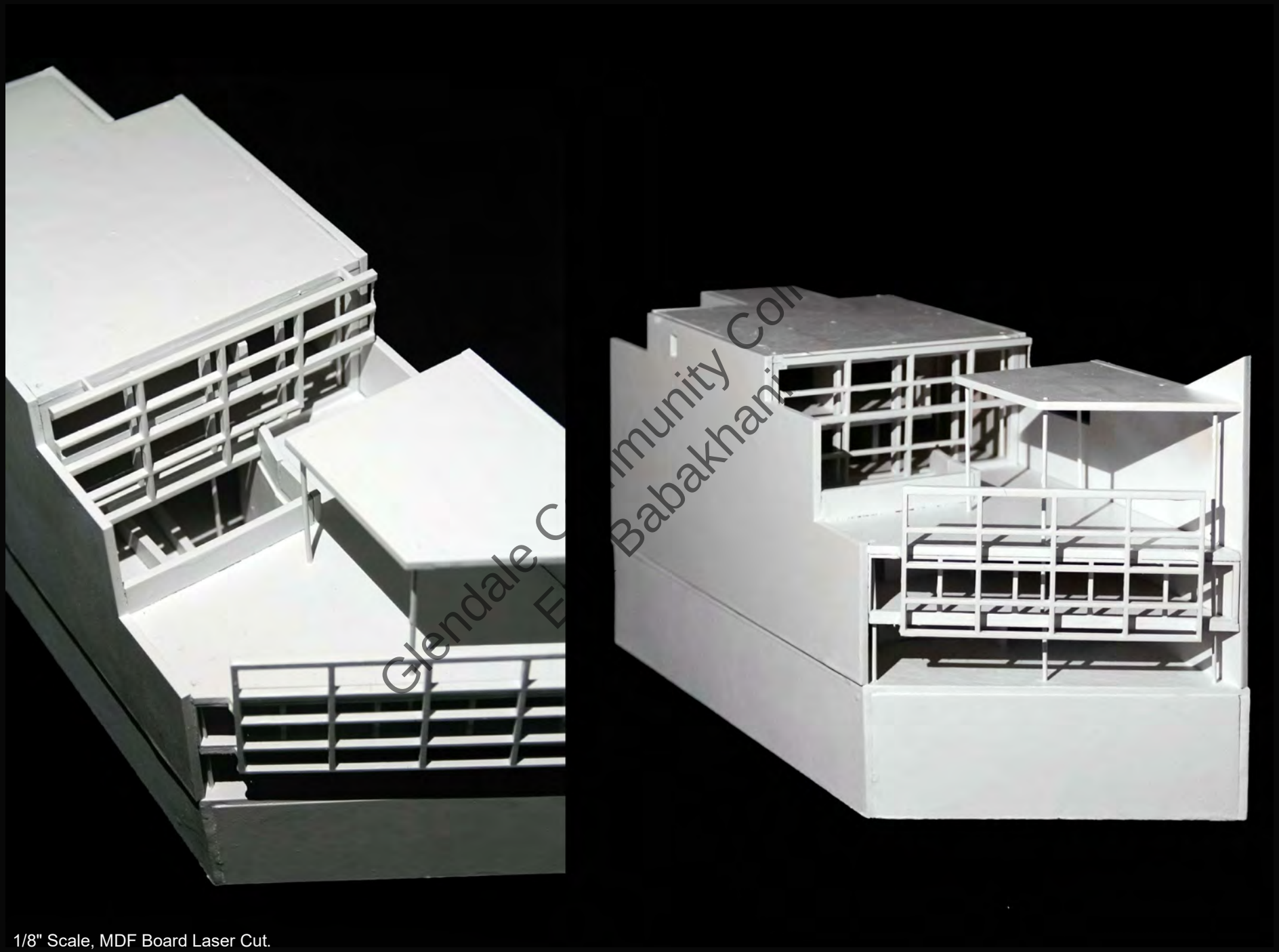
LONGITUDINAL SECTION
Scale: 3/64" = 1'-0"



TRANSVERSAL SECTION
Scale: 3/64" = 1'-0"




Glendale Community C
Erik Babakhani



1/8" Scale, MDF Board Laser Cut.

ARCH 120

AEROSPACE ENGINEER'S RESIDENCE

AEROSPACE ENGINEER'S RESIDENCE

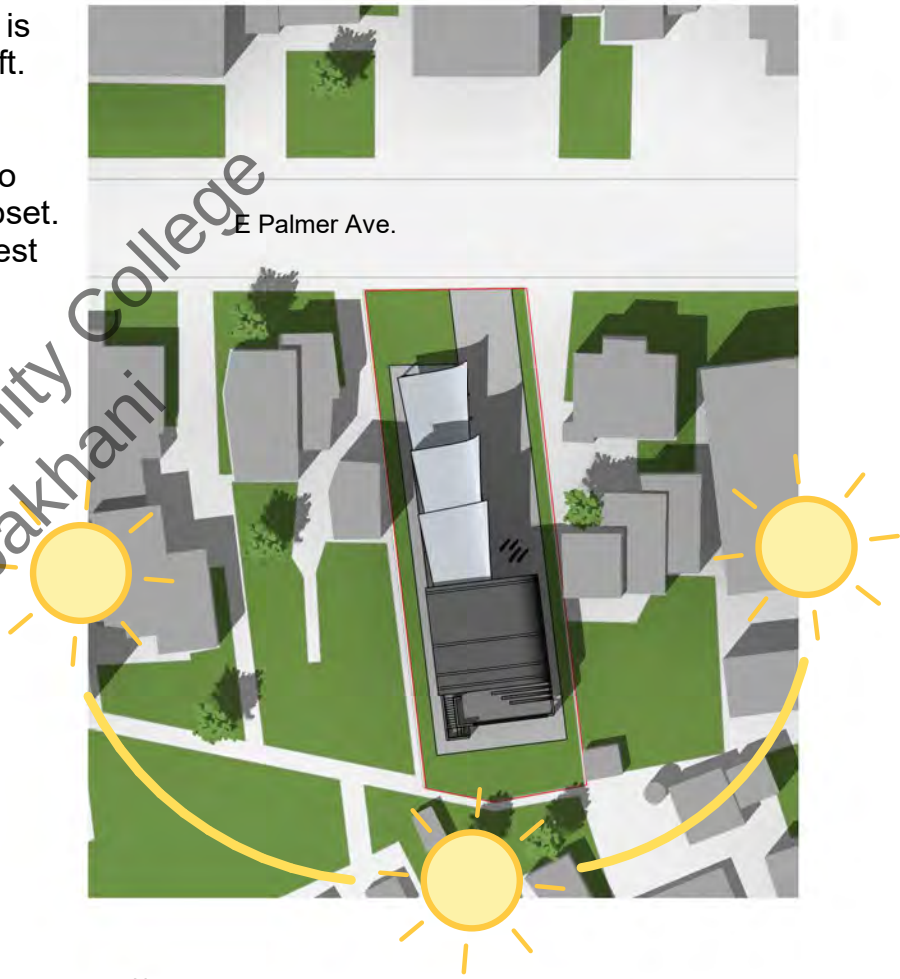
This house is designed for an Aerospace Engineer. The concept is to use the curve and circular walls to mimic the engine of an aircraft. the curved walls are covered by wing shape elements.

Open space living in room/kitchen/family room, means there is no boundary between spaces. Three bedrooms with bathroom and closet. Patio and deck with view of sky and nature and hills (Glendale Forest Lawn Memorial).

Requirements For 9082 Sq. ft.

- 2 Bedroom with Bath/Closet
- 1 Master Bedroom with Master Bath/Closet
- 1/2 Bathroom
- Living Room
- Family Room
- Kitchen
- Dining Room
- Home Office/Den

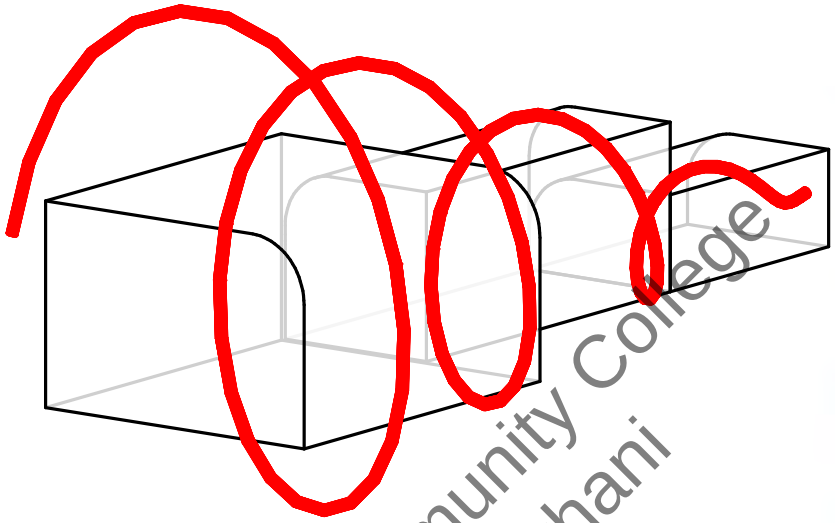
Site location:
708 E Palmer Ave. Glendale, CA - 91205



Site Plan with Sun Path Diagram
Scale: 1/64" = 1' -0"

The building is divided into three sections. These three sections are in different sizes: Big, Medium, and Small.

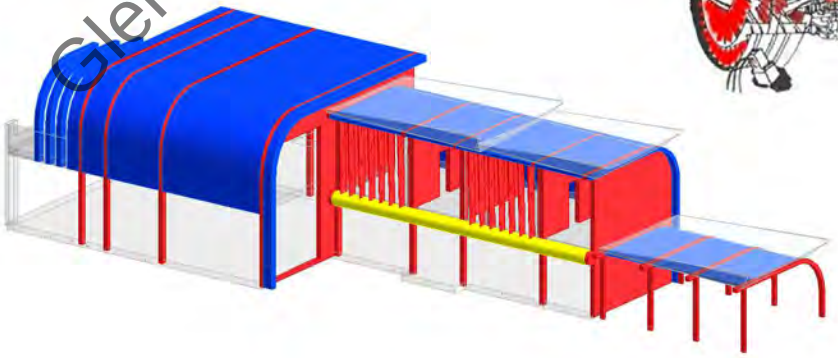
While plane flying in the air, the atmosphere creates a form behind the aircraft as it passes through the air, the process is called "Wake Turbulence". It creates spiral shape and the concept of size of the building represents the Wake Turbulence.

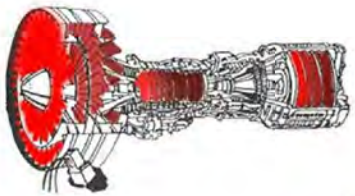


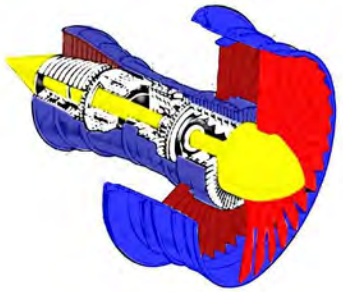
Another reason for the building to be curve and round is that the aircraft's turbine is round.

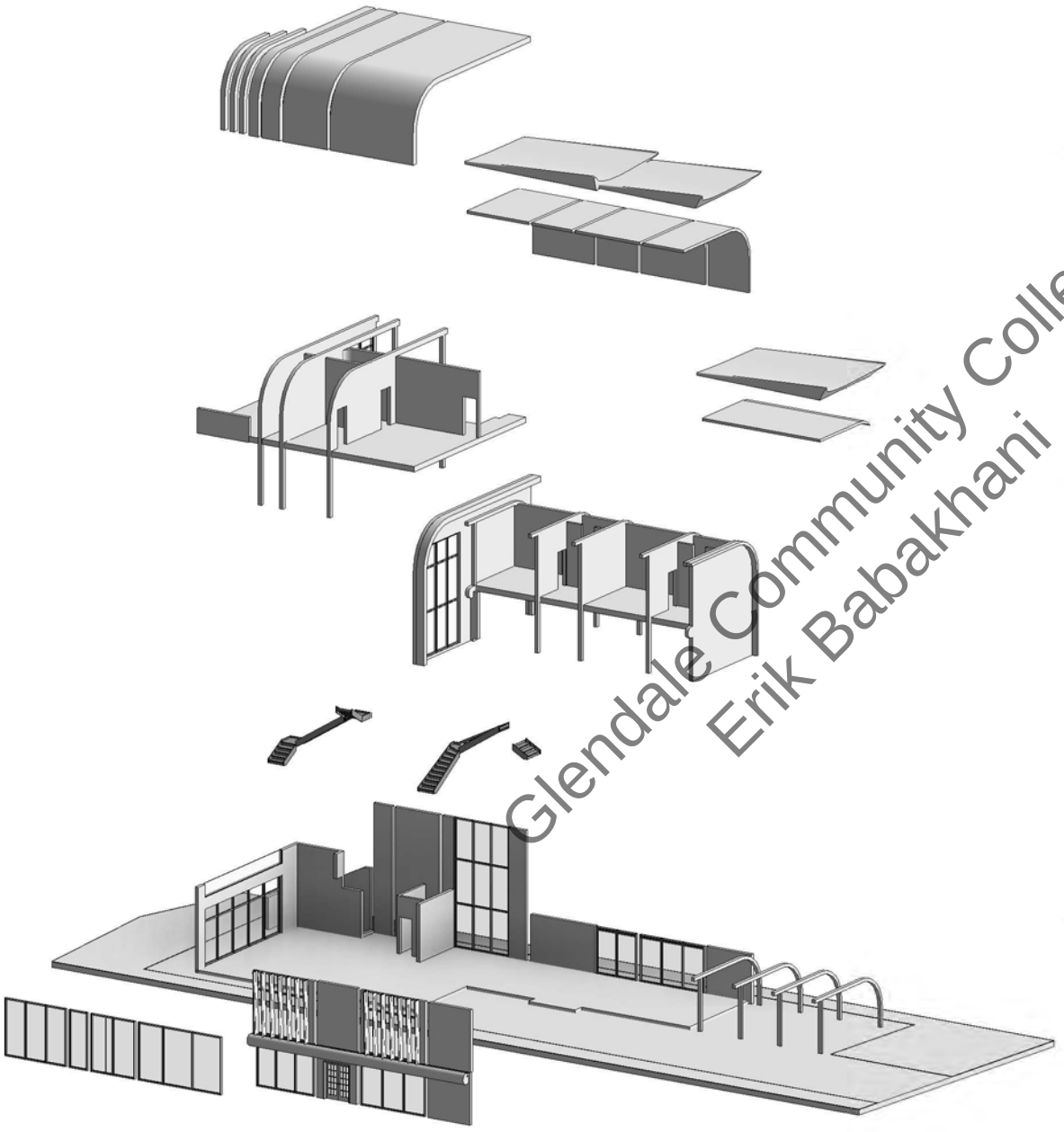
The curve shape of the entire building represents the round shape of turbine covered with the wing of an aircraft. (Blue)

