ALIN RAHMAN

architecture portfolio

PROJECTS

Bachelor of Architecture and Design
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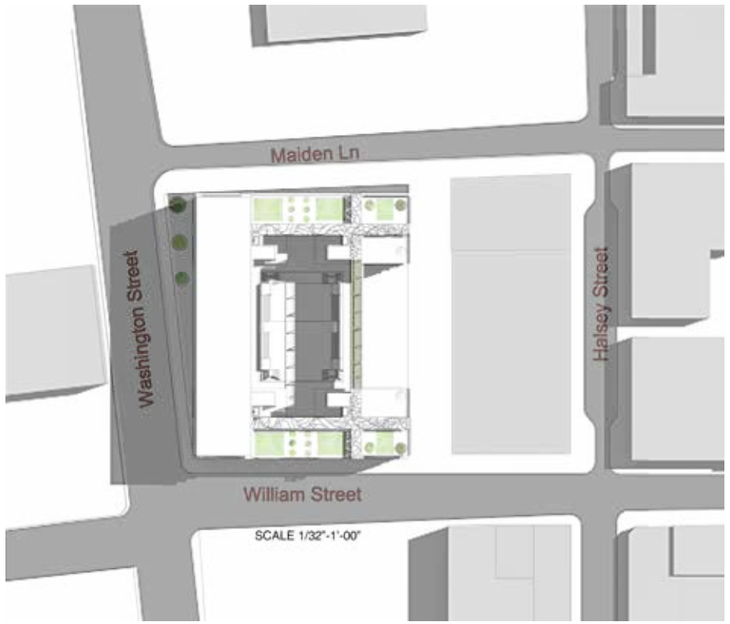
Housing Project
(2018)

This is a residential housing paper project designed for a site located in downtown Newark. This projects is a vision for a healthier living conditions and affordable housing in a desnsely populated urban location.

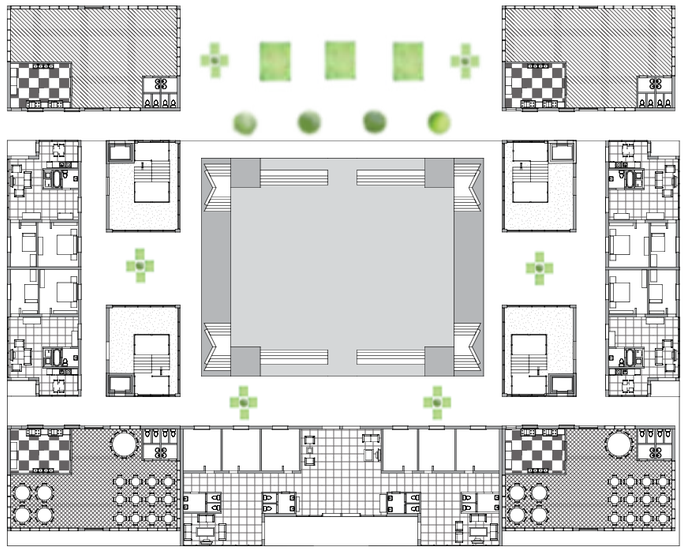
Plans

Site Plan



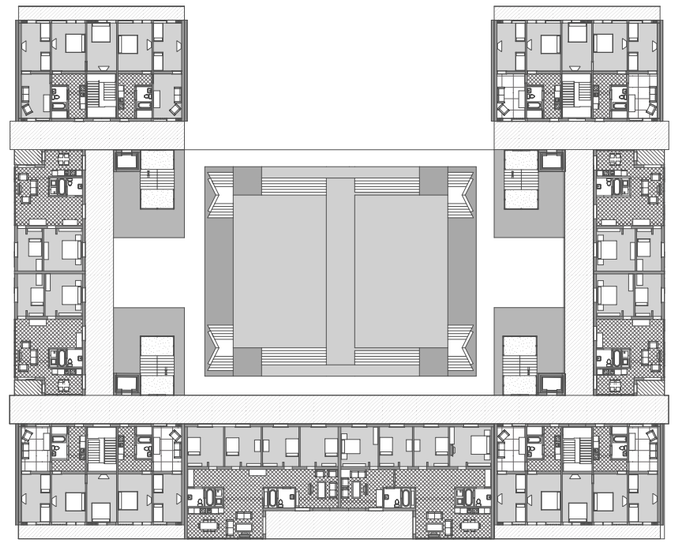
Site is located in Downtown Newark, in a business district and there is not enough healthy environment for physical activity in the surrounding area. This design promotes healthier lifestyle by connecting the apartments with exterior corridor that suggests occupants to be active and has a central courtyard for residents, specially kids to be able to be outdoors without having to leave the perimeter of the building.

Ground Floor



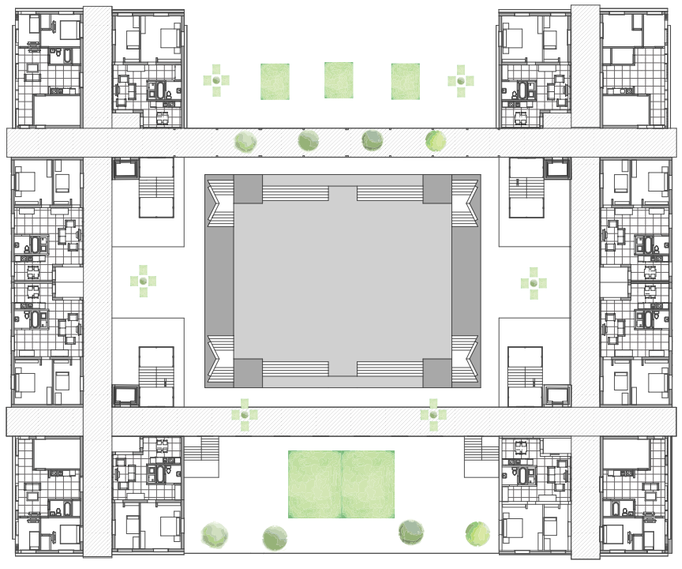
SCALE 1/16"-1'-00"

Plan 1 (1st-3rd Floor)



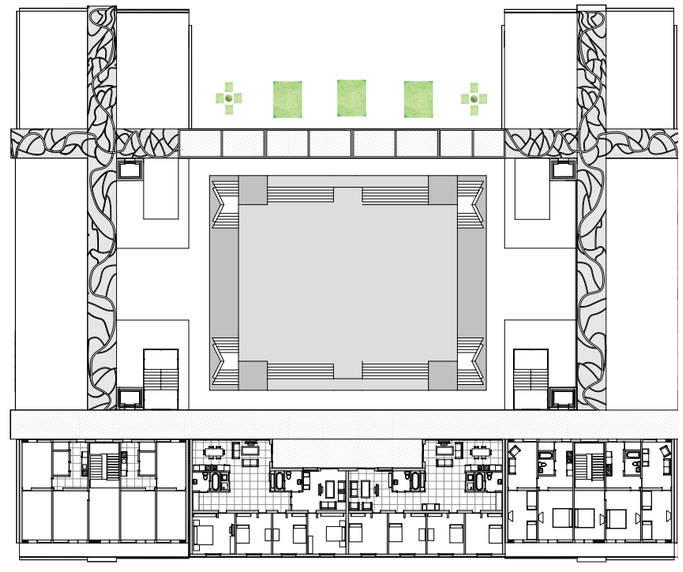
SCALE 1/16"=1'-00"

Plan 2 (4th-8th Floor)



SCALE 1/16"=1'-00"

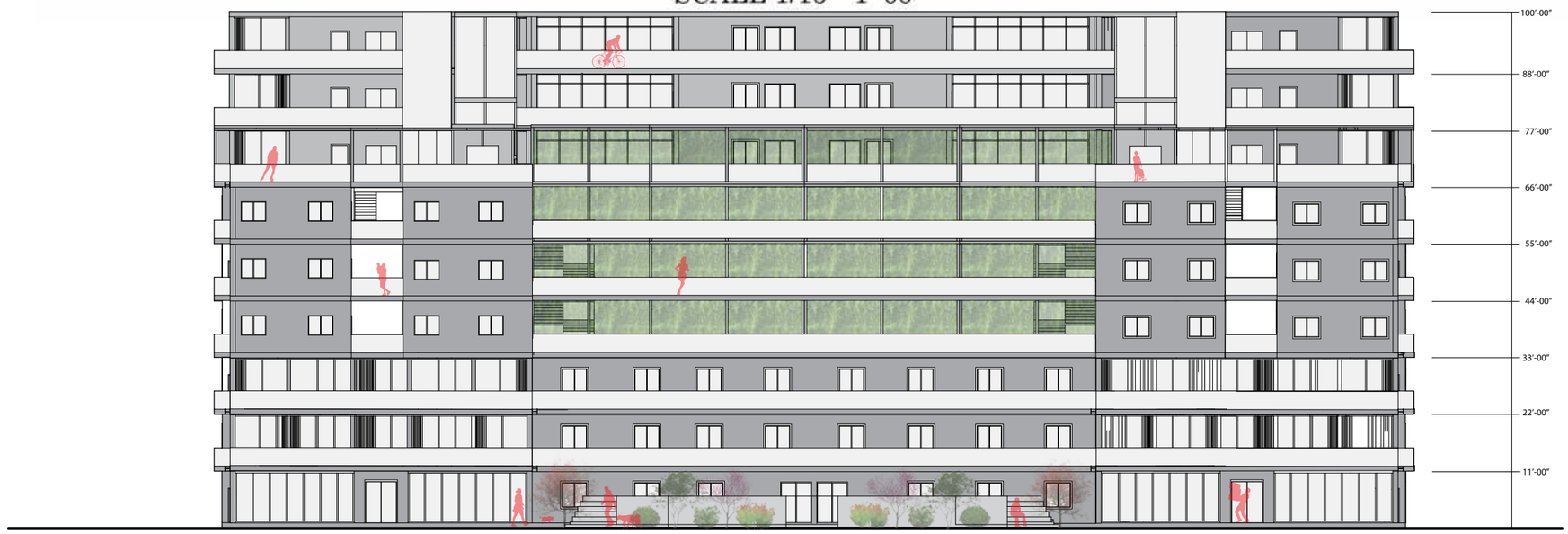
Plan 3 (9th-12th Floor)



SCALE 1/16"=1'-00"

ELEVATION: WASHINGTON STREET

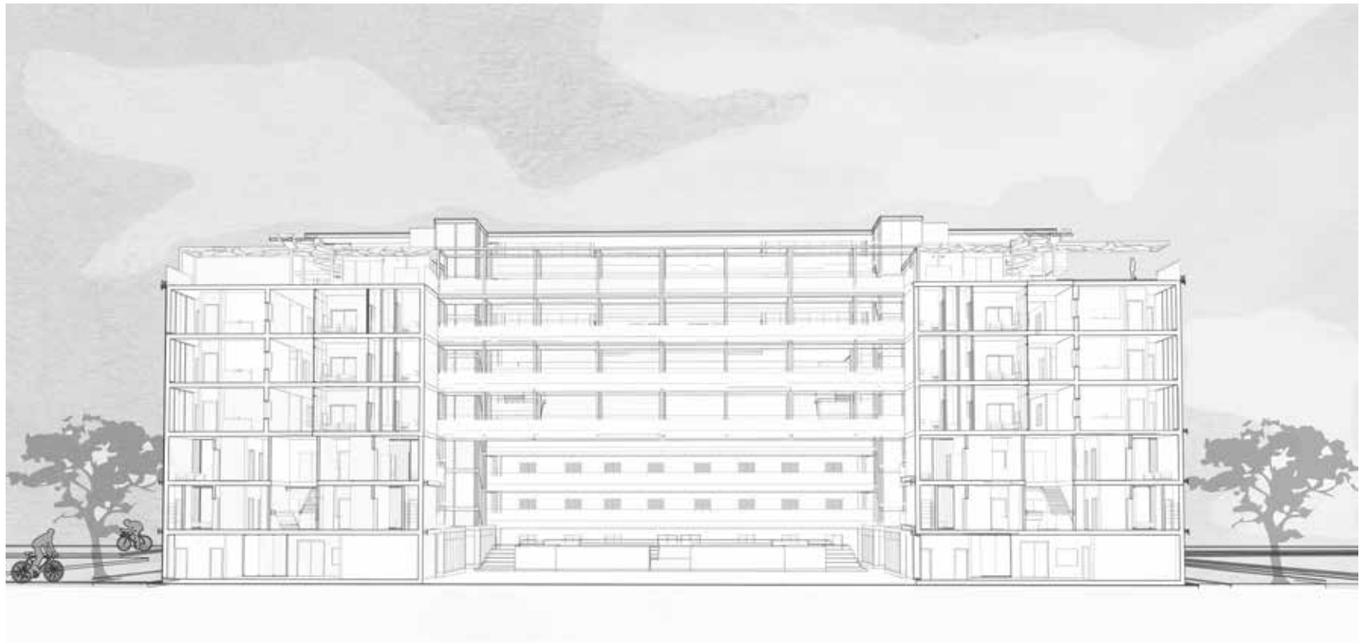
SCALE 1/16”=1’-00”



ELEVATION: HALSEY STREET

SCALE 1/16”=1’-00”

