



MICHAEL THUT

# INTRO

My name is Michael Thut and I recently graduated from a 3-year M.Arch program at the University of Michigan.

Prior to my time at Michigan, I studied both Math and Studio Art at Swarthmore College. These have become foundational to my architecture education and my creative practice. While this book is intended to be presentation of my creative work to this date, it is also a manifestation of me and my interests. I believe the logic, systemization, craft, and attention to detail that are a part of my personality are on display in this body of work. I hope you enjoy my practice.



# CONTENTS

01

THE RURAL  
BRIDGE HOUSE  
P. 4-11

02

TRUNG NGUYEN  
KINDERGARTEN  
P. 12-17

03

MIGRANT  
MADE  
P. 18-23

04

WATER  
HEARTH  
P. 24-31

05

CHAIR  
TRANSLATIONS  
P. 32-39

06

DRAWING  
(DOORS)  
P. 40-41

# RURAL BRIDGE HOUSE

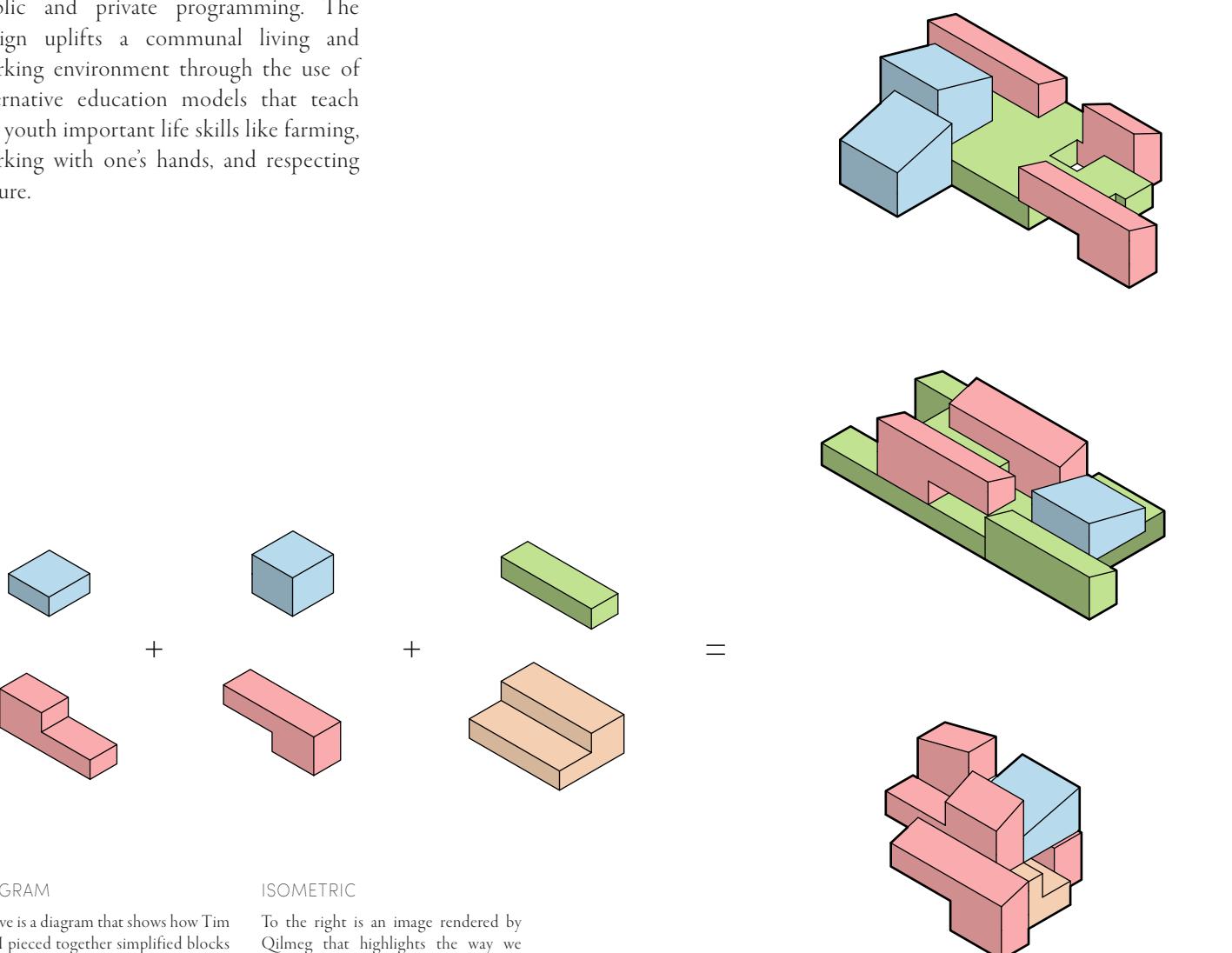
Location: Port Austin, MI

Class: ARCH 562: Countryside Collectives - Jonathan Rule & Kathy Velikov

Skills Used: Rhino 7, Revit, Adobe Suite (Illustrator, Photoshop)

Team Members: Michael Thut, Tim Jockers, Qilmeg Doudatz

This project was a three-person group project in Michigan's comprehensive graduate studio. Our team was prompted to design a publicly engaged, collective living complex in the rural town of Port Austin, Michigan. With a projected northern migration to Michigan in the near future due to the growing climate crisis, our professors tasked us with envisioning the potential growth for smaller towns in the state. Our proposal was a low-lying, linear construction punctured by striations of public and private programming. The design uplifts a communal living and working environment through the use of alternative education models that teach the youth important life skills like farming, working with one's hands, and respecting nature.