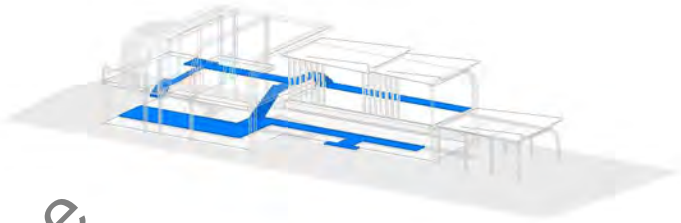
Blades inside the turbine represent the walls which support the whole structure. (Red)





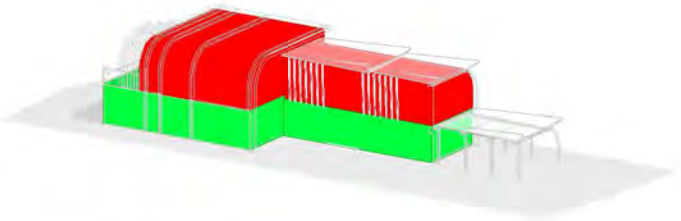






CIRCULATION DIAGRAM

STRUCTURE DIAGRAM

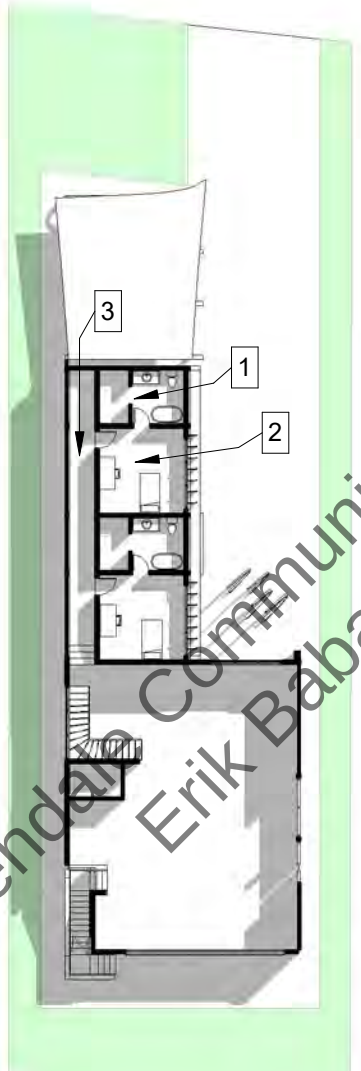


PROGRAM DIAGRAM

Private Public

1st FLOOR
Scale: 1" = 30'-0"

1. Drive/Walk Way
2. 3 Parking Spaces
3. Family Room
4. Kitchen/Dinning
5. Powder Room
6. Living Room
7. Patio

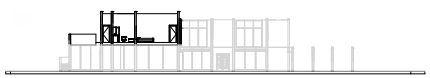


1/2 FLOOR
Scale: 1" = 30'-0"

1. Bath/Closet
2. Bedroom
3. Walkway

2nd Floor
Scale: 1" = 30'-0"

1. Master Bedroom
2. Master Bath/Closet
3. Office/Den
4. Laundry
5. Deck/Balcony

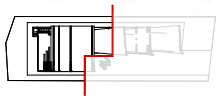


EAST ELEVATION / SECTION

Scale: 1" = 20'-0"

NORTH ELEVATION / SECTION

Scale: 1" = 20'-0"



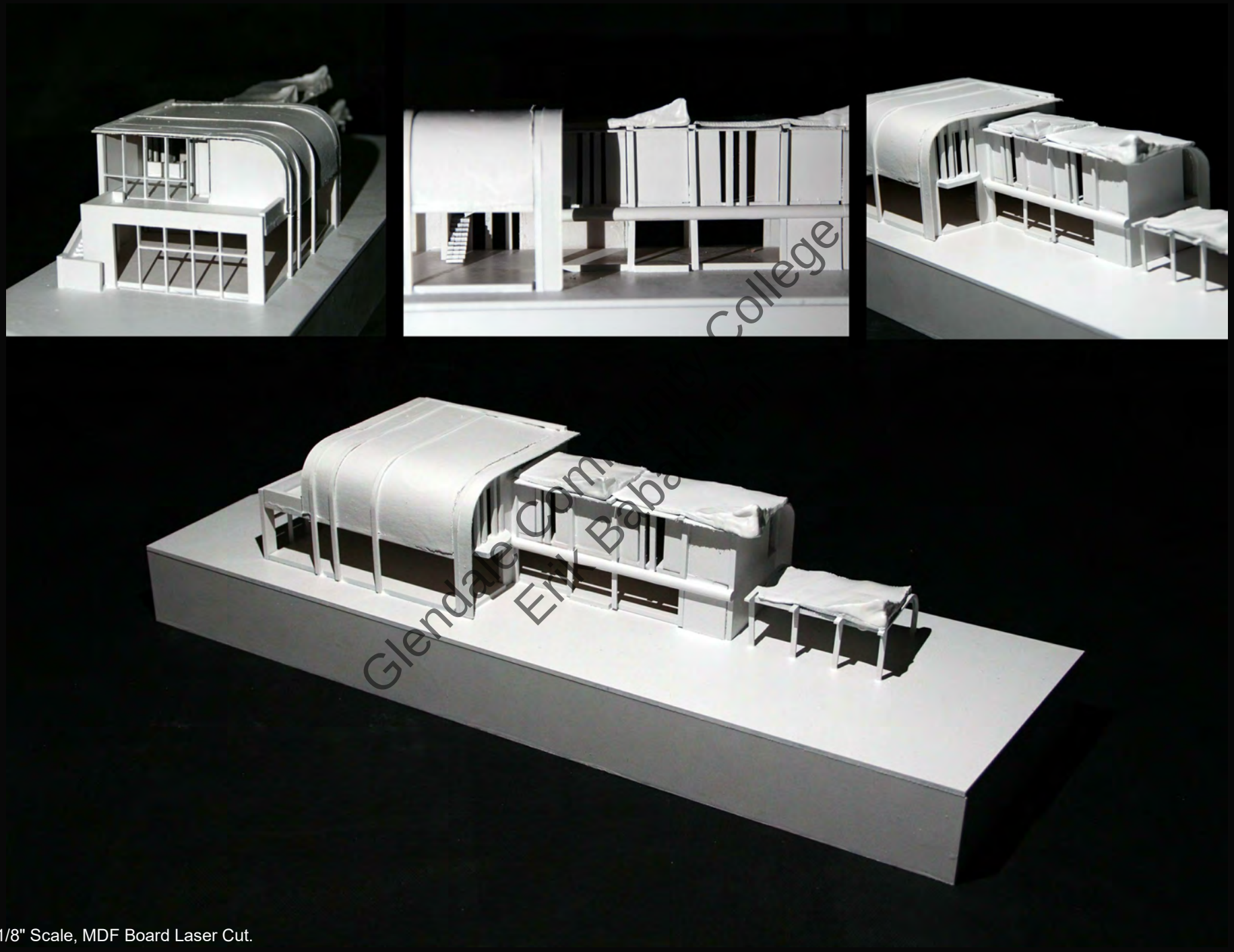
EAST ELEVATION (RENDERING)

NORTH ELEVATION (RENDERING)

WEST ELEVATION (RENDERING)

SOUTH ELEVATION (RENDERING)

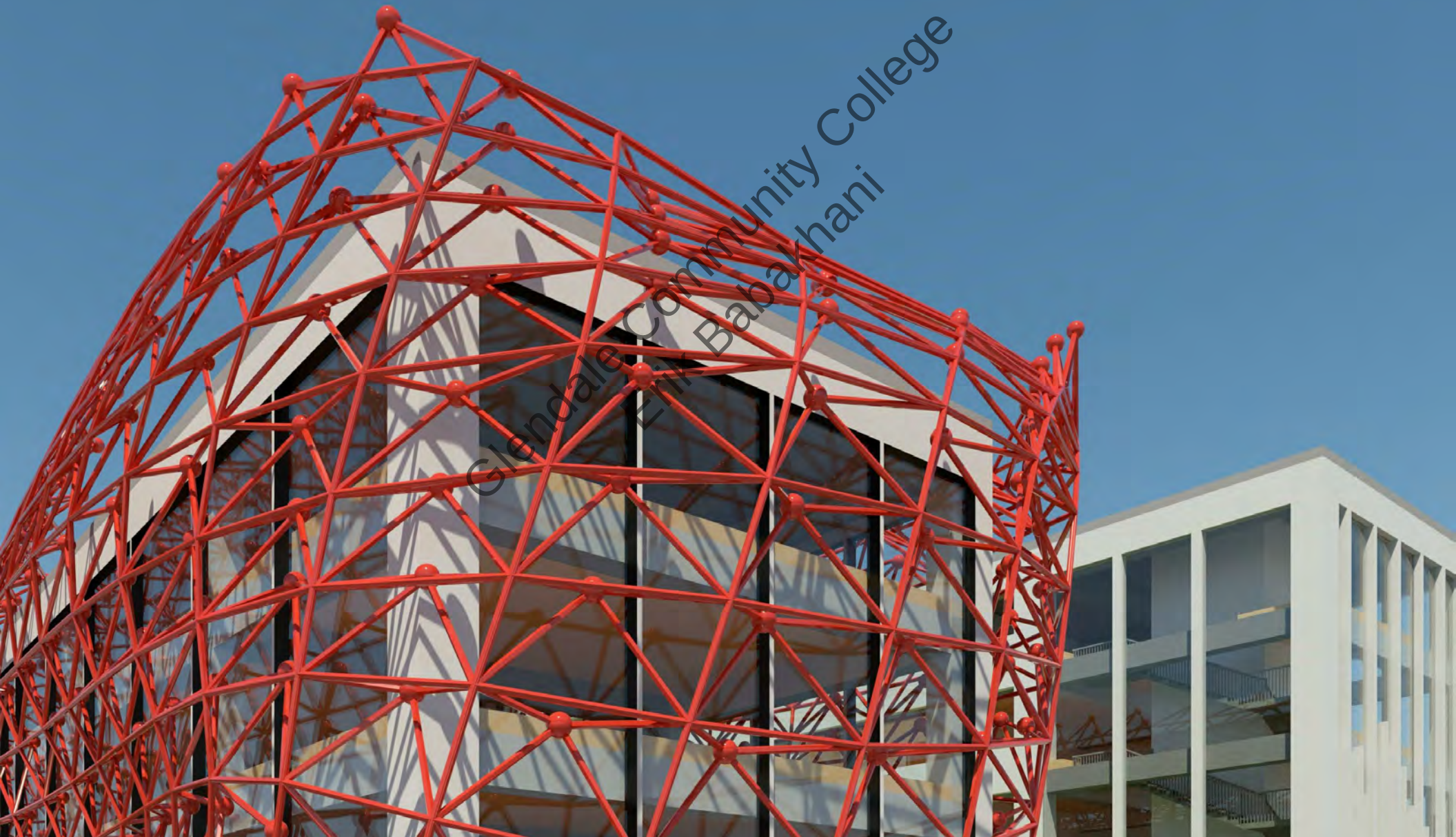

Glendale Community College
Erik Babakhani



1/8" Scale, MDF Board Laser Cut.

THREE BAR MIXED-USE CASE STUDY

ARCH 125

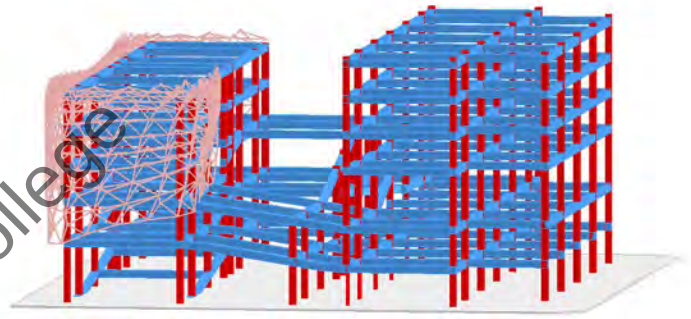


THREE BAR MIXED-USE CASE STUDY

In this case study with puzzled look floor plan, the student's responsibility was to make the project functional by analyzing and evaluating the floor plans.