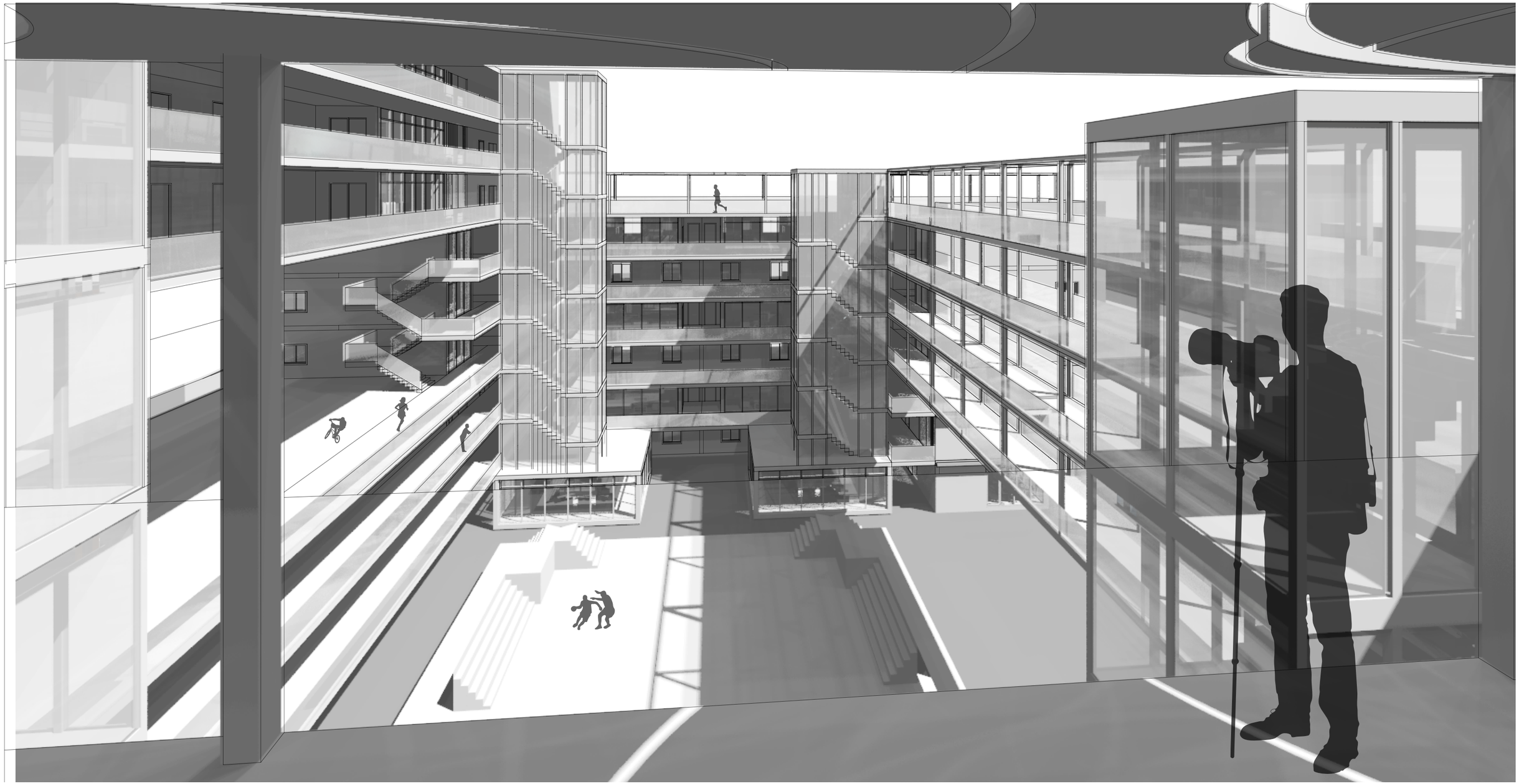
Sections



Section A- Longitudinal

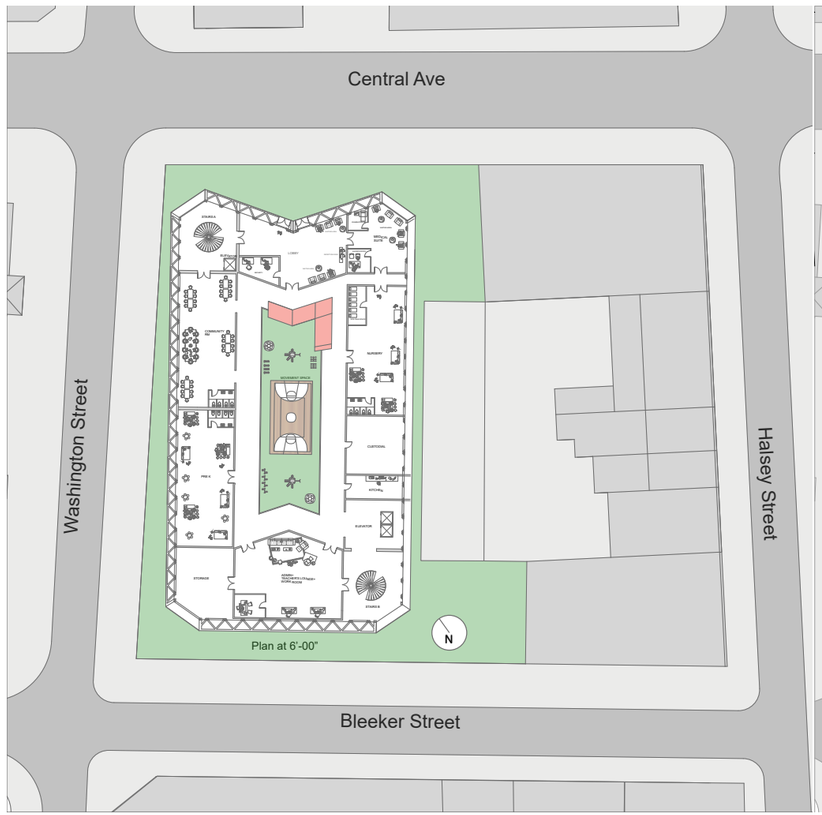
Section B - Crosswise

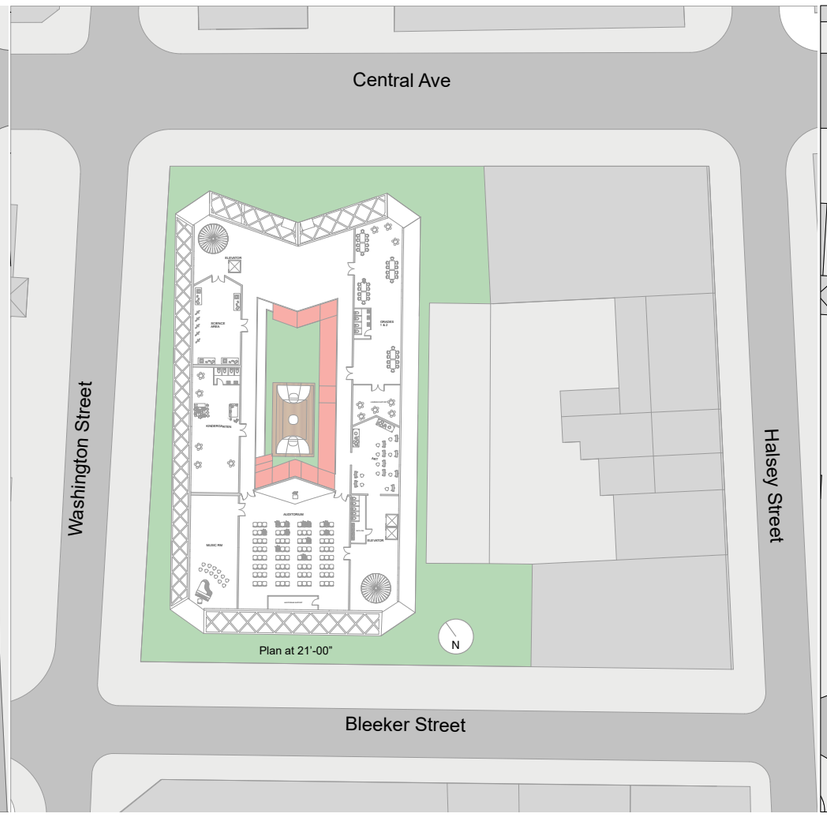
PERSPECTIVE 2

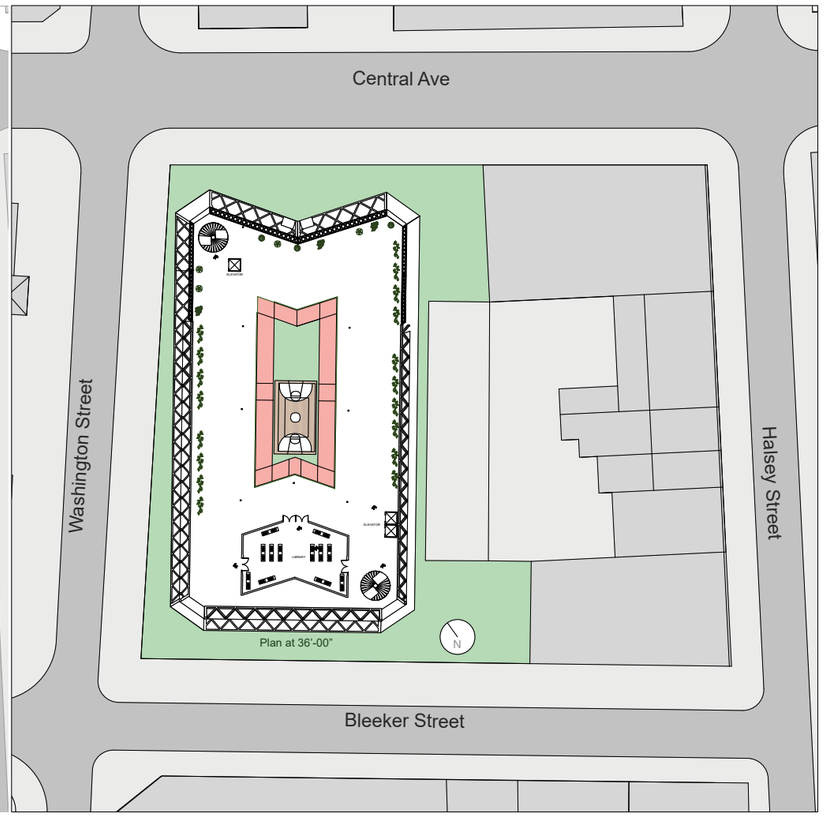


Pre School Design
(2019)

This is design for a pre-school paper project. Site is located in Newark, NJ. We were instructed to find a geometric pattern and create a design scheme based on that. I was inspired by a triangular pattern.







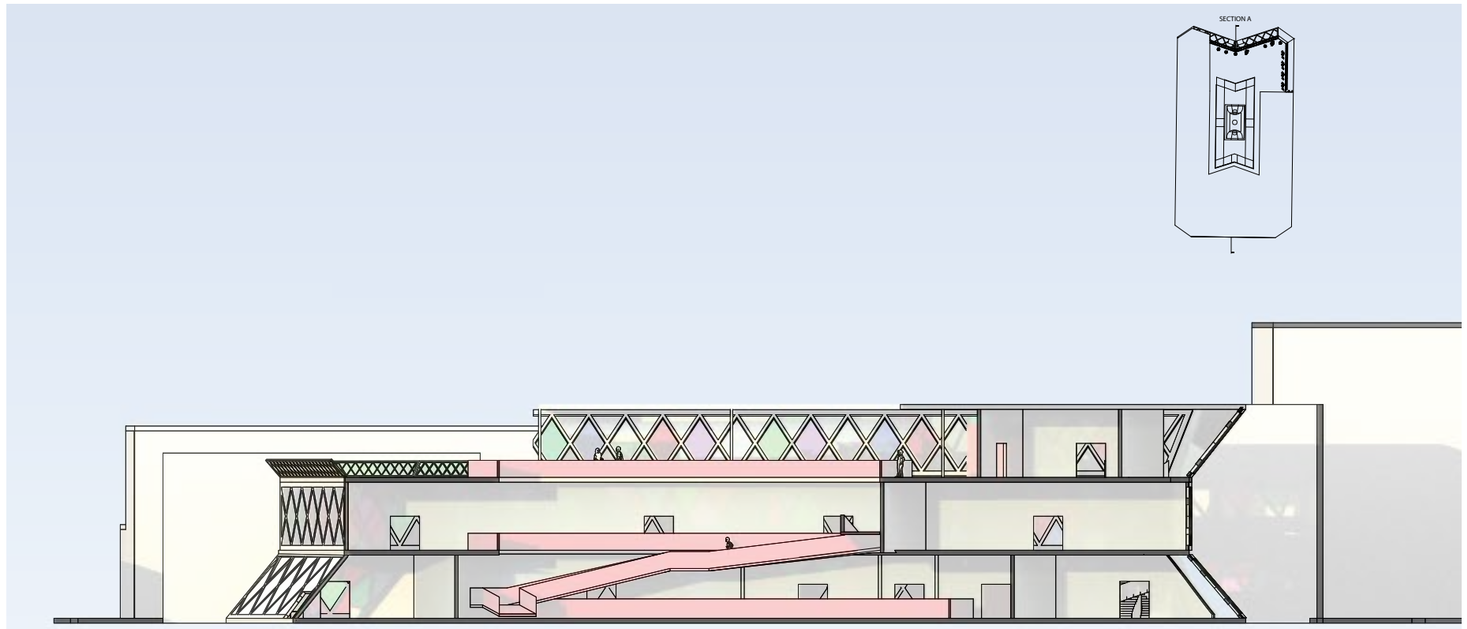
Project site was in Downtown Newark. The goal of the project was to develop a pre-school design in the context of life in Newark.

We were instructed to choose a pattern at the beginning of the project to develop our design based on that, and I was influenced by a
triangular pattern that is being expressed in the footprint, facade and overall design process.