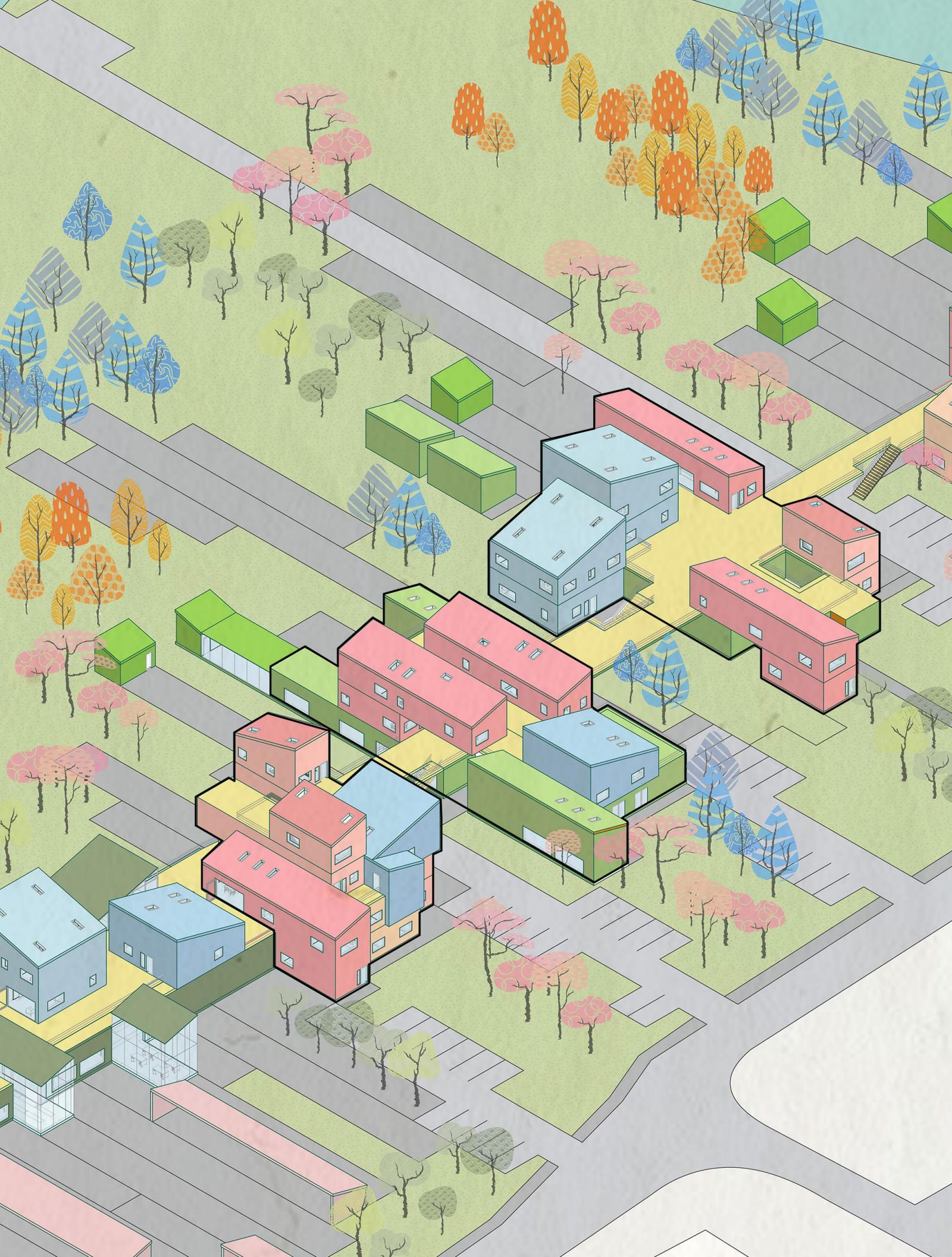
DIAGRAM

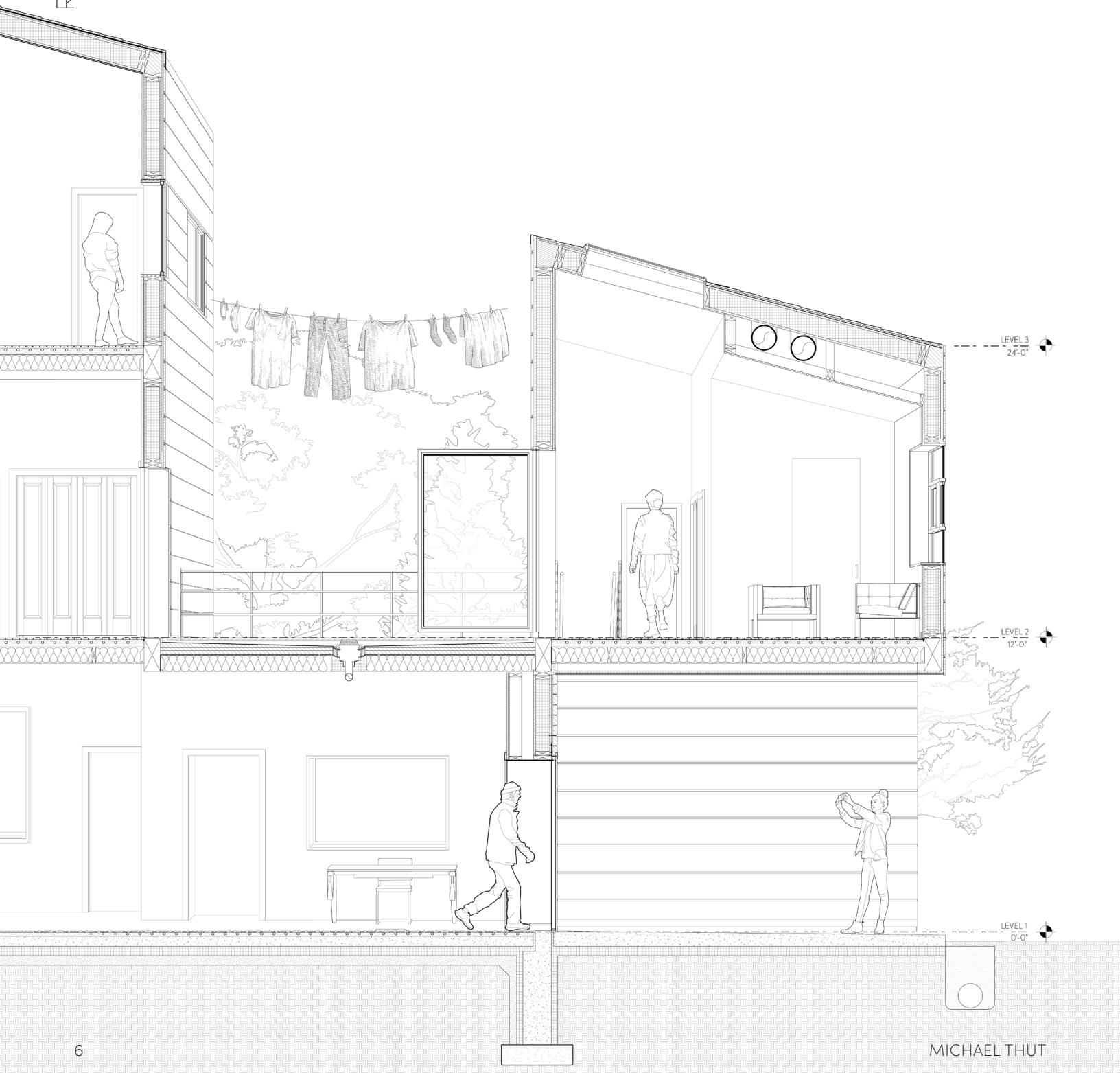
Above is a diagram that shows how Tim and I pieced together simplified blocks of typical developer apartment models to construct the formal logics of our project.

ISOMETRIC

To the right is an image rendered by Qilmeg that highlights the way we clustered differing unit types with and the various public programming across the site.

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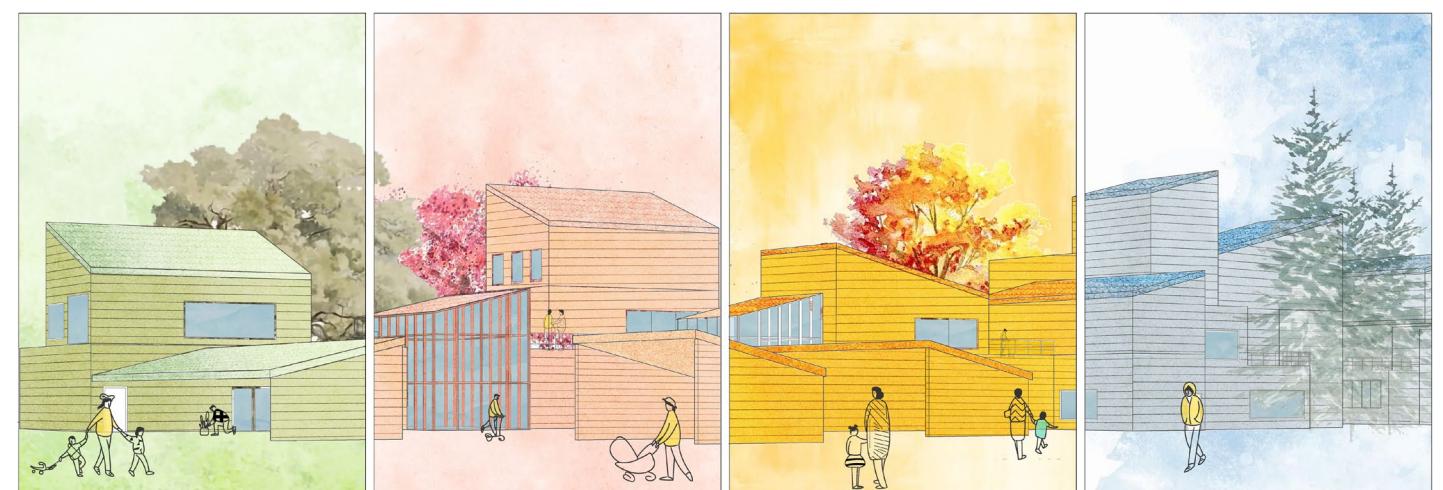




MICHAEL THUT

## WALL SECTION

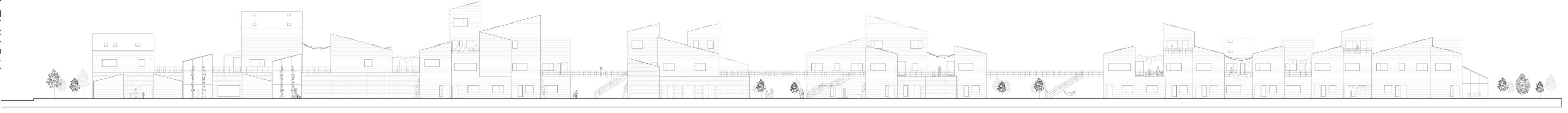
To the left is a wall section drawn by Tim and I detailing our construction decisions. We were economic and sustainable through the choice of wood siding, Structurally Insulated Panels, and radiant heating.



PORTFOLIO 2024

## DRAWINGS

Below is a series of drawings by Qilmeg that give life to the elevated walkway and the building's public programming. We included alternative education components for each season to provide support to the town year round.



## ELEVATION

The top drawing is the west facing facade elevation. The height variation coupled with the low-lying separated clusters of program help to break down the large structure for the small town.

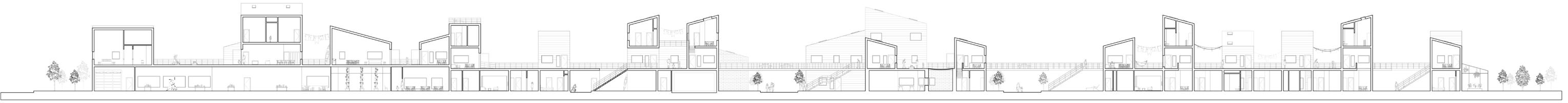
## SECTION

In the middle is a section cut through the length of the building. It shows how one and two-story apartments connected to the deck and the public programming.

## PLAN (2ND FLOOR)

At the bottom of the page is the 2nd floor plan. It highlights the deck as an elevated walkway that connects every part of our project together to form a large, public, exterior space.

All drawings produced by Tim and I.





Unit plans designed by Tim and I.

# TRUNG NGUYEN KINDERGARTEN

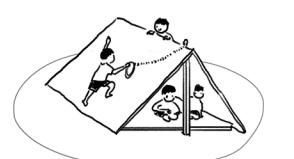
Location: Buôn Ma Thuột, Vietnam

Professional Work: MASS Design Group

Skills Used: Revit, Google Slides, Lumion, Adobe Suite (Illustrator, Photoshop)

Architecture Team Members: David Saladić, Jean Paul Seuhayi Uwase, Theophile Uwayezu, Divine Mutsinzi, Emery Karenzi, and Carolyne Chelimo Bor

My role in this project was to help progress a pre-existing concept design from 2018 through the schematic design phase. I was a part of a five person, architecture design team. Due to the client's desire for a sustainable building (both materially and systematically), the structure team designed a cross-laminated bamboo and steel truss that necessitated a strict adherence to grids. This required revising the upper level form since it was designed to connect clusters of classroom blocks on the ground. My work involved the development of the second floor plan. This included the layout, organization, and refinement of the architectural program in-tandem with the in-house engineering teams. Additionally, I presented and ran most of our in-house meetings since I was the only native-english speaker on the Rwandan architecture team.



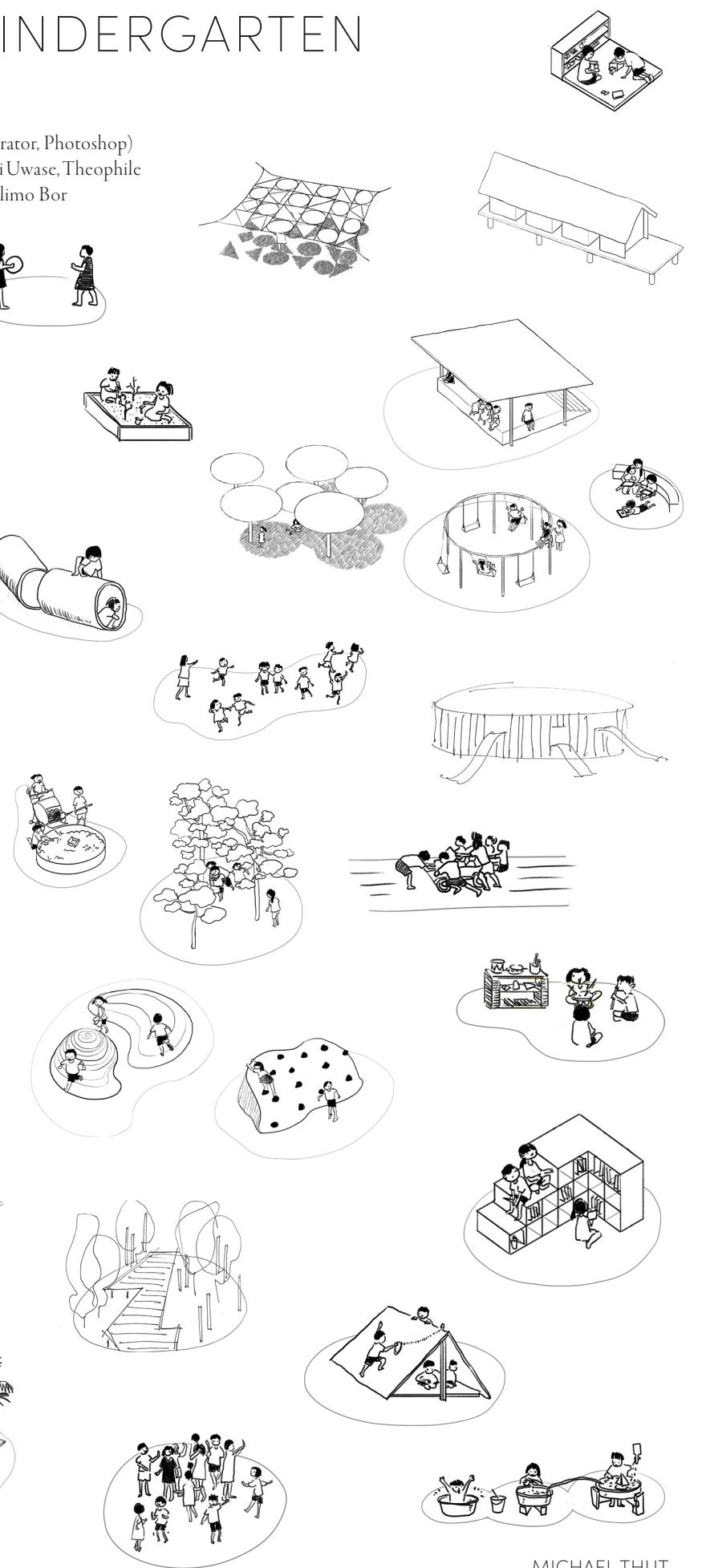
## DRAWINGS (CONCEPT)

These drawings of children playing shows how the concept design prioritized children learning through various types of play.