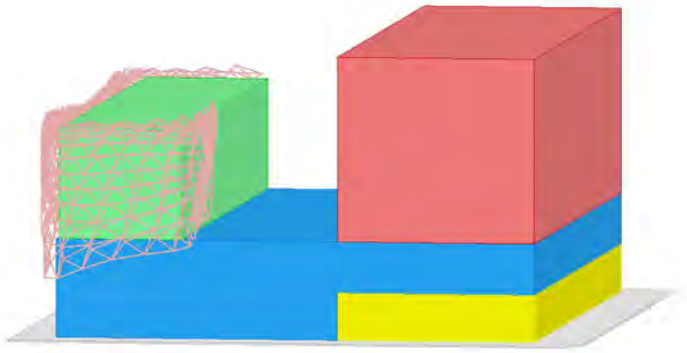
After the first case study, the next assignment was to blend with concept which means to build a building where it can be used for real life. I picked Internet network company named CISCO and turn the building into CISCO Campus, where internship/staff can live or stay in dorm and work at the same building.

How I blended the concept, since the CISCO is an Internet company, and the HQ is located in San Francisco, was tp design the patterns wrapped around the building as office section representing the Network Chains. The color is matched to Golden Gate Bridge.



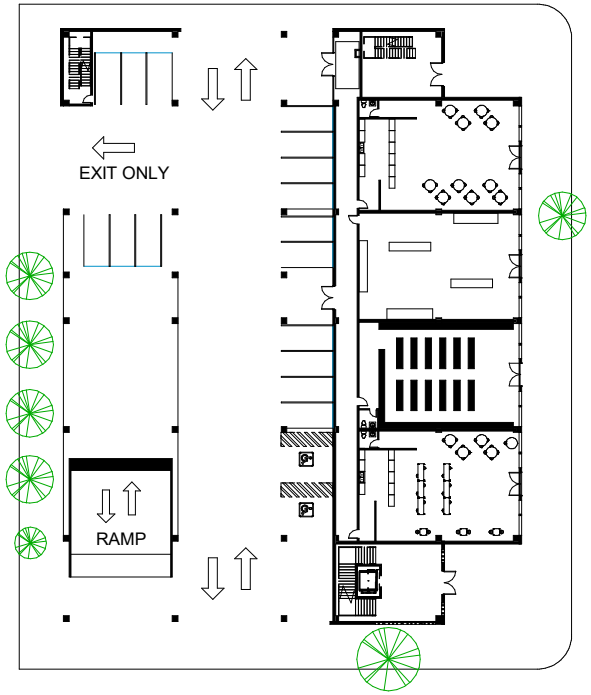
STRUCTURE DIAGRAM

Bim
Column



PROGRAM DIAGRAM

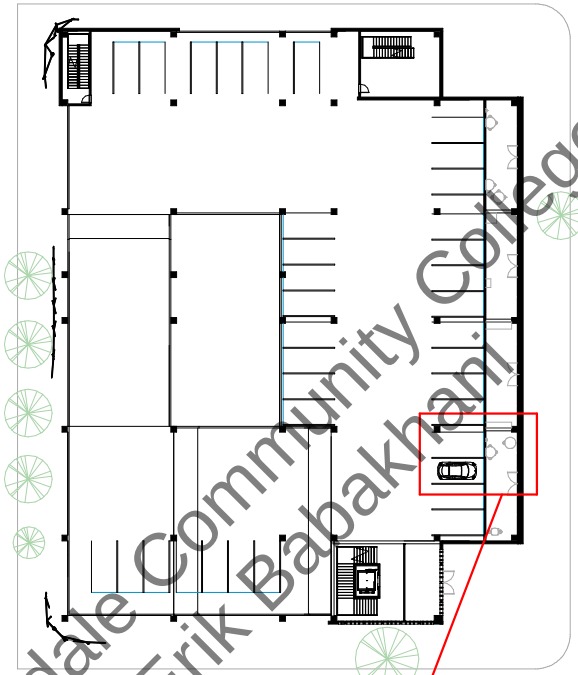
Retails
Parking
Dorm
Office



1st FLOOR

Retails/Food and Parking

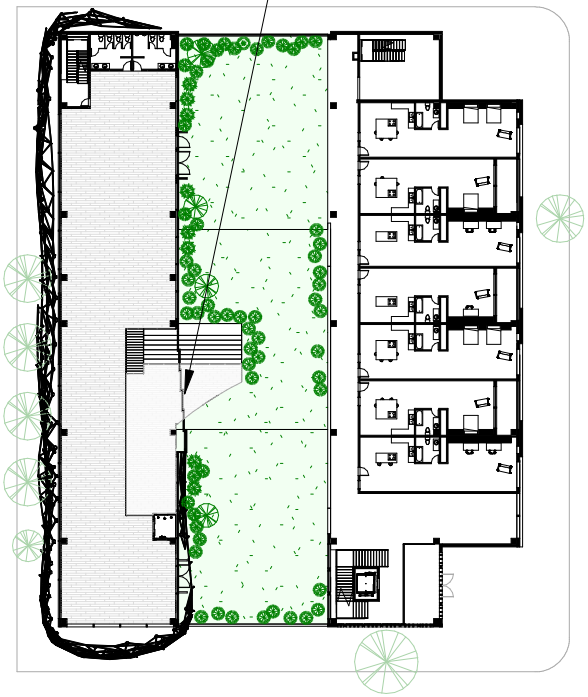
Scale: 1/67" = 1'-0"



2nd FLOOR

Parking

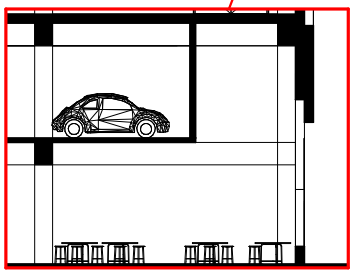
Scale: 1/67" = 1'-0"



3rd - 4th FLOOR

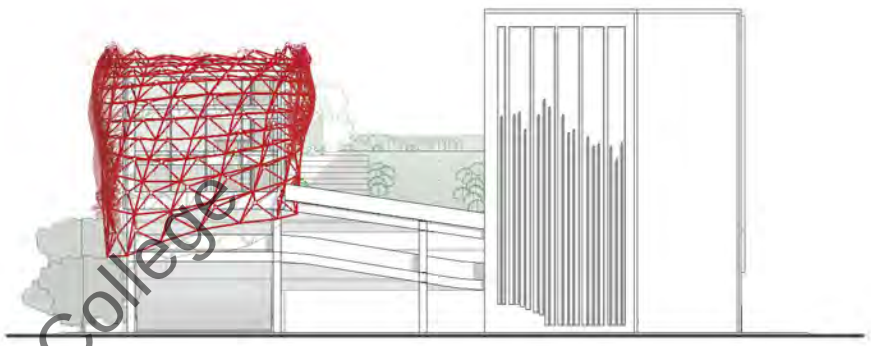
Dorms and Office

Scale: 1/67" = 1'-0"

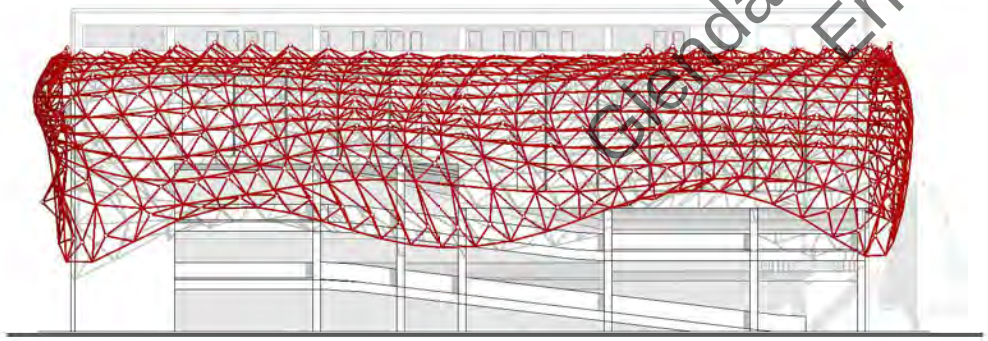


The 2nd floor is not connected to the exterior wall. As standing on 1st floor, you will see a double height ceiling, to give the sensation of a bigger and lighter space.

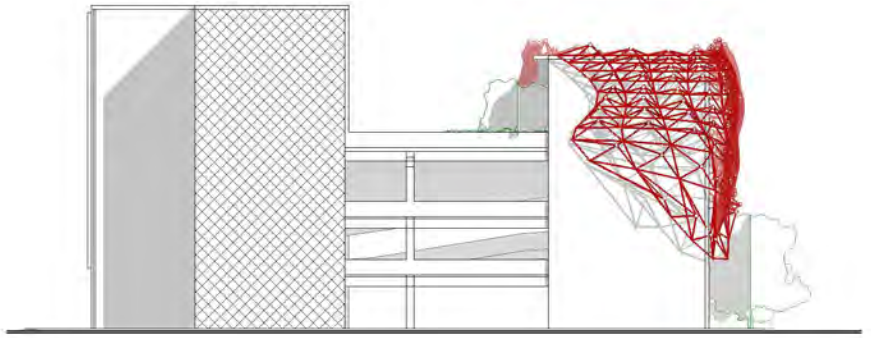
EAST ELEVATION
Scale: 1" = 50'-0"



SOUTH ELEVATION
Scale: 1" = 50'-0"



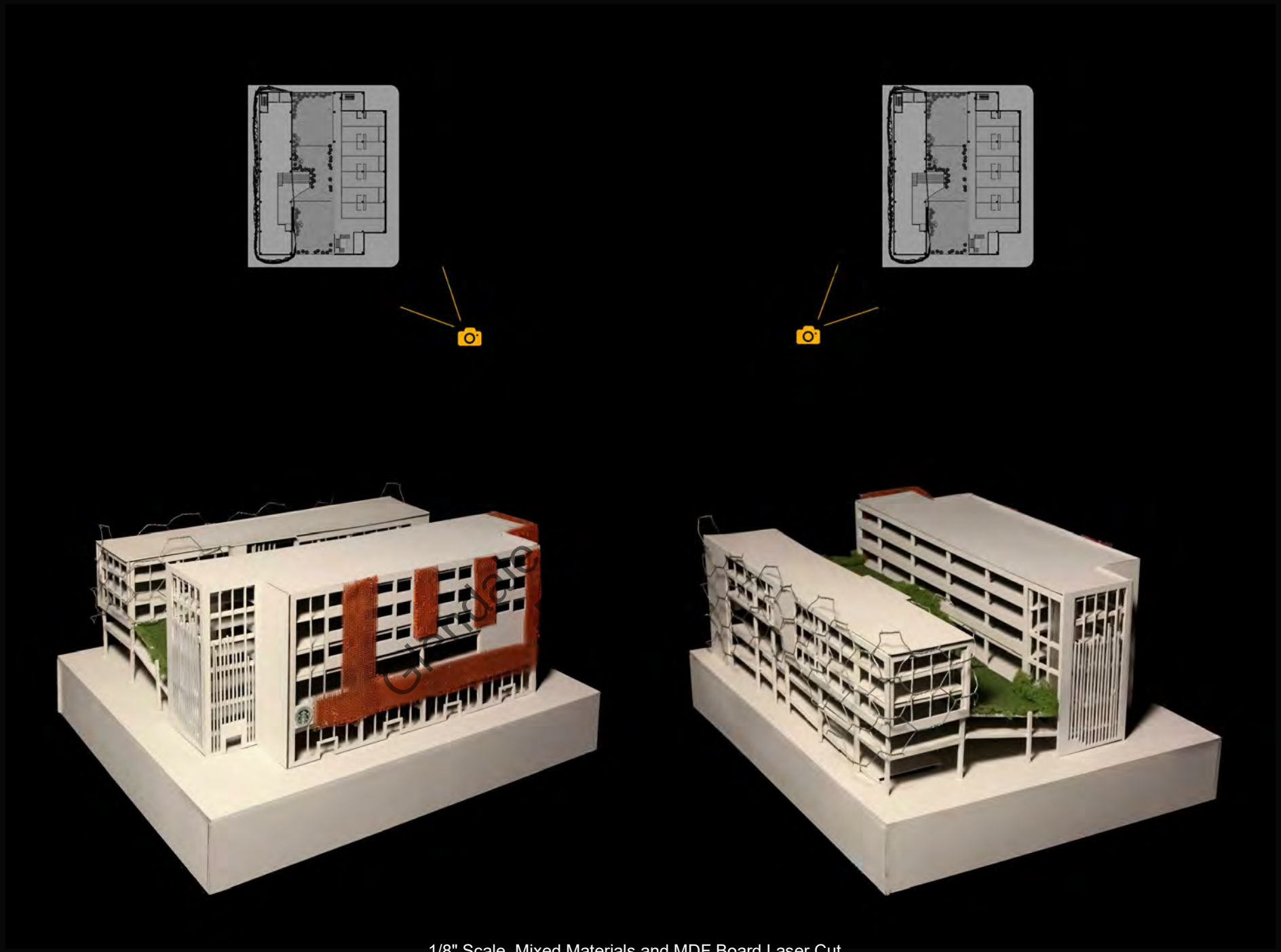
WEST ELEVATION
Scale: 1" = 50'-0"



NORTH ELEVATION
Scale: 1" = 50'-0"