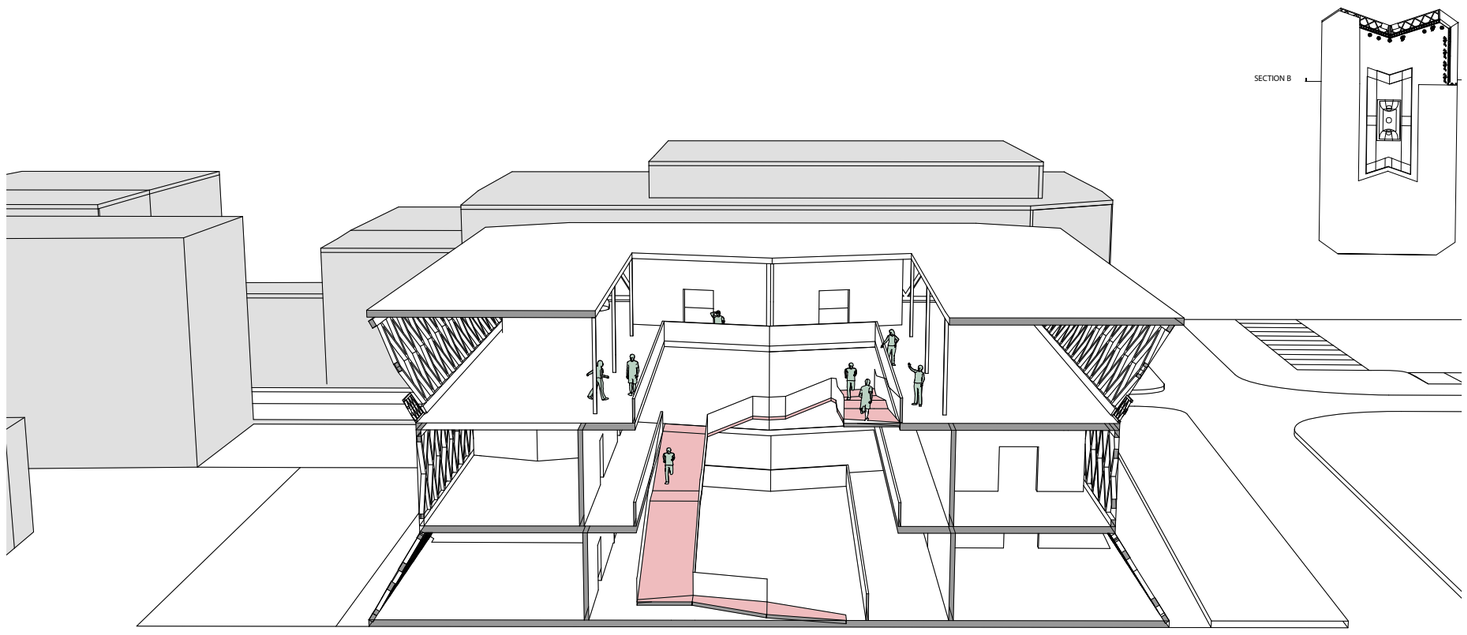
I wanted to design a playful and colorful space for the young students, with vertical and horizontal circulation to help stimulate their creative minds.

Model Photos

Sections

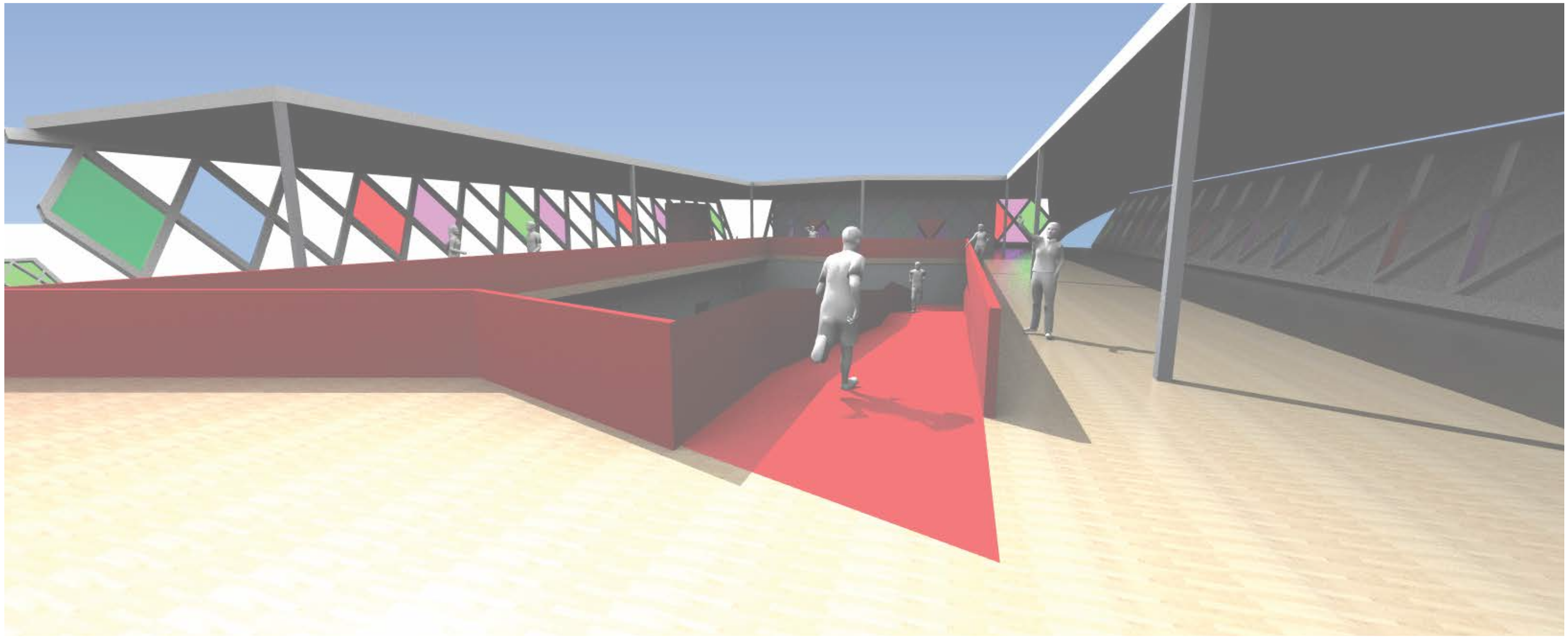


Section A
3/32"=1'-00"



Section B
3/32"=1'-00"

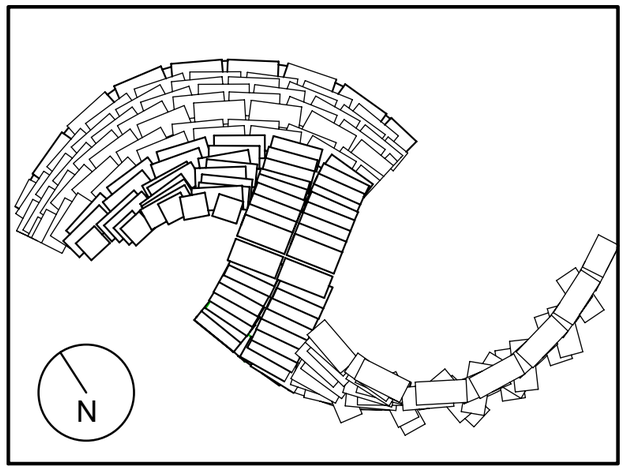
Perspective - Roof

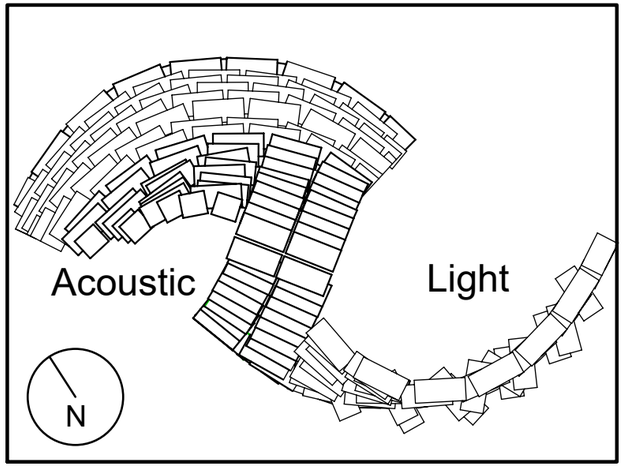


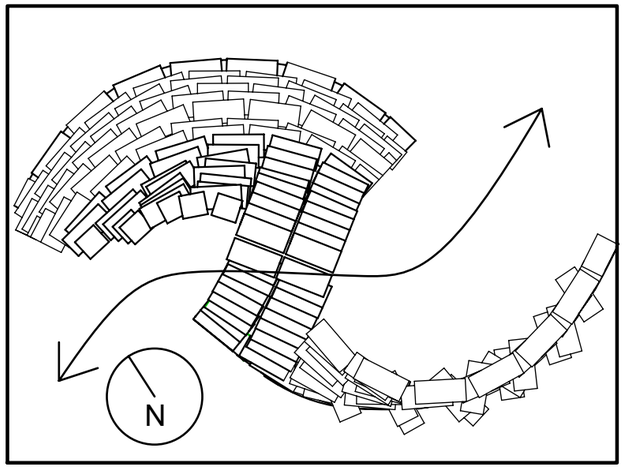
The design scheme focuses on vertical and horizontal ciruclation, and space for children to move and play freely in a safe manner. Addition to double helix stairs and elevators, a ramp connects all 3 floors to accommodate the high energy level of young ones.

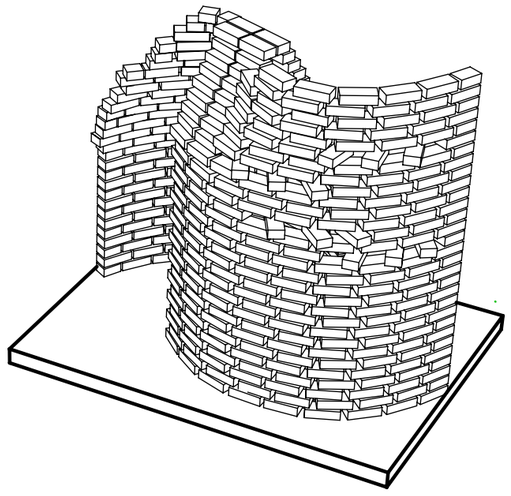
Brick Build (2018)
Masonry Competition

NJIT have this tradition of hosting masonry competition titled Brick Build. Second year architecture students compete against each other in studio teams to learn and build with masonry. This two day competition is an exciting style of education because students experience what is it like to work in the field. I was in the studio that was the Green Team and we won the competition. Below is my individual design and next page has the winning project that we collaborated as a

