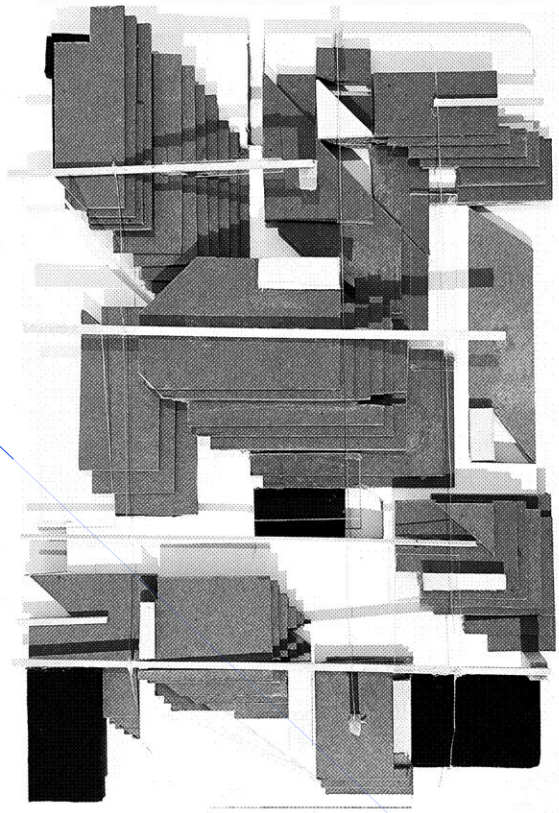
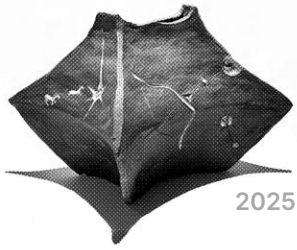
Mona Li
Portfolio

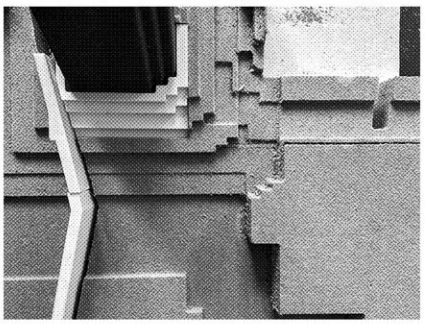
2022

2021





2025

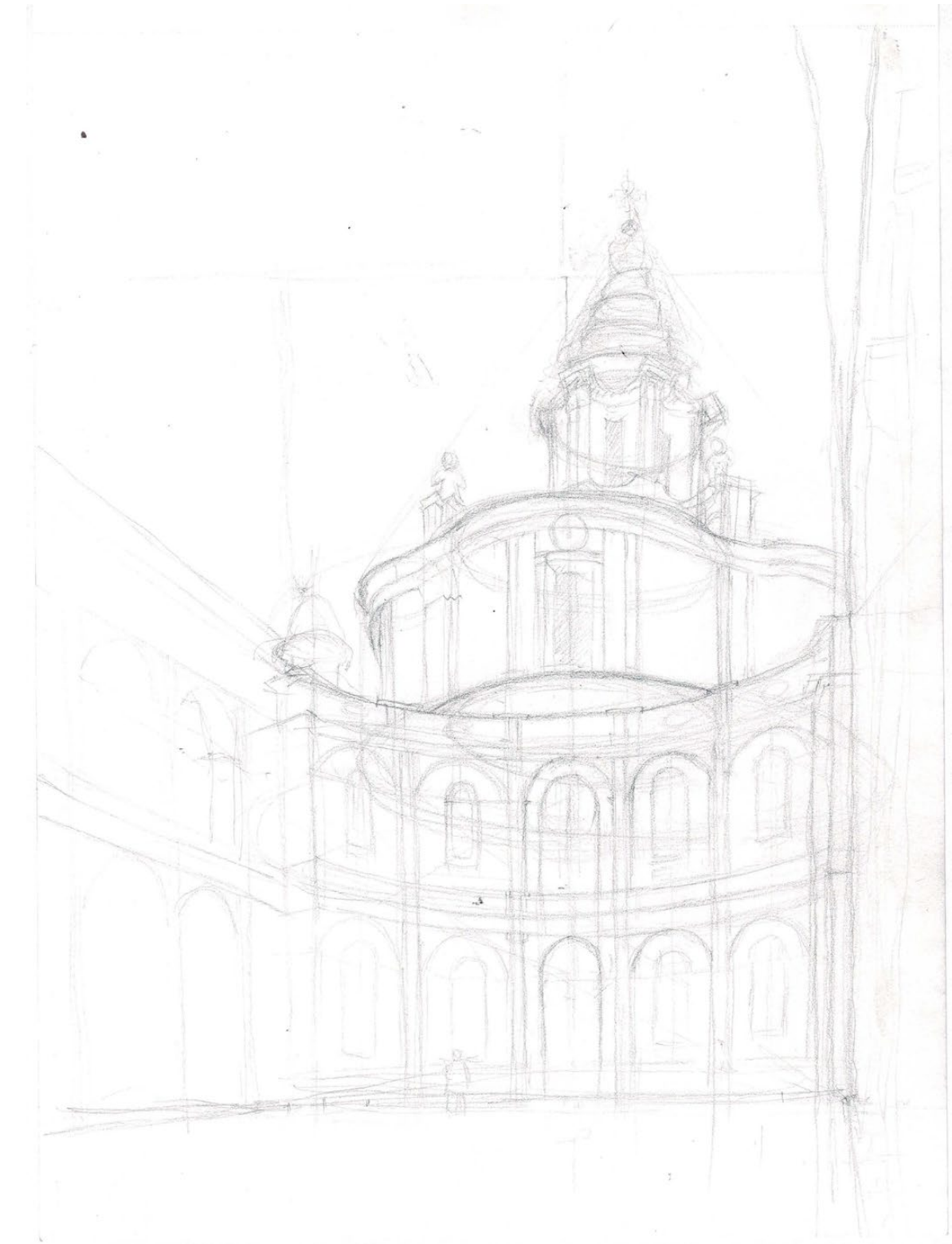


2024

PRATT INSTITUTE
B.ARCH

5TH
YEAR

SPRING
2026



[Travel Sketches, Rome, Spring 2025]

Contents

2023 | NECTO

2025 | FemTech Capsule

2024 | See-Saw Complex

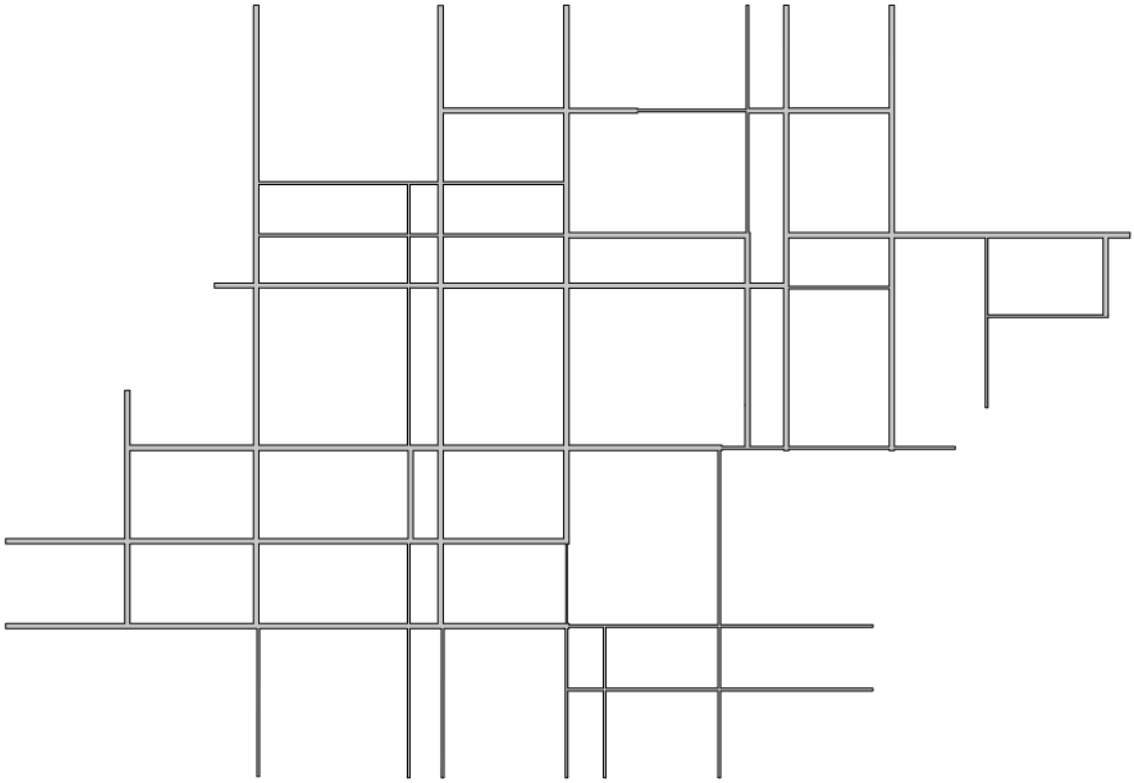
2024 | Eroding Chronicles

2024 | Soil to Ground

2025 | Professional Work

1/ NECTO

A Community Center



Fall 2023
Professor Phillipe Baumann
with Yeri Kim

NECTO as a community center and fresh food market offers the Lower East Side community a chance to exchange cultural ideas through culinary arts. NECTO aims to educate the future generation on topics around horticulture and sustainable food production, in response to current debates around food security and health.

The educational, interactive program volumes are scattered around the site, in order to leave minimum impact on the precious free space. Endulating landscape prompts exploration and invites everyone to come and visit; different users experience may choose to take different routes, but the centered open market is open to all.

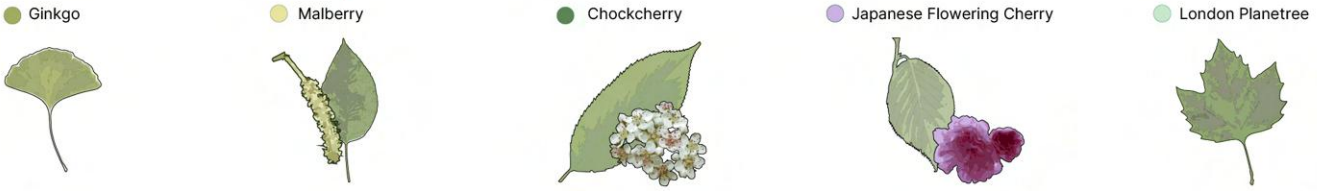
SITE ANALYSIS

SARA D. ROOSEVELT PARK'S VEGETATION AND THRESHOLDS

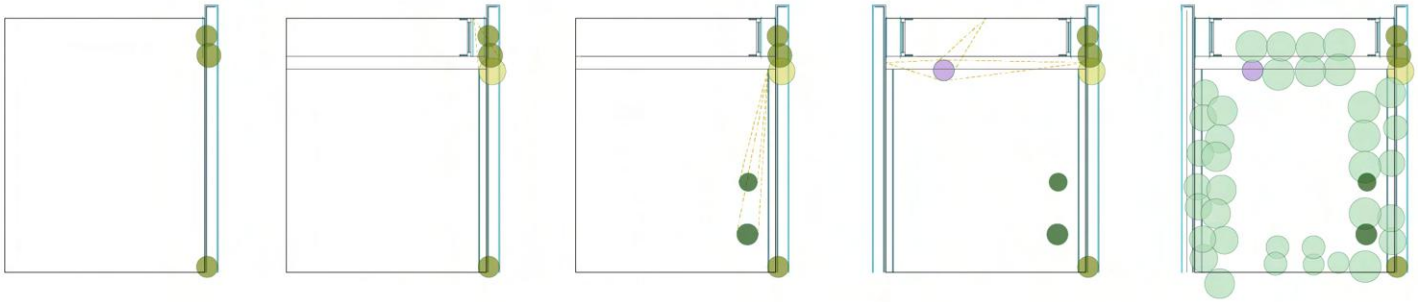
Chrystie St &, Forsyth St, New York, NY

E HOUSTON STREET

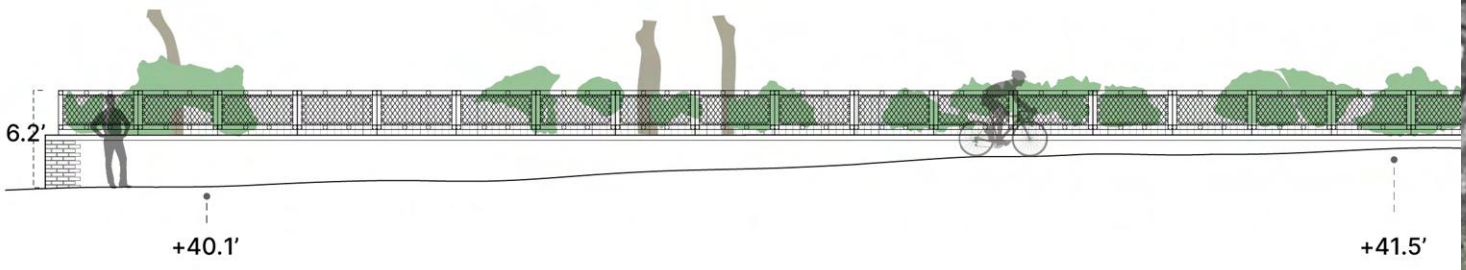
VEGETATION



THRESHOLDS

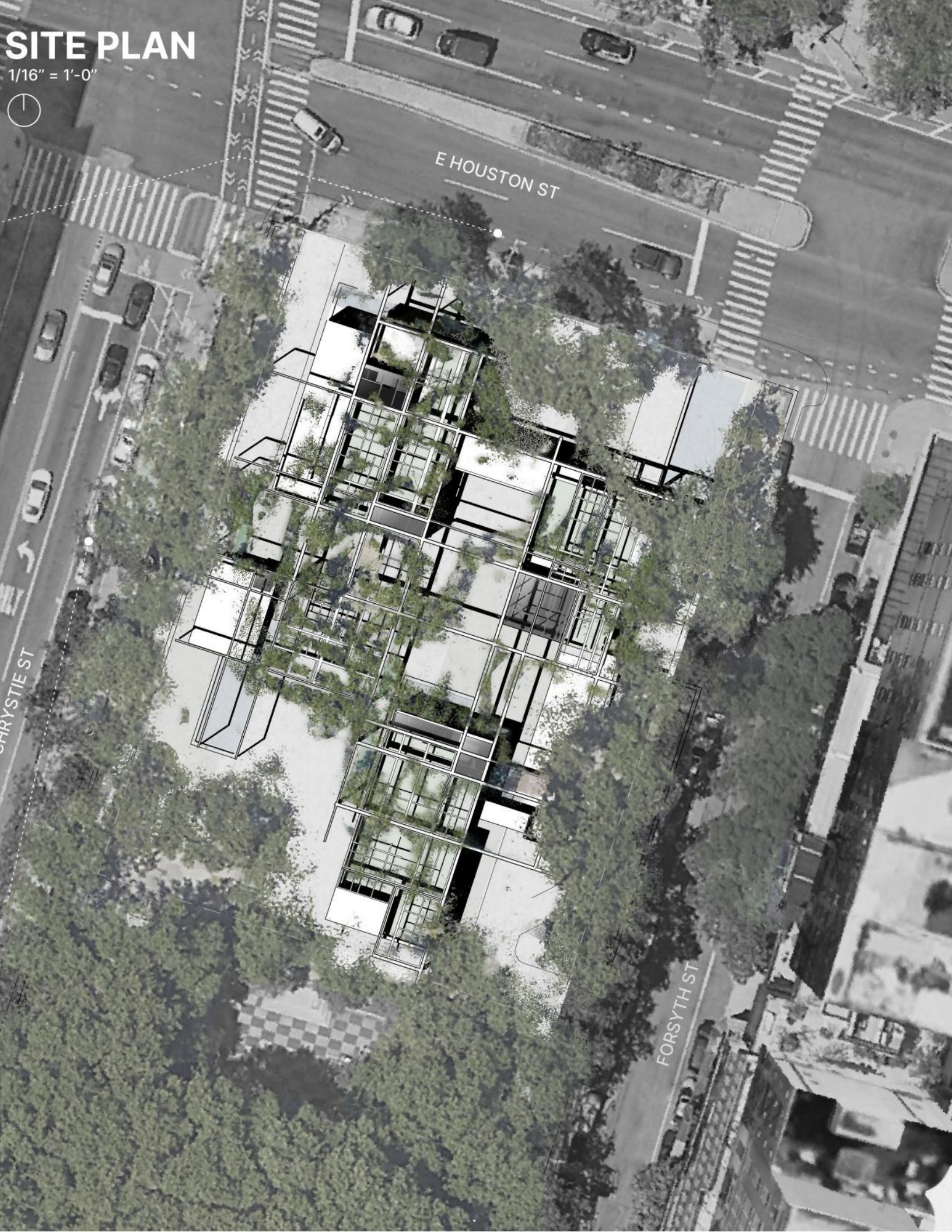


CHRYSTIE STREET



SITE PLAN

1/16" = 1'-0"

