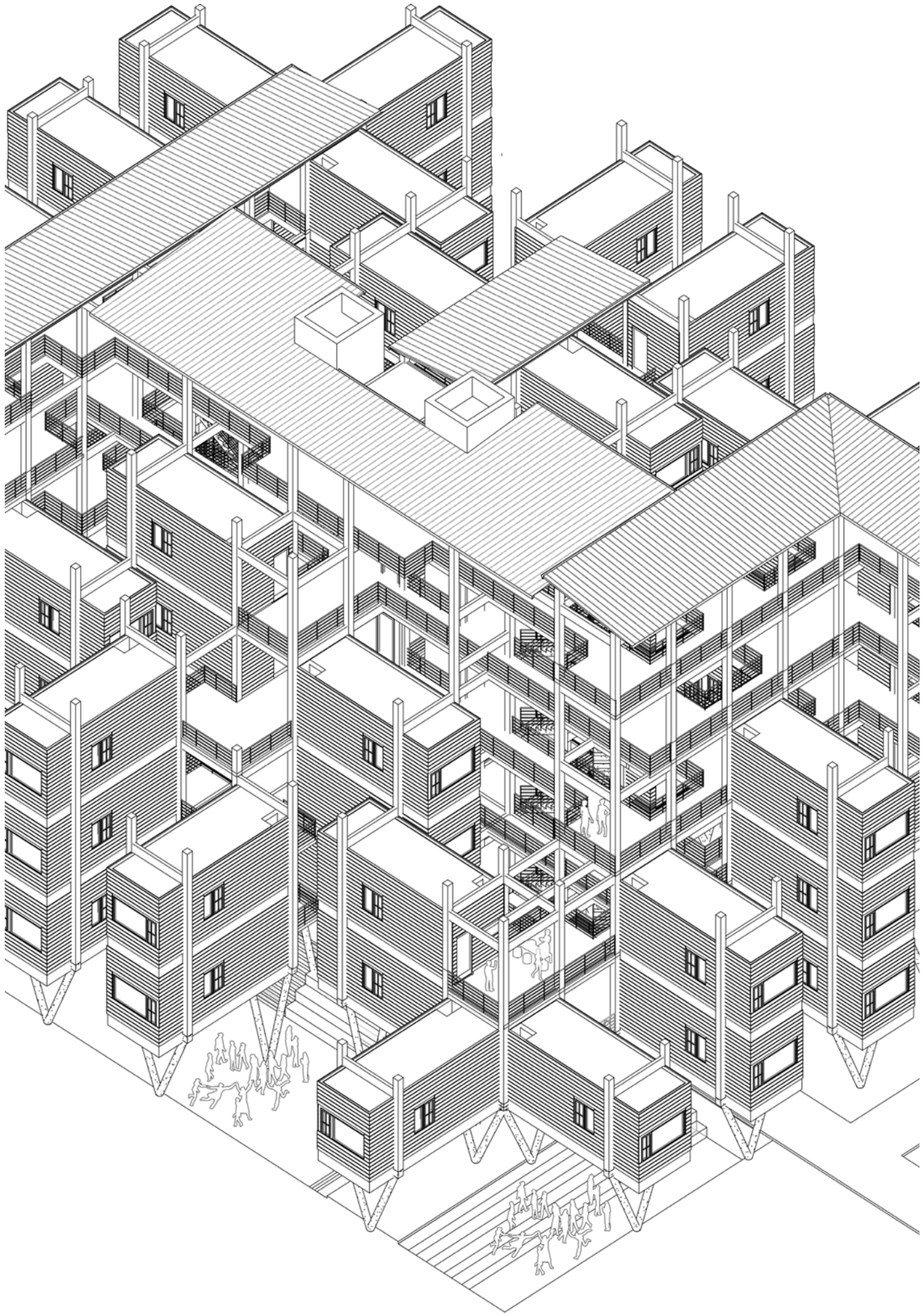

figure 01

From Emergency to Permanence: Evaluating Modular Housing as a Long-Term Solution for Disaster Survivors

Shardul Sunil Sangle

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Master of Architecture
in
Architecture

William U. Galloway, Chair

Edward G. Becker

Christine Cronin

May6th, 2025

Blacksburg, VA

Keywords- Affordable housing, modular units, mass timber, co-living space

From Emergency to Permanence: Evaluating Modular Housing as a Long-Term Solution for Disaster Survivors

Shardul Sunil Sangle

ABSTRACT

In response to the increasing impact of hurricanes and flooding in Houston, this thesis proposes a resilient and adaptable housing solution for displaced and low-income residents with dignity, efficiency, and sustainability. The project is located in Alief, a culturally vibrant, elevated neighborhood in southwest Houston. The design incorporates prefabricated mass timber modules, a construction method that is fast, adaptable, and environmentally conscious. The lightweight, renewable nature of timber ensures a low-carbon footprint, while the skeleton-infill system offers architectural flexibility to accommodate changing household needs. With the capacity for approximately 500 units, this project addresses urgent housing demands without compromising on quality or comfort. Beyond mere shelter, the development emphasizes community, connection, and healing. Shared activity spaces and carefully designed interiors encourage interaction, collaboration, and a revitalized sense of belonging. The elements are designed to enhance daily life and support long-term well-being. At its core, this project uses architecture as a tool for resilience, bridging the gap between emergency response and sustainable living. It presents a scalable model for cities like Houston, where climate-related challenges require housing solutions that are quick, sustainable, and profoundly human.

From Emergency to Permanence: Evaluating Modular Housing as a Long-Term Solution for Disaster Survivors

Shardul Sunil Sangle

GENERAL AUDIENCE ABSTRACT

In a city like Houston, where hurricanes and flooding are becoming more frequent, finding a safe and stable place to live can feel out of reach, especially for families already facing economic hardship. This thesis explores how architecture can be part of the solution, offering not just shelter but a sense of dignity, comfort, and community when it's needed most.

Set in Alief, a culturally rich and elevated neighborhood in southwest Houston, the project proposes a modular housing community built with prefabricated mass timber which is a sustainable, low-carbon material that allows homes to be assembled quickly and efficiently. With space for around 500 units, the design balances speed and affordability with beauty and adaptability, creating homes that can grow and change with the people who live in them.

This isn't only about making functional buildings. It's about people. The development includes shared spaces that bring neighbors together, thoughtful layouts that support daily life, and design choices that promote healing after loss or displacement. Every detail is meant to restore a sense of belonging and stability.

At its heart, this project believes that housing can be both a rapid response to crisis and a foundation for a better future. It offers a hopeful, human-centered model for cities like Houston, where resilience means more than rebuilding, it means reimagining how we live together.

DEDICATIONS

I am incredibly grateful to my family- mummy, pappa and brother.
I truly appreciate their unwavering support.

ACKNOWLEDGEMENTS

William Galloway

I sincerely appreciate his insightful input, his confidence in my decisions, and his recognition of my concise communication.

Edward Becker

I am thankful for his expert guidance and the insightful, challenging discussions that deepened my understanding.

Christine Williamson

Thank you for offering a fresh perspective on my research and architectural details, and for encouraging me to explore my work more deeply.

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INTRODUCTION

The focus of the thesis centers the design of modular housing for disaster survivors. The site is located in Houston, Texas. Due to disasters like Hurricanes katrina and Beryl occuring in that region, the projects serves as an affordable housing with the consideration for prefabricated modular units. The projects aims to provide facilities required for the residents and explores spatial design to enhance the functionality and aesthetic appeal with respect to the modular system.

Context

The site is located in the southwest part of Houston, state of Texas. It is situated at a little higher elevation than rest of the Houston. The climate is humid and hot over most of the year. The location is away from the high-risk flood zone making it suitable for affordable and communal housing. The design is for single family and multi-family dwelling. With the need for housing and shelter for disaster survivors, the project is focused on sustainable modular housing.

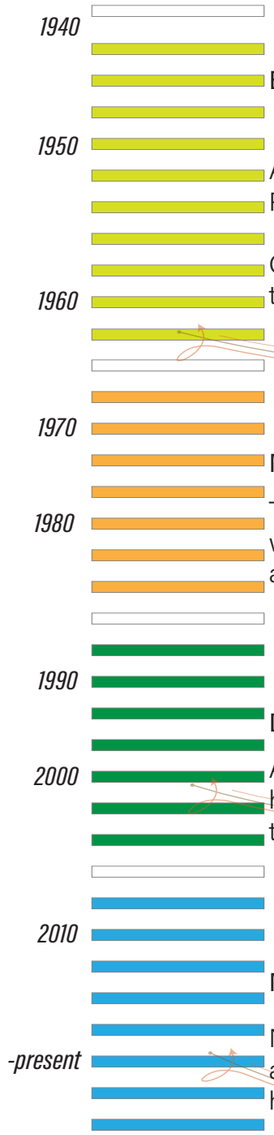
Historical Background

Houston is deeply linked to broader struggles with hurricanes. It has impacts on the urban landscape and housing strategies. Major storms like Hurricanes Carla, Allison, Ike, and Harvey have underscored the urgent need for resilient infrastructure, better drainage systems and disaster ready housing. The need for deployable, robust, modular and timber-based structure is necessary.

Project Objectives

This project envisions a resilient, community-centered housing development in Alief, Houston, designed to serve low-income residents and disaster survivors. At its core is a focus on co-living and connection, with shared communal and activity spaces that foster a sense of belonging and social support. Using prefabricated modular units, the development can accommodate approximately 500 units including both single-family and multi-family households. The skeleton-infill construction system provides a durable framework, enabling flexibility and rapid deployment. A mass timber structural system underscores the project’s commitment to sustainability, offering both ecological benefits and a warm, natural living environment. Overall, the project is not just about shelter; it’s about creating comfort, stability, and new opportunities for people rebuilding their lives.

Contextual background with timeline



Early Modular Housing-

After World War II, modular housing gained attention in Houston. Prefabricated and kit homes were popular during this era.

Companies offered mail-order prefabricated homes that contributed to the suburban sprawl around Houston.

Mobile and Manufactures Homes-

The oil boom in the 1970s brought an influx of workers to Houston which caused mobile homes to be a quick solution for temporary and affordable housing.

Disaster Relief Modular Housing-

After Hurricane Katrina (2005) and Hurricane Ike (2008), modular housing became critical for disaster relief. FEMA used modular units to house displaced residents temporarily.

Modern Era-

Nonprofits and private developers have experimented with modular and tiny home communities as a way to combat homelessness and housing shortages.

Recent modular designs emphasize sustainability, incorporating energy-efficient systems and climate-resilient materials.

Use of timber modules in Houston

Timber room modules are gaining prominence due to their ecological benefits, cost-efficiency, and flexibility. Prefabrication advances and modularity reduce construction time and costs, while lightweight timber allows for easier transportation and soundproof designs. Timber offers architectural potential with aesthetic and atmospheric quality, meeting urbanization demands for low-emission housing solutions.

Demographic Information on Modular Housing in Houston

1960-1980
Early modular housing catered to Industrial workers in the oil and gas sector.
Predominantly White (Non-Hispanic) males, reflecting workforce demographics of the time.
Seasonal Migrants:

Temporary modular housing was used for migrant farmworkers and construction laborers.
Primarily Hispanic/Latino workers, especially in rural areas surrounding Houston.

Mostly single men or small households, 1-2 people, employed in physically demanding industries.

1990-2010
Modular housing was introduced in affordable housing projects as a need for the earning of low income families below minimum Area Median Income (AMI), which included Hispanic/Latino (44%) and African American (32%) families, reflecting Houston's economic and racial diversity.

Post-disaster modular units were deployed after hurricanes like Hurricane Allison (2001) and Hurricane Harvey (2017). The disaster survivors included Hispanic/Latino:50%, African American:35%, White (Non-Hispanic):10%, Asian:5%

Areas with high usage of modular housing included East End, Third Ward, and Alief.

2010-present
Modular housing is increasingly used for permanent supportive housing to serve individuals transitioning from homelessness or those with disabilities.

The present ethnicity is African American:45%, Hispanic/Latino:35%, White (Non-Hispanic):15%, Other:5%,

Veterans and low-income seniors are common users of modular housing projects in Houston.

Mostly single individuals or couples without children.

In Houston, timber room modules are ideal for addressing urban housing shortages driven by population growth, migration, and changing demographics. Their ecological benefits, cost-efficiency, and rapid construction timelines make them suitable for low-emission, affordable housing. Timber's lightweight nature facilitates easy transportation, while prefabrication reduces costs and construction time.

Factors

There are several factors between the United States and European countries which differ and affect the success of Modular construction in the United States.

Building Codes & Regulations
In the United States, some states and municipalities make modifications to the model building code (The International Building Code), requiring modular construction to meet varying standards. On the other hand, many European countries have more uniform national codes, facilitating broader adoption of modular methods.