## IMAGE (SCHEMATIC)

To the right is a render of the library space on the second floor. The balcony cutout, roof truss system, and clerestory window are all on display in this image.

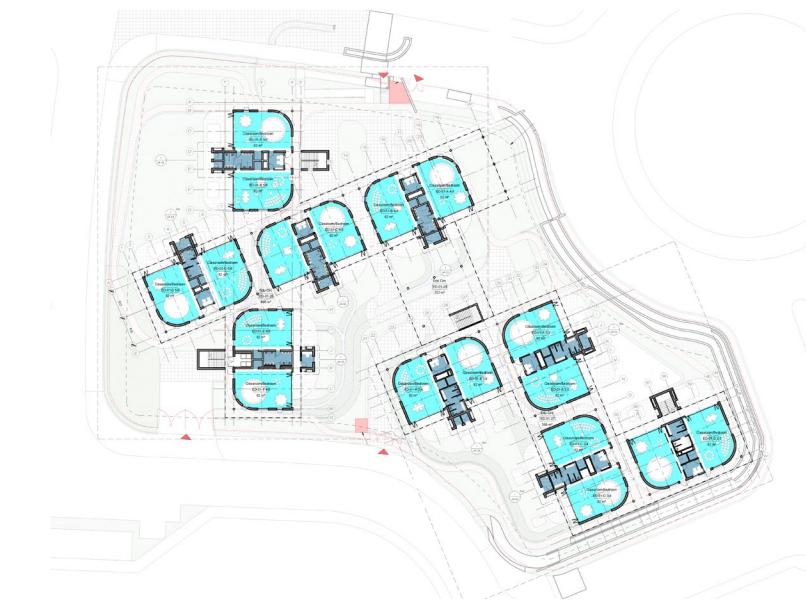
**MASS.**



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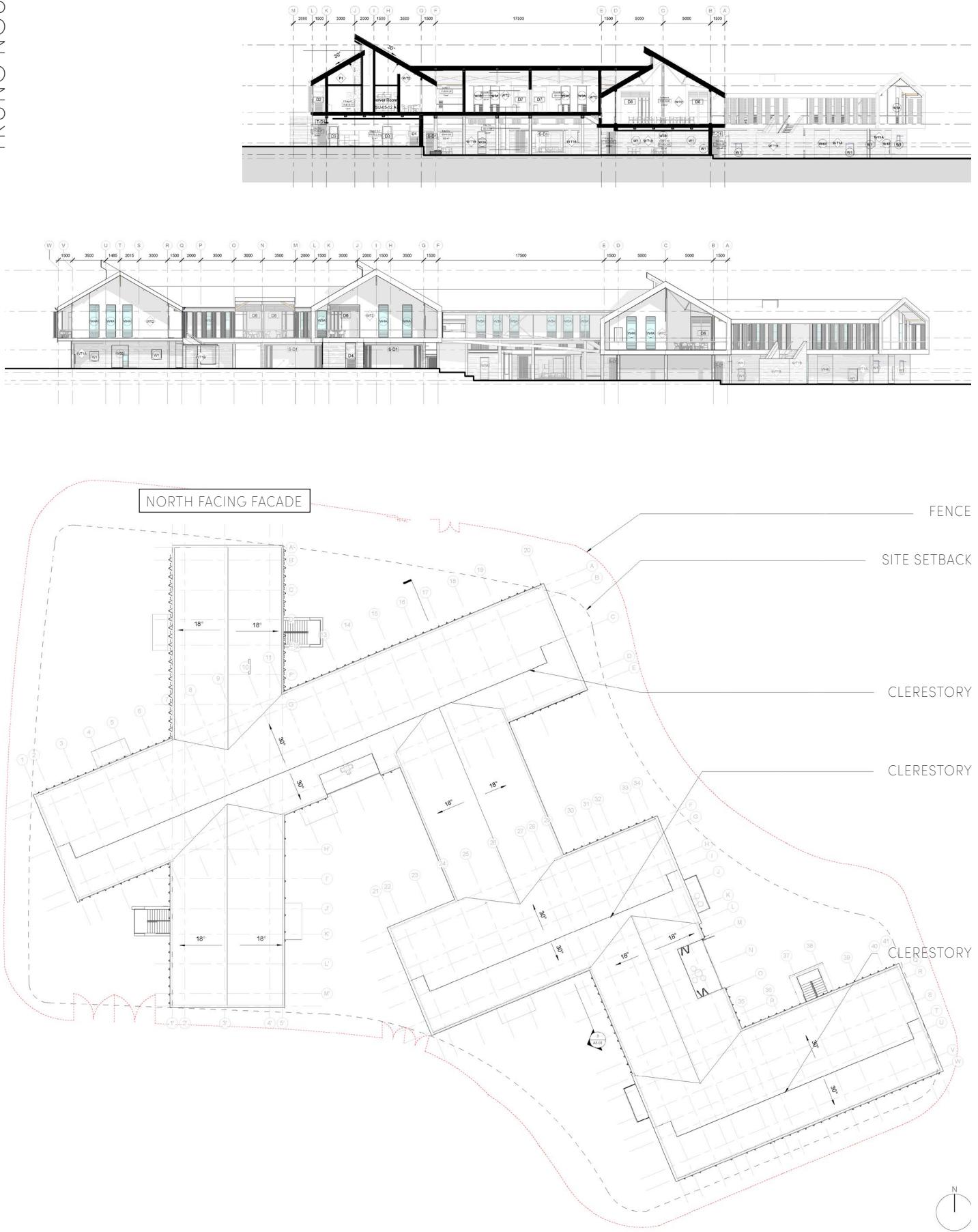
PORFOLIO 2024



ADMIN & STAFF  
PUBLIC  
EDUCATION  
BACK OF HOUSE  
TERRACES

DRAWINGS (CONCEPT)  
To the left are the original concept design floor plans for the school. These were done by a team at MASS back in 2018.

DRAWINGS (SCHEMATIC)  
On the right are the plans for the schematic design phase. As a new team, we had to develop the design while maintaining its architecture integrity. I was responsible for the 2nd floor plan.

**DRAWINGS (SCHEMATIC)**

The drawings to the left show the passive roof design that we chose. Architecturally, we sharpened the intentionality of the gable with respect to structure and program.

**IMAGES (SCHEMATIC)**

The renderings above highlight the branching form of the building across the site. This clusters classrooms by age with the purpose of creating a shared, interconnected, playground.

# MIGRANT MADE

Location: Queens, NY  
Class: ARCH 672: Urbanisms of Sociality - Sharon Haar  
Skills Used: Rhino 7, GIS, Twinmotion, Adobe Suite (Illustrator, Photoshop)

This project grappled with the growing migrant crisis in New York City by proposing a collective, social, urban space near an isolated tent shelter in Queens, NY. Greg Abbott's decision to bus migrants from the Texas border to cities around the US has moved more than 150,000 migrants to NYC in a year, many of whom have come with few resources. These people are finding it difficult to make ends meet in the city; thus, my project seeks to revitalize an underused parking lot across the street from an isolated tent shelter by turning it into an urban living room providing migrants and the surrounding neighborhood with resources, education, and playscapes. The project unfolds over a series of phases that builds up relationships, resources, and support as it grows over time. This ensures a more manageable first step, increasing the possibility of its execution.