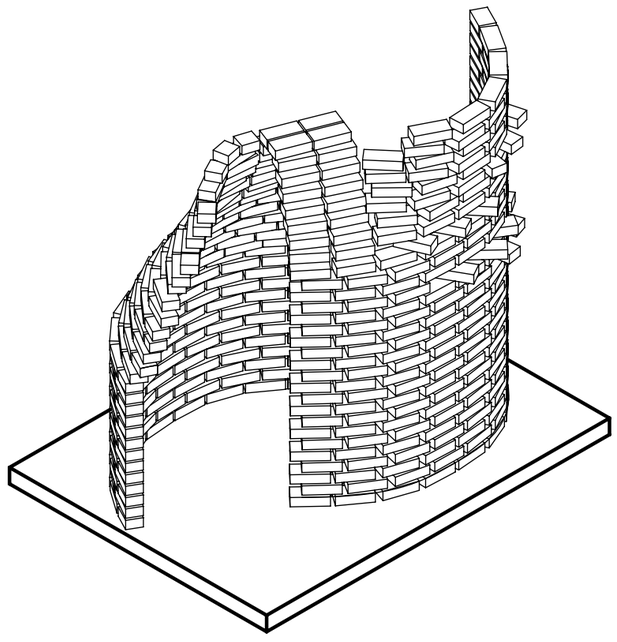




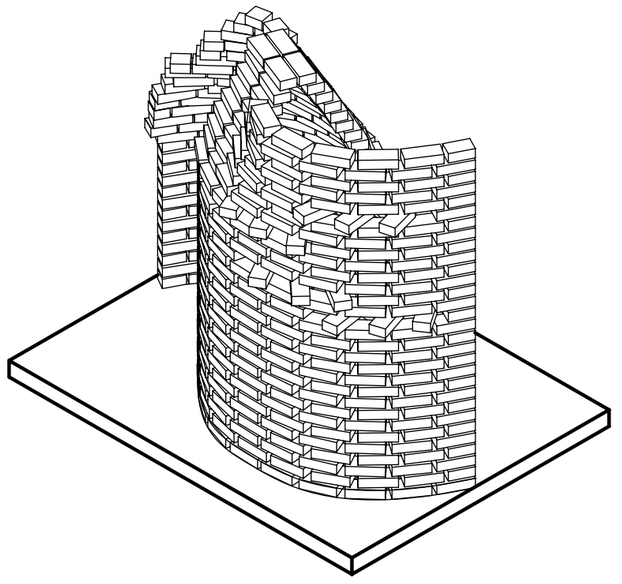




Axonometric

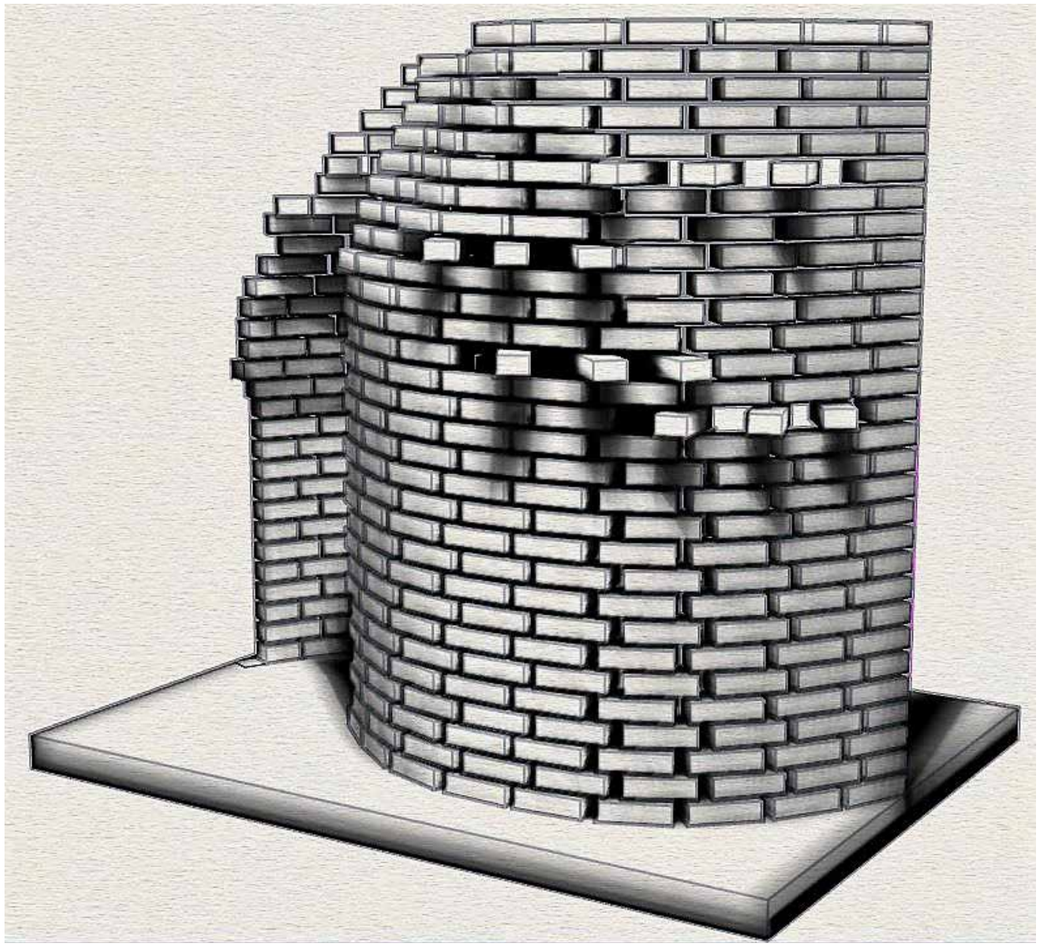


Isometric A

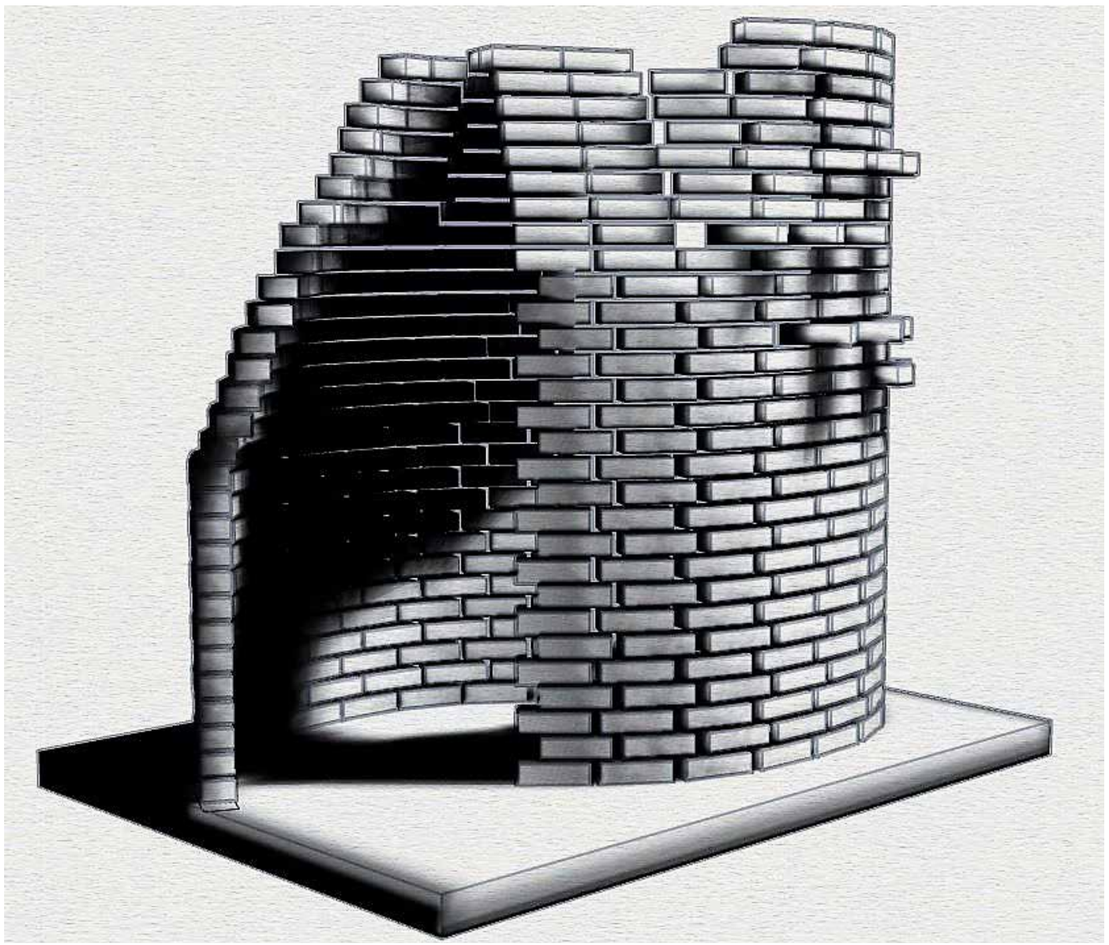


Isometric B

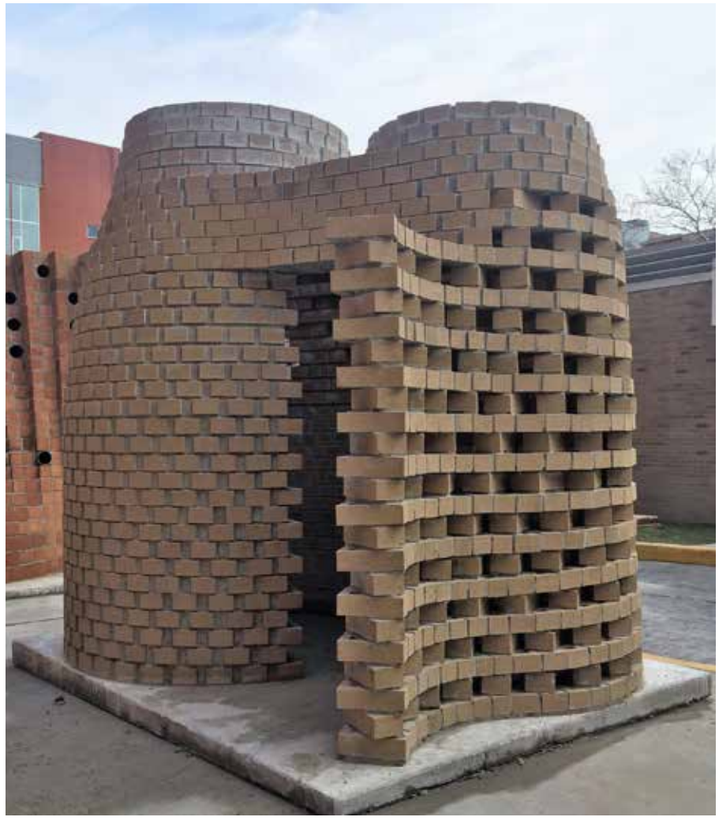
The final design was adaptation of multiple designs from multiple students in our team create the final design to represent the studio. It was exiciting to work as a group, brain-storm together and collaboratively design something lasting. My design was a response to the natural light and acoustic conditions of the site to create a fragment of a space that one use as a temporary shelter or as the user desires.



North and South have walls to prevent winter wind gust.
Open in East to West to allow for pedestrians to use as an alternate route of adventure towards the school of architecture.



North wall has no openings to create acoustic qualities for small musical performance or hang out space.
South wall has small openings to filter in natural light.

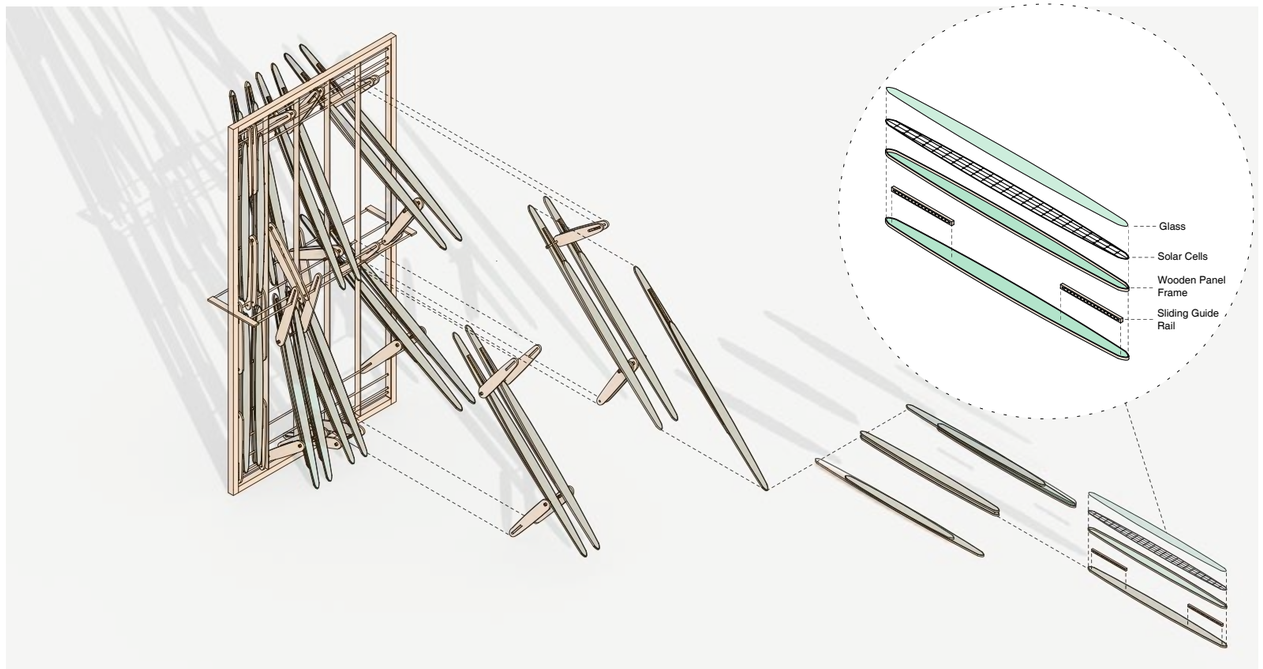



CONNELL
LINDE

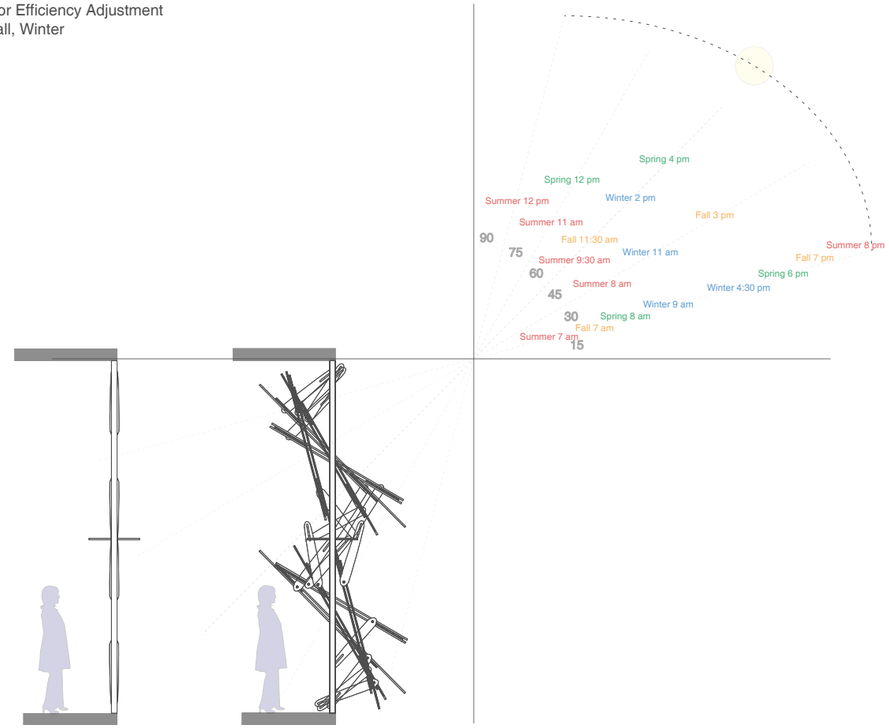
Protype Design (2019)
Solar Waves

For this semester we were instructed to design our own architectural prototype in response to the our surrounding enviroment and natural elements. My concept was an interactive facade system, that would have photovoltaic shading glazing that will allow occupants to control amount of shading required in the space as well as photo voltaic panels will store passive energy from the Sun.

Exploded Axonometric



Seasonal Sun Angles Study for Efficiency Adjustment
Seasons: Spring, Summer, Fall, Winter
Location: Newark, NJ



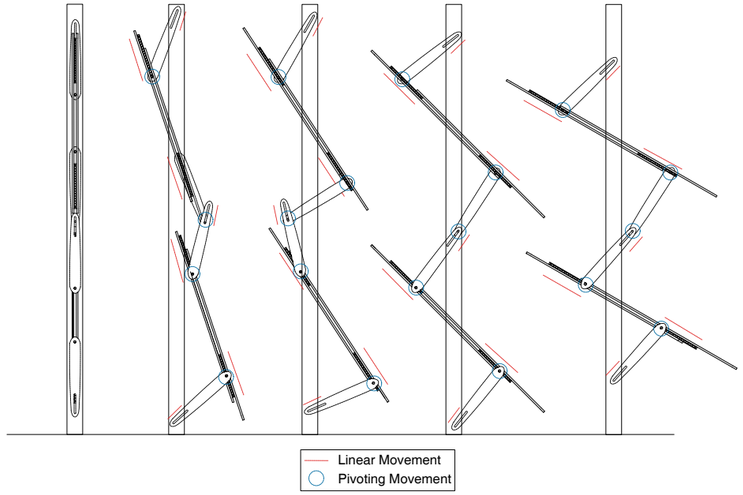
Exploded Axonmetric

Shown Different Components that make up the system.

Seasonal Sun Analysis

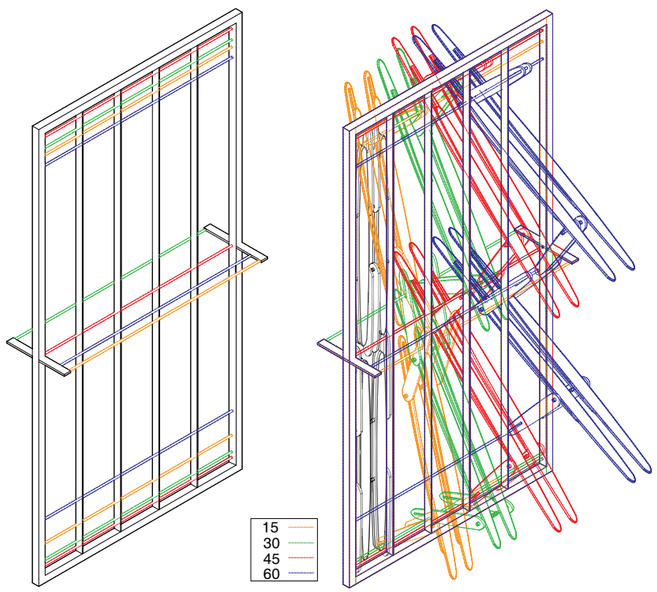
Shown accommodation to Seasonal Sun angles.

