

RHEA IYER

professional + undergraduate architecture portfolio

2018-2024

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# RHEA IYER

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• [www.linkedin.com/in/rhea-iyer](http://www.linkedin.com/in/rhea-iyer) •

## EDUCATION

- PRATT INSTITUTE  
August 2018 - May 2023  
B.Arch - Bachelor of Architecture  
Sustainability Minor  
GPA: 3.6

### Involvement: Peer Advisor / Tutor

September 2020 - May 2023

- Peer Advisor at the Learning/Access Center for students at Pratt Institute.
- Areas: architectural design, representation, software navigation and tutorials, structures (concrete and steel), math, science, and time management.

## ACCOMPLISHMENTS

- Presidential Merit Scholarship  
\$26000 merit based scholarship awarded each year from 2018-2023 at Pratt Institute
- Project Archival  
One project chosen per section for publication in Pratt's yearly InProcess book for NAAB/RIBA.
  - Spring '23
- Degree Project: Research and Design
  - Spring '21  
Construction Document Set
  - Finalist
    - Degree Project Award: Spring '23  
1-2 projects per section selected to present at the distinguished degree projects review
  - Student Worker of the Year: Spring '23
  - History/Theory of Architecture Essay  
Award: Spring '20
  - President's List  
SP '19, SP '20, FA '20, SP '21, SP '22, FA '22, SP '23

## SKILLS

Rhino 3D, AutoCAD, Revit, Illustrator, Photoshop, InDesign, VRay, Enscape, Sketchup, Vectorworks, Laser Cutting, Google Suite, Microsoft Office

## EXPERIENCE

2023 **Chango and Co.: New York, NY**  
Junior Architectural Designer  
**June 2023 - August 2024**

- Drafting, 3D modeling, rendering high end single family homes.
- Product and material research, selection, specification, vendor communication.
- Ordering and maintaining sample databases; recording meeting minutes on client, site visits, and internal meetings.
- Working on all stages of design from SD to CA.

2022 **Gensler: Denver, CO**  
Architectural Design Intern  
**June 2022 - August 2022**

- Developed the complete Revit model showing existing conditions of an adaptive reuse conversion of a building from vacant office space to residential units, and came up with potential apartment layouts.
- Assisted on site visits, measuring and collecting data, verifying on field conditions with those in drawings and modifying them accordingly.
- Developed a physical model (topography, site context and buildings) for a large scale urban, mixed use development project.

2023 **Pratt Institute School of Architecture: New York, NY**  
Architecture Research Assistant  
**January 2023 - May 2023**

- Research and production of drawings and models for exhibits on modular housing for the firm Gans and Co.

2022 **NYC Department of Citywide Administrative Services: New York, NY**  
Space Planning/Management College Aide - Portfolio Planning and Management  
**February 2022 - May 2022**

- Assisted in site surveys of city owned/leased office spaces.
- Modified their plans and managing information from them using AutoCAD and Archibus, based on the site surveys.

2021 **JBA Collective: New York, NY**  
Architectural Design Intern  
**July 2021 - December 2021**

- Produced a set of city drawings of a restaurant for the NYC Department of Buildings.
- Worked on the complete design process of a poolhouse in CT.
- Drafted legalization drawings for a residential building on AutoCAD.
- 3D modeled existing and proposed residential designs.
- Drafted drawings for SD, DD, and CD

2020 **IMK Architects: Mumbai, India**  
Architectural Design Intern  
**May 2020 - August 2020**

- Developed presentation drawings from construction drawings and concept sheets using vectorworks and photoshop.

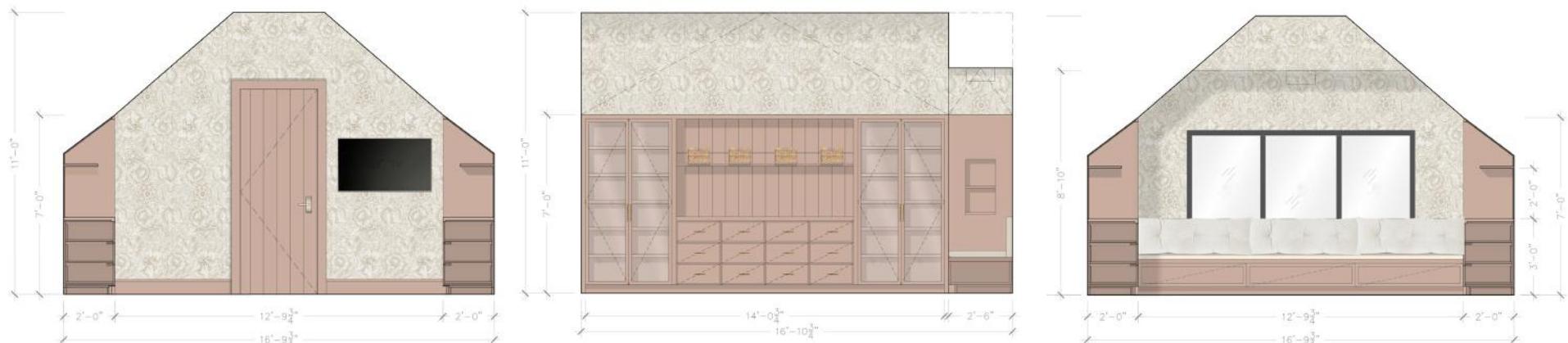


**CHANGO**

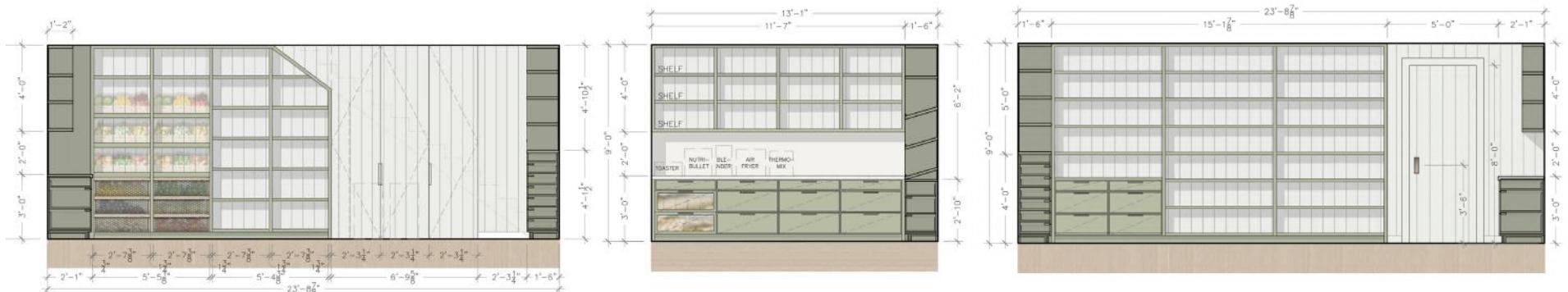
2023-2024

rhea iyer

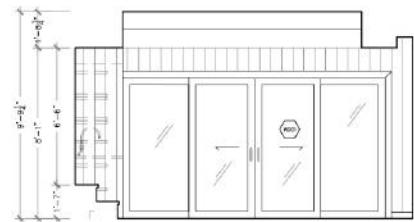
**Upstate new york residence:** Rendering of kitchen options in 3D on enscape and rendering of final client picked option through rendered elevations on photoshop.



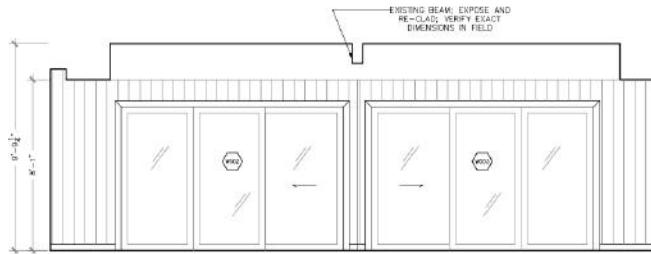
Bridgehampton residence: Rendered elevations of the primary bathroom and sourcing of plumbing fixtures.



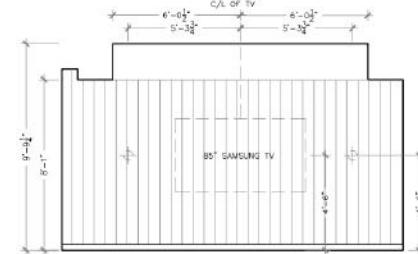
Upstate new york residence: Rendered elevations and studying millwork options.



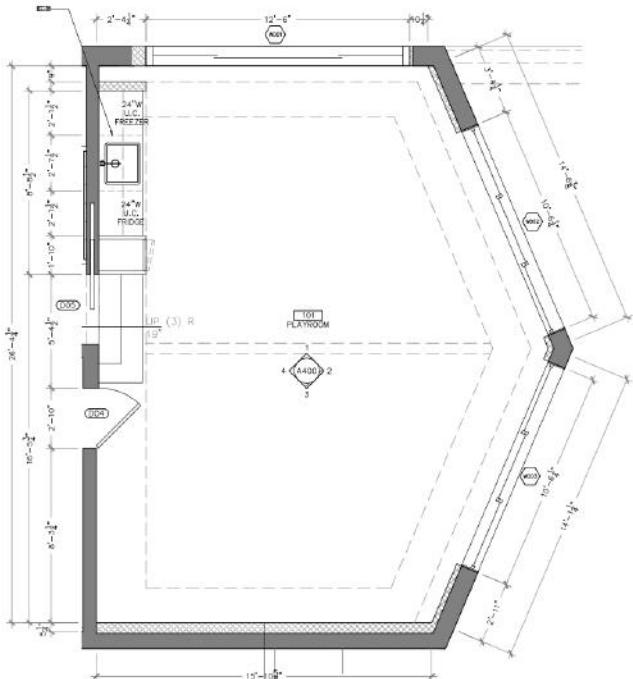
1  
WEST ELEVATION  
A-400  
1/4" = 1'-0"



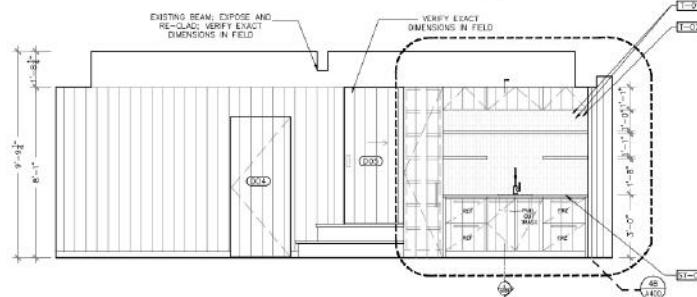
2  
NORTH ELEVATION  
A-400  
1/4" = 1'-0"



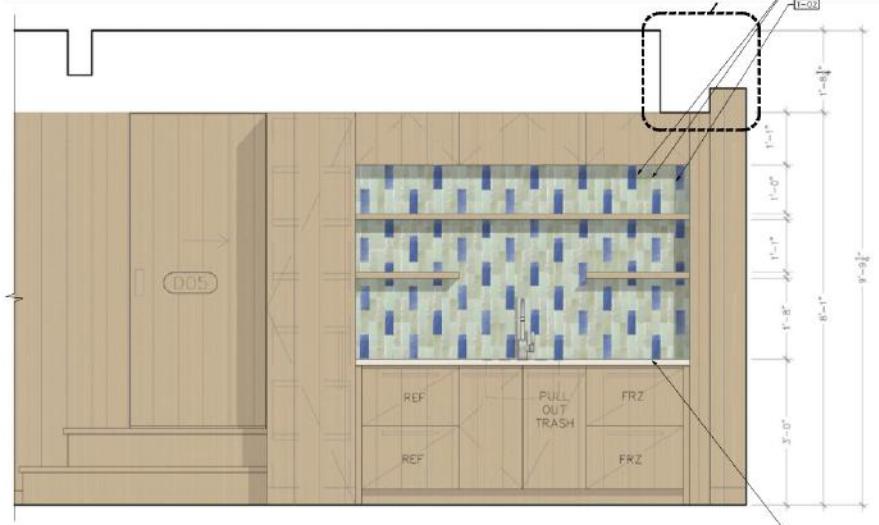
3  
EAST ELEVATION  
A-400  
1/4" = 1'-0"



5  
FLOOR PLAN  
A-400  
1/4" = 1'-0"

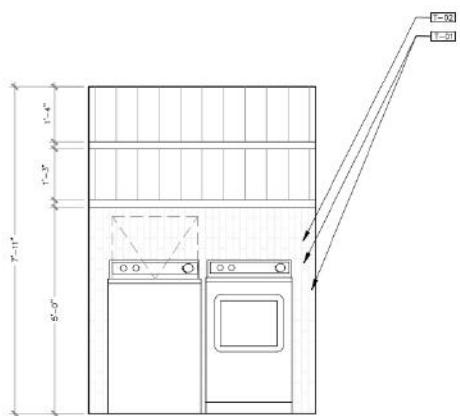


4A  
SOUTH ELEVATION  
A-400  
1/4" = 1'-0"