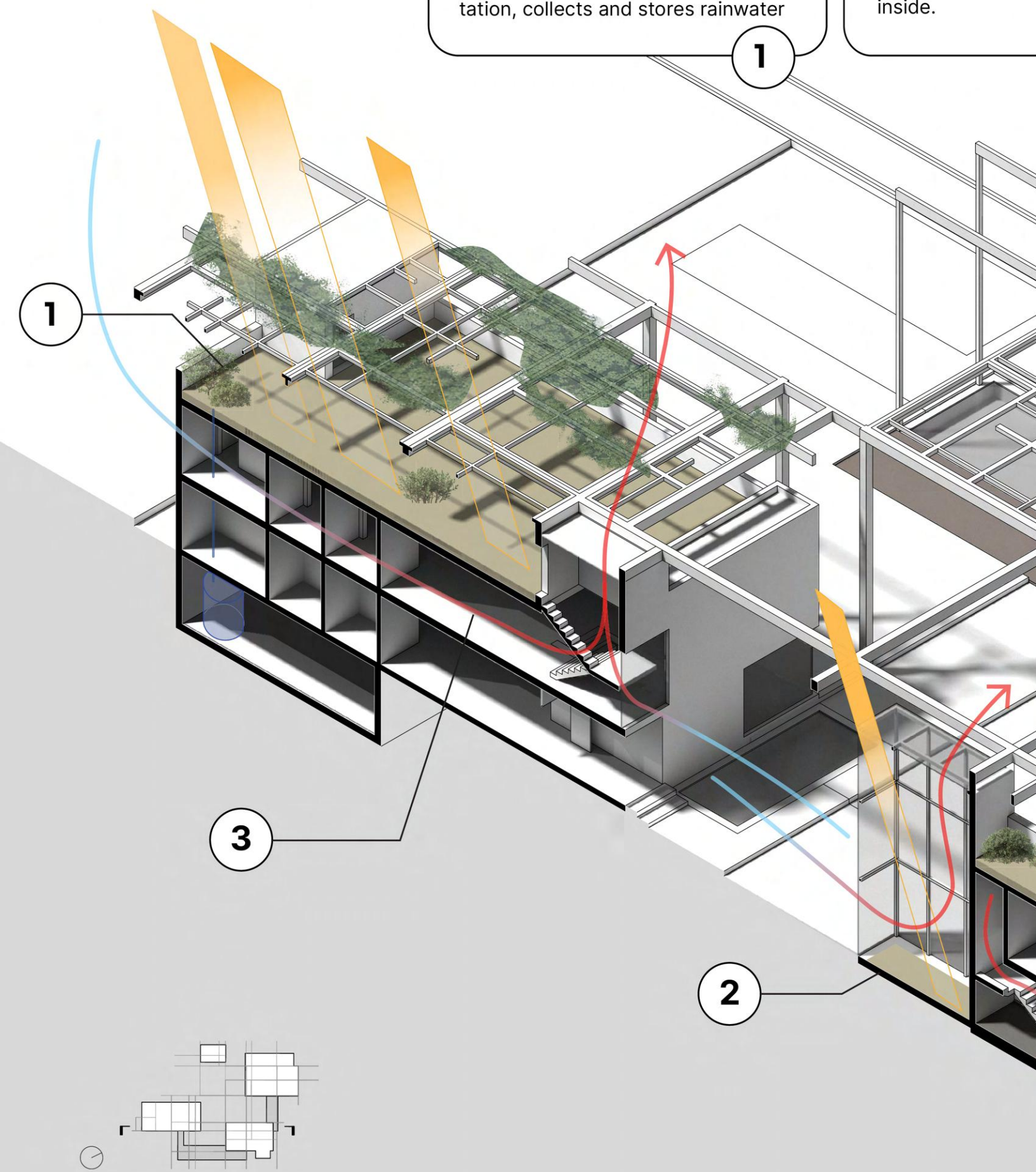


SUSTAINABLE STRATEGIES

INTENSIVE GREEN ROOF:
Playing a role as a passive cooling system, this system introduces vegetation, collects and stores rainwater

1

SUNROOM/GRE
This space maxim
and radiation for t
inside.



EEN HOUSE
nizes solar light
the vegetation

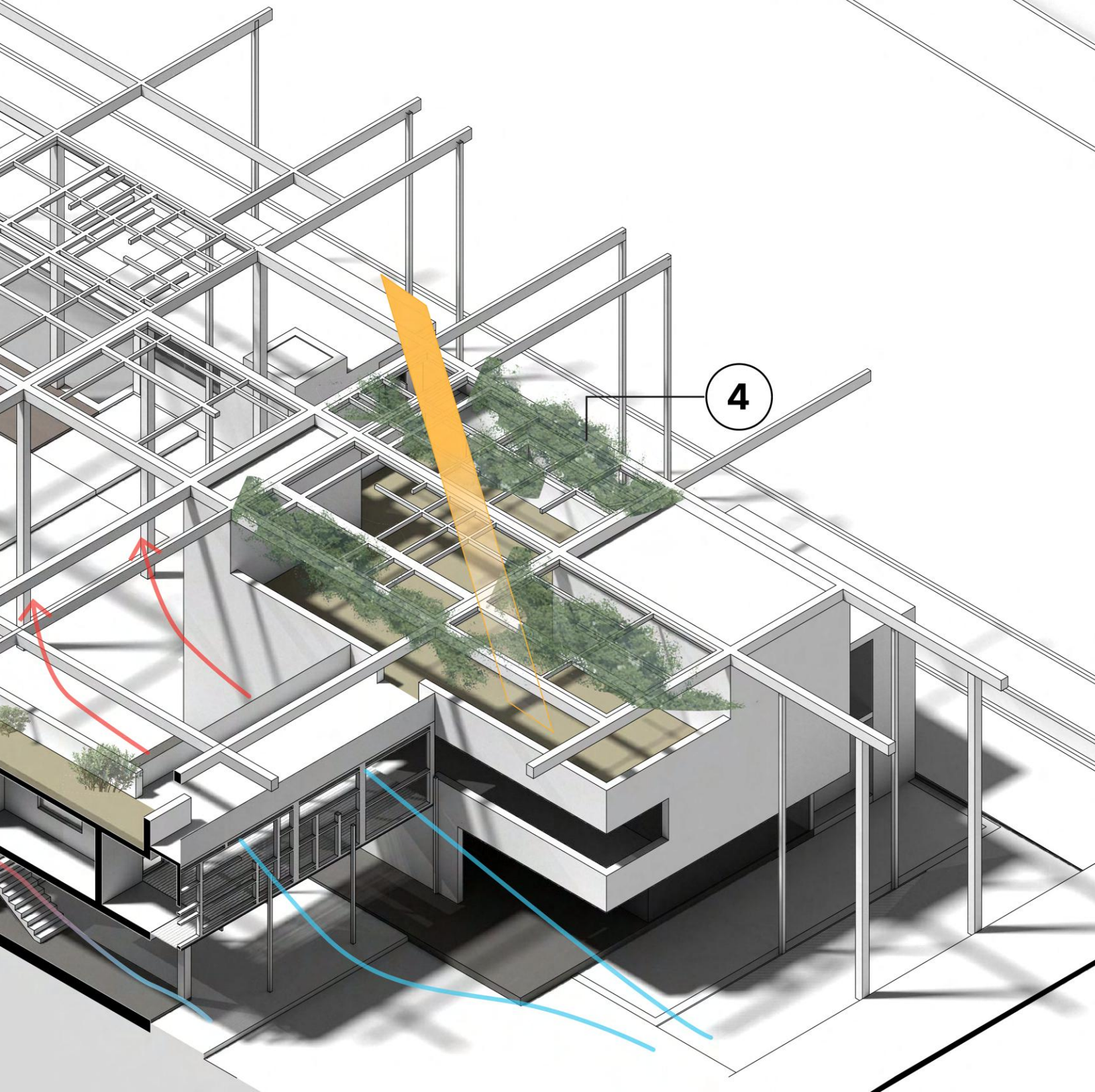
2

PASSIVE AIR VENTILATION
Skylights and varying levels of operable windows allows the air flow to travel throughout the building.

3

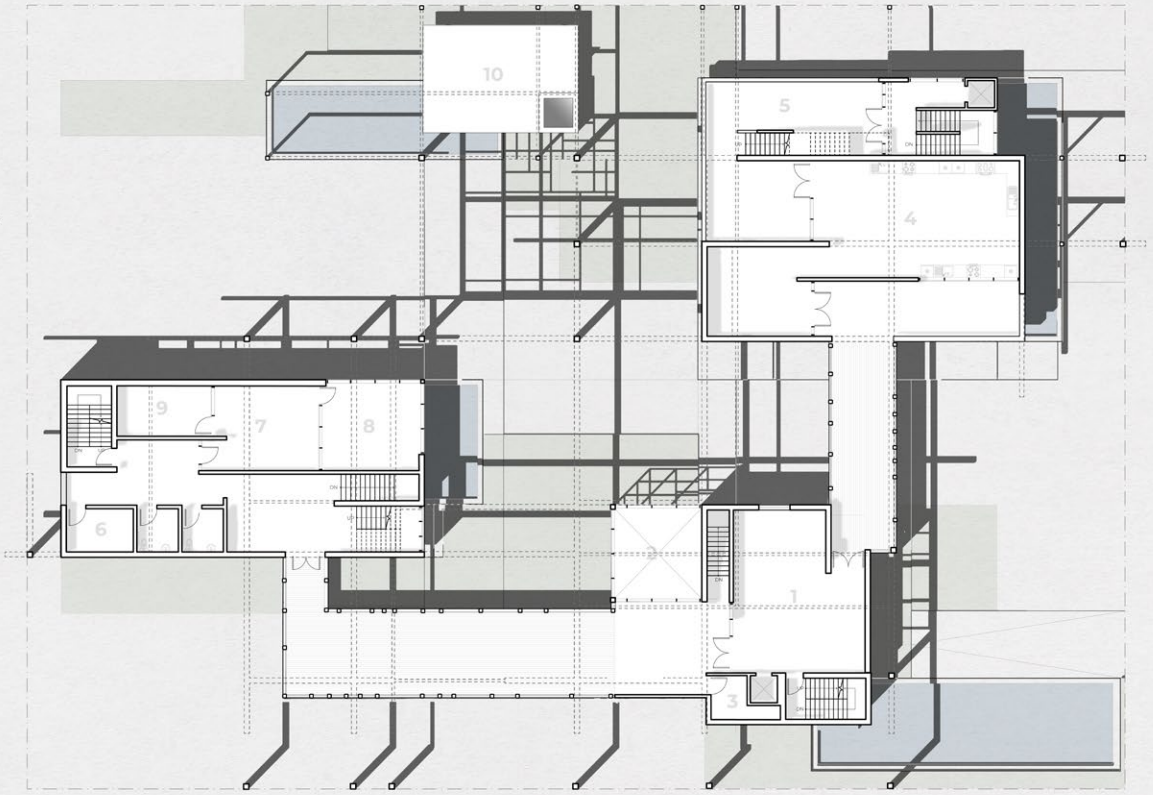
FOLIAGE
The green foliage on the trellis plays a passive cooling system during the summer. However, as it defoliates during the winter, the building would access more solar radiation for heating.

4



SECOND FLOOR

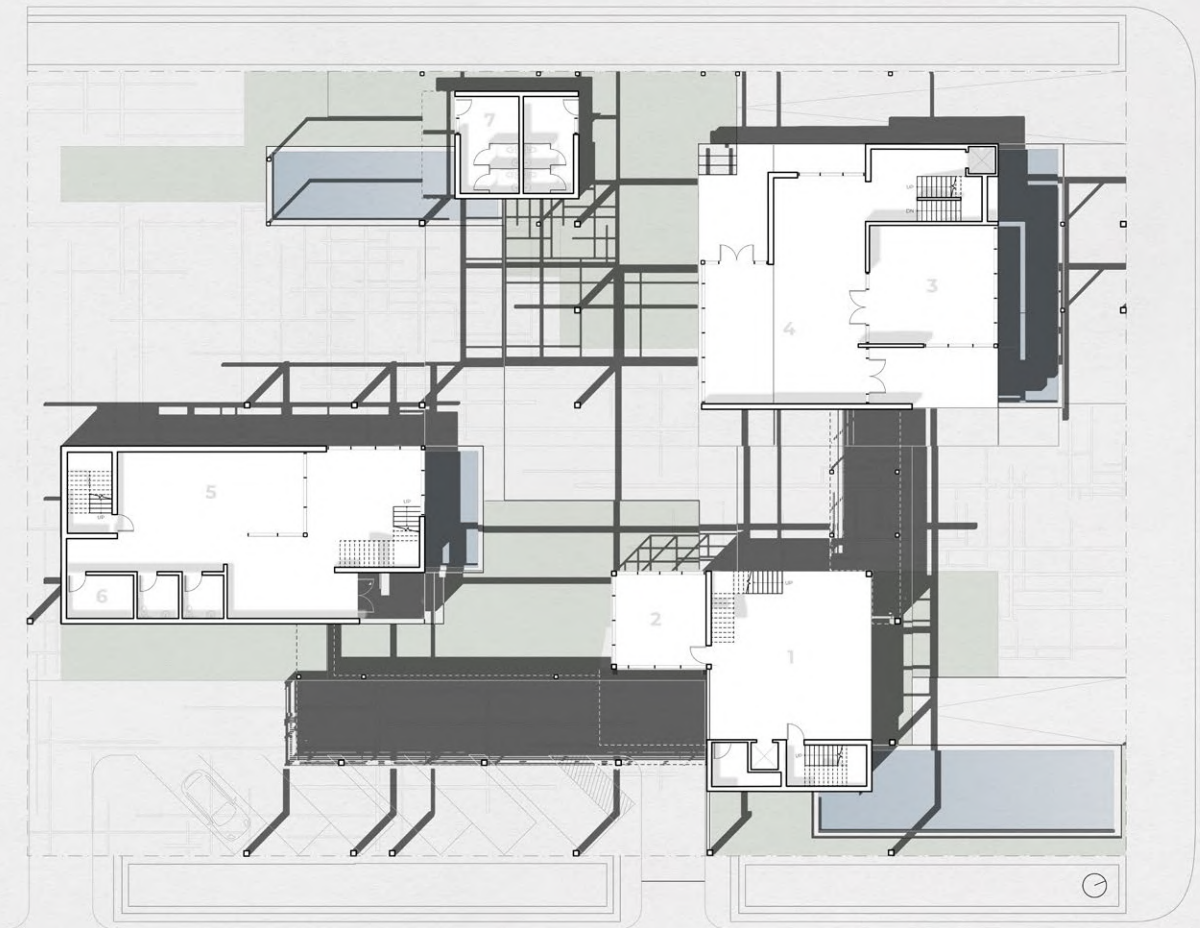
1 CLASSROOM
2 GREENHOUSE
3 ELECTRICAL CLOSET
4 KITCHEN
5 BALCONY
6 MECHANICAL
7 PRIVATE STAFF OFFICE
8 FEMALE CLOAKROOM
9 MALE CLOAKROOM
10 RESTROOMS



POOL
VEGETATION

FIRST FLOOR

1 OPEN DINING SPACE
2 GREENHOUSE
3 LOBBY
4 CLASSROOM
5 OPEN STAFF OFFICE
6 MECHNICAL CLOSET
7 RESTROOMS



POOL
VEGETATION

SEASONS AND CLIMATE

FOLIAGE COVERAGE THROUGHOUT THE YEAR

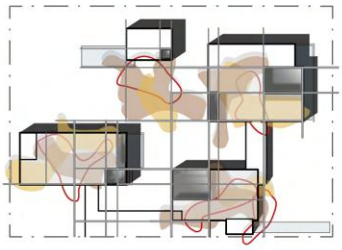
Deciduous woody plants in the park, such as Gingko, London Planetrees, seasonally shed leaves, usually in the fall.

The green trellis mimics and recreates the ephemeral change visible at Sara D. Roosevelt Park.