Rendering

Model



1/8" Scale, Mixed Materials and MDF Board Laser Cut

MACARTHUR PARK MIXED-USE PROJECT

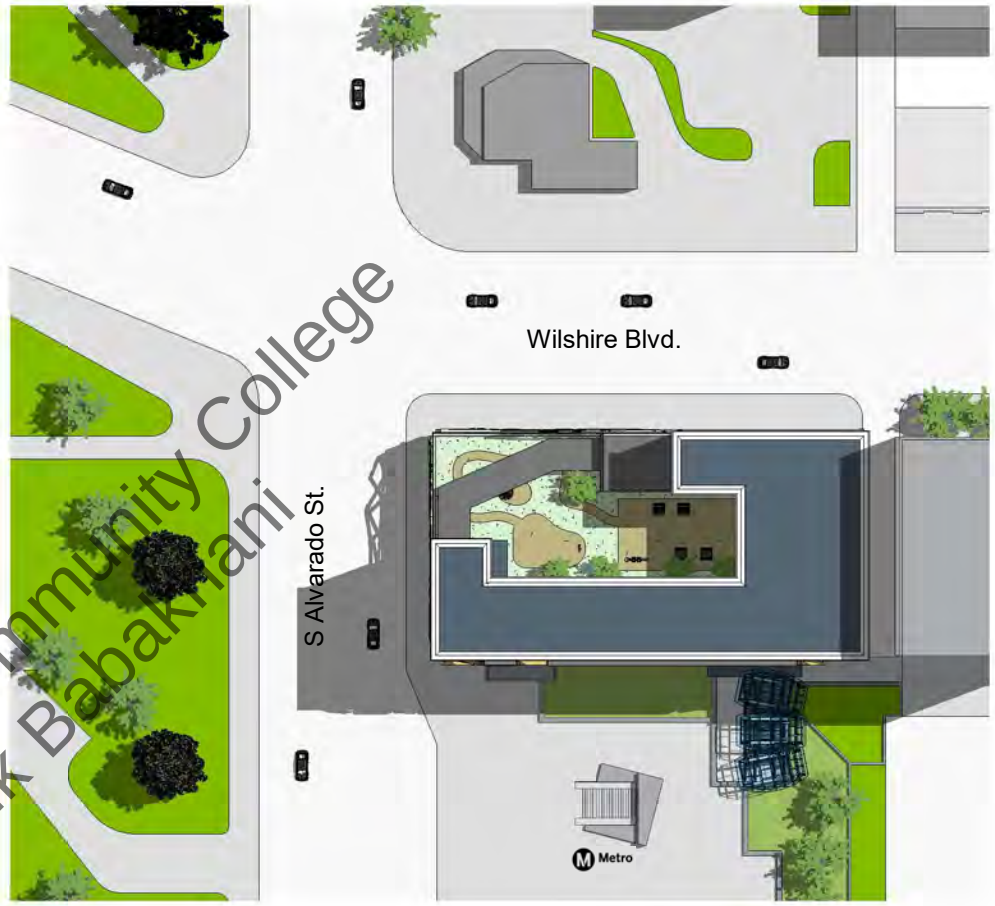
ARCH 135

MACARTHUR MIXED-USE PROJECT.

This complex project located on Wiltshire Blvd. in West Lake neighborhood, Los Angeles. It has connection to LA Metro (Westlake / MacArthur Park station. It has visual view to MacArthur Park and the finance district in Koreatown. The project has five programs in one building.

REQUIRED FIVE PROGRAMS:

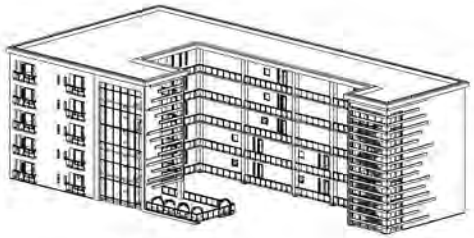
- Underground Public Parking
- Retails
- Community Center
- Child Day Care Center
- 25 Apartment units:
  - 10 One Bedroom Units
  - 15 Two Bedroom Units



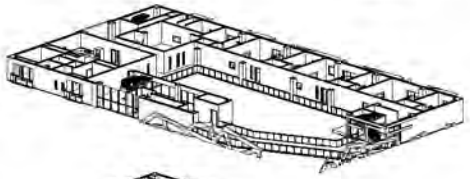
N

Site Plan View
Scale: 1" = 80' -0"

Site Location:
650 S Alvarado St, Los Angeles, CA 90057

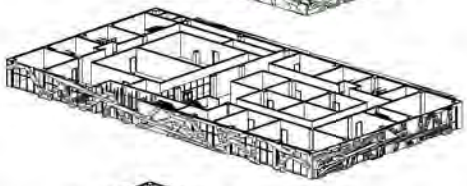


Level 6th - 9th
RESIDENTIAL

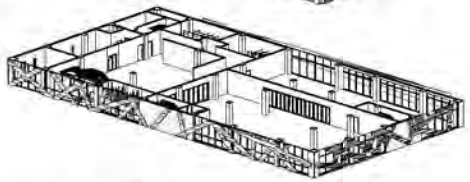


Level 5th
RESIDENTIAL

Level 4th
CHILD DAYCARE 2

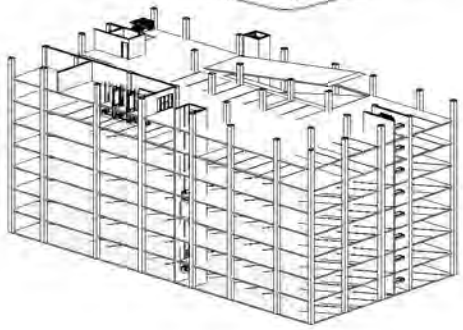


Level 3rd
COMMUNITY 2 / DAYCARE 1



Level 2nd
COMMUNITY CENTER 1

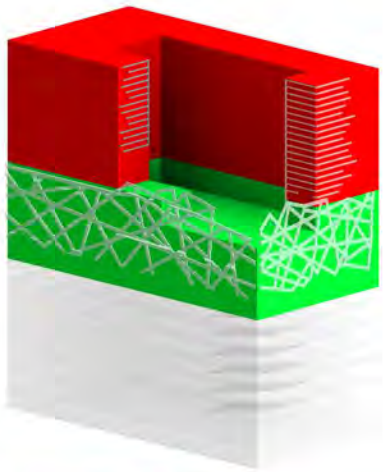
Level 1st
GROUND FLOOR / RETAILS



Level -1st - -8th
PARKING

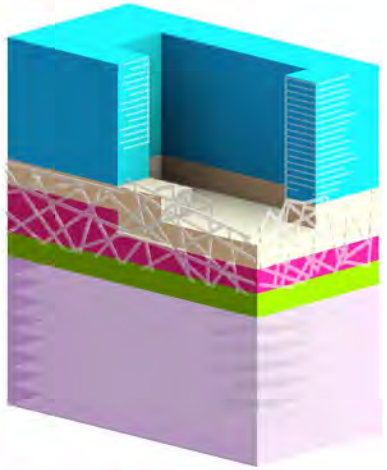
PROGRAM DIAGRAM

- Private
- Public



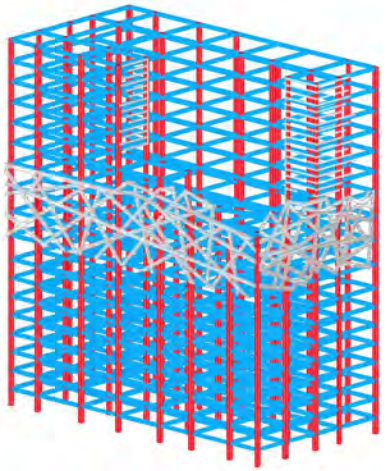
PROGRAM DIAGRAM

- Residential
- Child Daycare
- Community Center
- Retail
- Parking



STRUCTURE DIAGRAM

- Column
- Beam



Retails, Food, Restaurant

Small Business owners can have the opportunity to serve their local community.

Community Center

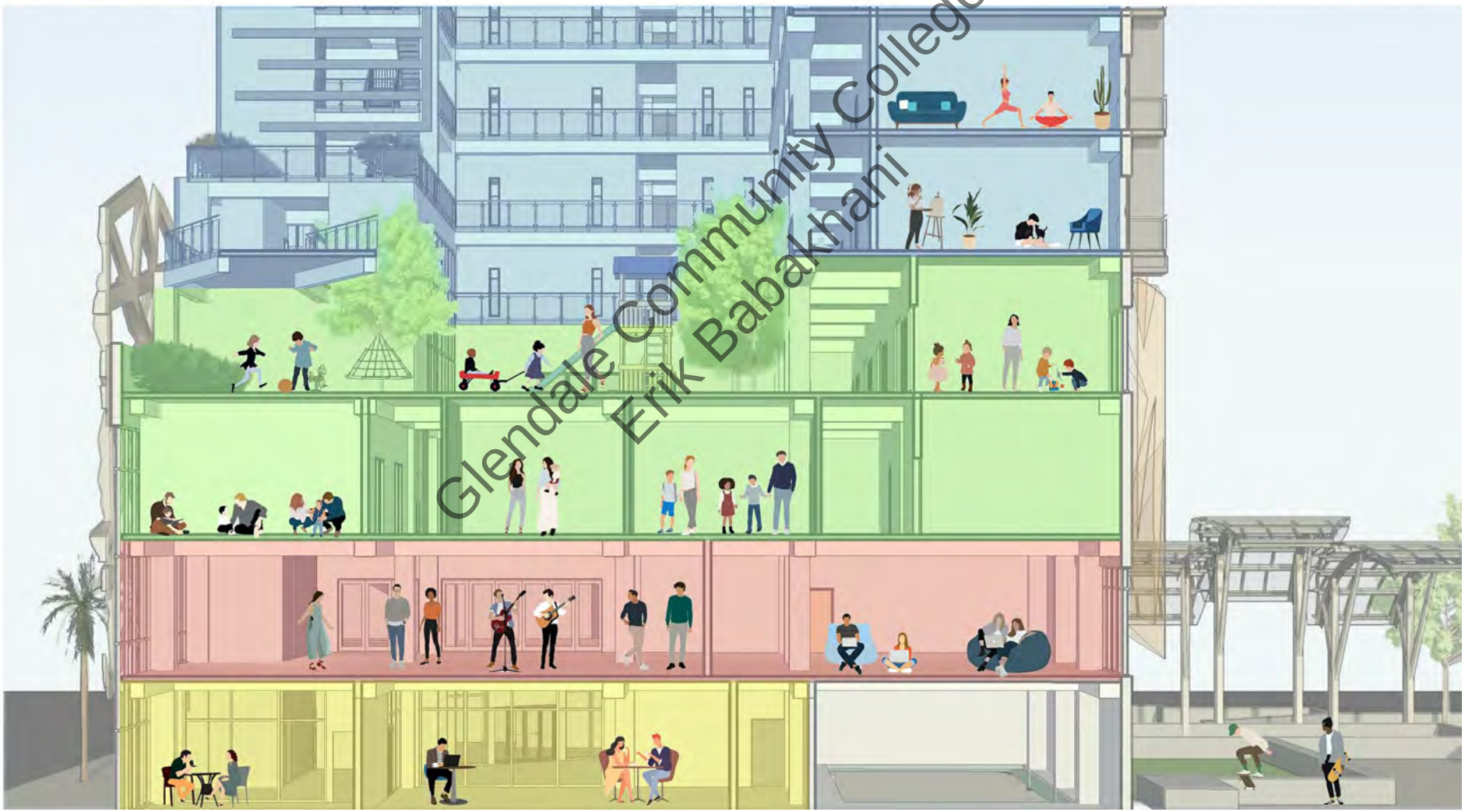
Community center is a public location where members of a community tend to gather for group activities, social support, public information, and so on.

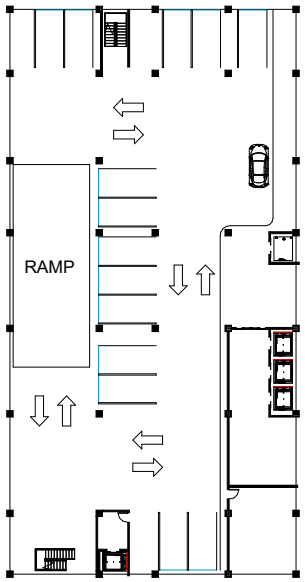
Child Daycare

They can provide and help children to develop skills they need for success in school and in their lives while their parents can have full time jobs.

Housing

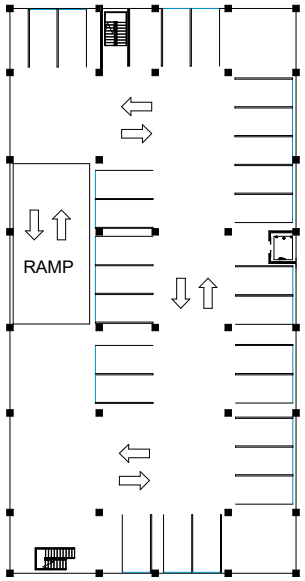
Where people of all ages, sexes, races can live and feel like a home and stay safe.