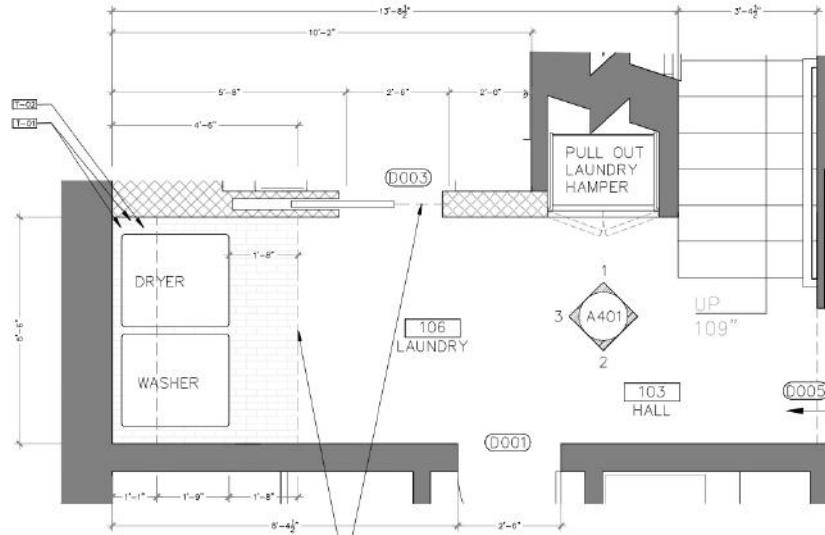


4B  
SOUTH ELEVATION - BAR - RENDERED  
A-400  
1/2" = 1'-0"

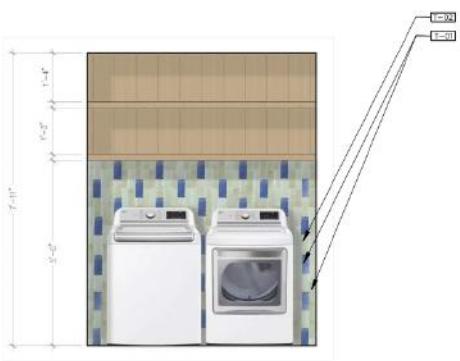
**Yosemite residence:** Studying millwork, wall paneling, tile layout options, picking up redlines and rendered elevations.



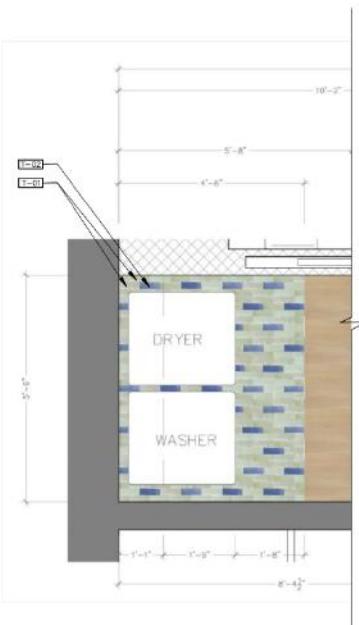
1A  
SOUTH ELEVATION  
A-401  
1/2" = 1'-0"



2B  
FLOOR PLAN  
A-401  
1/2" = 1'-0"



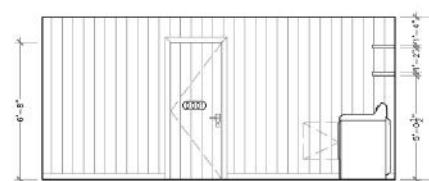
1B  
SOUTH ELEVATION - RENDERED  
A-401  
1/2" = 1'-0"



2B  
FLOOR PLAN - RENDERED  
A-401  
1/2" = 1'-0"



3  
WEST ELEVATION  
A-401  
1/4" = 1'-0"



4  
EAST ELEVATION  
A-401  
1/4" = 1'-0"

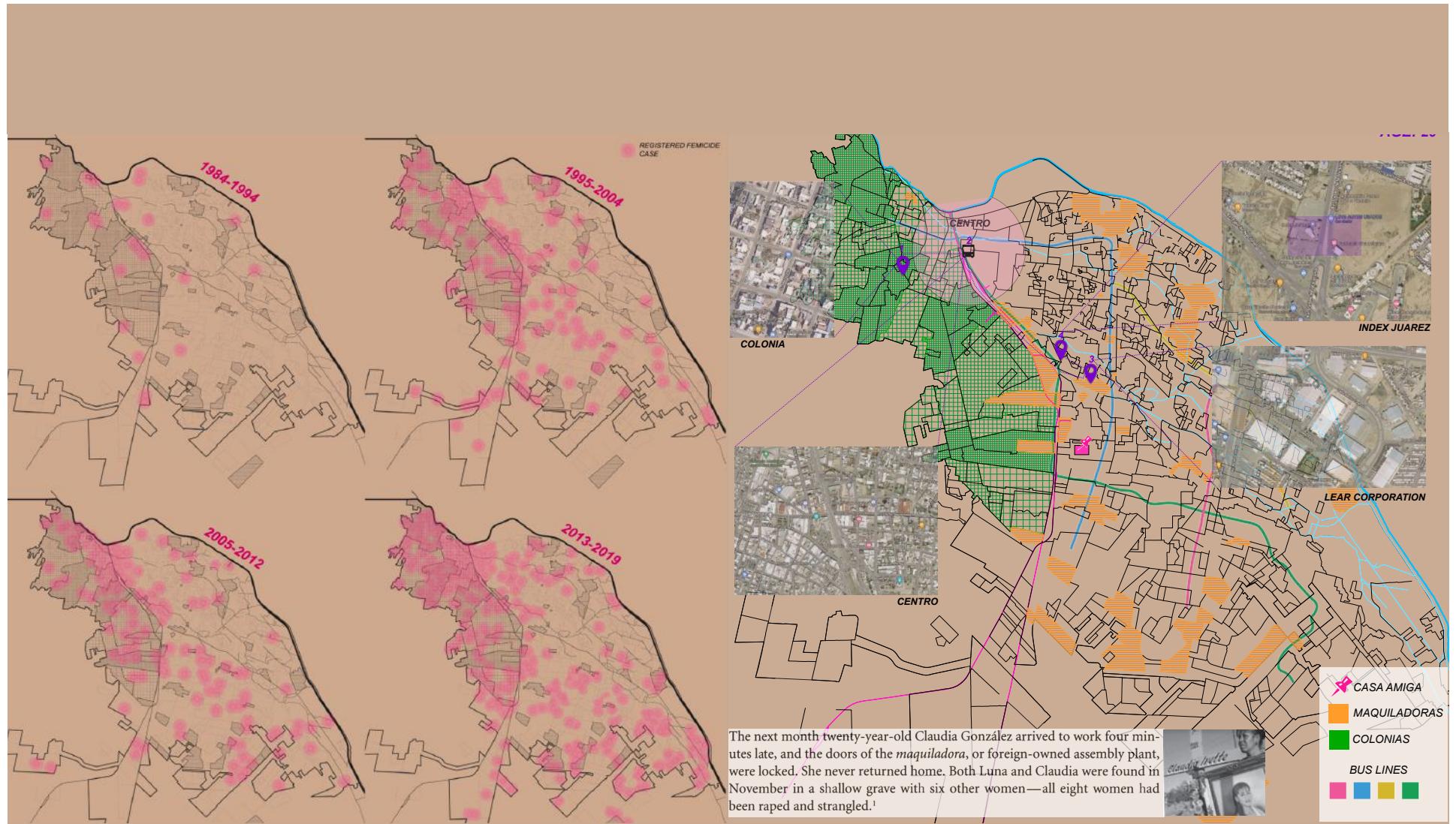
**Yosemite residence:** studying millwork, wall paneling, tile layout options, picking up redlines and rendered elevations.



Ciudad Juarez is a Mexican **border city** that is **heavily industrialized** due to cross-border trade between the U.S. and Mexico. The factories here are called **maquiladoras** and they favor female workers over men for their intensive labor. The **globalization** of the area combined with the **machismo culture** has created a **dangerous** environment for the maquiladora **women**. They are sexually assaulted, kidnapped and murdered typically in the **downtown area** during their **commute** to work. The existing cultural structure and government institutions are not protecting their wellbeing. A potential way to address the issue could be through a **crisis center for women** in the downtown area, along with expansions into the **bus transportation infrastructure**, thereby creating a system of **centralized and distributed safe havens**. This project was done in **teams of two** with Defne Celikci.

**ARCH 501**  
**NIÑA DE MAQUILADORA:**  
**EXPLOITATION OF THE FEMININE**

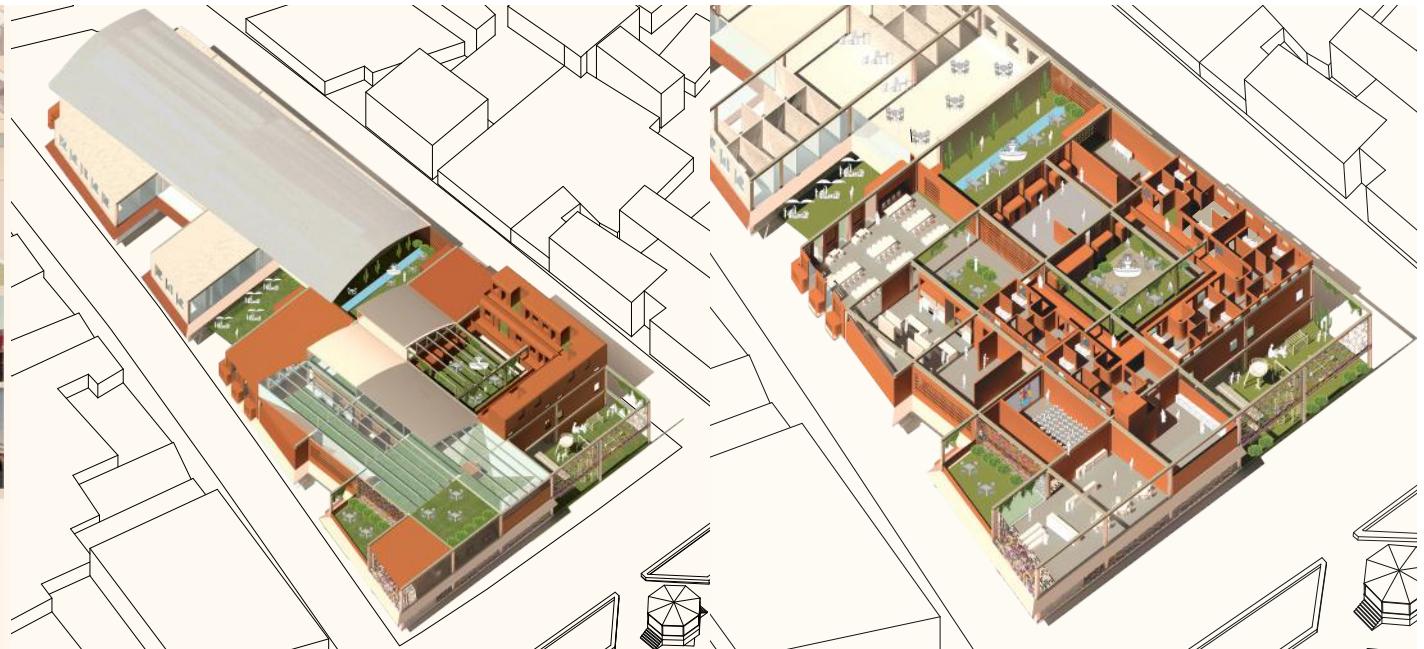
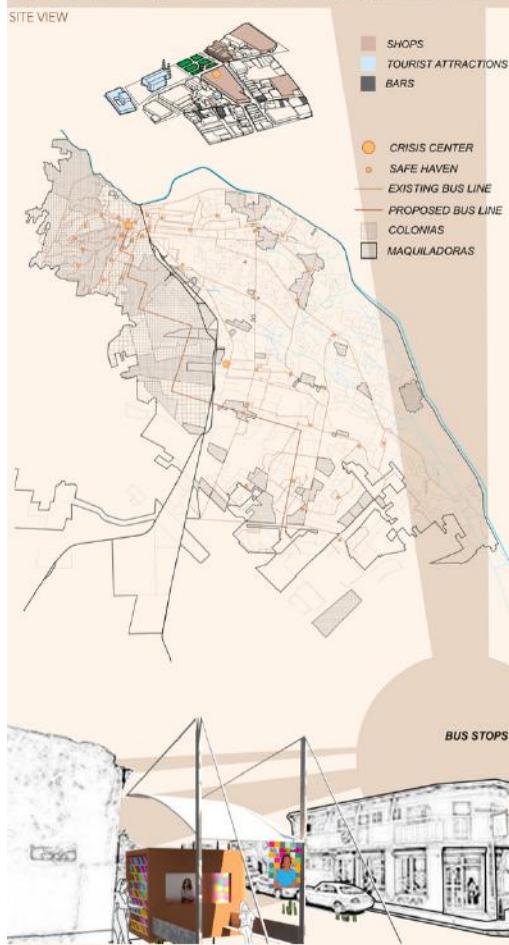
fall 2022 - spring 2023



Mapping femicide cases in Ciudad Juarez shows that **femicide only increased over time in the city**, and the cases were clearly **concentrated in the downtown area** of Ciudad Juarez. The info-graphic on the right illustrates the story of Claudia Ivette Gonzalez, a 20 year old maquiladora employee, who was killed on her way to work. Ciudad Juarez is a **divided city** - a majority of maquiladoras, where people work, are on the east , and colonias, impoverished neighborhoods where people live, are on the west. The **downtown area is a connection between the east and west sides**. It is a location where workers may be found waiting to change buses, or where women are kidnapped, and their bodies found later discarded in secluded areas. **Women are heavily exploited inside the maquiladora as well**. While we cannot completely resolve these vast issues, our scope can be defined in the creation of our own separate safe havens to help women affected by these issues. Recognizing the correlation of all these issues, our proposal is a **centralized crisis center for women** and a **network of distributed safe havens adding onto the bus transportation infrastructure** in the city.



