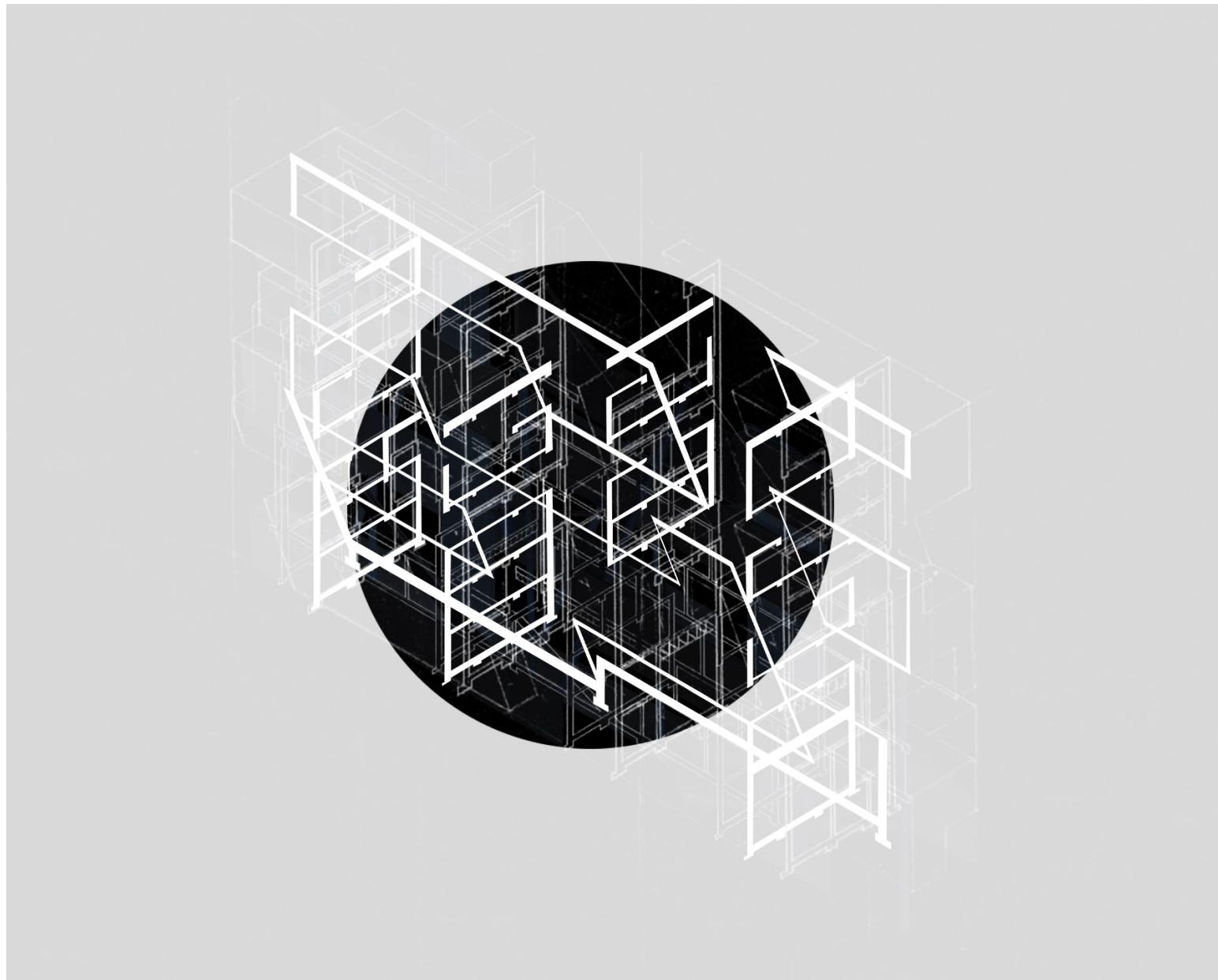


portfolio.

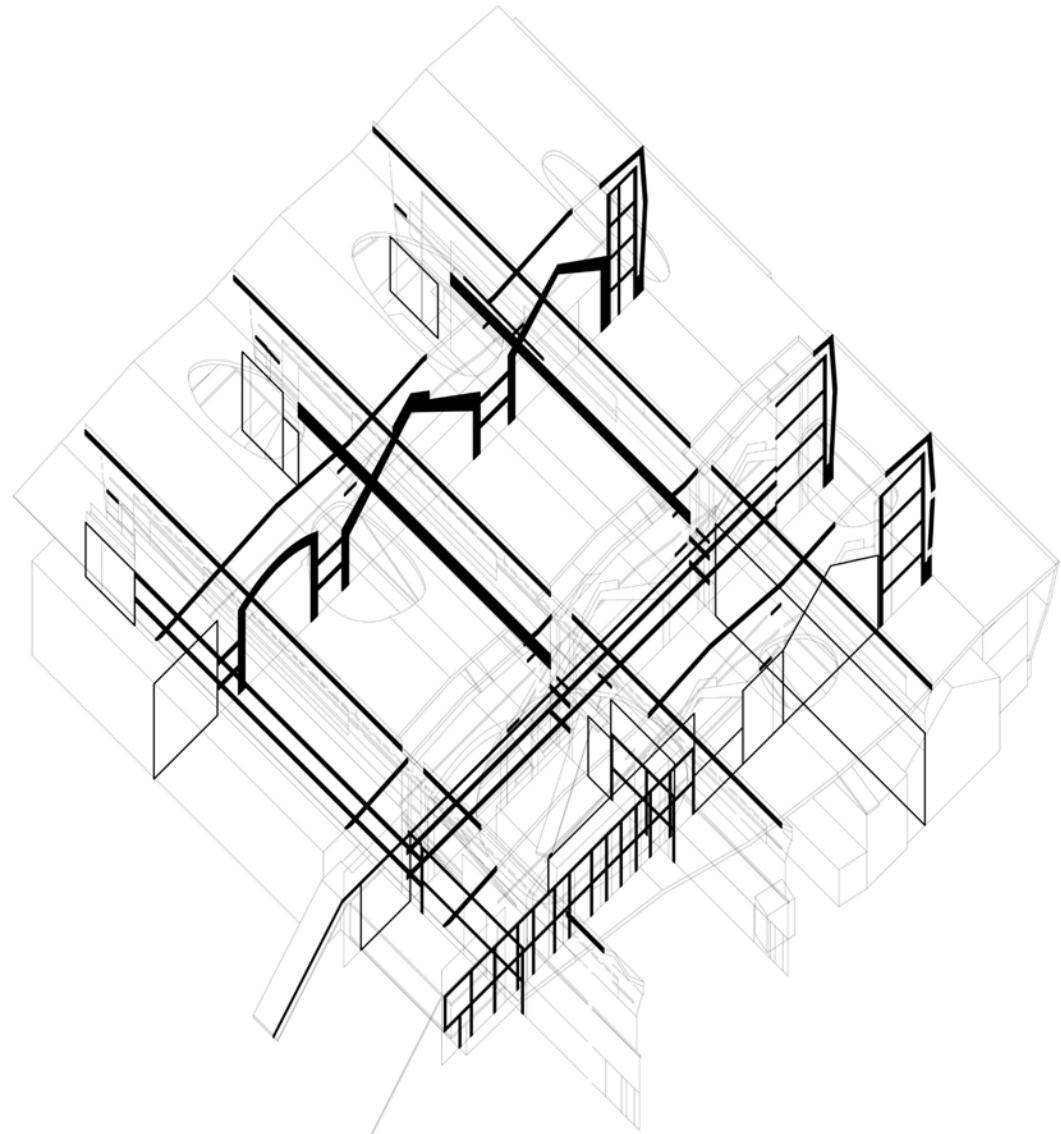
[selected works]



fenghua lin

2022 architecture

Content.



Small.

The Magic House
1200 Square Feet

Medium.

NYC Elderly Care Trade School
Manhattan, New York City

Green Terraced Fields
Richmond, VA

Towards Symbiotic Architecture
Rethinking the Residual Space for Minorities
in Densely Populated Urban Cores

Large.

Community Gallery
UVA, Charlottesville, VA

Green Corridor in Jaipur
Jaipur, India

Parametric.

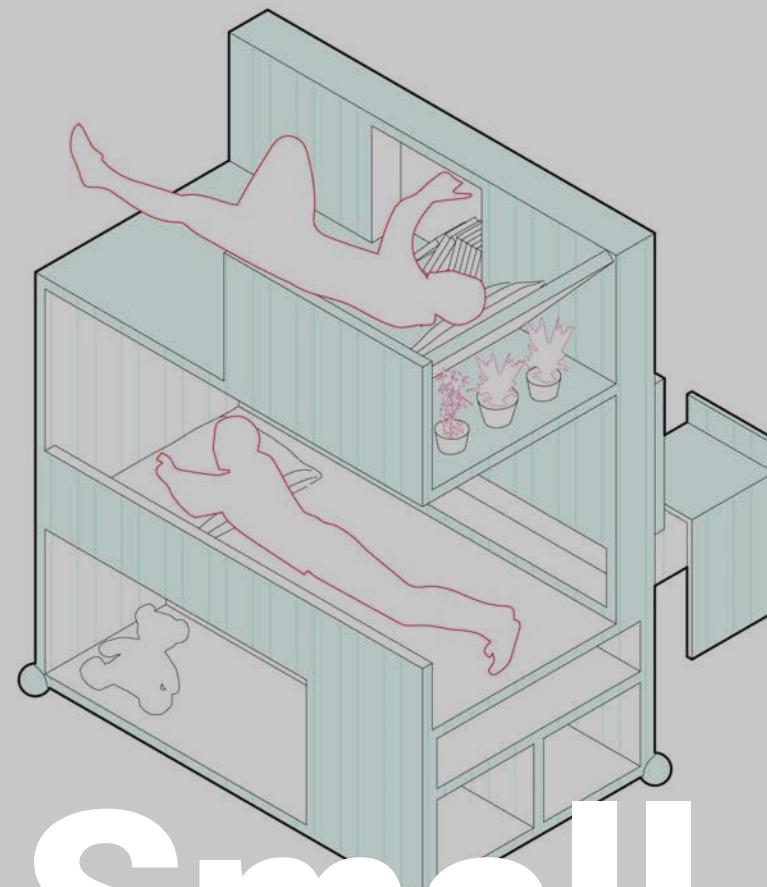
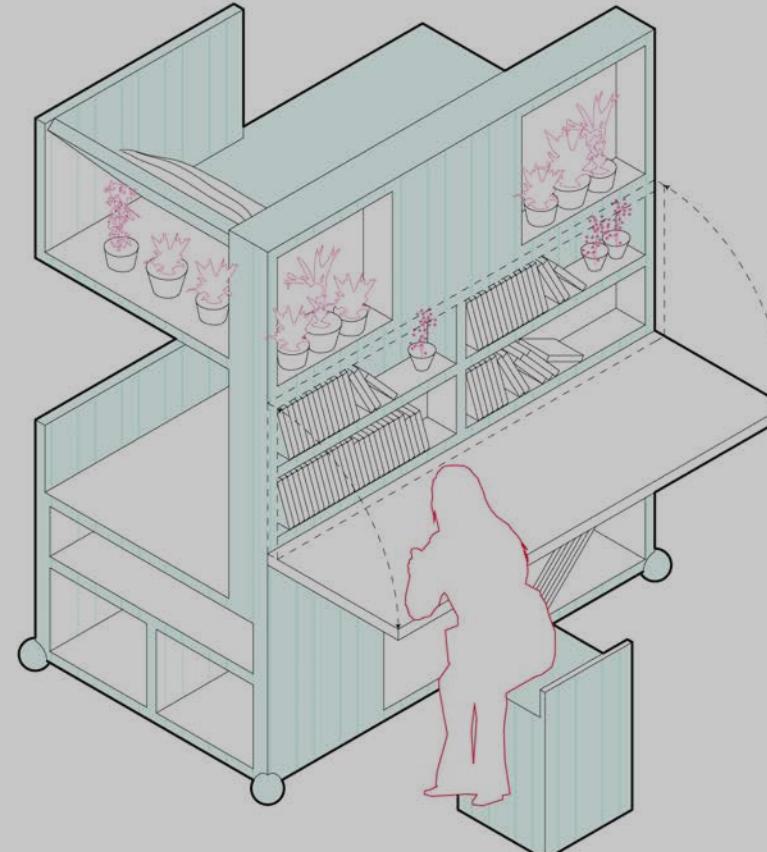
An Aggregatable Collective
Berlin, Germany

Le Fresnoy Art Center Recreate

Axon - juxtaposition, not contextual, and event, lead formal expressions to become dynamic, contingent, and a contrast rather than harmony between the old and the new.

Small Scale Project

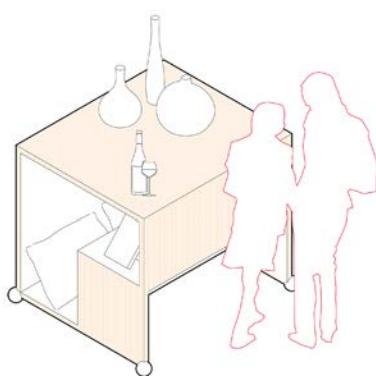
This section collects projects that are consider "small" in scale according to the definition of Rem Koolhaas. "Small" scale projects explore the spatial relationship between human and their surrounding in the most intimate way that values the beauty of details to the most relevant inches of the object. The "smallest" scale object in architecture would be any elements that are essential in residency, such as a door, a wall, or a window. "Small" scale dedicates attention to ratio of different elements in the space; those ratios would result any individual to feel comfortable in such space, even it's a space that's about a small room. Residential project is one of the most significant part of the today's architectural world, it is also the field full of emerging technologies and research. Designers are researching to provide more affordable housing and sustainable community projects with green materials and adaptable ideas. The following projects reveal my interpretation of the idea "small" in architecture.



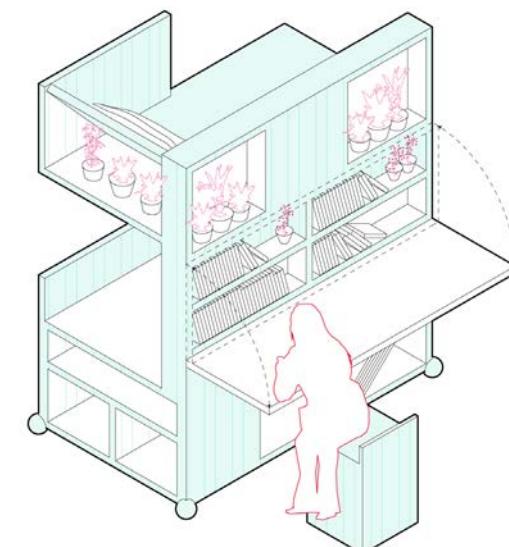
Small.

The Magic House

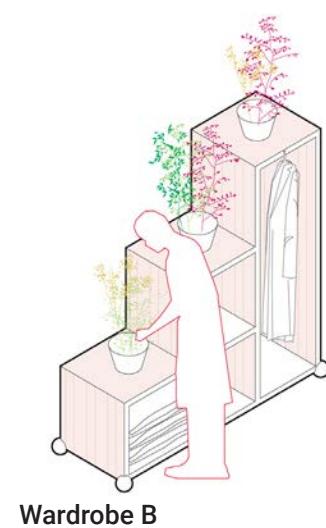
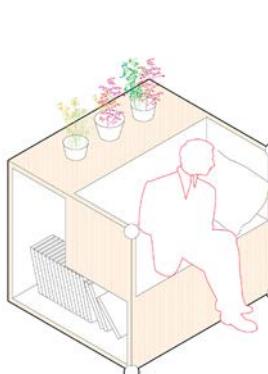
The conceptualization and design of domestic space is an essential component of urban life. The gradual collection of dwellings in multiple forms of existence—from individual to collective and from provisional to permanent—makes up the basic building blocks of a city. The space of the dwelling, as a mediator between conditions of exterior and interior, between the public and private realm, is an essential component in the construction of urban life, and has been throughout its extended history a pivotal component of the modern American city.



Bar

 $1/2'' = 1'-0"$ 

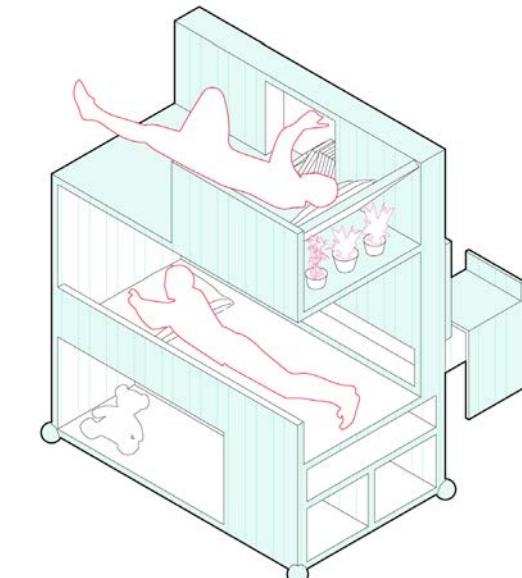
Sofa

 $1/2'' = 1'-0"$ 

Wardrobe B

 $1/2'' = 1'-0"$ 

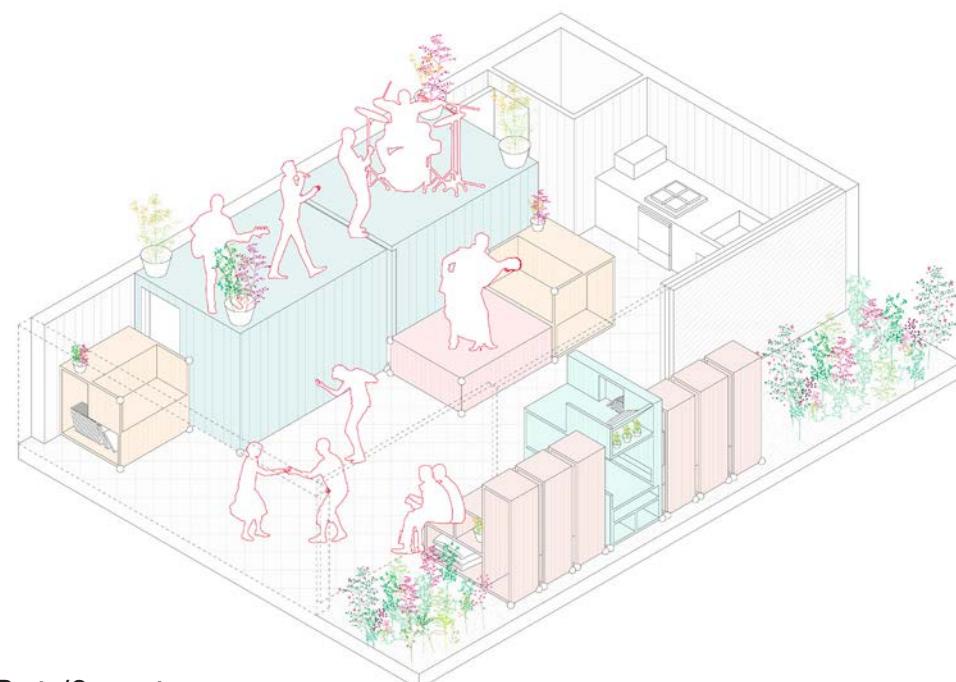
Wardrobe A/Coffee Table

 $1/2'' = 1'-0"$ 

Bed

 $1/2'' = 1'-0"$ 

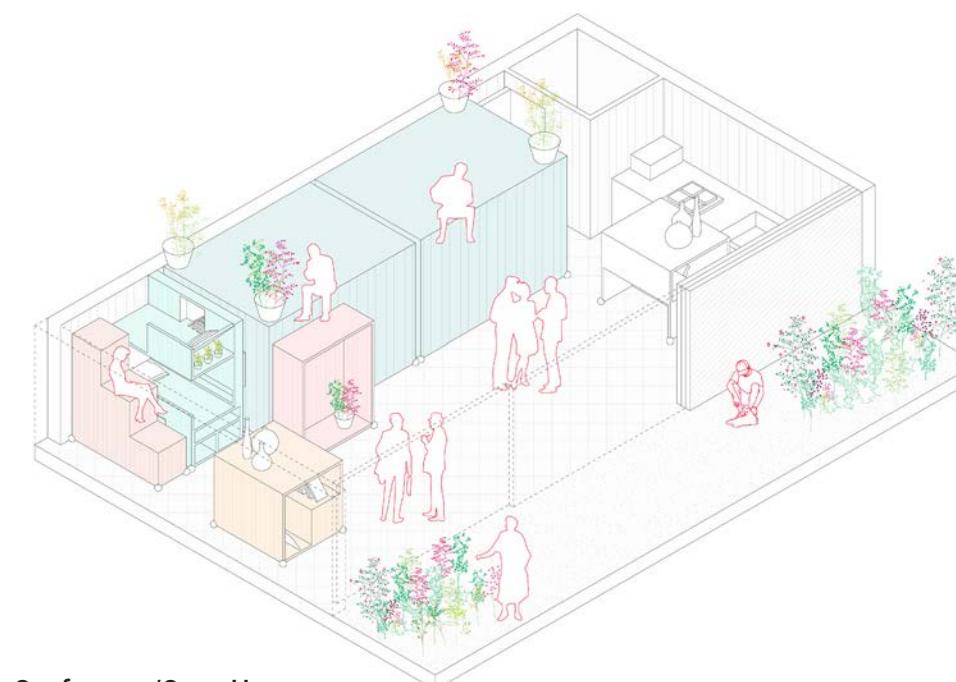
Studio + Bed + Wardrobe B

 $1/2'' = 1'-0"$ 

1. Party/Concert

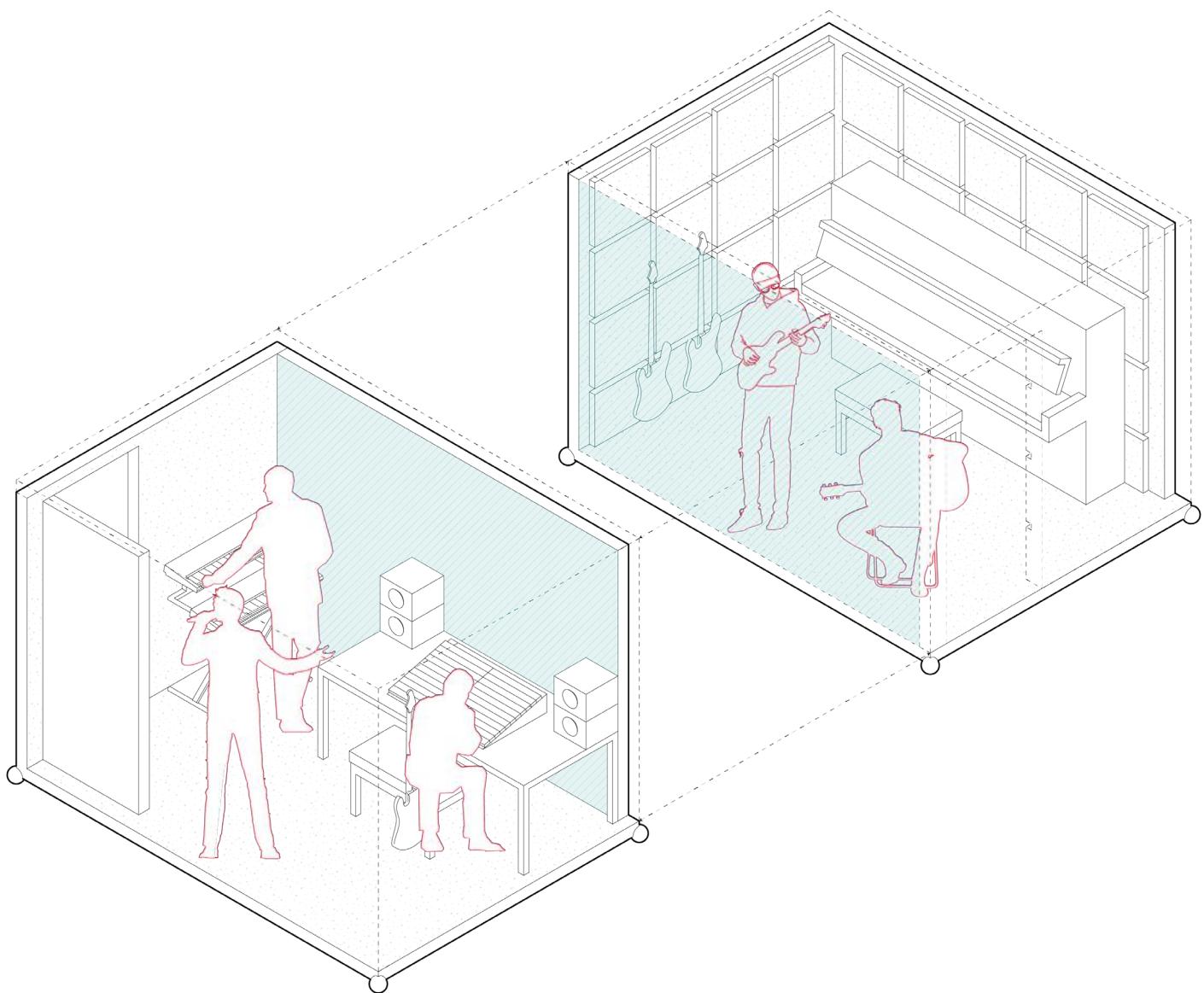
 $1/4'' = 1'-0"$ 

2. Typical Arrangement

 $1/4'' = 1'-0"$ 

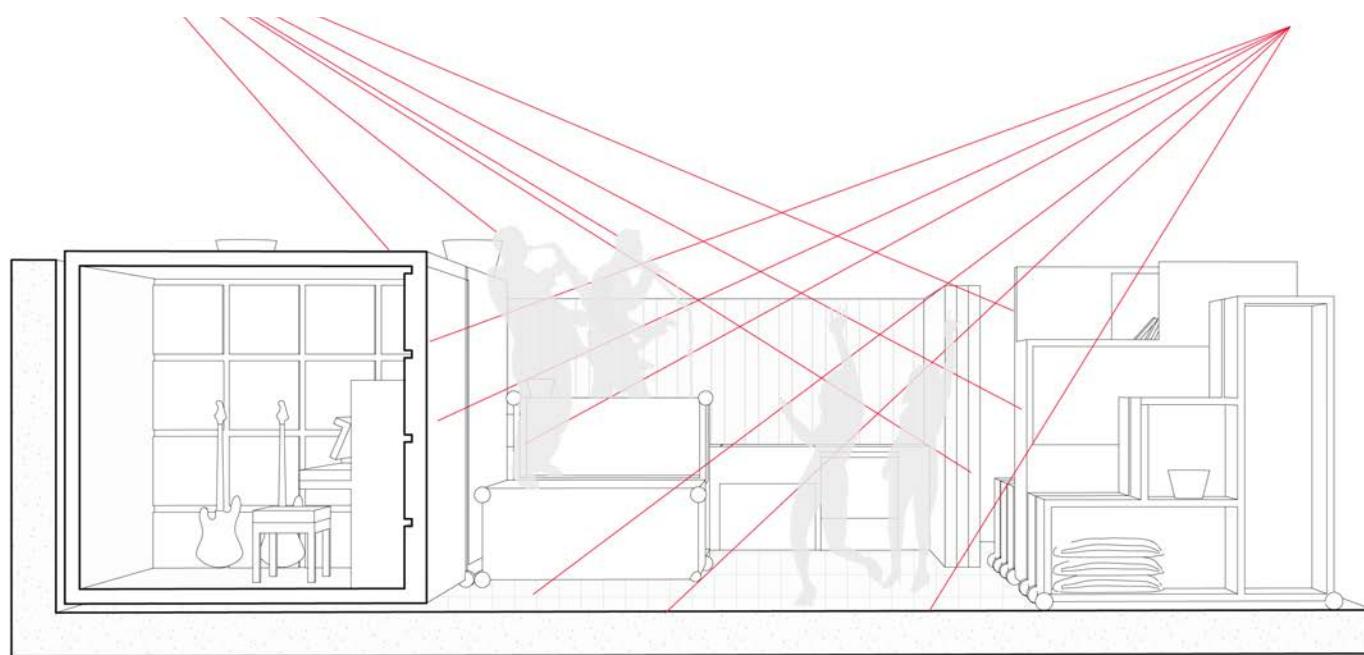
3. Conference/Open House

 $1/4'' = 1'-0"$



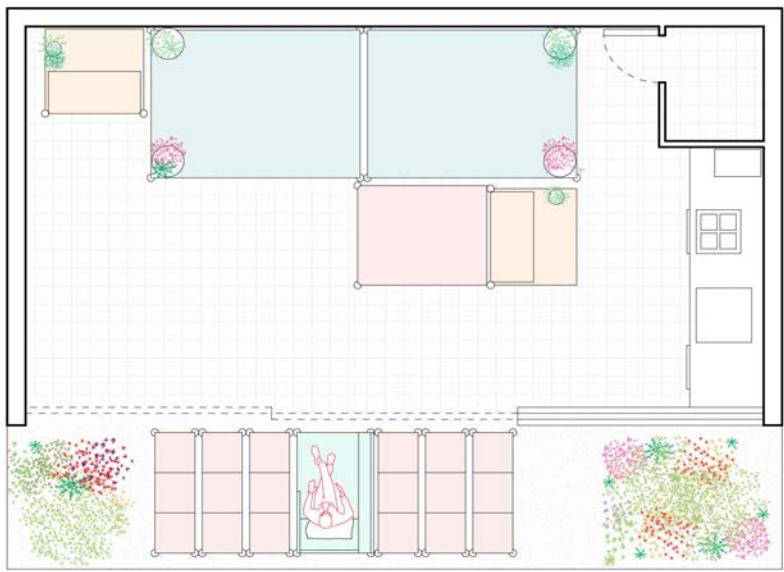
Music Studio

1/2" = 1'-0"