Construction Culture & Market Inertia
The United States construction industry has a longstanding preference for traditional on-site building techniques which makes the cultural inertia transfer to modular methods challenging. In contrast, countries like Sweden up to 50% of buildings have embraced modular construction.

Financing & Investment Challenges
U.S. financial institutions have preference towards traditional construction financing models, which comprise incremental payments. It creates challenges in securing financing as Modular construction typically requires more substantial upfront investment.

Labor Market & Costs
The United States has a large and reasonably priced construction workforce, which decreases the financial motivation to shift towards modular construction. On the other hand, the higher labor expenses in certain European regions make the efficiency of modular techniques more attractive.

Logistics & Transportation
The United States has complications to transport large modular units due to vast geographical size, increasing costs. European countries, with denser populations and shorter distances between urban centers, face fewer logistical challenges in this regard.

Perception & Aesthetics
In the U.S., modular construction is sometimes associated with lower-quality structures, such as mobile homes. This perception hinders its acceptance for mainstream housing projects. To improve public perception, European markets have demonstrated directness to high-quality modular designs.

PRECEDENTS

Puukuokka Apartment

Architect- OOPEAA, Helsinki
Purpose- Residential Complex
Location- Finland
Floor Area- 11065 sq ft
Completed- 2018

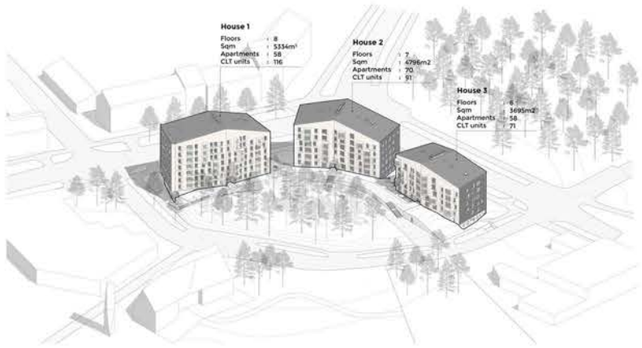
Program-
The project stands out due to its innovative use of room modules. Each apartment features a facade-facing spatial layer that includes a bedroom, living room, and loggia, all contained within a single room module. A second module accommodates the interior spaces, such as bathrooms, kitchens, and ancillary areas. Utility installations are integrated into the corridor walls, allowing for independent maintenance.

Approach-
The first phase of construction was completed in just nine months, an essential advantage given Finland's climatic conditions. The room modules were delivered fully fitted with interiors and external wall structures, including wind-proofing. The prefabricated modular timber cladding was installed afterward. Despite the modular approach, the sculptural facade effectively conceals the construction method.

The road-facing facades are clad in black-painted spruce, while the western facade, overlooking a small grove, features untreated larch. On this side, projecting balconies alternate with glazed loggias, extending the living spaces of the smaller apartments.

The building is equipped with a sprinkler system. Inside, the walls of the apartments and stairwells are covered with plasterboard. However, in the flats, the wooden surfaces remain exposed on the ceilings, while in the white stairwells, the wooden flooring has been left visible.

A key focus in the design process was optimizing the entire production and construction workflow. Prefabricating the modules not only minimized on-site construction time but also enabled production in a controlled factory environment, significantly reducing the structure's exposure to weather conditions and humidity during assembly. Additionally, the wooden façade elements were prefabricated and delivered to the site as ready-to-install components.



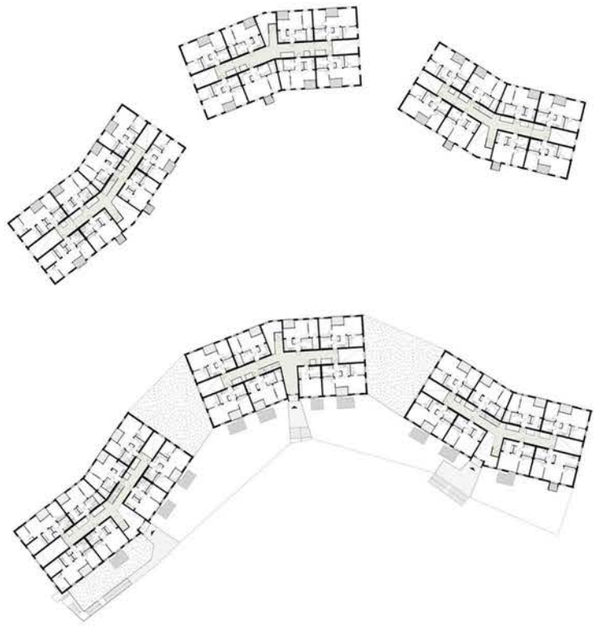


figure 02

figure 03

Hotel Katharinenhof

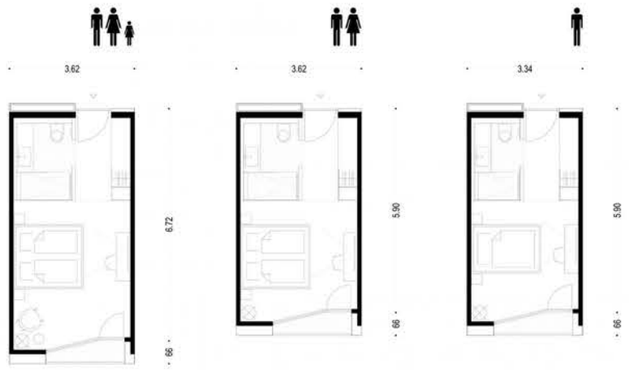
Architect- Johannes Kaufmann Architektur
Purpose- Hospitality Building
Location- Austria
Construction- Cross laminated timber
Completed- 2017

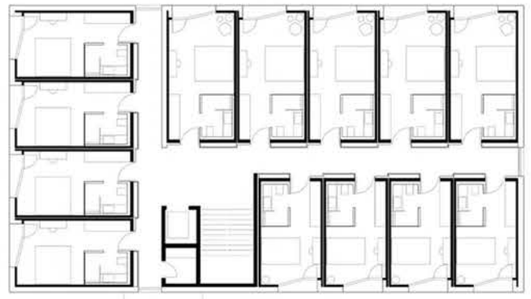
Program-
Located in the heart of Dornbirn, the building serves as an extension to an existing hotel. Due to the extremely short construction timeline, a room module construction method was chosen. The basement contains an underground parking garage, while the ground floor houses the reception, lobby, kitchen, breakfast room, and a connection to the existing building. The three upper floors accommodate 39 four-star hotel rooms, designed using three distinct room module types: single, standard double, and superior double rooms.

Approach-
The stairwell and lift shaft were also prefabricated as timber room modules. The building, with its urban appearance, does not immediately reveal its timber construction. At the client's request, the cross-laminated timber structure was clad with plasterboard on the interior. This layer enhances sound insulation and provides a fire safety encasement for the load-bearing elements. Ventilation ducts and outlets are integrated into the ceilings of the fully equipped modules.

A seamless metal facade covers both the reinforced concrete base and the room modules, highlighting the building's structural rigor. A deep incision in the volume accentuates the entrance, while the sloping, recessed glazed facades of the hotel rooms create small balcony niches.

These balconies are supported by slender cross-laminated timber panels, sealed and covered with a grid. The balconies were prefabricated together with the modules, with only the facade skin being applied on-site. The module prefabrication took four weeks, and the modules were installed on the base in just three days. The entire construction process, including the basement, was completed in only six months.





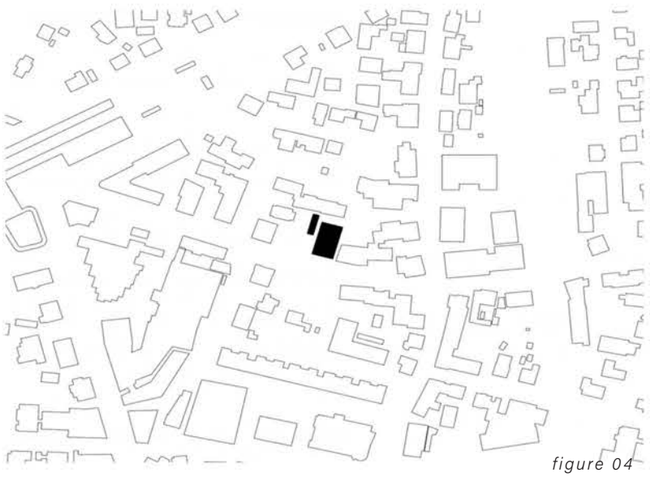


figure 04

figure 05

Hotel Jakarta

Architect- seARCH Architects
Purpose- Hospitality Building
Location- Netherlands
Floor Area- 177600 sq ft
Completed- 2018

Program-
Hotel Jakarta combines modern, sustainable architecture with Indonesian-inspired design elements to create a luxurious and eco-friendly environment. The hotel features 200 rooms, wellness facilities, a rooftop garden, and public spaces like a café and sky bar, all designed to connect guests with nature through green facades, tropical plants, and natural materials.

Approach-
Hotel Jakarta incorporates a modular design approach to streamline construction and enhance efficiency. The building's modularity primarily involves the prefabrication of key elements off-site, including the room modules and certain structural components, such as the timber facades and cross-laminated timber (CLT) panels. These modules were produced in controlled factory conditions, ensuring high-quality standards and reducing construction time on-site.

The prefabricated room modules were designed to be fully fitted with interior features, allowing for quick assembly upon arrival at the site. This modular construction method contributed to the rapid building timeline, with the modules being mounted on the base structure in just three days after delivery. The use of prefabrication also minimized exposure to weather conditions, reducing potential delays and maintaining the integrity of materials.

In addition to the room modules, the facade was also modular, with large panels of timber and metal cladding that were pre-assembled off-site, adding to the building's overall speed of construction. This modular approach ensured a high level of quality control, reduced waste, and significantly shortened the construction period, which was completed in only six months.

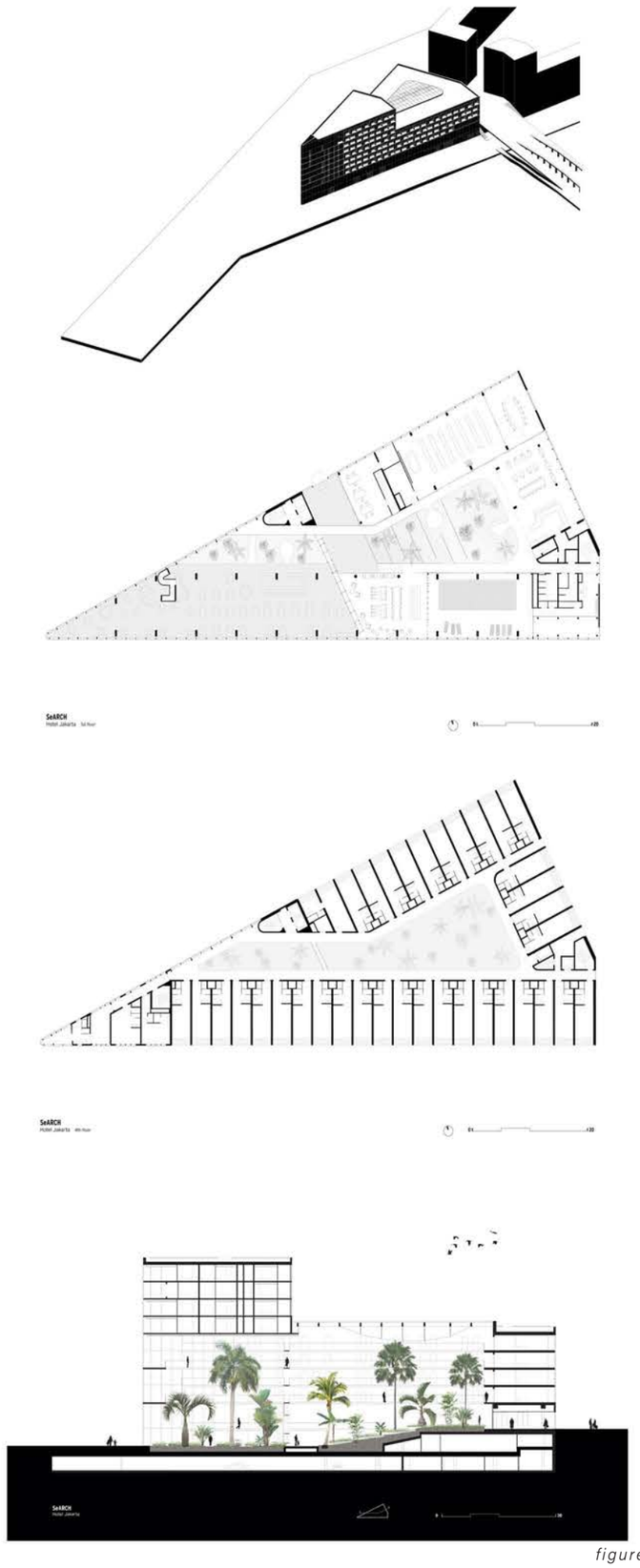


figure 06

figure 07

Schindler Exhibiton Building

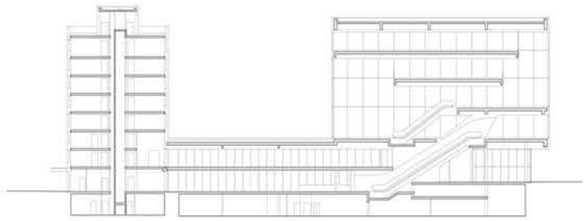
Architect- Basel Burckhardt
Purpose- Office and Administration
Location- Switzerland
Floor Area- 215270 sq ft
Completed- 2020

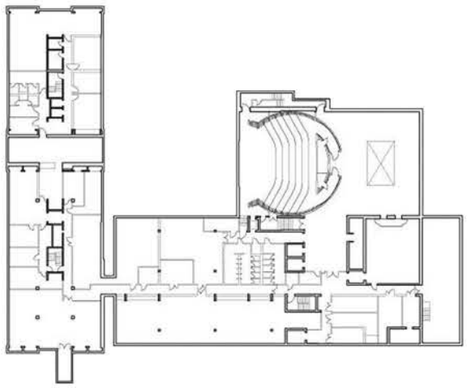
Program-
The main focus of the building is its exhibition area, spanning several floors and designed to immerse visitors in Schindler's advancements in vertical transportation technology. The interactive displays combine both digital and physical elements, such as the City Model, which uses augmented reality to highlight Schindler's global projects, and the Cube Experience, an interactive space that tells stories about urban mobility and Schindler's contribution to modern cities. These areas are adaptable, featuring modular exhibition systems that can be easily reconfigured and updated to incorporate future innovations.