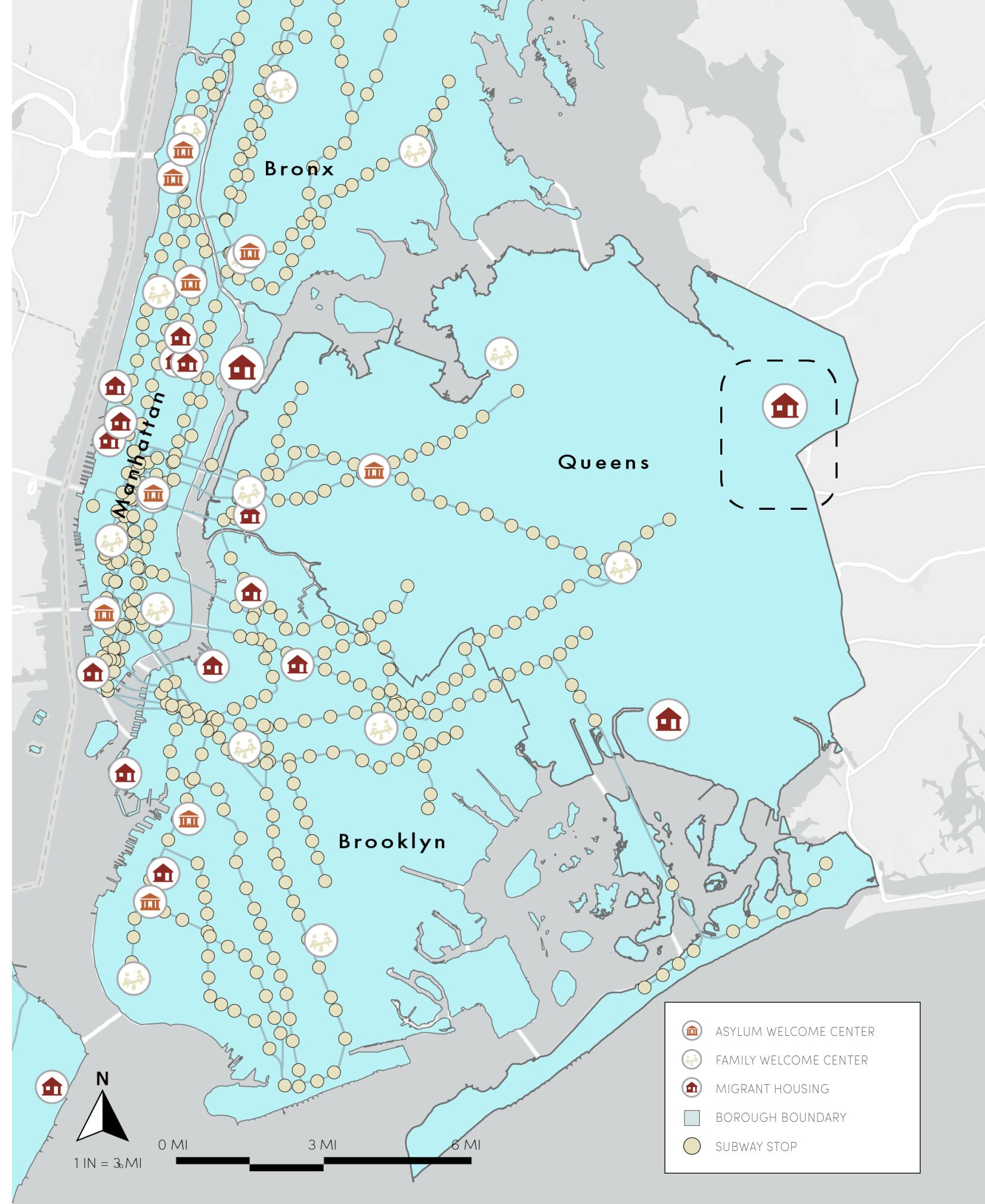


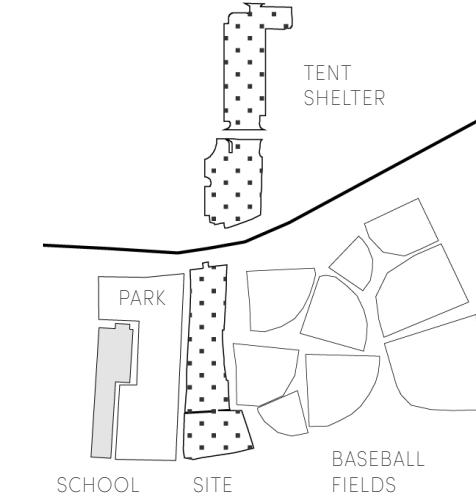
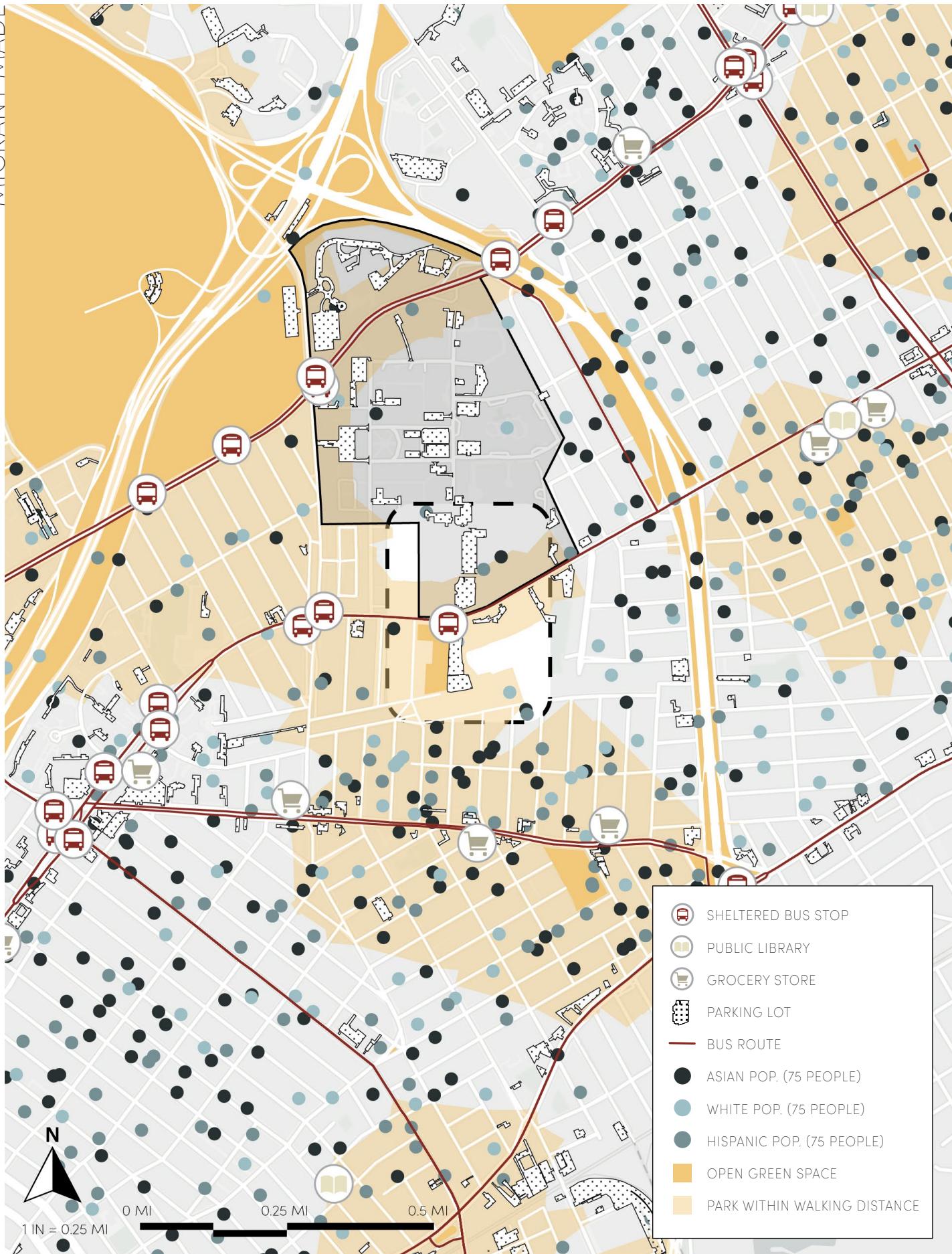
## IMAGE (FOUND)

Below is an image from the New York Times detailing the immensity and inhumanity of the migrant crisis in NYC at the moment.

## MAP

To the right is a map of city provided migrant resources and housing overlaid on top of the subway network system. I chose the most isolated tent shelter as my site.





### Phase 1

*Relationship Building*

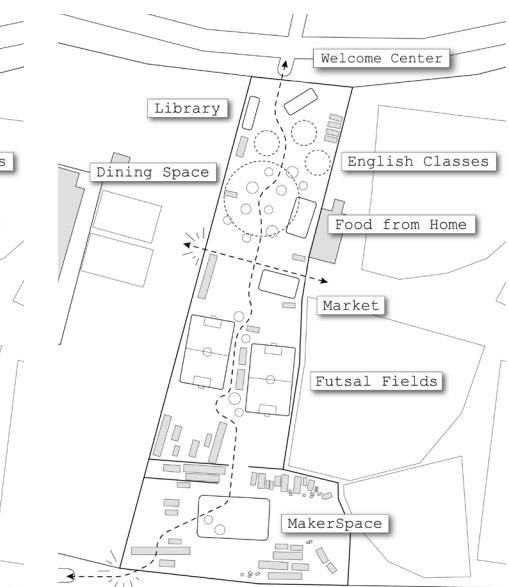
- Migrant Resource Sharing
- Acclimation Support
- Food Service



### Phase 2

*Investing in Play*

- Develop Play Components (Futsal & MakerSpace)
- Provide Skill Building Workshops



### Phase 3

*Neighborhood Engagement*

- Organization and Institutionalization
- Open Site Circulation
- Host Organized Activities

### MAP

To the left is a detailed map of the site and its surrounding context. The tent shelter was constructed in an abandoned parking lot at the old Creedmoor Psychiatric Hospital.

### PHASING DIAGRAM

Above is a series of drawings and diagrams that detail the site context and a three-phase design approach to the parking lot.



#### PLAN

To the left is the detailed plan of the phase-three proposal. The site has resources for migrants and the surrounding neighbors interlaced across the parking lot.

#### DRAWINGS

Above is a set of two drawings detailing activities in the project. Gardening and construction education helped to provide resources and knowledge to migrants and families alike.