Perspective Section (Party)

1/4" = 1'-0"



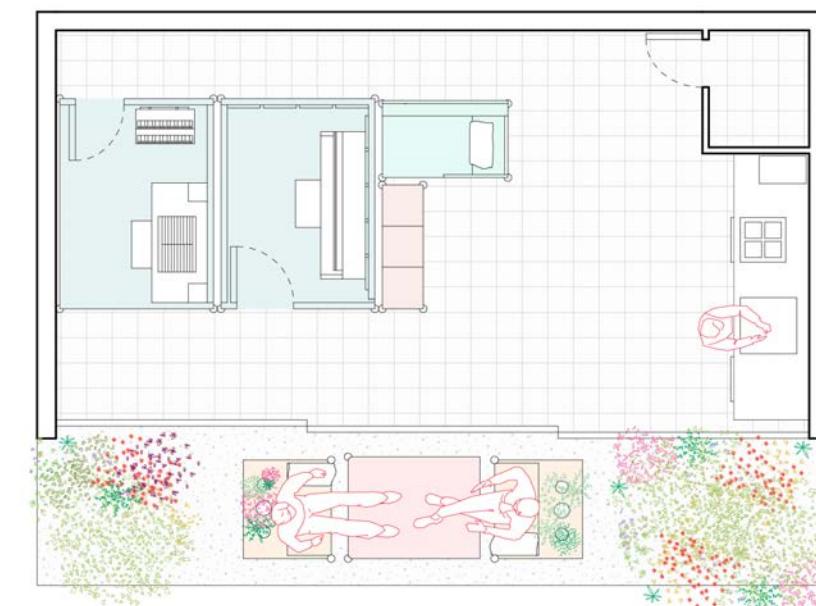
Floor Plan - Party/Concert

1/4" = 1'-0"



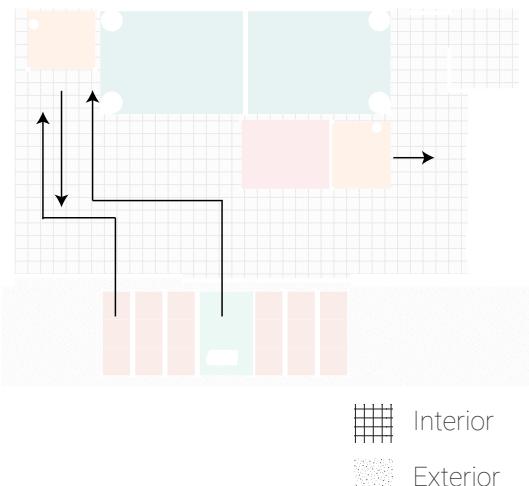
Floor Plan - Conference/Open House

1/4" = 1'-0"



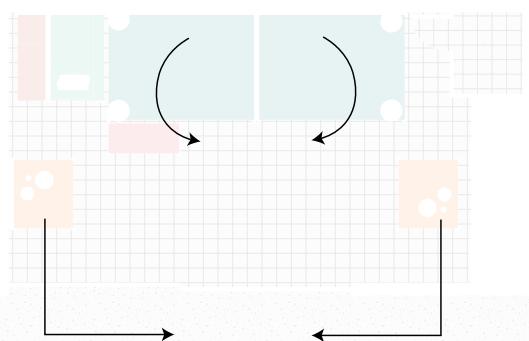
Floor Plan - Typical Arrangement

1/4" = 1'-0"



Possible Movements

1/8" = 1'-0"

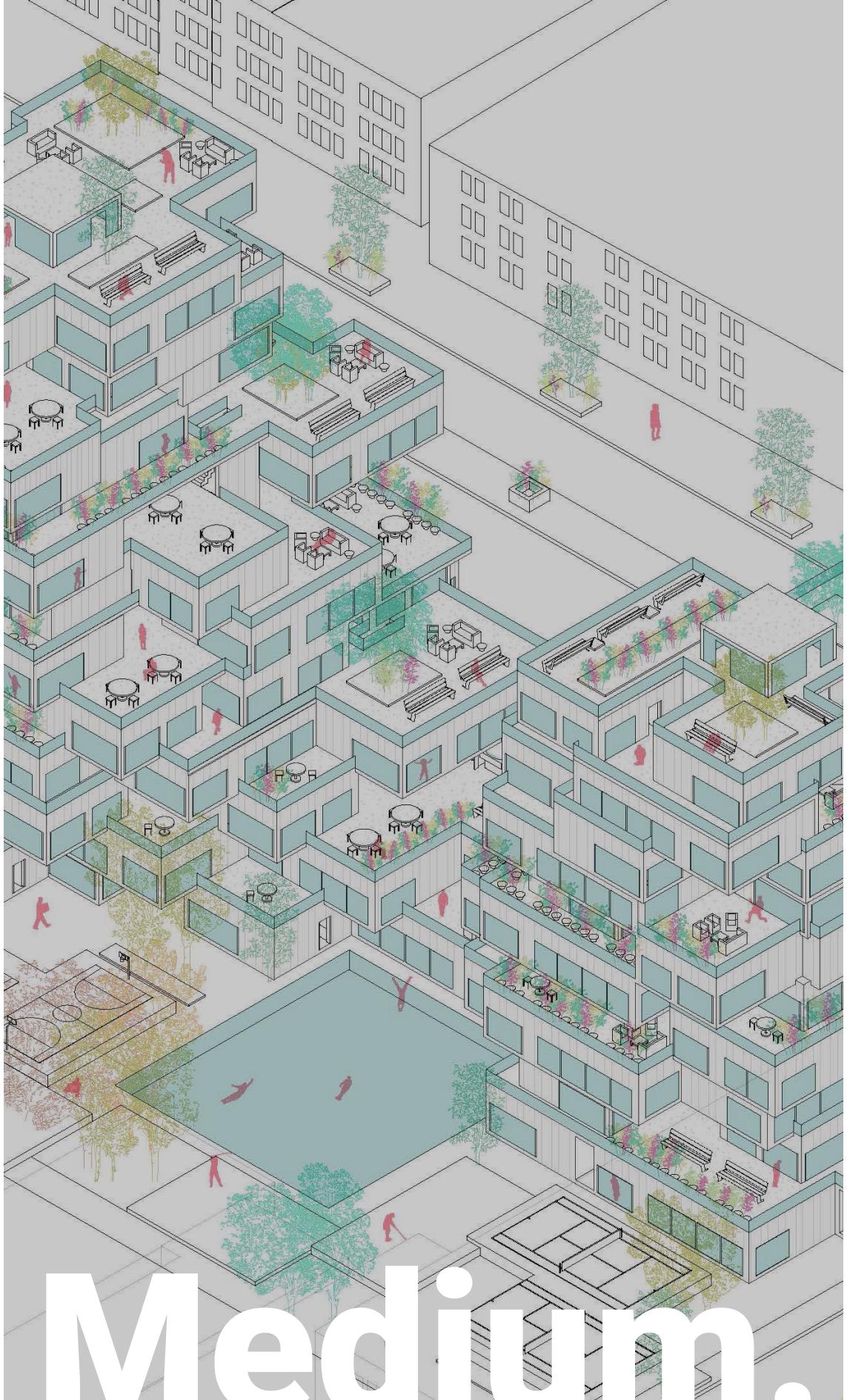


Possible Movements

1/8" = 1'-0"

Medium Scale Projects

This section collects projects that are consider "medium" in scale according to the definition of Rem Koolhaas. "Medium" scale projects explore the spatial relationship between individual and their community with the function that a single architecture can provide. The "medium" scale projects in architecture would be a node that connects between individual who share the space and their culture and society. Those projects value the fundamental form and program of building, and the representation of concepts through plan and section is critical for communication. "Medium" scale projects would consider both designed space, such as the building and space it contains, and the natural surroundings, sustainable projects would also include green system that responds to its context, no matter it is urban or suburban. The following projects reveal my interpretation of the idea "medium" in architecture and my dedication to better representation of drawings.

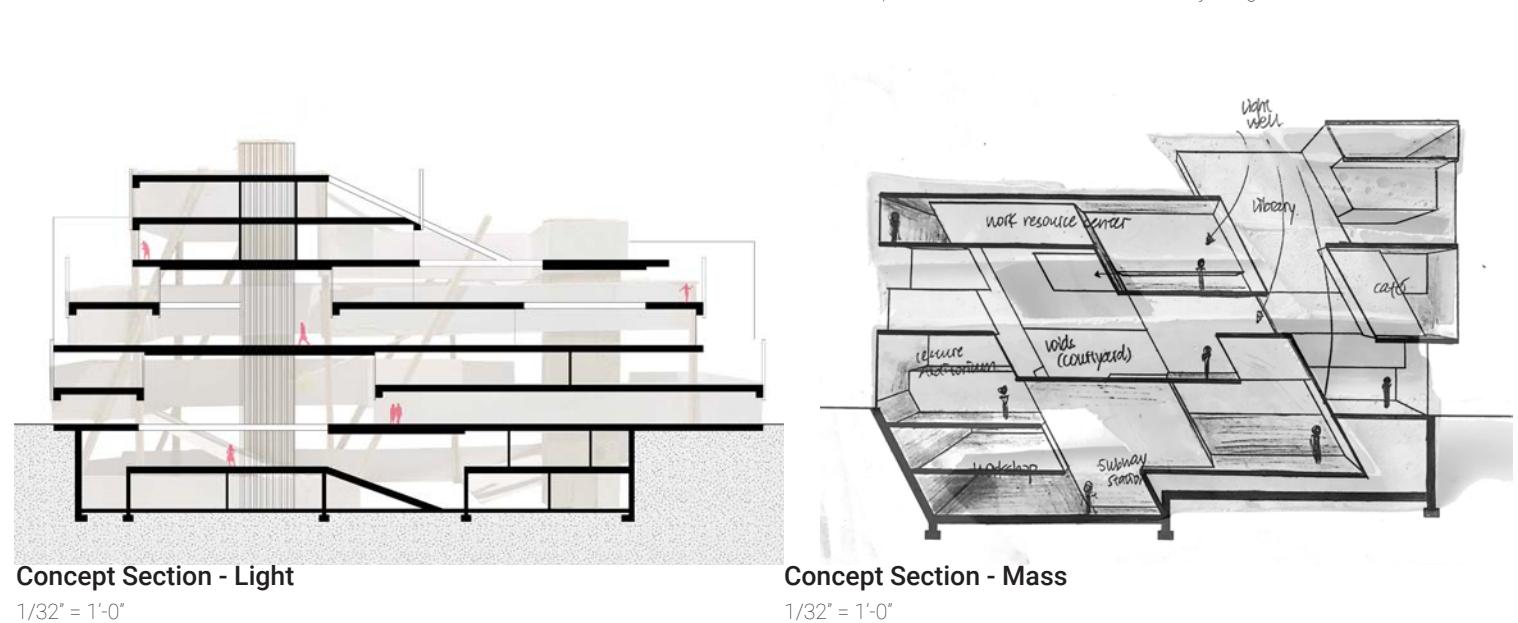
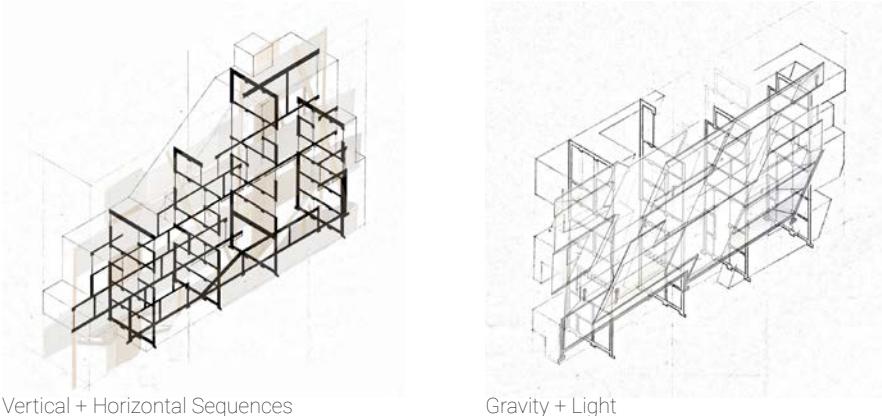
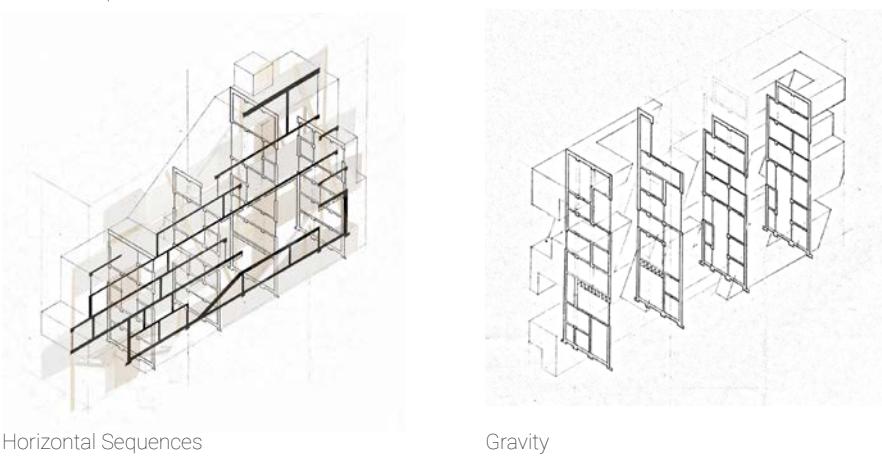
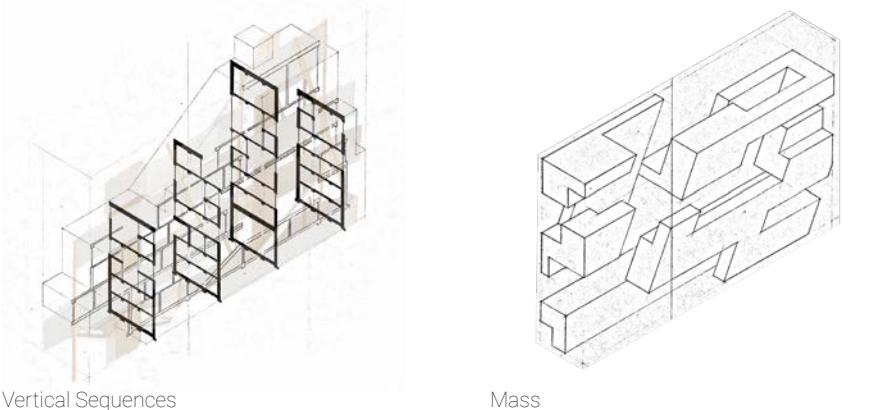


NYC Elderly Care Trade School

The primary driving force behind the design of this trade school is first with the research of Lower East Manhattan. As an area that's been occupied by generations of immigrants, majority of people in the communities by now are elderly, as their kids started to travel to places with more opportunities. The project seek to provide more connections for different groups of people within the community, specifically, the elderly and the students or healthcare works.

The overall intention of this collage focuses on how many factors, such as history, economics, and transportation result in the formation of the New York skyline. As shown in both the map and the section of the skyline on the left, there is a valley in between where the building heights are lower. The valley of the skyline is home to many generations of immigrations and tenements in history. Real estate developers built skyscrapers to be near already established centers of commerce, where public transportation was easily accessible, and away from slums and manufacturing districts. The transect I chose is the subway line (B), it transits across the Manhattan island vertically and it's highlighted in red on the collage. It is chosen because it reaches my site (site 3), and it also represents a connection that ties up those clusters of skyscrapers. In addition to that, the section of the tenement house in the middle, and the section of the Downtown Athletic Club at the back are in line with the section of the skyline.

[Individual Work]

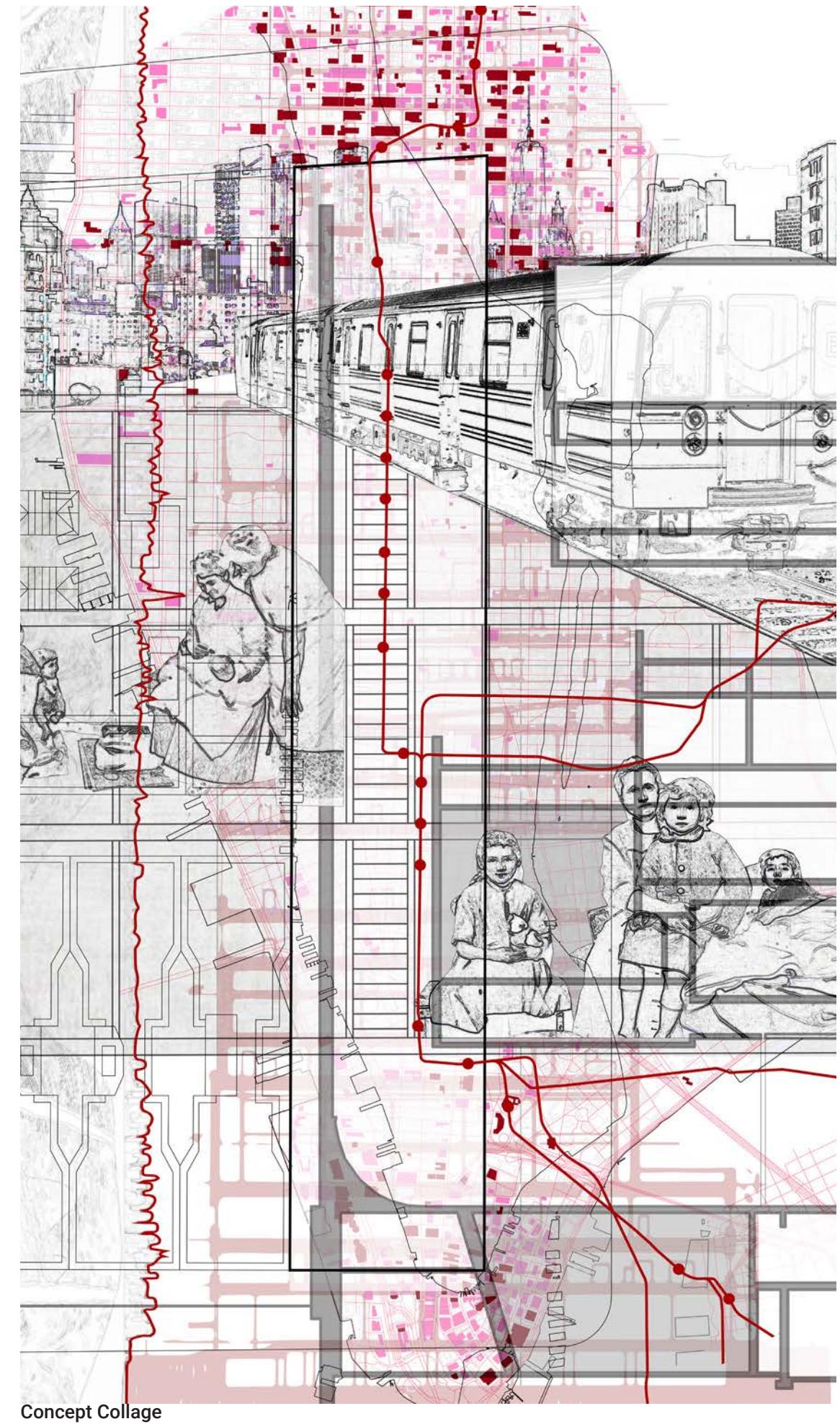


Concept Section - Light

$1/32'' = 1'-0''$

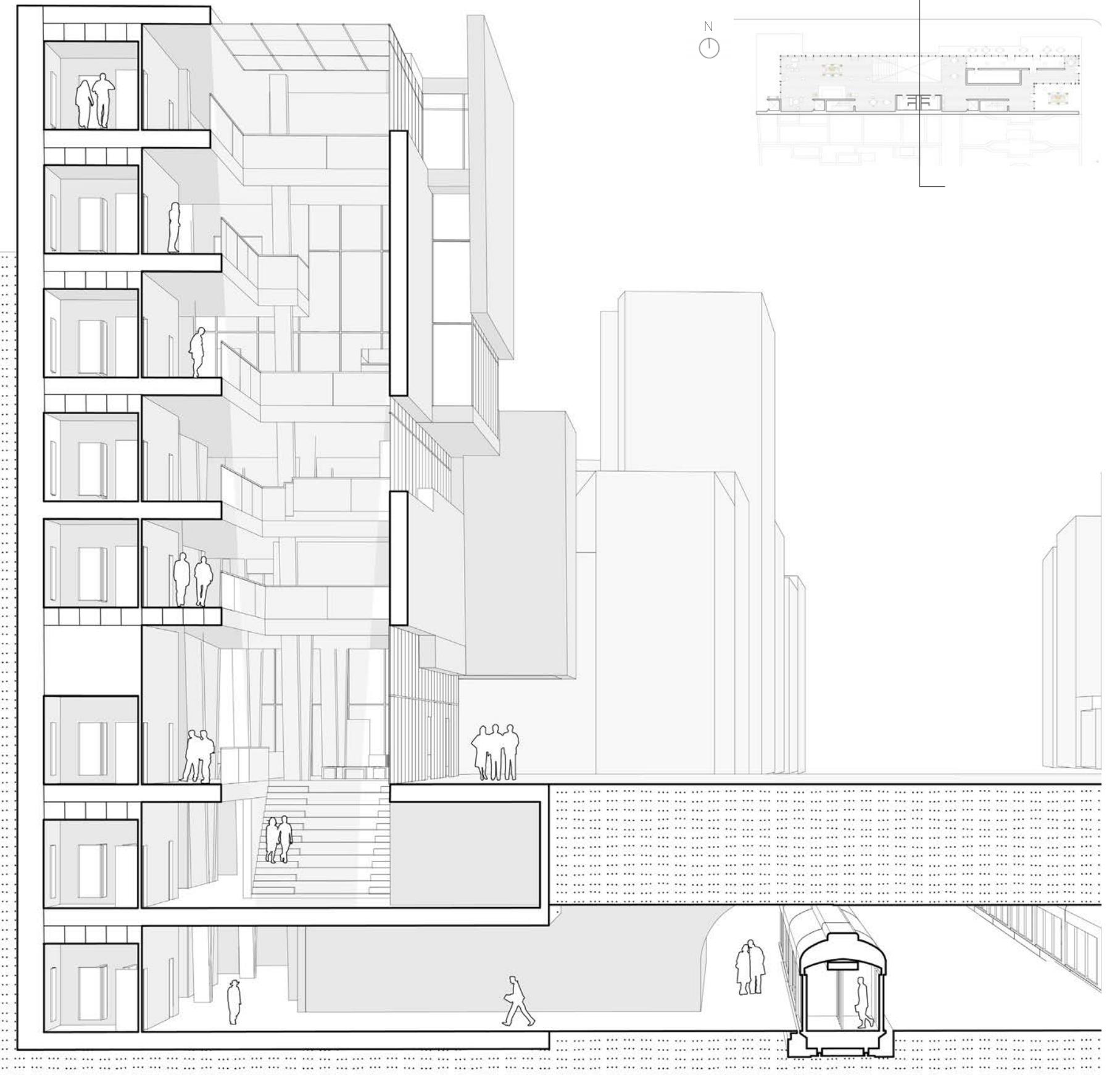
Concept Section - Mass

$1/32'' = 1'-0''$



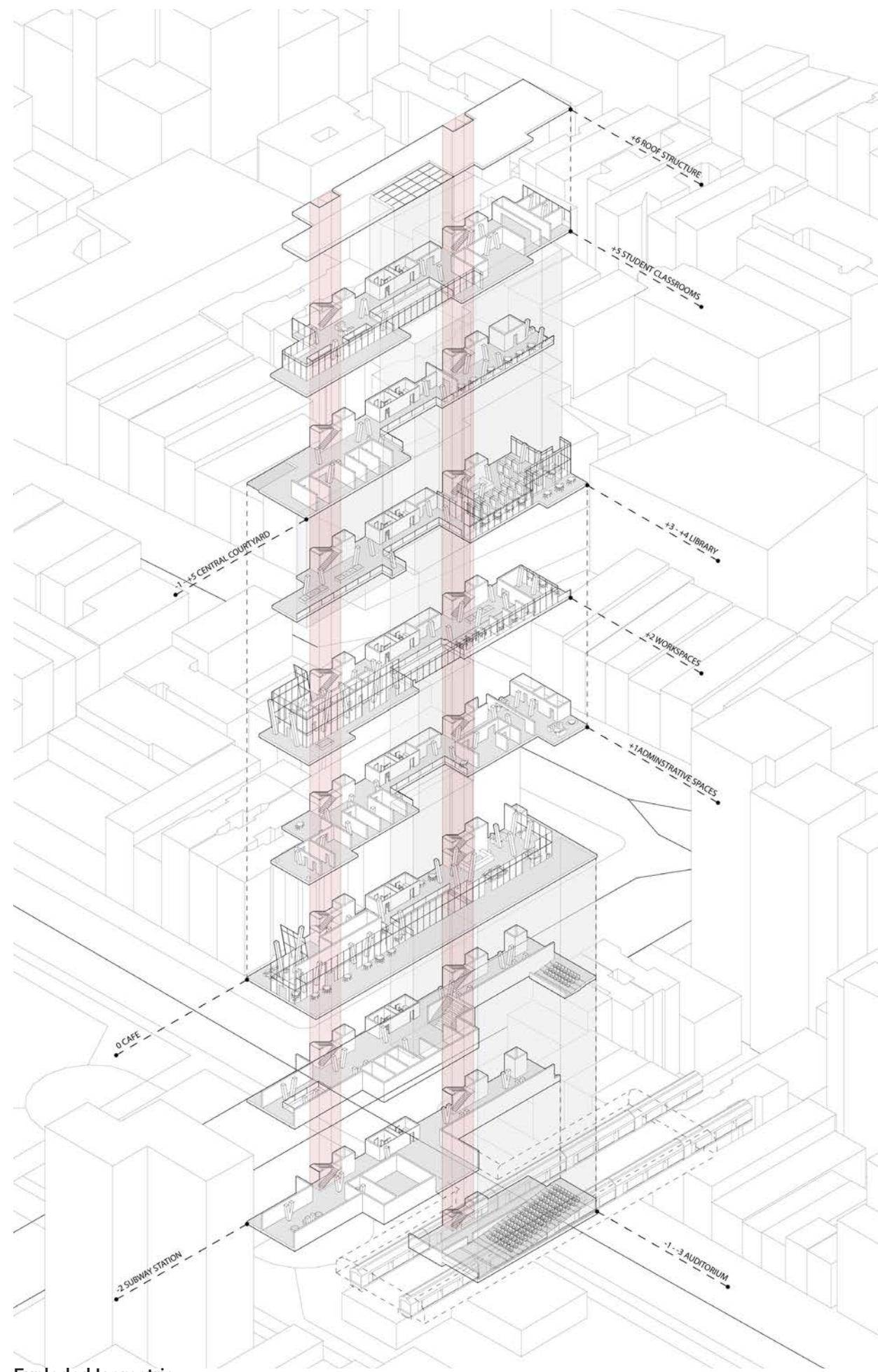
Concept Collage

Vertical Sequences



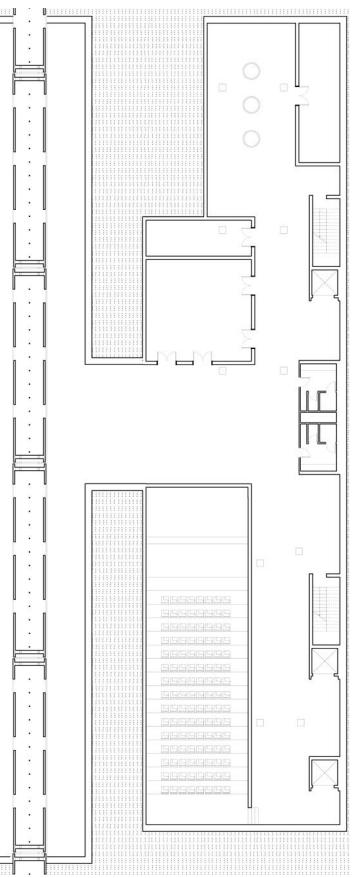
Perspective Section

1/16" = 1'-0"