Schematic Drawing



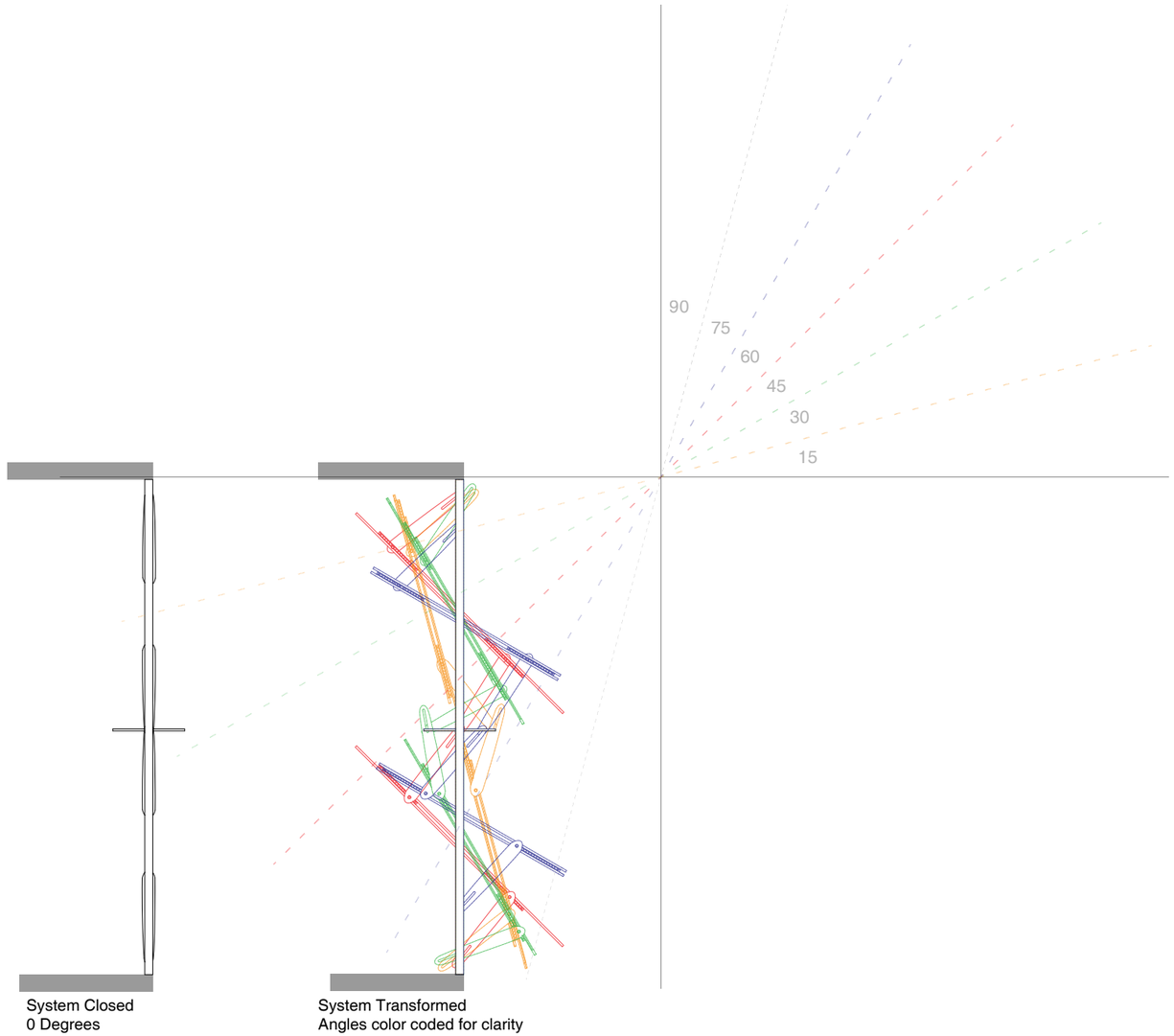
Movement Diagram

Shown accommodation to linear and pivoting movement in order capture most light.



Movement Diagram

Shown positions of support elements for appropriate angles.



Shape Shifter Diagram

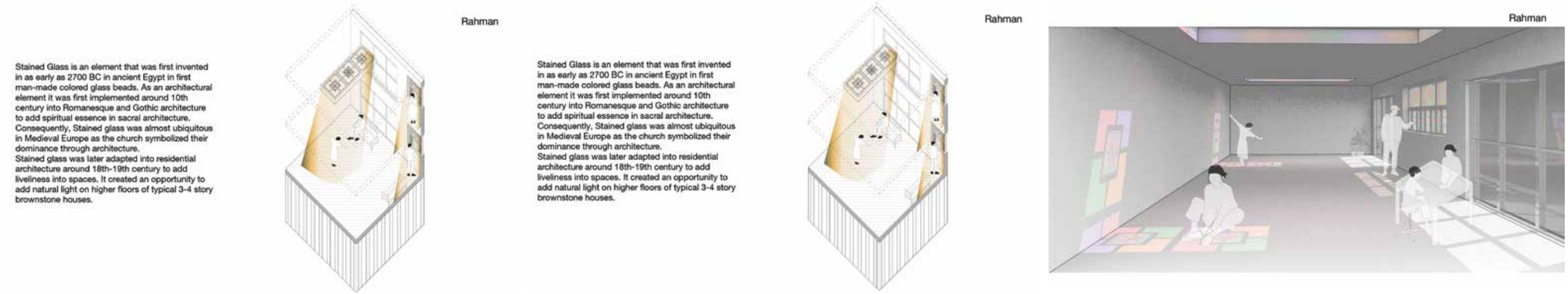
A digram that shows the positions adapted in order to capture Sun angles at different times and seasons.

Exterior Rendering

Interior Rendering

Protype Design (2020)
Light Cornice

In this semester it was mix of different work strategies involved. First we researched, designed and eventually made a published book as a studio. Later on the studio, I worked on designing a housing project.



Vestigial Parts from the book.

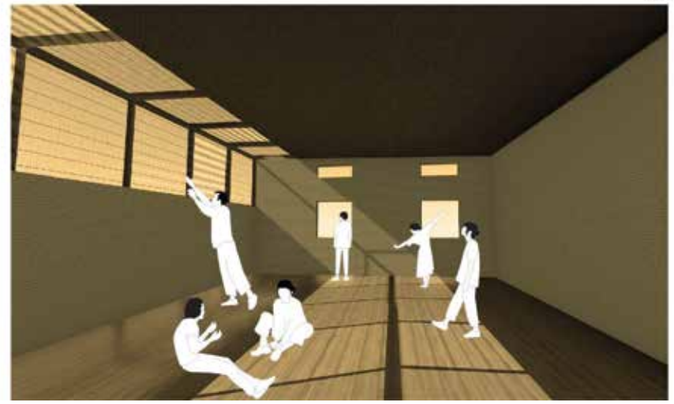
First we had to choose a vestigial architectural part. I selected stained glass and their use in brownstone homes.

Proposed // Light Cornice // Alin Rahman

Light Cornice responds to the lack of natural light in residential buildings and added energy cost to the global energy crisis. This explored part redefines the cornice of a building/unit (scale) on the exterior and interior relationship in the juxtaposition between a ceiling and a wall. It functions as a modular aperture system that with interaction can be oriented to deflect direct sunlight, allow diffused light and vice versa. It is designed to be interactive, so the occupant can transform the ambiance of the space. It allows for direct light when the occupant is tasked and focused, diffusing light for resting activities. It can also allow for reflected light to enter and spread to further corners of the interior space.

Rahman

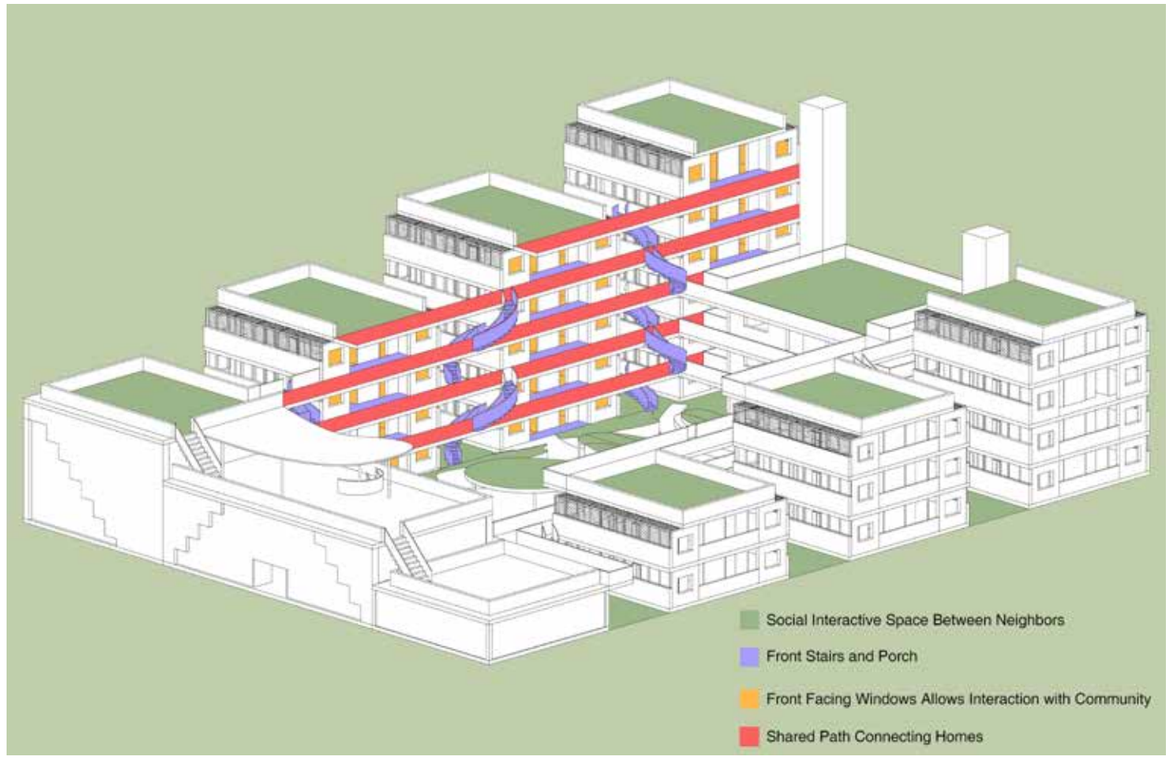
Rahman



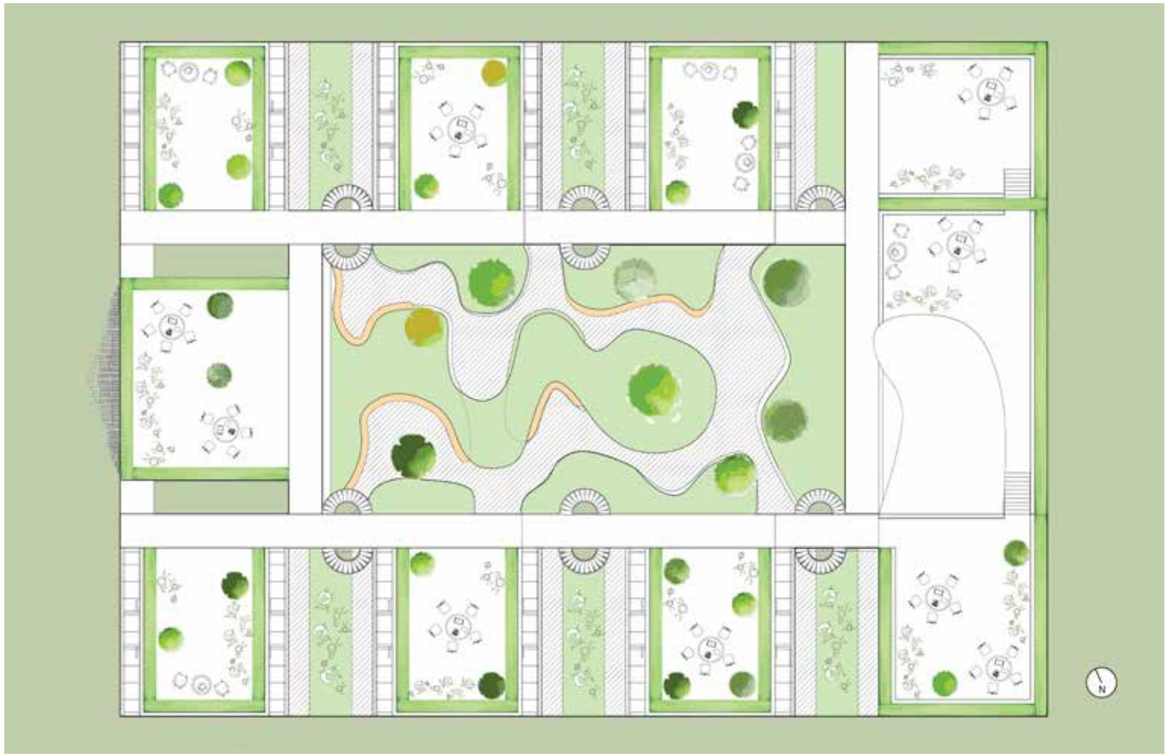
Proposed Parts from the book.

Then we designed our proposed architectural parts in relation to the vestigial parts. My part was a concept I named Light Cornice, because the idea was the corner relationship between wall and ceiling transformed into an aperture system that users can interact with to control amount of light into the room.