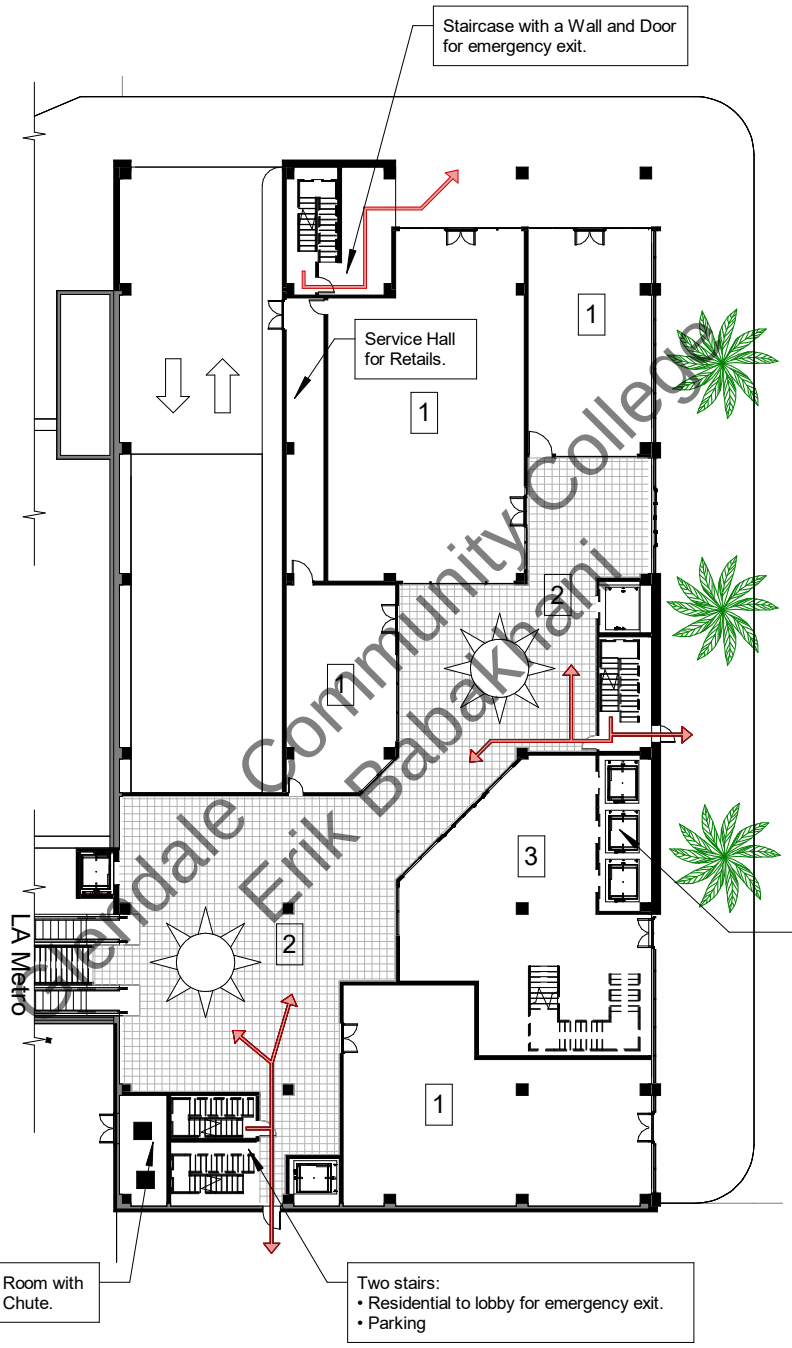
LEVEL -1 (DROP OFF/PARKING)

Scale: 1" = 60'-0"



LEVEL -2 TO -8 (PARKING)

Scale: 1" = 60'-0"



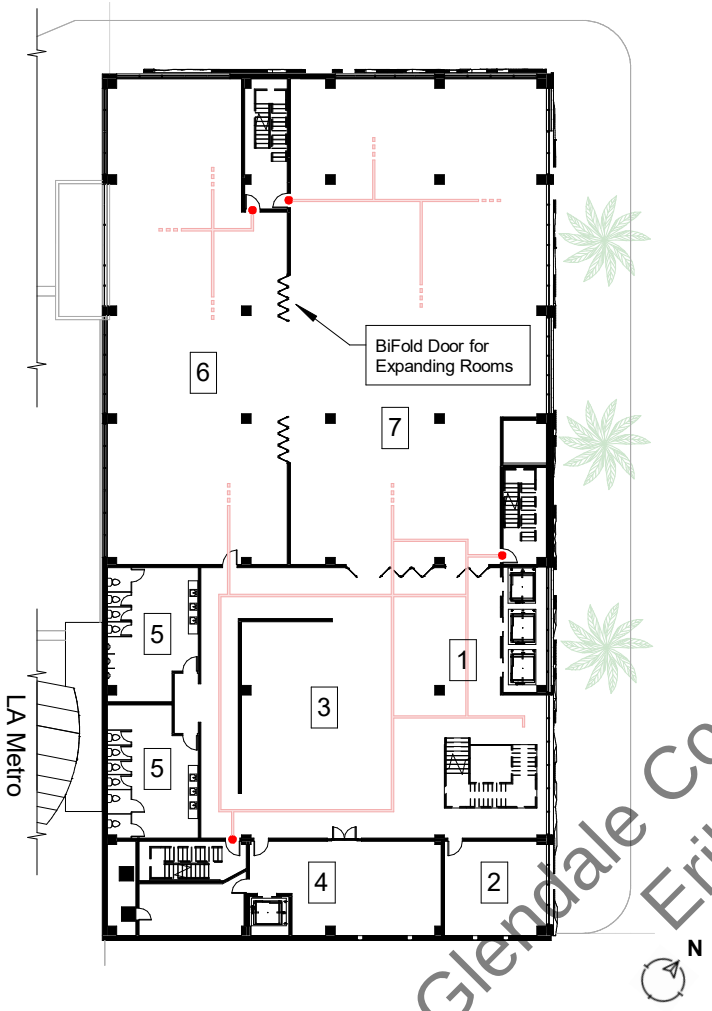
GROUND FLOOR (MAIN FLOOR)

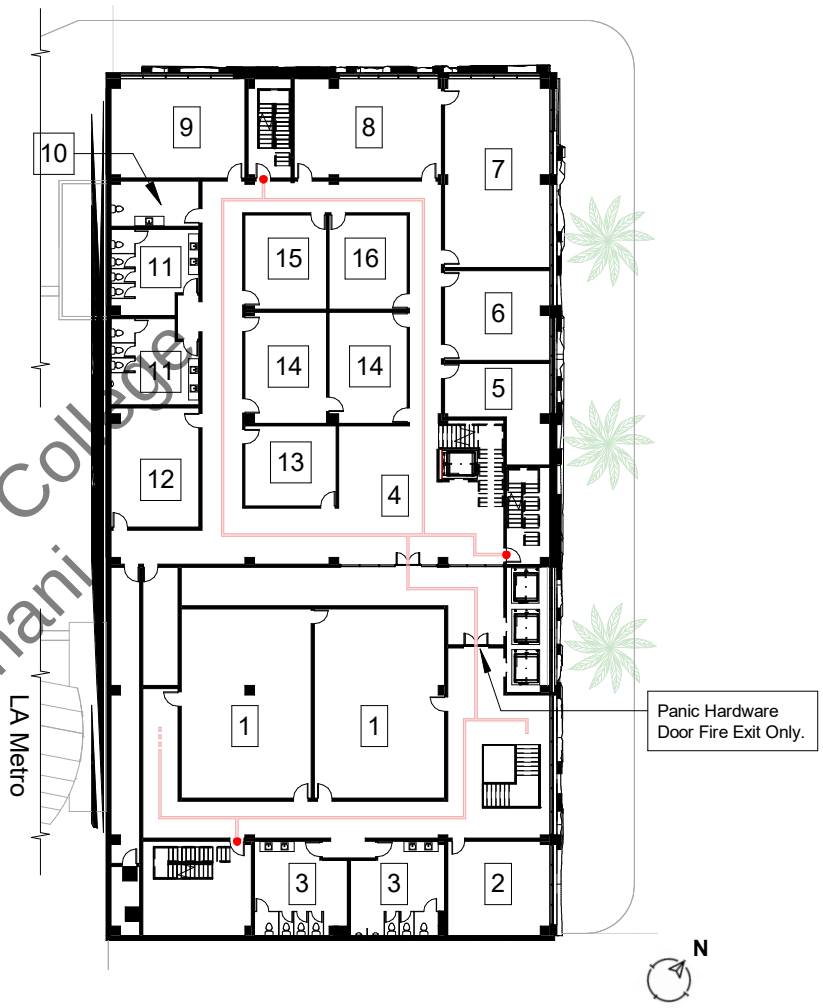
Scale: 1/33" = 1'-0"

1. Retail/Cafe
2. Hallway
3. Main Entrance to Lobby

N

RED DOTS ON DOORS AND PATHWAYS MEANS EMERGENCY EXIT ONLY.





2nd FLOOR (COMMUNITY CENTER - 1)

Scale: 1" = 40'-0"

1. Entry Lobby
2. Office for Administration
3. Open Space Dinning
4. Kitchen with Exit to Service Elevator
5. Restrooms
6. Bar/Gallery/Pre-function Area
7. Indoor Assembly Space

3rd FLOOR (COMMUNITY CENTER - 2 /CHILD DAYCARE CENTER - 1)

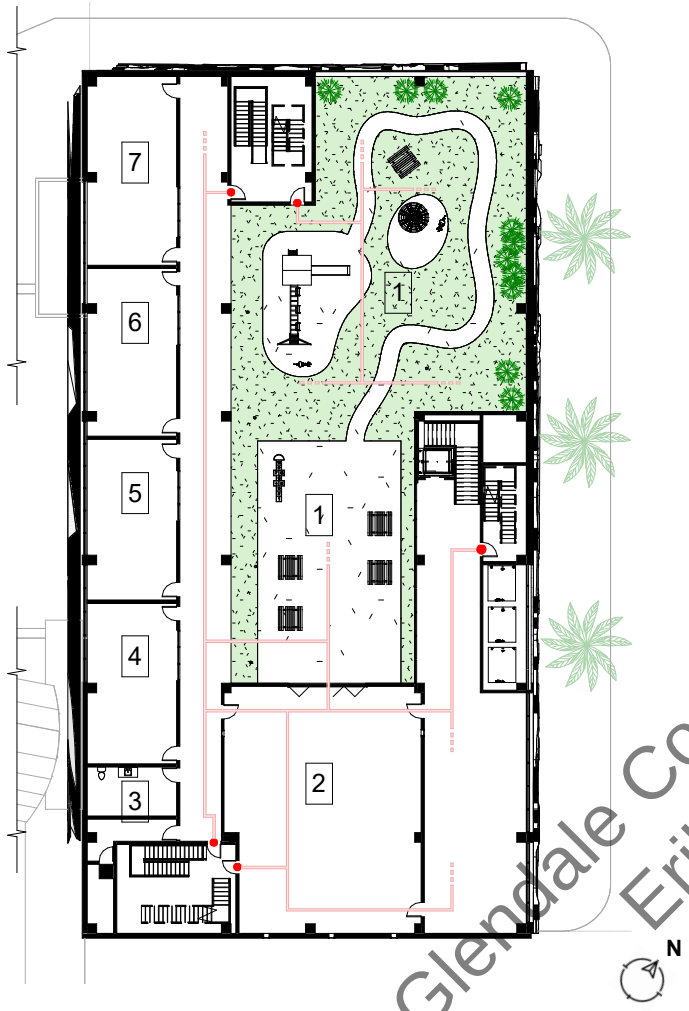
Scale: 1" = 40'-0"

COMMUNITY CENTER

1. Meeting Room
2. Office
3. Restrooms

CHILD DAYCARE

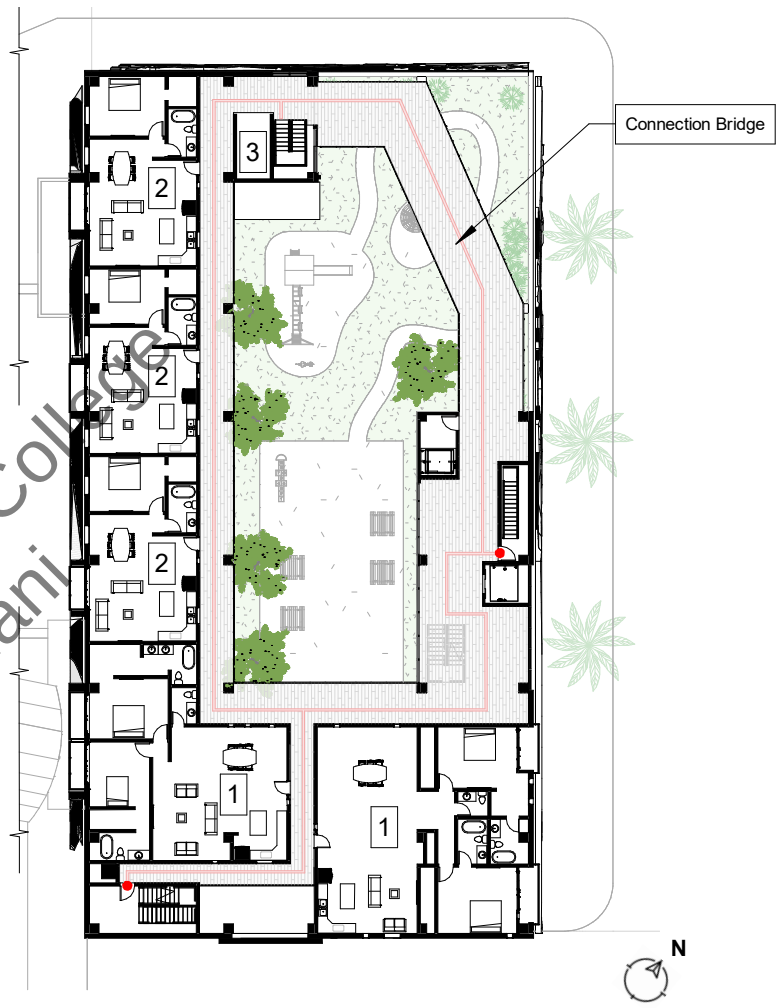
4. Welcome Center
5. Director's Office
6. Staff Office
7. Infants Classroom
8. Toddlers Classroom
9. Storage
10. Unisex Restroom
11. Restrooms
12. Sick Bay
13. Parents
14. Conference Rooms
15. Lounge
16. Staff Lounge



4th FLOOR (CHILD DAYCARE CENTER - 2)

Scale: 1" = 40'-0"