Approach-
The Building employs modular elements that streamline construction. Prefabricated components, including interior walls and ceiling structures, were created off-site and then assembled on-site. This method reduced labor time, minimized on-site disruptions, and ensured high-quality finishes.

The building's exhibition areas are equipped with modular stands and movable partitions, allowing easy adaptation for various events and exhibitions based on the company's needs. These flexible elements enable quick reconfigurations to accommodate different installations, interactive displays, and presentations.

The use of modular construction supports the building's sustainability objectives. Many prefabricated modules are designed with energy efficiency in mind. Energy-efficient features, such as prefabricated walls, lighting, HVAC, and solar power integration, contribute to reducing energy consumption and minimizing the environmental impact of the construction process.





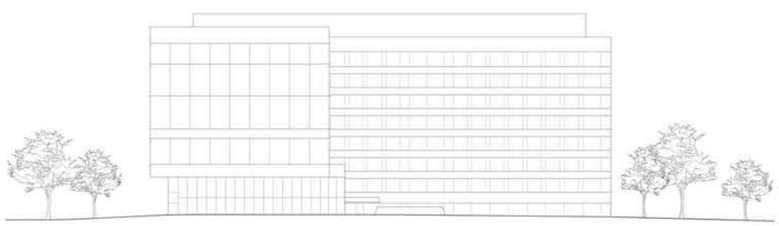


figure 08

figure 09

FAILED PRECEDENTS

Nakagin Capsule Tower

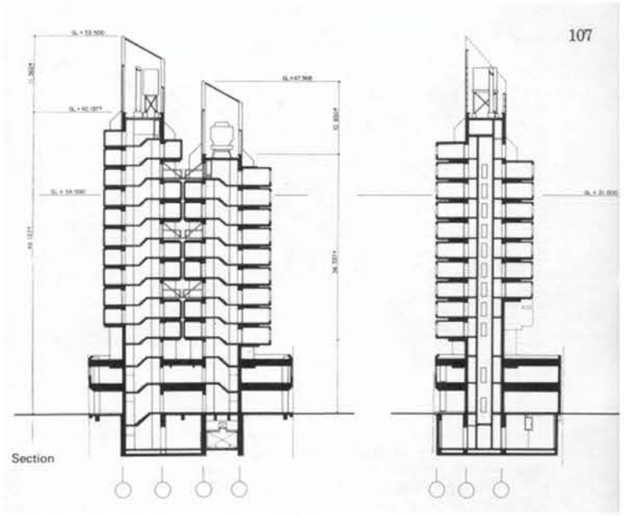
Architect- Kisho Kurokawa
Purpose- Mixed-use Housing
Location- Japan
Construction- Prefabricated modular housing
Completed- 1972-2022

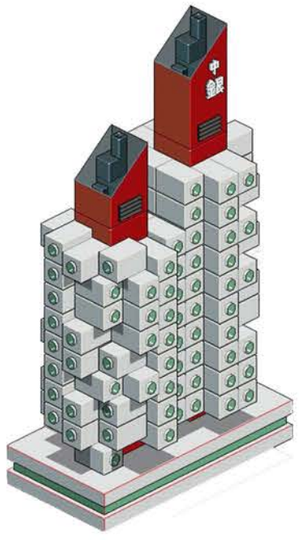
Program-
The Nakagin Capsule Tower was a bold experiment in how we might live in the future. It was made up of 140 tiny, self-contained pods each about the size of a small bedroom attached to two concrete towers that held all the utilities and elevators. These capsules were designed for single businessmen. The big idea was that each unit could be removed and replaced over time, keeping the building fresh and flexible. But in reality, none of the capsules were ever swapped out. Technical challenges, high costs, and lack of coordination got in the way. The tower became a cultural icon, admired for its vision of modular, adaptable housing, even though it couldn't quite deliver on its promise.

Failure-
The Nakagin Capsule Tower was a bold and fascinating idea that simply couldn't keep up with the real world. It was meant to be a flexible, futuristic building where individual living pods could be removed and replaced over time like plugging in new parts as needed. But in practice, that vision never came to life. The capsules were tightly connected to utilities, and removing even one proved too complex and expensive. What was meant to be adaptable quickly became static.

Ownership was another big hurdle. Each tiny pod was privately owned, so any big decisions like renovations or replacements required unanimous agreement, which was nearly impossible. As the years passed, the building aged badly. It had outdated systems, expensive maintenance needs, and even asbestos. Without a clear plan or support for long-term care, the building slowly fell apart.

The tower was demolished in 2022. Still, it left behind a powerful message that even the most exciting architectural ideas need practical systems, shared responsibility, and long-term planning to truly work.





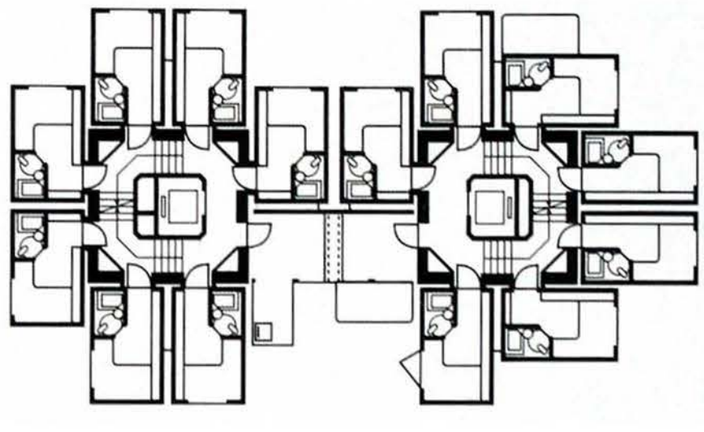


figure 10

figure 11

SIRH

Architect- Claude Prouve
Purpose- Community Housing
Location- France
Construction- Prefabricated Modular housing
Completed- 1970-2012

Program-
The SIRH modular housing was designed to address housing shortages in postwar France through the use of modular construction. The idea was to create flexible, adaptable living spaces using prefabricated units that could be assembled and rearranged as needed, allowing for both short-term and long-term housing solutions. The program aimed to provide a more efficient, industrialized method of construction by utilizing prefabricated modules, each consisting of living units that could be stacked or altered to suit different needs.

Failure-
Claude Prouvé's experimental building was a bold attempt to rethink how we could build homes. The aim was to create a flexible, industrial way of constructing housing, using prefabricated modules that could be stacked and rearranged as needed. It was a forward-thinking response to the housing shortages of the postwar era, capturing the spirit of optimism and innovation of its time.

But despite the brilliance of the idea, things didn't go as planned. The reality of making the modular system work was more complicated. Coordinating things like plumbing and utilities across these modules turned out to be a major challenge. While the building was completed, it was never used as originally intended. Financial difficulties and a lack of widespread support caused the project to never gain traction and was quietly left behind.

The structure stood unused for many years before being demolished in 2012. Still, even though it didn't succeed, the building serves as a fascinating example of architectural experimentation that even the most visionary ideas need the right conditions, backing, and timing to truly come to life.

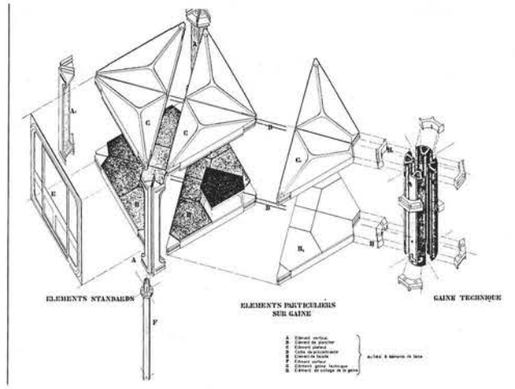


figure 12

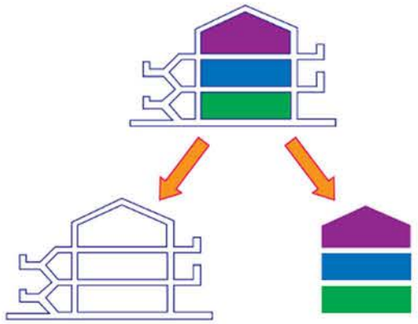
figure 13

OPEN BUILDING IDEA

The Open Building is an architectural approach developed by N. John Habraken to promote user control, flexibility, and long term adaptability for housing and urban design. The main idea divides the building into Support and Infill layers.

The Support/ base structure includes the main frame and shared systems.

The Infill layer includes interior layouts and finishes to be customized according to the users.



Key Open Building stragegies-

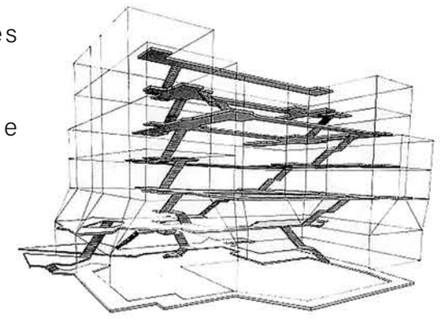
-There are activity spaces for residents.

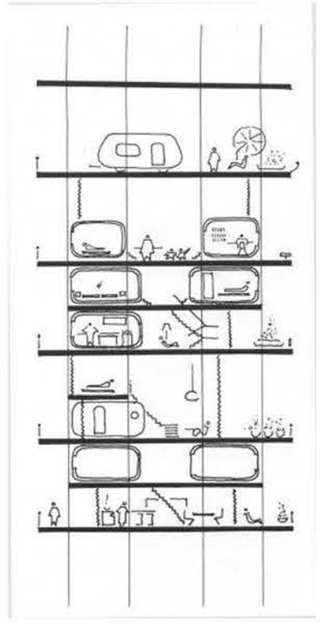
-The building system has modular system which can be replaced/ rearranged/ recylced as per the requirements.

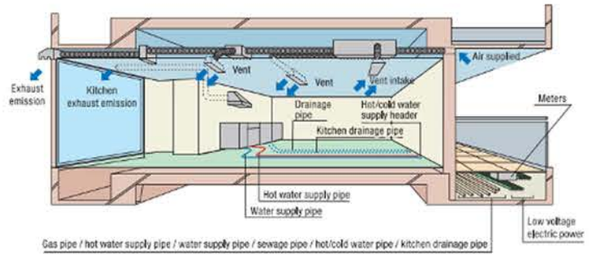
-The separation of skeleton from infills ensures renovations without the risk of damage.

-There are flexible piping systems for large scale facilities.

-The idea encourages longevity and reduced waste.