SITE VIEW





Circulation maps showing how public shoppers, women of the crisis center and residents of the crisis center can use the space.

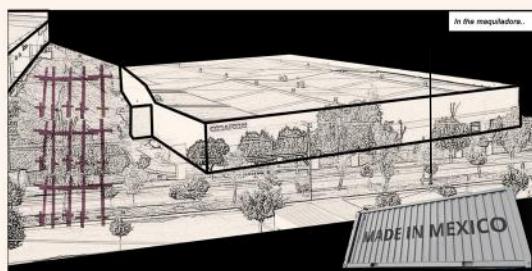


Section showing the residences, courtyard, kitchen on the second floor, and emergency pods on the first floor extending out onto the street for greater visibility by women walking.

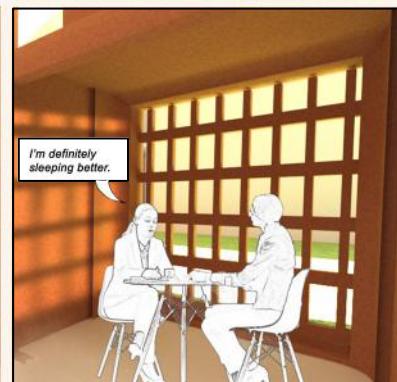
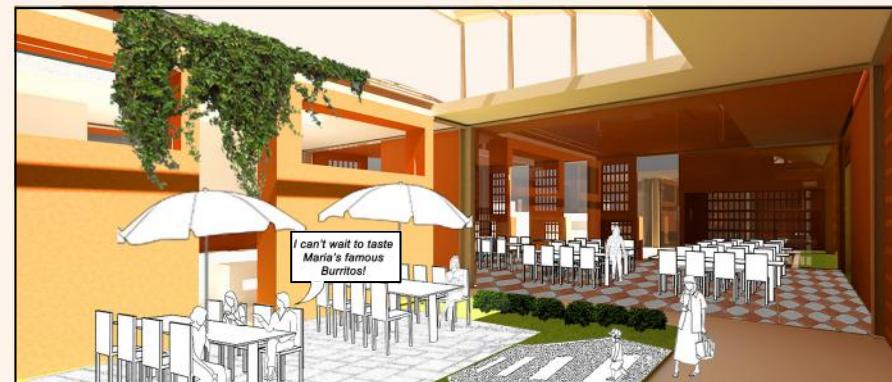
## CAPSULA REFORMA



## CASA REFORMA



Graphics showing how the lives of women in maquiladoras and in Ciudad Juarez will be improved with the new crisis center in Mercado Reforma.





## ARCH 301: MULTIGENERATIONAL HOUSING FOR FOOD LOVERS

Fall 2020

This project is **multigenerational housing** and **co-living for food lovers** who are **families and empty nesters** in the neighborhood of **Gowanus, Brooklyn**. Beginning from the **smallest scale of the unit** (family or empty nester), importance is given to the **kitchen as the most social space** being the entrance to each unit. The idea continues to the next scale of sharing at the **mini cluster (family+empty nester or empty nester+empty nester)** with **shared kitchens and living**, and further at the next larger scale of sharing at the cluster (**two mini clusters combined**) with a **larger shared kitchen and living** between two mini clusters. This scale of sharing acts as the common space for the entire building. The focal point of sharing occurs at the double height **market place**, where the public may begin to interact with the private. This project was done in **teams of two** with Vickly Luo.



**An empty nester unit:** concepts of stepping to indicate a higher level of privacy and importance to the kitchenette as the social space being at the entrance to the unit



**A family unit:** same concepts of stepping to indicate a higher level of privacy and importance on the kitchenette as the social space being at the entrance to the unit



**A mini cluster: empty nester - empty nester unit** with a shared kitchen, living/eating area, bathroom, and exterior balcony space.



**A mini cluster: empty nester - family unit** with a shared kitchen, living/eating area, bathroom, and exterior balcony space



Level 4 cluster plan

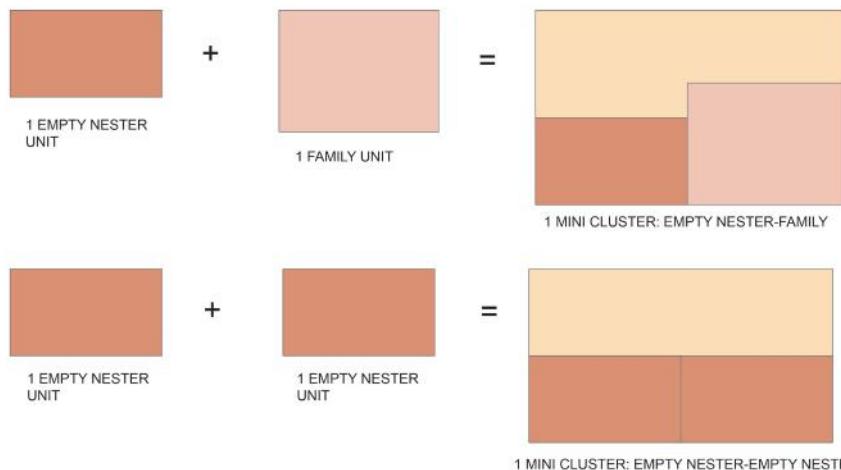


Level 1 cluster plan

**Floor plans of the cluster** of the building showing two mini clusters with shared space at the scale of the entire building in between them



**Section of the cluster** - shared space in between the two mini clusters and units and semi public shared space for each mini cluster to the sides



**Diagrams to explain the scales of sharing:** unit-mini cluster-cluster-building

first floor plan



1

21'-7 $\frac{3}{4}$ "

2

21'-3"

3

20'-3 $\frac{3}{4}$ "

4

17'-2"

5

22'-3 $\frac{3}{4}$ "

6

17'-3 $\frac{3}{4}$ "

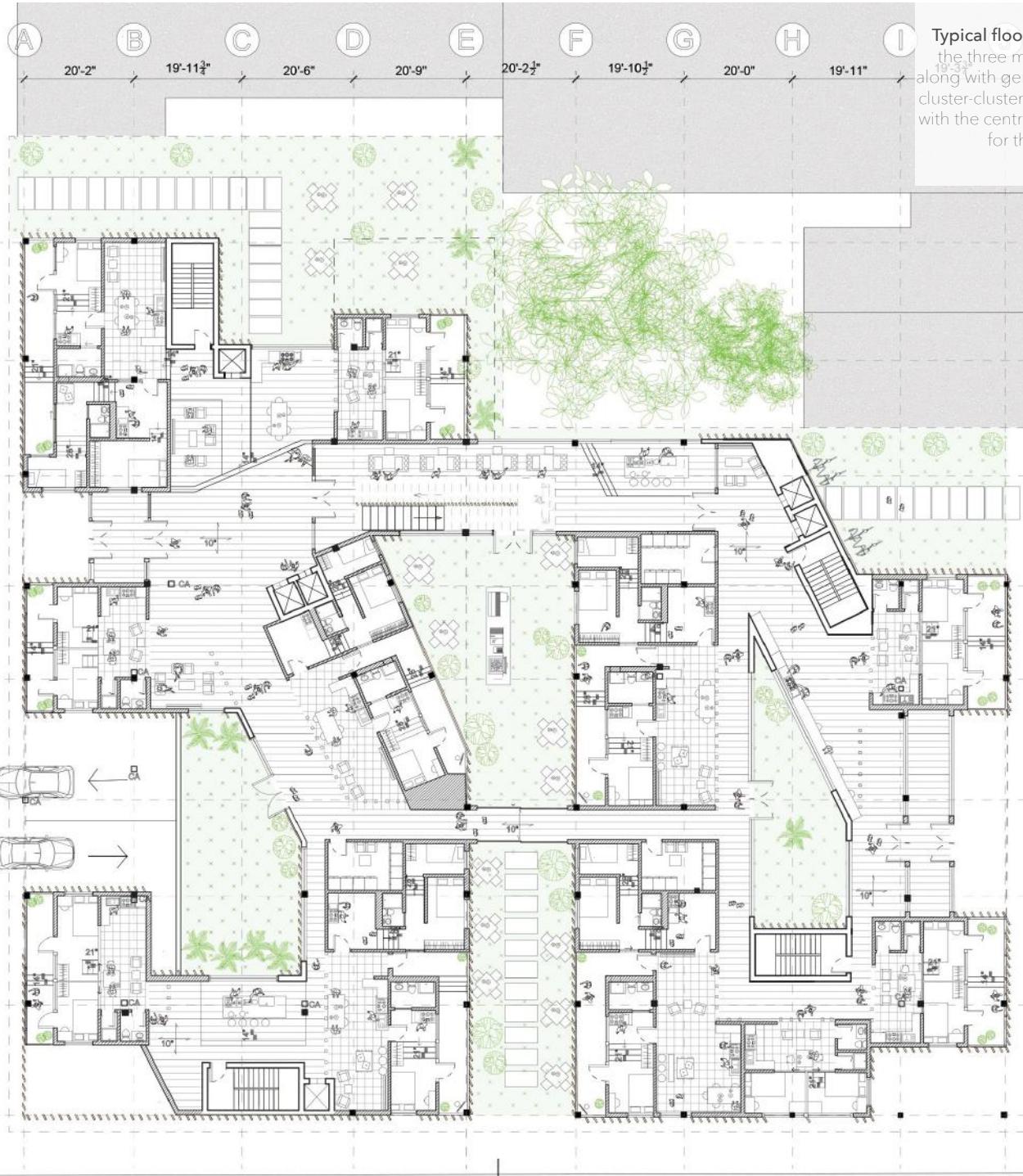
7

20'-0 $\frac{1}{4}$ "

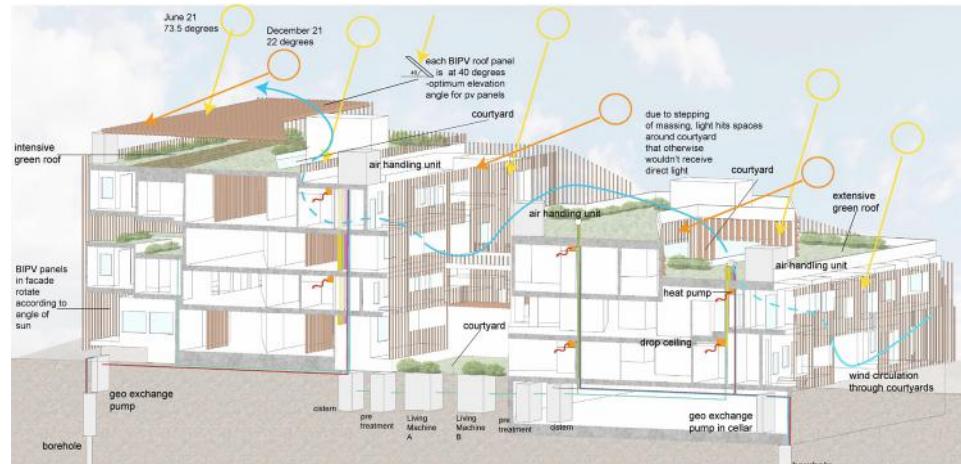
8

20'-4"

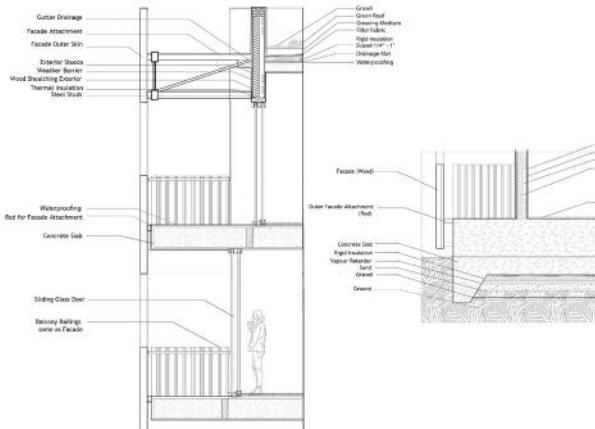
9



**Typical floor plan** of the building showing the three main entrances to the building, along with general organization from unit-mini cluster-cluster and then to the overall building with the central marketplace as the focal point for the building community.