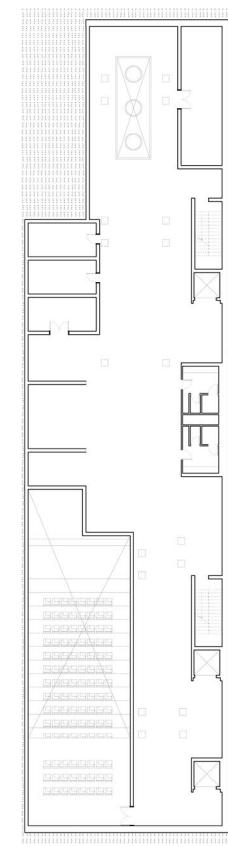
Exploded Isometric

1/32" = 1'-0"



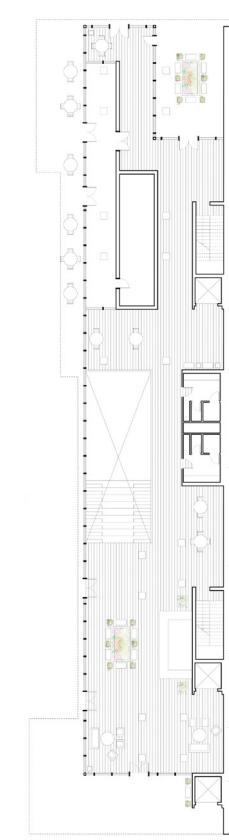
Floor Plan: Level -2

1/32" = 1'-0"



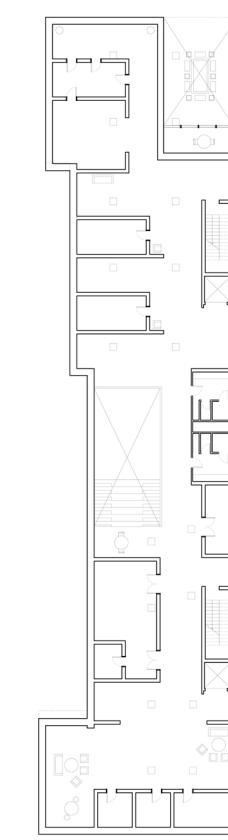
Floor Plan: Level -1

1/32" = 1'-0"



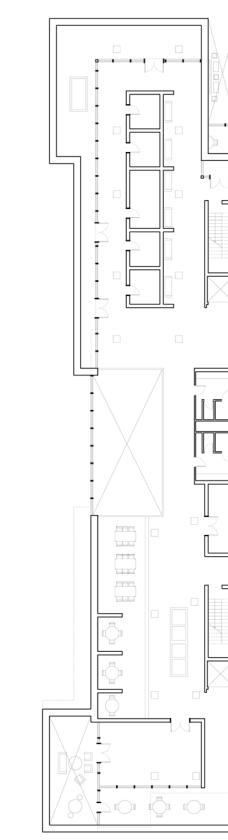
Floor Plan: Level 0

1/32" = 1'-0"



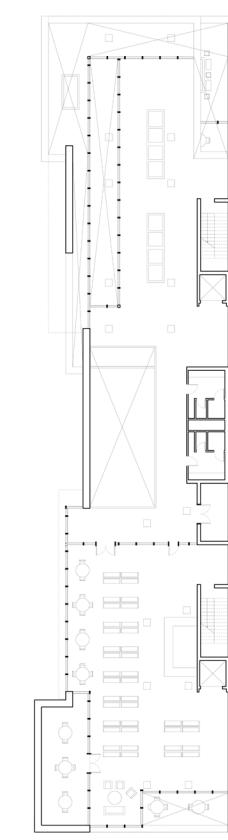
Floor Plan: Level +1

1/32" = 1'-0"



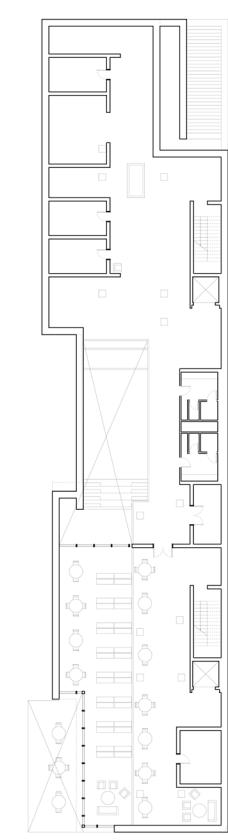
Floor Plan: Level +2

1/32" = 1'-0"



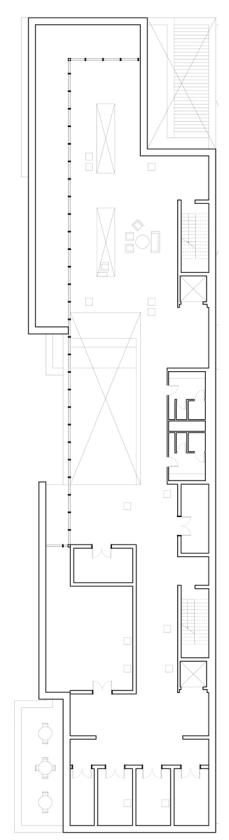
Floor Plan: Level +3

1/32" = 1'-0"



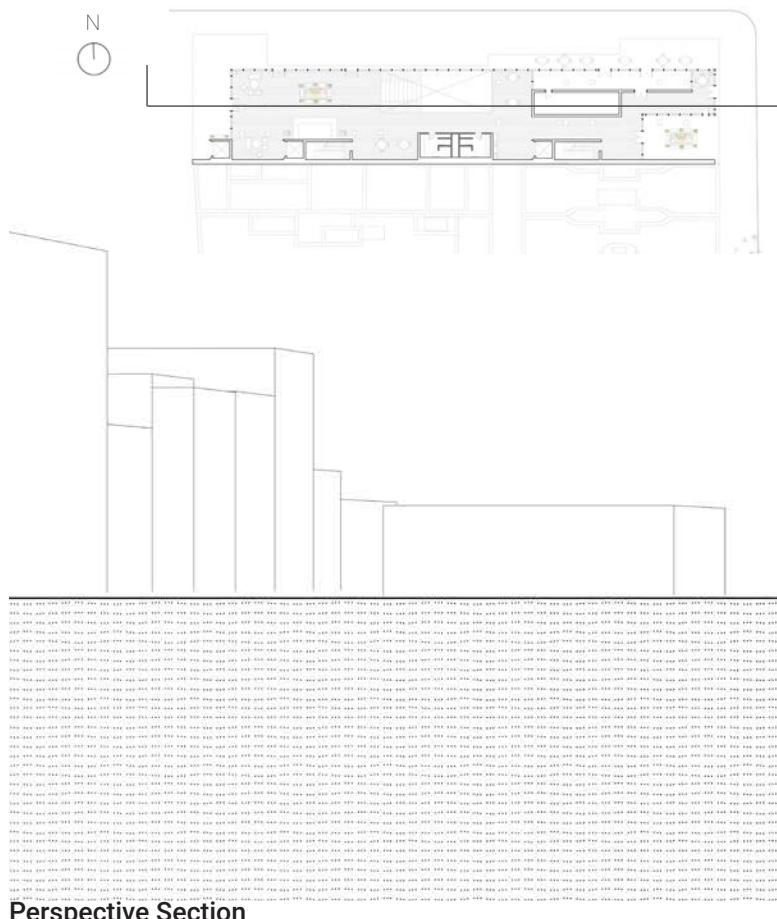
Floor Plan: Level +4

1/32" = 1'-0"



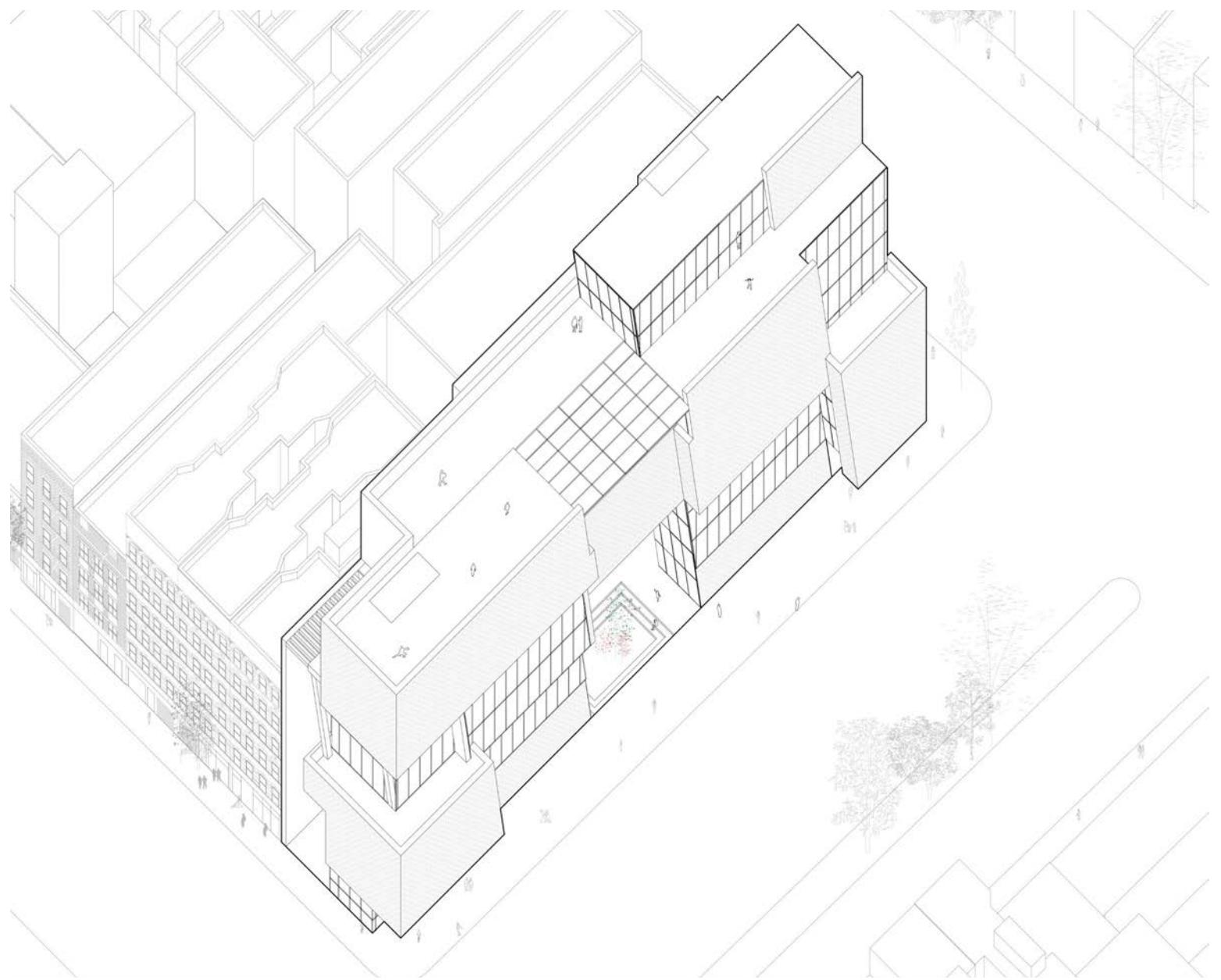
Floor Plan: Level +5

1/32" = 1'-0"



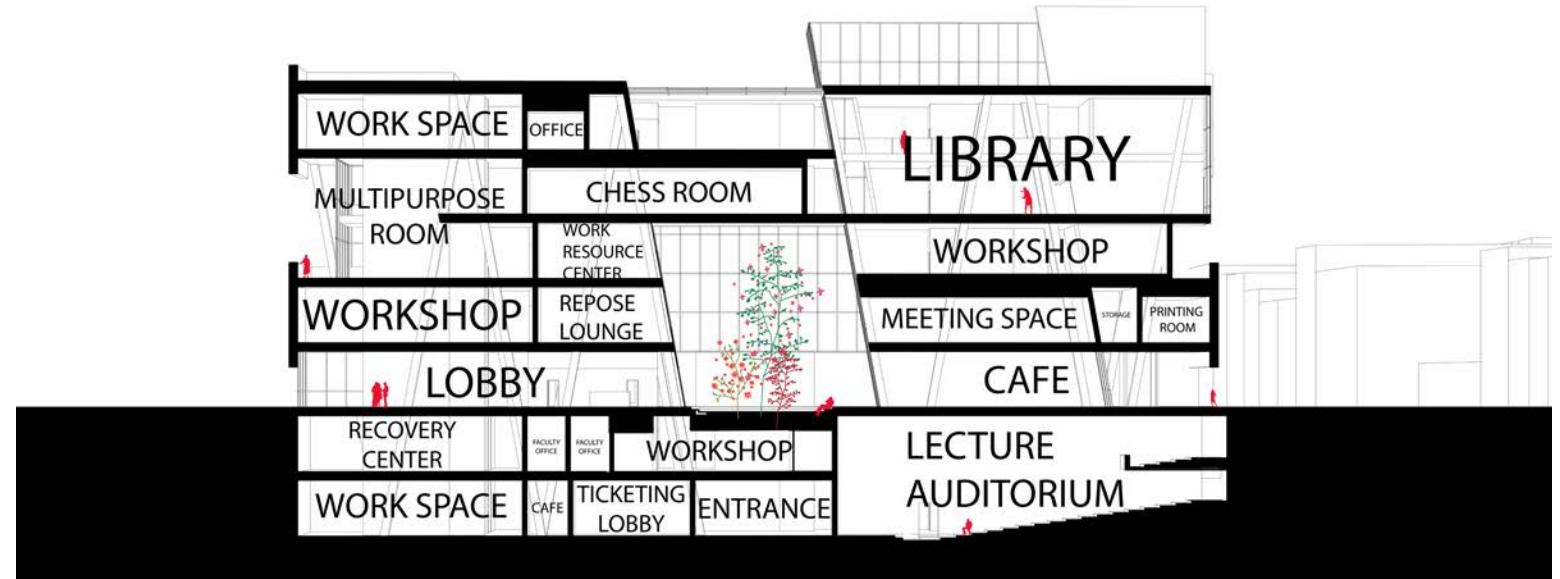
Perspective Section

1/32" = 1'-0"



Building Axon

1/16" = 1'-0"

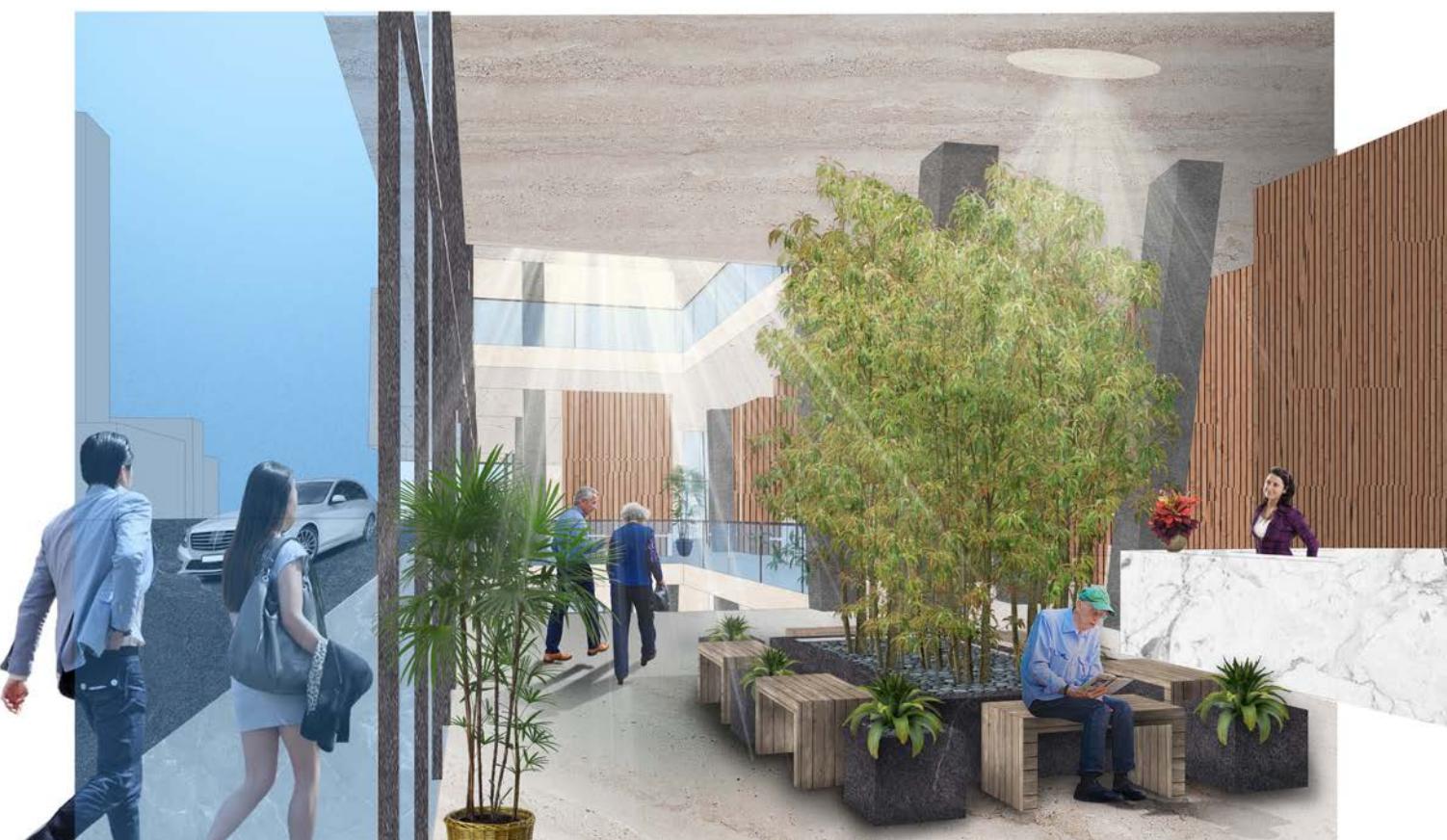


Program Section

1/16" = 1'-0"



Exterior Collage



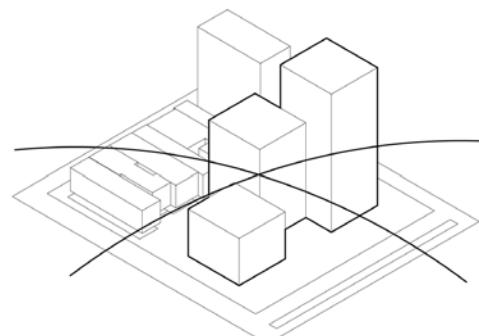
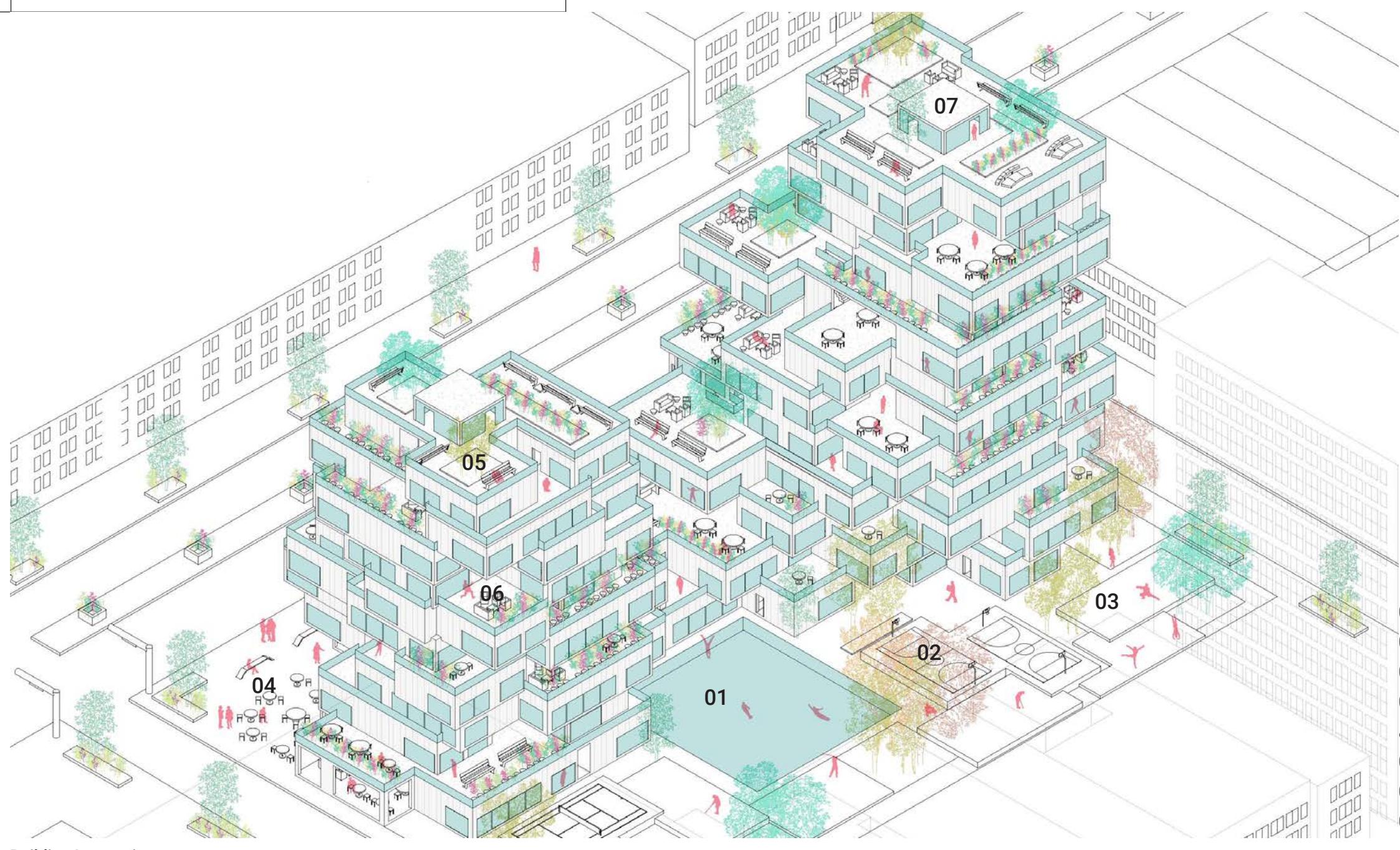
Interior Collage

Green Terraced Fields

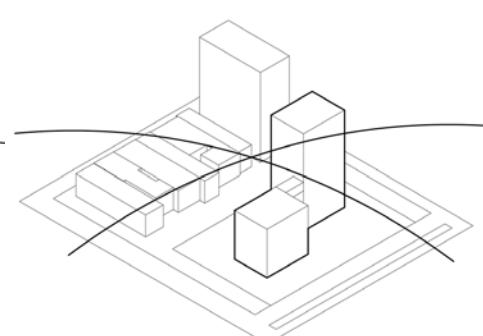
Design a temporary housing project for visiting faculty at the Virginia Commonwealth University and University of Richmond. This project ought to be situated in one of two proposed sites, each measuring approximately 1,500 square meters (~16,000 square feet), between Broad Street and Arthur Ashe Boulevard, which are streets uniting Richmond's The Fan District, Museum District, and Scott's Addition Historic District.

This Collective Housing Project proposes dense student housing units for inventing young people into the downtown area of Richmond. The overall convex shape of the project divides the space into one for the larger Richmond community; and another more private one for the residents' activities. The major concept behind is to have rather tall towers for density and connecting them to generate a structure full of terraces that units the community in those spaces. There are 128 units in total. The overall convex shape is generated from a variety of different numbers of towers and methods to connect them. The benefit of the final variation is not only the difference in heights that allows more lights in the middle but also more terraces are created. There are four types of units surrounding the core. The heights difference within the units allows more storage spaces, and the stair is not fixed so that users could use them as chairs or platforms. The folding doors and the hallways enable the bedroom spaces to be both private and shared with other residents if the use is living with others.