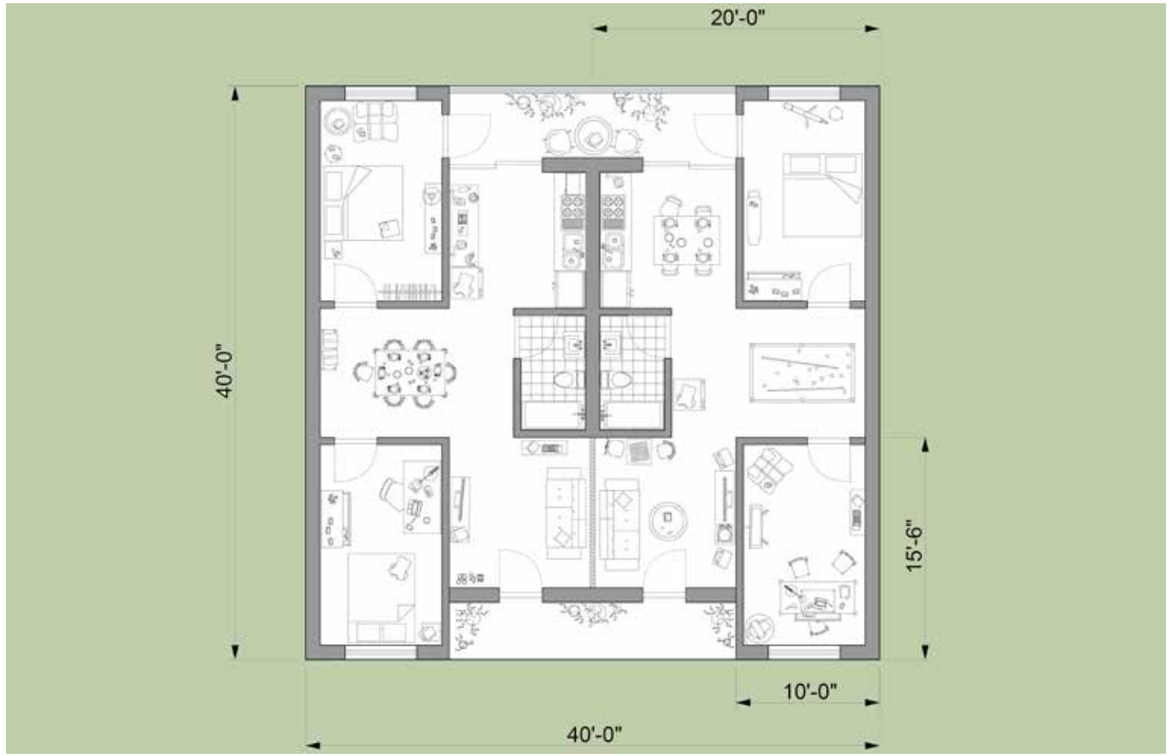
Flexibility Diagram



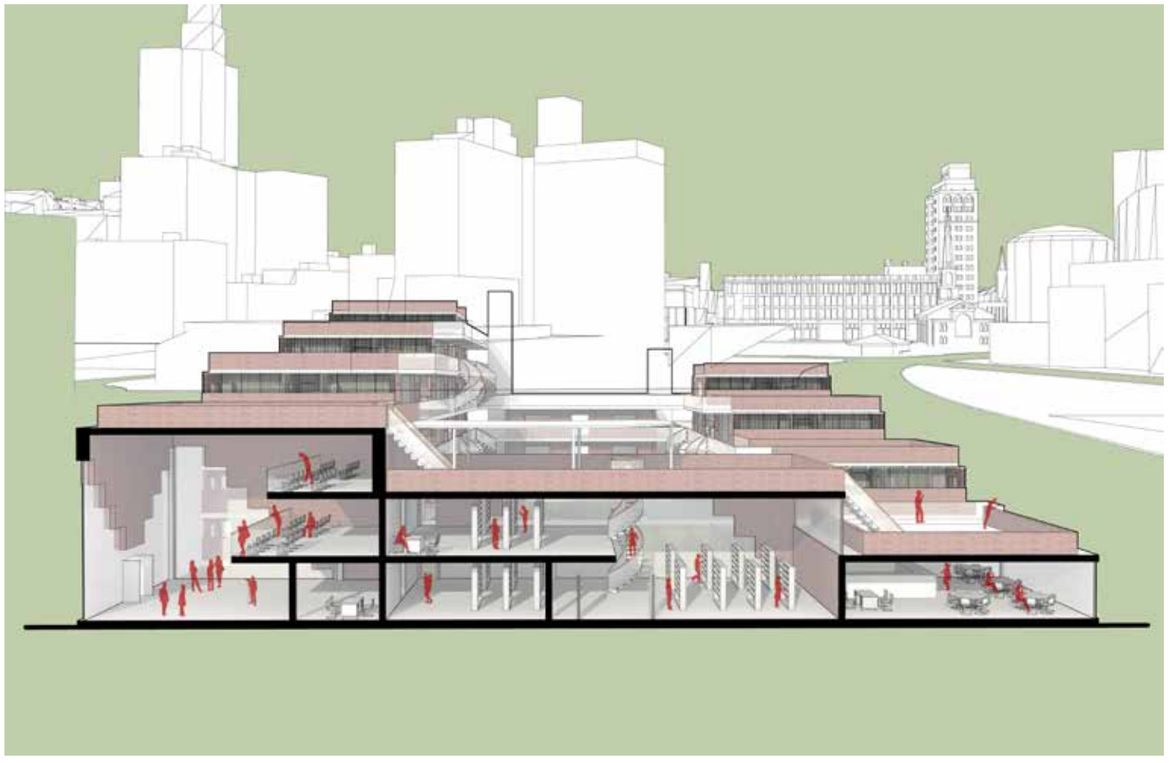
Streetscape translated into a community project.



Roof Plan



Unit Plan



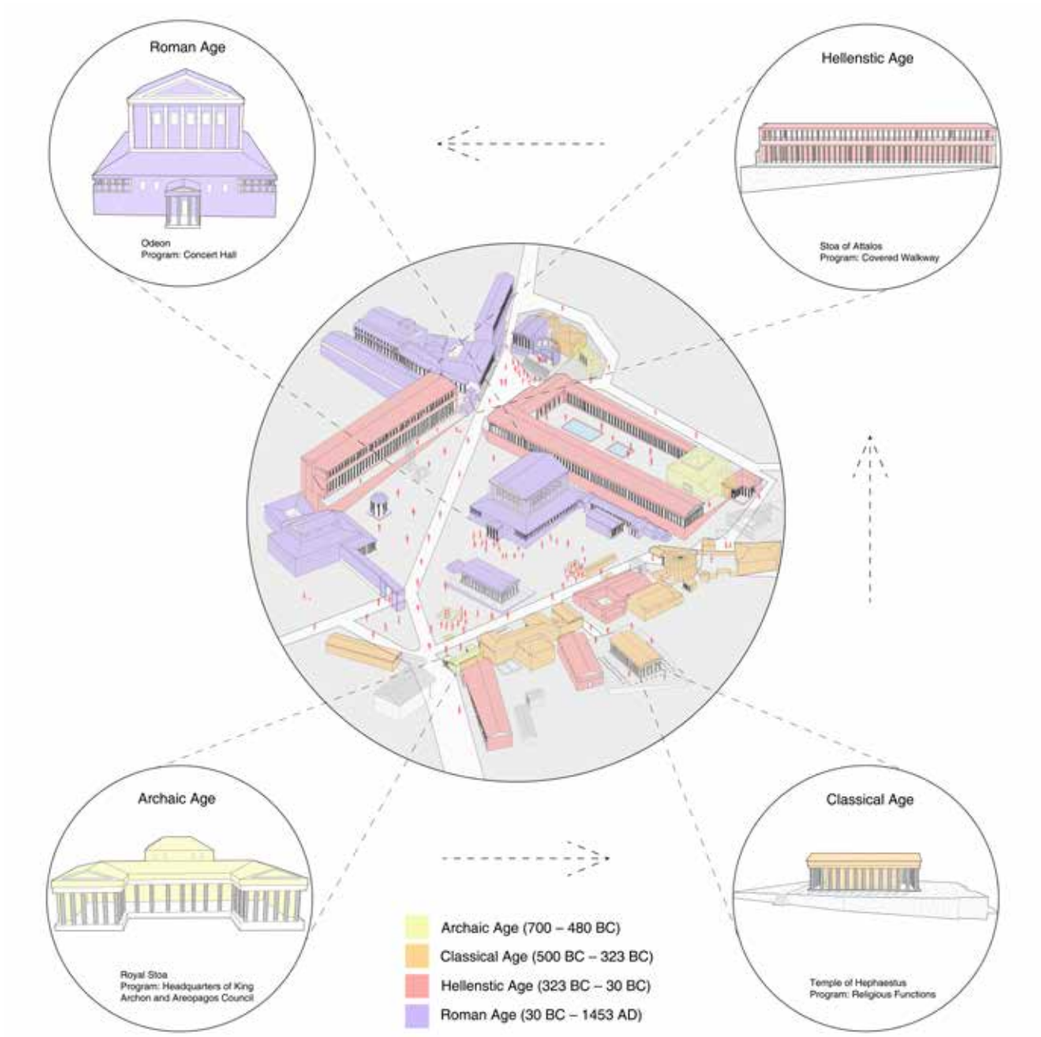
Section A
Shown Exhibition space, Library and Cafe (Left to Right)

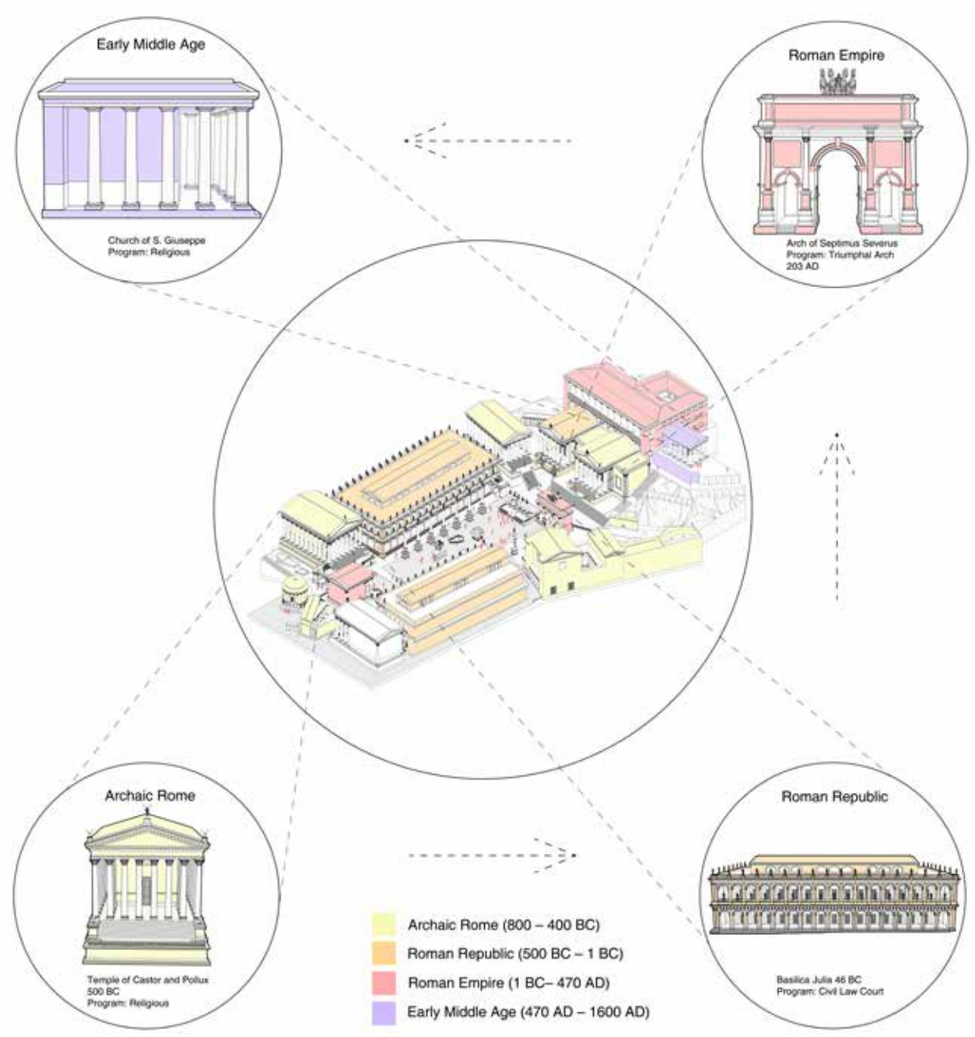
Section B
Shown Cafe, Side Lawn and Units. (Left to Right)

Bell Works (2020)

Urban Re-purpose Project

For the Summer 2020 Options III Studio, we were required to research into what makes a public space a social center of the community. We spent considerable time on case studies of ancient public spaces such as the Greek Agora, Roman Forum and Piazza Navona ,etc. Then we were given a list of projects to choose from to re-imagine as the modern day equivalence of the Agora, a social, cultural and agricultural hub of New Jersey.





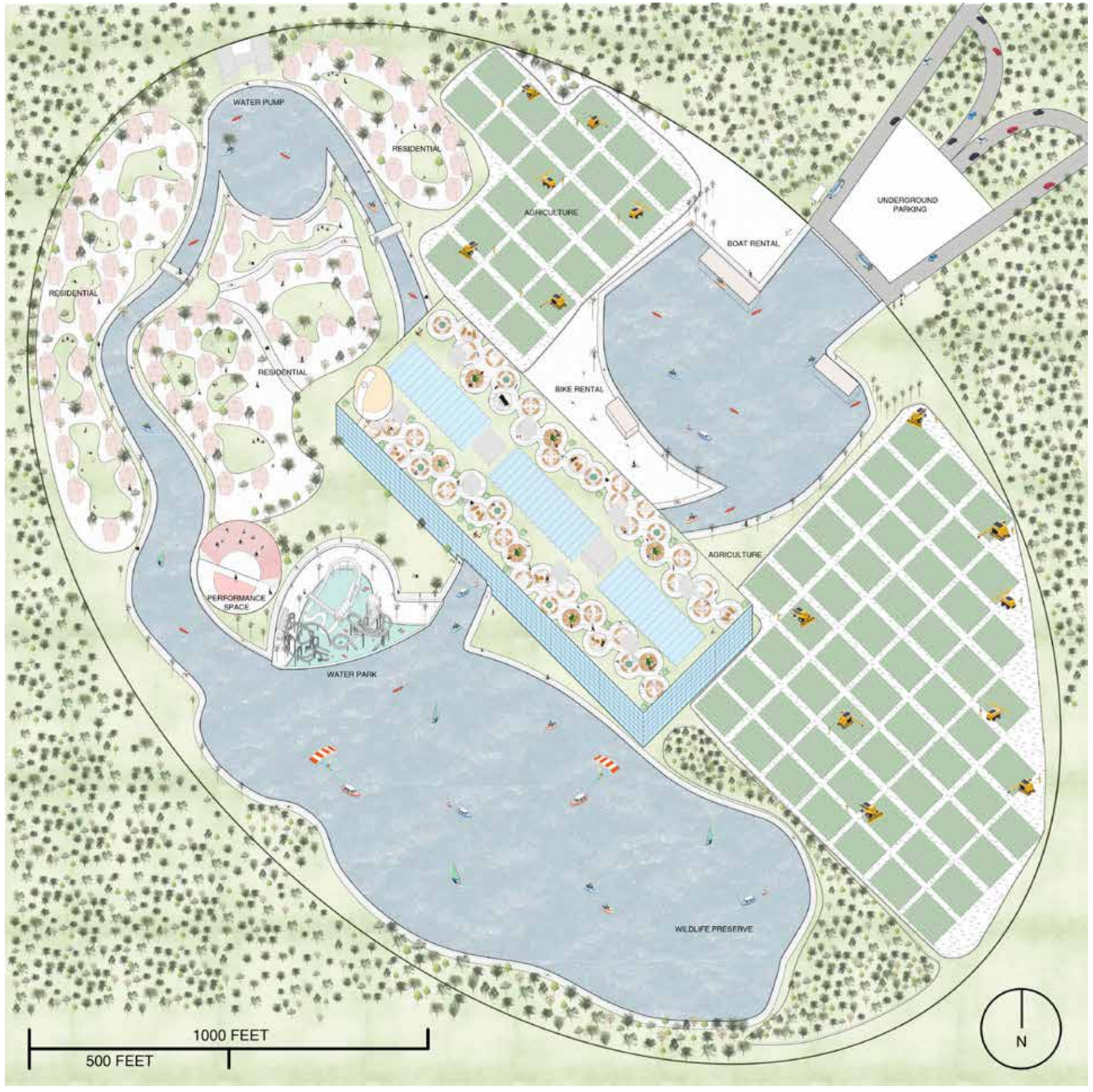
Section A
Shown Exhibition space, Library and Cafe (Left to Right)

Section A
Shown a concept of an opportunity to use boats to bring fresh produce to farmers market.