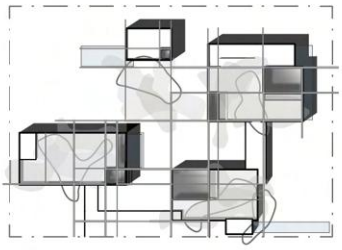
SPRING

SUMMER

FALL

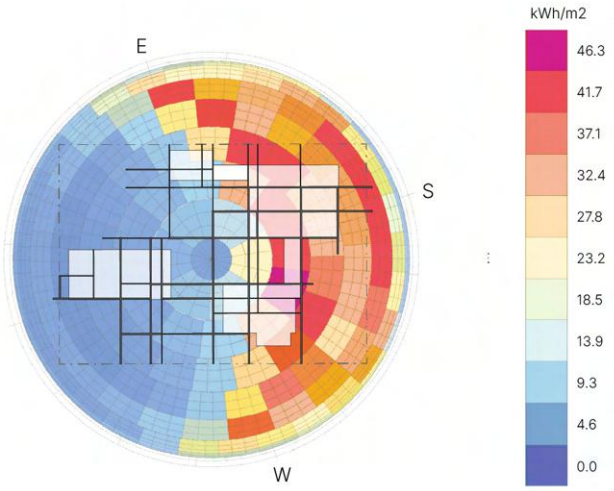


WINTER



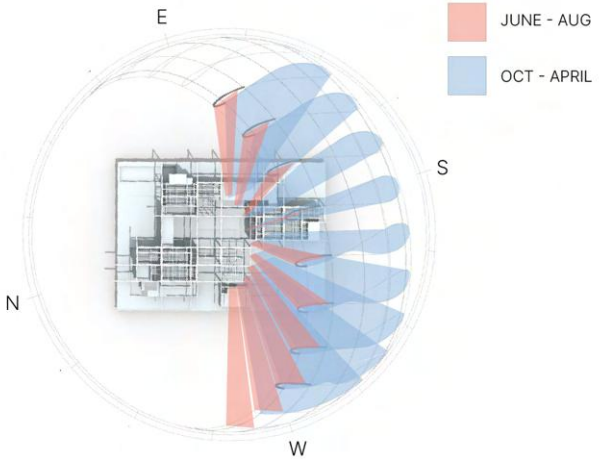
SOLAR ANALYSIS

TOTAL RADIATION



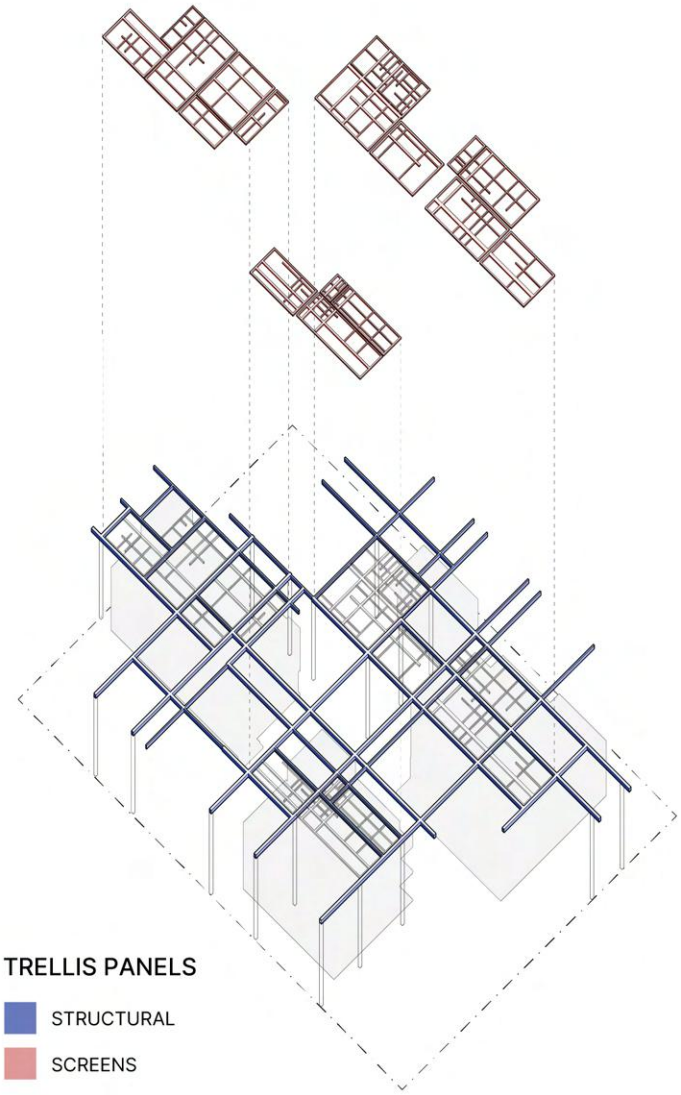
The programs are placed with solar radiation in mind.
The open market is located on the south-west side, which is well-lit and warm.
The classrooms are located in the north side, the consistent indirect radiation is suited for the learning environment.

SUN PATH



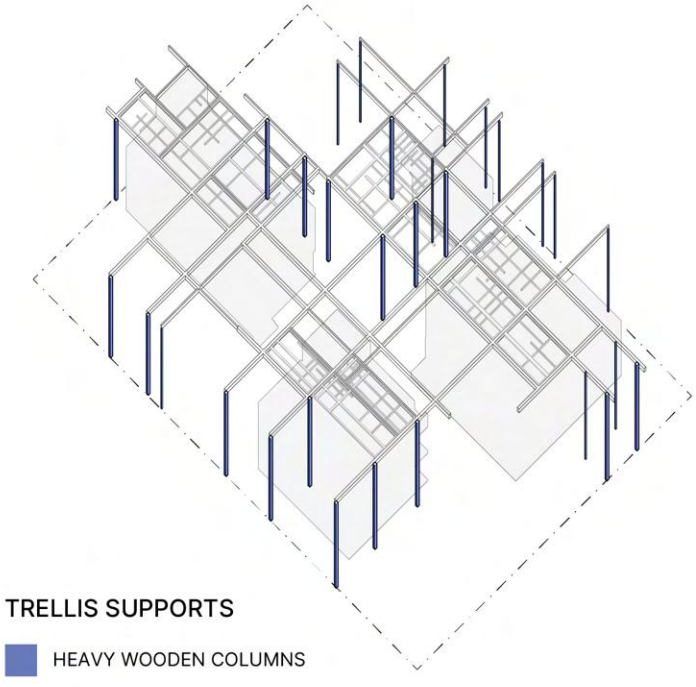
During the summer months, the sun angle is high. The green trellis with foliage coverage prevents overheatiing and acts as a natural sunlight filtler

GREEN TRELLIS

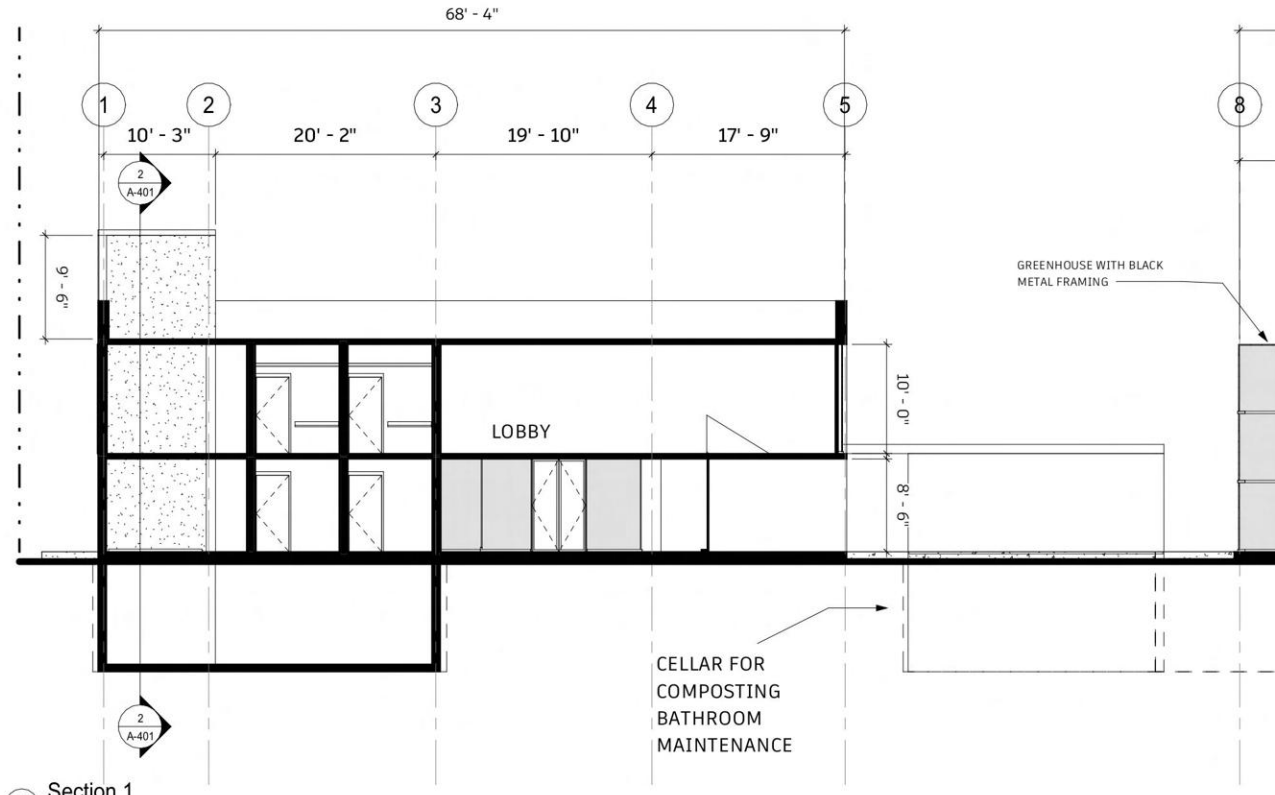


The green trellis provides structural framework to support climbing plants. It creates a natural, eco-friendly vertical garden which is an effective use of urban space. The green trellis improves air quality, offers shade. It also serves as natural partitions between the tranquil park and the busy road.

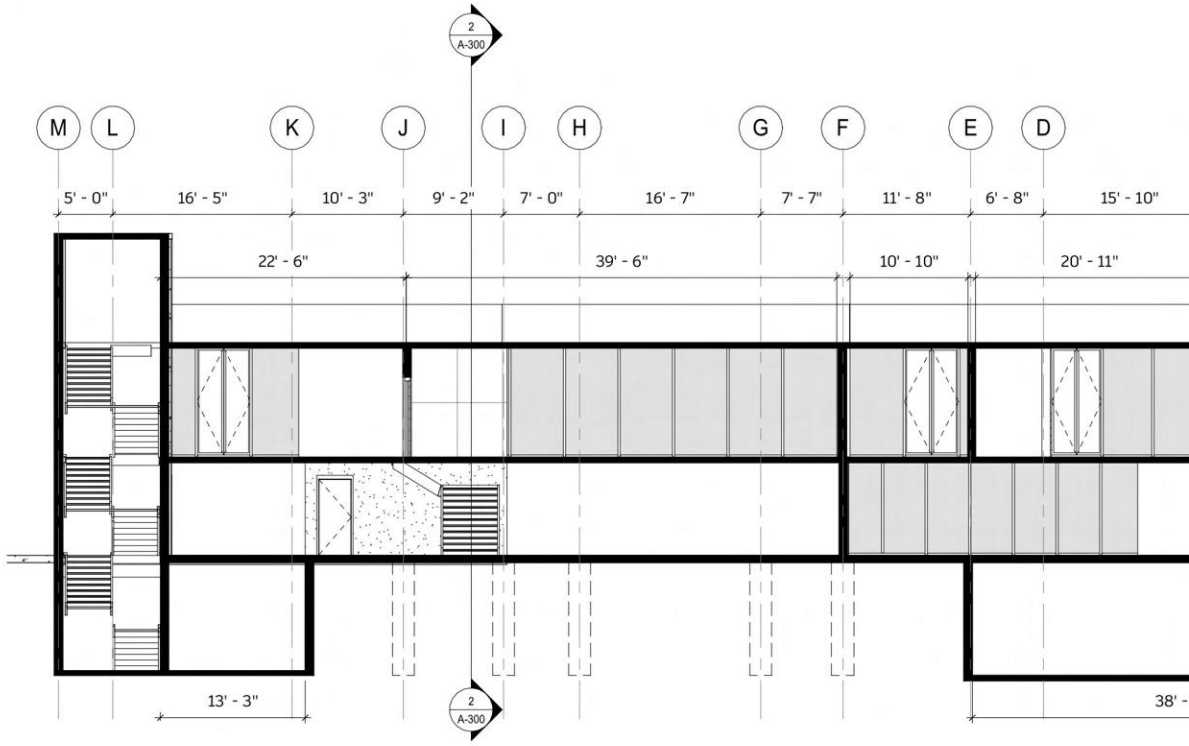
The trellis is made out of heavy wood, fastened with steel plates and engineered bolts. The smaller panels allow for denser growth and rain water collection above building roofs.



CONSTRUCTION DOCUMENTS



2 Section 1
1/8" = 1'-0"



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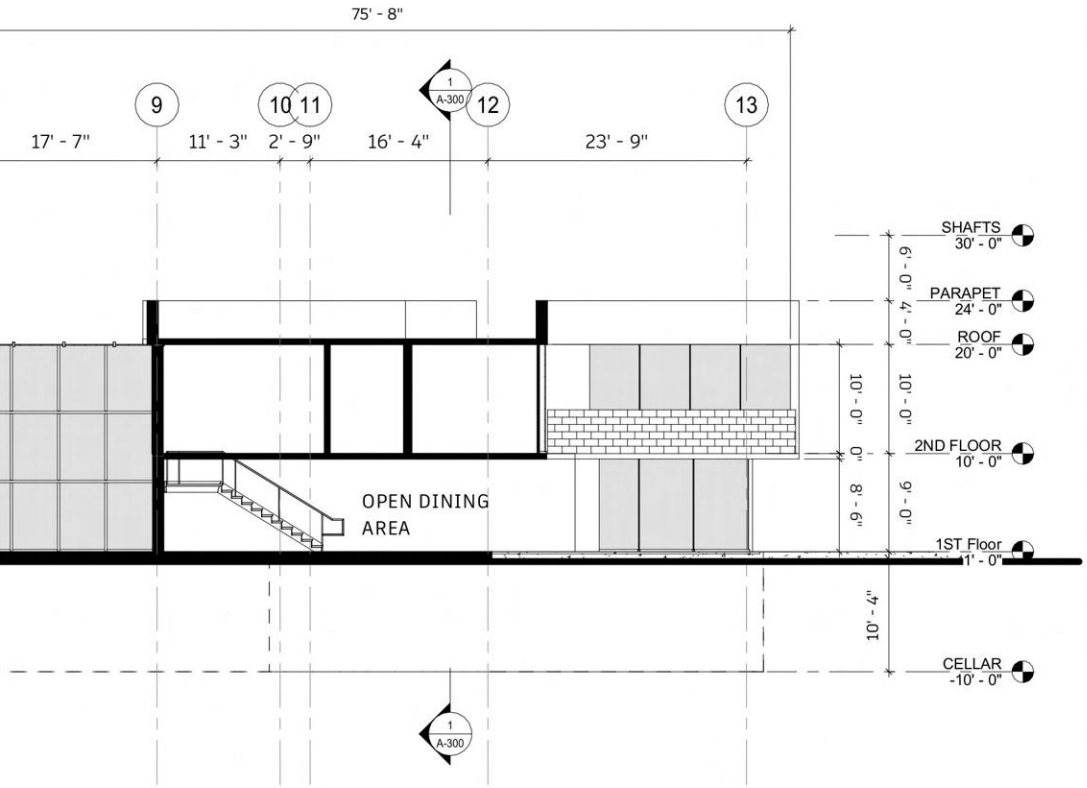
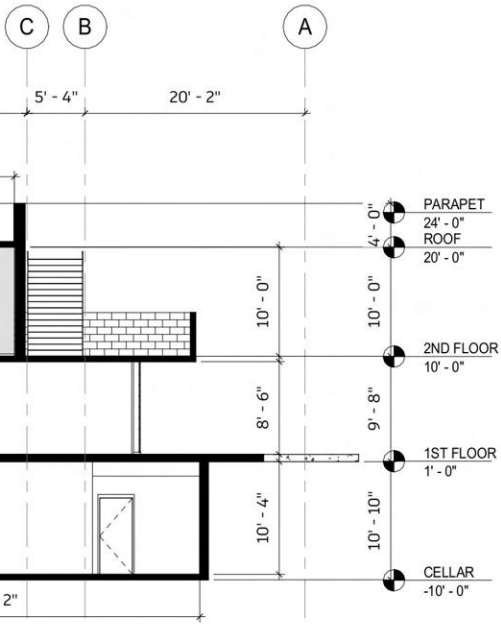
1/8" = 1'-0"





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Consultant Christopher N. Brokaw
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Fax
e-mail

Consultant Jordan Woodson
Address
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Consultant Erik Verboon
Address
Address
Phone
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Consultant
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Consultant
Address
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e-mail