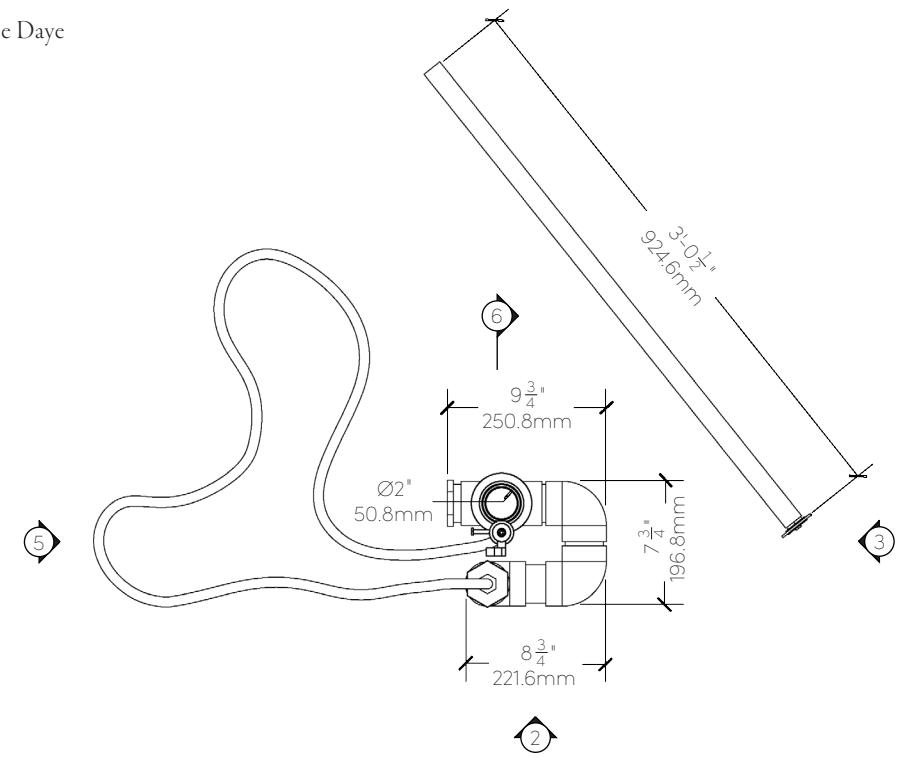
# WATER HEARTH

Location: Echo Park, Los Angeles 90026

Class: ARCH 552: Institutions - Kevin Bernard Moultrie Daye

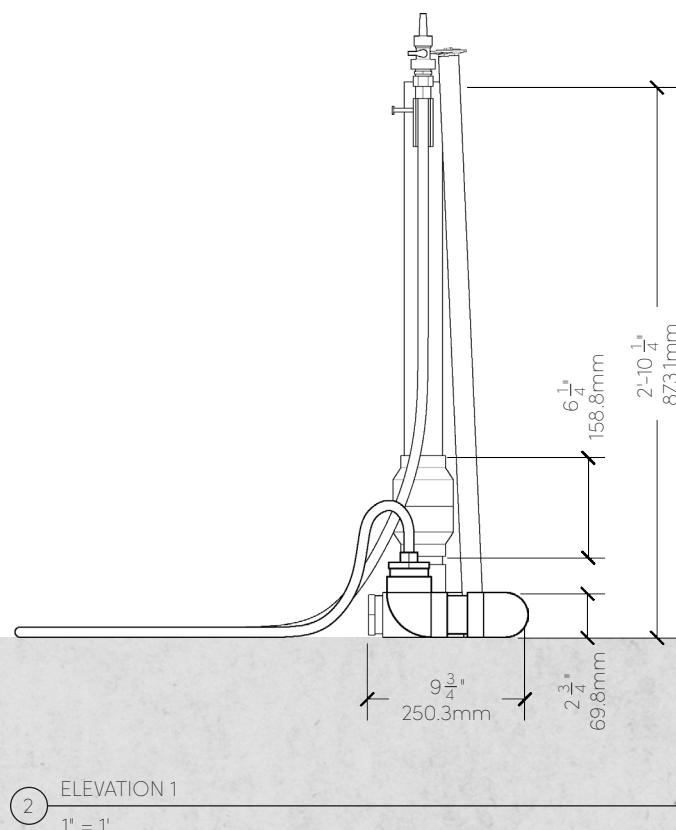
Skills Used: Rhino 7, Adobe Illustrator

This project sought to address homelessness by creating a collection of public services through the agglomeration of each student's individual project. This allowed us to focus in on one issue with specificity without having to grapple with everything that surrounds this crisis. We had to design two objects with similar tectonics, but at different scales. I focused in on pressurized water systems for washing and controlling one's body temperature. The small object to the right is a personal hose system constructed out of easily accessible, low-cost materials. This allows someone who is unhoused to construct the object on their own, ultimately reducing the cost. A plunger with an oversized rubber washer on the end creates a simple pneumatic system to pressurize the water by hand.

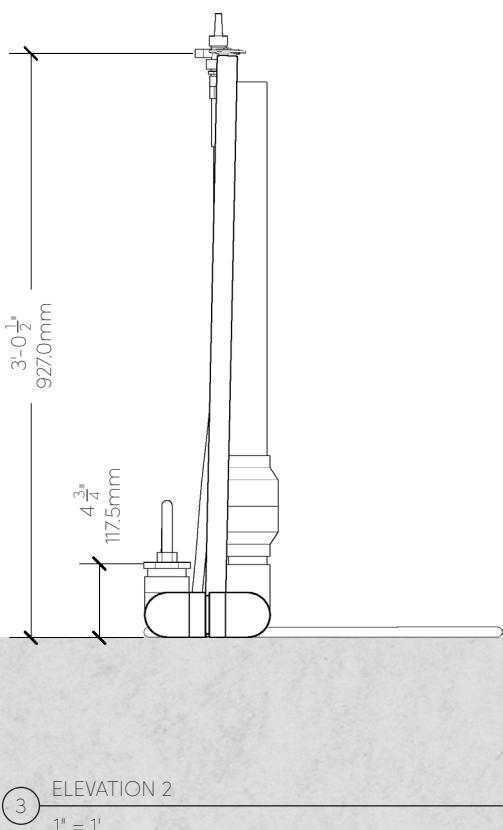


PLAN  
1" = 1'

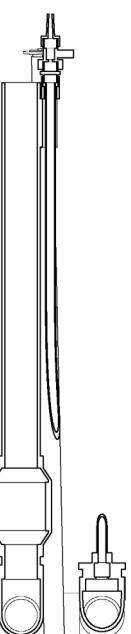
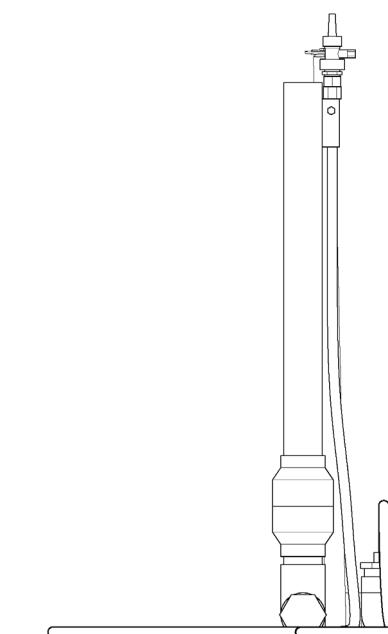
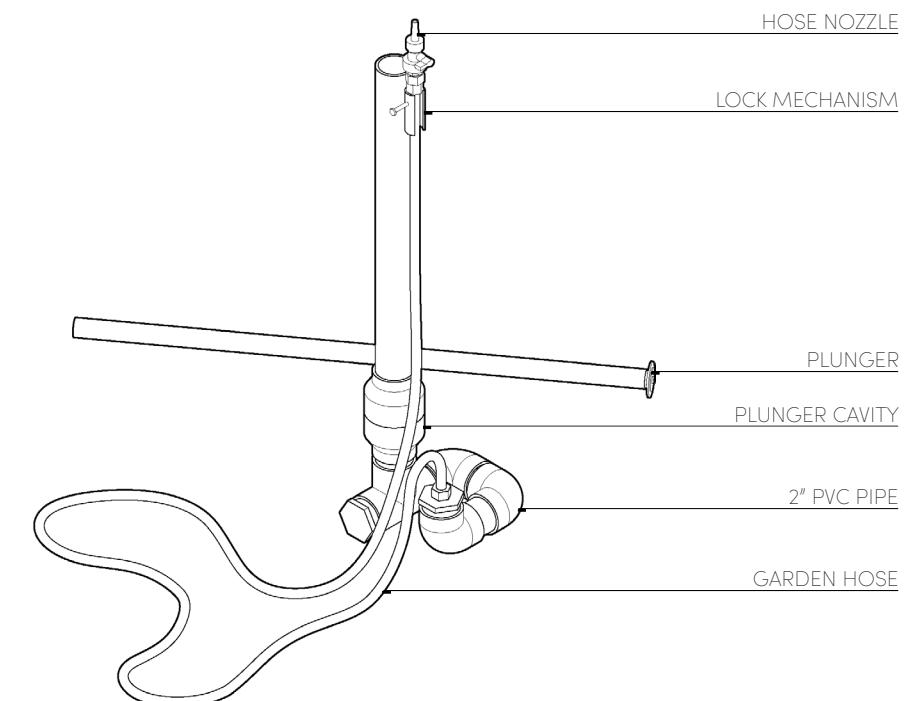
AXON  
1" = 1'