Section B
Shown a scheme where indoor renovations allow green house for endangered plants, and night time astronomy research labs.

Plan Oblique

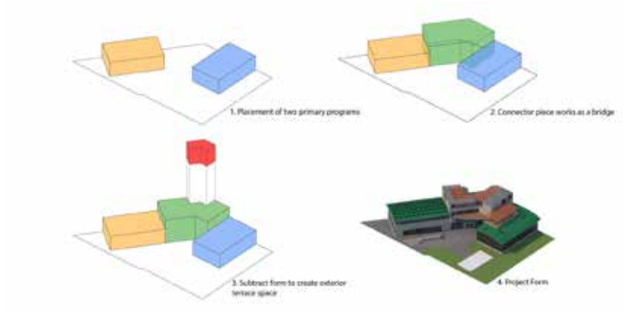
This is the site plan oblique drawing that shows the utilization of the relationship of the local agricultural history of Holmdel, re-purpose of Bell Works, introduction of a body of water that adds an element of serenity as well as works as a performance enhancer for the agricultural community and the welcomed guests.



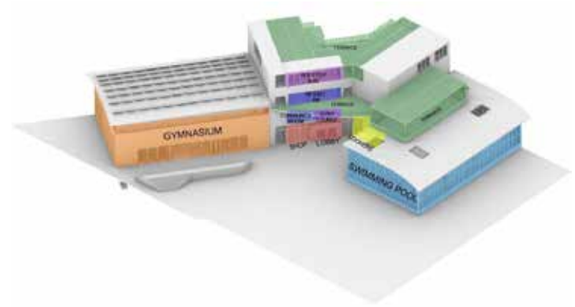
Paradise Park Wellness Center (2020)

My last semester at New Jersey Institute of Technology was also one of the most critical semester of architecture school because it was Integrated Studio for NAAB Acredition. We have consulted our projects with structural engineers and other consultants in the profession to design with practical build-ability and efficiency. The site location of this paper project is Columbus Park, New York. It is a public wellness center that bridges a connection between Chinatown to East and judicial district to the West at the historical Five Points corner, and it is meant to be a healthy extension of the park.