No.	Description	Date

Pratt Institute Brooklyn Campus

Construction Documents
Arch 364 SP24

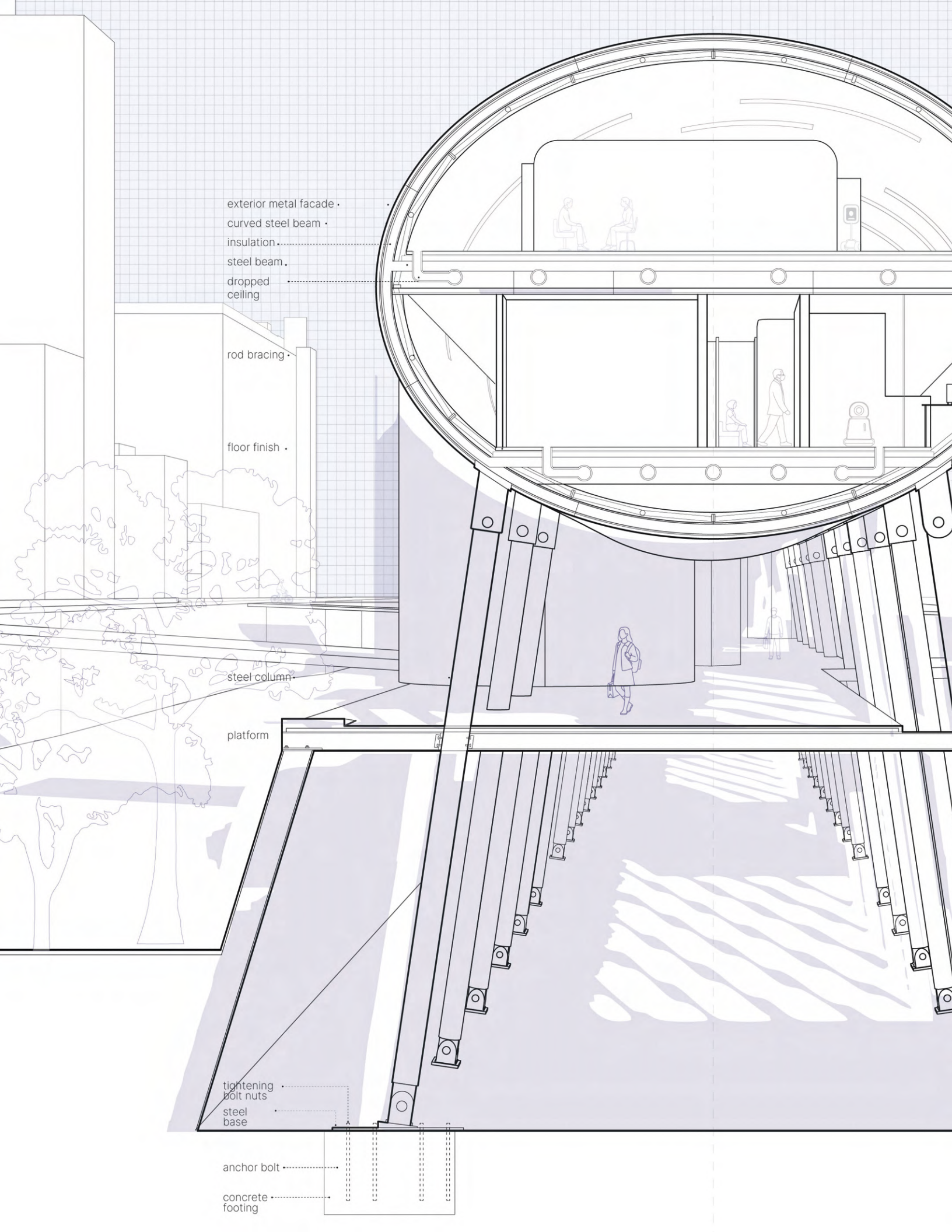
Building Sections

Project number	PI-CD-364-2024
Date	02/04/2024
Drawn by	Mona Li
Checked by	Checker

A-300

Scale 1/8" = 1'-0"

5/1/2024 9:30:30 AM

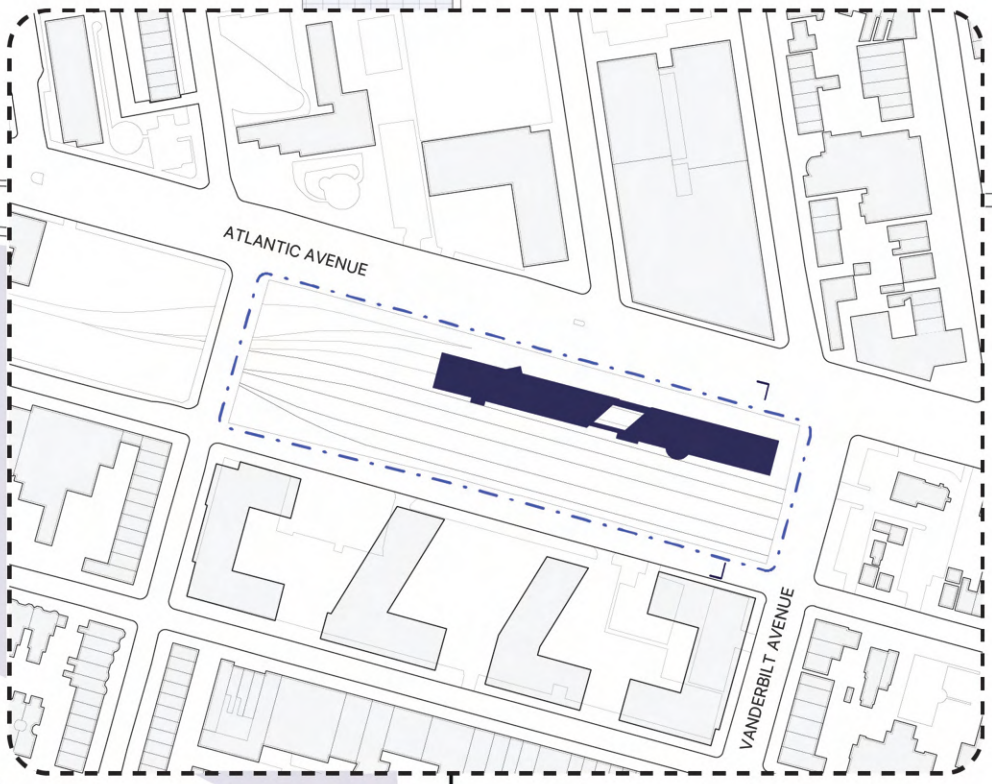

exterior metal facade
curved steel beam
insulation
steel beam
dropped ceiling
rod bracing
floor finish
steel column
platform
tightening bolt nuts
steel base
anchor bolt
concrete footing

2/ FemTech Capsule

Endometriosis Research Lab and Clinic

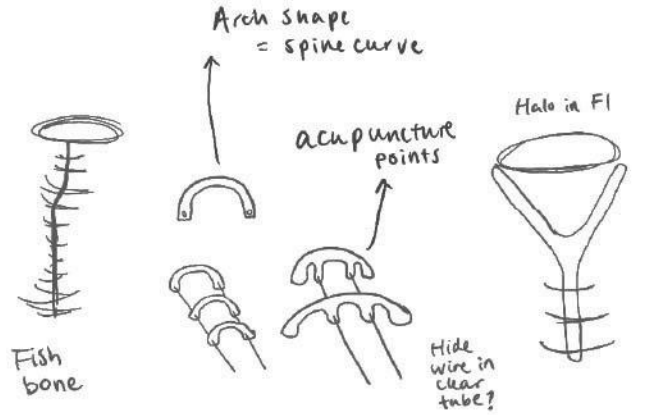
Fall 2025
Professor Rychiee Espinosa

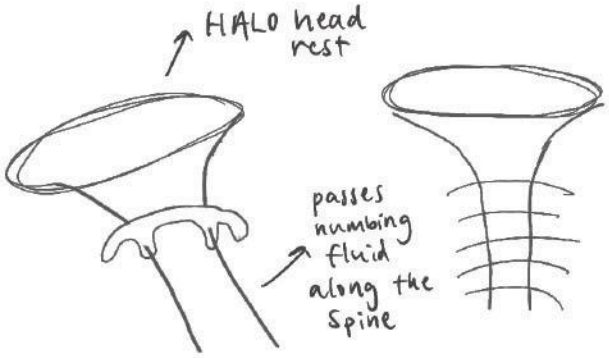
FemTech Capsule reimagines reproductive healthcare architecture through the concept of the human spine. The spine's form informed the linear organizational principle, and is a metaphor for transportation and efficienty. The project addresses the critical gap in endometriosis diagnosis and treatment, the facility integrates research laboratories with clinical spaces, creating a translational environment that connects researchers and patients.

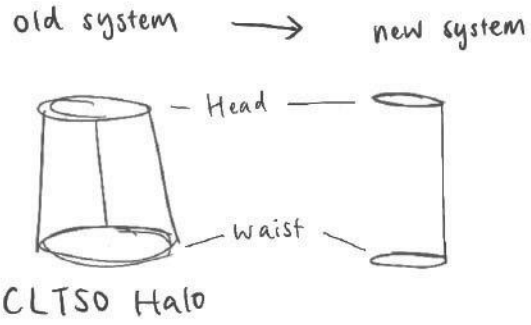


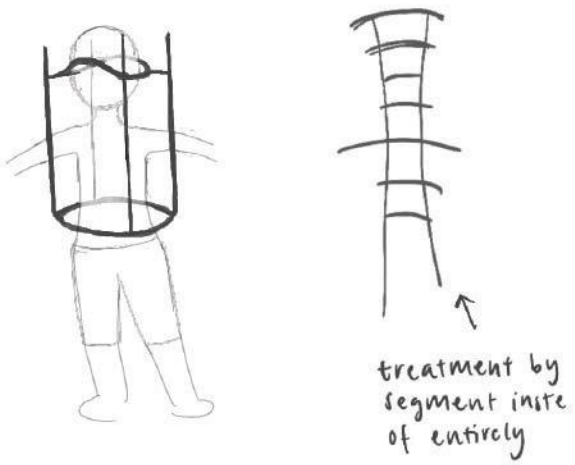
THE SPINE

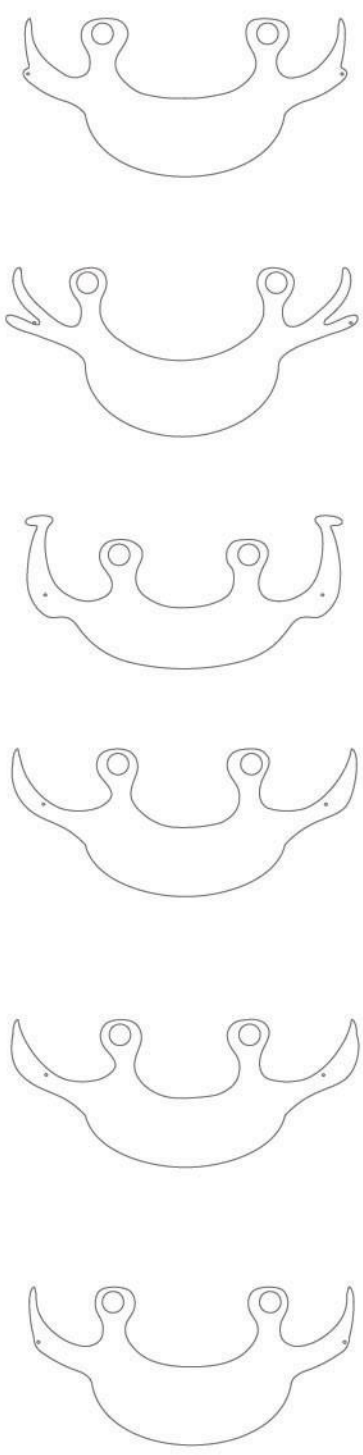
The spine's has diverse sectional quality, there are 24 articulating vertebrae with unique shapes. The spine is also a critical component of the nervous system. It transmits electrical signals and controls impulse, movement and sensations. Iterating on both its sectional and linear qualities, FemTech Capsule started with a prosthetic device that acts like an external skeleton, that protects the spine while delivering numbing medicine, targeted at chronic pain.