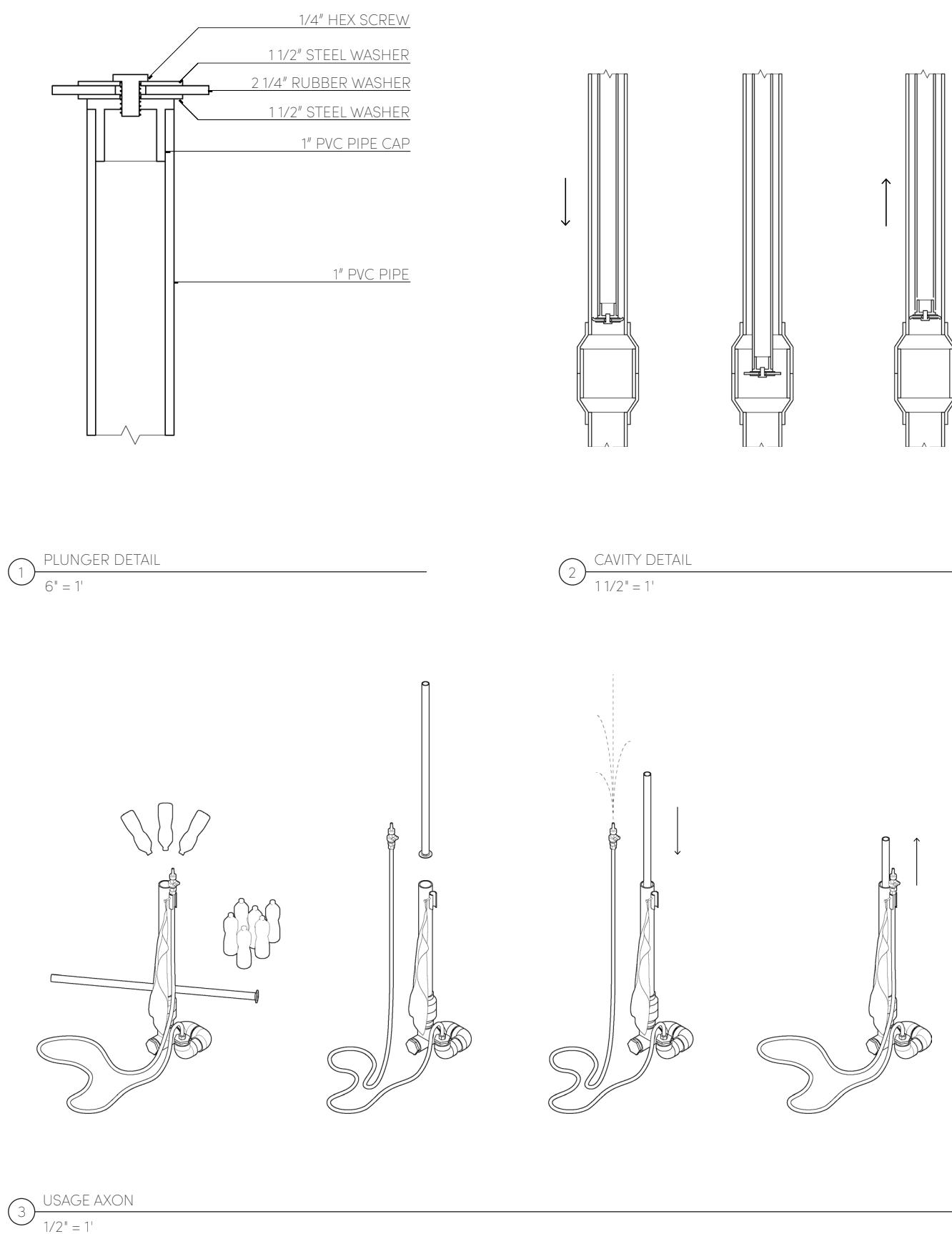


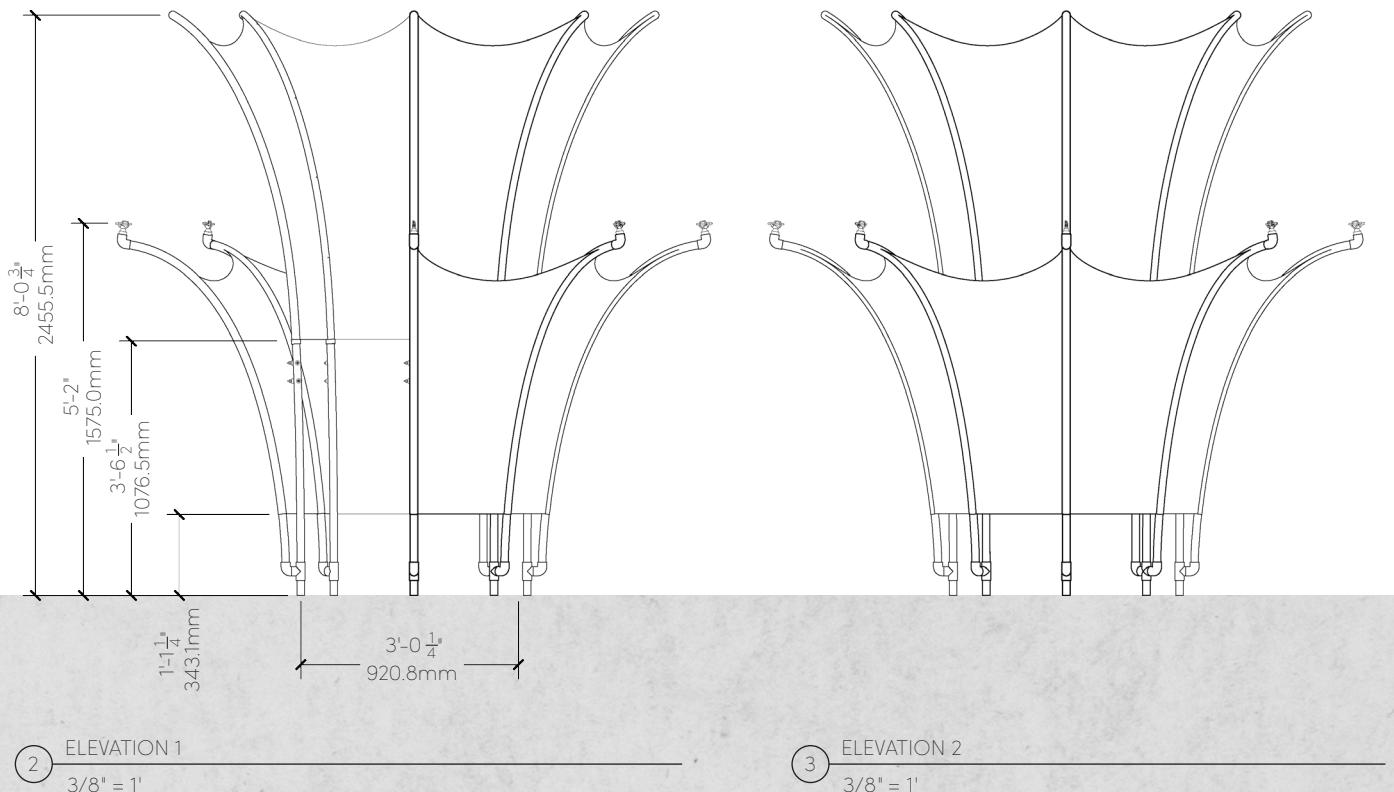
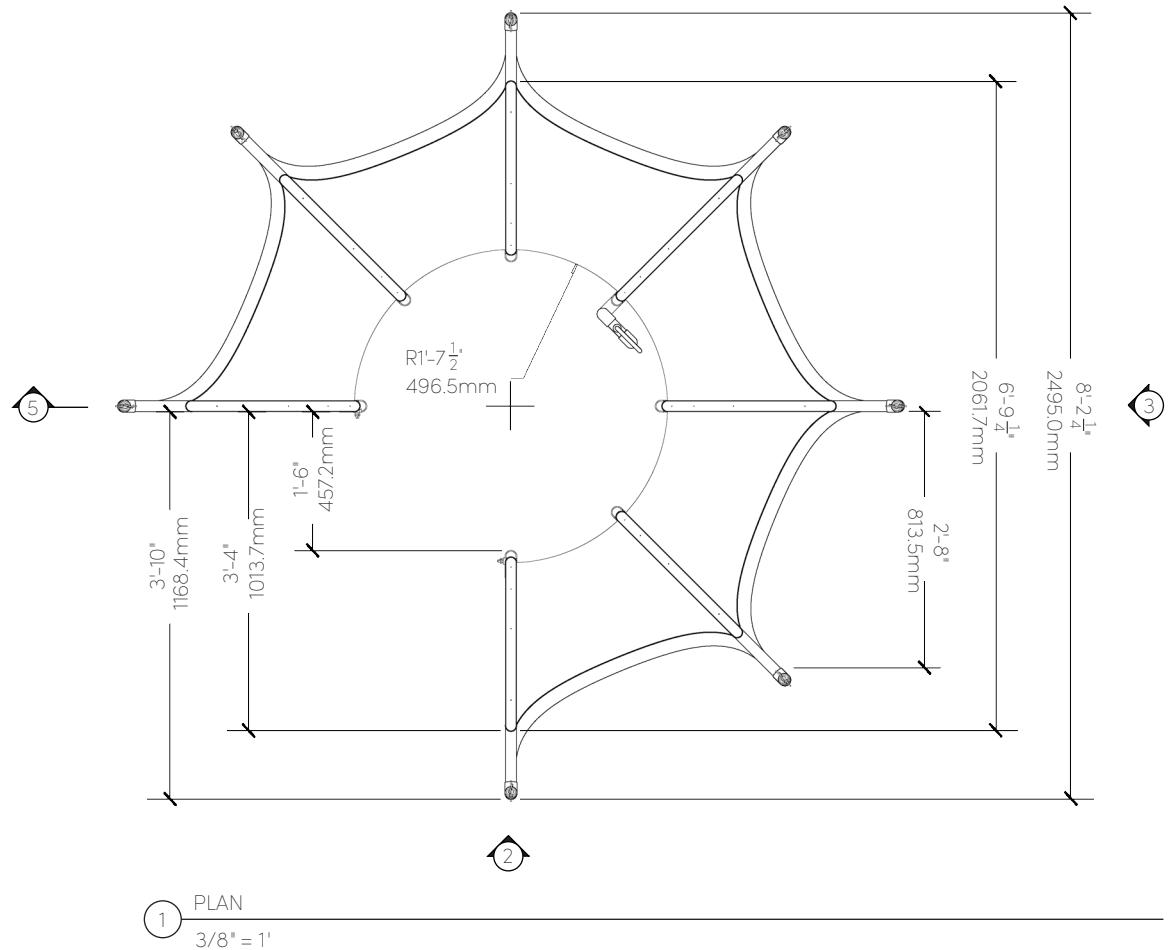
ELEVATION 1  
1" = 1'



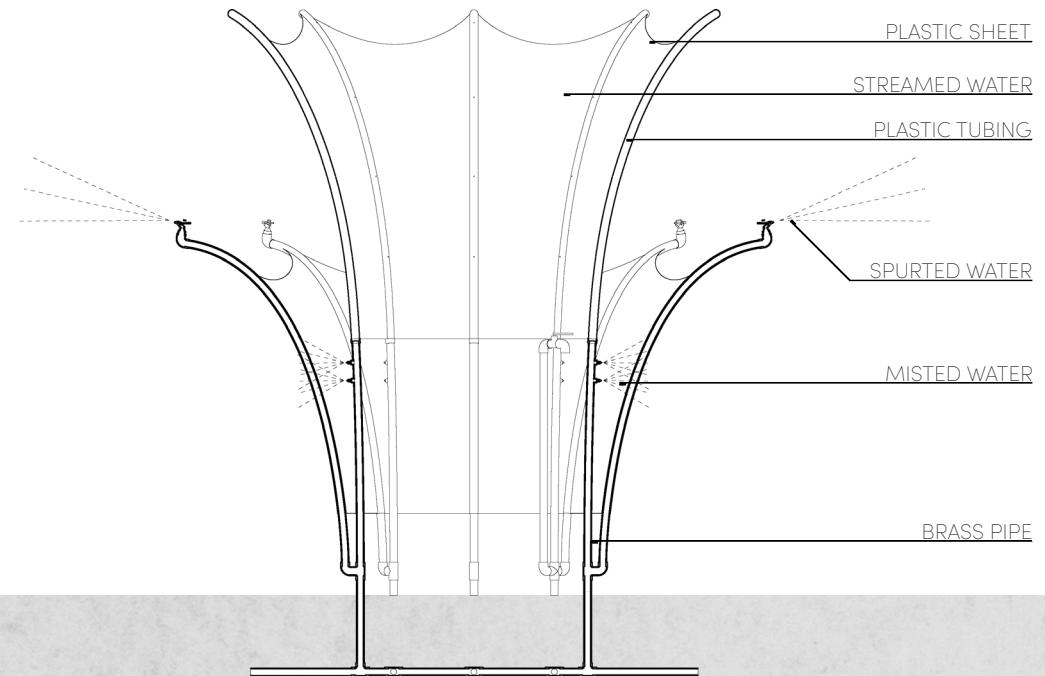
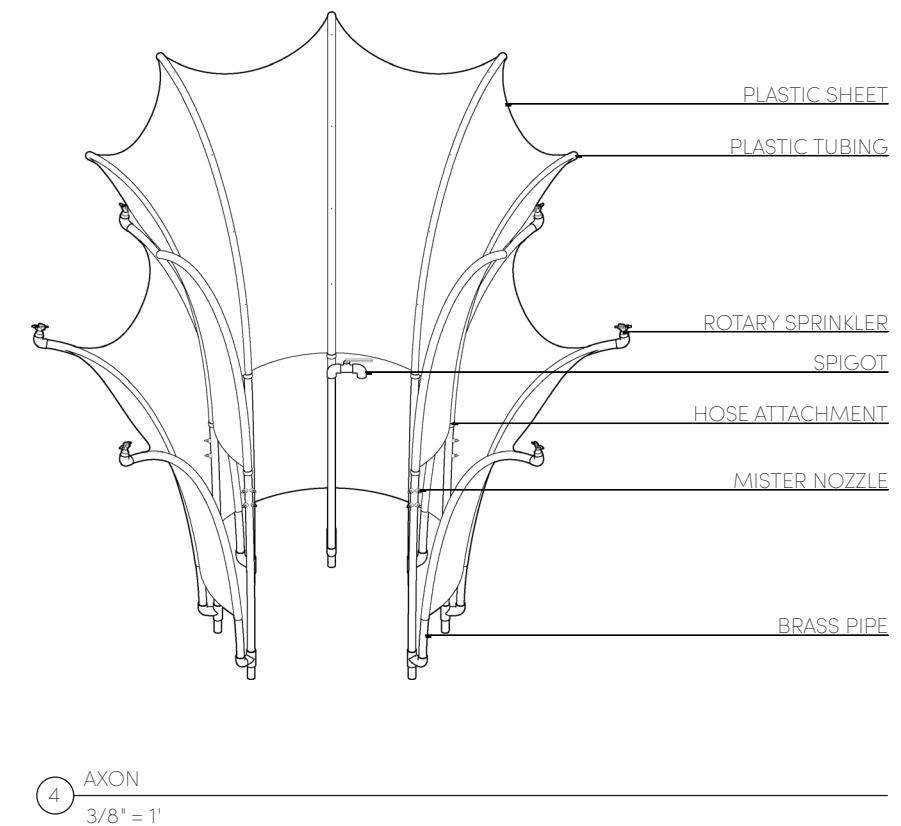
ELEVATION 2  
1" = 1'