PRECEDENT

figure 14

NEXT21

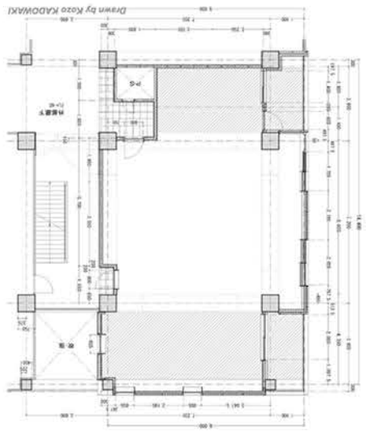
Architect- Yositika UTIDA, Shu-Koh-Sha Architectural, Urban Design Studio
Purpose- Mied-use Housing
Location- Japan
Area- 10,000 SF
Completed- 1994

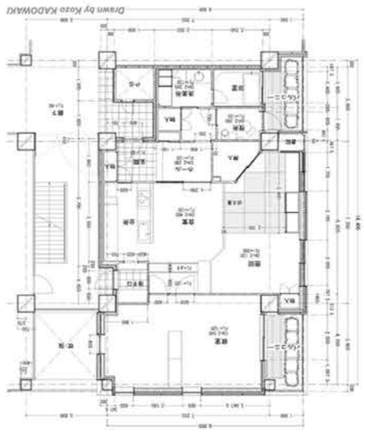
Program-
The project is a pioneering example of Open Buidling principles, designed to adapt to the evolving needs of urban living. Inititated by Osaka Gas Co, Ltd, the project was conceived as an experimental housing complex that could respond flexibly to changing societal and individual requirements. The project's design emphasizes environmental sustainability, energy efficiency and the capacity to accomodate diverse lifestyles over time.

Approach-
The building was divided into two main parts- a sturdy, long lasting structure that formed the backbone and a customizable interior layer where individual residents could shape their own spaces. This meant people could update, rearrange or even split their homes without affecting the larger building. The exterior was designed to be flexible. Windows, balconies and walls could be changed depending on how residents wanted to use them.

The project was built with community and sustainability in mind. Shared walkways and open spaces acted like vertical neighborhoods, encouraging neighbors to interact naturally. The project tested out eco-friendly systems and energy saving technologies too, making it a sort of real-life experiment in greener living.

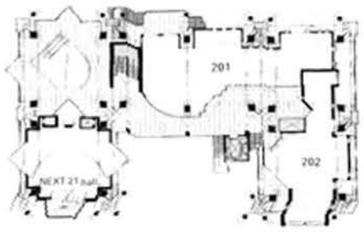
The approach was to build a resilient framework that could support long-term adaptability, user participation, and sustainable urban living, a living laboratory where housing could respond to the changes in society, technology and lifestyle.





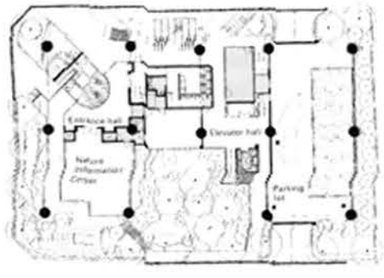
3rd floor

6th floor



2nd floor

5th floor



1st floor

4th floor

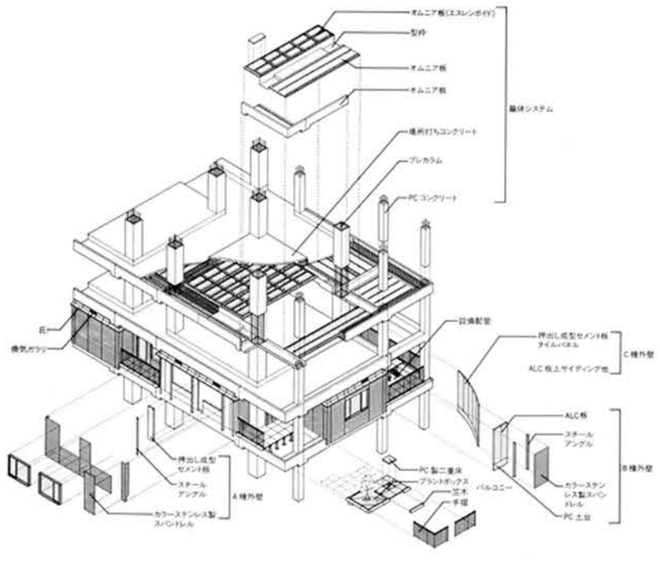


figure 15

figure 16

SITE SELECTION

Alief, Houston, Texas

Alief is a vibrant, culturally rich neighborhood in southwest Houston that sits just a little higher than the rest of the city which is about 79 feet above sea level. While it's on flat land, which can make flooding a concern, it's not in a high-risk flood zone. That, along with its central location and strong community ties, makes Alief a meaningful place to build something that truly helps people.

The site has an area about 280,000 square feet tucked near a wetland filled with trees, close to public transport, and not far from industrial areas that offer job opportunities. It's already home to a small group of nomadic residents who've found a quiet place there. This project is about creating a space that offers comfort, dignity, and opportunity.

In a city that's seen its share of floods and displacement, this space in Alief could become a sanctuary where disaster survivors can find stability and where local residents can benefit from something built with care and purpose.

figure 17

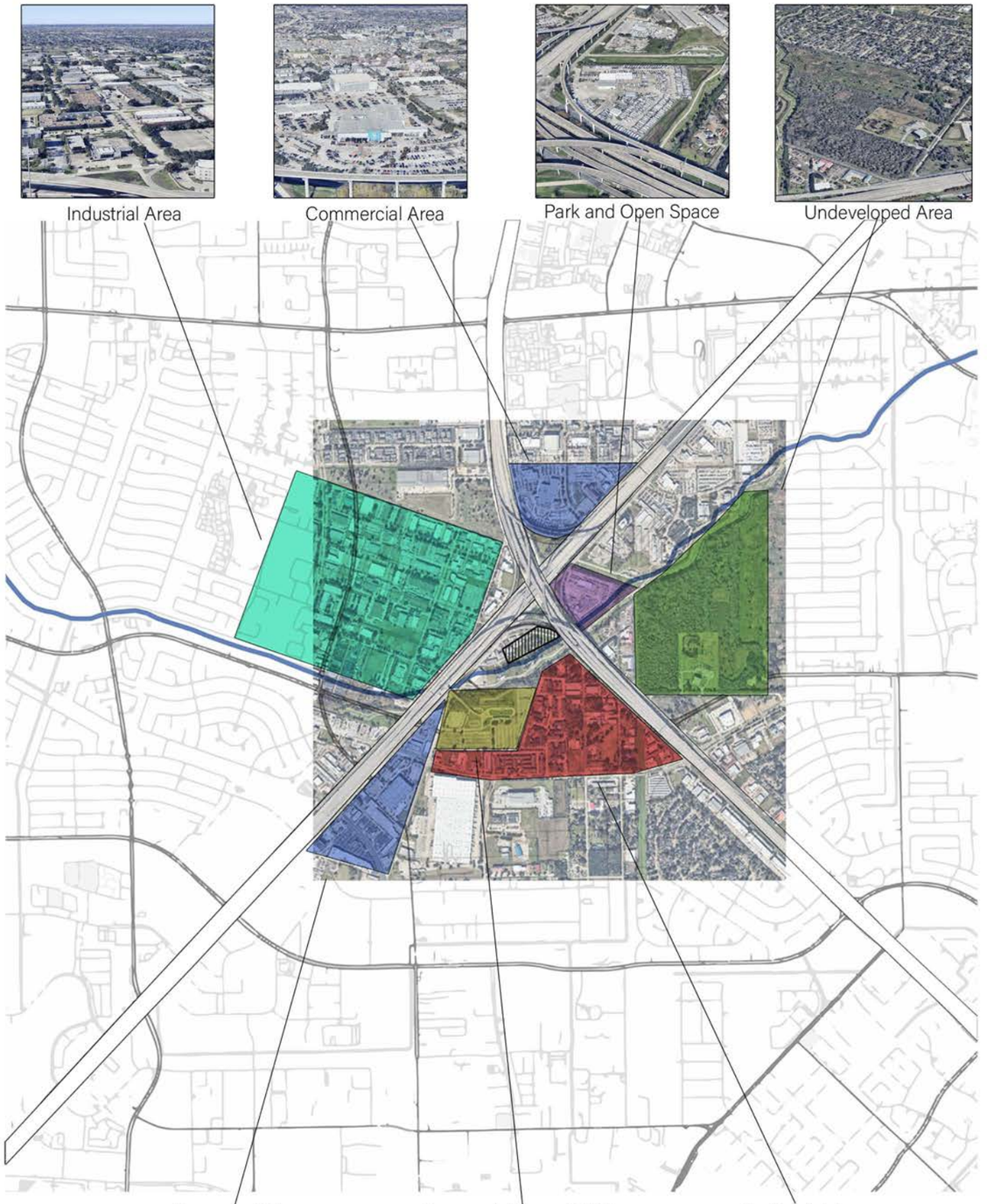
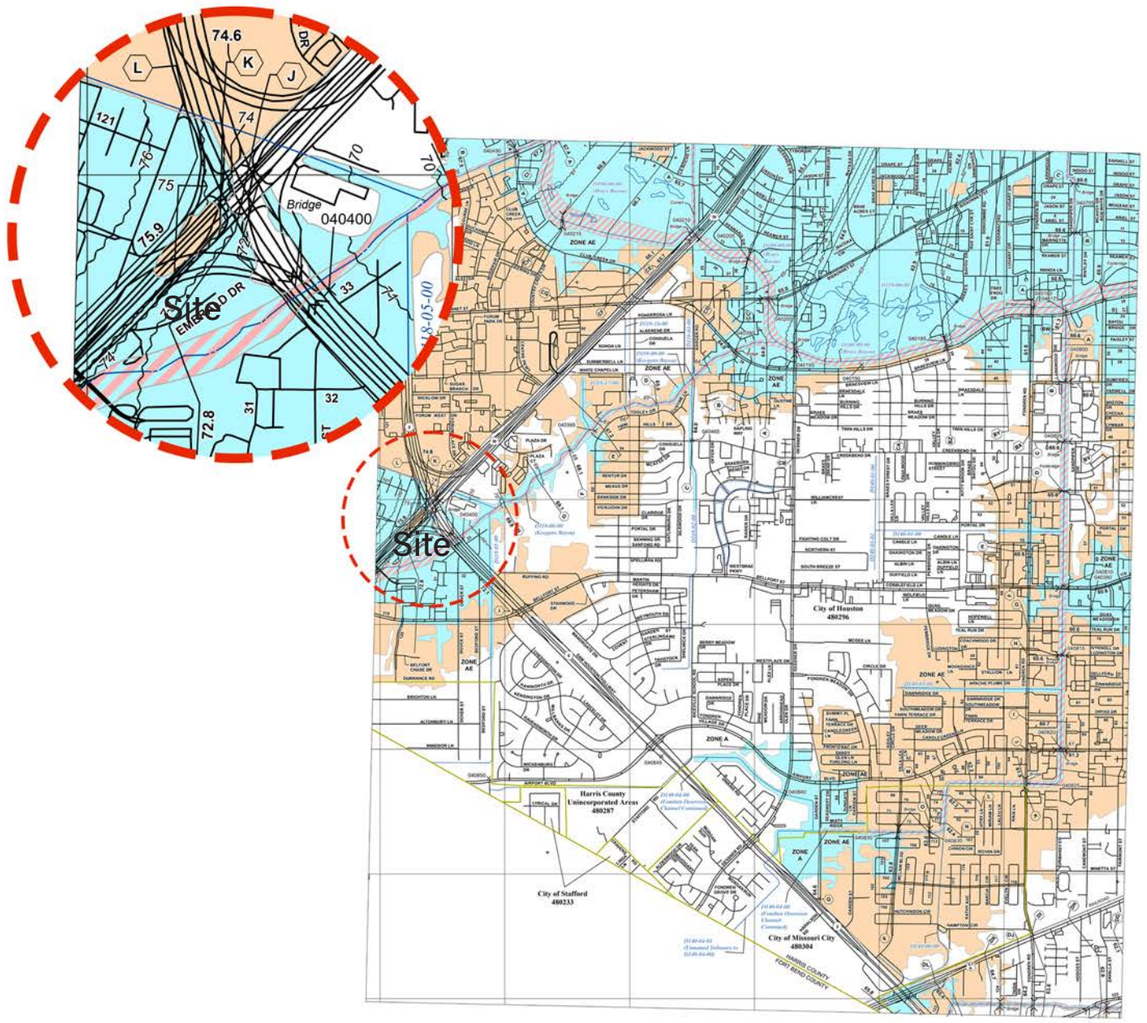


figure 17


Site
Site
Bridge
040400
City of Houston
480296
Harris County
Unincorporated Areas
480287
City of Stafford
480233
City of Missouri City
480304