MEP and sustainability systems integrated within the project



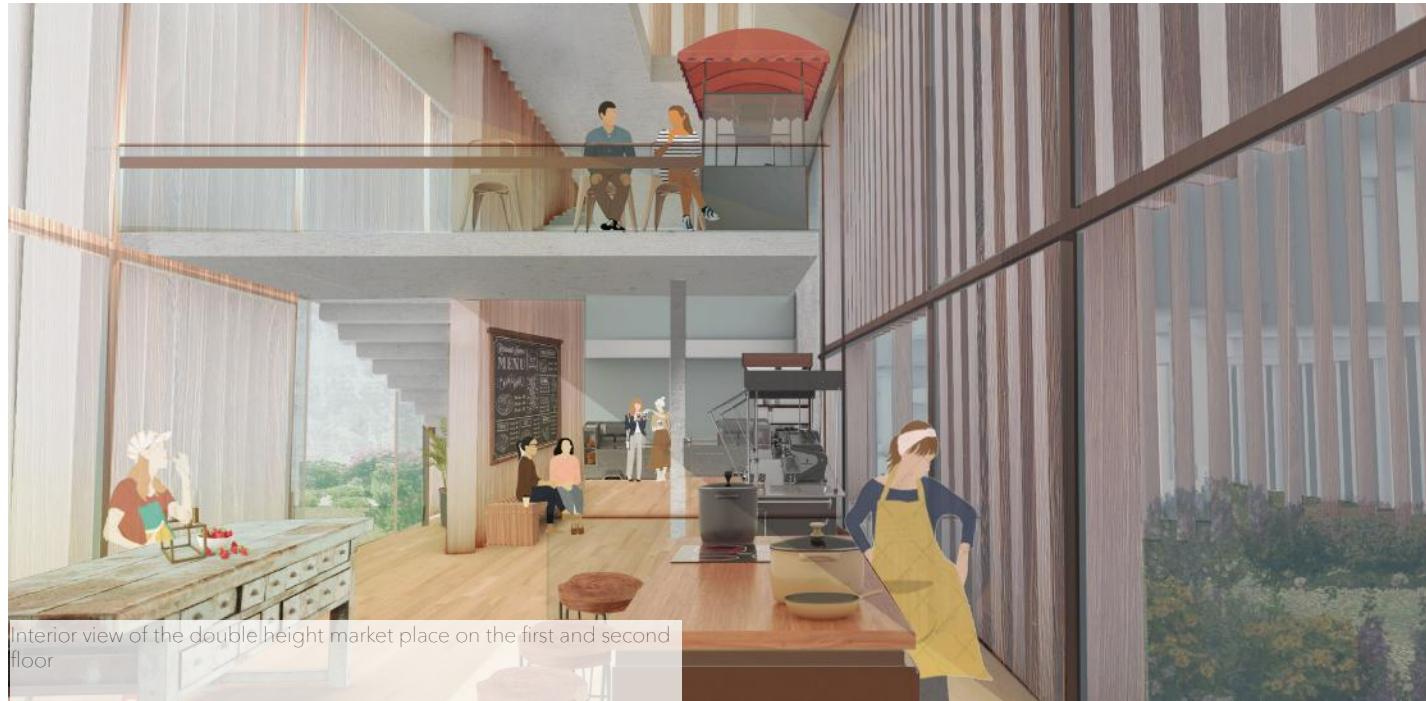
Detail section showing the connection of the wooden louvers in the facade to the concrete superstructure

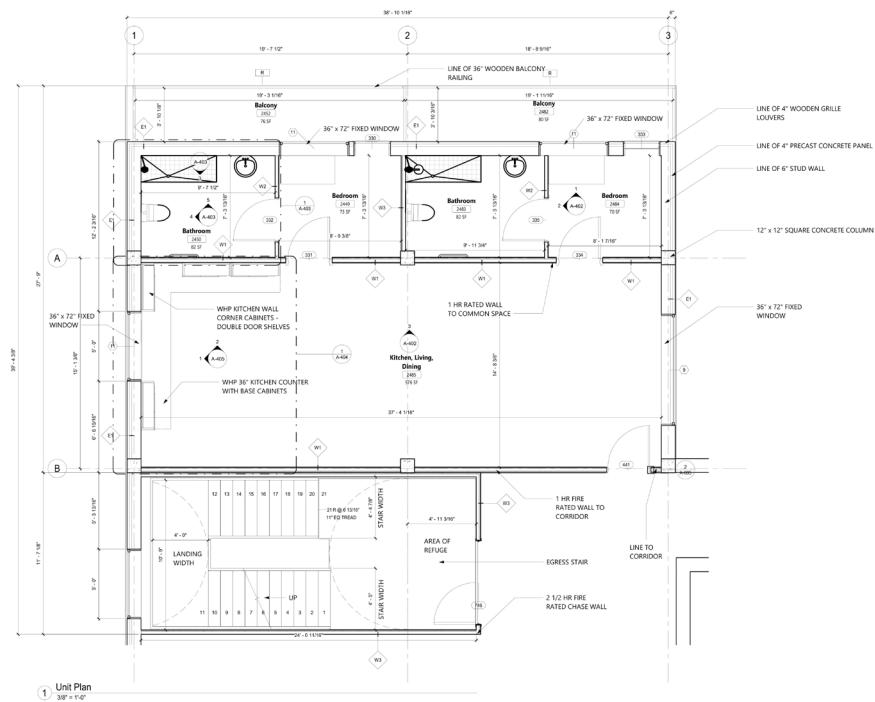


Street perspective from 3rd ave: public entrance to the courtyard and market

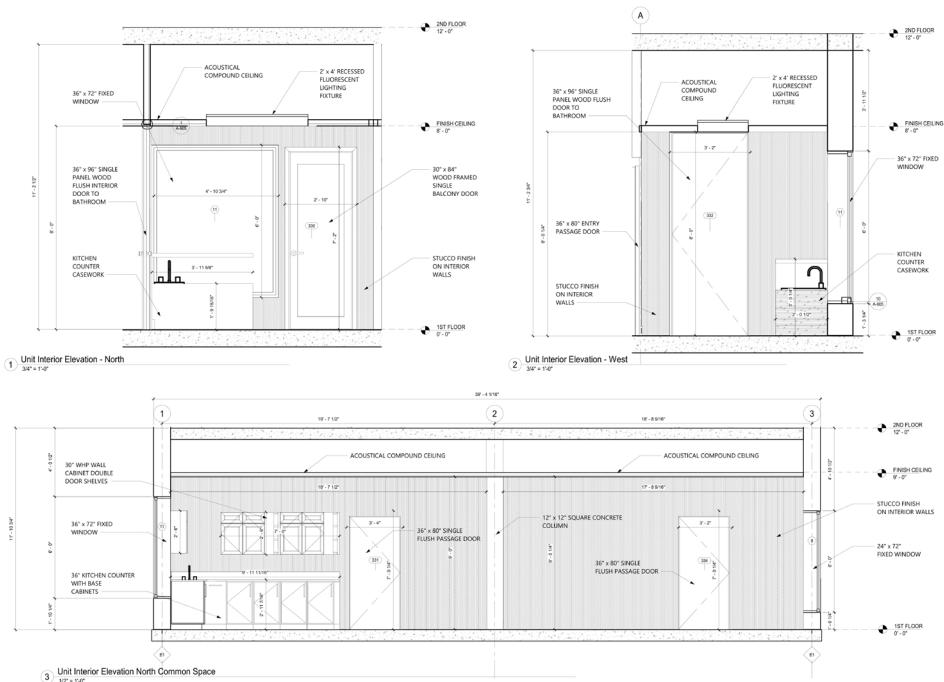


Sections through the building.