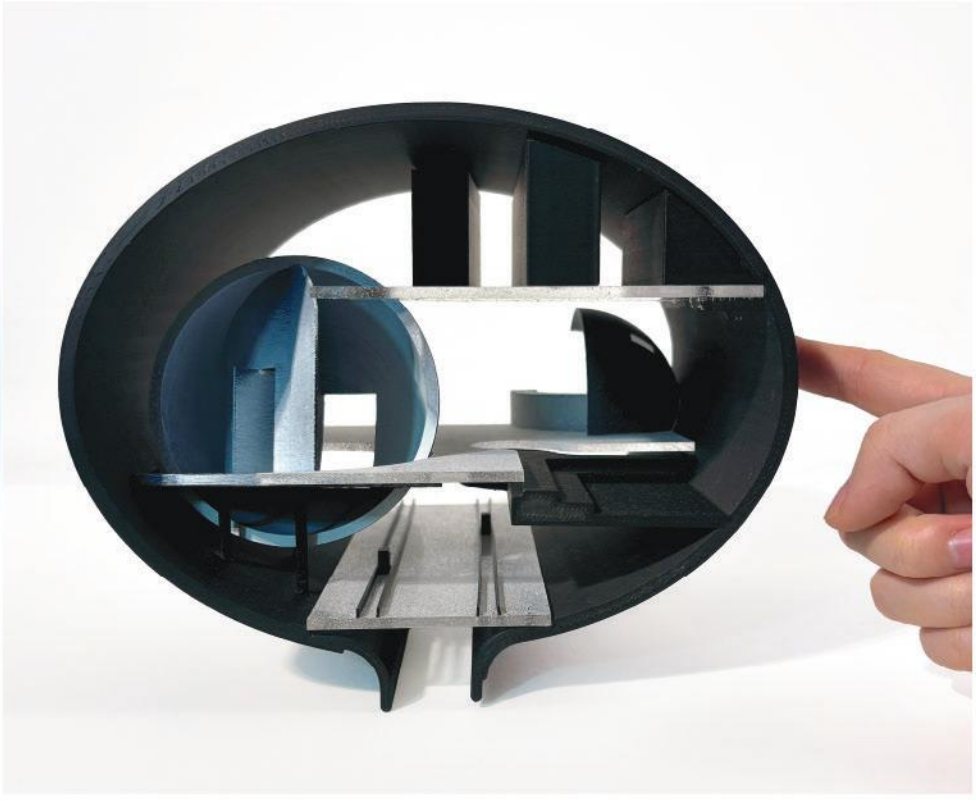








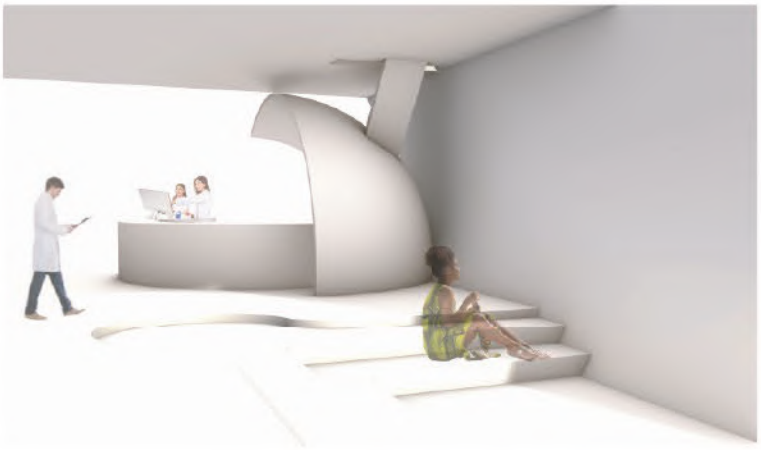


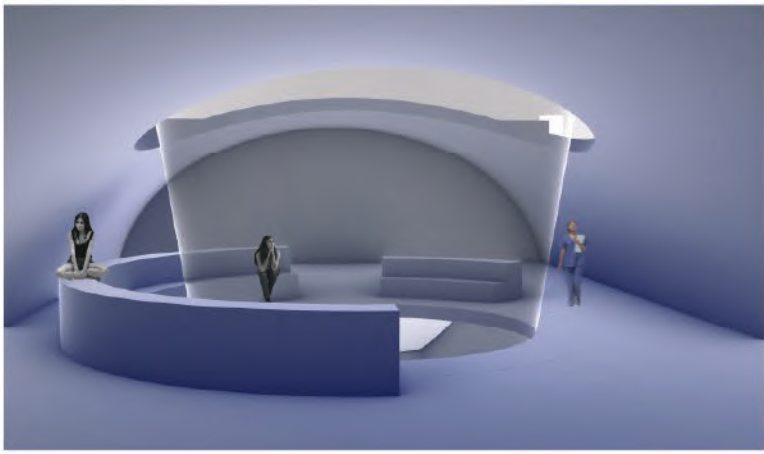


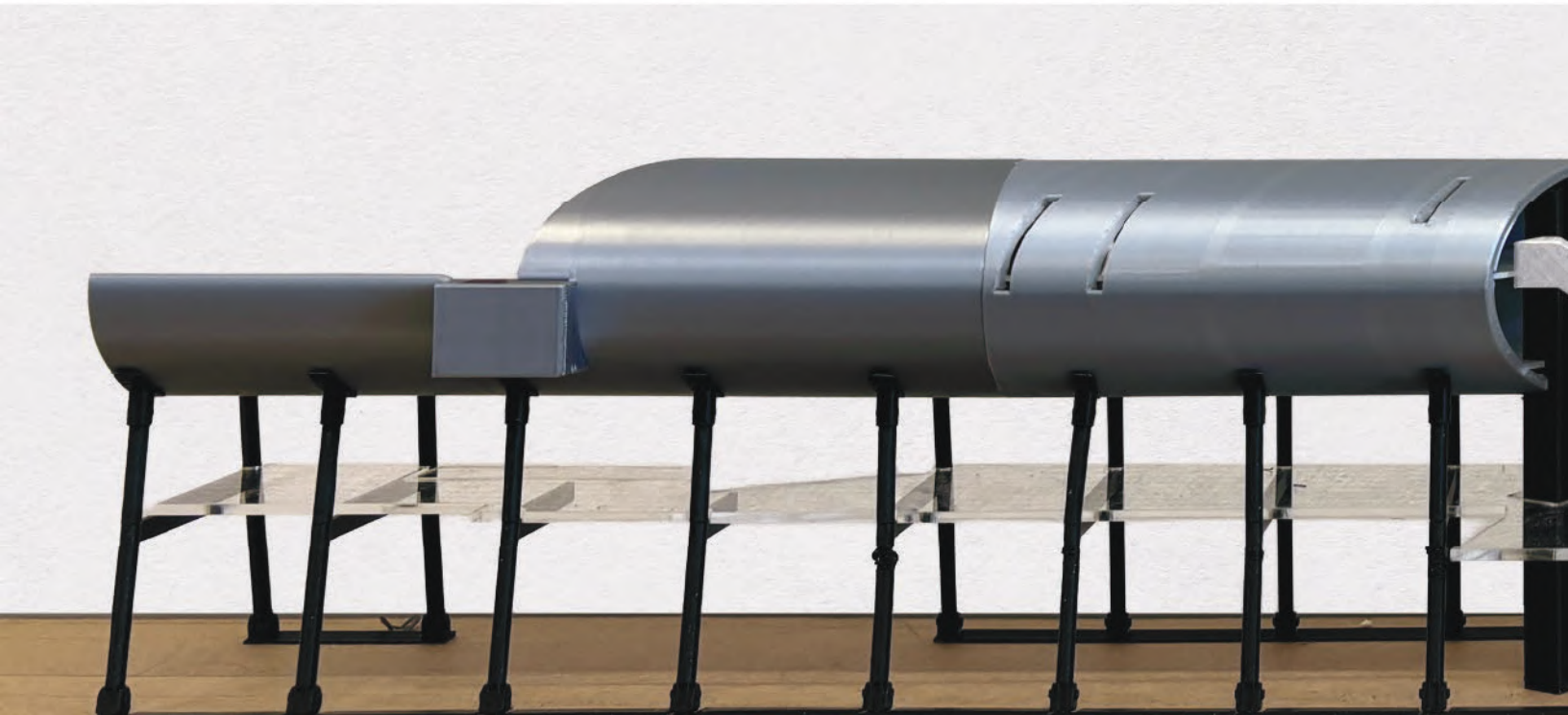
SPECULATING FUTURE HEALTHCARE

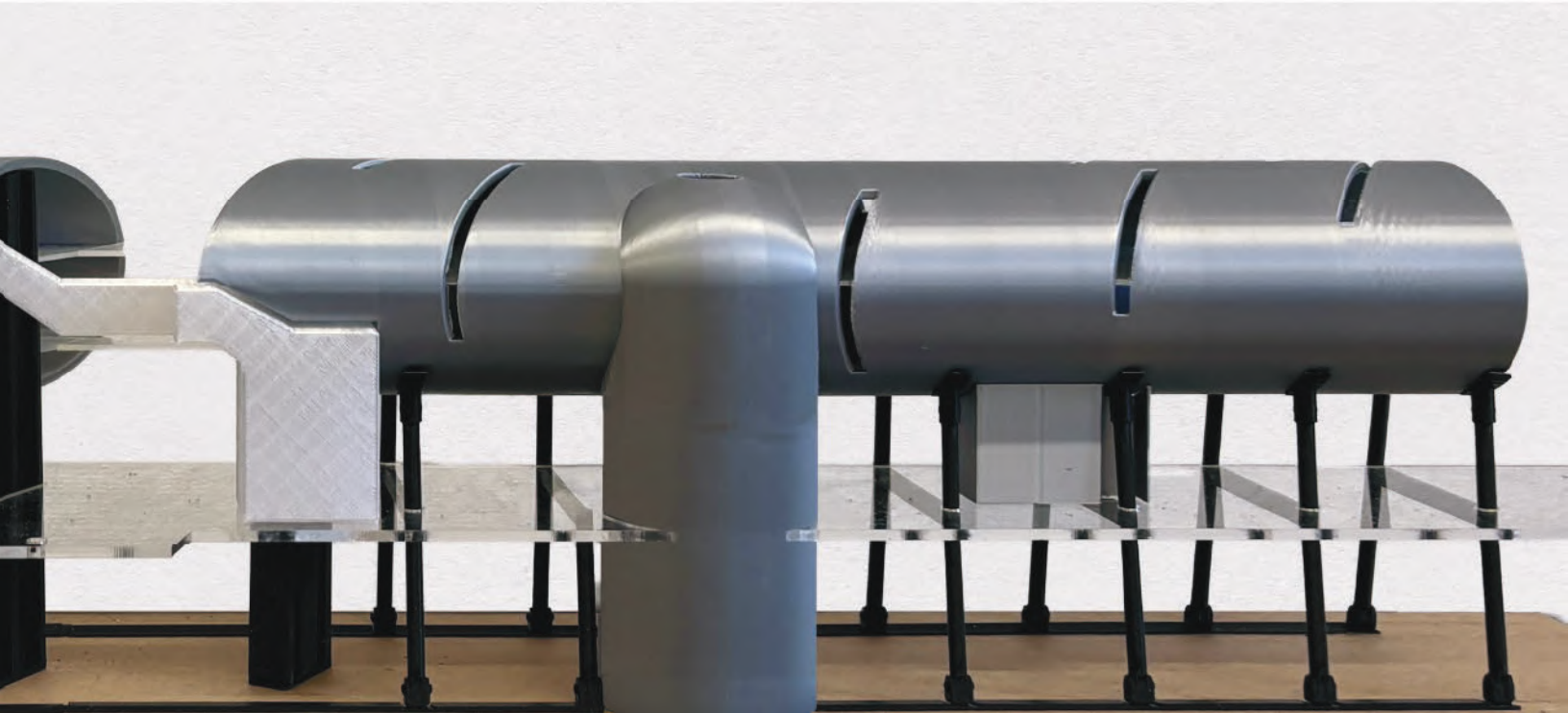
“FemTech” is a new sector of healthcare technology first coined in 2016 by entrepreneur Ida Tin. It is a field focused on innovation in women’s health through technology. It targets healthcare inequality and ensures wellness research and participation in women and girls. In the course of just a few years, it has grown to encompass a range of technology-enabled, consumer-centric products and solutions, ranging from supplements, to telehealth.

Endometriosis is a chronic disease that affects roughly 10% of reproductive age women worldwide, it causes pain, heavy bleeding during menstruation, yet it takes up to 10 years to diagnose and has no cure. FemTech Capsule aims to reduce the diagnosis delay and research into chronic pain management and cure for endometriosis.





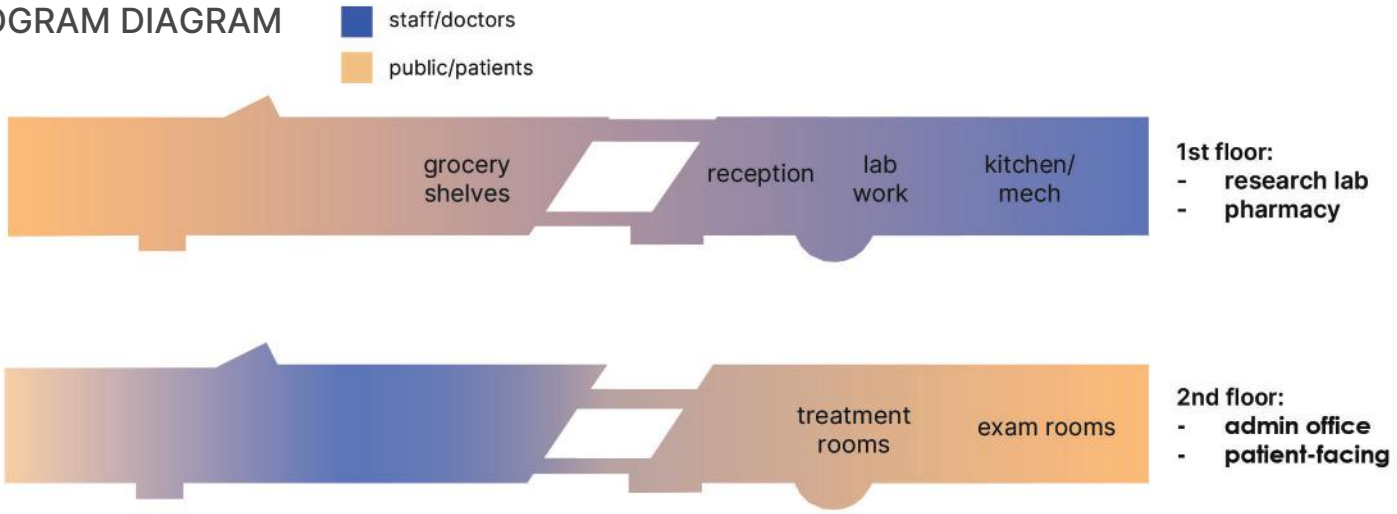


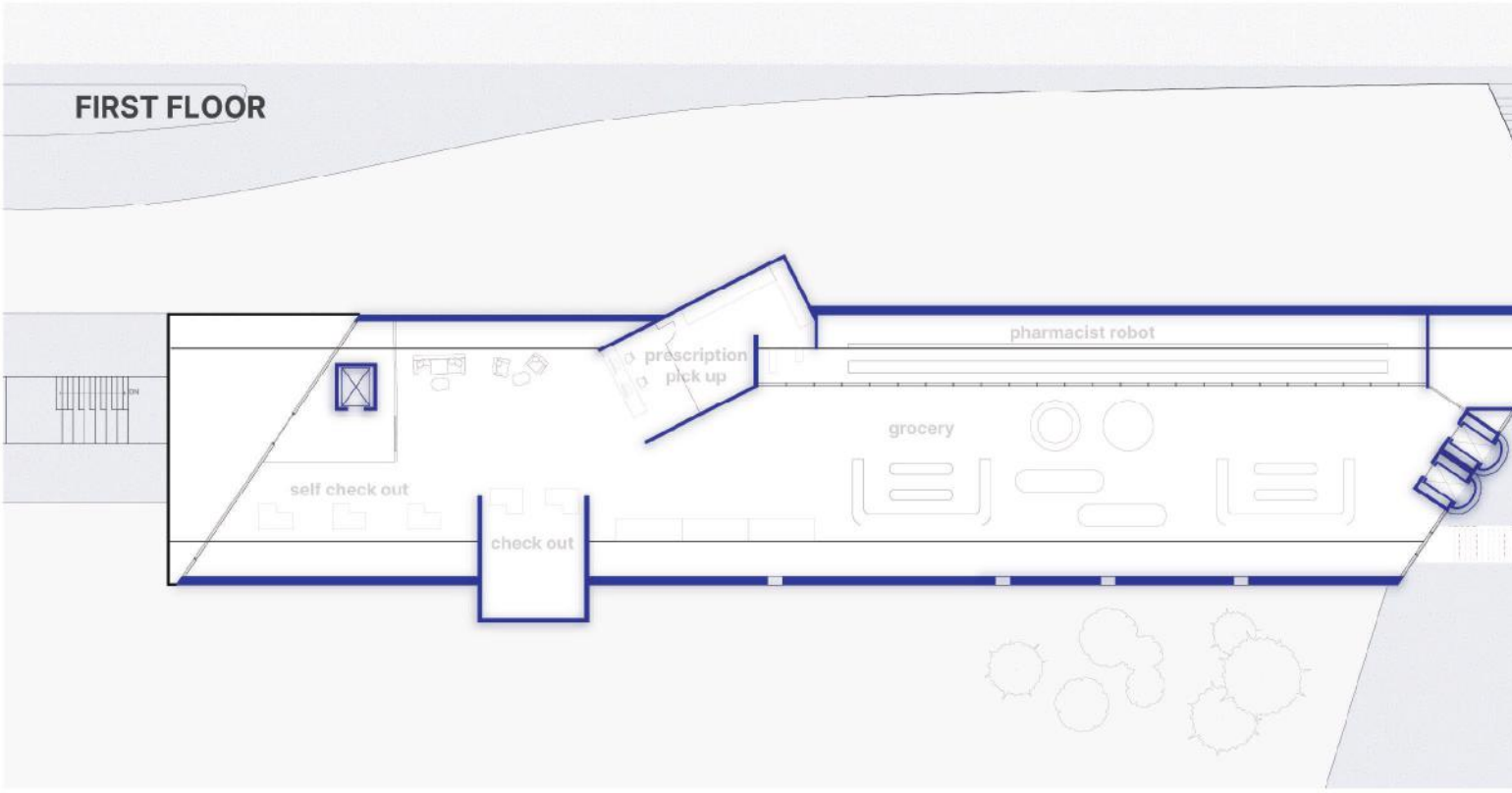


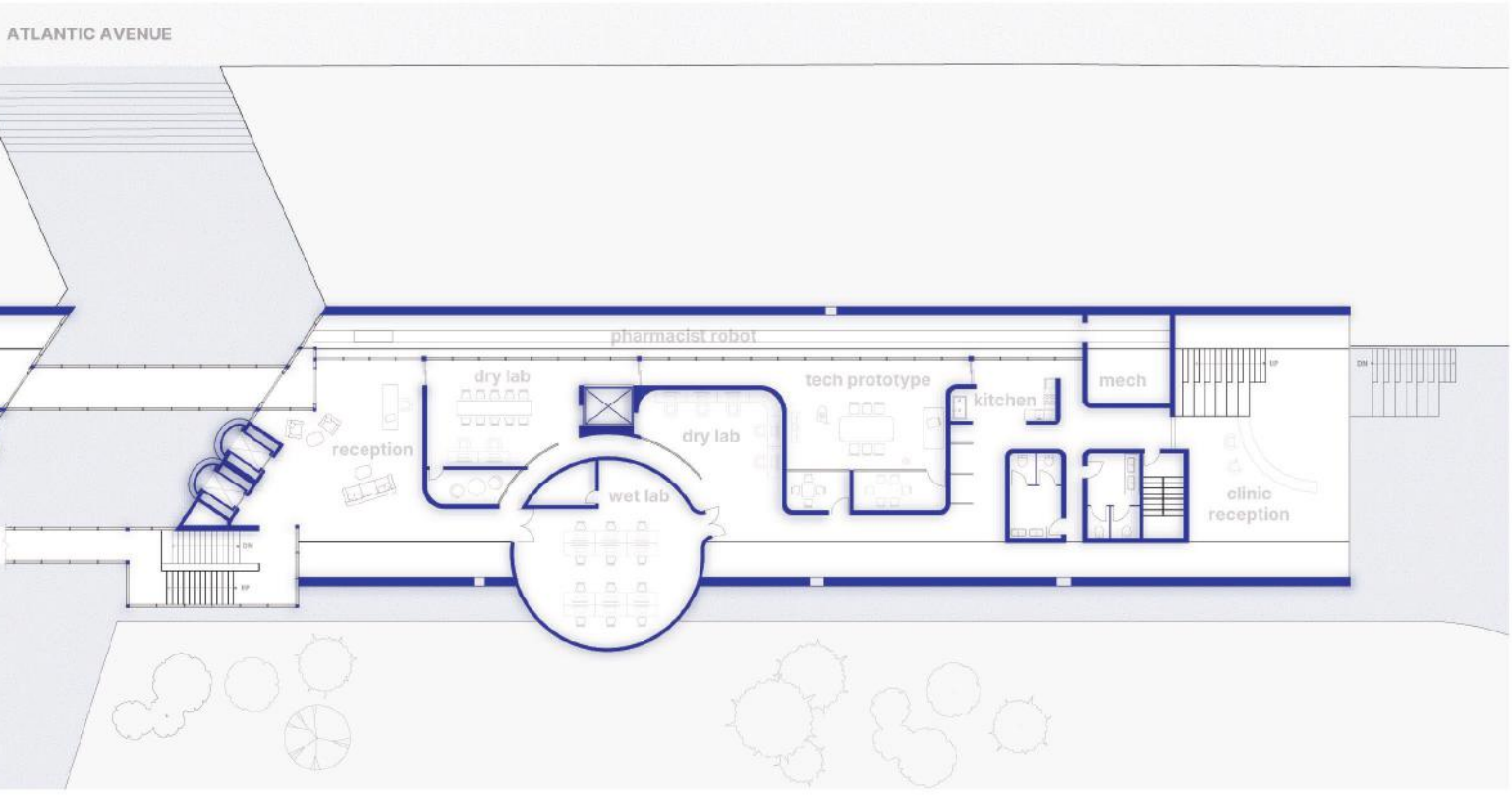
LINEAR ORGANIZATION

FemTech Capsule emphasis on connectivity: whether it's connecting two major avenues with a pedestrian-only walkway, or connecting patients to clinical trial opportunities.