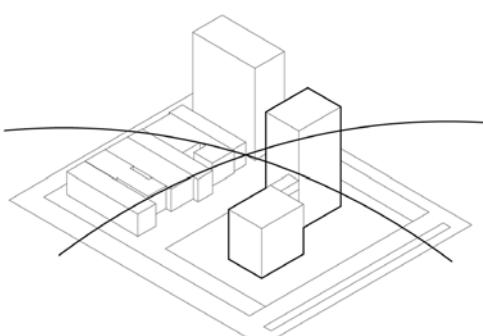
Individual Work



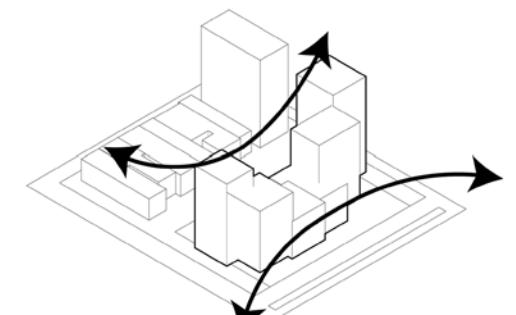
Variation 1



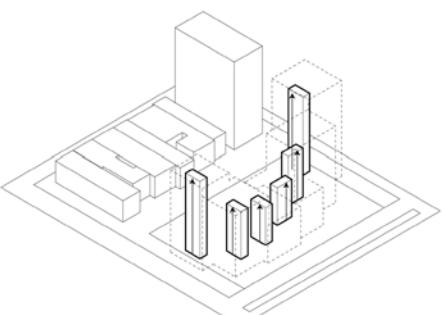
Variation 2



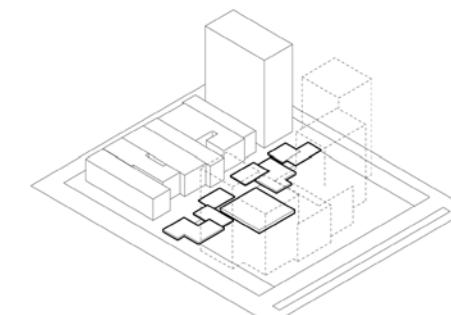
Variation 3



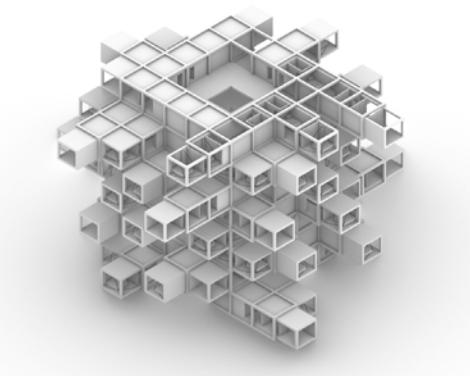
Variation 4



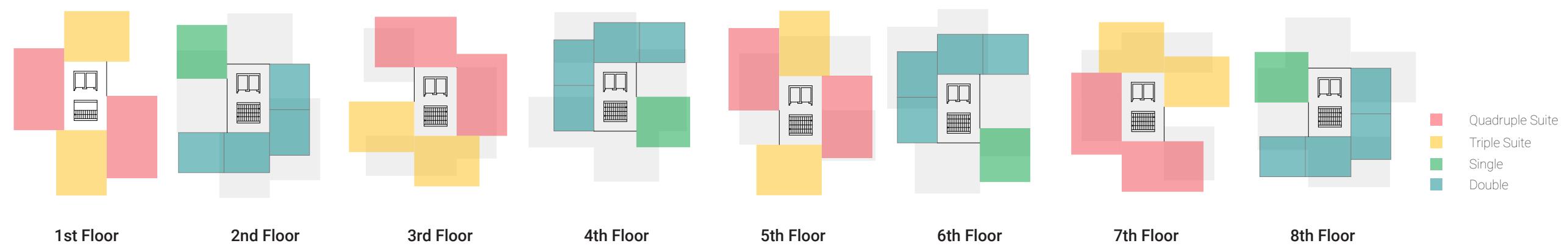
6 Cores



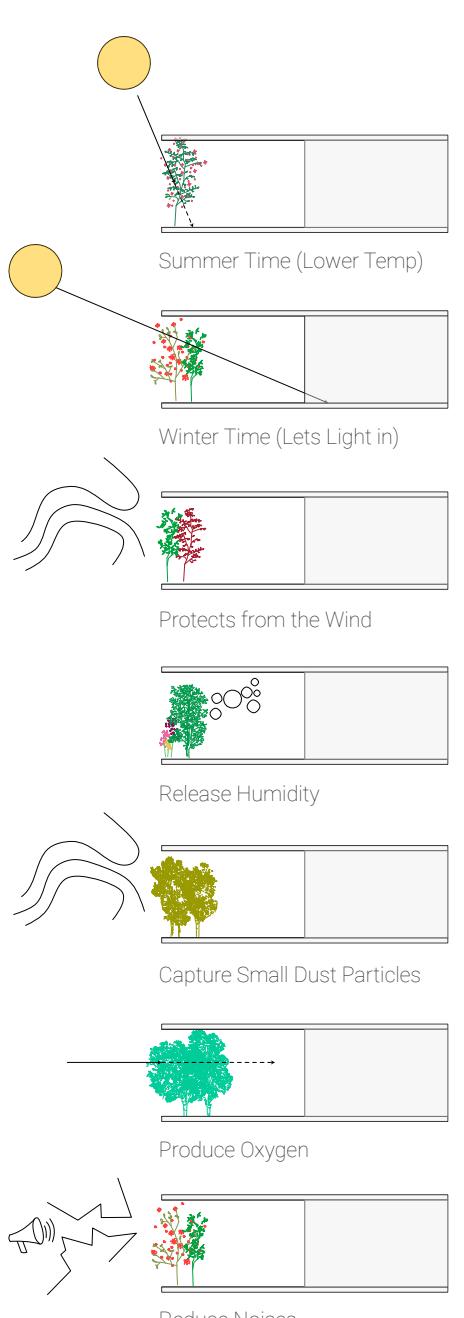
Ground Activities



Inspiration Model



■ Quadruple Suite
 ■ Triple Suite
 ■ Single
 ■ Double



Perspective Section

1/32" = 1'-0"



N
Site Plan
1/25" = 1'-0"

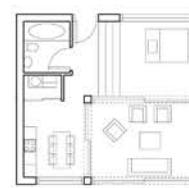
- 01. Exterior Rest Place
- 02. First Floor Store & Cafe
- 03. Single Unit
- 04. Double Unit
- 05. Triple Unit

- 06. Quadruple Unit
- 07. Swimming Pool
- 08. Tennis Court
- 09. Community Entrance
- 10. Elevator & Fire Stair

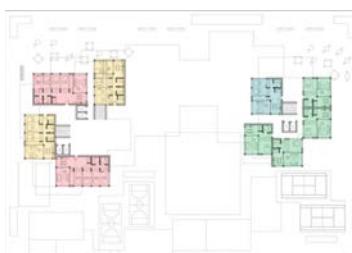
23'x26'
598ft²

26'x30'
780ft²

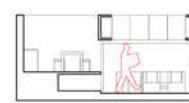
Floor Layout: Level 0



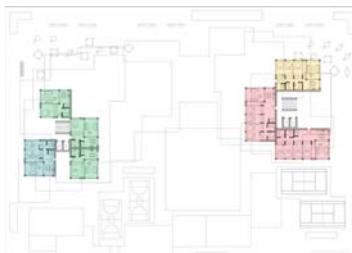
Floor Layout: Level 7



Floor Layout: Level 1



Floor Layout: Level 8



Floor Layout: Level 2



Floor Layout: Level 9



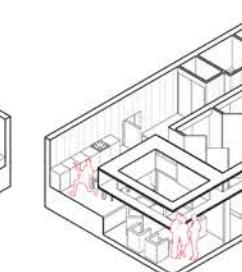
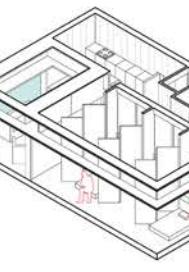
Floor Layout: Level 3



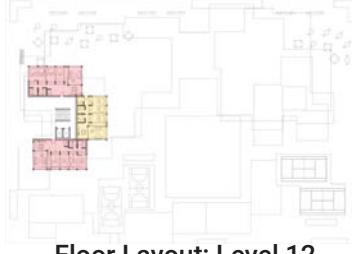
Floor Layout: Level 10



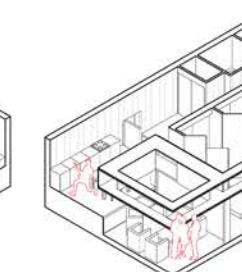
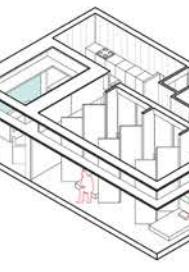
Floor Layout: Level 4



Floor Layout: Level 11



Floor Layout: Level 6

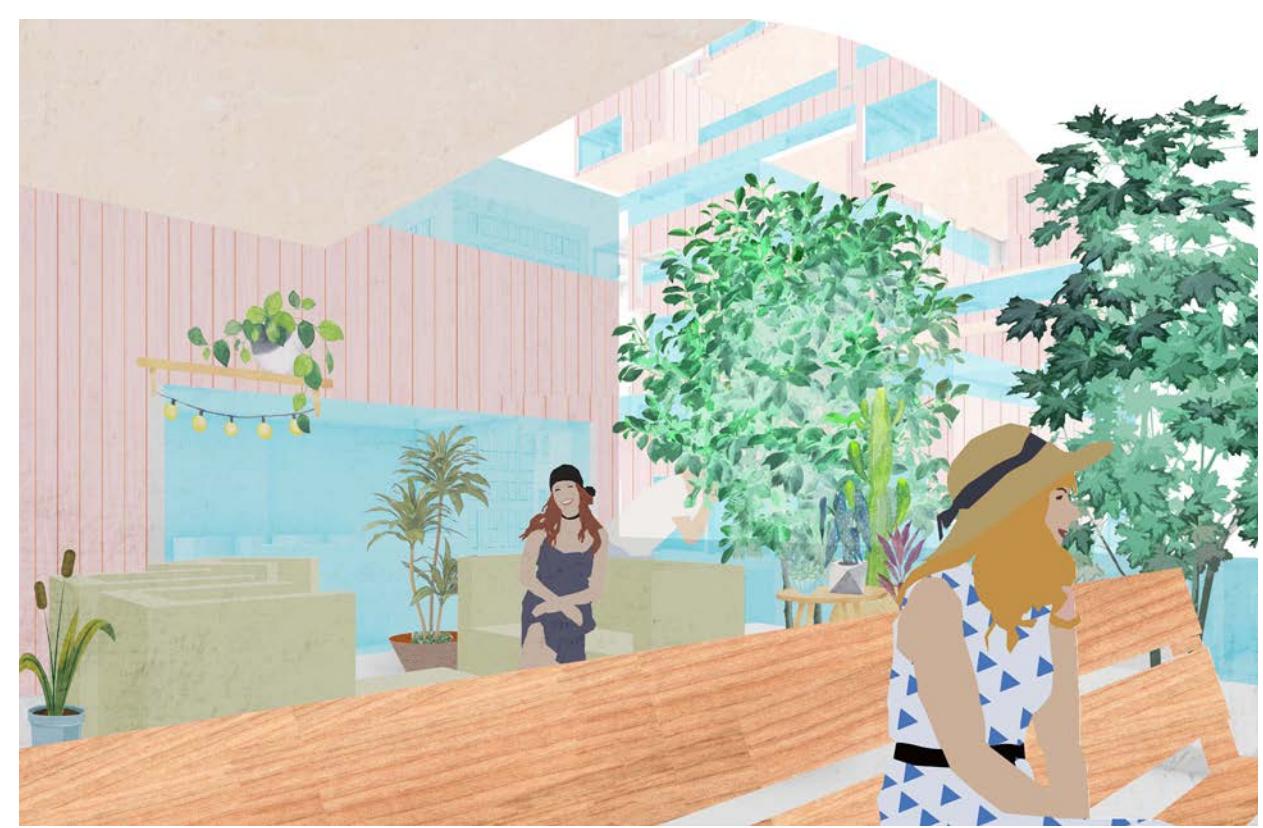
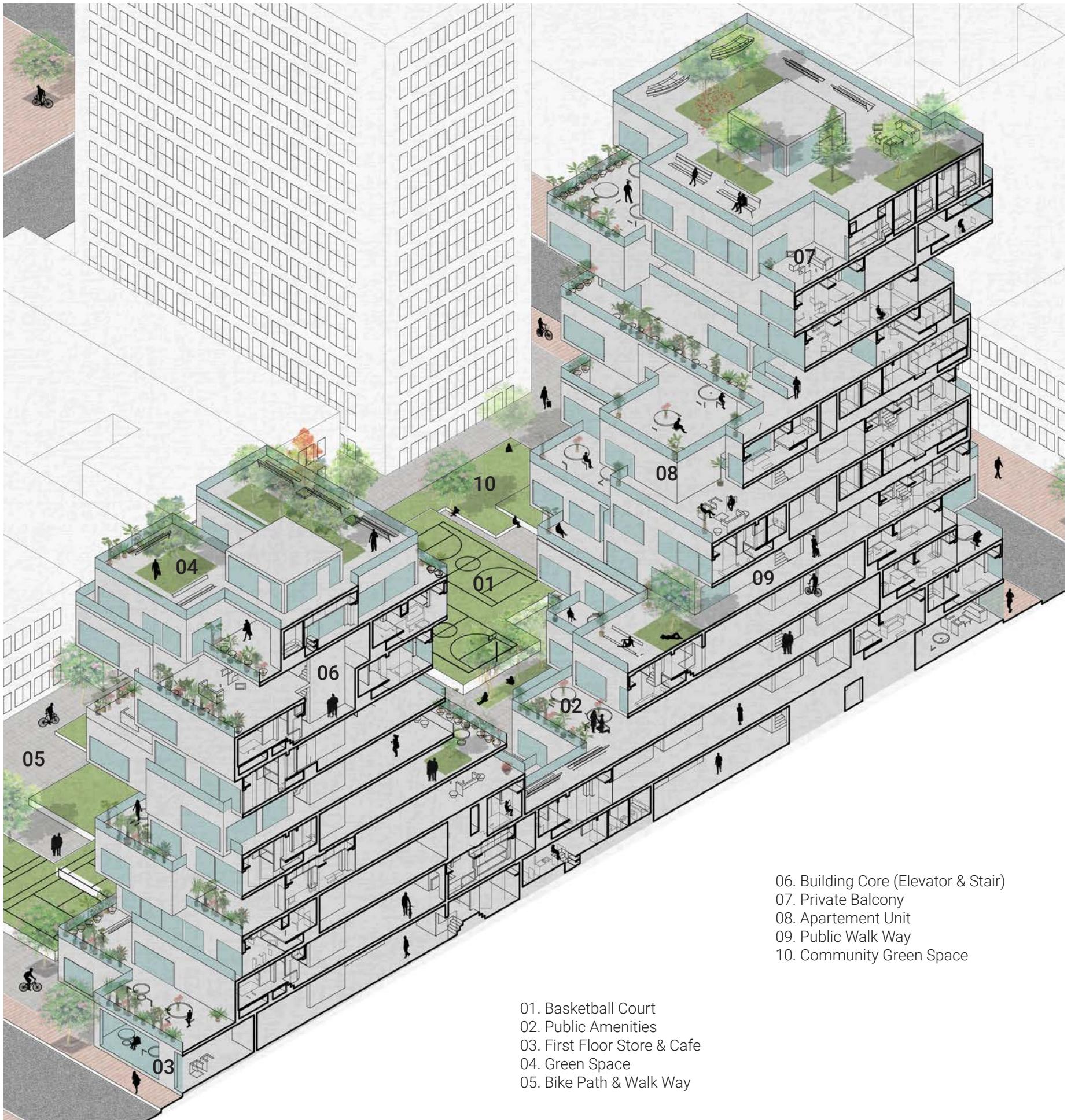


Floor Layout: Level 12



Unit Types

1/10" = 1'-0"

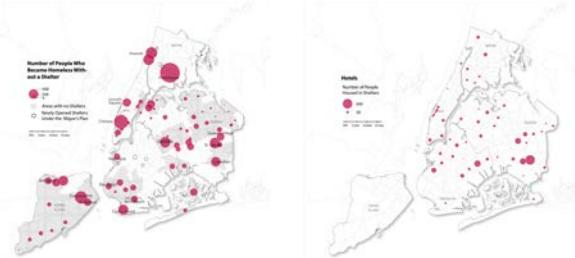


Towards Symbiosis + Architecture

Today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050. Projections show that urbanization combined with the overall growth of the world's population could add another 2.5 billion people to urban areas by 2050. Across the world, homelessness in fast-paced metropolises such as New York City is at a record high since the Great Depression of the 1930s, more than 60,000 people are in shelters every night.

Living in densely urbanized areas is not just ridiculously expensive, but also substandard for average and low economic groups. Moreover, the cost of living increases so rapidly that being at the same pace with it becomes almost impossible for most households, resulting in an abysmal quality of life. As parasitic architecture serves as a solution to the urban problem, the parasite should be serving a typological purpose that is public in nature and resonates with the function of its host and its immediate context. Thus, the parasite will embed itself firmly into the urban fabric with a basic economic relevance. The design will borrow the idea from parasitic architecture, a building attached to an existing larger structure, and propose a community center among the housing clusters or a public house prototype. The design will also research emerging technologies, especially building structures and joints, challenging the adaptability of such a design.

Individual Work



Site Analysis

Homeless Ratio across NYC

Shelter Types

Hotels Ratio



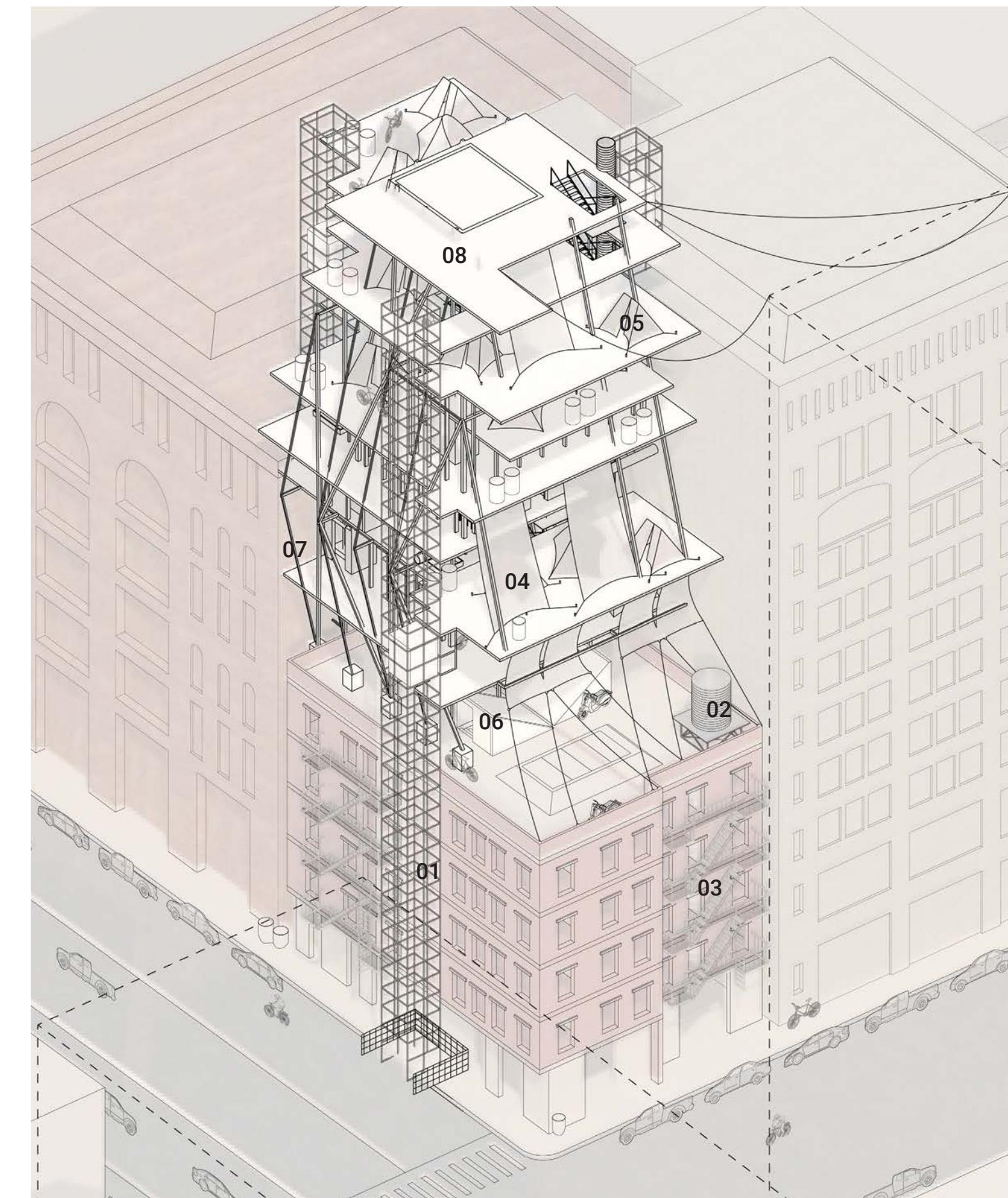
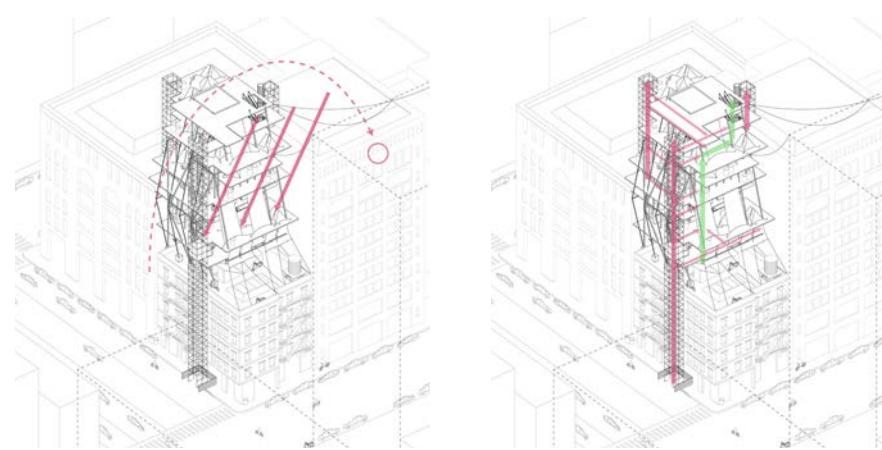
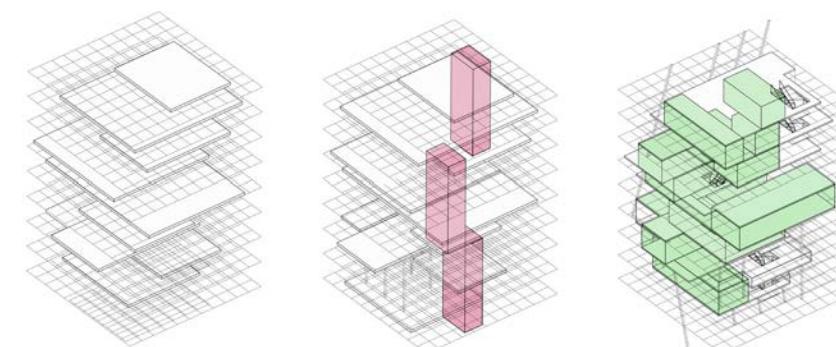
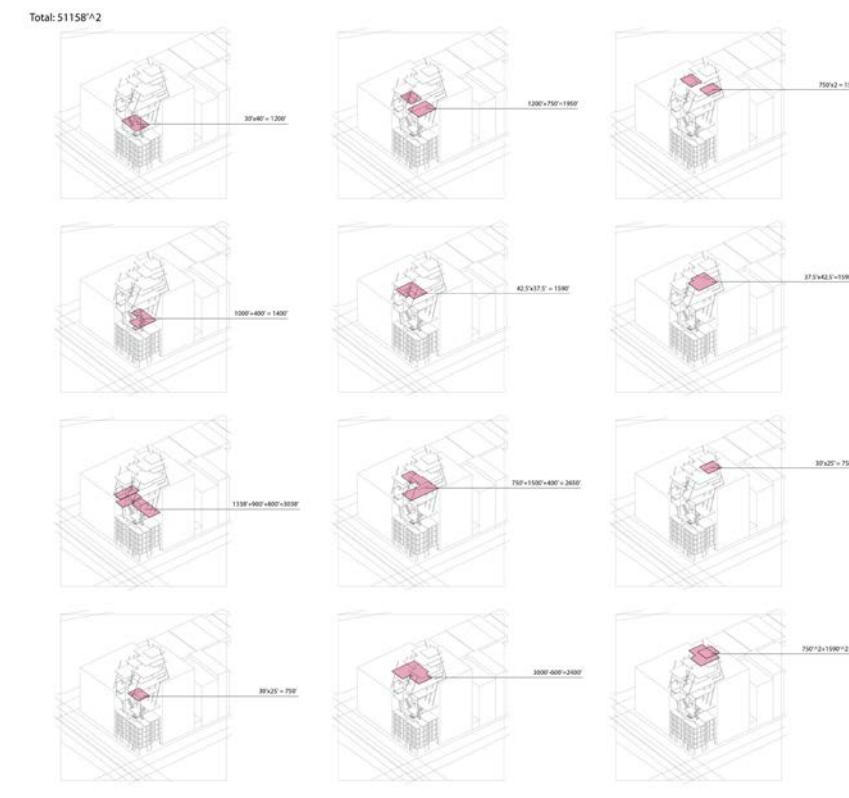
Shelter Types

Cluster Apartments Ratio



Shelter Types

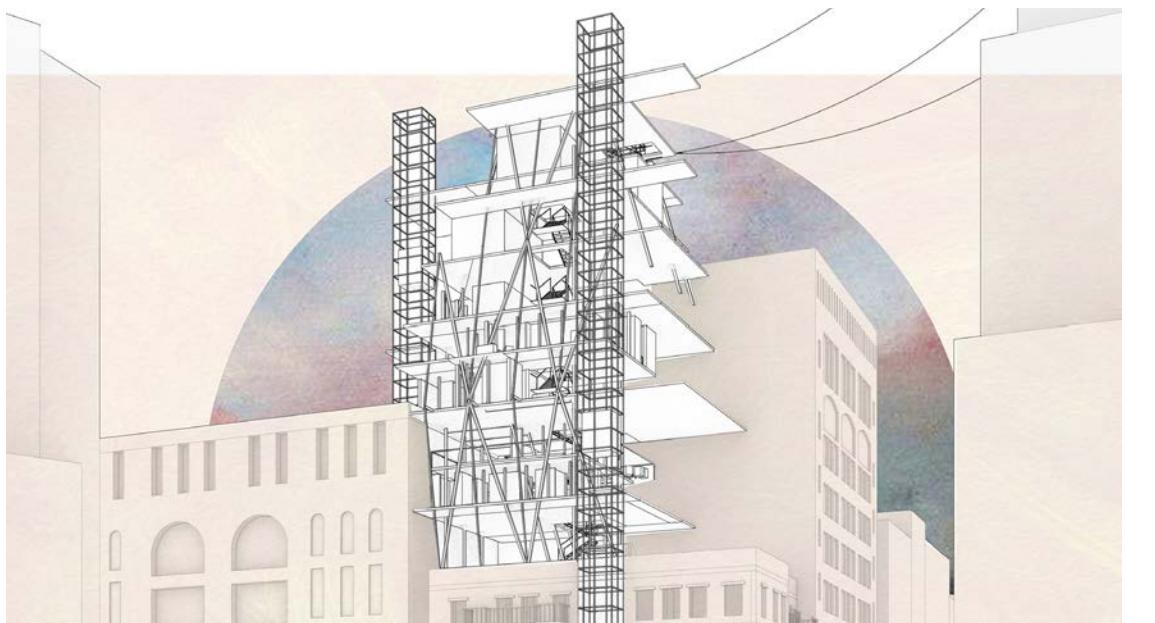
Traditional Shelters Ratio



Building Isometric

01. Vertical Transportation
02. Water Tank
03. Fire Stair
04. Wind Cover
05. Tent
06. Enclosed Apartment

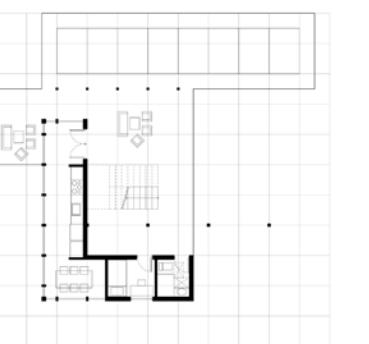
07. Light Structure
08. Light Floor Slab



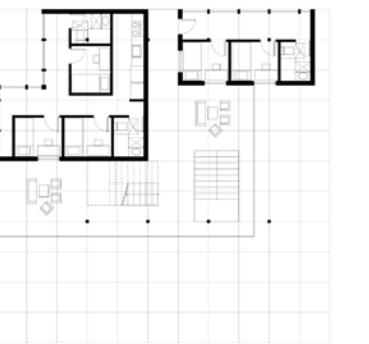
Collages - Close Ups



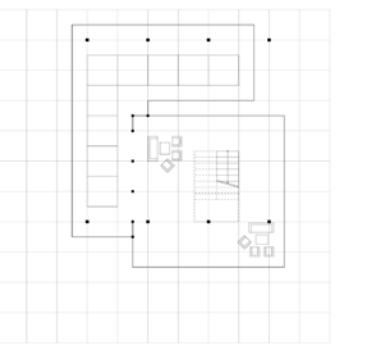
Level 0



Level 1



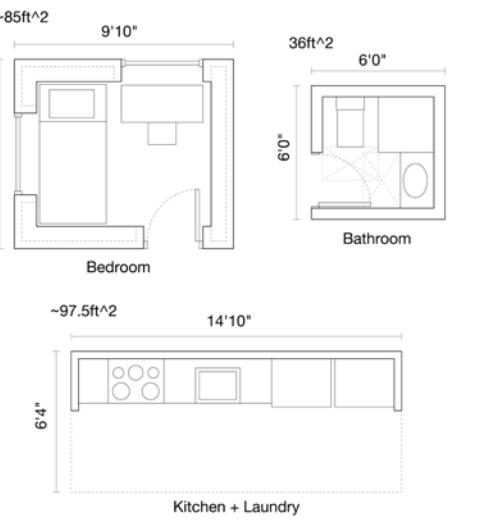
Level 2



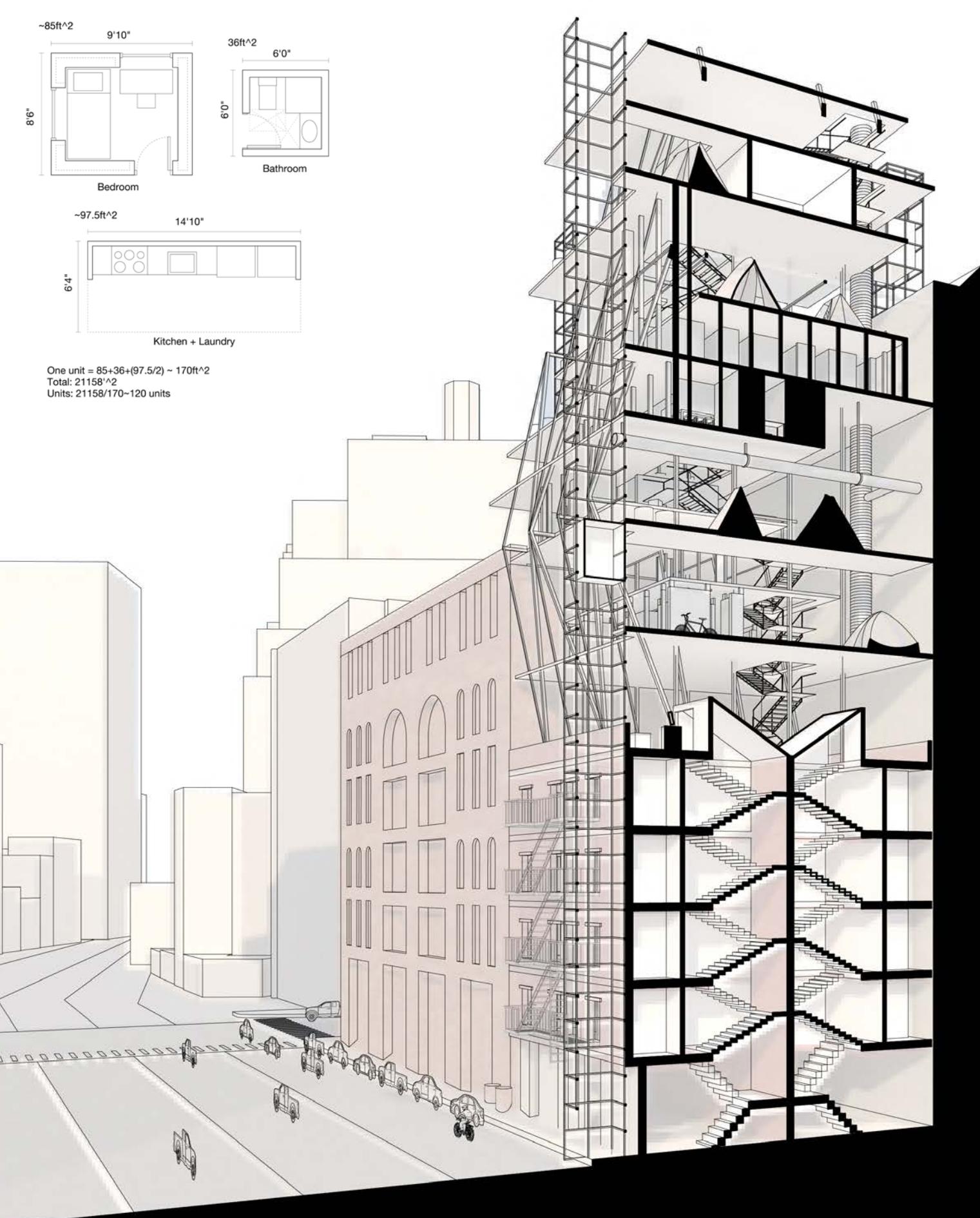
Level 3

Floor Plans

1/32" = 1'-0"



One unit = 85+36+(97.5/2) ~ 170ft²
 Total: 21158'~2
 Units: 21158/170~120 units



Perspective Section

1/25" = 1'-0"

Large Scale Projects

This section collects projects that are consider "large" in scale according to the definition of Rem Koolhaas. "Large" scale projects explore the spatial relationship in a system that's sustainable and adaptable with its users and environment. Compare to "medium" scale project, "large" scale projects are more than just physical boundaries in space, but also relationship between human and nature, or individual to the community. "Large" scale project can even be a regulation or a long-time development to the community, such as education. Sometimes, "medium" project is also "large" as those nodes would be connected through just simple link (transportation), and they will be a network of projects that has a systemic effect on its context. The following projects reveal my interpretation of the idea "large" in architecture and my research on landscape and urban design.