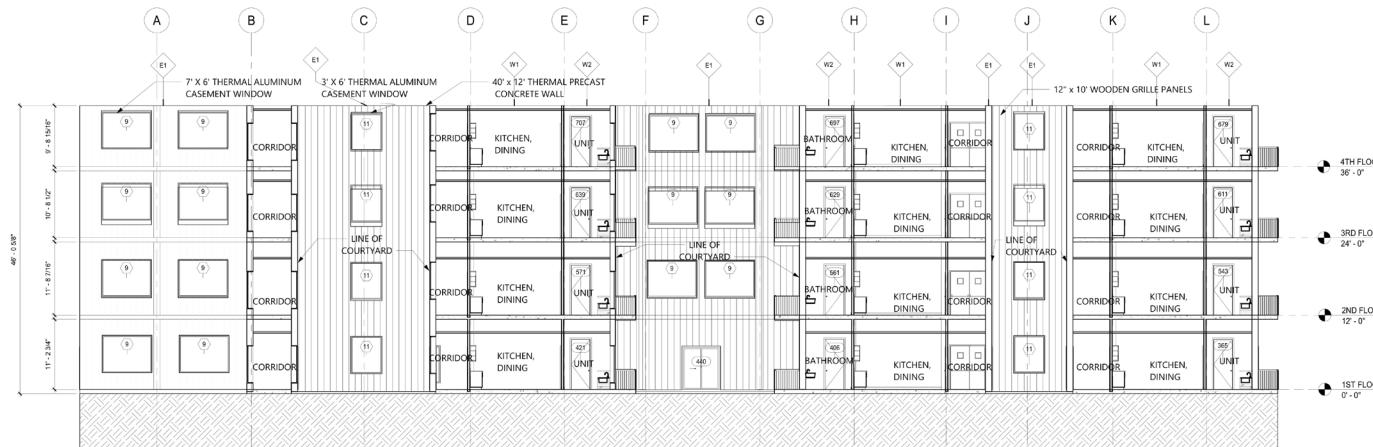




Empty nester cluster plan



Empty nester unit interior elevations

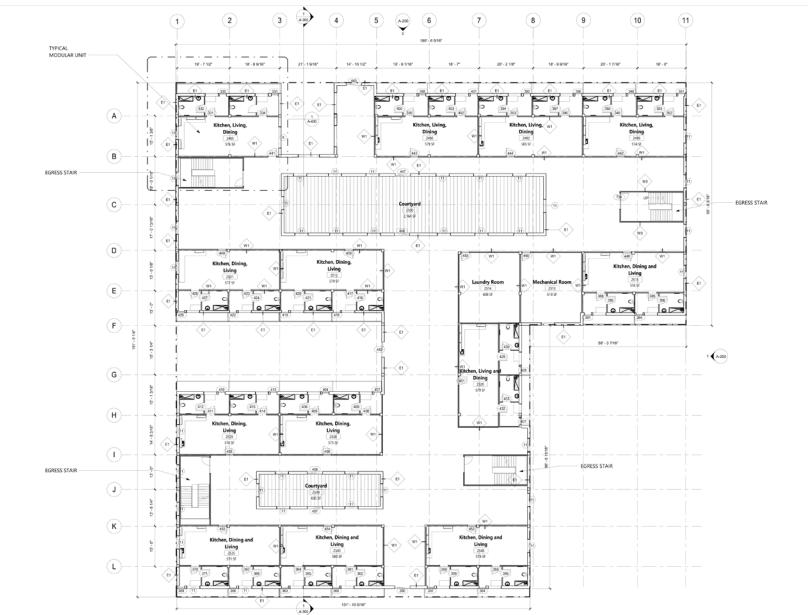


Full building section

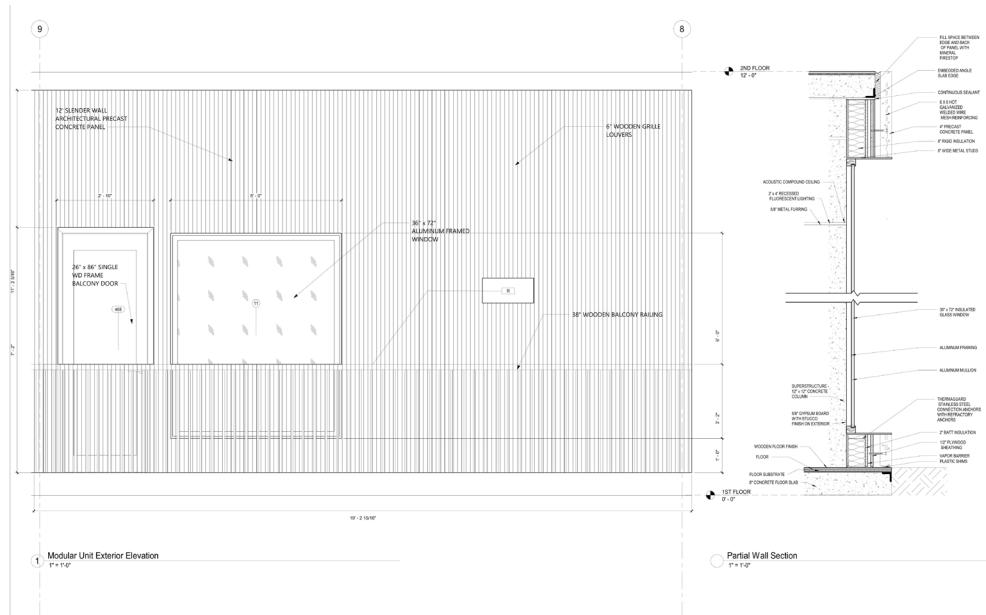
# CONSTRUCTION DOCUMENTS

Spring 2021

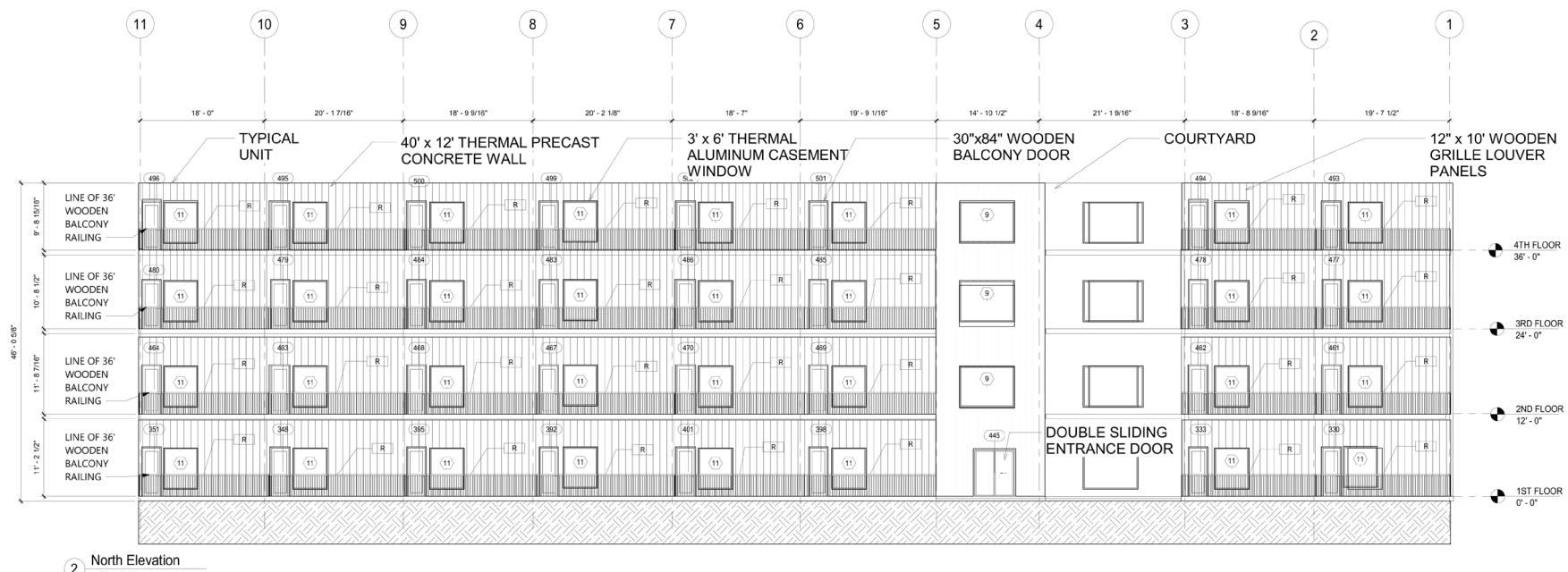
Production of construction documents set for a simplification of the ARCH 301 project using Revit.



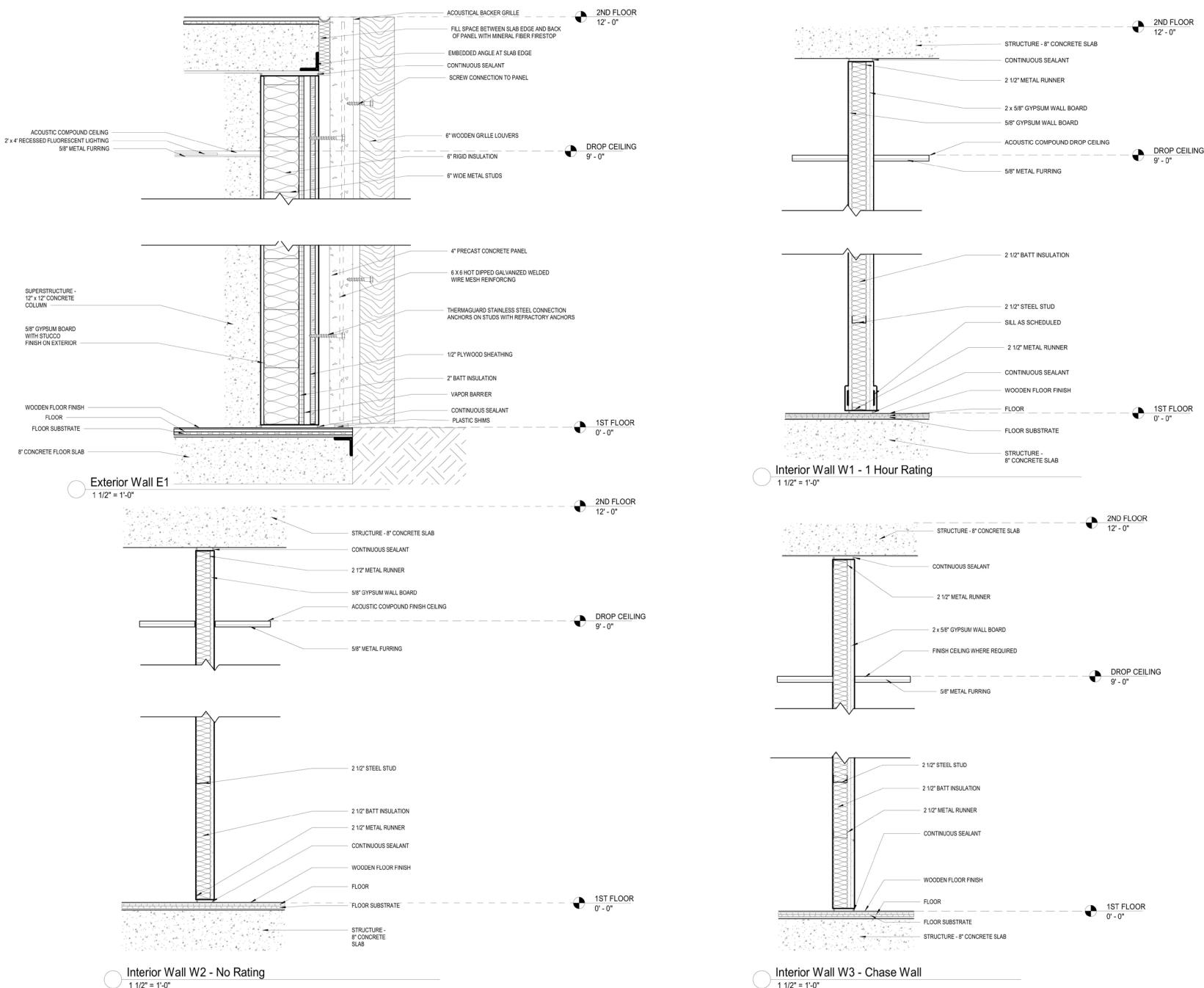
## First floor plan



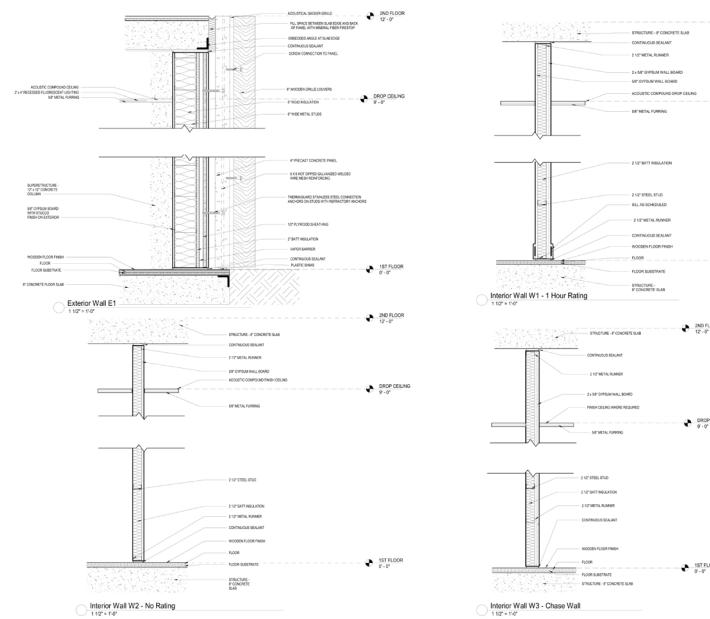
### Unit exterior elevation with wall section



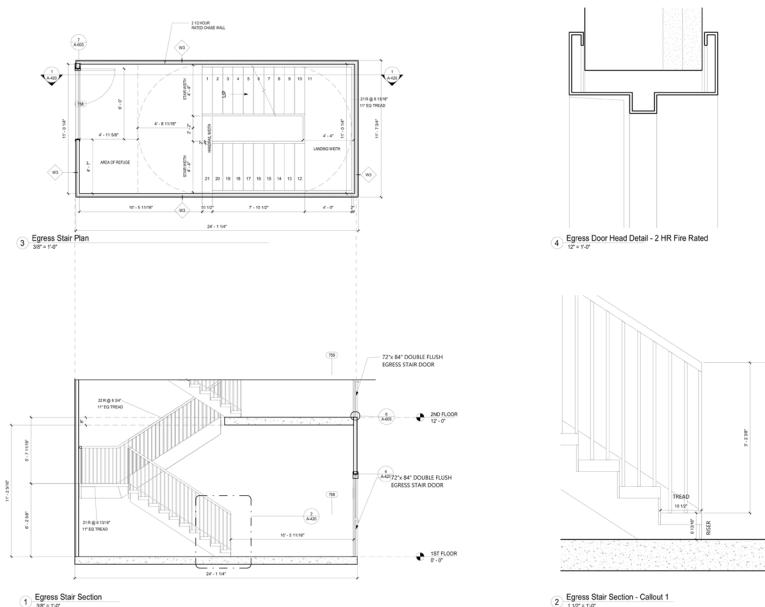
### Building elevation



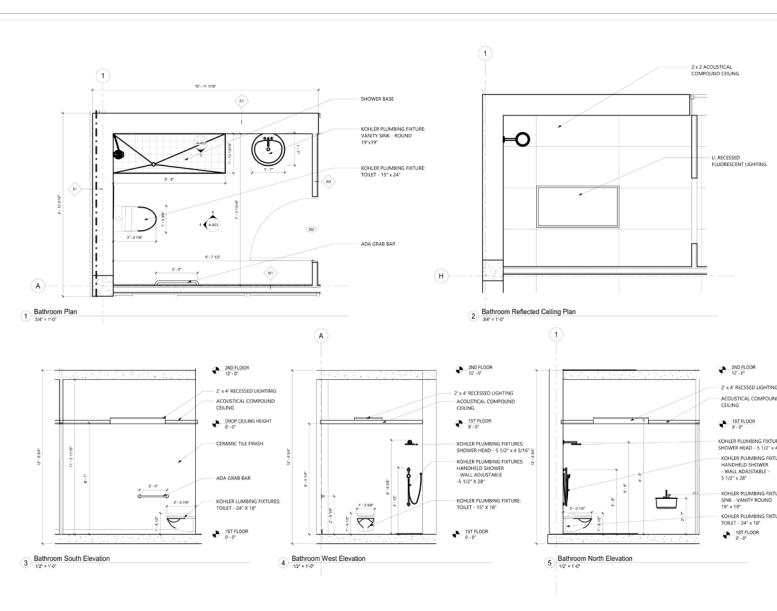
### Exterior wall details



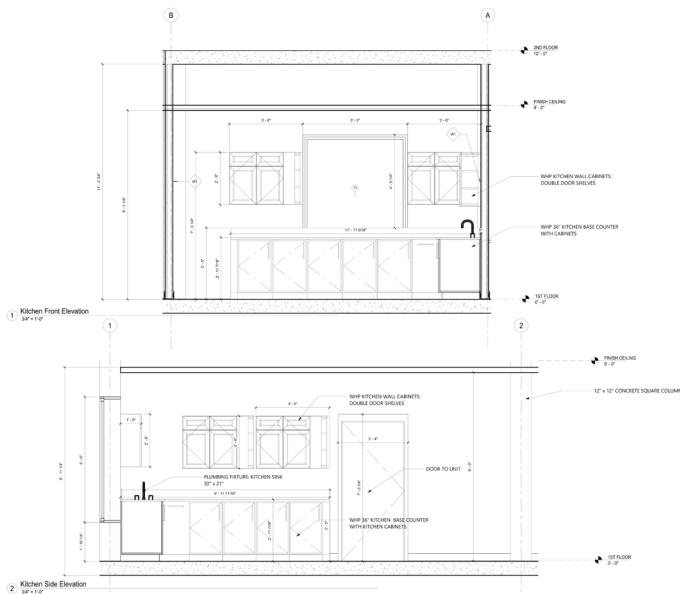
## Typical wall details



## Egress stair drawings



## Bathroom drawings



## Kitchen elevations



The project investigates the **resettlement of the people in Gosaba village** of the Sundarban forest in northeast India. As a village, they value **agriculture and water**, seen from images and their ways of living. As a result of the **sunderbans projected to being underwater by 2070**, they will be **relocating to Domjur, an urban agglomeration** of Kolkata, a major city in India, which also happens to be in the same state as the Sundarban forest, but **safe from rising sea levels**.