PROGRAM DIAGRAM

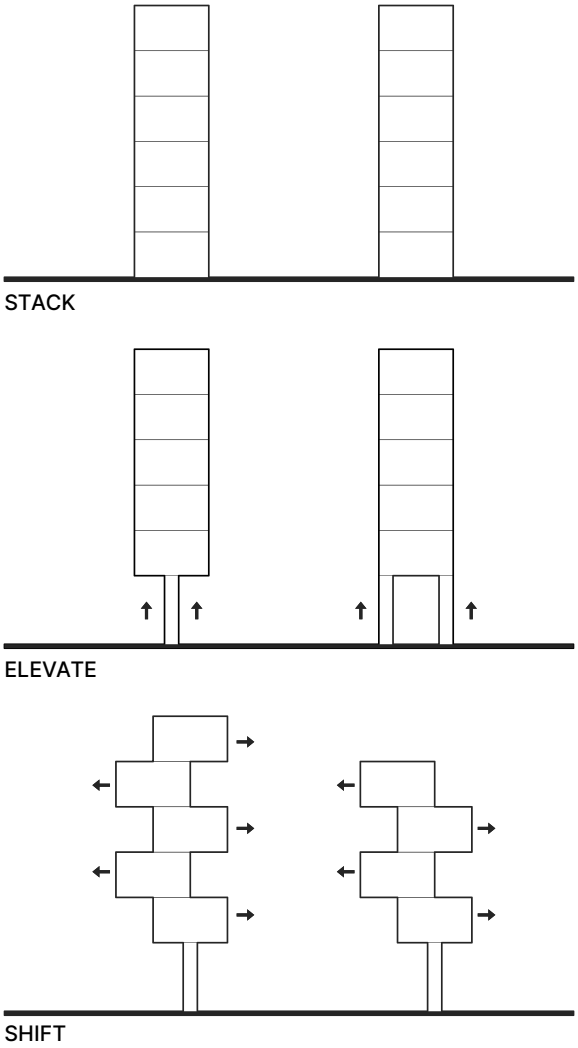





ATLANTIC AVENUE
pharmacist robot
dry lab
tech prototype
kitchen
mech
reception
dry lab
wet lab
clinic
reception
DN
UP
DN
UP

3/ See-Saw Complex

A Housing Complex



Spring 2024
Professor Corvin Matei
with Yeri Kim

See-Saw complex is a 70-bedroom cohousing complex located in Bedford-Stuyvesant, Brooklyn. Due to the growing population, the need for affordable housing and public space is an imminent issue for the community. The line between the private and public spheres is ever-dissolving and requires redefining. See-Saw Complex aims to provide a hybrid body of parks, communal spaces, and housing scheme for students in the area, and inquire into new forms of domesticity.

SITE RESEARCH

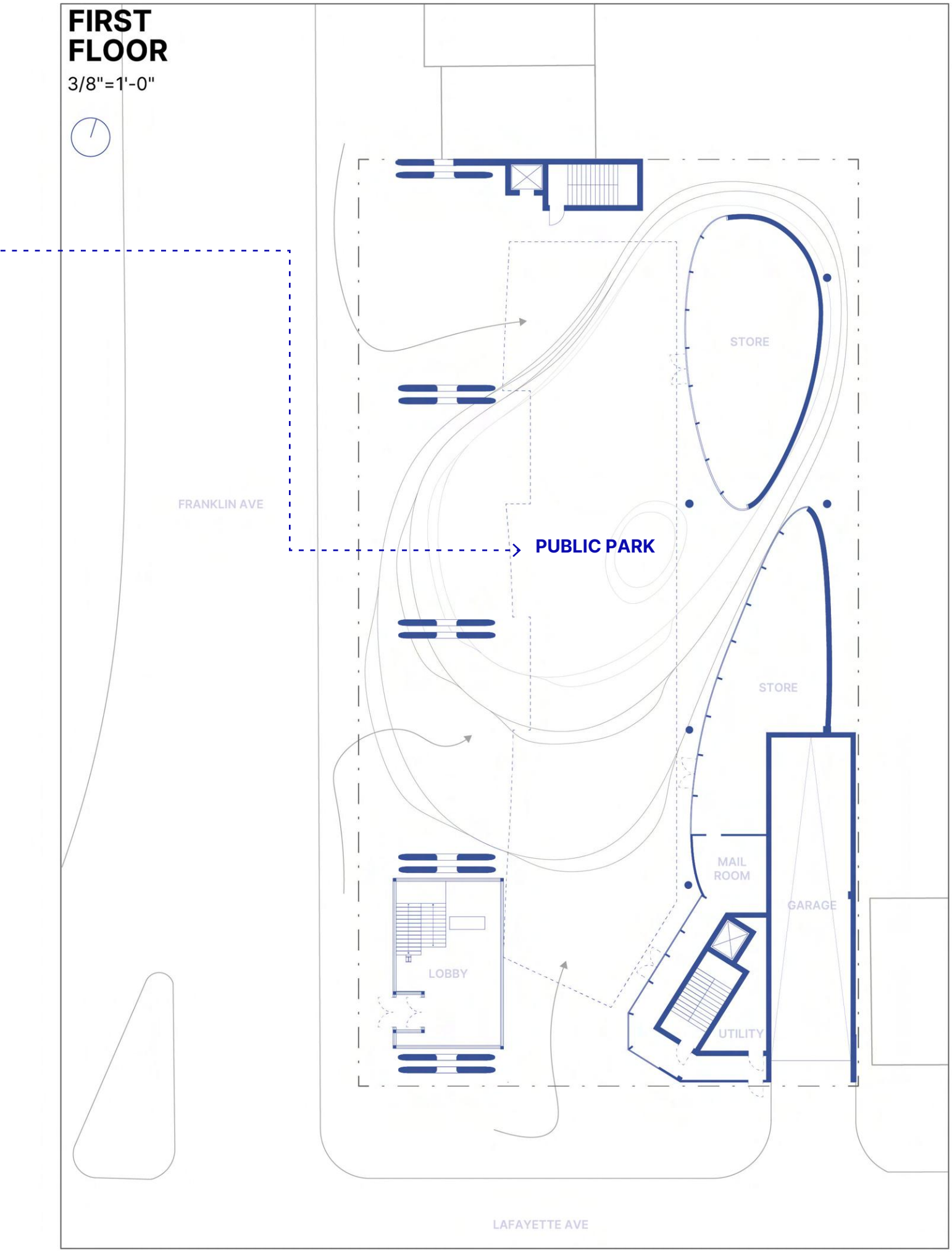
BEDFORD-STUYVESANT
BROOKYLN DISTRICT 3

According to Statements of Community District Needs and Community Board Fiscal Year 2024, Community demands for:

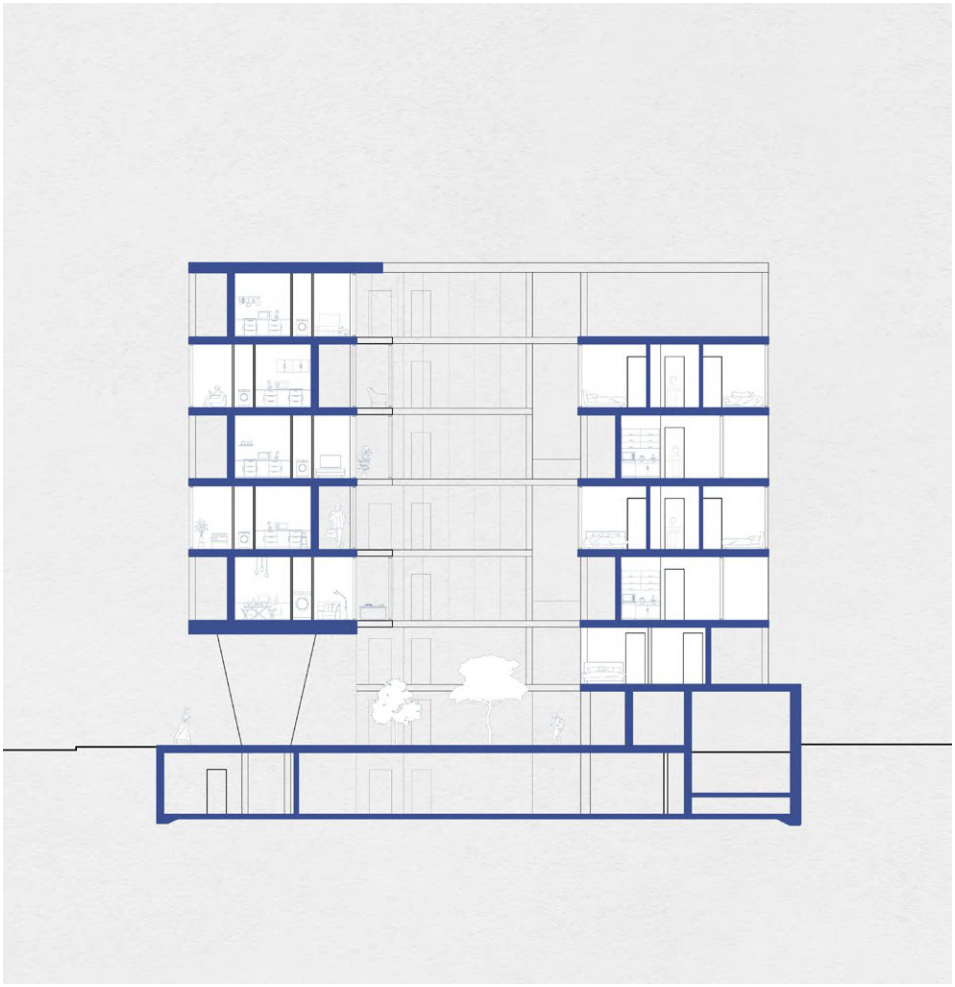
- Affordable housing
- Parks and open space
- Trash removal & cleanliness

FIRST FLOOR

3/8"=1'-0"



THE SEE-SAW CORRIDOR



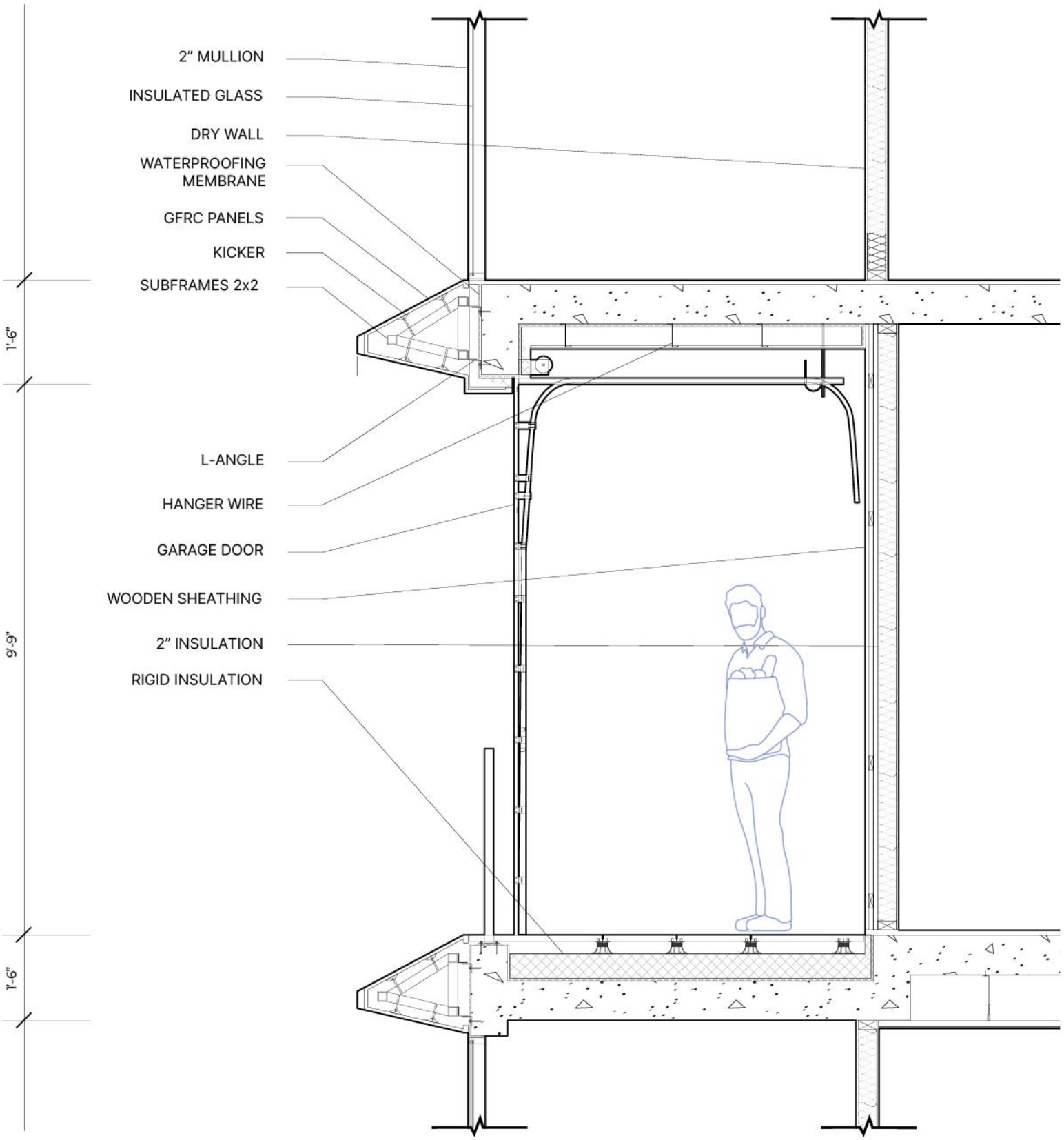
SHIFTING CORRIDORS

The see-saw is a new housing typology that consists of alternating shifted units and corridors. This strategy provides shifting view to greeneries and parks for all floors.

ALTERNATING BRIDGES

Hence, the corridor itself became more than a temporary circulatory space, but rather an occupiable communal space.

The see-saw also reflects the playful and interactive nature of children's playgrounds, just like how the bridges playfully alternate. See-Saw is capable of providing flexible social space and shifting views to the city.



GARAGE DOOR

Operable glass garage door allows residents to control the level of noise, breeze and visual access from the corridor. It is a permeable membrane that connects the communal corridors to the outside.

FACADE

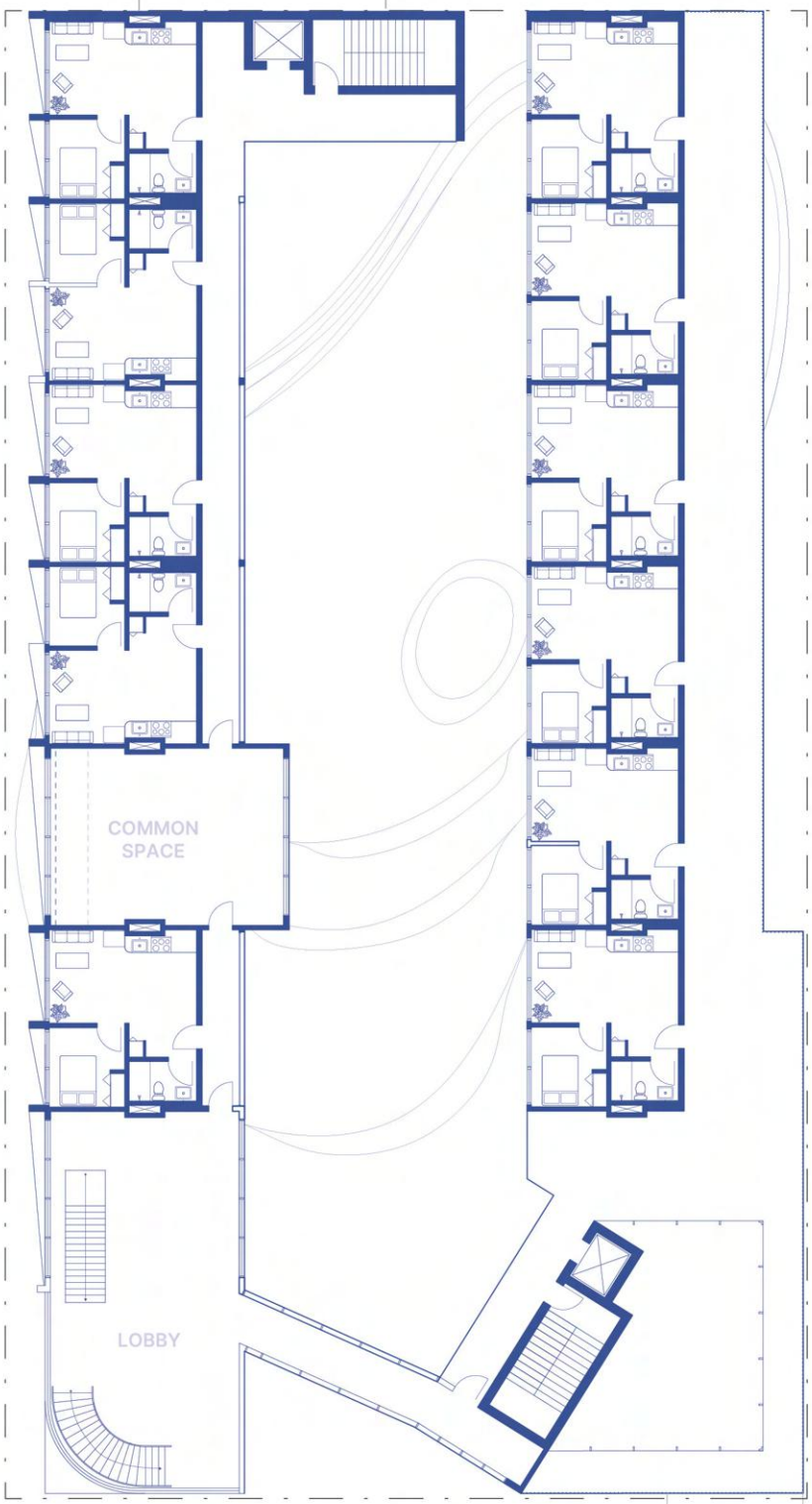
The comprehensive design takes in consideration orientation, lighting and shading, and integrated building systems.