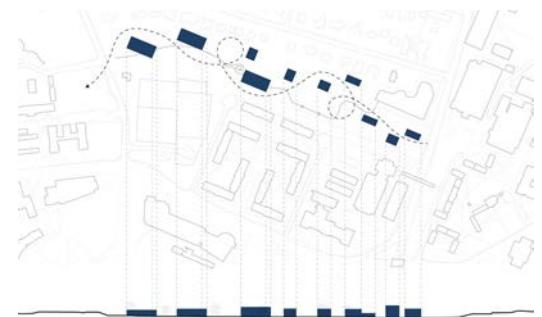


Community Gallery

To extend this idea of experimental spaces, concept, as the generator of the design conjecture, implies not simply the possibilities of form but a form that is able to embody the complexity of the design issues to solve functional, technical, spatial, and aesthetic problems.

The site analysis of the steam water system inspired this intention of using the entire dell site, in which The community gallery tests the potential to invite uva students to move to the western part of the campus through the project. The community gallery connects the Dell back to either side of the campus in order to create an experience of walking and resting. So the initial site strategies suggest 2 variations of elongating the site. variation 1 sees building itself as the movement and path, and variation 2 incorporates clusters of nodes to encourage the movement. As a summary, The project encompasses an intervention within the entirety of the Dell Site as a gallery space in which occupants can circulate both on foot or through the use of the bike path. Both the project and the Dell site work in conjunction as a gallery space in which individuals interact with the built environment, natural elements, and various grade changes of the site.

[Individual Work]



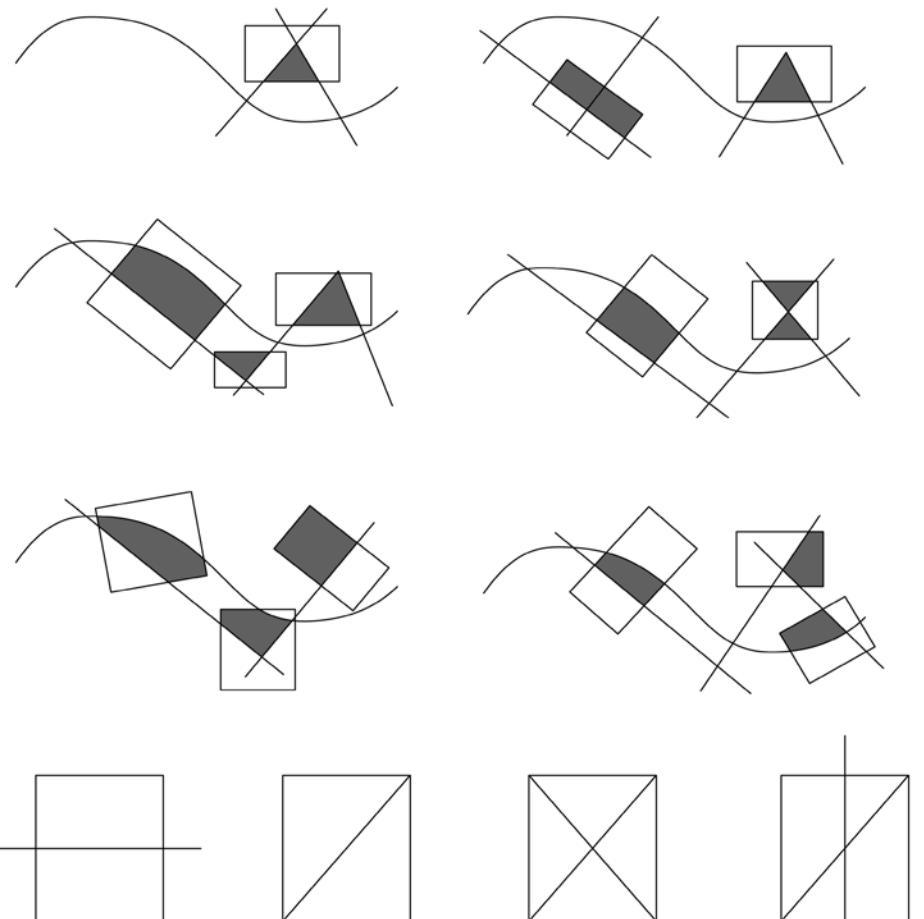
Site Strategy A

Clusters of Nodes Encourage the Movement

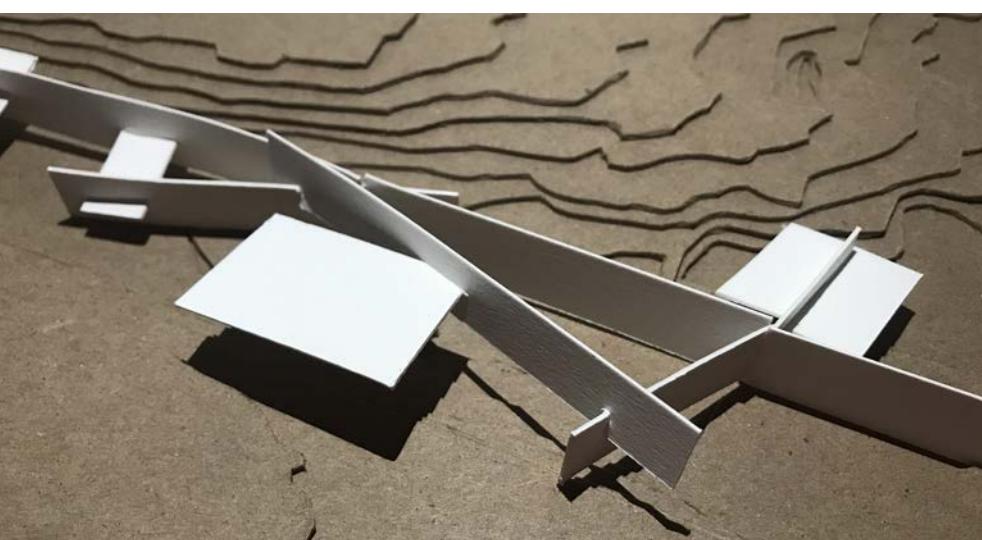
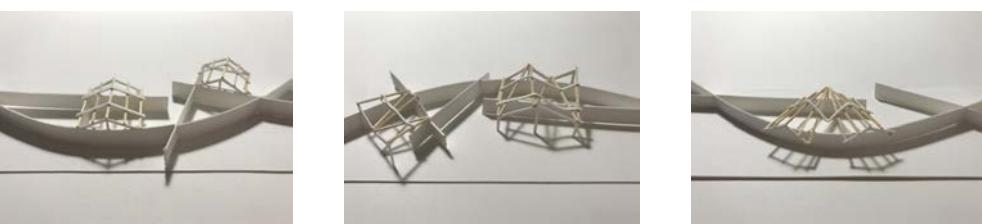


Site Strategy B

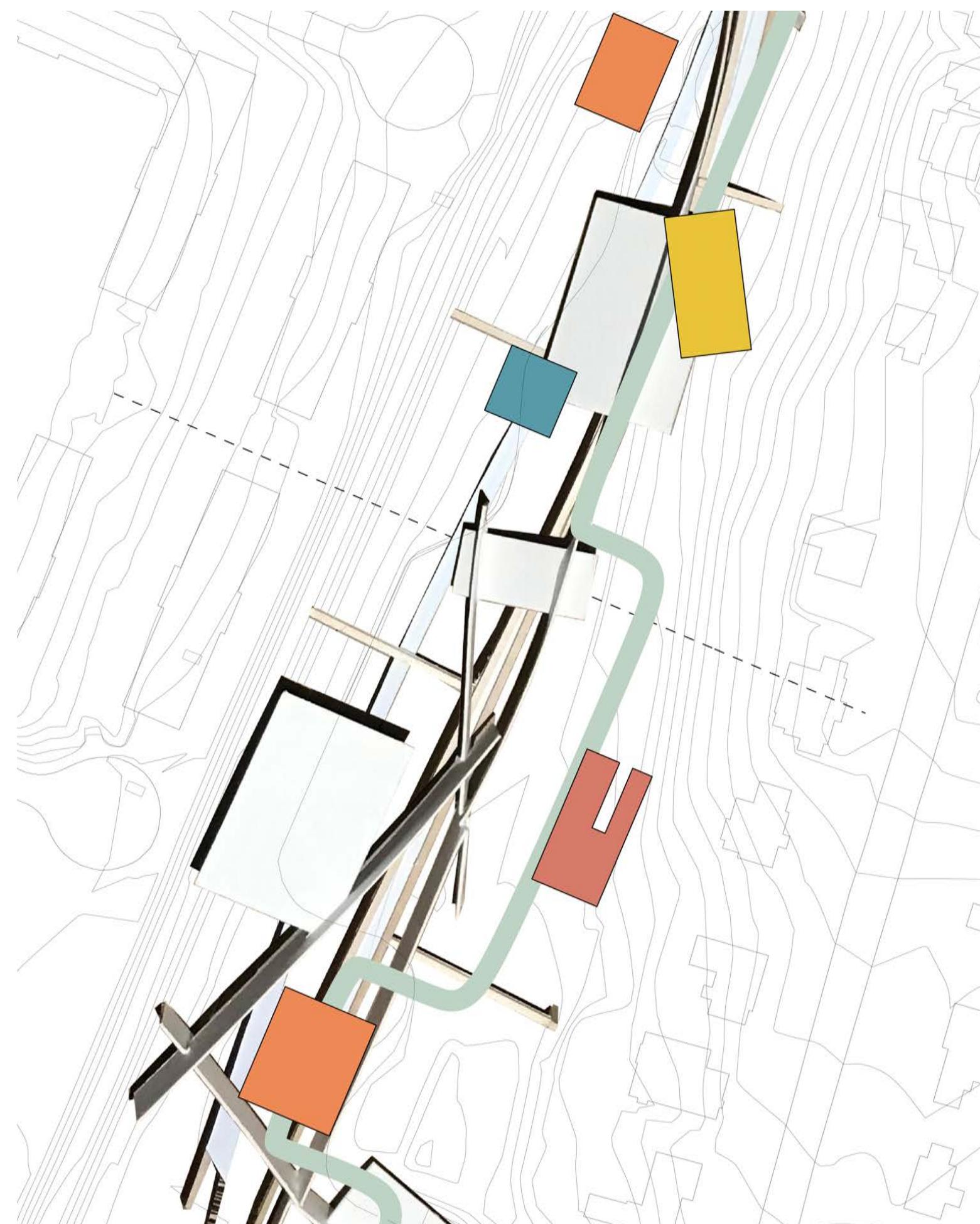
Building Itself as the Movement



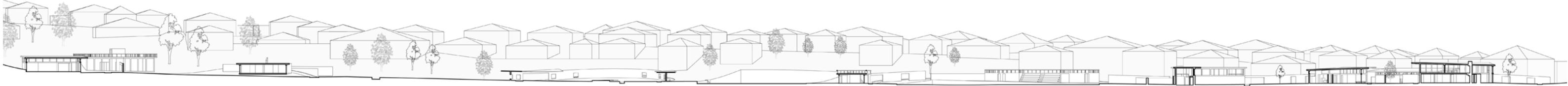
Concept Diagrams



Concept Models

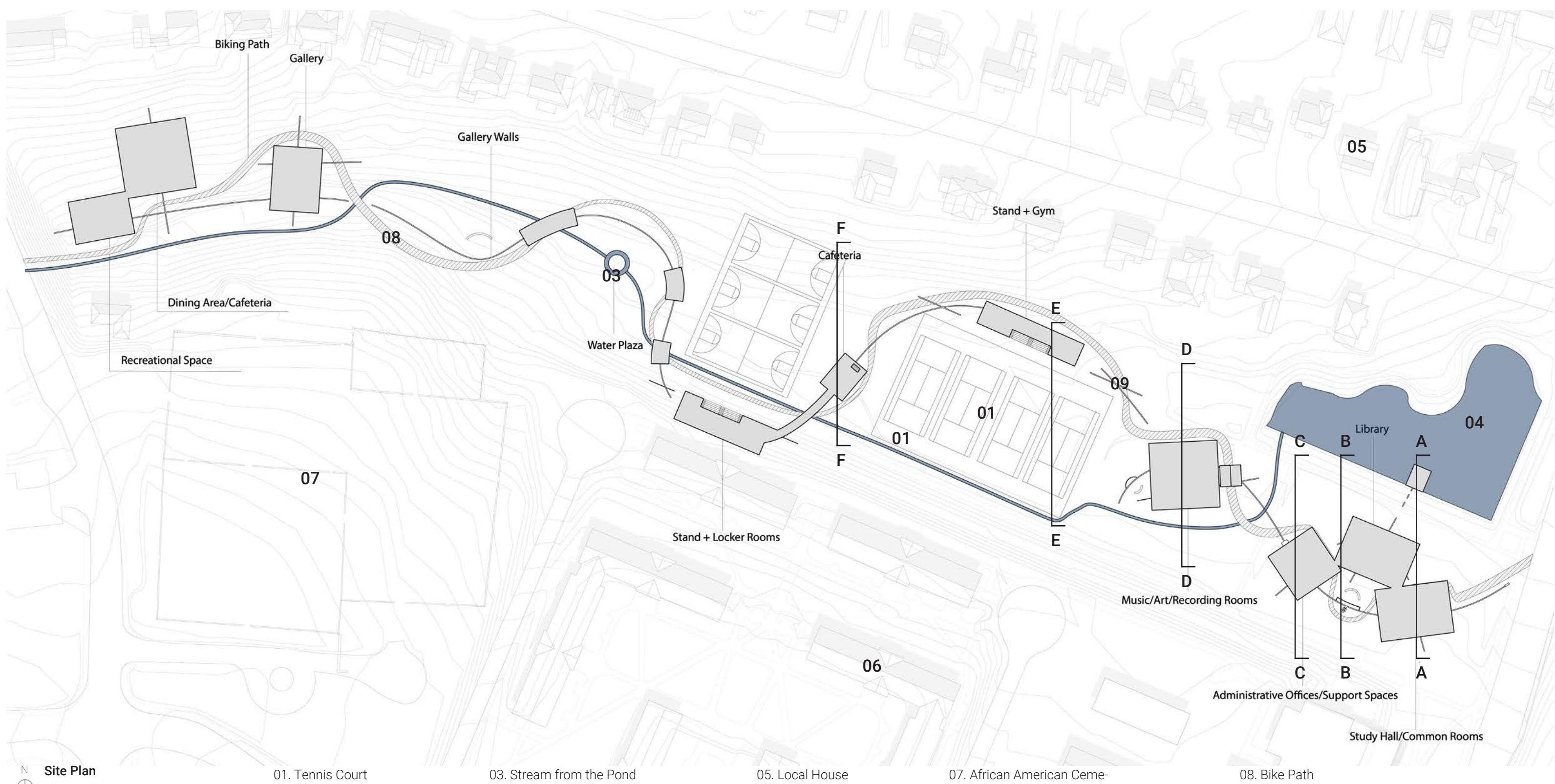


Gallery Concept



Perspective Long Section

1/64" = 1'-0"





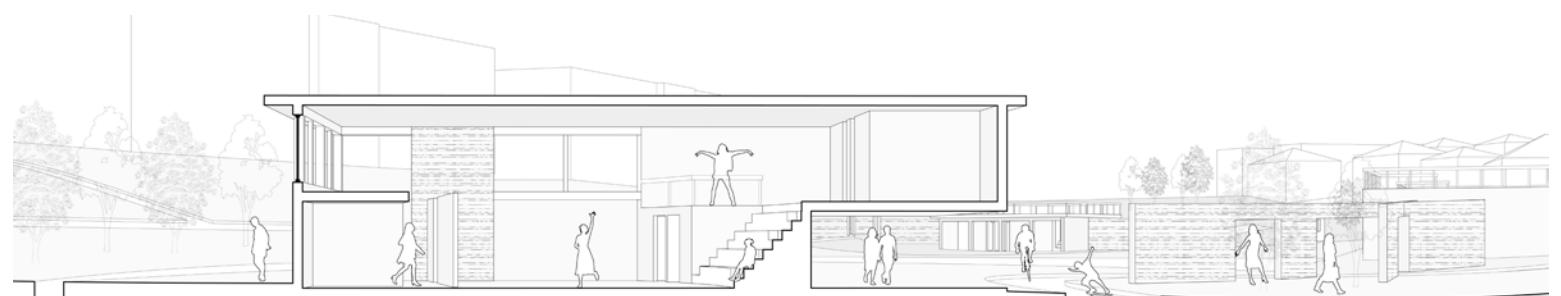
Perspective Section BB

1/16" = 1'-0"



Perspective Section CC

1/16" = 1'-0"



Perspective Section DD

1/16" = 1'-0"



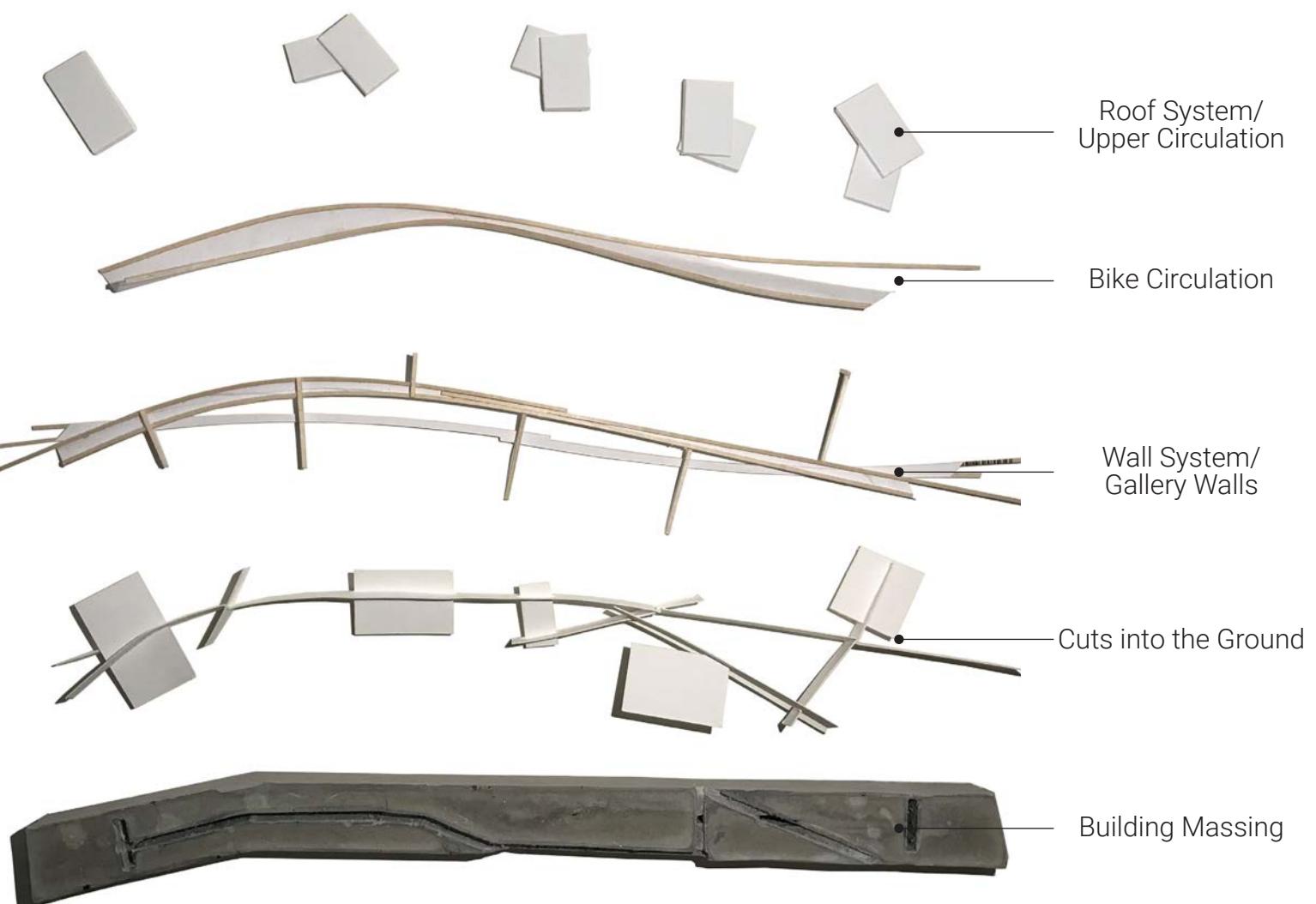
Perspective Section EE

1/16" = 1'-0"



Perspective Section FF

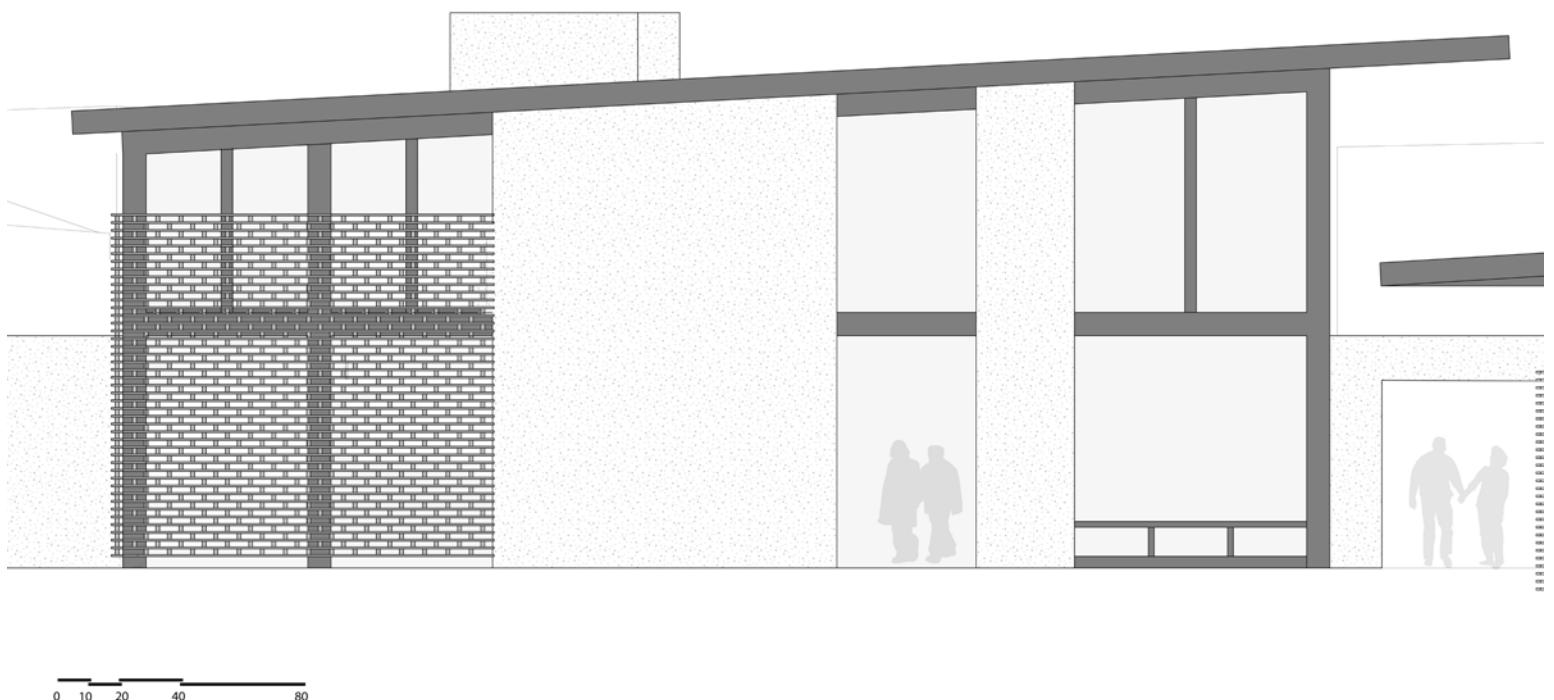
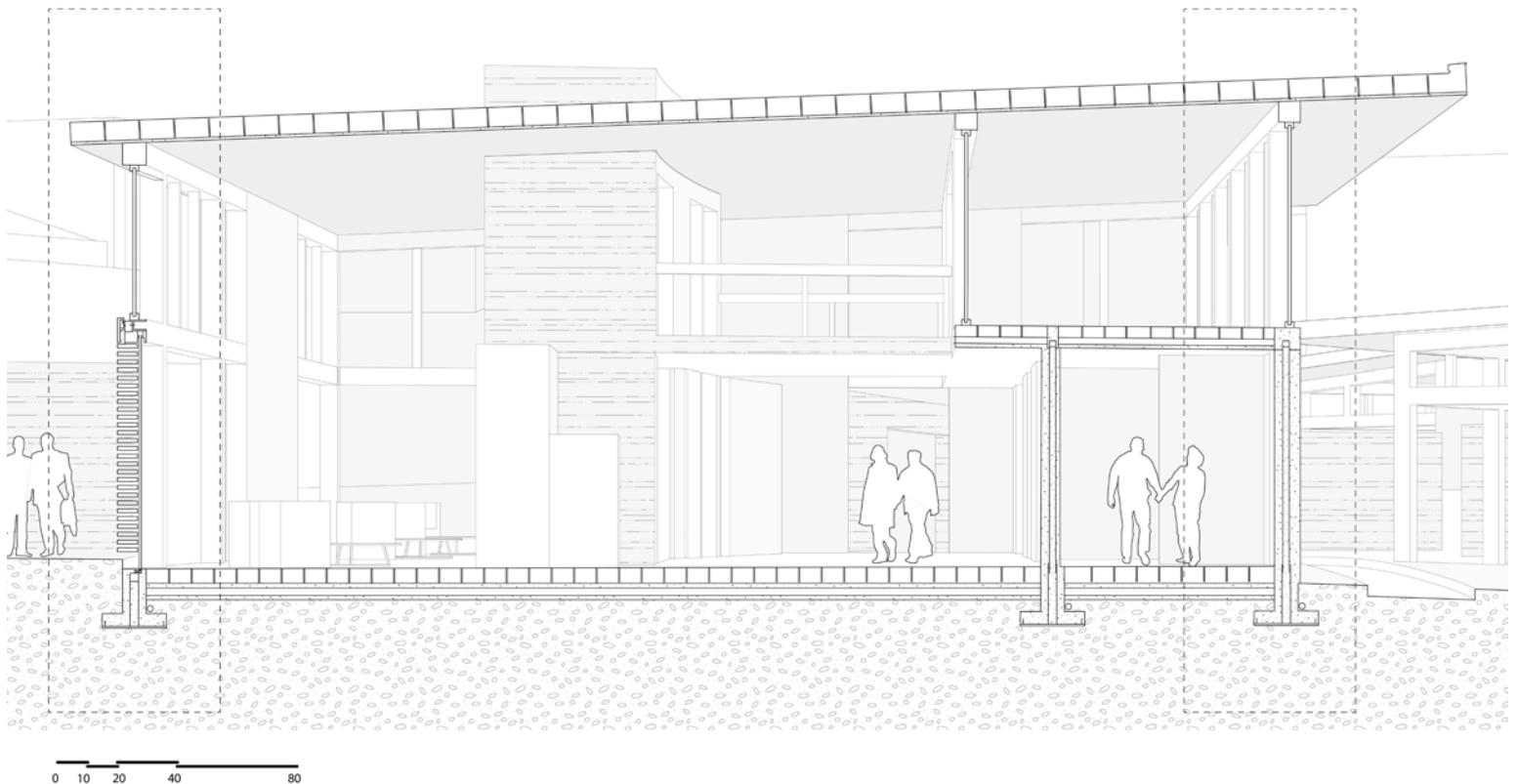
1/16" = 1'-0"