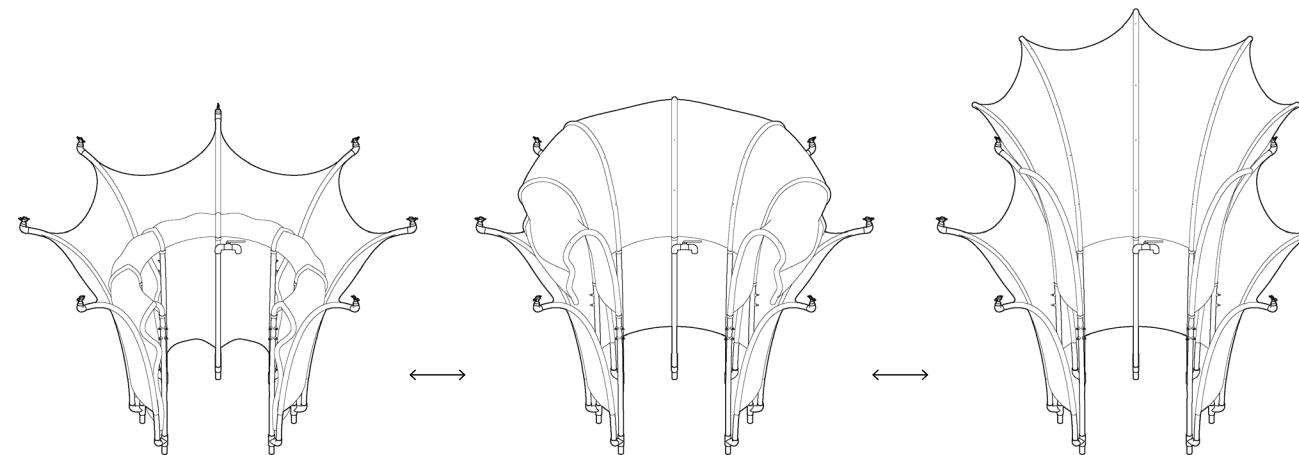




The large object is a product to be funded and implemented by the city. For this reason its function differs from the small object; it must merge the interests of the unhoused community with the clients'. This led me to design a large, inflatable sprinkler that blooms every time the city is watering the grass. Water is dispersed through rotary sprinklers across the surrounding ground while misters provide a cloud of privacy and slip n slide like holes in the plastic bloom give individuals access to streamed water. This effectively turns the process of watering the park grass into a spectacle that encourages play for the general public while providing access to pressurized water for the unhoused.

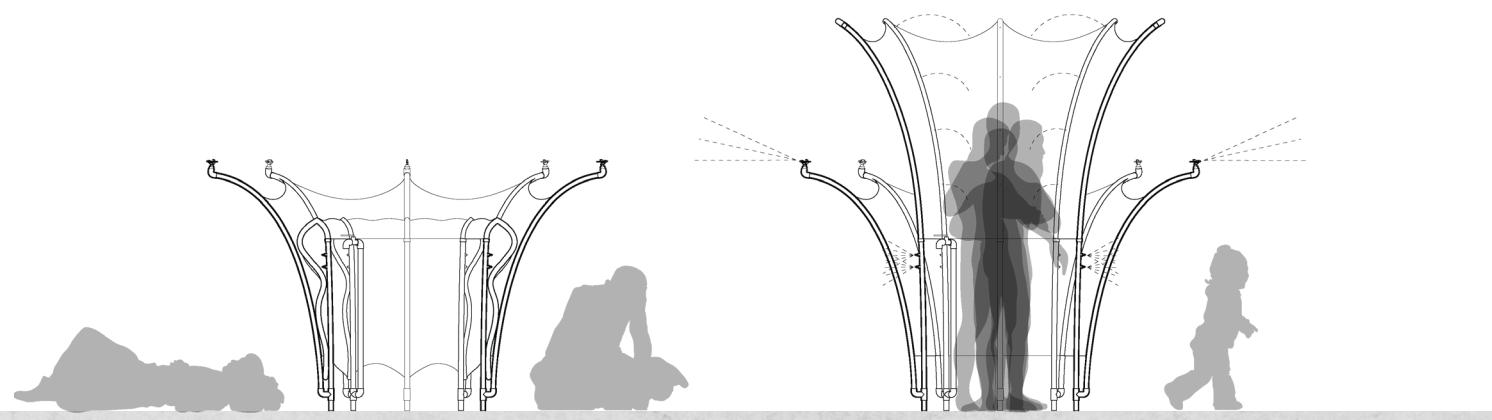


WATER HEARTH

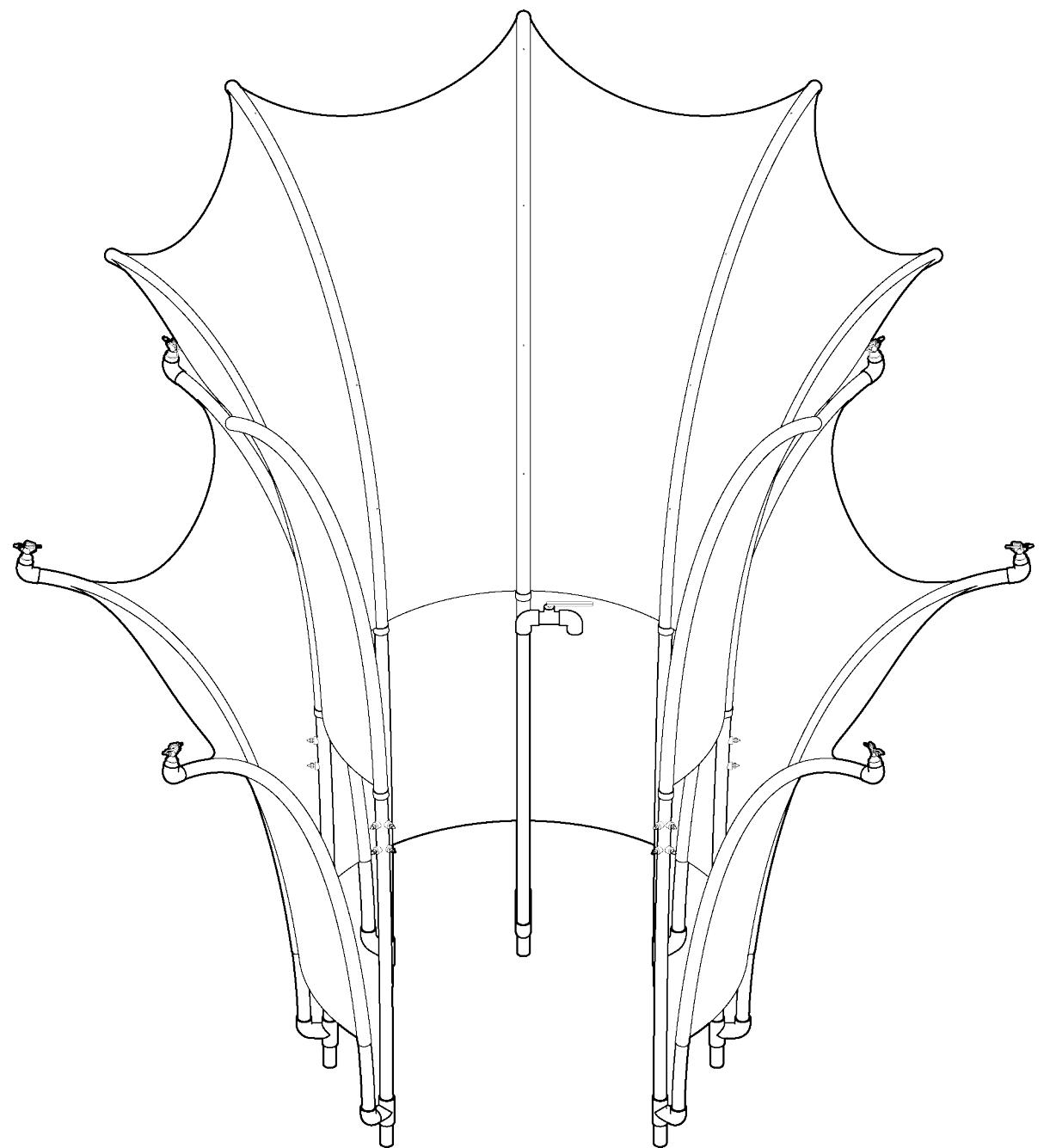


SPRINKLERS OFF ← → SPRINKLERS ON

1 EXPANSION DIAGRAM  
1/4" = 1'



2 HUMAN ENGAGEMENT DIAGRAM  
1/4" = 1'



3 AXON  
3/4" = 1'

# CHAIR TRANSLATIONS

Location: Ann Arbor, MI

Research: Architecture Student Research Grant (ASRG)

Skills Used: LiDAR Scanning, Rhino 8, Woodworking, Adobe Suite (Illustrator, Photoshop)

Team Members: Evan Weinman

This project explores the role of cutting-edge design technologies through an iterative process combining digital tools and analog fabrication. The project utilized Gravity Sketch, a Virtual Reality CAD software, and 3D LiDAR scanning to uncover faults in the technology and capitalize on mistakes made in the translation process—digital mistranslations. Beginning with designs inspired by Finn Juhl's FJ48 and Marcel Breuer's Cesca Chair, the iterative process of design and fabrication resulted in the production of two series of chairs that are a direct product of the digital and physical tools used throughout the process. This allowed the makers to explore varying themes ranging from texture mapping and kitbashing to gestural motion and human proportion.



## PRECEDENTS

We started with the precedents on the right to focus on translation processes as opposed to the initial chair design. Evan chose FJ48 and I chose a personal reinterpretation of the Cesca chair.