The west facade faces direct sunlight in the afternoons, leaving two floors of units exposed to sunlight. The concrete facade provide overhangs and prevents glaring.

On alternating floors, the corridors are shaded with operable glass garage doors. Thus, the noise level, brightness is customizable to the residents.

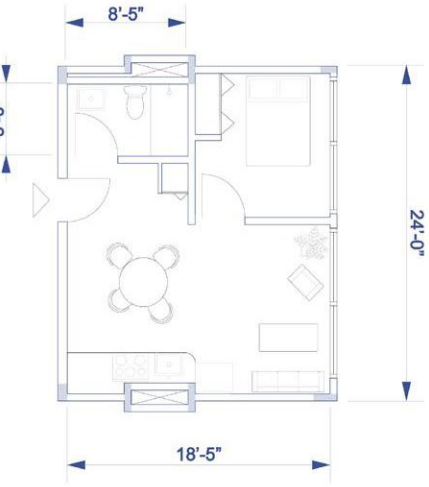
SECOND FLOOR

3/8"=1'-0"



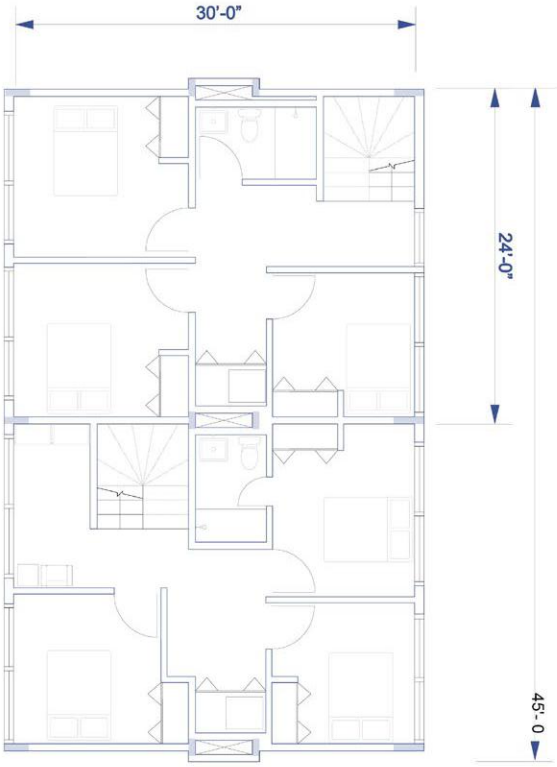
The corridors created by the canopy of the floor above connect every unit to a lobby and a common space on each floor.

TYPICAL UNITS



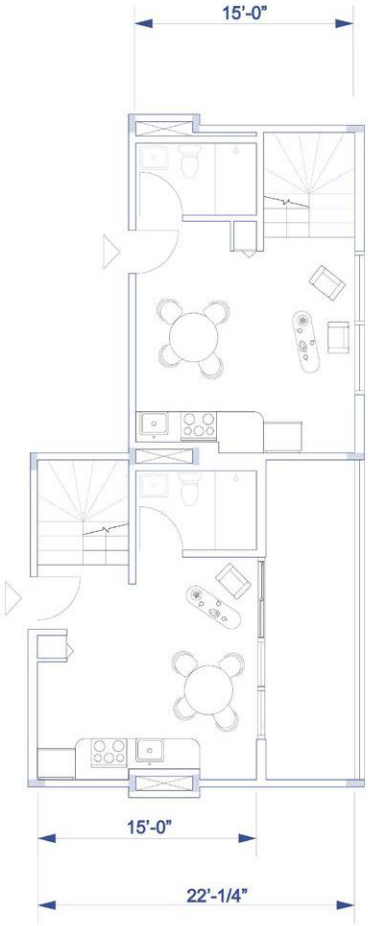
ONE-BEDROOM UNIT

The one-bedroom unit is located in the east wing, away from main roads and traffic noises. It is suited for students looking for high levels of privacy.



THREE-BEDROOM DUPLEX UPPER LEVEL

The three-bedroom duplex unit is ideal for a group of co-living students. The bedrooms are located on the upper level, each one equipped with large windows with views to the park.



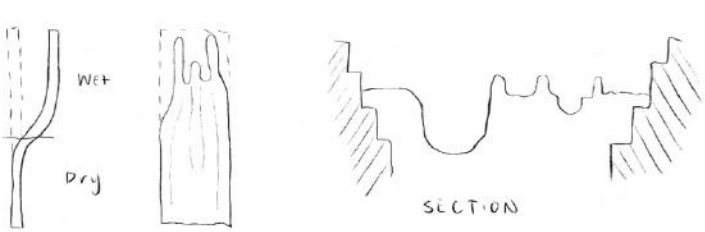
THREE-BEDROOM DUPLEX LOWER LEVEL

The living room on the lower floor is equipped with either a foyer or balcony.

stacked unit model

4/ Eroding Chronicles

An artifact



i
The original concept was to create a living organism that inhabits a coastal cave. The organism is adapt to a humid, low-light environment, prone to salt water erosion. Its body is being washed away by the waves, creating various textures.

ii
Gradually, the rhythmic waves would create patterns on the organism. Its top half would form tracks that are like hills, while the bottom half, submerged in water, melts away. Oceanic bubble textures are also visible on the organism

iii
Each track is offset to become a rectangular outline. The rectangles are then offset inward by 0.3" each time.
The descending steps were created by moving each offset down by 1".

Fall 2024
Professor Jason Vigneri-Beane
Professor Greg Sheward
with Lilian Liu

Eroding Chronicles is a sentient object located in the past, that has been withstood the consumption of time until today. It resides in a coastal cave, where moss and chrystalizing rocks decay and erode its body.

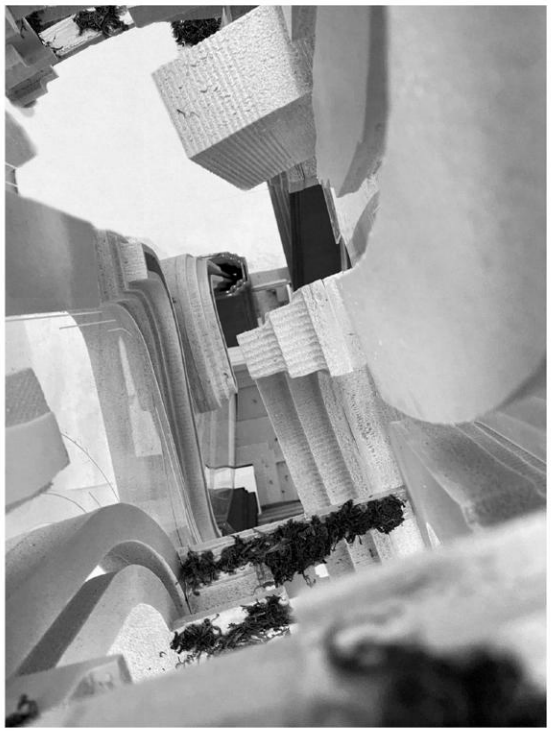
The Augmentated Fabrications studio explores the production of physical-virtual composites. Eroding Chronicles considers the question of what constitutes an architectural body or architectural identity in our contemporary culture of fluid existences, as well as challenges the limits of physical model making, from CNC milling to robotic printing.

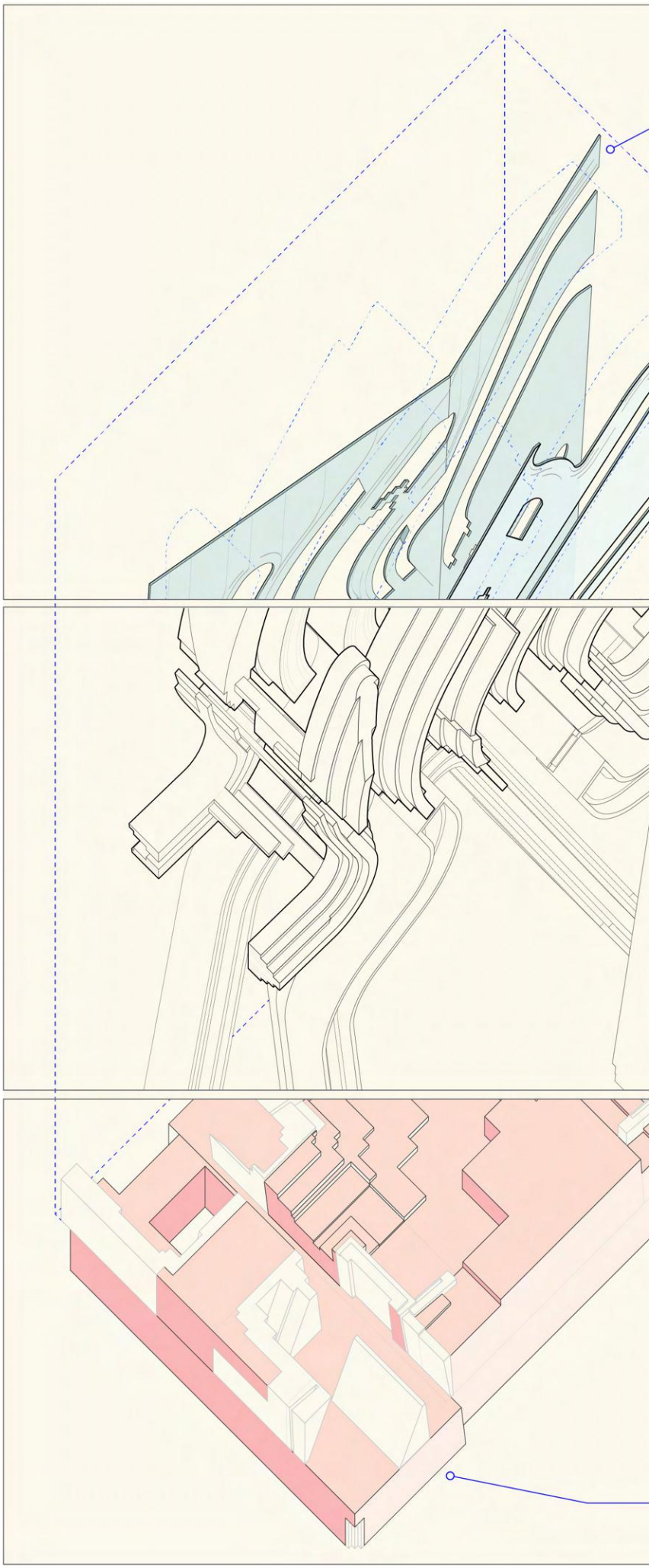
PRODUCTION MANUAL

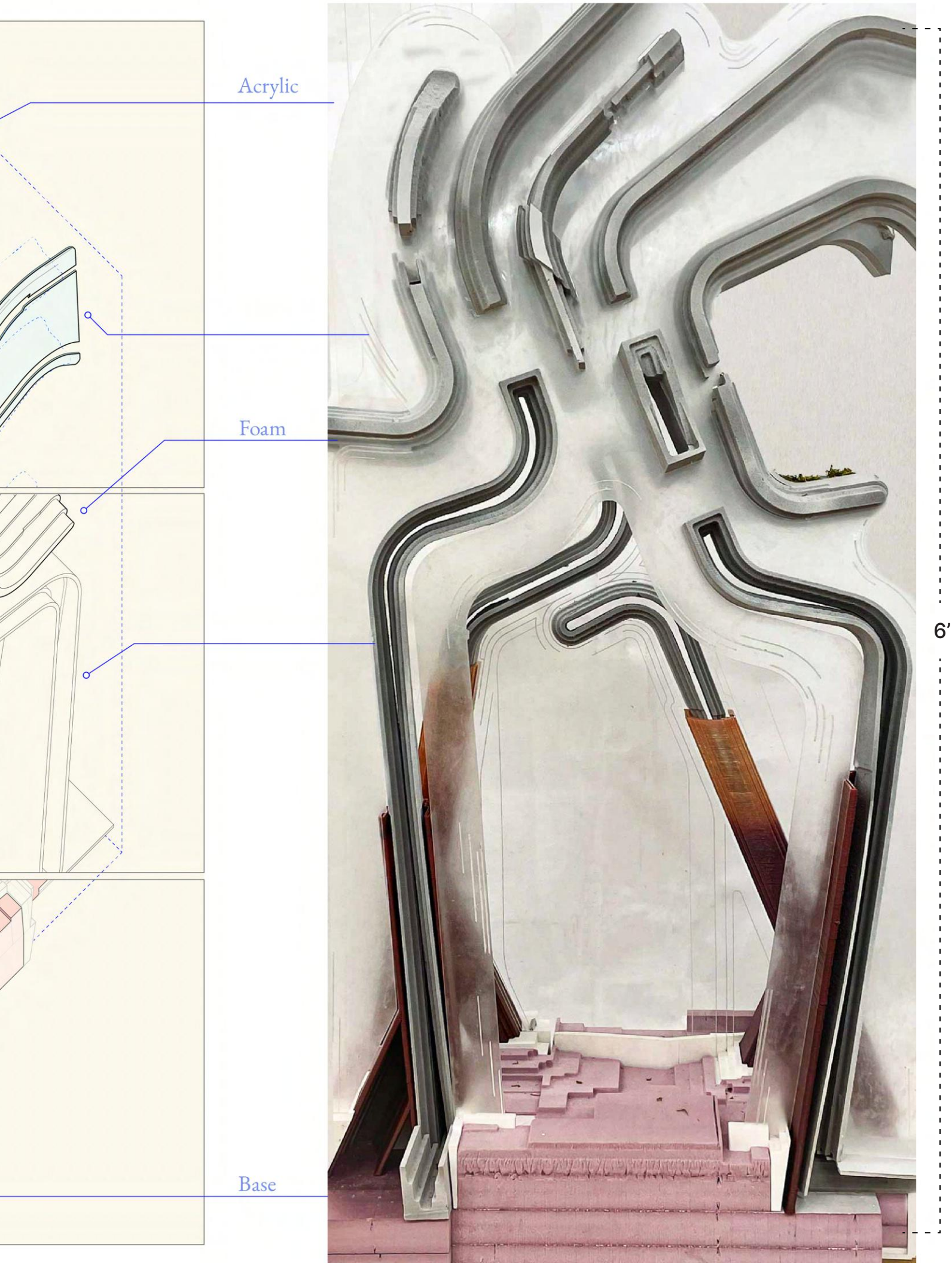
The end product is a 6-feet tall hybrid model, constructed using numerous robotic technologies and by hand. The narrative story of an archeological organism develops too

A NARRATIVE
Resting like a fossilized artifact in a secluded coastal cave, this object's surface reveals intricate, weathered textures that mirror the tidal forces of its imagined past.