The **agricultural urbanism** of the new settlement takes into consideration both, Gosaba as a heavily **agricultural based village** and Domjur, as a **growing industrial, residential, and commercial town**, especially famous for its gold jewelers. The **new marketplace** on the settlement will **connect the old and new together** through allowing not only products produced in the new urban farms, but also those made in the existing commercial district of Domjur, to be exchanged and sold. It will also **connect the two parts of the new settlement**: the residential and commercial districts together by being sited in the center of the settlement.

## ARCH 403: CLIMIGRATION

Fall 2022

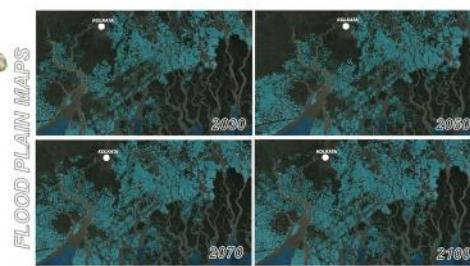
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24

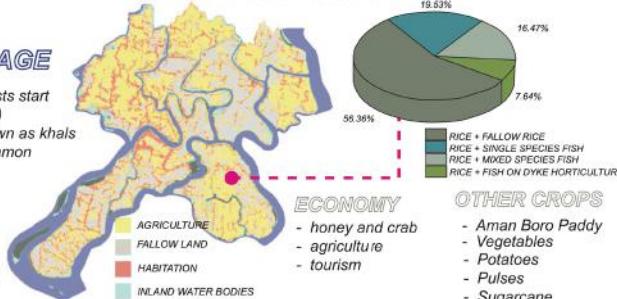


- interspersed with tidal waterways
- maritime, tropical, humid climate
- 1800-2790 mm rainfall

world's largest delta



#### LAND USE + CROPS GROWN



#### GOSABA VILLAGE

- flat low-lying area
- last inhabited area before the deep forests start
- 3 hours by road to Kolkata (state capitol)
- streams and water channels locally known as khals
- human/tiger conflict and attack very common
- tubewells are arsenic contaminated
- 1 hospital with 30 beds
- 12.37% - urban 87.63% - rural

POPULATION: 5819  
1400 HOUSEHOLDS

**ECONOMY**

- honey and crab
- agriculture
- tourism

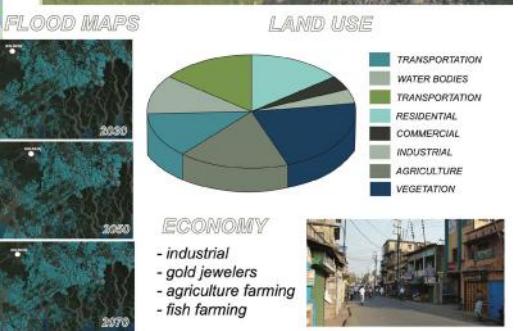
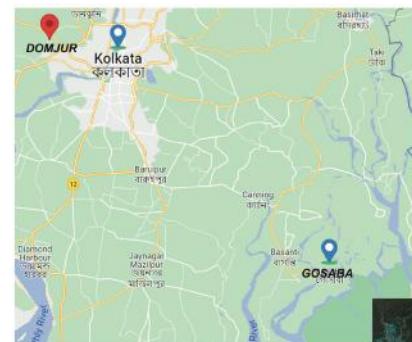
**OTHER CROPS**

- Aman Boro Paddy
- Vegetables
- Potatoes
- Pulses
- Sugarcane

Infographic for Gosaba village, the existing village that will be under sea level in the future.



Existing zoning diagram around the proposed site of the new settlement in Domjur.

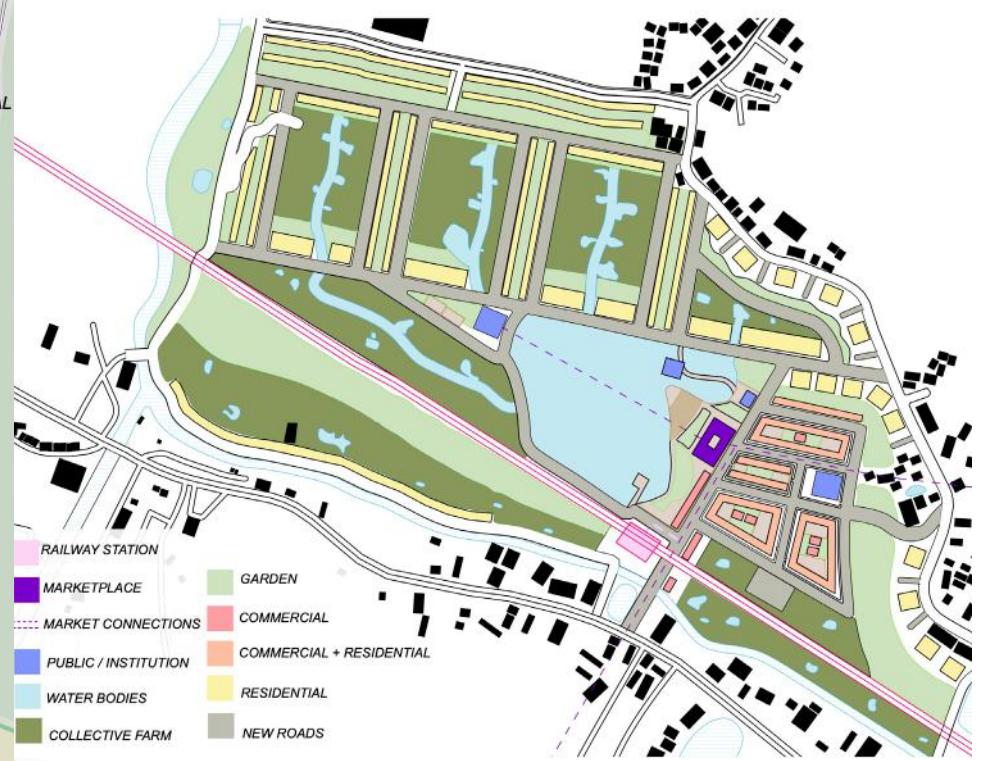


#### DOMJUR AN URBAN AGGLOMERATION

- continuous urban spread consisting of a town and its neighboring outgrowths
- average elevation of 36 feet
- culture: 73% hindus, 27% muslim

POPULATION: 18,433  
49% 51%

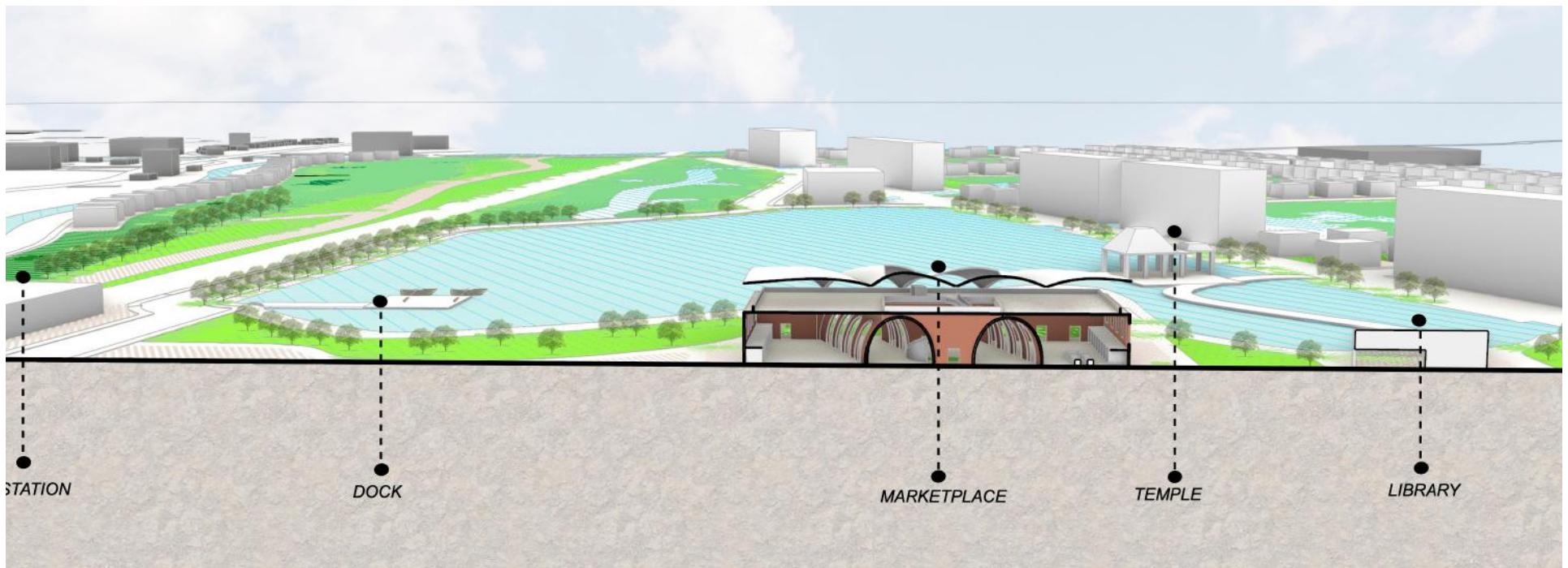
Infographic for Domjur, the urban agglomeration where Gosaba residents will move to.



Zoom in view of the settlement - proposed zoning on the vacant agricultural land site in Domjur.



Plan view of the new proposed settlement: agricultural urbanism characterizes the settlement.