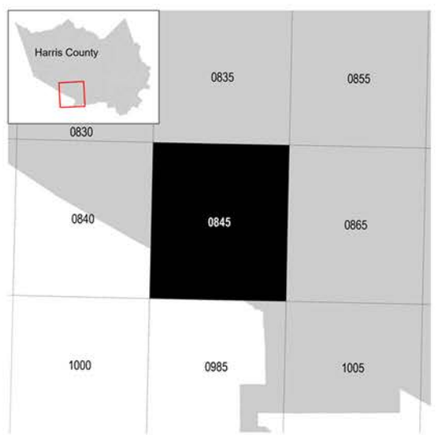

Harris County
0830
0835
0855
0840
0845
0865
1000
0985
1005

figure 18

Considerations

Building

Building with stilts

Building with stilts

Modularity

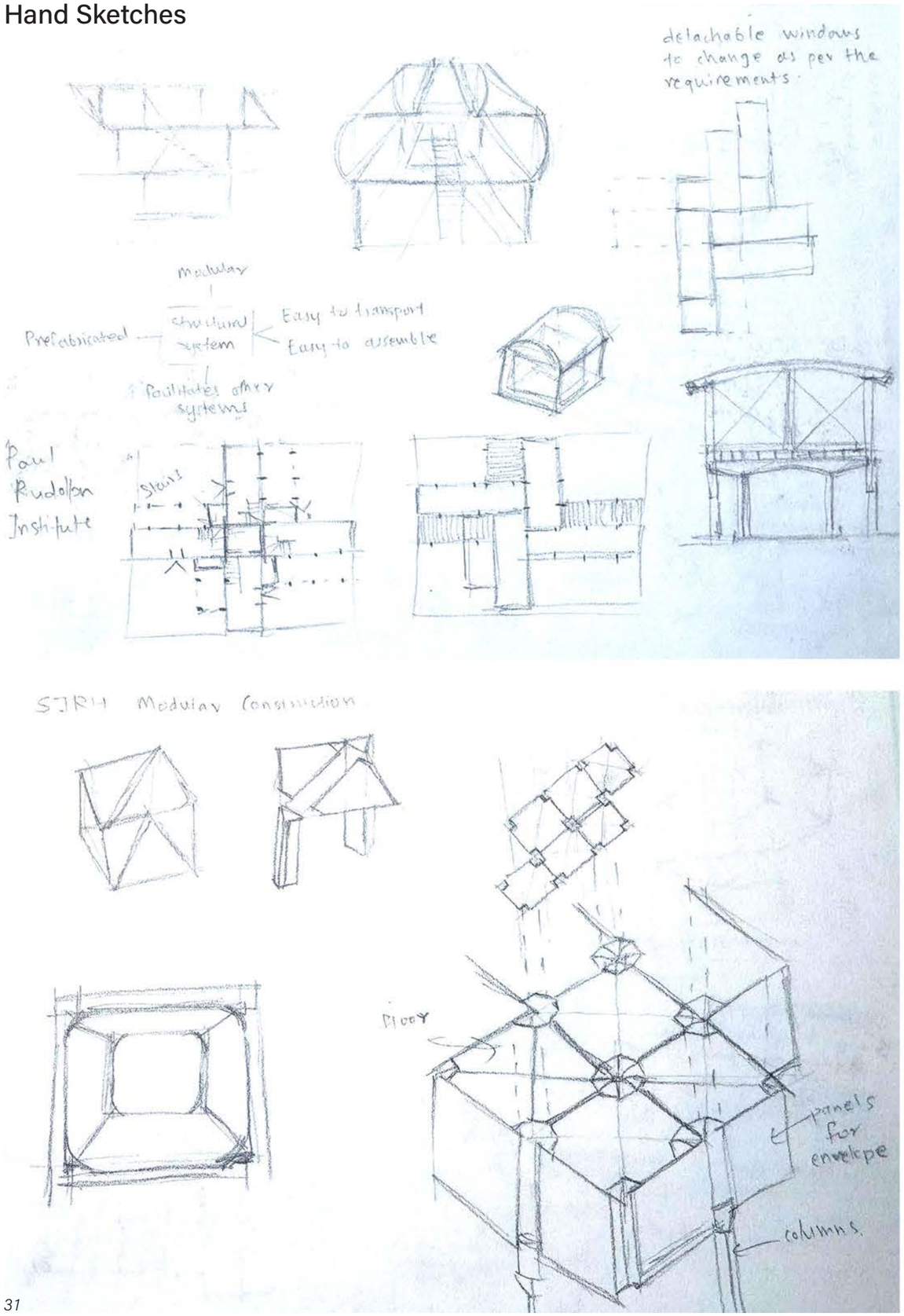
Amphitheatre

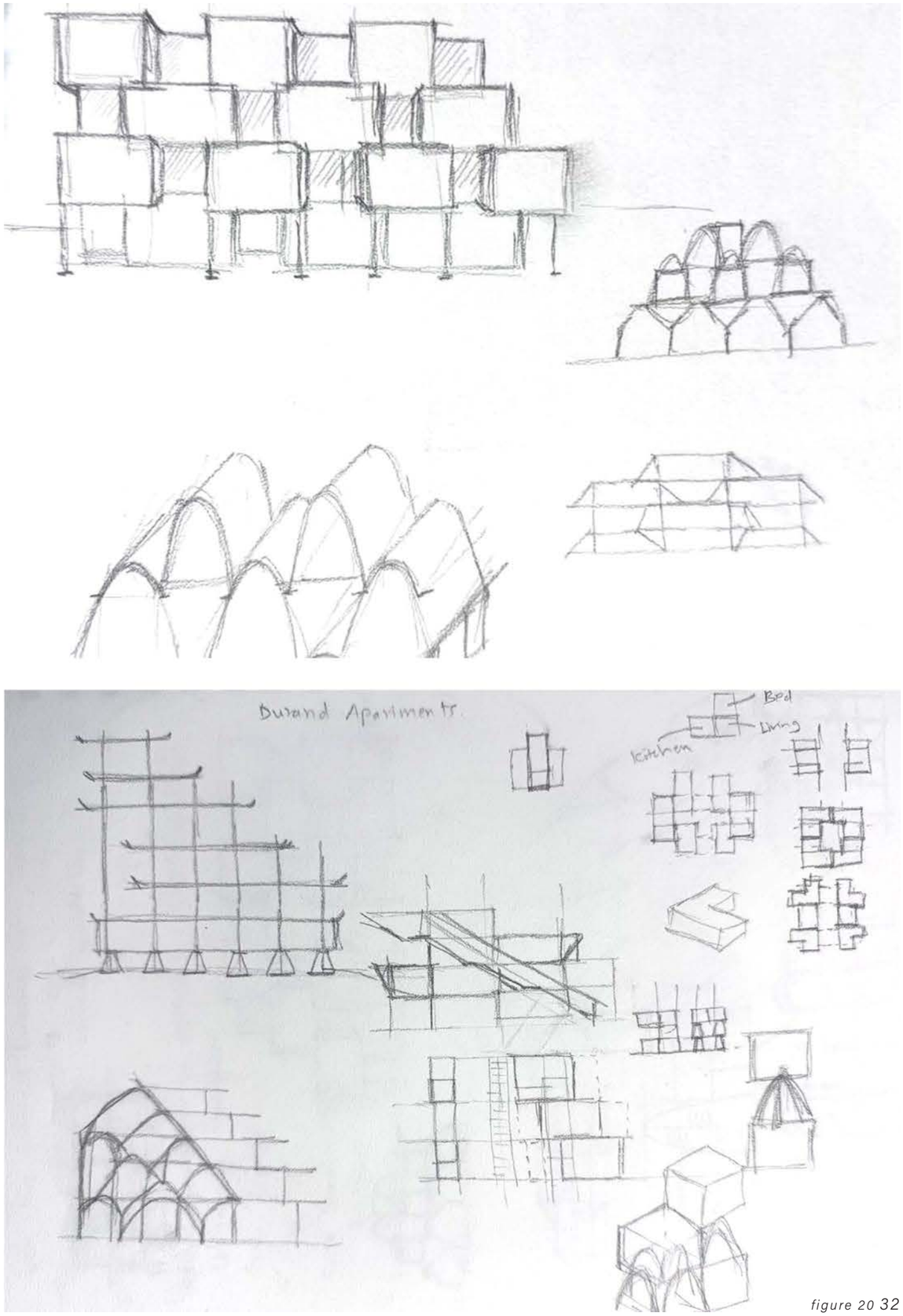
Bioswale

figure 19

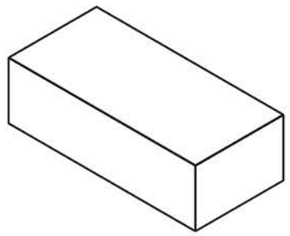
figure 19

Hand Sketches

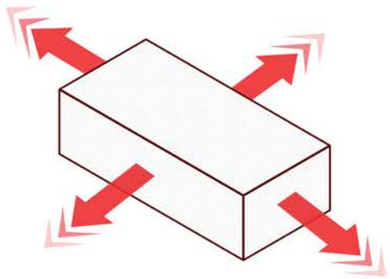




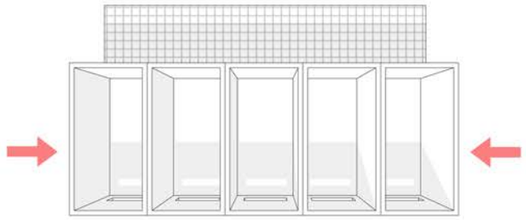
Concept



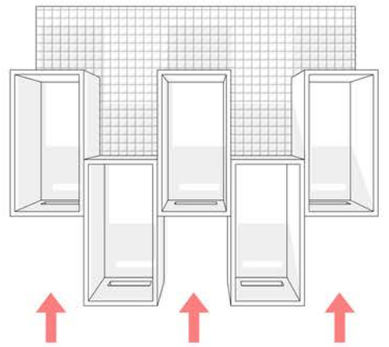
Single mass



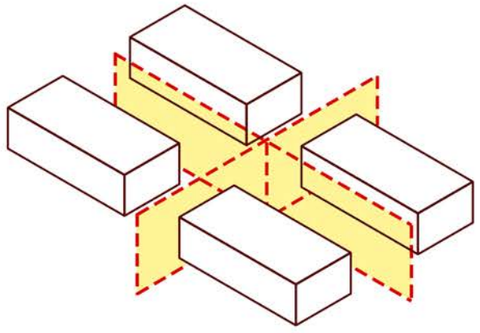