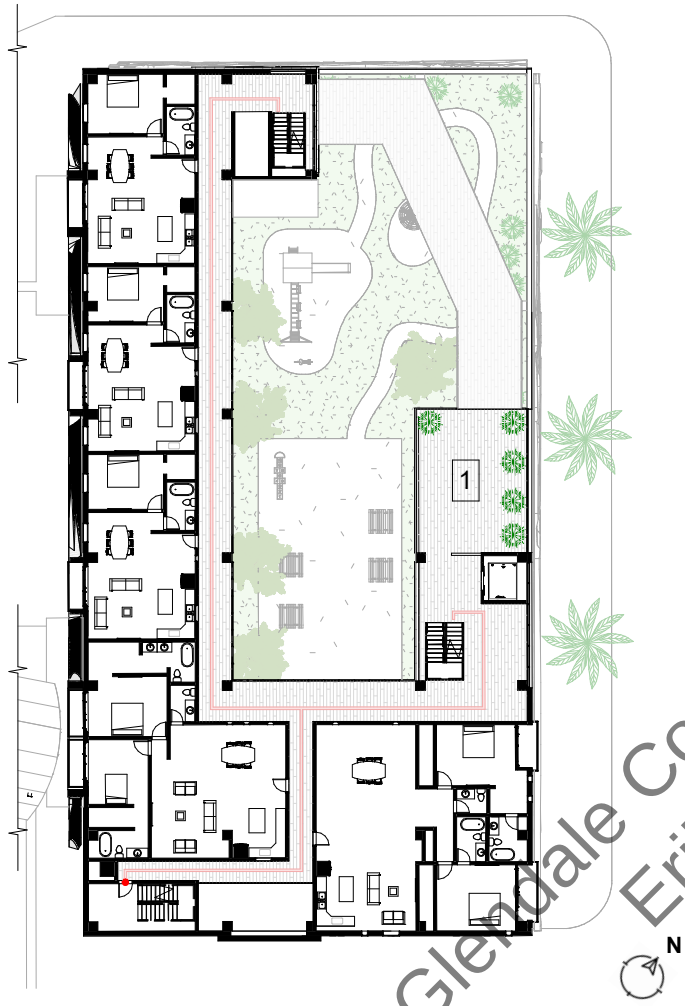
1. Outdoor Play Area
2. Indoor Play Area
3. Unisex Restroom
4. 2 Year old Classroom
5. 3 Year old Classroom
6. 4 Year old Classroom
7. 5 Year old Classroom



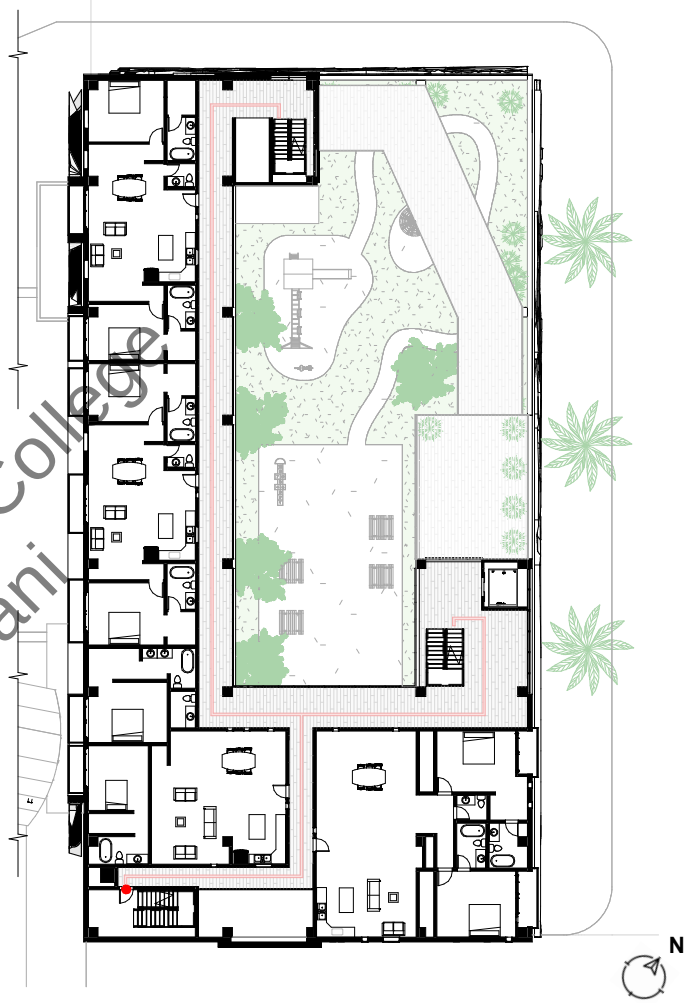
5th FLOOR (APARTMENT UNITS)

Scale: 1" = 40'-0"

1. Two Bedroom Unit
2. One Bedroom Unit
3. Laundry Room

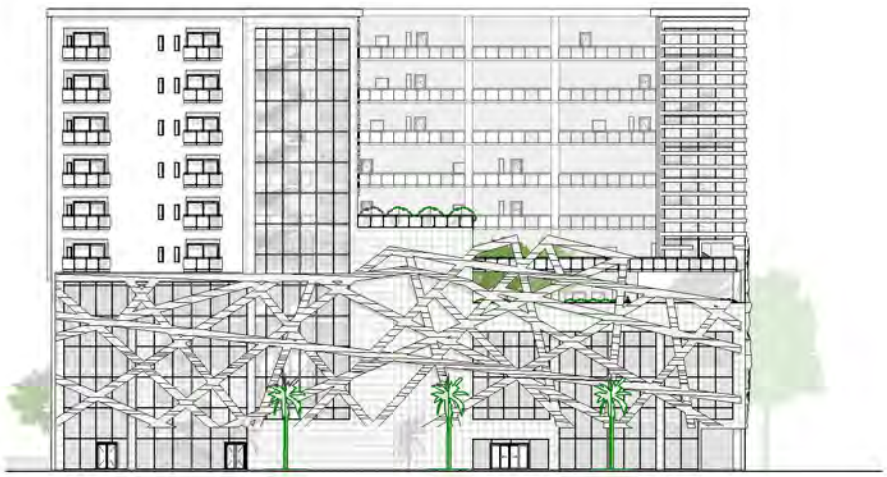


6th FLOOR (APARTMENT UNITS)
Scale: 1" = 40'-0"

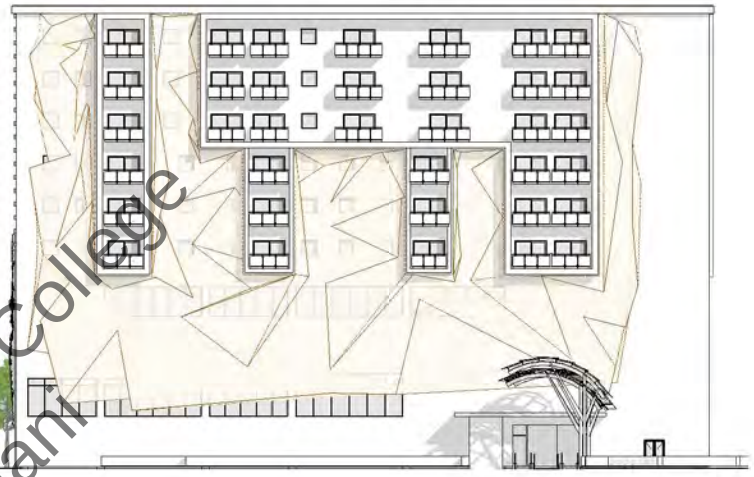


8th & 9th FLOOR (APARTMENT UNITS)
Scale: 1" = 40'-0"

1. Outdoor Patio



NORTH ELEVATION
Scale: 1" = 50'-0"



SOUTH ELEVATION
Scale: 1" = 50'-0"

WEST ELEVATION
Scale: 1" = 50'-0"

EAST ELEVATION
Scale: 1" = 50'-0"

The Façade around the building with patterns and designed for both decoration and functional reasons as decoration it can make the building more attractive by creating visual beauty.

It has various functional advantages. Since the community center and child daycare both have rooms with panoramic windows, the pattern can create privacy and safety.

Further more, it can reduce solar heat and noise pollution in the building. The space between the patterns and the building will allow air circulation.

Golden Mash Façade - located at North and East Elevation.

X Pattern Façade - located at South and West Elevation

Sun Protection / Screen

The primary objective of creating a comfortable internal environment, it can reduce the heat during summer, and reduce the cooling loads and minimize energy costs.

Noise Barrier

The noise barrier is an exterior structure designed to protect the inhabitants from noise pollution.

Privacy Screen

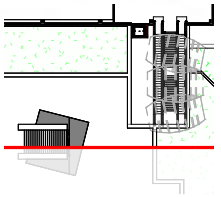
The screen can help to provide a safe environment for children (child daycare) and residential inhabitants.

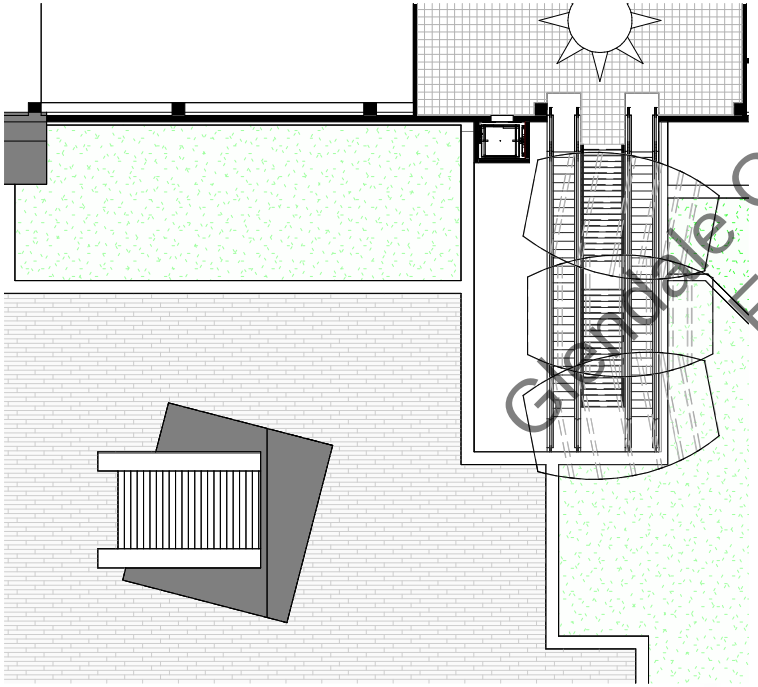
Metro B D

Westlake/MacArthur Park subway station located at Wilshire Boulevard and Alvarado Street, across from the park. This station is served by the B Line and the D Line.

In the design is required to be accessible to The Metro Station to the complex project with safety and security. Pedestrians can access the lobby of the building and the community/Child Daycare/Apartment.

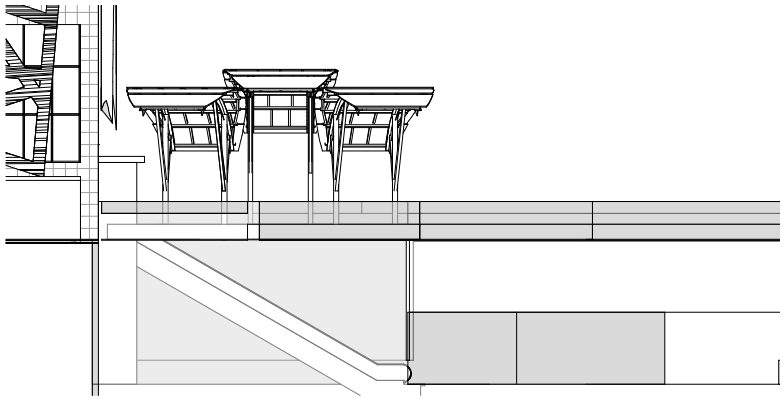
PARTIAL NORTH ELEVATION
Scale: 1/32" = 1'-0"



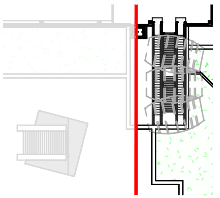


SITE VIEW OF METRO STATION
Scale: 1" = 30'-0"

N



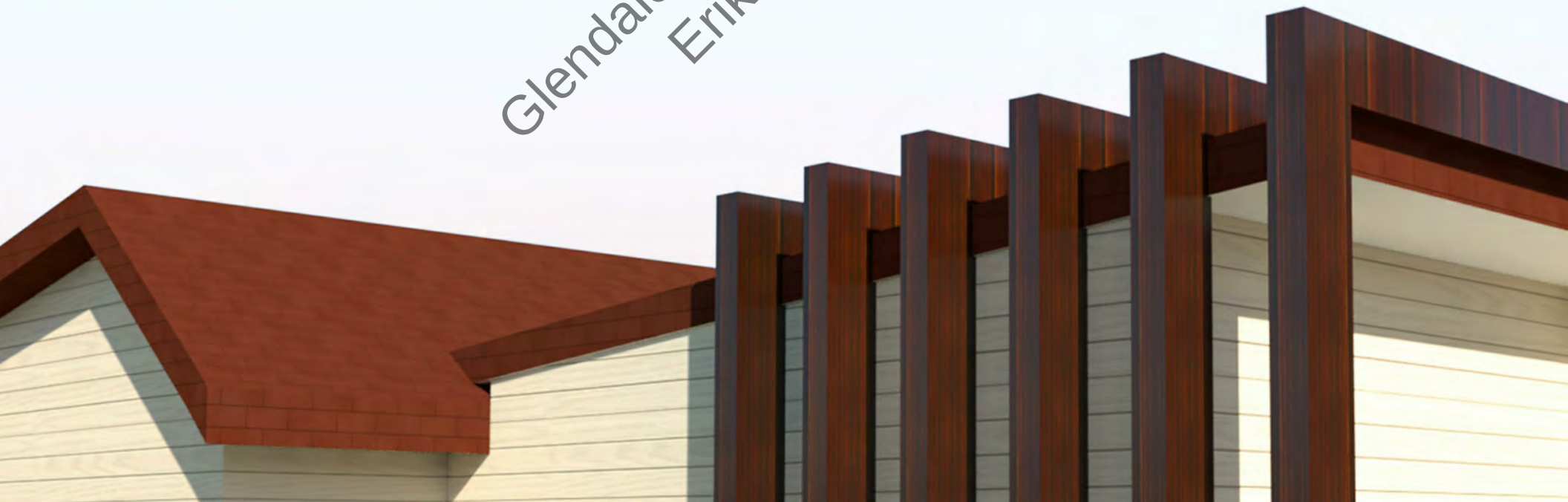
PARTIAL WEST ELEVATION
Scale: 1/32" = 1'-0"