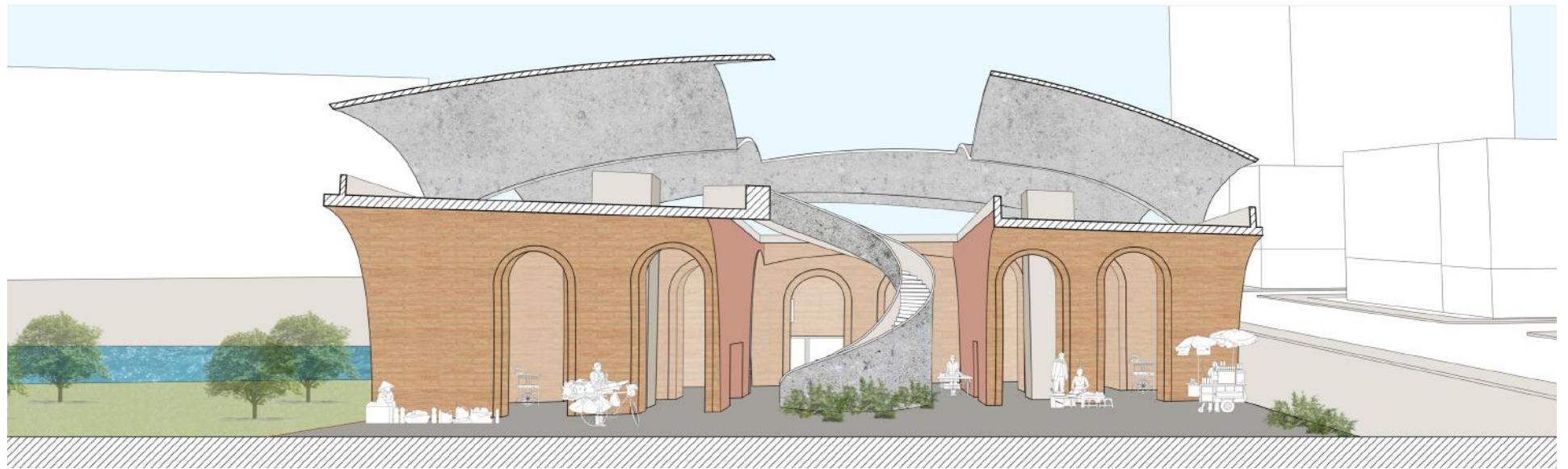
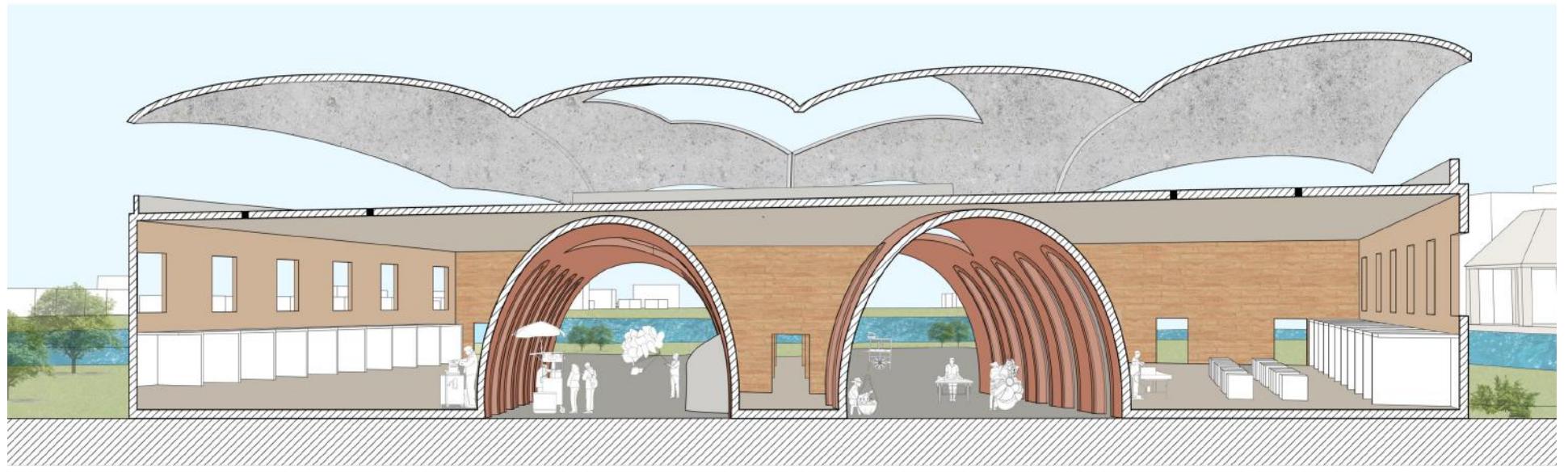
Site section showing the marketplace in relation to other proposed public buildings and the existing railway station



Floor plan of the marketplace.



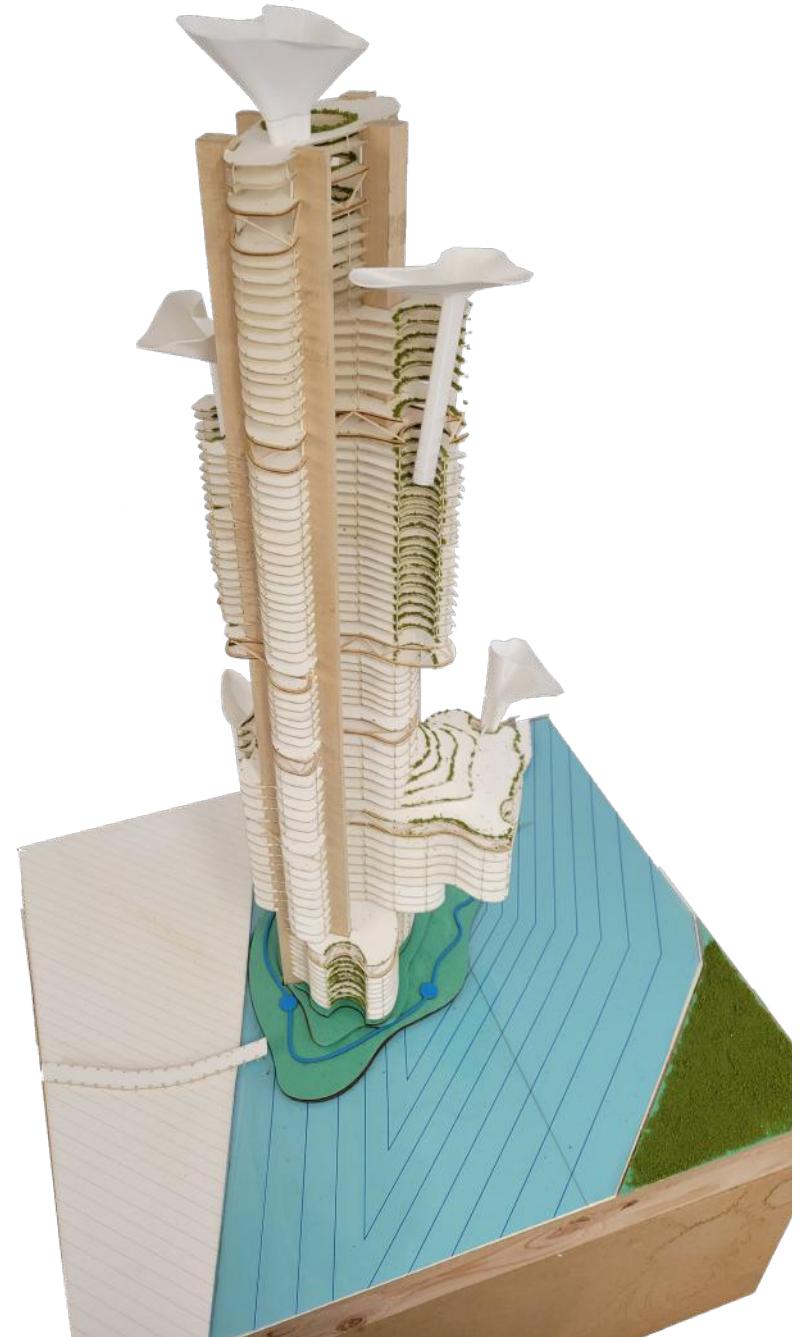
Perspective view of the marketplace.



Sections of the marketplace.

This project is a **100 floor mixed use high rise tower** in **Mumbai, India**. It is sited on waters of the Mithi river, which runs in the middle of Bandra Kurla Complex, one of Asia's richest business districts, and Dharavi, one of the world's largest slums. The **inequality and polarity** in the area is what the project aims to bridge, both literally and symbolically.

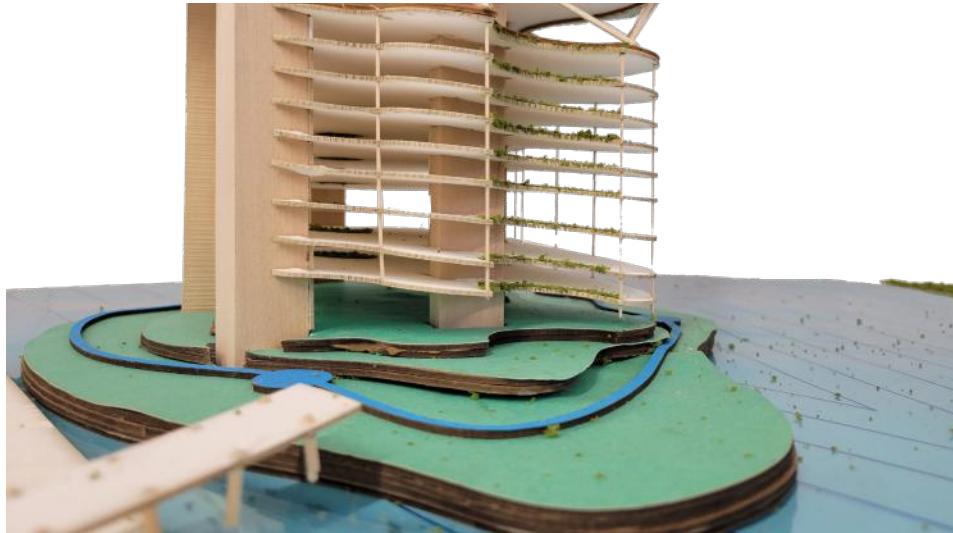
The distinctive feature of the building is the **rainwater harvesting and management system** that runs throughout the building, operating in full swing during the Indian monsoons from June to September, and also during other parts of the year, using the ambient heat, and **providing water for the building**.



ARCH 402: **मरम्मत** /marammat/  
translation: restoration

Spring 2022

Physical model: 1/16": 1'-0"

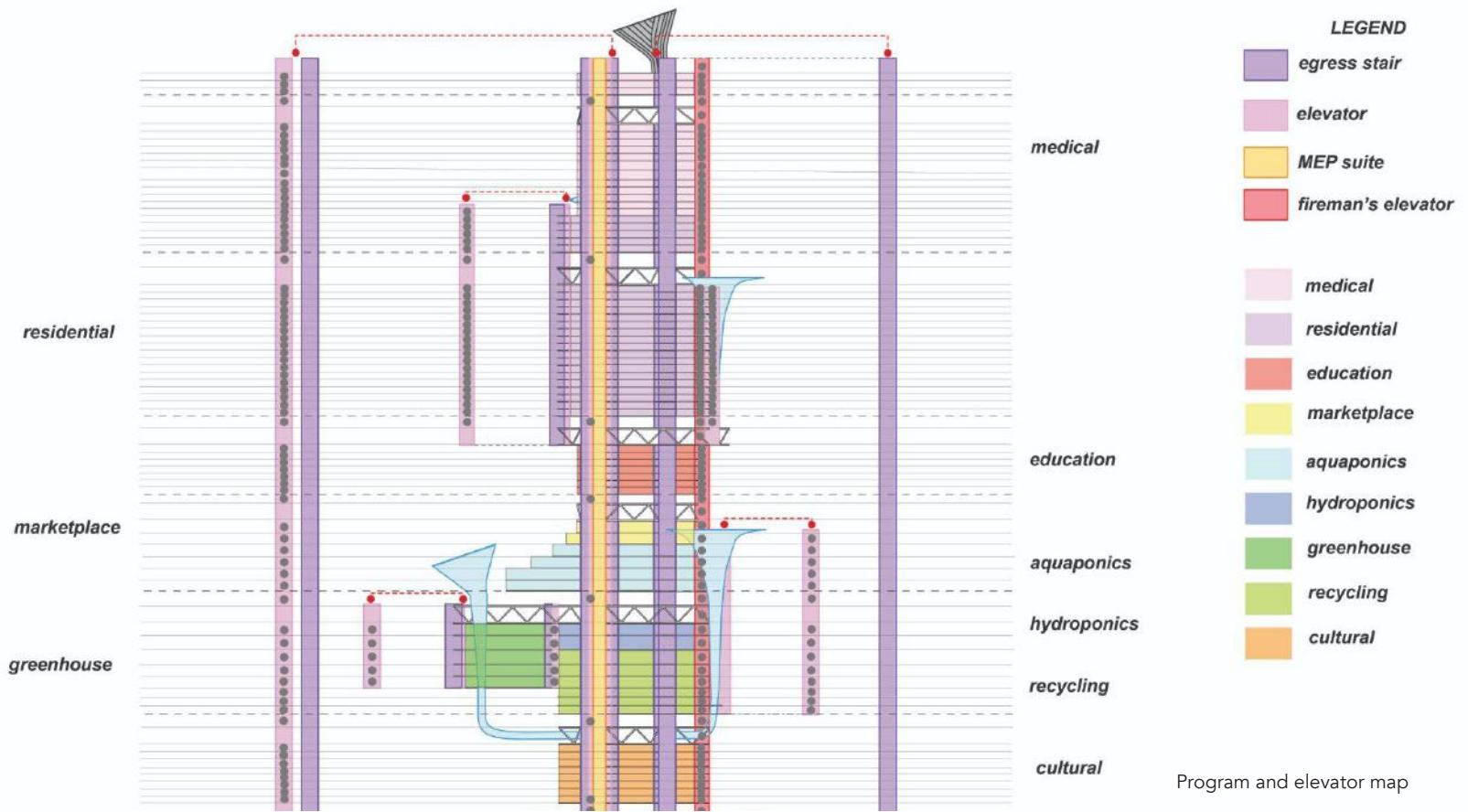


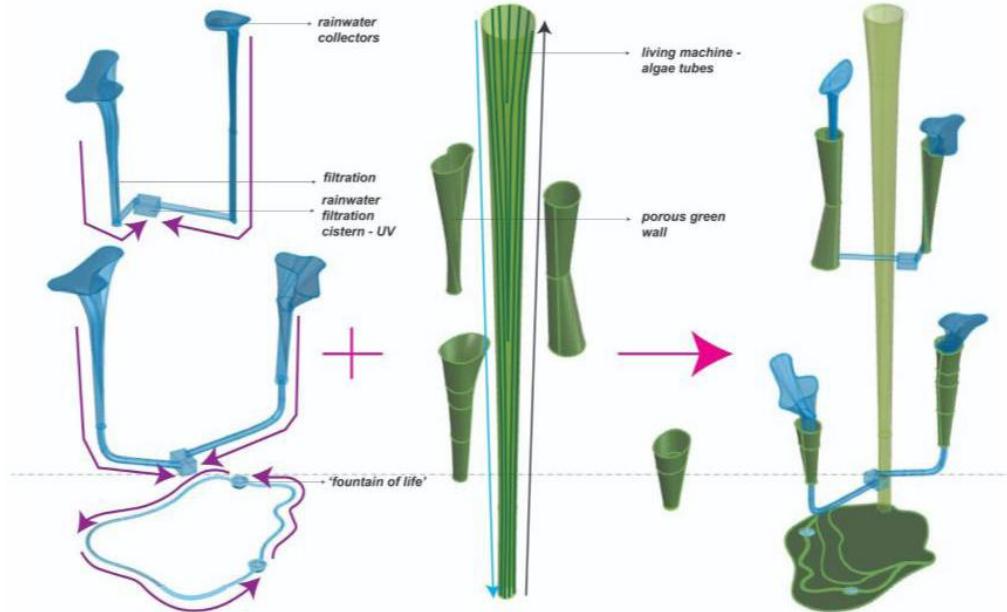
Physical model: Exterior view

The site has been through a lot over the years, suffering drastically from **flooding, epidemic, pollution and poor waste management**, and simply a lack of essential urban features like **drainage, sanitation, drinking water**, and even roads, resulting in haphazard growth.