Extension



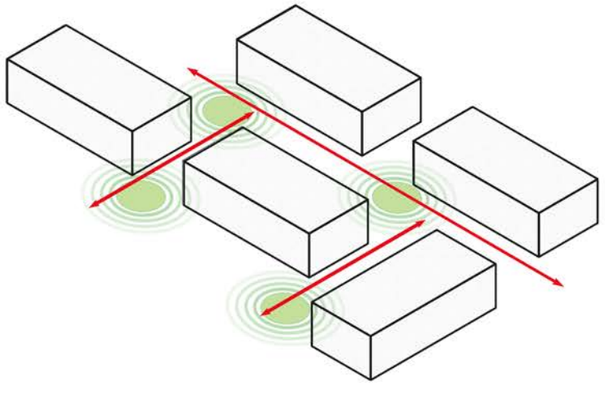
Initial linear arrangement



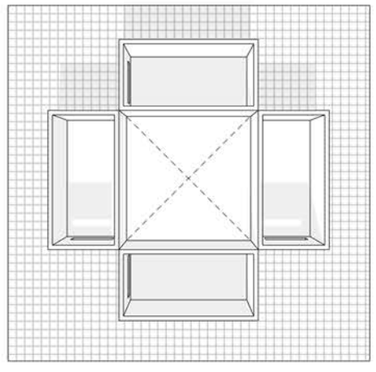
Space shifting



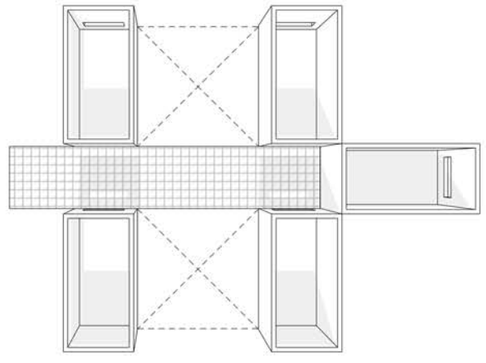
Separation of blocks



Open spaces



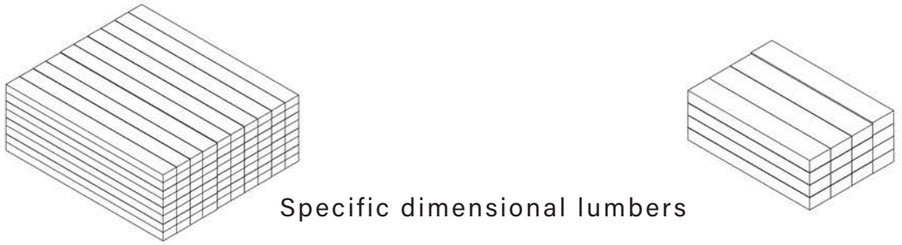
Open space

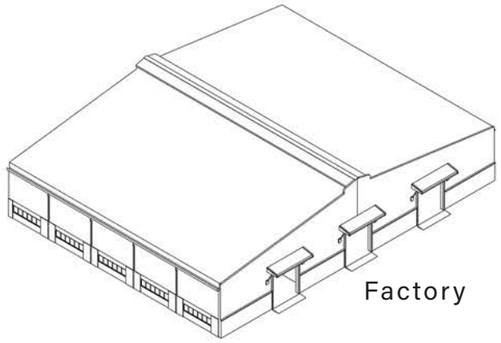


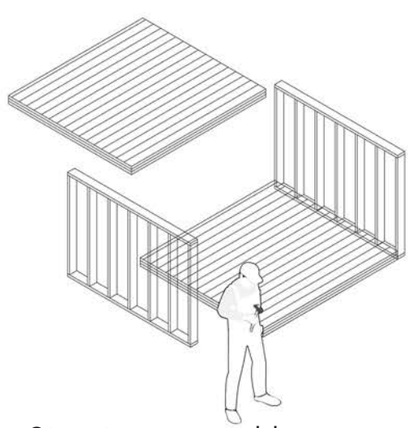
Open space with functional circulation

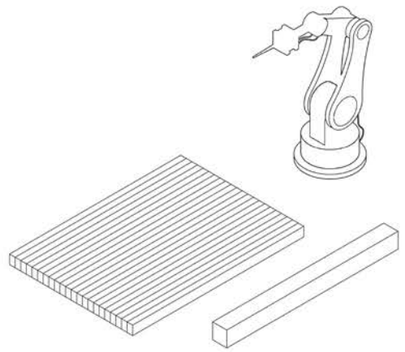
figure 21

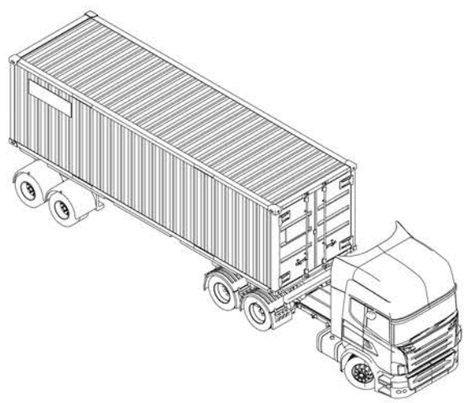
figure 22





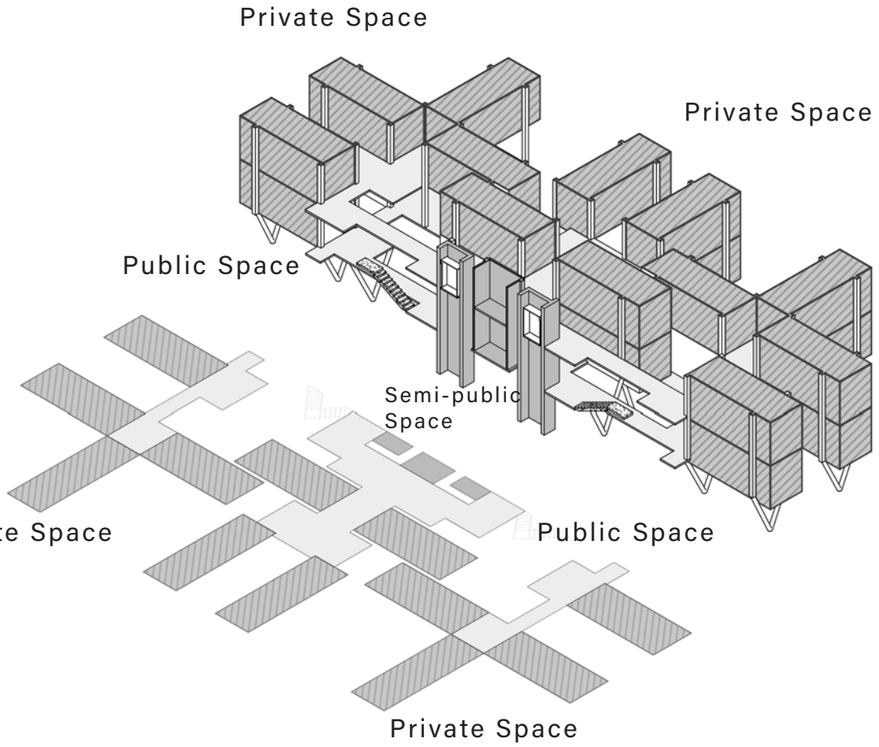