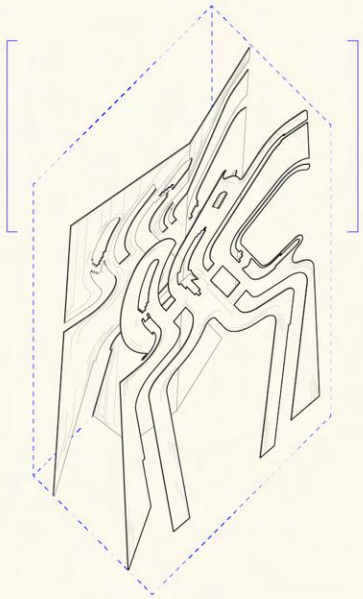
The delicate grooves and ridges and softened edges suggest centuries of erosion and mineral accretion. The crystallization process has etched a patina across its surface, giving it a tactile roughness reminiscent of weathered rock faces.

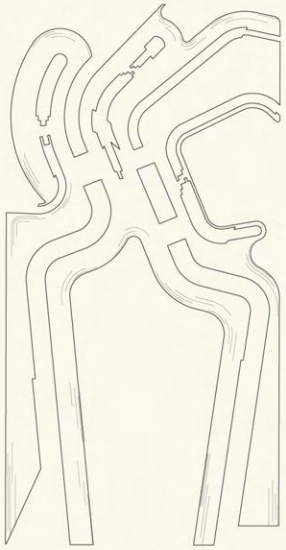





Acrylic
Foam
Base
6’

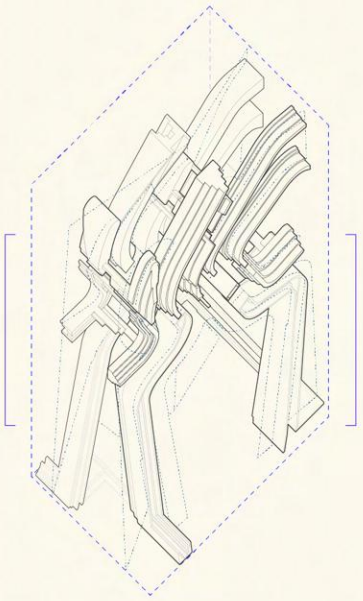
Acrylic

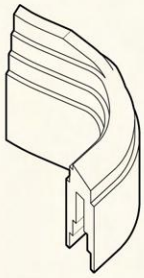


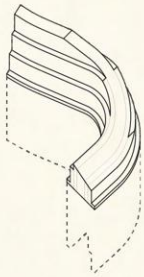


Front

Foam

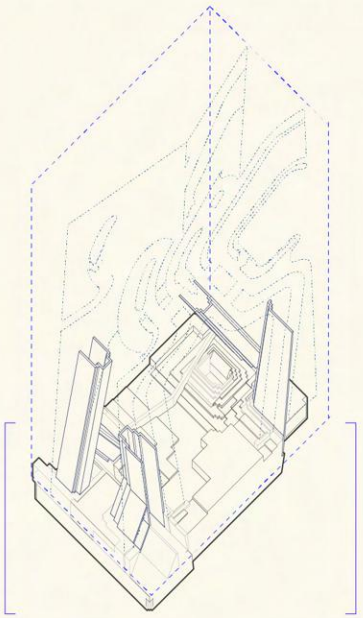


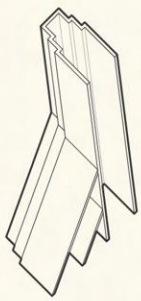




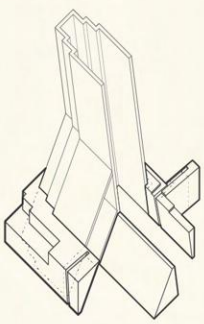
Layering

Base

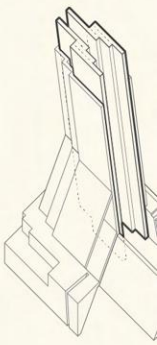




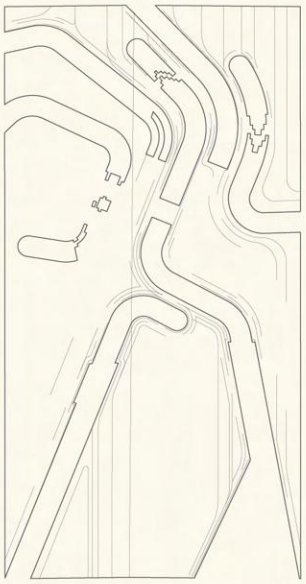
1
Robotic Print



2
Desktop Print
Footings

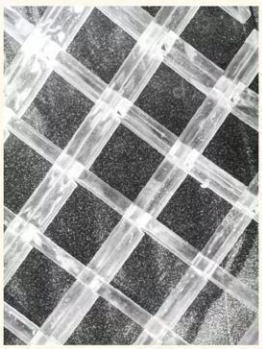


3
Foam

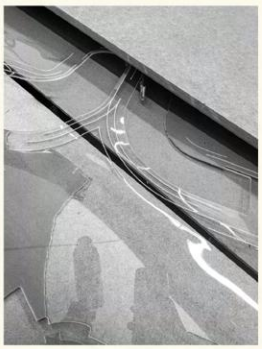


Back

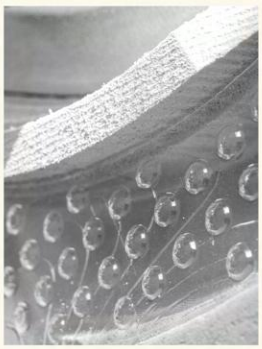
Acrylic is a durable, transparent material with high optical clarity and resistance to weathering, making it versatile for structural and aesthetic applica-



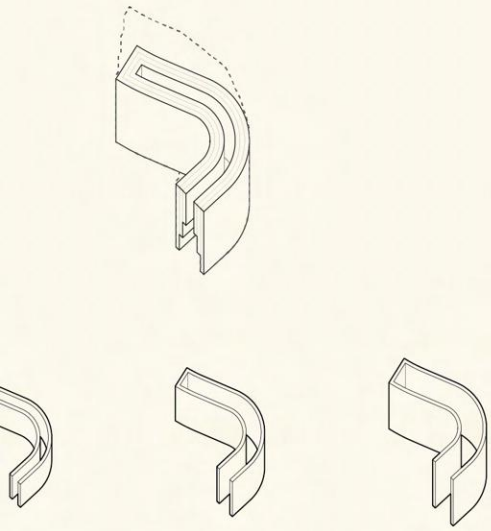
Assembled waffle structure from laser-cut 3/16" acrylic



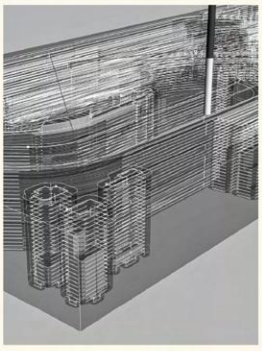
Bending a large piece of 1/8" acrylic with supporting structure and weights



Vacuum formed acrylic sheet with large bubbles and radial texture, no coating



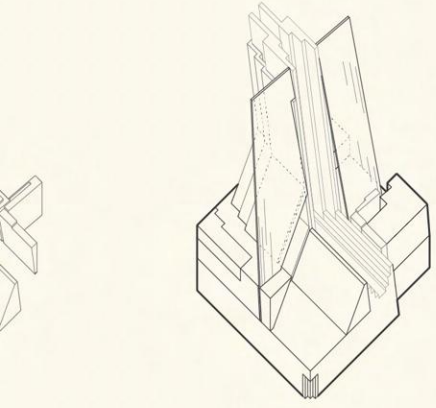
Using a flip-mill technique on the CNC machine, both sides of the foam block were cultivated to carve a wave-like surface. The artifact challenged the machine's cutting depth limitations, and faced failures at the beginning.



CNC tool path

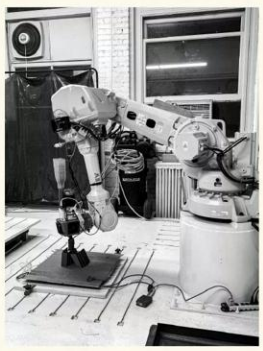
Carved cavity on the foam stock after CNC subtractive process

lightweight, porous, and compressible.



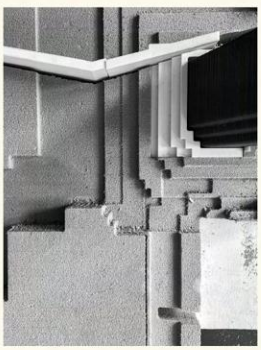
4
Acrylic and
Foam Base

The base picked up the same language as the protrusion pieces. The stepping is happening on the horizontal plane too.



Robotic Printing

PLA plastic is rigid, biodegradable, and has a smooth, glossy surface ideal for precision 3D printing. These objects often incorporate a mixture of colored PLA



Rippling Offset with Golden Ratio

Base Offset
d=0.25"

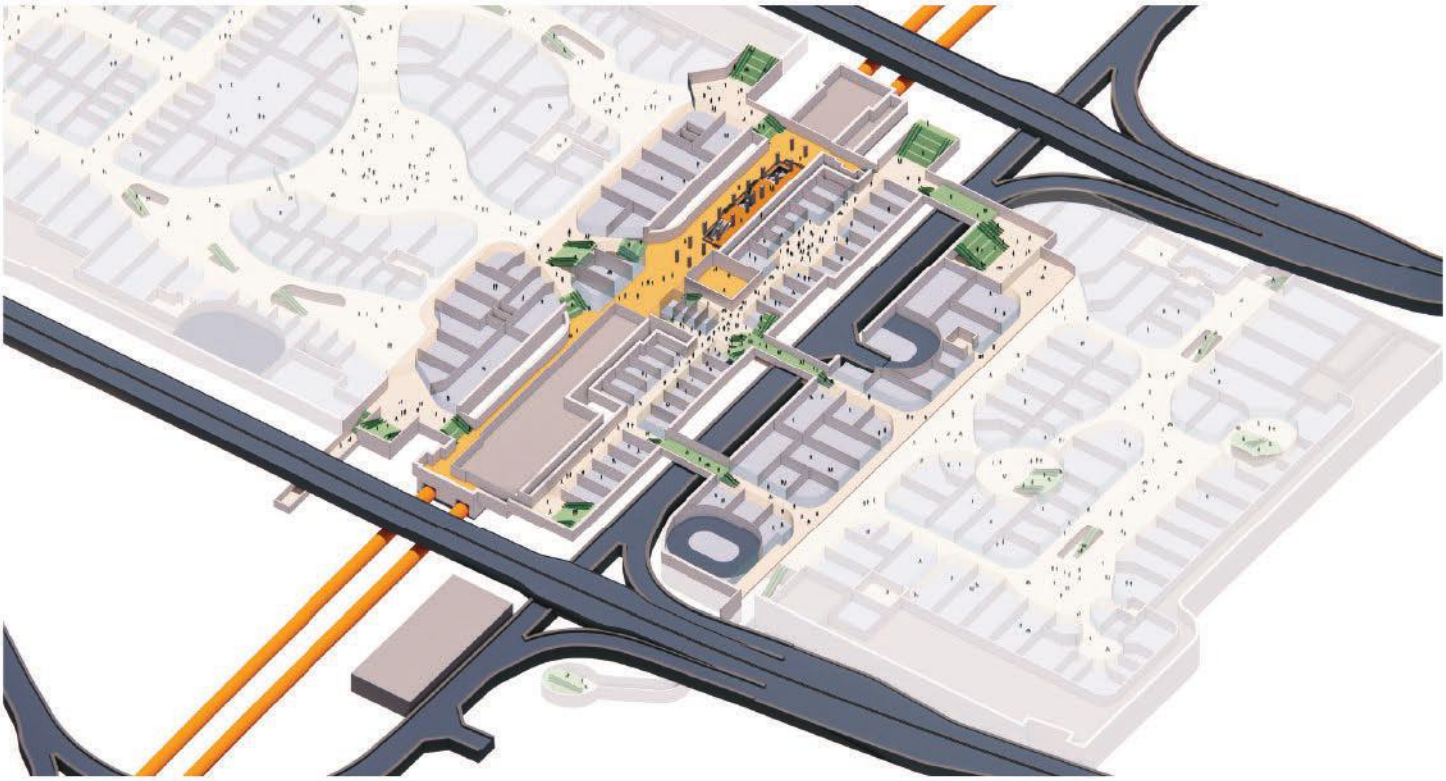
Subsequent Offsets
Multiply the previous offset by ϕ = 1.618 to get the next offset distance

Opaqueness Ratio

3000g per print
1950g colored:1050g transparent

650g *2% = 13g powder
650g *1% = 6.5g
650g *0.5% = 3.25g
1050g at 0% = 0g

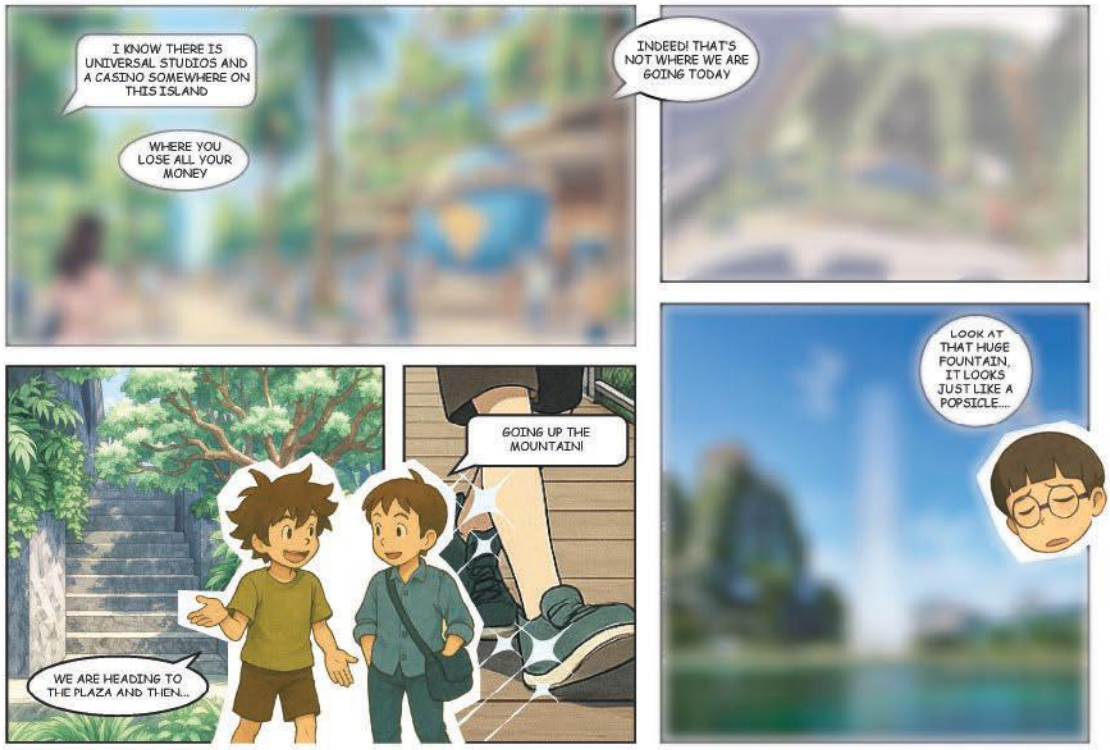
5/ Professional Work



Competition A
Traffic and Program Diagram

Competition A
Massing Diagram

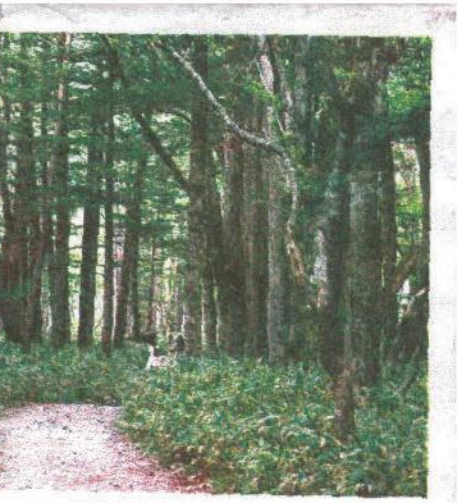
Competition B
Site Analysis



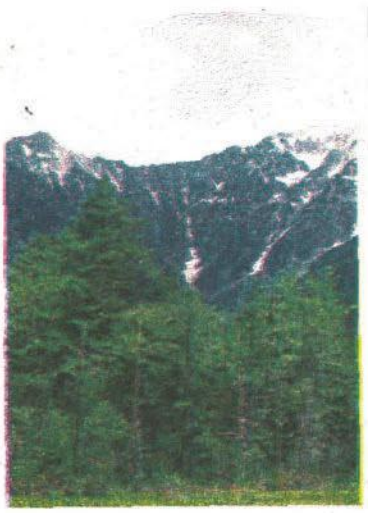
Intern's Competition
Comic Book Design, collaborated with a team of 4

6/ Soil to Ground

Film Photography and Riso Printing



SOIL TO GROUND



Spring 2024
Printed by Jessica Tasmin

Soil to Ground explores thresholds and entry processions, at building and urban scale. The threshold is often signified by the transition from soil and pavements, nature to constructed planes. The threshold can welcome, or repel, but most interestingly, a fluid entry like a time portal can provoke many other behaviors.