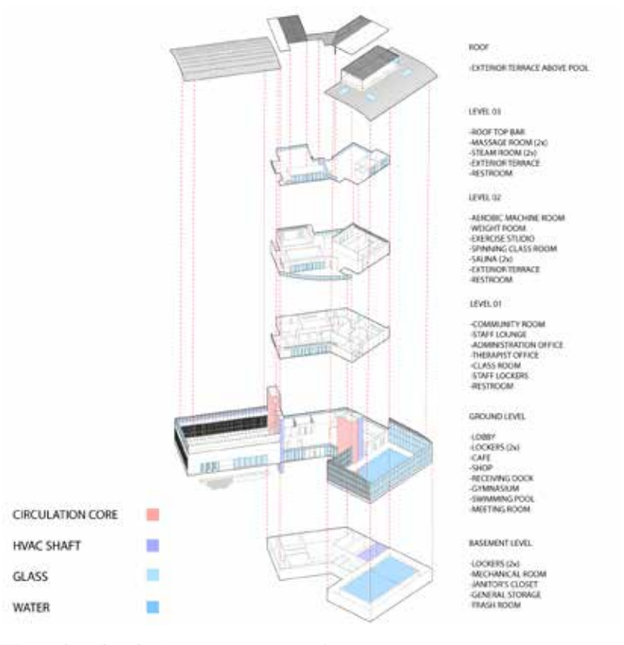
Site Plan



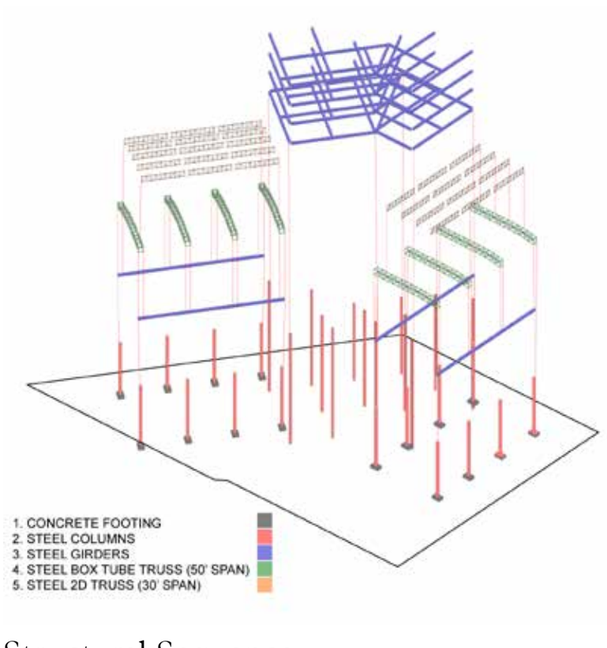
Form Diagram



Program Distibution



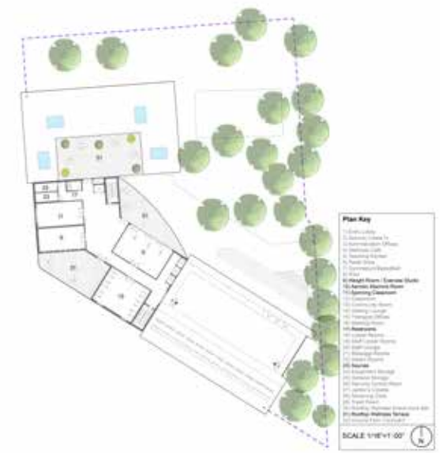
Exploded Axonometric



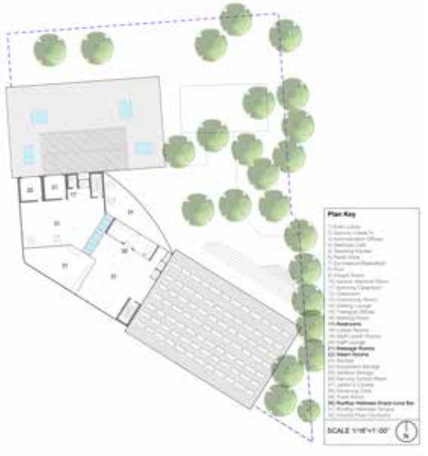
Structural Sequence

Ground Floor Plan

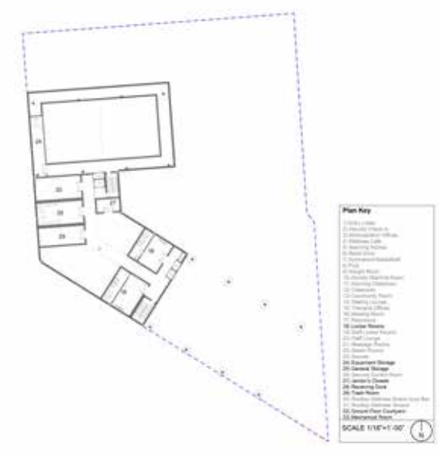
First Floor Plan



Second Floor Plan

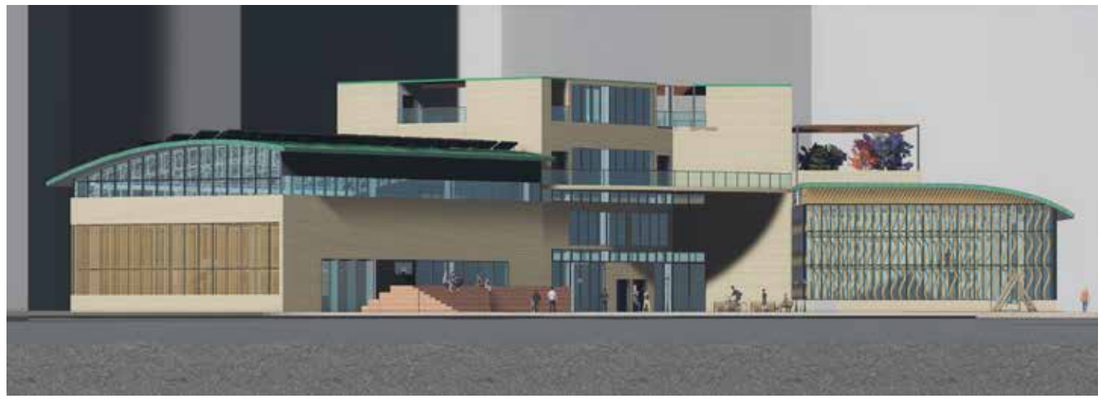


Roof Plan



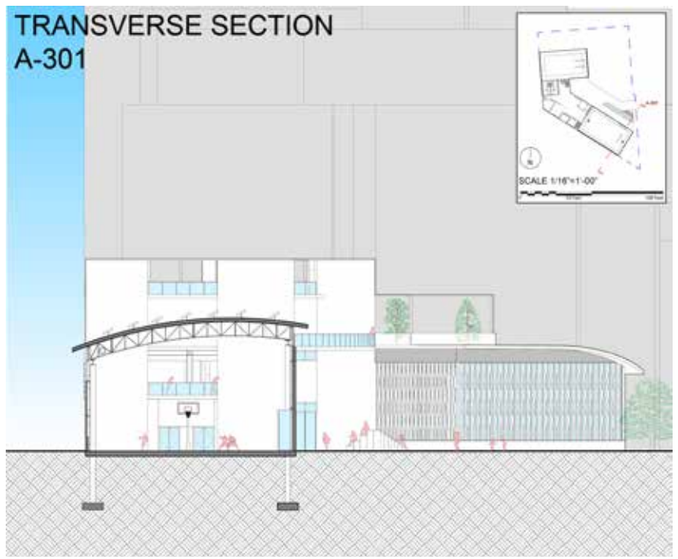
Basement Plan

Elevation: Worth Street

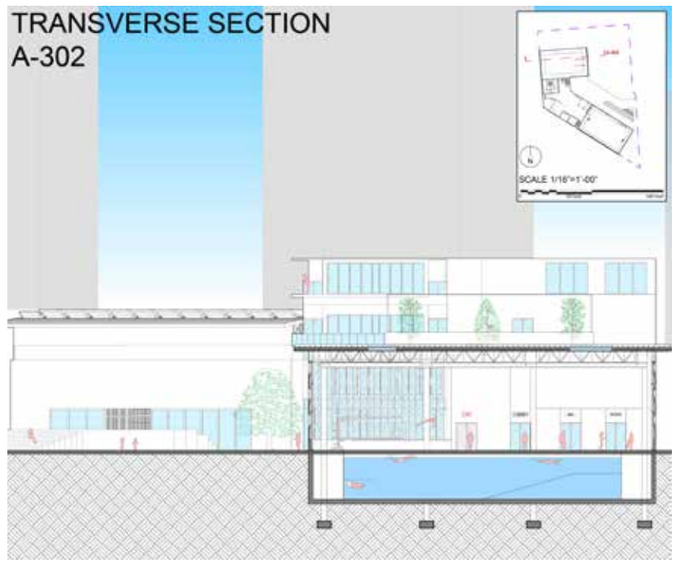


Elevation: Mulberry Street

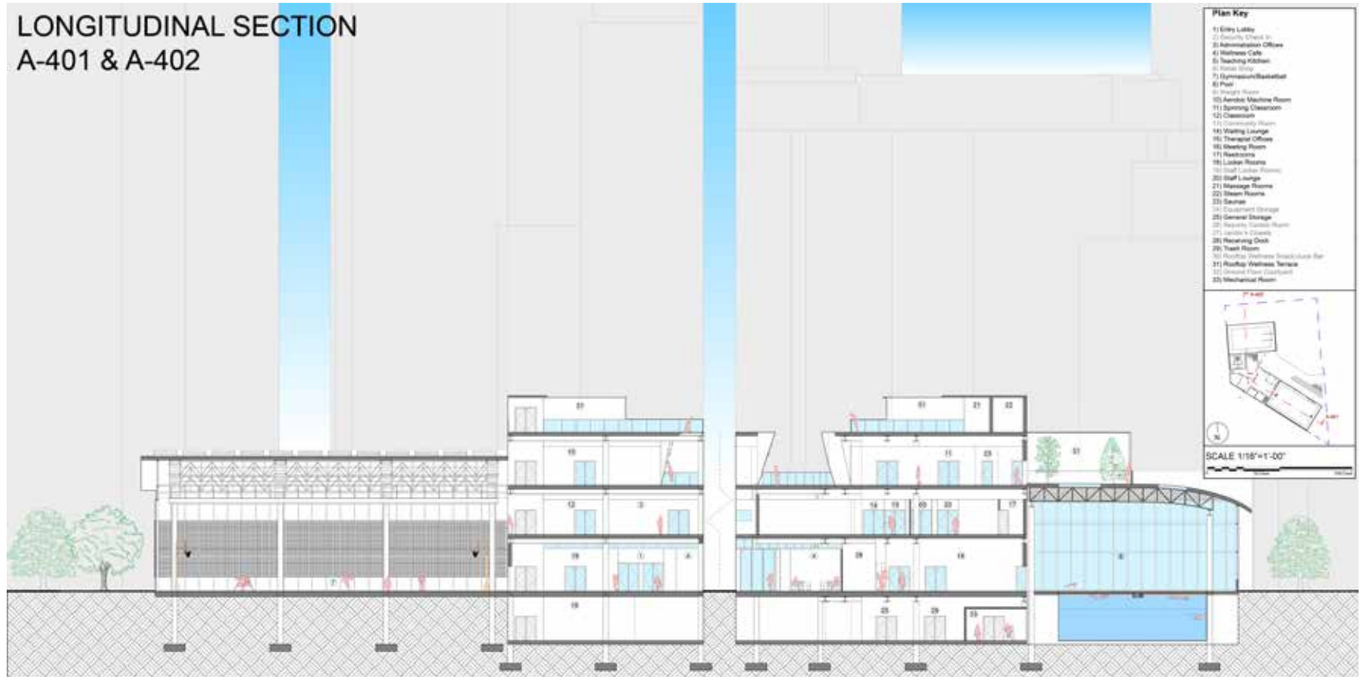
Elevation: Baxter Street



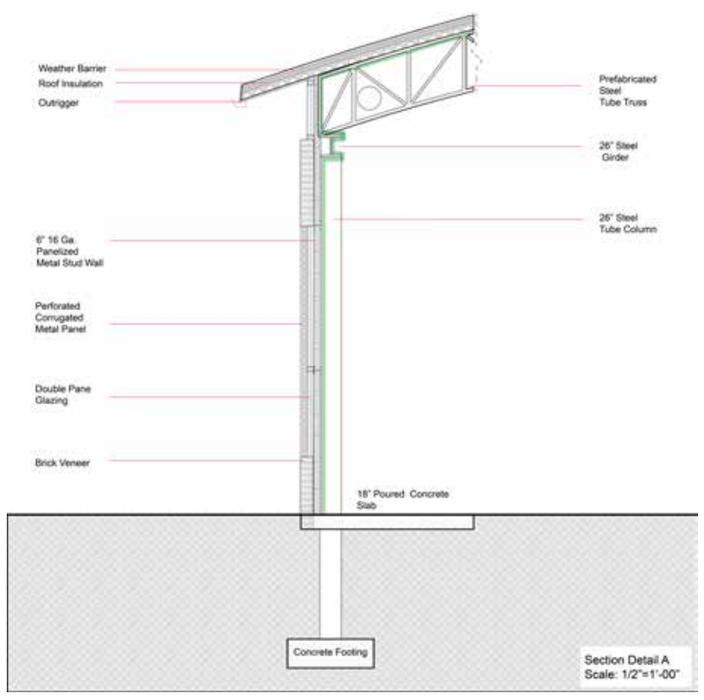
Transverse Section A



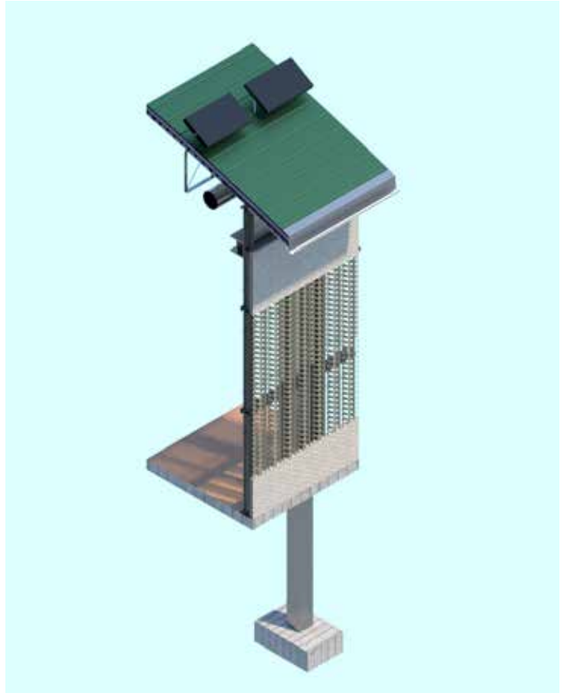
Transverse Section B



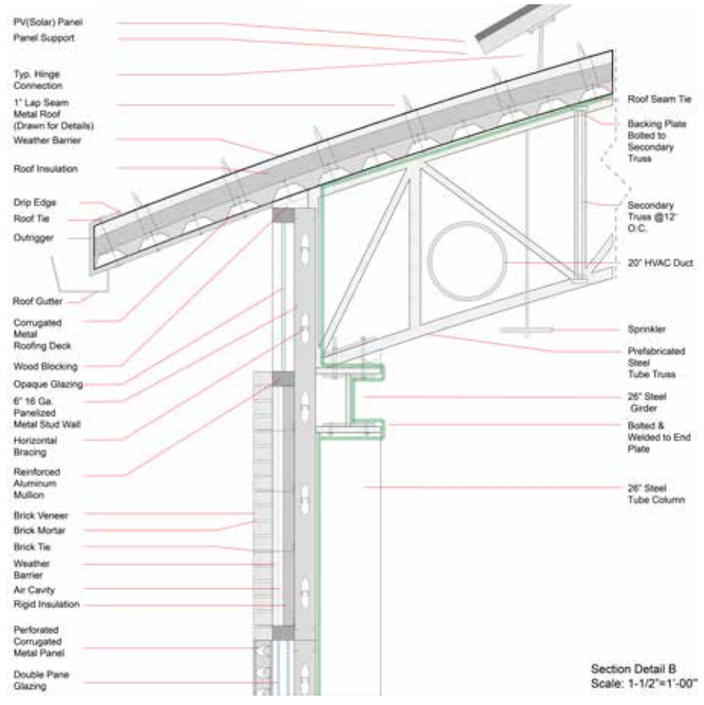
Longitudinal Section



Detailed Section

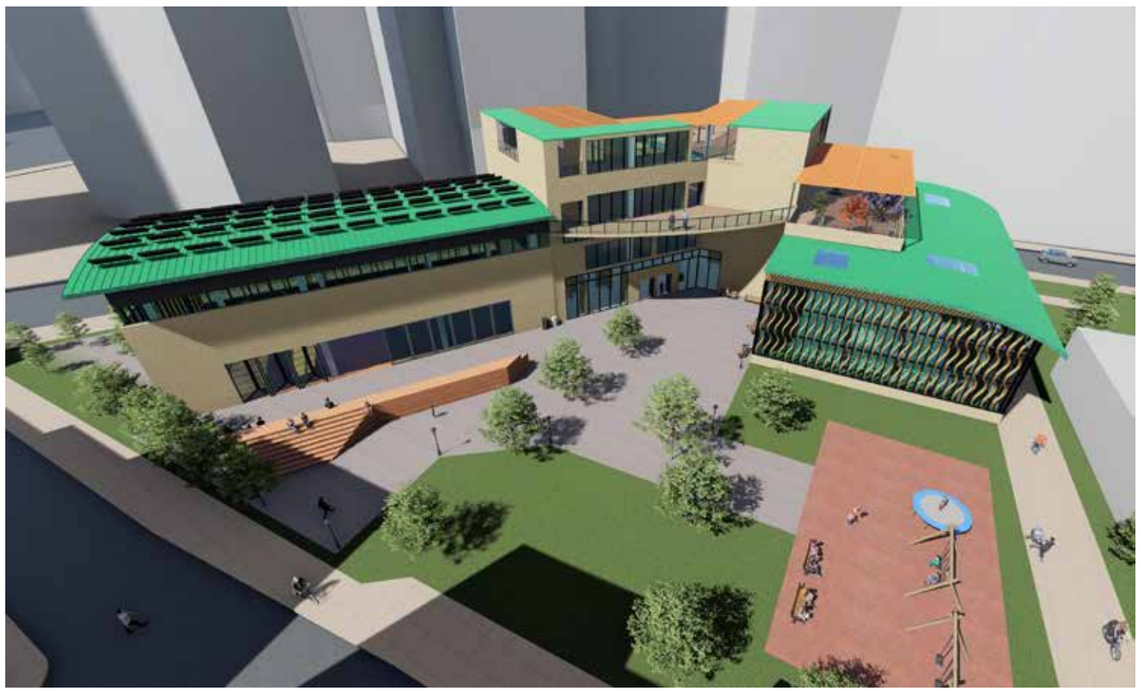


Perspective: Basketball Court Interior



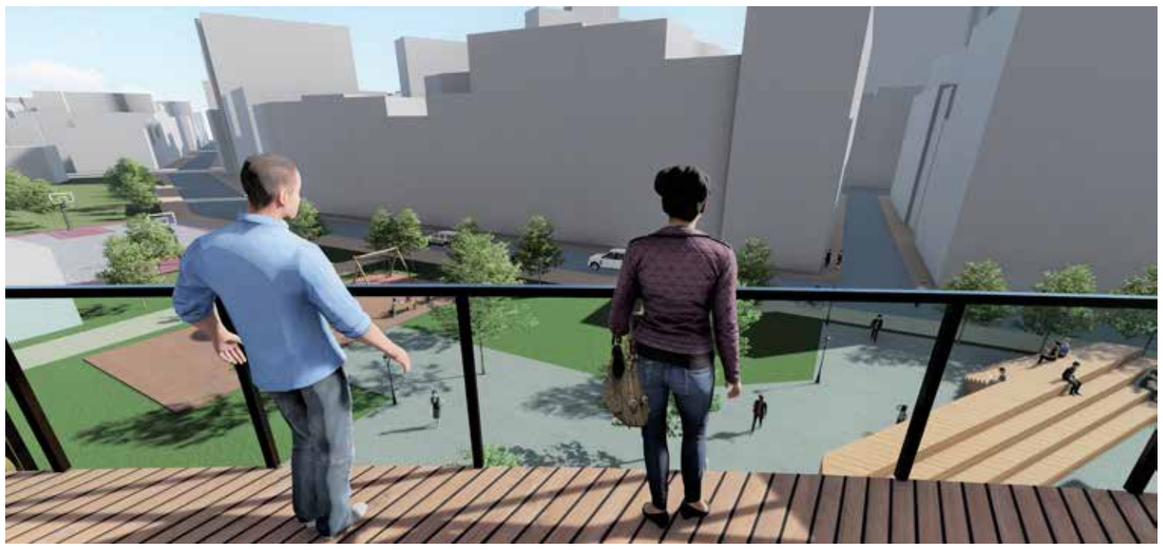
Detailed Section

Perspective: Accessible space for audience



Perspective: Aerial

Perspective: Swimming Pool



Perspective: Terrace

Perspective: Playground

Synopsis / Résumé

Hello, my name is Alin Rahman. I was born in Bangladesh. I immigrated to New Jersey, United States with my family in 2009. I went to high school in Bloomfield, New Jersey. I graduated in 2012, was accepted to New Jersey Institute of Technology in Newark, New Jersey and started as a freshman in Fall 2012. My father was diagnosed with a malignant cancer in 2011 and he passed away in 2013. Due to grief and financial uncertainty I dropped out of college in 2013, spent some time working, supporting myself and my family and taking some part time courses in community college, and returned to NJIT in Fall 2017 to finish my degree. In 2019, when the pandemic first impacted United States, I was a junior in college, in 2020 I took three semesters during the pandemic, also worked part-time and graduated in December, 2020. I am ready for the next phase of my career and prepared to work hard and keep a positive attitude towards my future. As I come from different cultural background and financial status, I understand and accept the challenges life has to offer and intend to work persistently and diligently to achieve success.

EDUCATION

2009-2012

HIGHSCHOOL DIPLOMA, BLOOMFIELD HIGH SCHOOL, BLOOMFIELD, NJ.

2012-2013, 2017-2020

BACHELOR OF ARCHITECTURE AND DESIGN, NEW JERSEY INSTITUTE OF TECHNOLOGY, Newark, NJ.

2014-2016

GENERAL EDUCATION COURSES, ESSEX COUNTY COLLEGE, Newark, NJ.

WORK EXPERIENCE

2012 – 2015
CUSTOMER SERVICE REPRESENTATIVE,
GATEWAY FRONTLINE SERVICE INC.
NEWARK LIBERTY INT'L AIRPORT, ELIZABETH, NJ.

I worked at the airport as a customer service representative as well as a security personnel. My job included but not limited to help passengers, specially disbaled passengers, service animals, and relieve security personnel for breaks and assist other employees.

2013 –2015
FREELANCE AGENT/MANAGEMENT TRAINEE,
GENERAL CONSTRUCTION, INC., BLOOMFIELD, NJ.

I worked various construction jobs including roofing, masonry, wood-working, site measurements, etc. This was a temporary job I was working when I dropped out of college, it kept me involved in the realities of construction in the architecture field.

2016 – 2019
SERVER,
MONTCLAIR GRILL, MONTCLAIR, NJ.

I worked as a server/customer service as a part time job during college. Here I honed my communication and networking skills, where I treated each and every customer as if they're a client in my professional career.

2017 – 2020
STUDENT LIBRARY ASSISTANT,
LITTMAN ARCHITECTURE LIBRARY, NJIT.

I worked as a library assistant as part of a workstudy program, I mostly help other peers find books and digital media related to their research. I also worked on special projects for different exhibitions on the library. During my senior year we started working on a virtual exhibitions to exhibit works from faculty and students. For this me and another student led a group to facilitate all the requirements in requests of the director of the library and the faculty members involved.

KEY SKILLS

Communication Skills ~Team Management ~ Site Analysis
Design Analysis ~ Materials Estimation ~ Project Scheduling
Quick Adaptibility ~ Quick Learner ~ Business Management
Construction Management ~ Sound Design ~ 3D Design

SOFTWARE SKILLS

Autocad ~ Rhino ~ Photoshop
Illustrator ~ Maya ~ V- Ray
Lumion ~ Microsoft Office ~ Autodesk
Adobe Suite