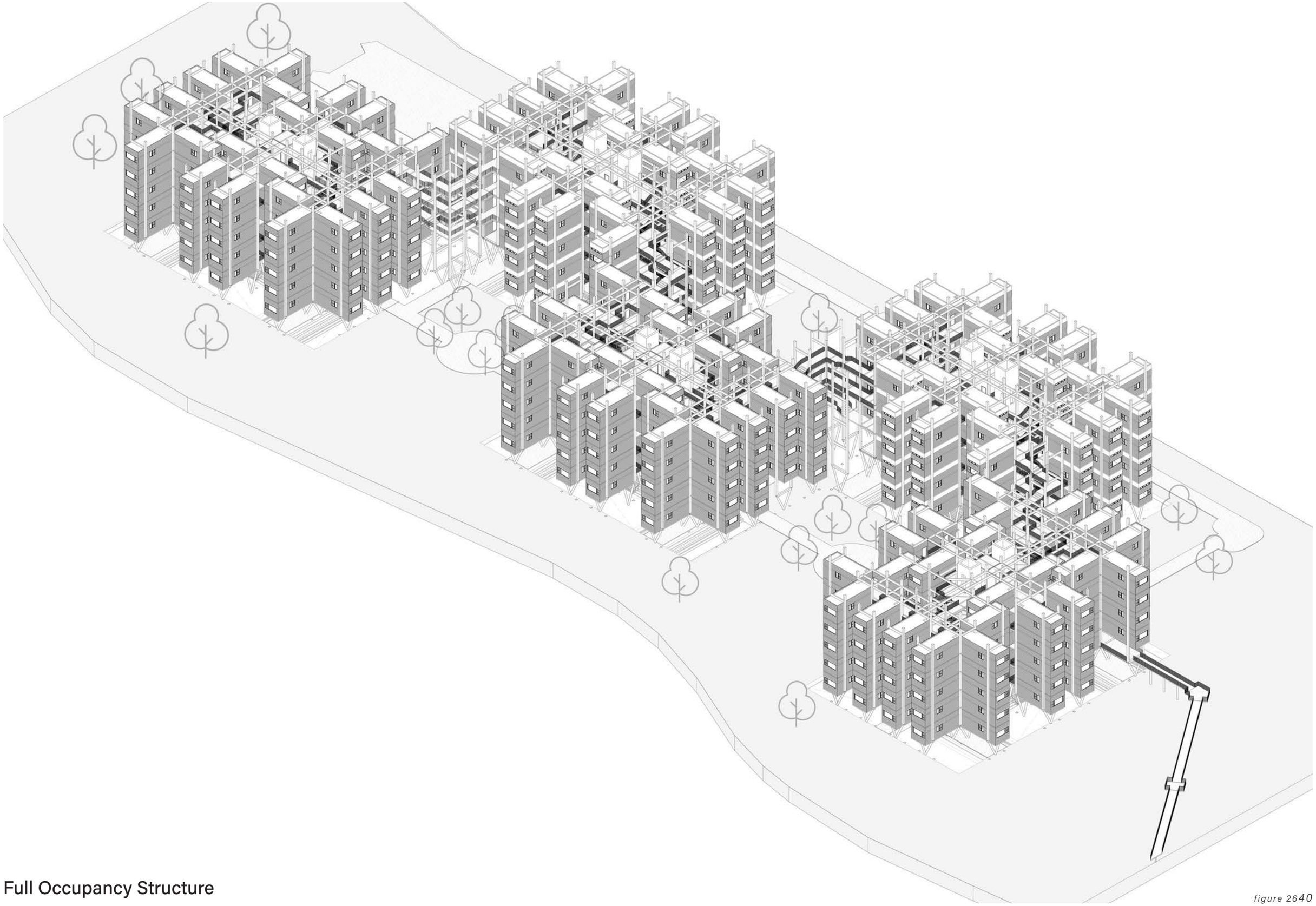
Production to Service

figure 23

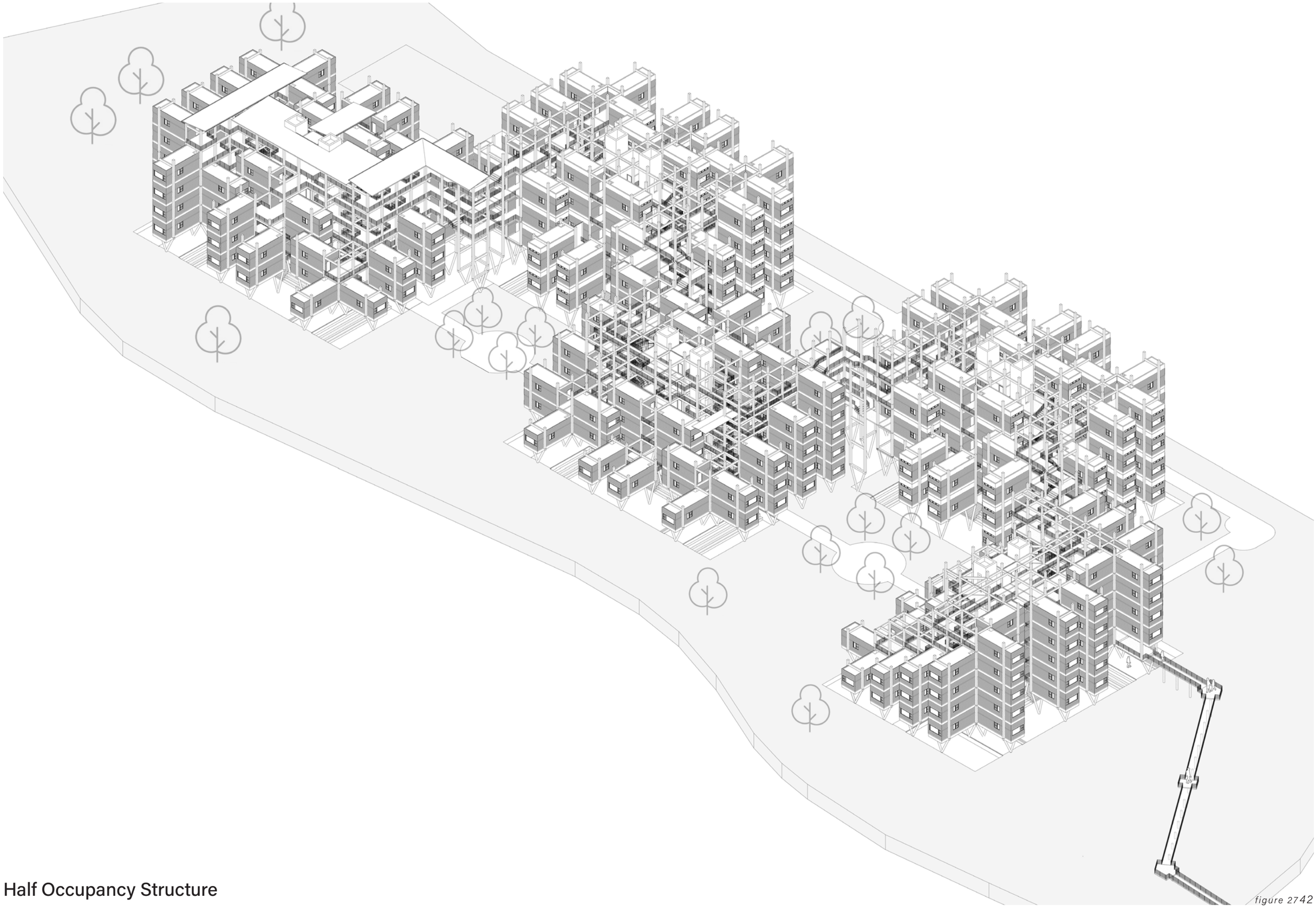


Zoning

Full Occupancy Structure



Full Occupancy Structure



Half Occupancy Structure

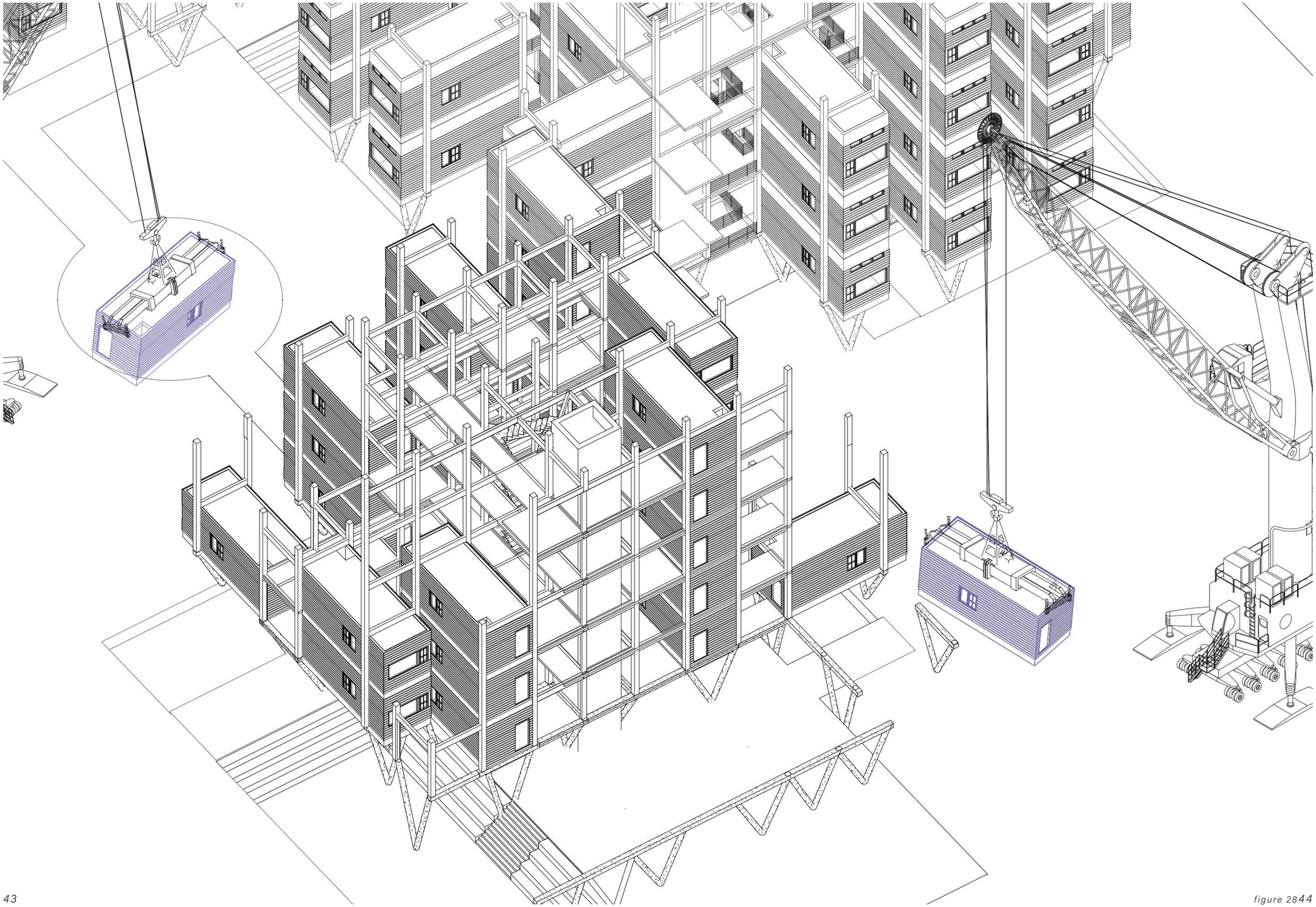


figure 2844

Site Plan

Floor layout variation 1

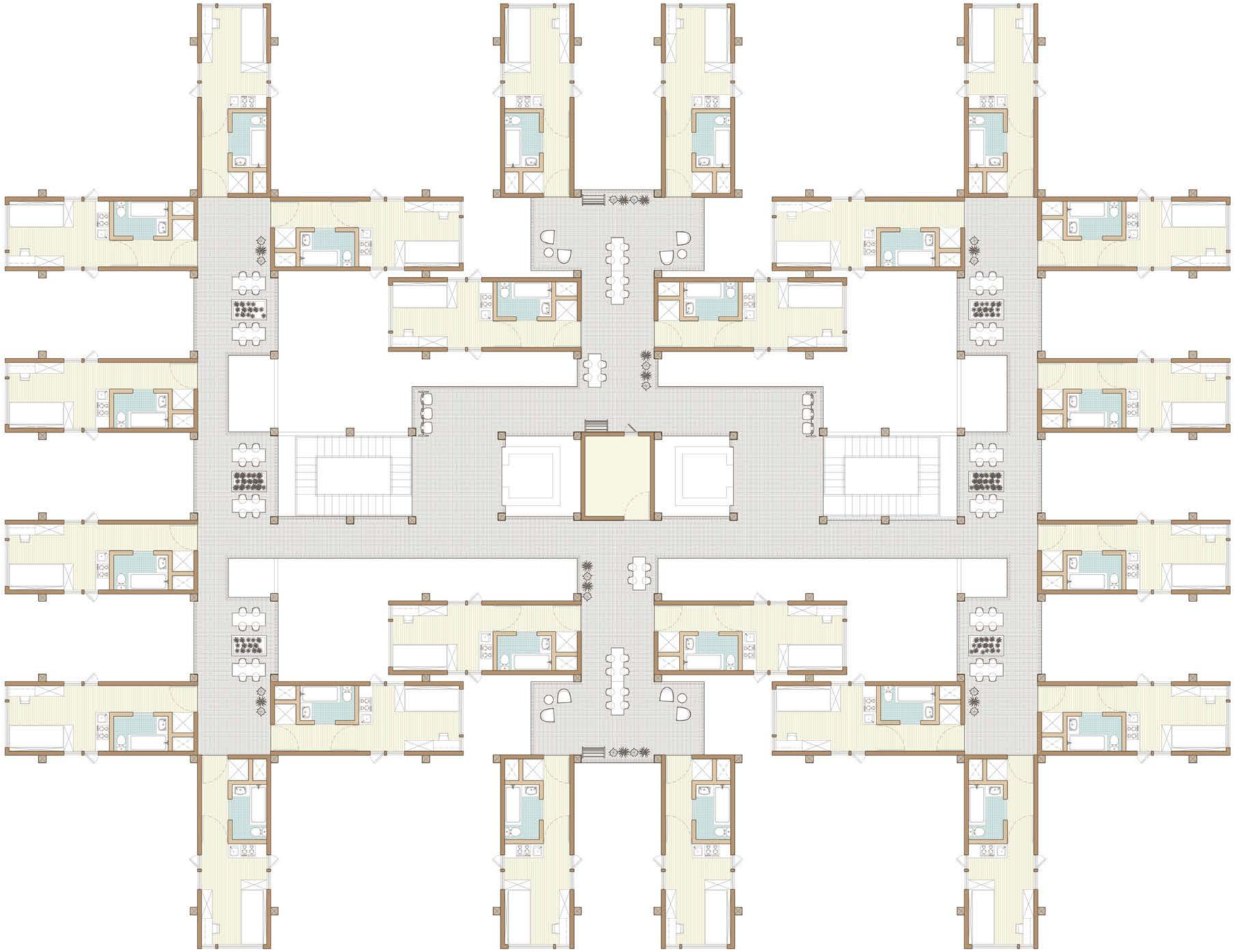


figure 3048

Floor layout variation 2

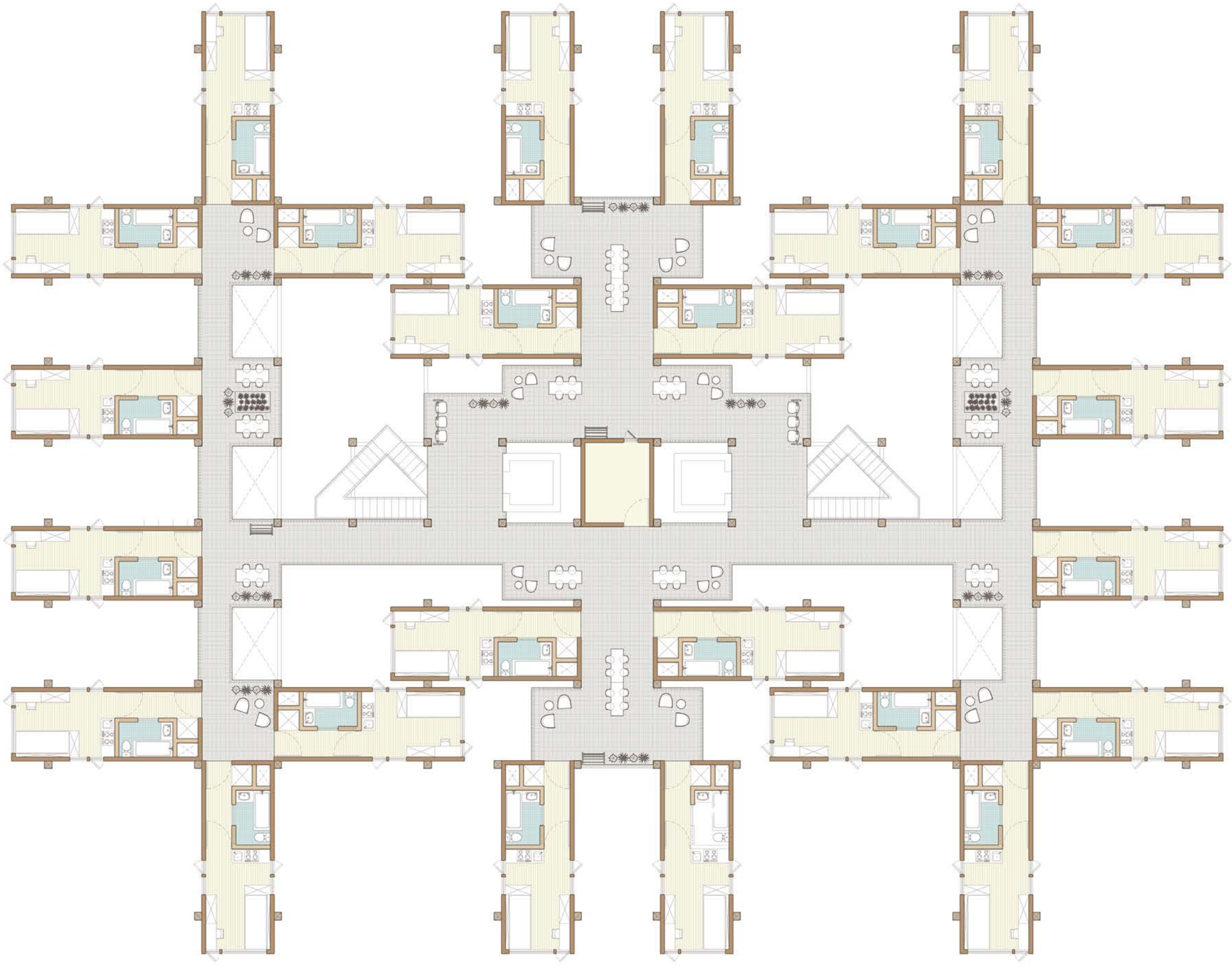
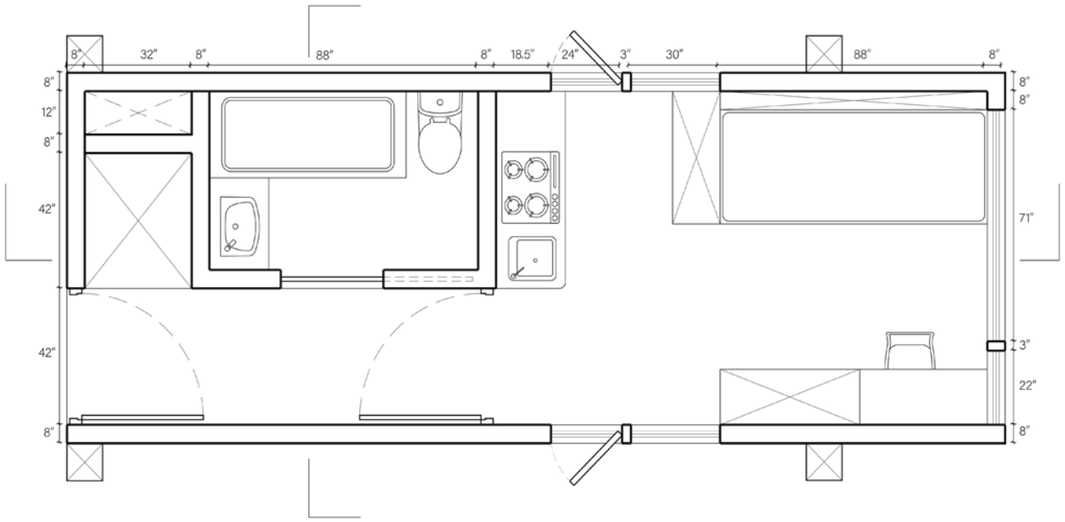
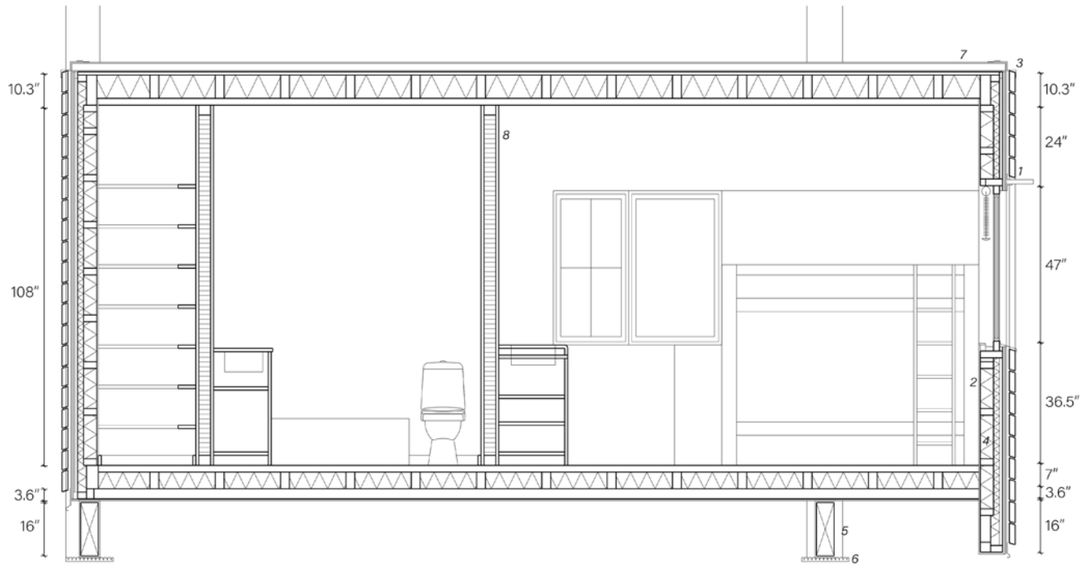
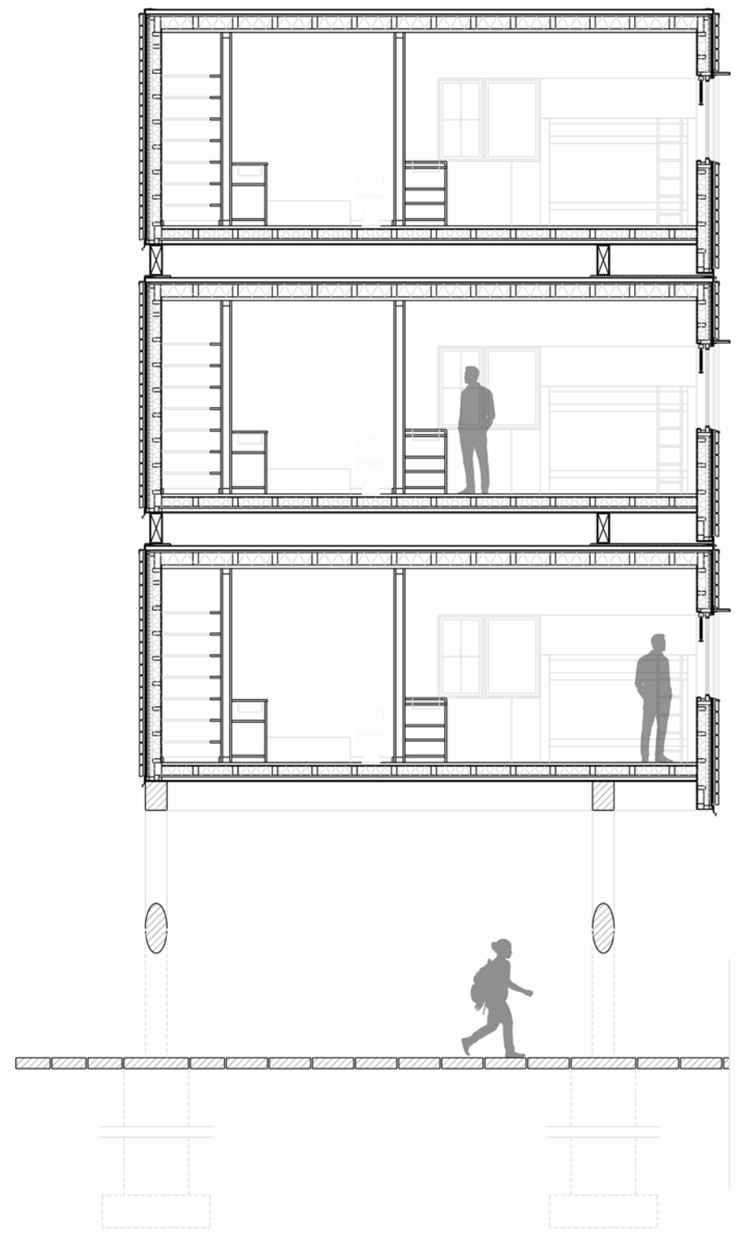