Concept Models

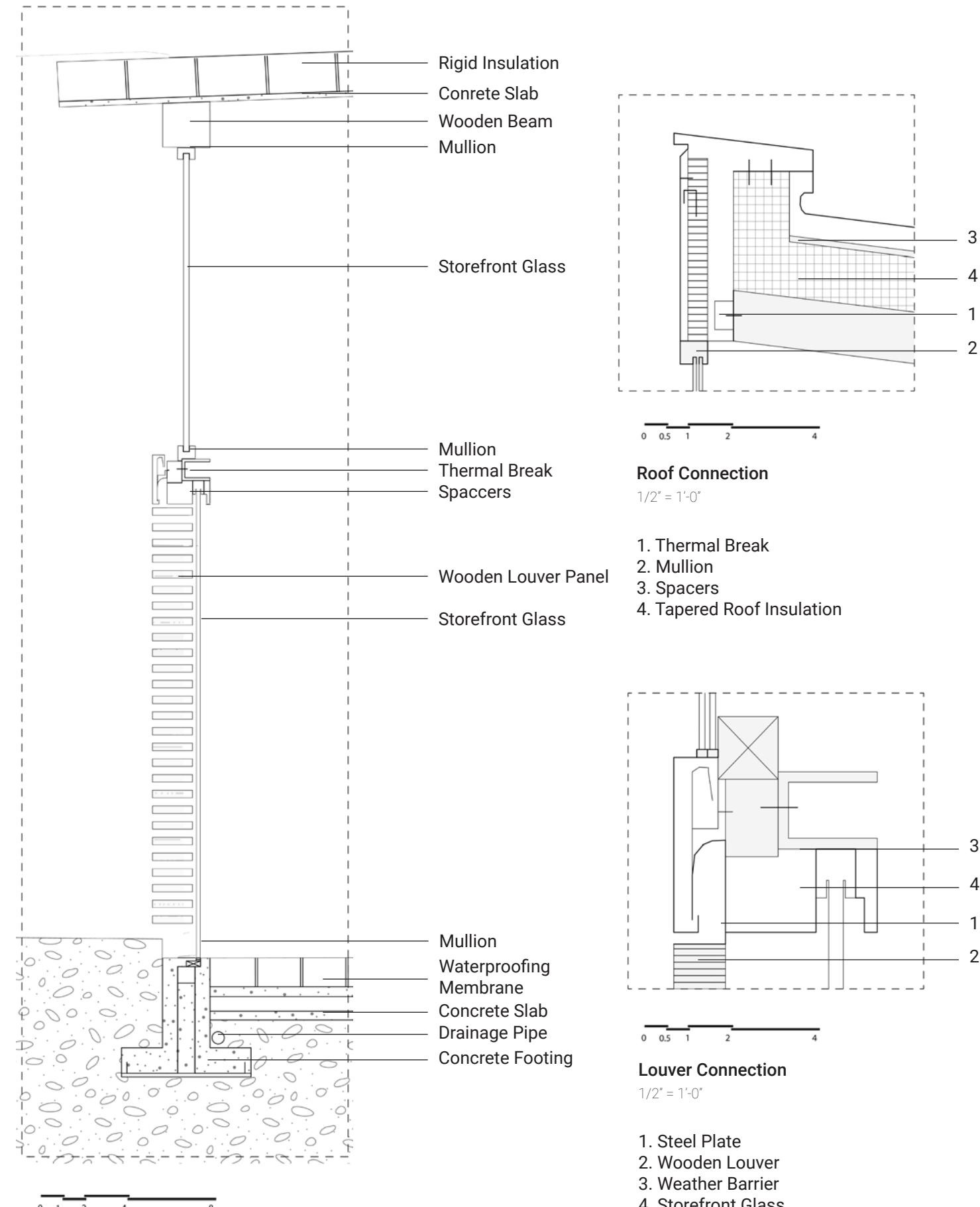


Pavilion Model



Building Elevation

1/4" = 1'-0"

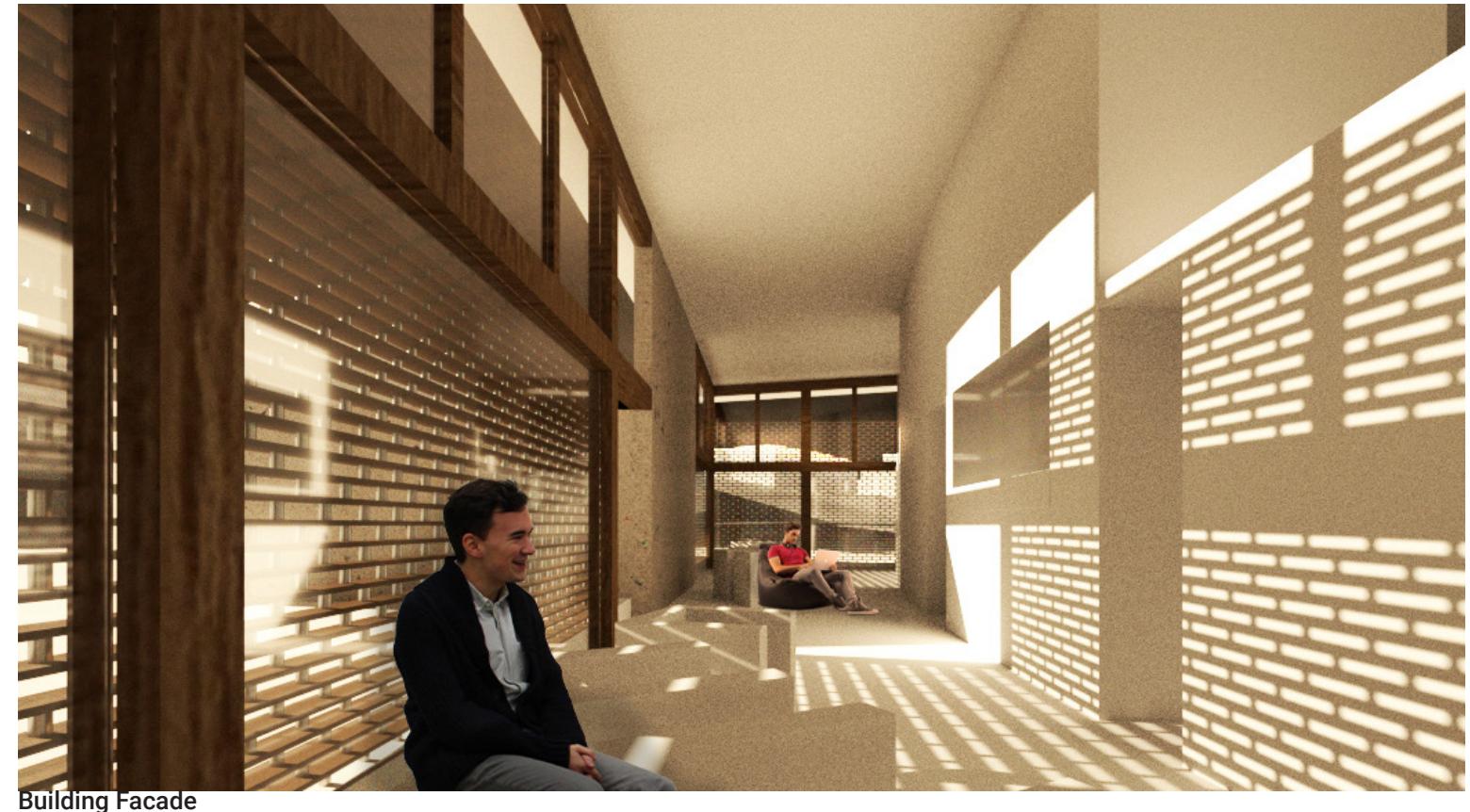


Wall Section

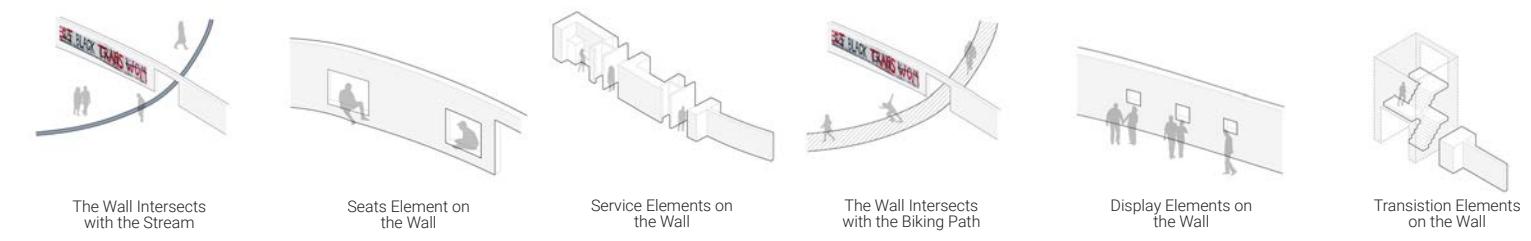
1/2" = 1'-0"



Exploded Plan - Concept



Building Facade



Multipurpose Wall



Perspective Section AA

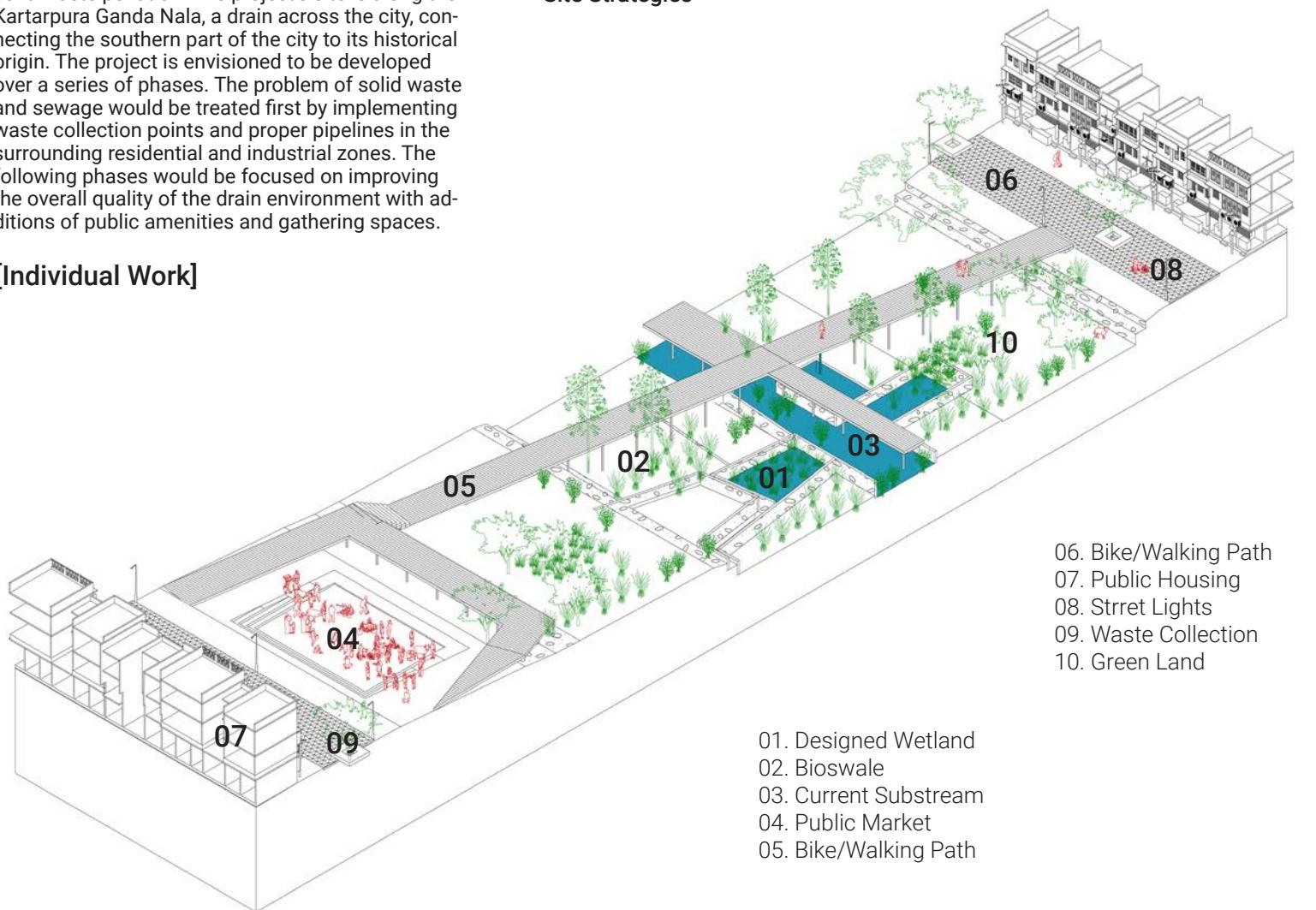
1/16" = 1'-0"

Green Corridor in Jaipur

Since Amanishah Nala has become inefficient and gradually dried, people started their journey of looking for water outside of Jaipur, from the Ramgarh Dam to the Bisalpur Dam today, during which in 1990s, the city was trying to obtain water from Bandi Basin but was rejected by the local people. People should be aware of that transporting water from outside sources is inefficient and instable; they should develop a more efficient way of collecting, storing and using water.

My project proposes a green corridor for Jaipur that encourages the overall sustainability and mobility of the central urban area. Jaipur, the capital and the largest city of Rajasthan, an Indian state, has faced many problems associated with population growth in its rapid development, such as water shortages, untreated sewage, and heavy solid waste pollution. The project's site is along the Kartarpura Ganda Nala, a drain across the city, connecting the southern part of the city to its historical origin. The project is envisioned to be developed over a series of phases. The problem of solid waste and sewage would be treated first by implementing waste collection points and proper pipelines in the surrounding residential and industrial zones. The following phases would be focused on improving the overall quality of the drain environment with additions of public amenities and gathering spaces.

[Individual Work]



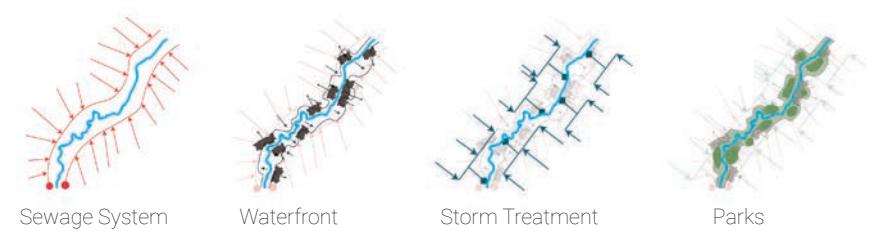
Site Analysis

Flooding Along the Amanishah Nala

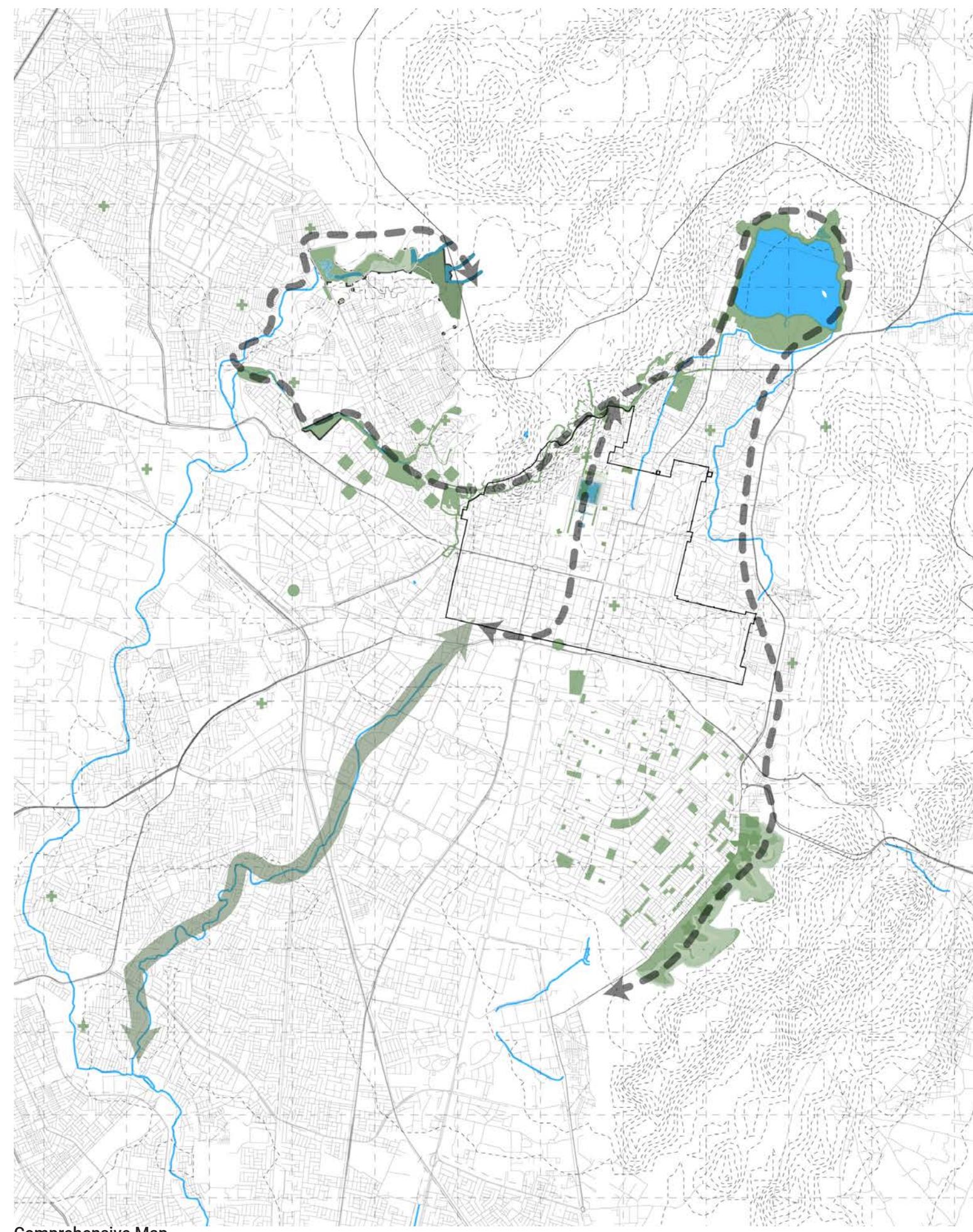


Site Analysis

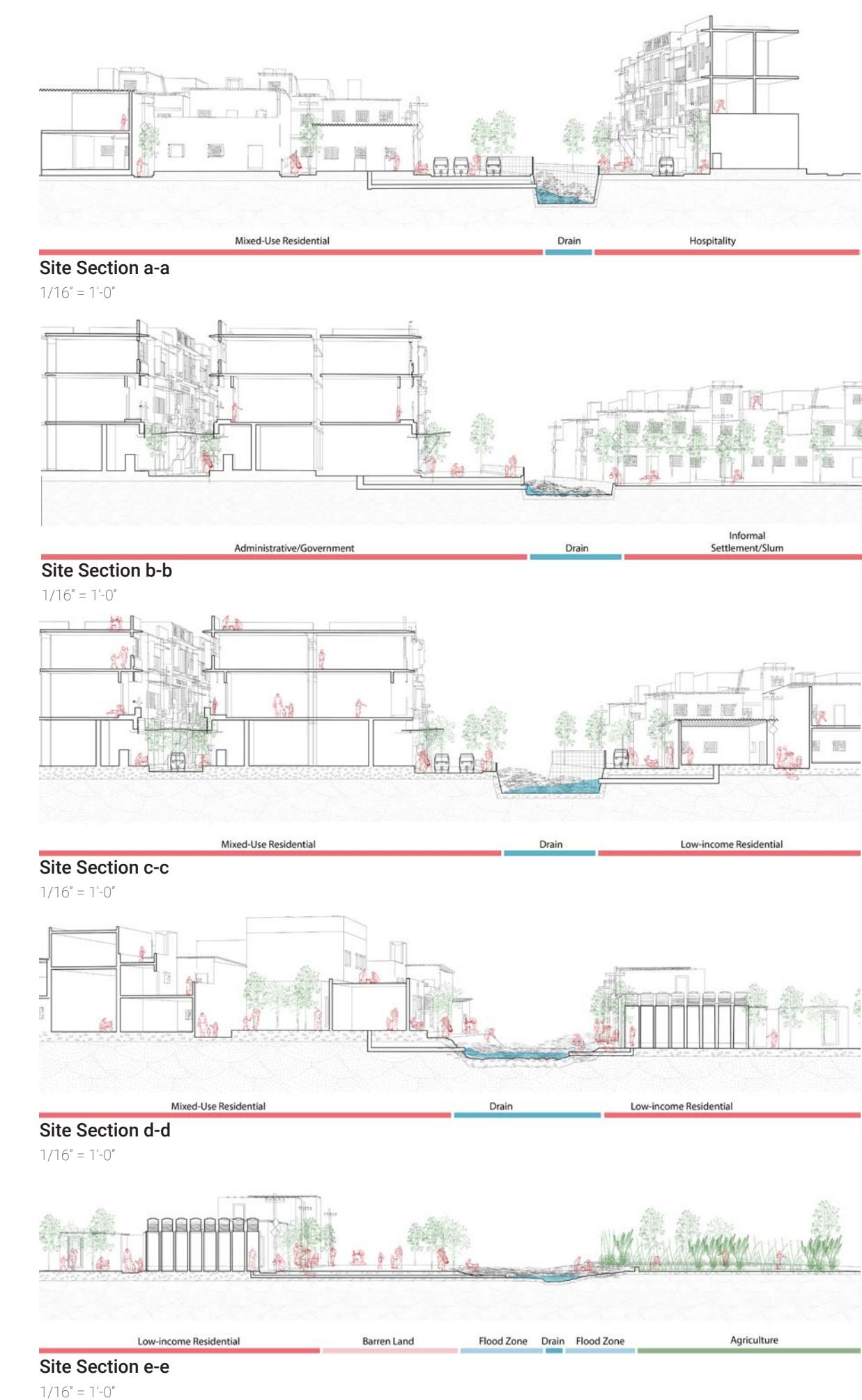
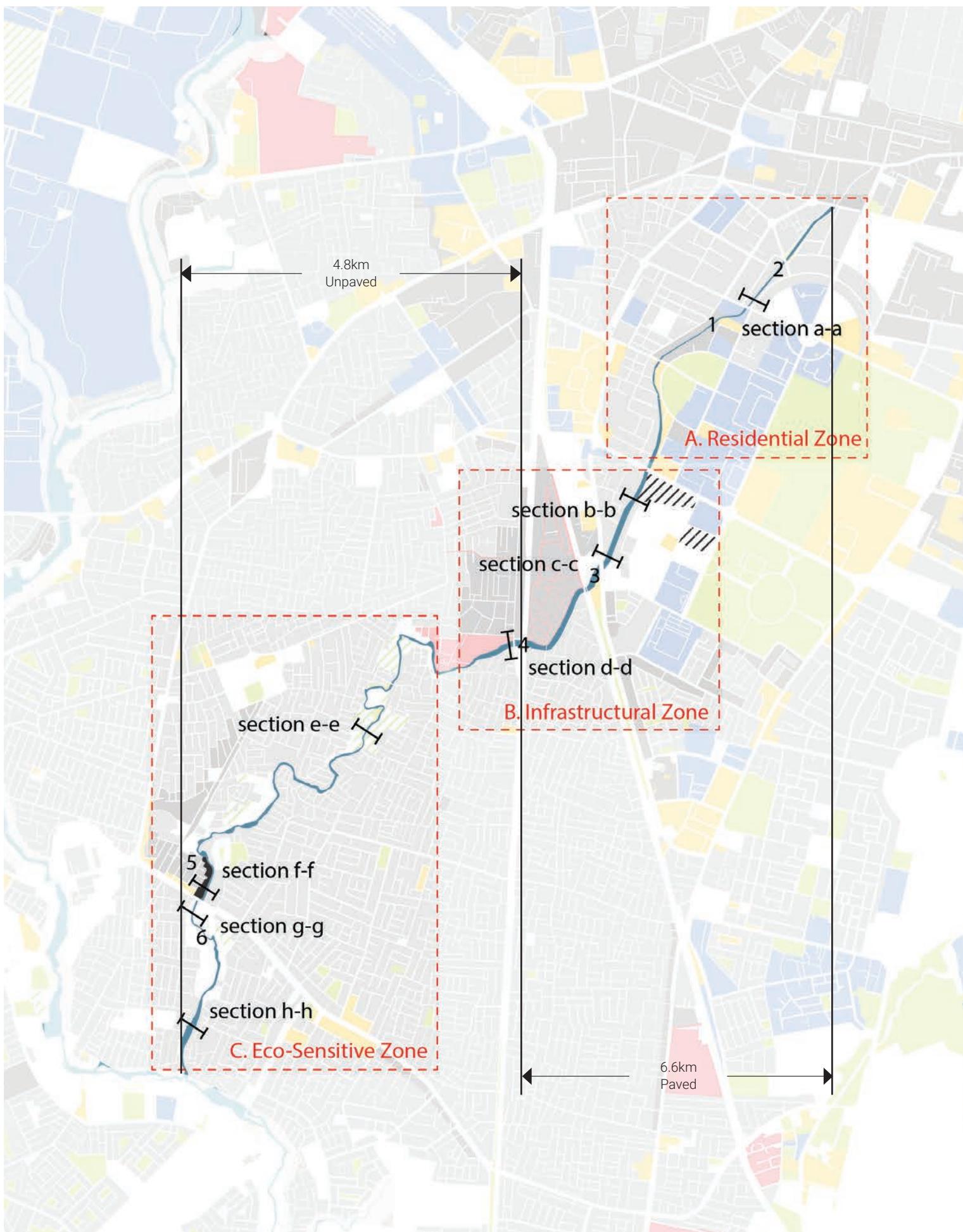
Flooding Along the Amanishah Nala