DRAFTING AND DESIGN

RESIDENTIAL HOUSE

ARCH 102

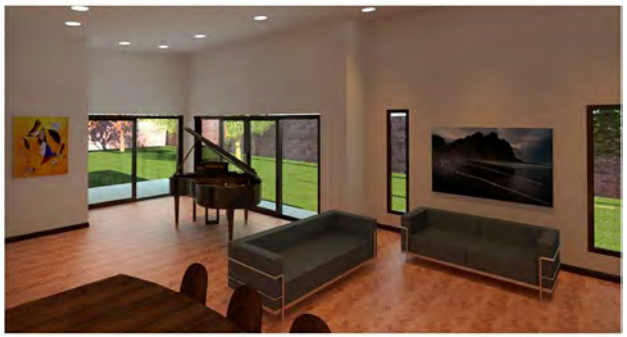


RESIDENTIAL HOUSE

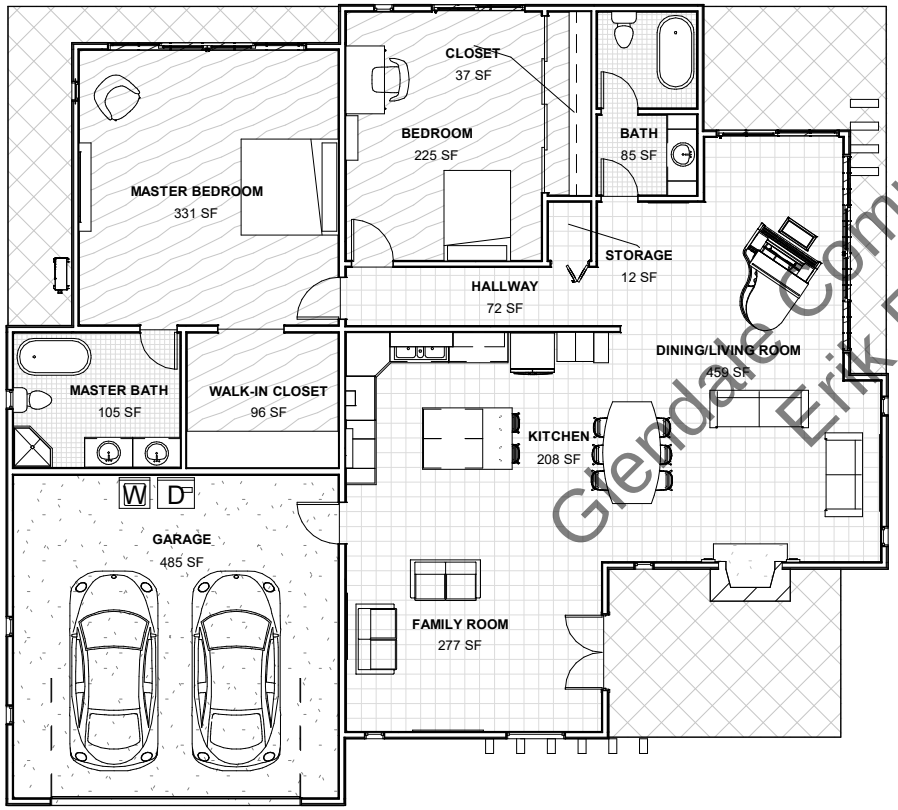
In the class we designed a funtional house. The requirement of the assignment was to design a house based upon what we have learnt in Revit class. The total square feet should be arund 2,300 SF.

I deisigned a modern house for a small family two two bedrooms. A wall was added to separate the public and private areas for a better privacy.

Dinning Room, Kitchen, and Family Room



Living Room



FLOOR PLAN
Scale: 1/32" = 1'-0"

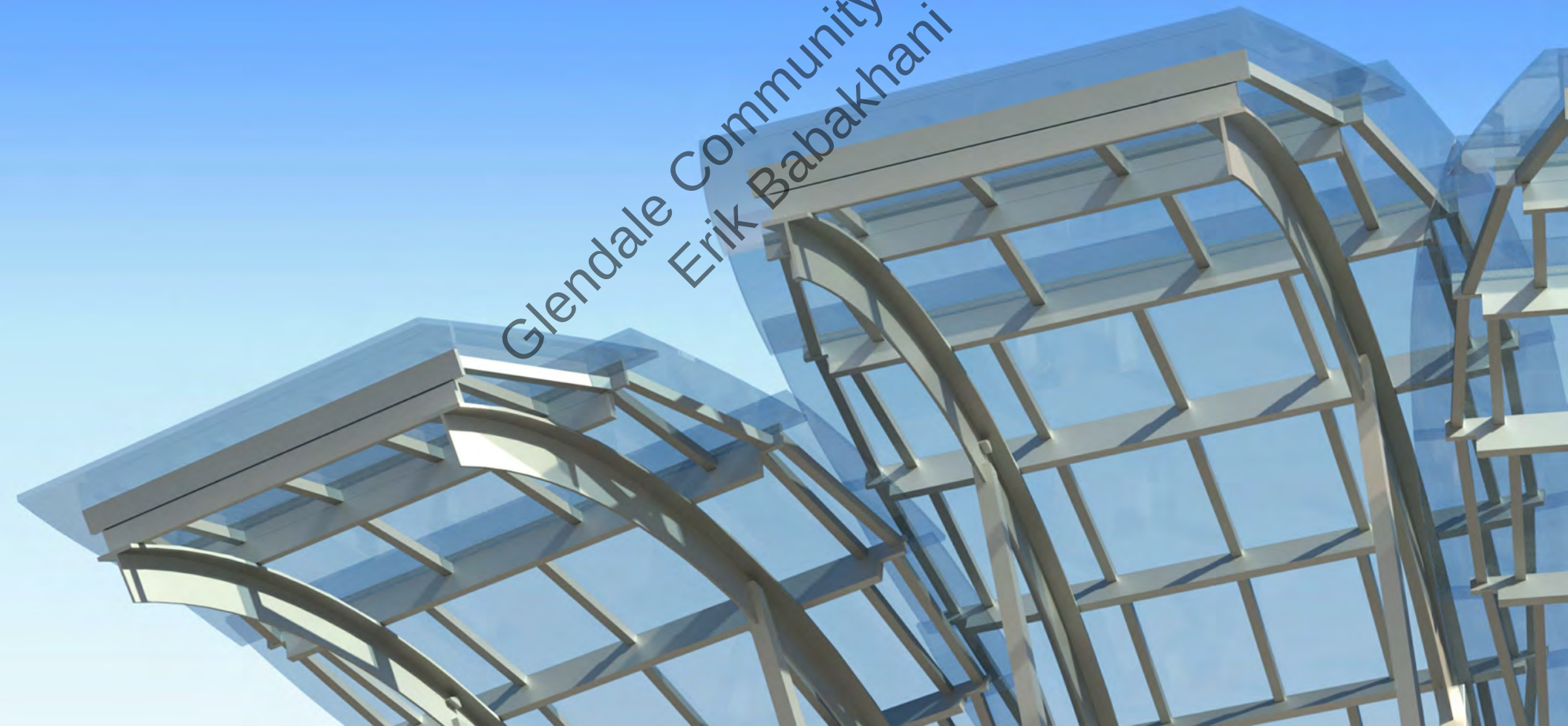
Main Enterance

ADVANCED REVIT

CANOPY CHALLENGE

ARCH 251

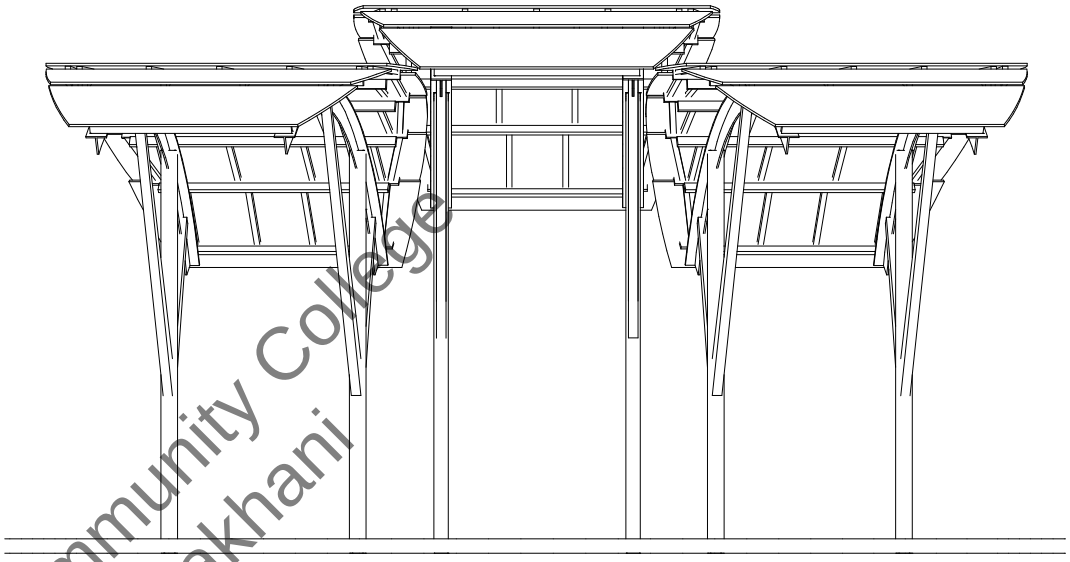
Glendale Community College
Erik Babakhani



CANOPY CHALLENGE

In this challenge, some pictures of actual canopy located in a shopping mall in California, was given with distored perspective. The goal was to recreate the canopy using model In-Place component.
We had to figure out where/how to start the creation of forms using Extrusion and Sweep. The tricky part was to define the exact starting and ending points to connect the various elements to form the overall shape.

Besides making component model, we have learnt how to make better light for night time rendering mode.



FRONT VIEW
Scale: 1" = 30'-0"

Interesting Fact: The project was reused for McArthur Mixed-Use project canopy for Metro where it connects to the main building.

Night Time Rending Front View

Day Time Rendering Front View

ADVANCED REVIT

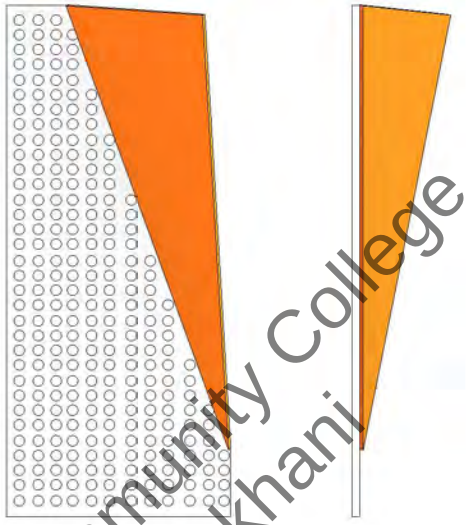
SANTA MONICA PARKING STRUCTURE 6

ARCH 251

SANTA MONICA PARKING STRUCTURE 6

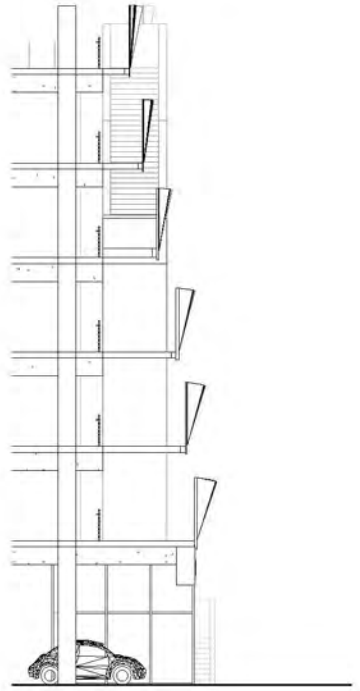
In the project, inspired from Santa Monica Parking Structure 6 located in City of Santa Monica, we learned how to design parametric wall panels, with individual rotation angle. controlled by input parameters and imported it into the project as the curtain wall.

The overall pattern design is achieved by painting each panel individually.