## PROCESS DRAWING

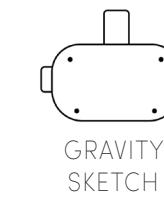
The drawing on the far right explains the translation process we designed for the project. The iterative process followed a trajectory that flowed from physical to digital and back again.



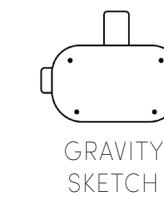
MT1.0



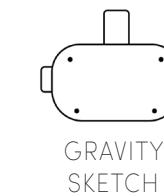
EVAN



GRAVITY  
SKETCH

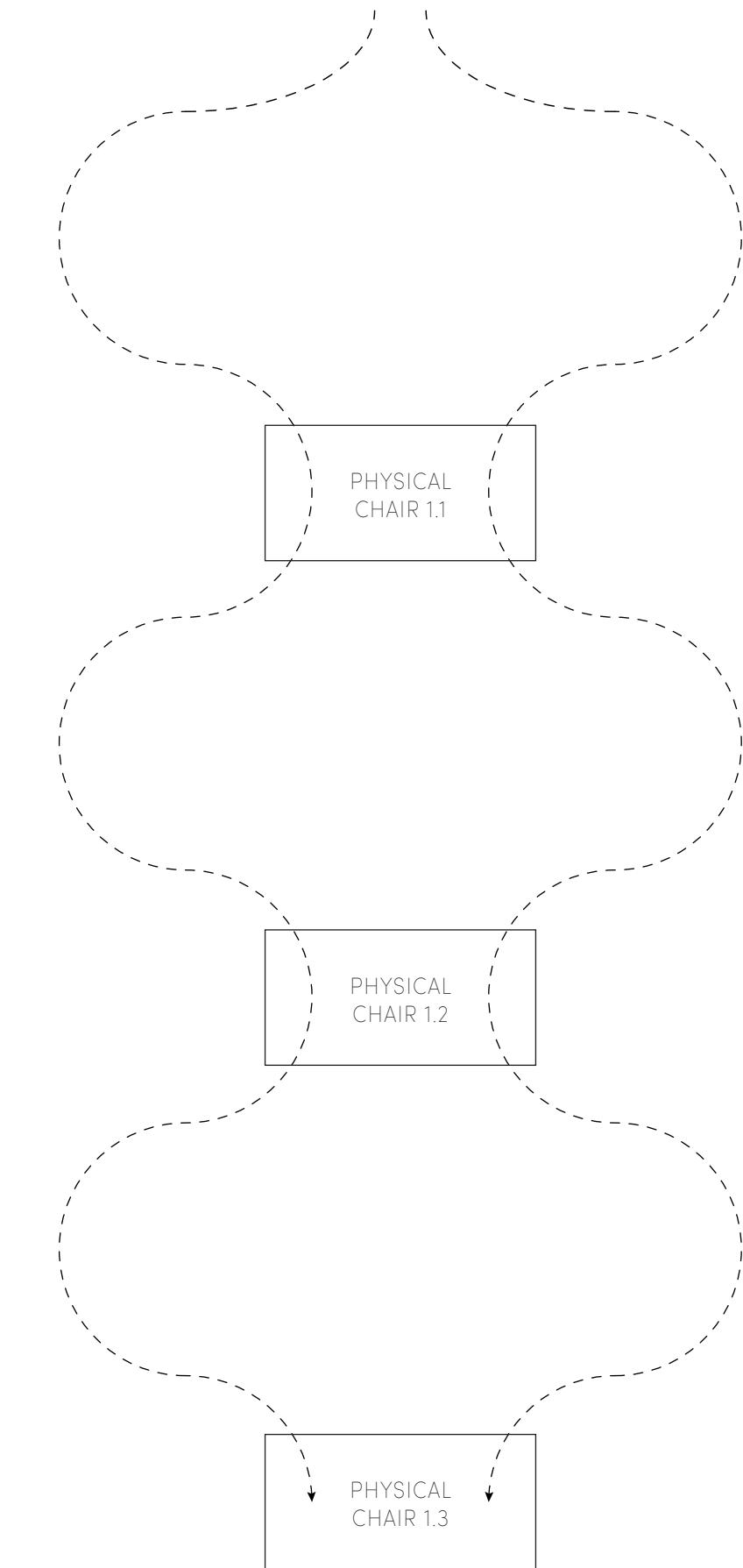


GRAVITY  
SKETCH



GRAVITY  
SKETCH

PRECEDENT  
CHAIRS



MICHAEL



LiDAR

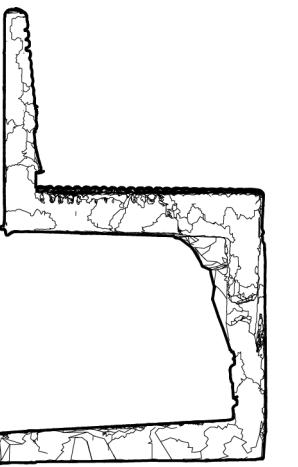
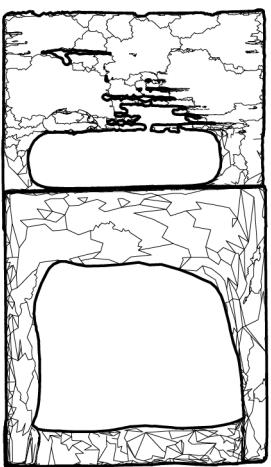


LiDAR

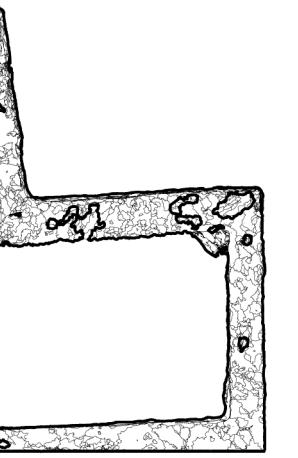
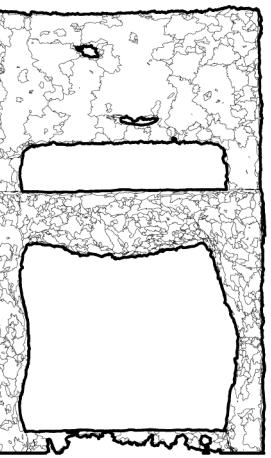
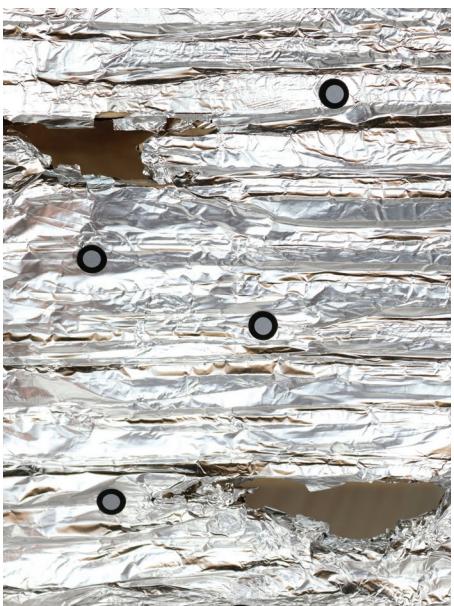


LiDAR

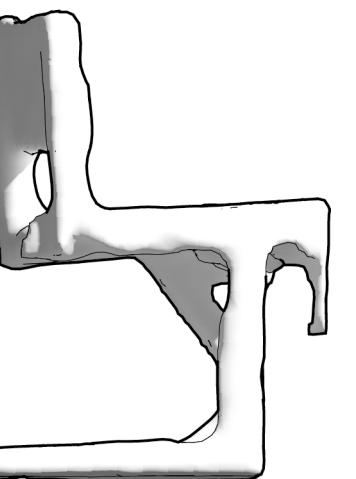
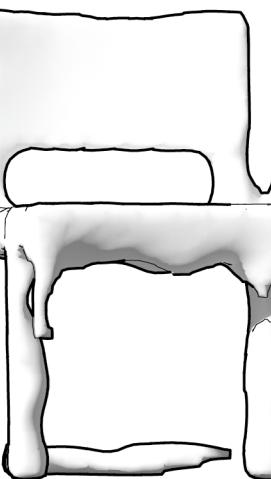
## CHAIR TRANSLATIONS



MT1.1



MT1.2



MT1.3



### DRAWINGS

The drawings on the left are of the LiDAR scans I captured for each chair. They turned into the construction drawings for the next chair in the iterative, design process.

### IMAGES

The images on the right are of the physical chairs Evan and I produced. LiDAR scanning and the process of physical making both had a significant impact on the design of the chair.



## IMAGES

The three renderings on this spread show an interactive, digital environment comprised of the digital chair assets and scanned reinterpretations of spaces used throughout the project.

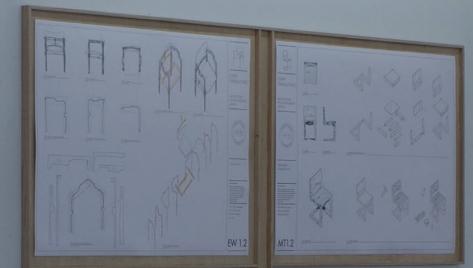
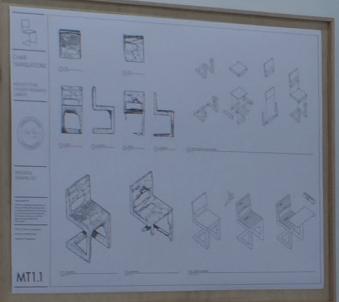
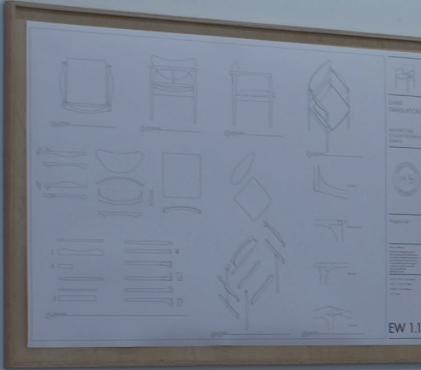
## IMAGE ENGAGEMENT

At the exhibition, this environment was displayed on a computer with its contents projected onto a wall. We invited viewers to engage with, and explore, the space in their own way.



# CHAIR TRANSLATIONS

FROM DIGITAL TO PHYSICAL AND BACK AGAIN



MT1.3

# DRAWING (DOORS)

Location: 418 High St. Ann Arbor MI, 48104

Class: ARCH 509: Directed Drawing - Melissa Harris

Skills Used: Hand Drawing, Photography, Adobe Photoshop

This series is part of a collection of drawings that I produced in a free hand architecture drawing course. Some of these are one offs while others are drawings on top of my own previous printed drawings. This process can be repeated ad infinitum, creating abstraction on top of abstraction.