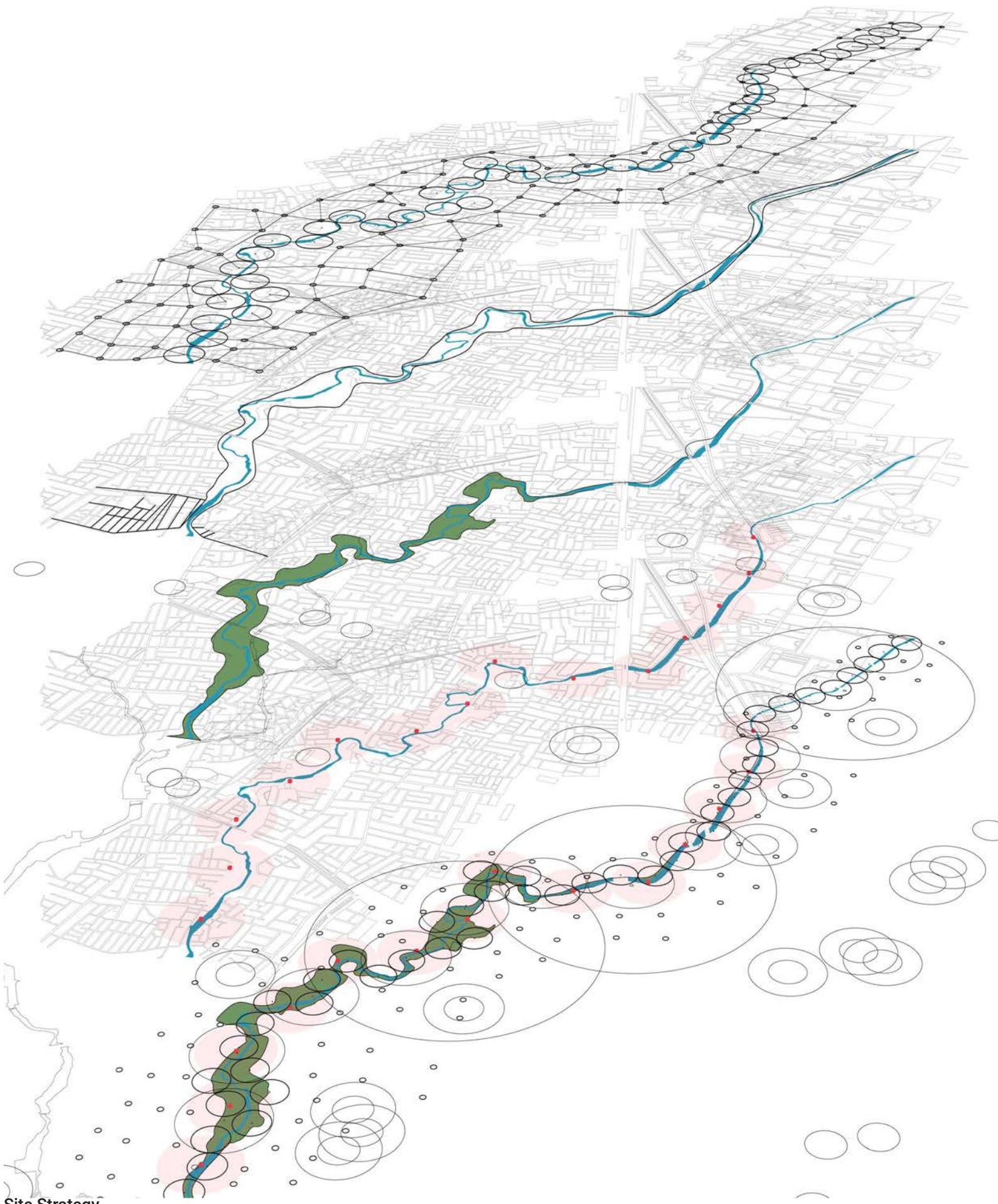


Site Strategies



Comprehensive Map



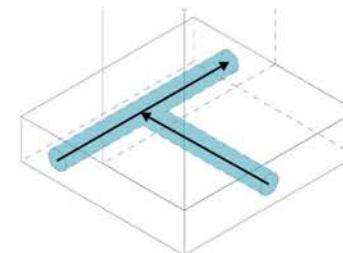


Site Strategy

1. Waste Collection System; 2. Sewage Treatment System; 3. Green & Eco-Friendly Space; 4. Public Amenities; 5. Public Space

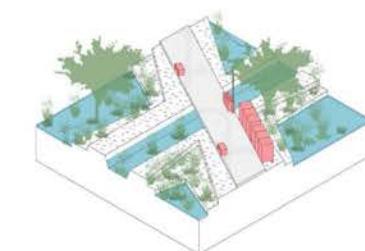
PHASE I Waste Collection System

PHASE II Sewage Treatment System



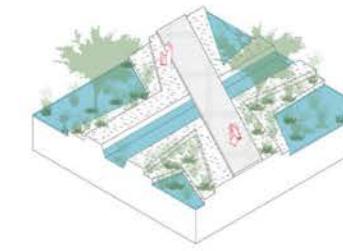
Sewage System
(Residential)

+



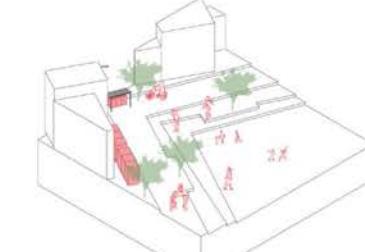
Waste Collection

PHASE III Green & Eco-Friendly Space



Bioswales

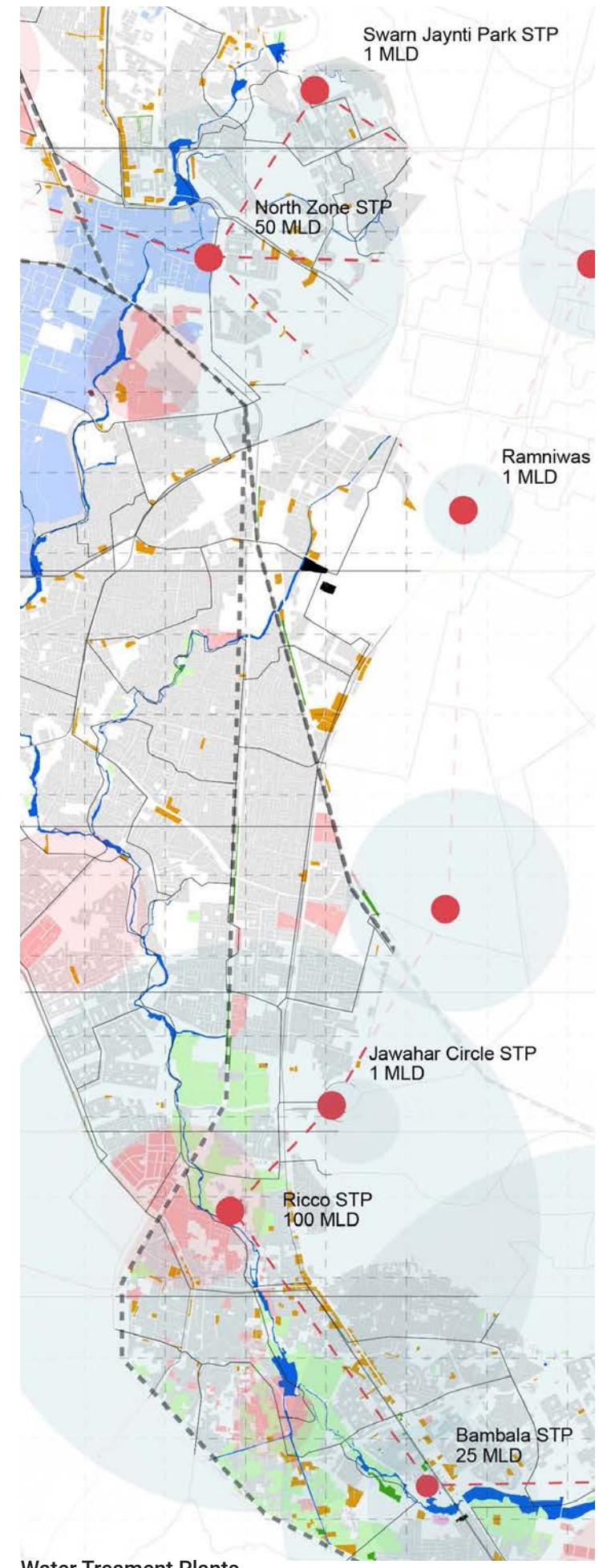
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Public Amenities

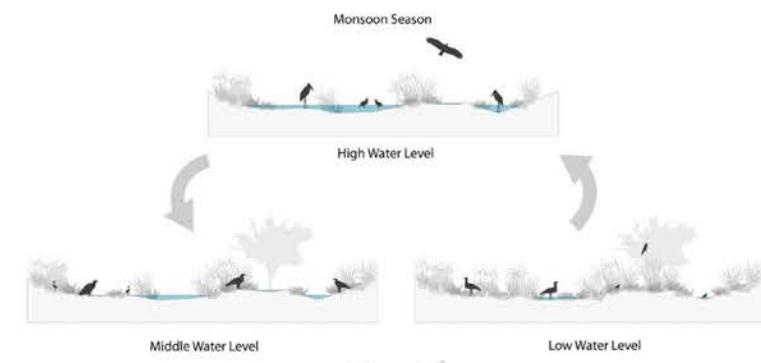
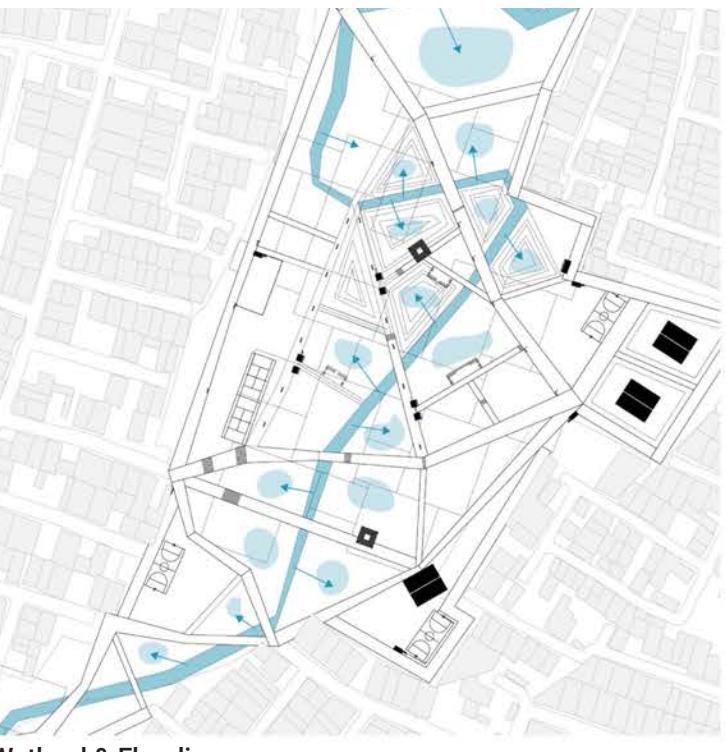
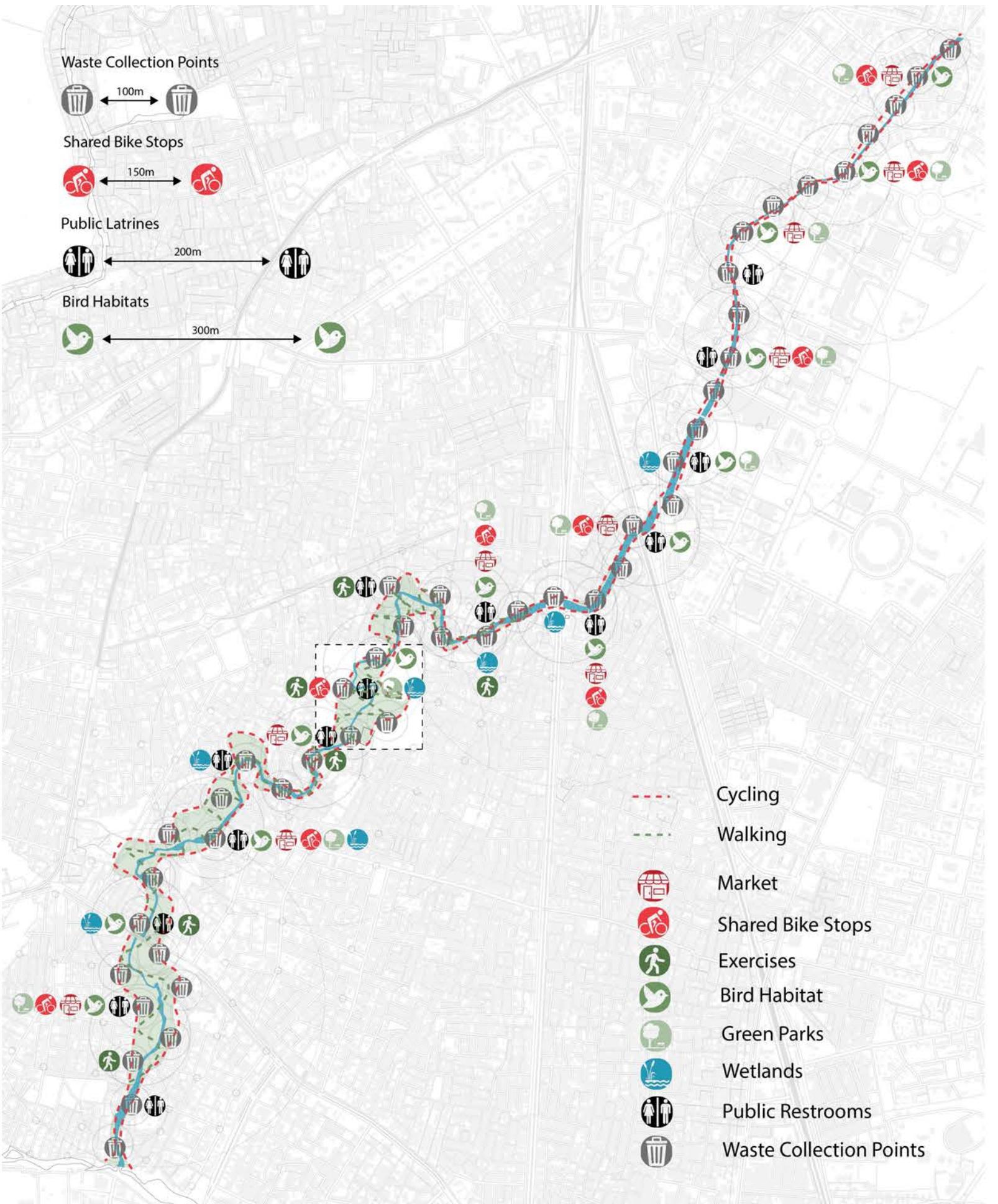
PHASE IV Public Amenities

PHASE V Public Space

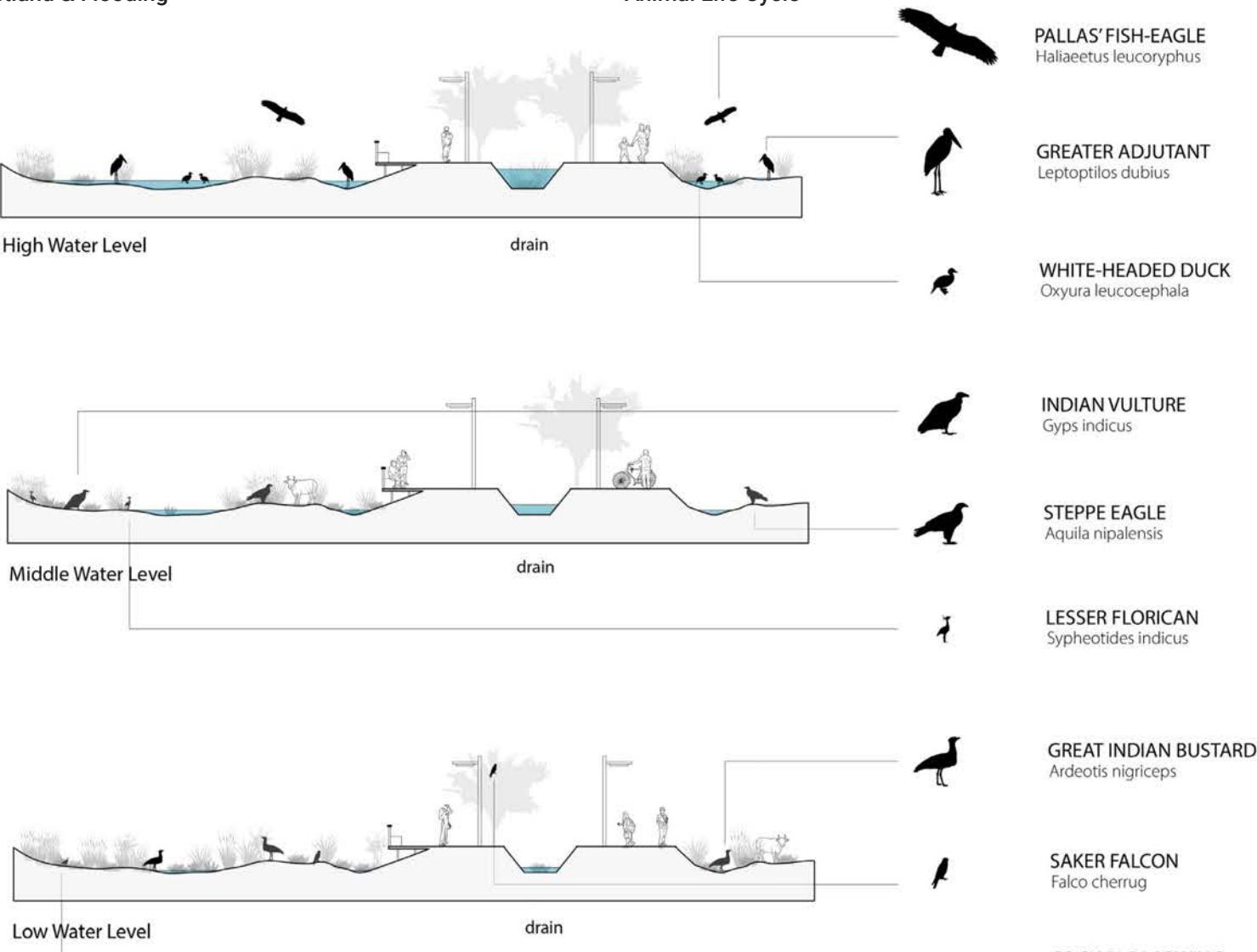


Water Treatment Plants

Current Nala Condition

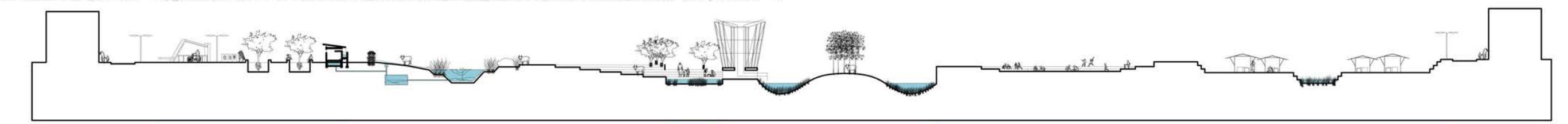


Animal Life Cycle

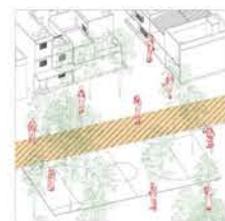
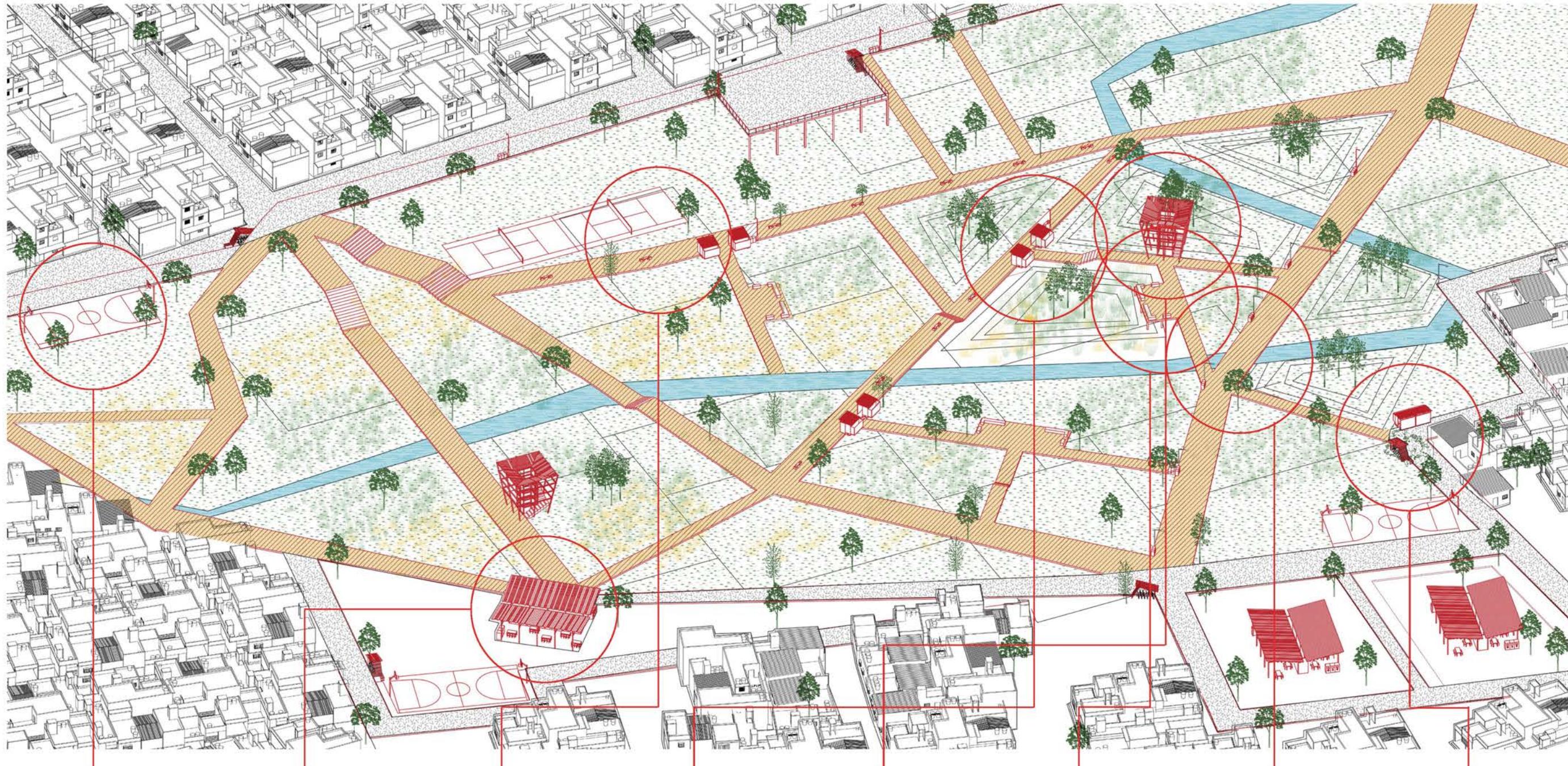


Wetland Treatments

Local Jaipur Animal Rescue



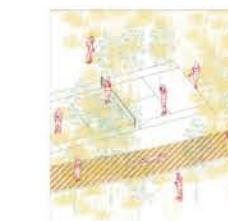
residential zones public amenities on-site sewage facility water remediation pond drain water remediation pond public park (playground) public market residential zones



basketball court



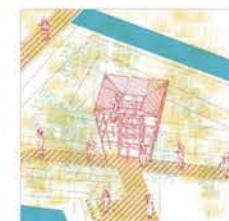
market



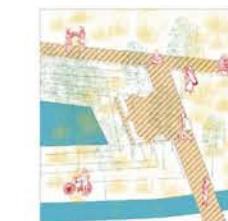
tennis court



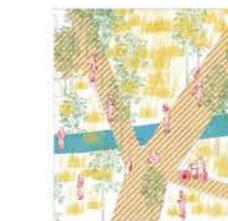
public latrines



bird observatory



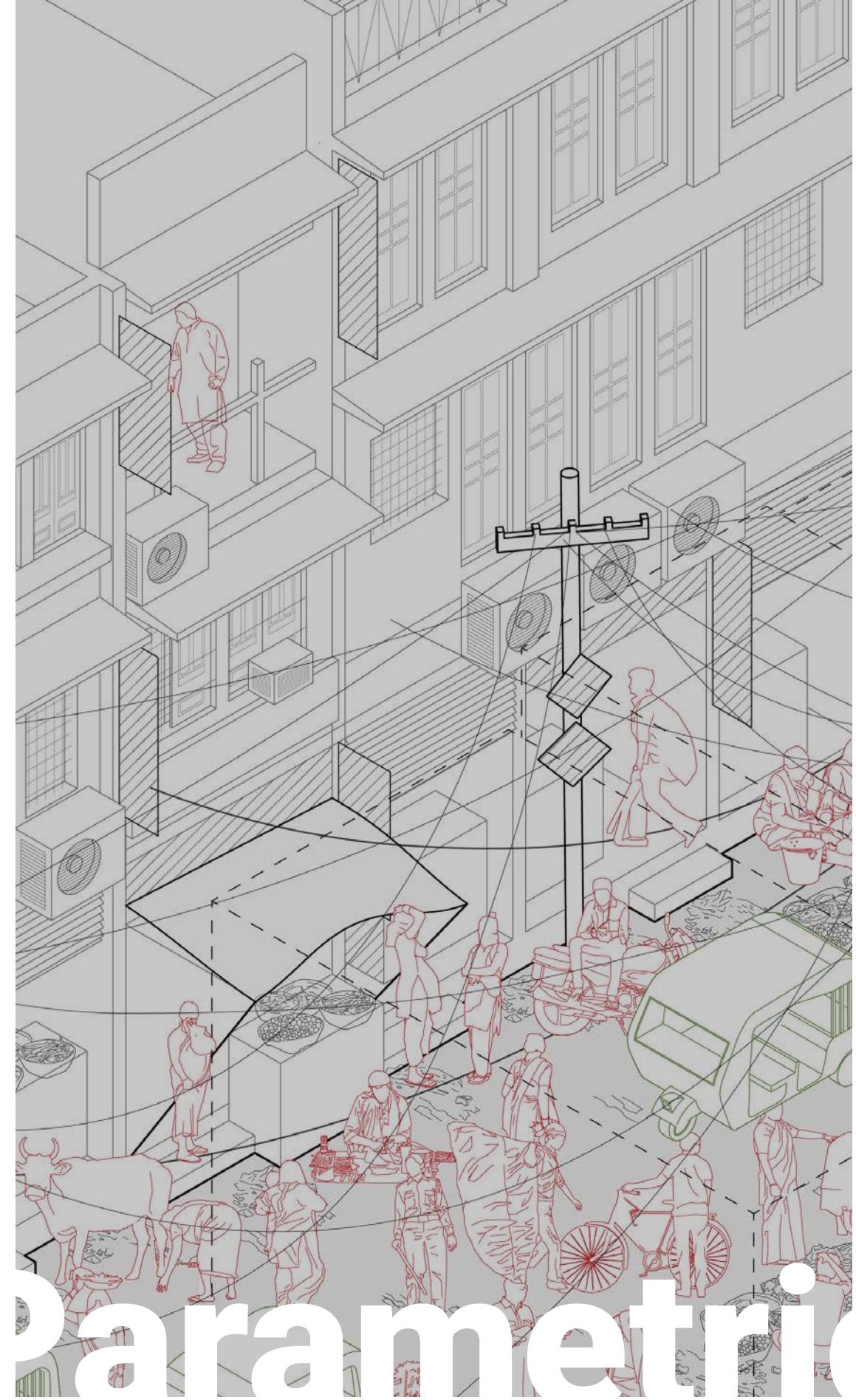
rest platform



wastebins & street lights public latrine & shared bike stops

Parametric Design

This section collects projects that are consider "parametric". "Parametric" scale projects explore the spatial relationship that can be programmed through computer, and release the abutment of designers, and also regulates the construction. A signature of parametric design is repetition, but with variation and order. Similar to "medium" scale project, parametric design also reveals the beauty of forms and geometries. Parametric designs on the other hand, connects to the structural ability of architecture, in which increases the possibility of construction. The following projects reveal my interpretation of the idea "parametric" in architecture and my research on grasshopper.