Physical model: View of floor slabs and courtyard





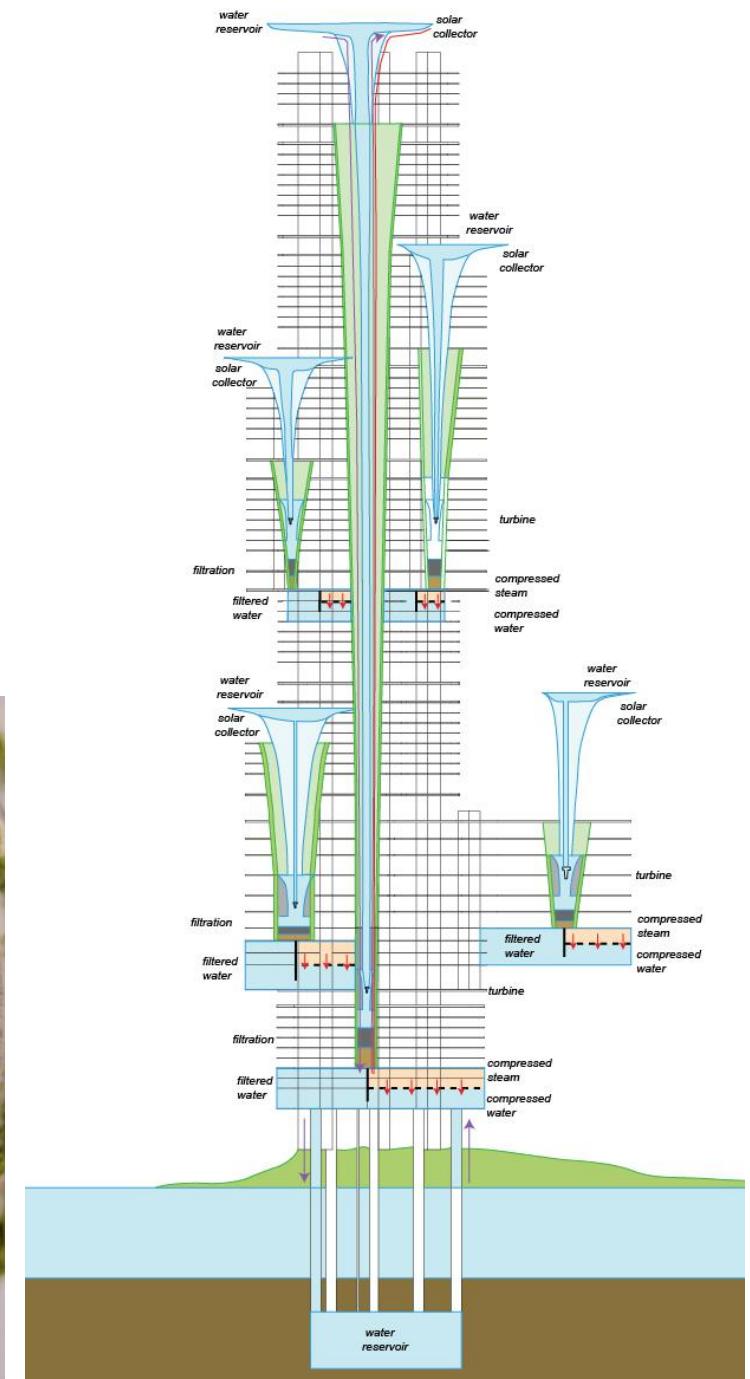
## Blue and green systems of the building



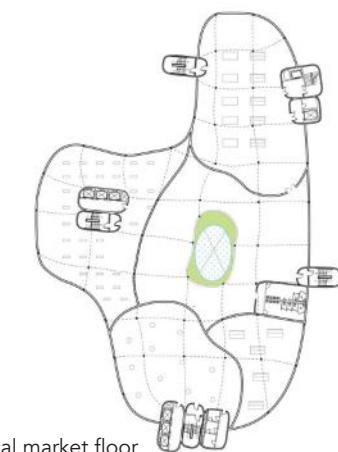
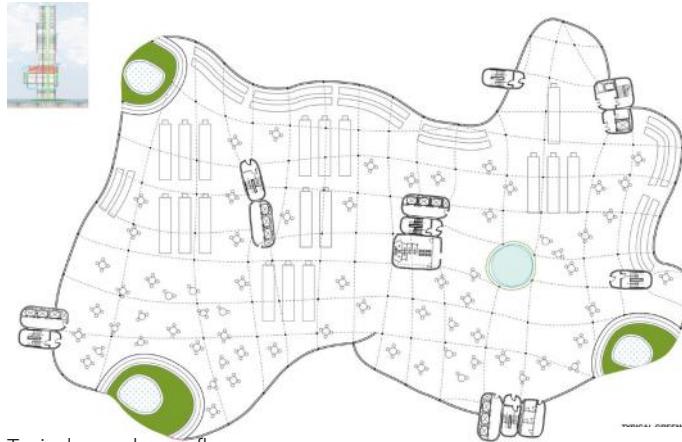
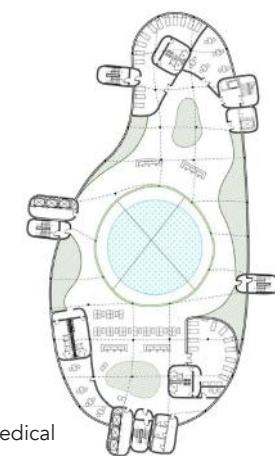
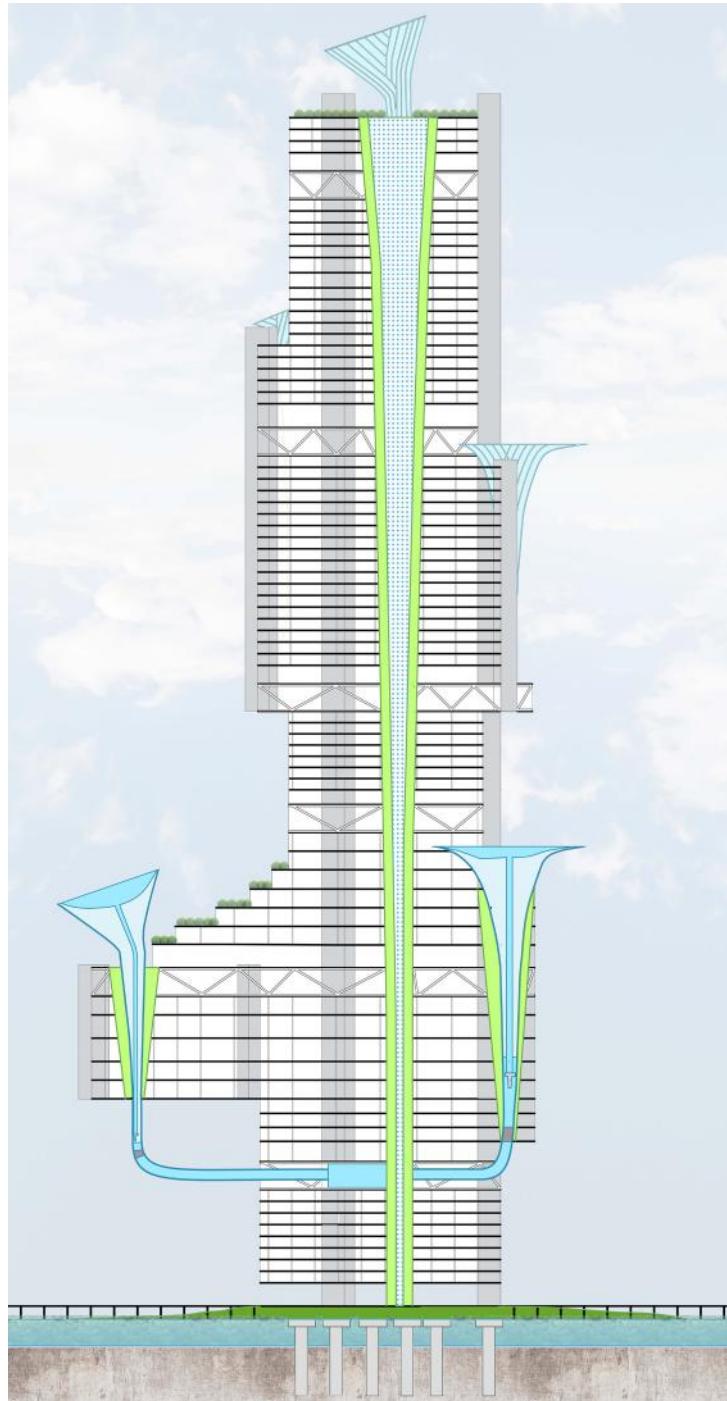
### 3D printed rain funnels on physical model



View from above of the central living machine courtyard



## Rainwater harvesting system all year round

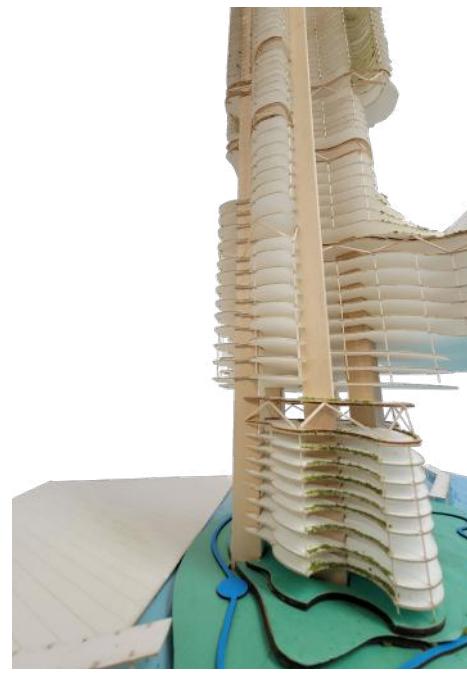




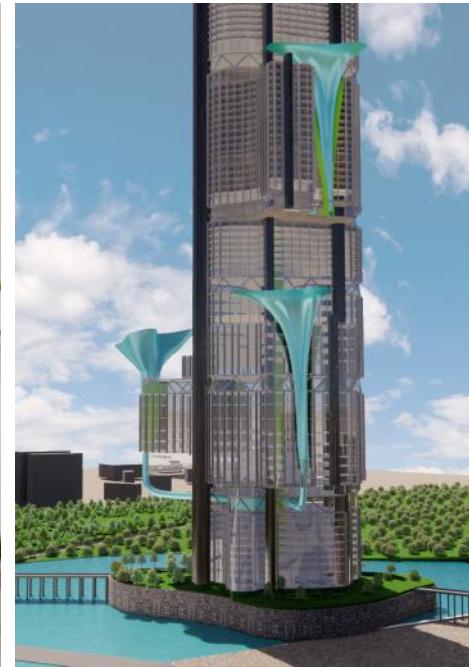
1/16":1'0" scale physical model: wood, museum board



Physical model: stepping on greenhouse floors



Physical model view and scale reference



Exterior render



*fin.*