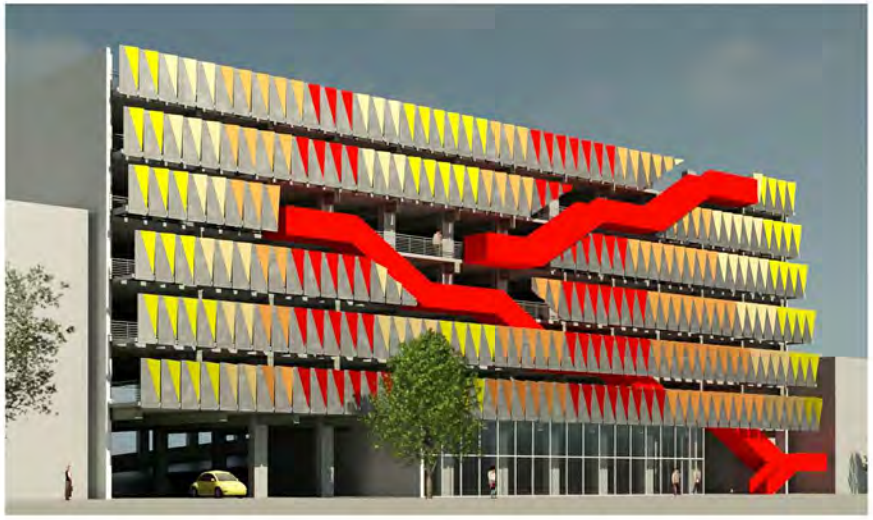
FRONT VIEW
Scale: 1" = 30'-0"

SIDE VIEW
Scale: 1" = 30'-0"



PARTIAL NORTHWEST ELEVATION
Scale: 3/64" = 1'-0"

Night Time Render Front View



Day Time Render Front View

ADVANCED REVIT

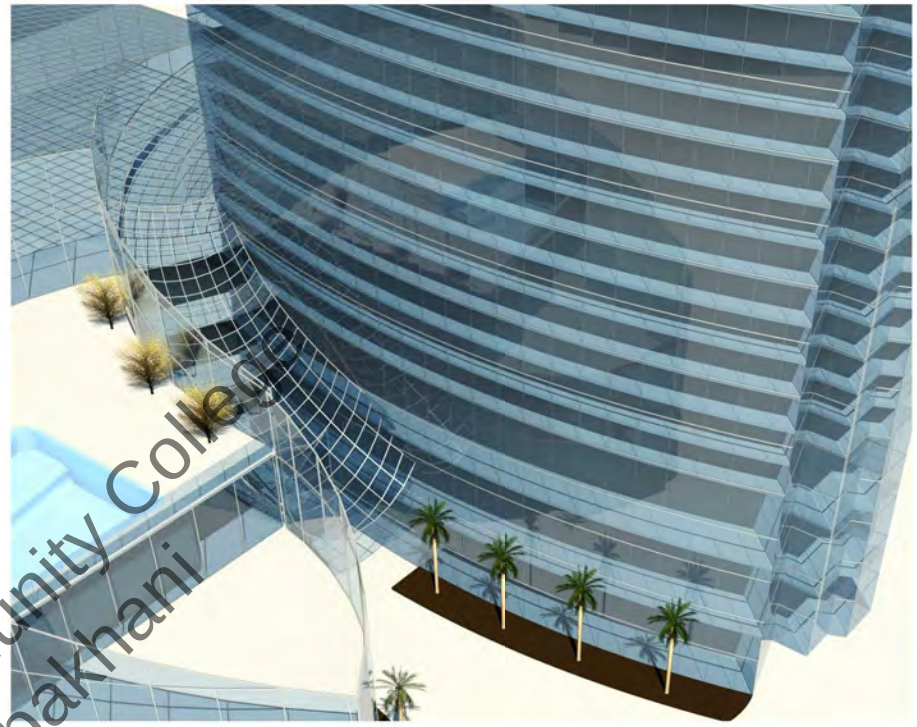
WILSHIRE GRAND CENTER (InterContinental Los Angeles Hotel)

ARCH 251

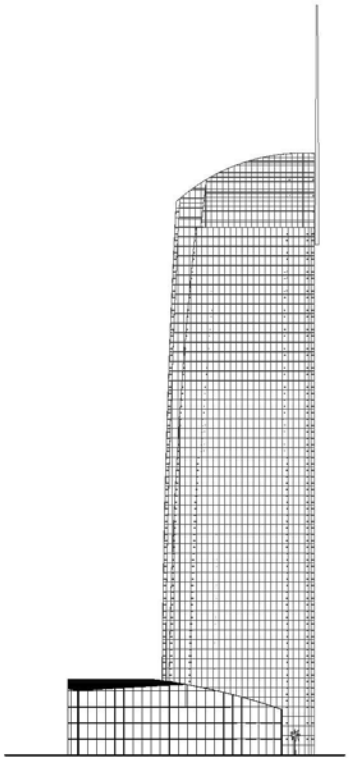
WILSHIRE GRAND CENTER

For last project in Advance Revit course, Wilshire Grand Center (InterContinental Hotel) located in DTLA, we practiced recreating the geometric volume by making mass element, then converting into structural element. Then we imported the extrusions into the project and converted them into model by adding floors, curtain walls and other architectural elements.

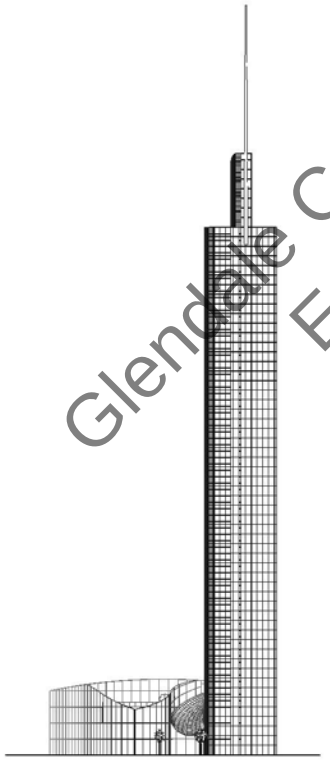
The challenging part in this project was the Skylight above the curve/round hallways between the two buildings. We had to figure out where to start the sweep extrusion and how to end it property. The sweep start from a higher elevation behind the building and end in a lower elevation in front of it.



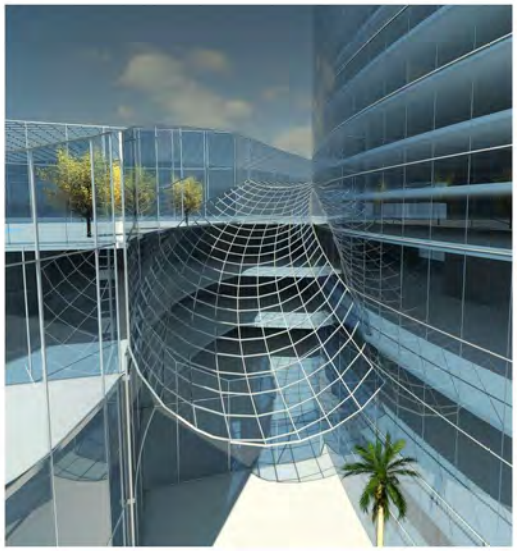
The Skylight is connecting (fusing) the Plaza and the Tower into one entity.

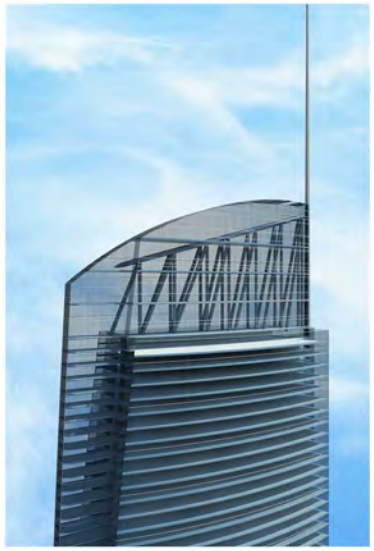


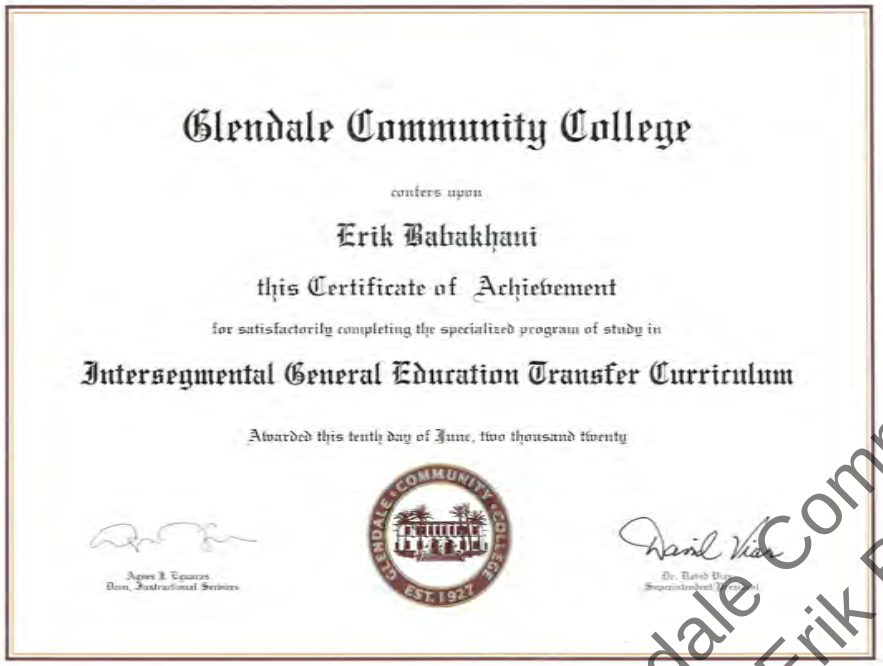
SOUTH ELEVATION
Scale: 1" = 300'-0"



EAST ELEVATION
Scale: 1" = 300'-0"







Glendale Community College

conferes upon

Erik Babakhani

this Certificate of Achievement

for satisfactorily completing the specialized program of study in

Intersegmental General Education Transfer Curriculum

Awarded this tenth day of June, two thousand twenty

Agnes A. Tenorio
Dean, Instructional Services

Dr. David Vi...
Superintendent/President

Glendale Community College
IGETC* Graduate Degree - 2020

* The Intersegmental General Education Transfer Curriculum (IGETC) is an educational plan for California community college students designed to facilitate transferring to a four-year public university. Public universities include all UC and CSU schools.

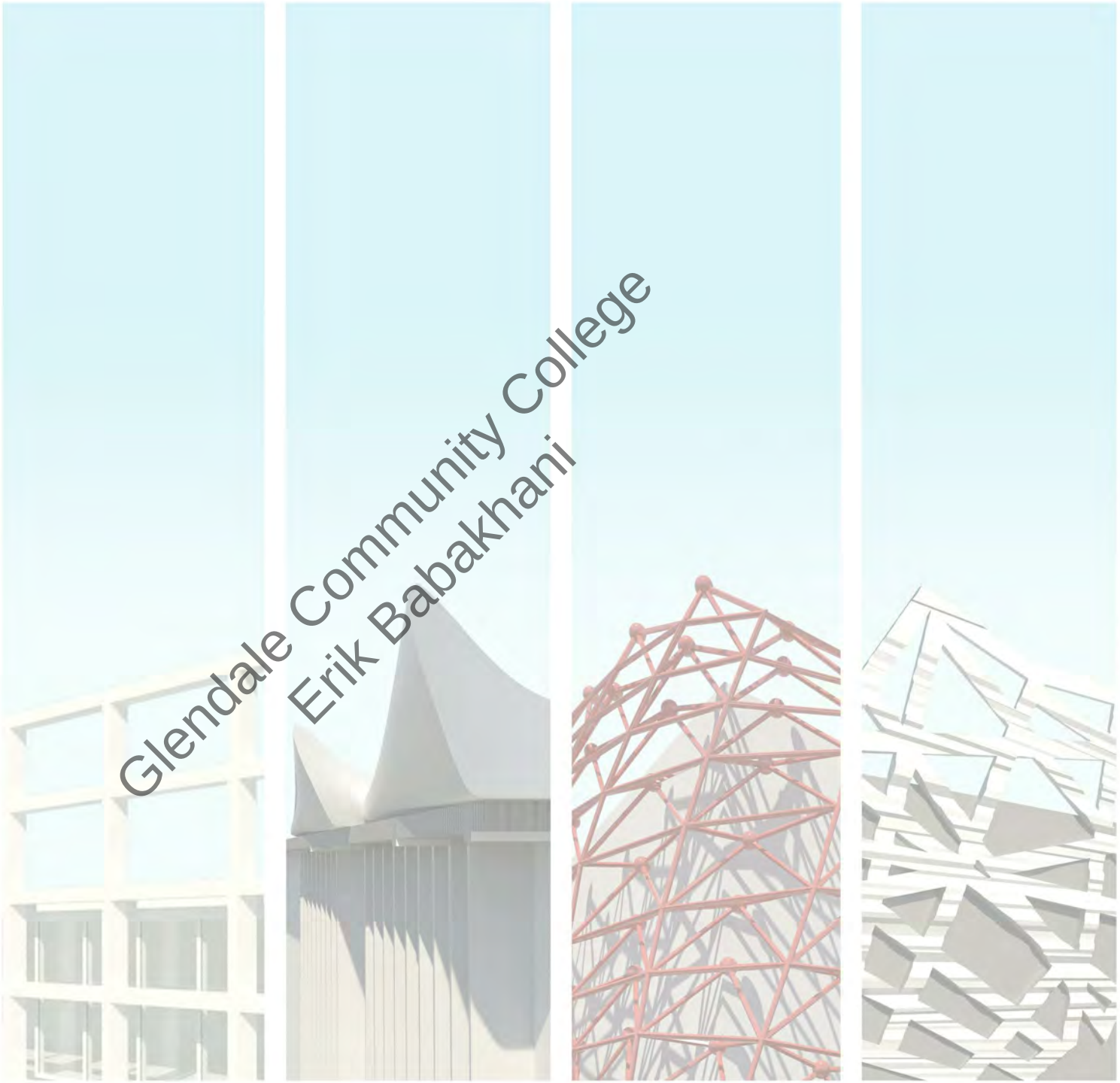
Glendale Tech Week
Project Exhibitions - 2018

Glendale Tech Week established in 2016 to celebrate tech and innovation through discussions, panels, workshops, codefests, site tours, happy hours, and networking events.

Me being excited for making my very first model of Le Corbusier Case Study project.

April 2017

THANK YOU FOR REVIEWING MY PORTFOLIO.



Glendale Community College
Erik Babakhani

Portfolio by:
ERIK BABAKHANI
Glendale Community College