An Aggregatable Collective for Industrial Settlement

Parametric design intends to explore from a highly regulated perspective, in which the design is generated through orders and restrictions. The projects investigated into machines' ability in computing subject-oriented architecture with basic spatial form of organization.

This project is an investigation on architectural growth in future modular design. The project selects an industrial wasteland in Germany, a culture that is also rich in industrialisation. The project also seeks the possibility of combining industrial activities with the community, including functions like residential units, lab and research units, and educational spaces. The settlement is more than a community complex, but a connection node in its urban context. The design explores computational design with Grasshopper and Wasp, by playing with detailed modules and restrictions, a complexed design could be generated in thousands of variations. Such strategy could also be applied to other condition in Berlin.

[Group Work]



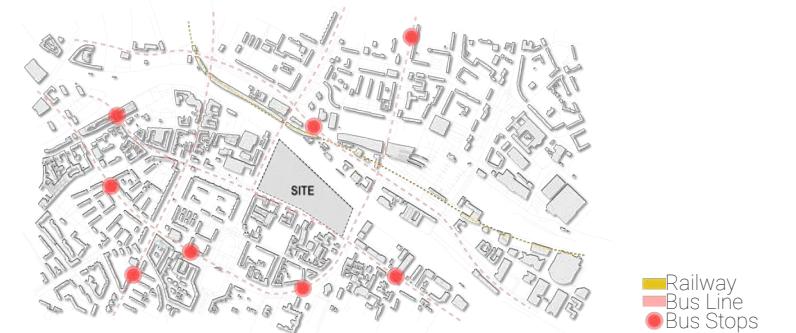
Building Collage - Spatial Arrangement



Site Analysis of Peripheral Functions



Site Analysis of Green Space vs. Industrial Area

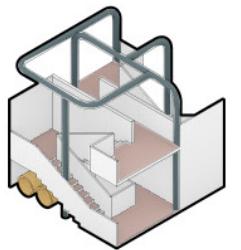


Transportation System

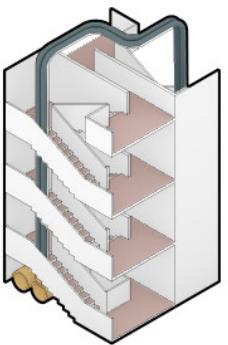


Site Analysis of Government Space

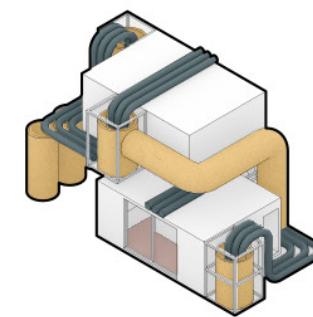
Modular Analysis



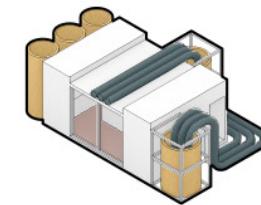
Vertical Transportation I
20'x20'x20'



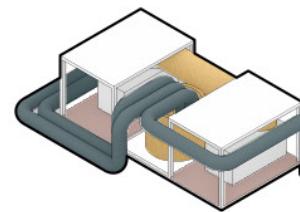
Vertical Transportation II
20'x20'x40'



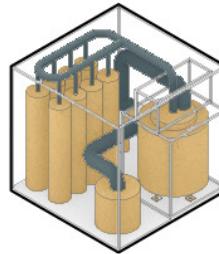
Housing Unit I
20'x40'x20'



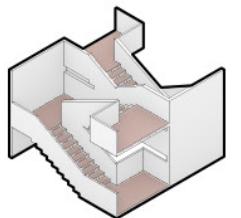
Housing Unit II
20'x30'x10'



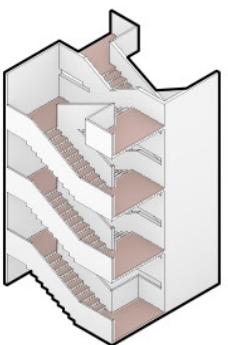
Electrical Room
20'x40'x10'



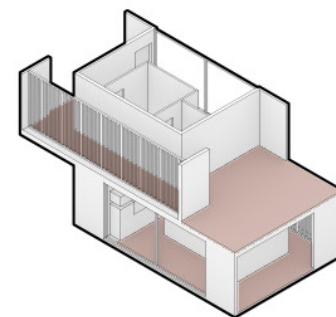
Mechanical Room
20'x20'x20'



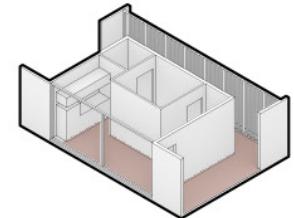
Vertical Transportation I
20'x20'x20'



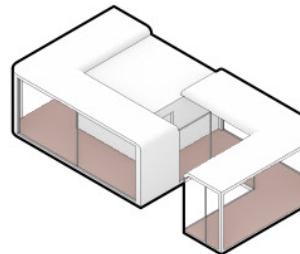
Vertical Transportation II
20'x20'x40'



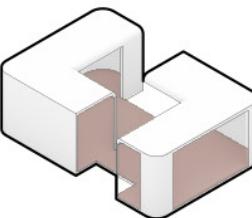
Housing Unit I
20'x40'x20'



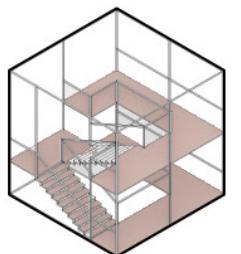
Housing Unit II
20'x30'x10'



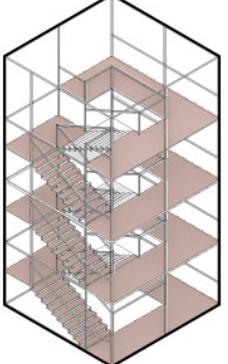
Electrical Room
20'x40'x10'



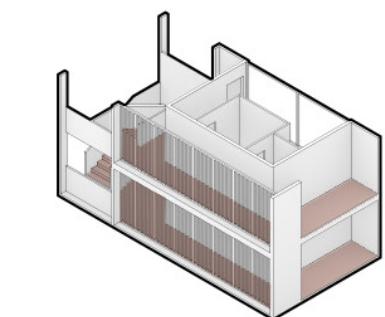
Exhibition Space
20'x30'x10'



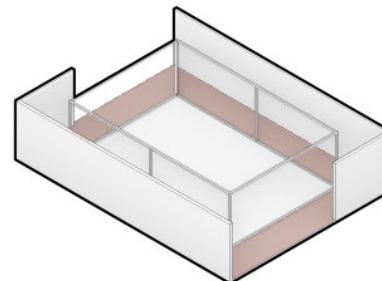
Vertical Transportation I
20'x20'x20'



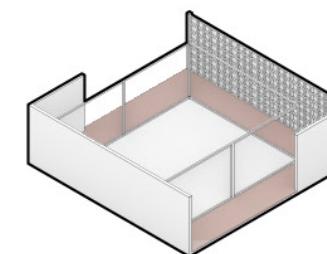
Vertical Transportation II
20'x20'x40'



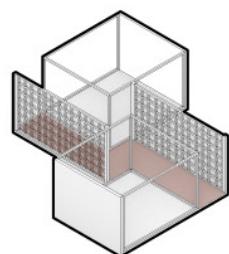
Housing Unit I
20'x40'x20'



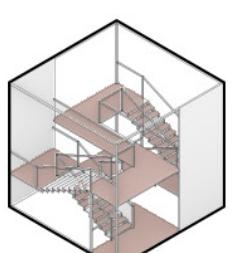
Lab
30'x40'x10'



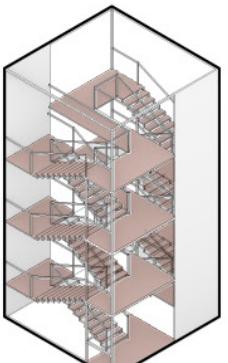
Discussion Room
30'x30'x10'



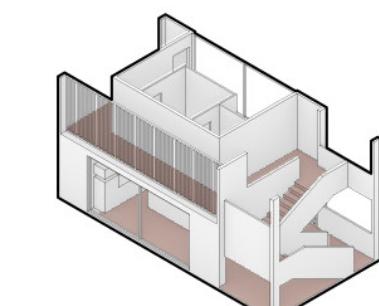
Exhibition Space
20'x30'x10'



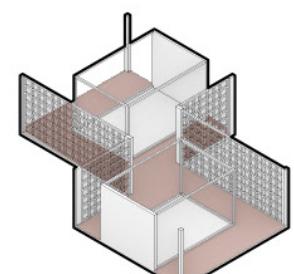
Vertical Transportation I
20'x20'x20'



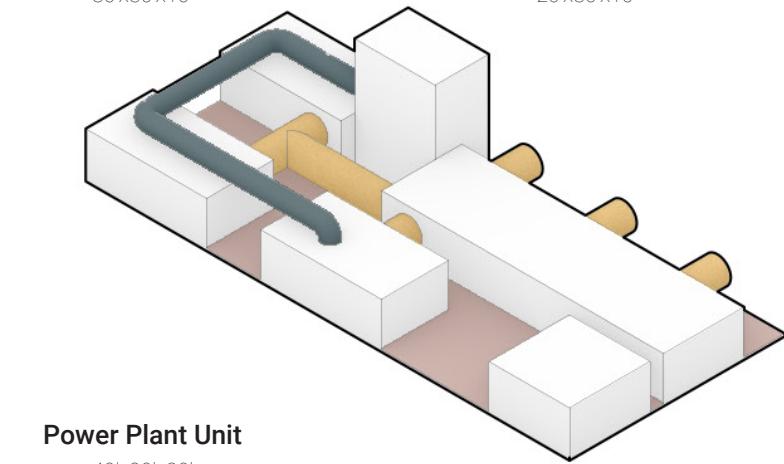
Vertical Transportation II
20'x20'x40'



Housing Unit I
20'x40'x20'

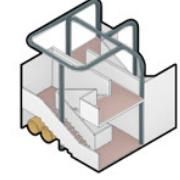


Lab
30'x40'x10'

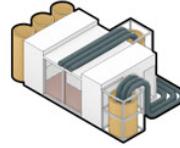


Power Plant Unit
40'x90'x20'

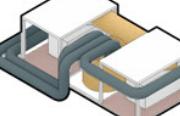
Assembly 1 (100 Units)



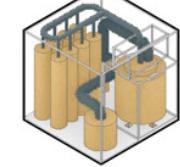
Connection: 25



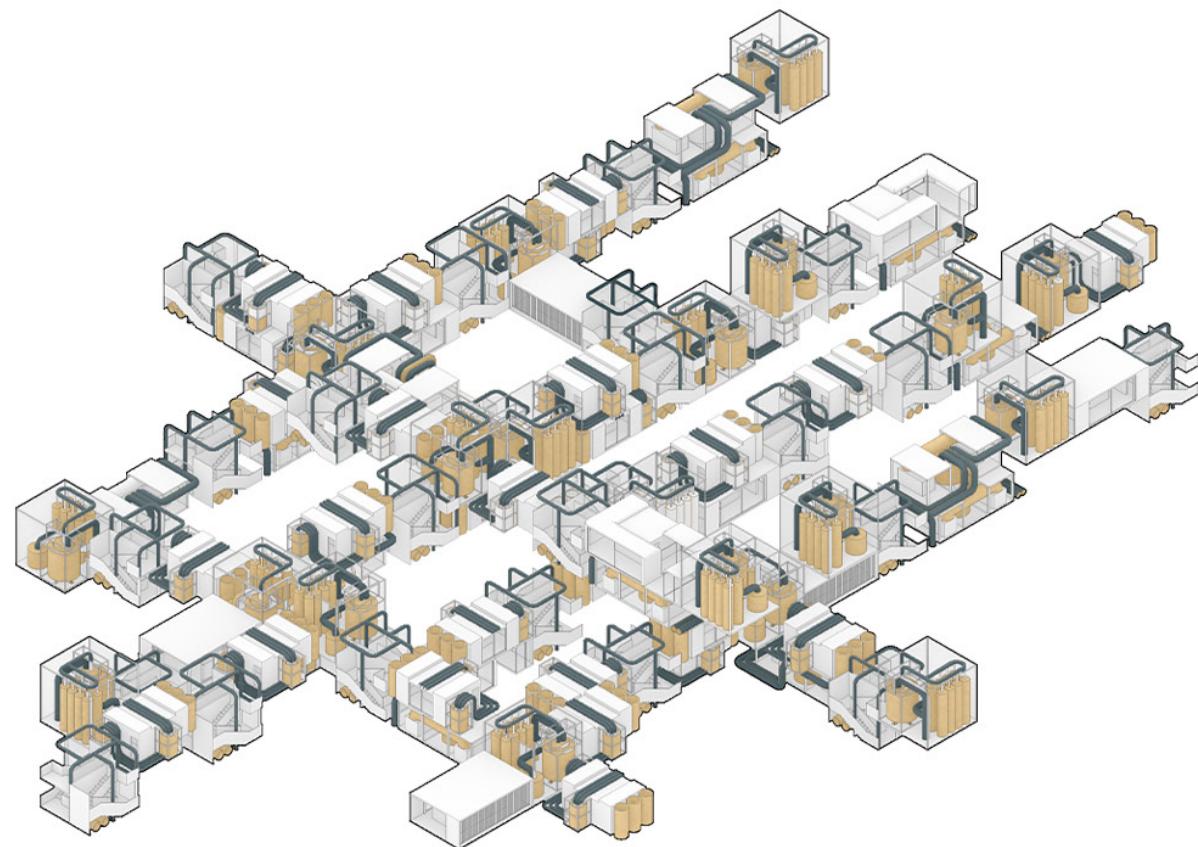
Private: 18



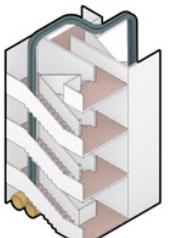
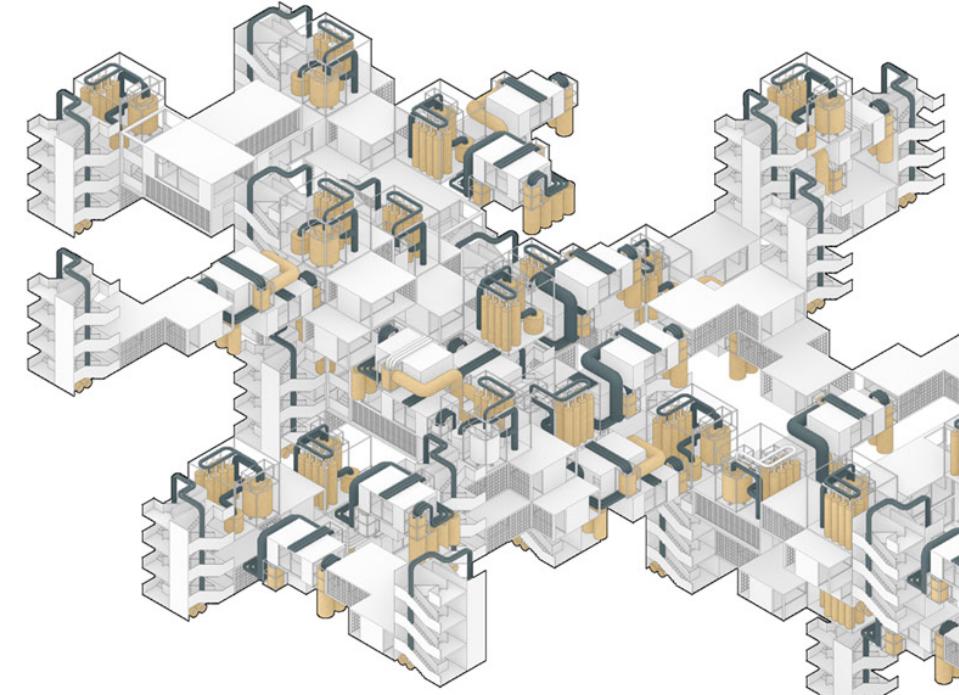
Public: 39



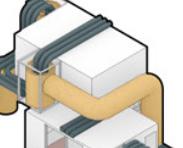
Public: 18



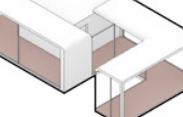
Assembly 2 (100 Units)



Connection: 22



Private: 31

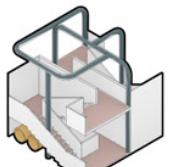


Public: 25

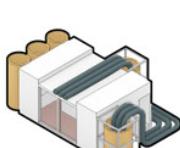


Public: 22

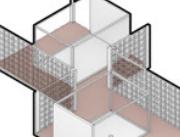
Assembly 3 (100 Units)



Connection: 23



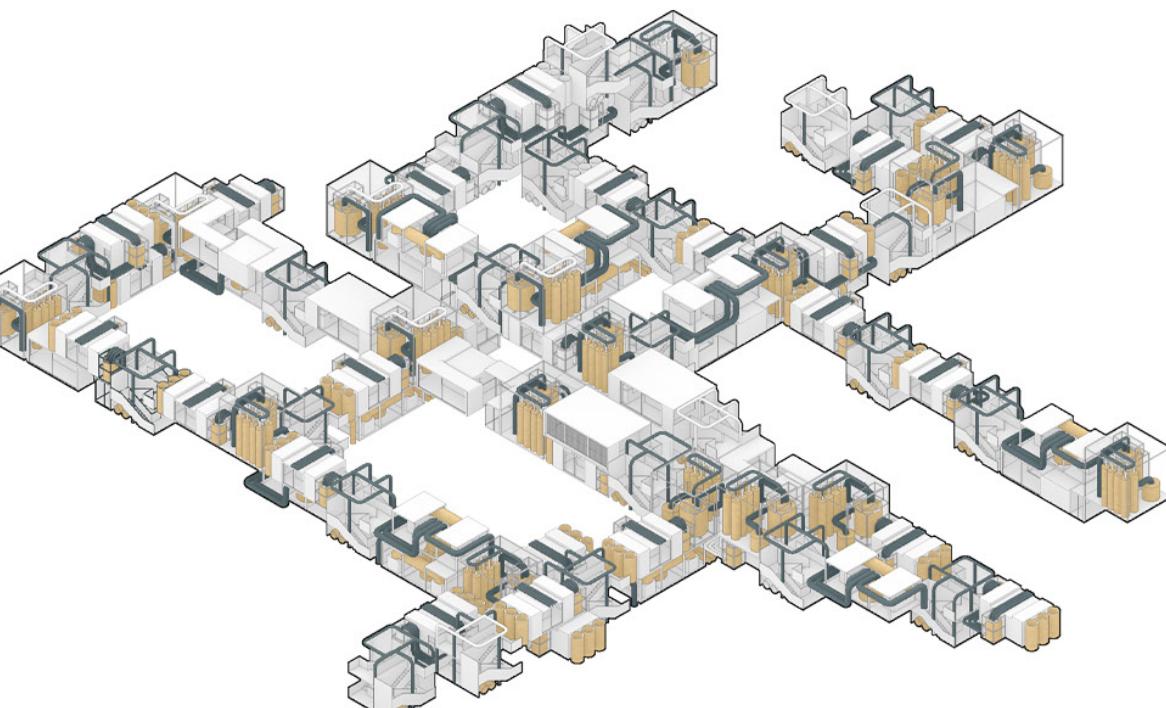
Private: 17



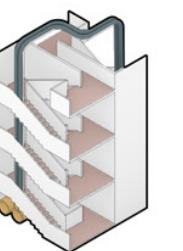
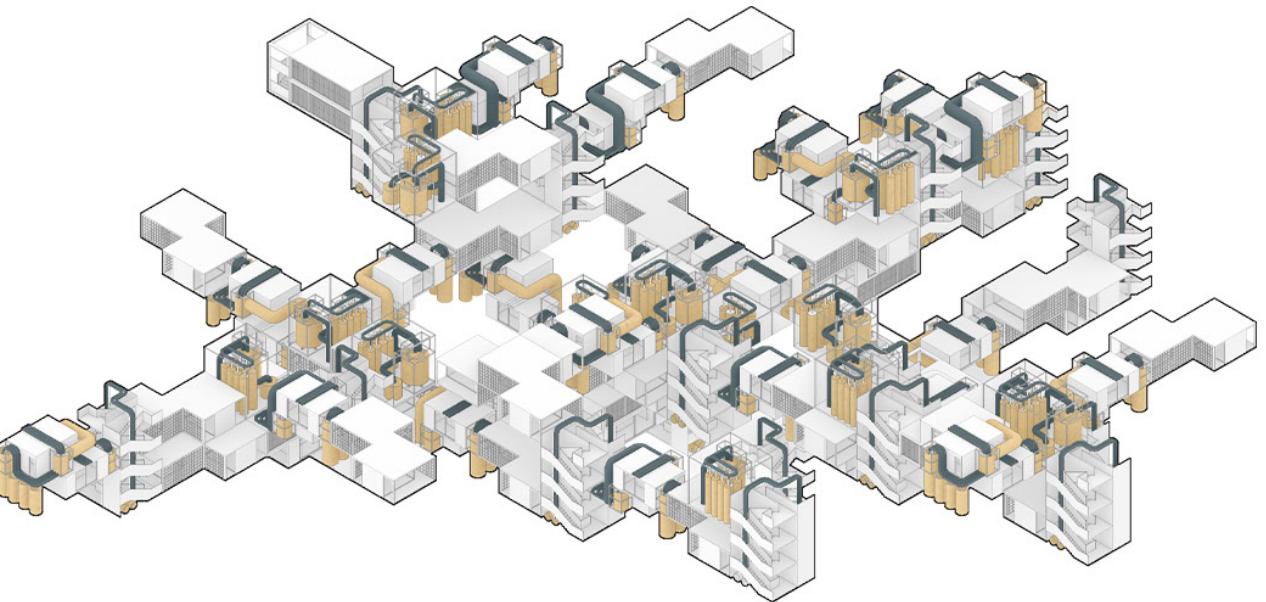
Public: 29



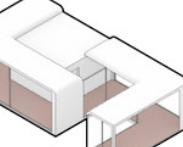
Public: 31



Assembly 4 (100 Units)



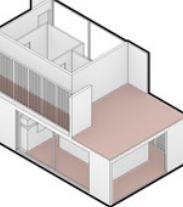
Connection: 16



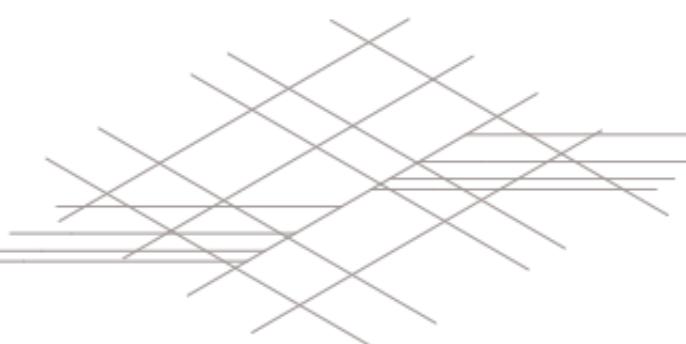
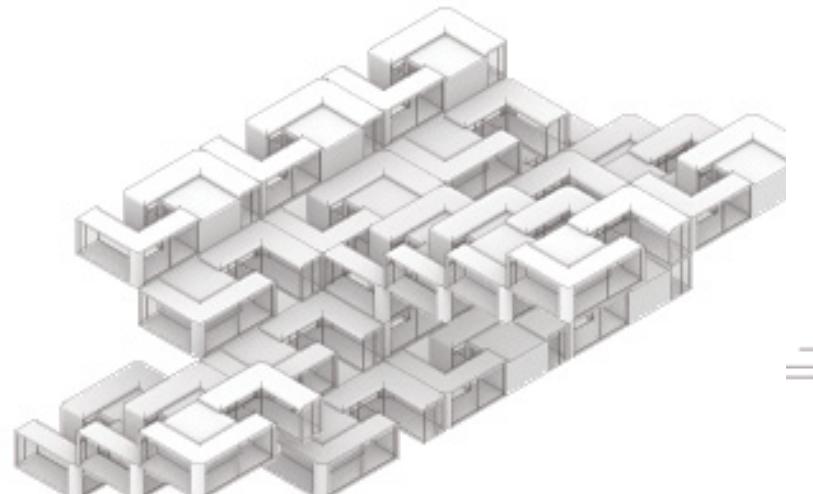
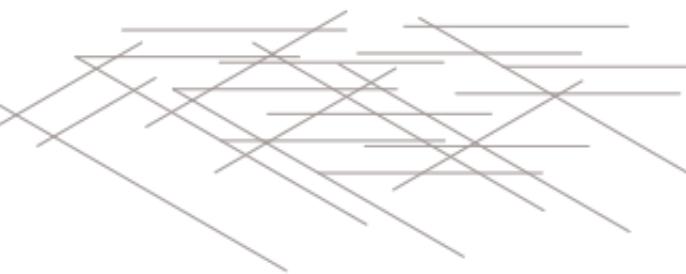
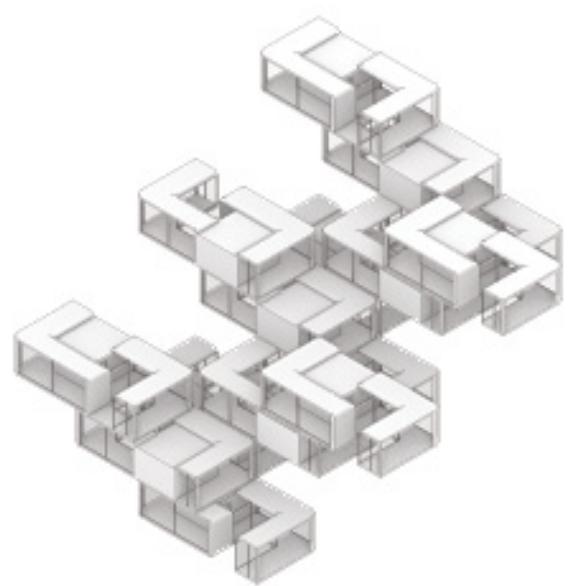
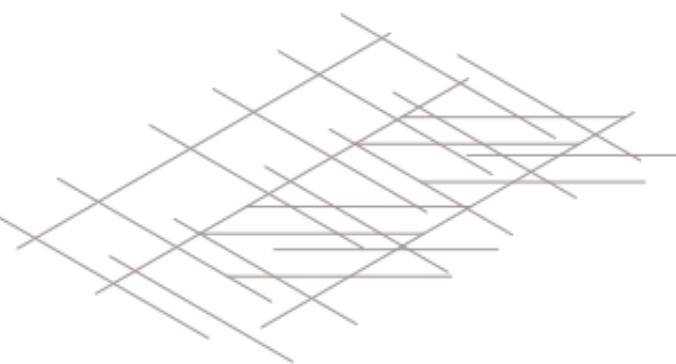
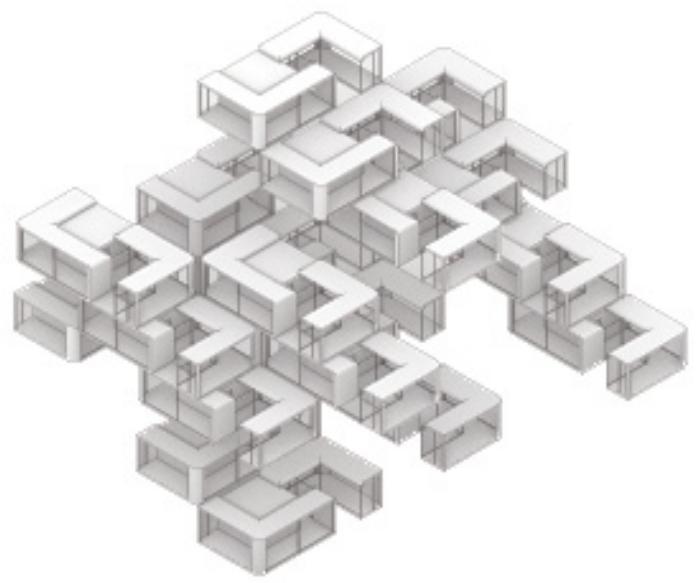
Public: 23



Public: 27



Private: 34



Vertical Sequences

Spatial Arrangement with their Movements

fenghua
20 **lin.**
23...