figure 3050

Section



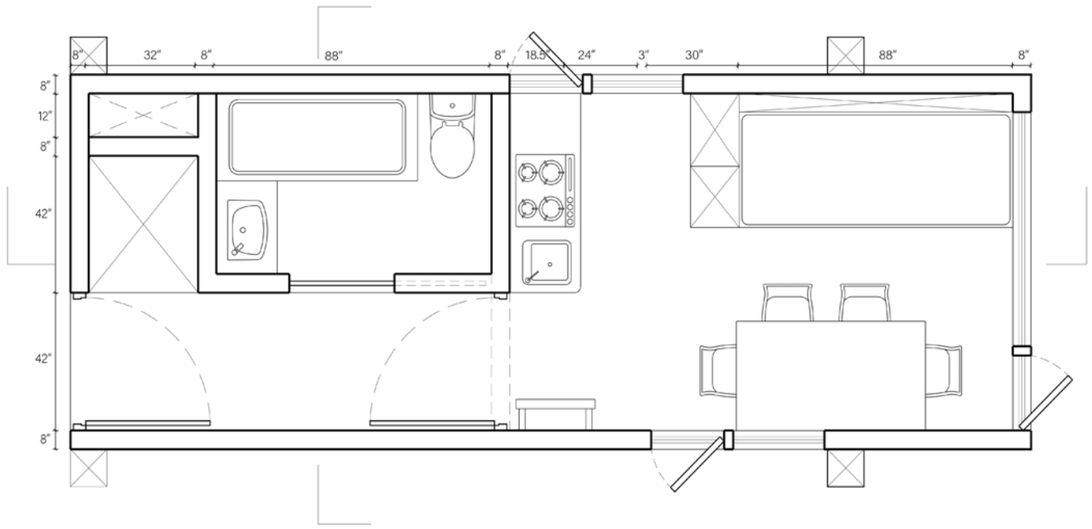


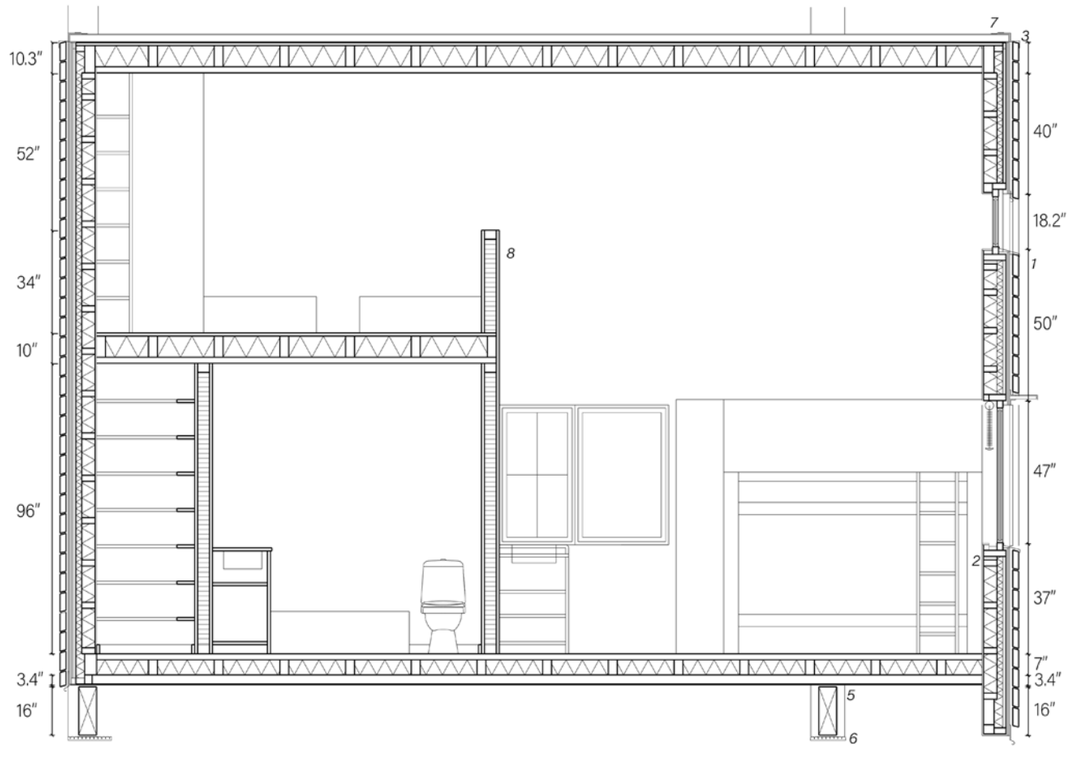


1. Wood siding
2. Wall studs
3. Wall studs
4. Insulation
5. Timber beams
6. Compressive mat
7. Roof
8. Interior wall

Standard Module

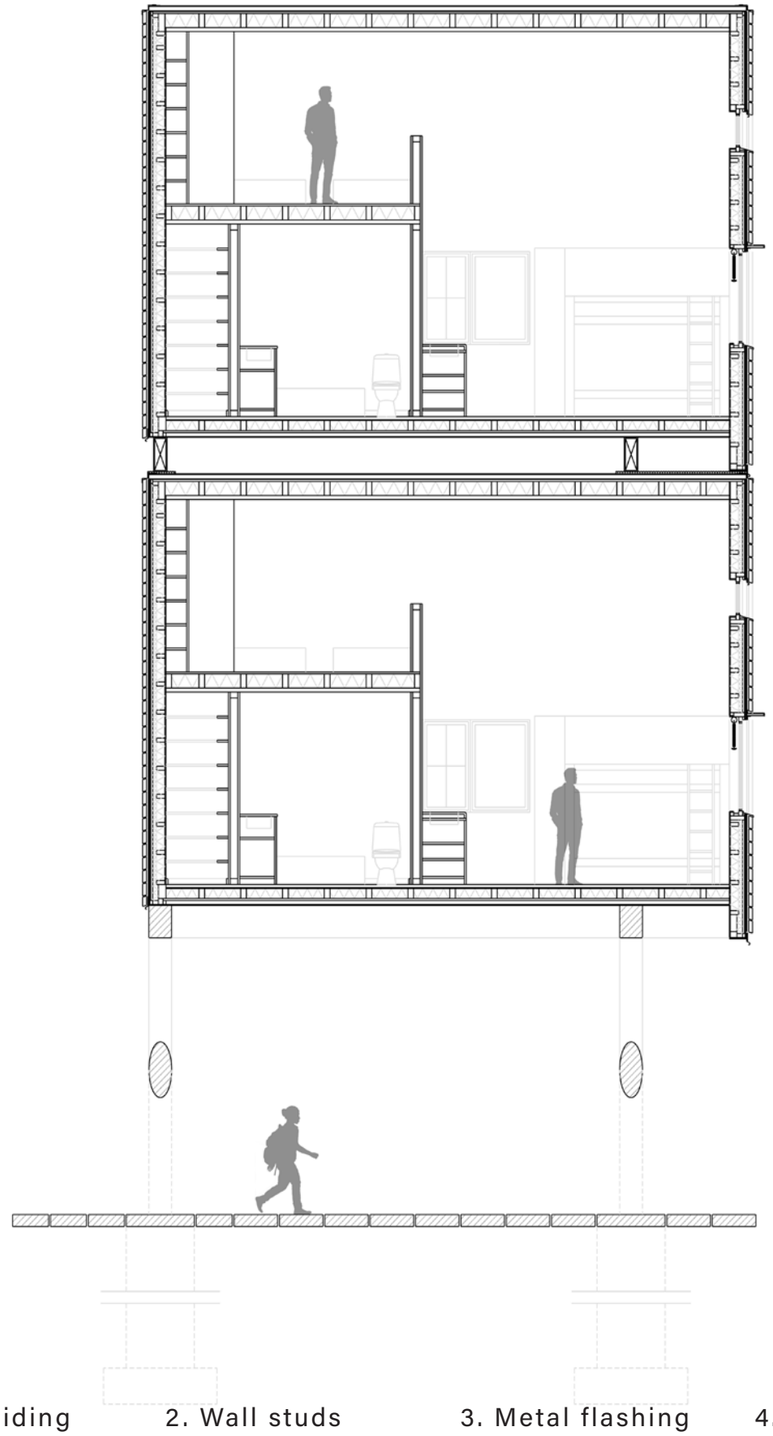
figure 31



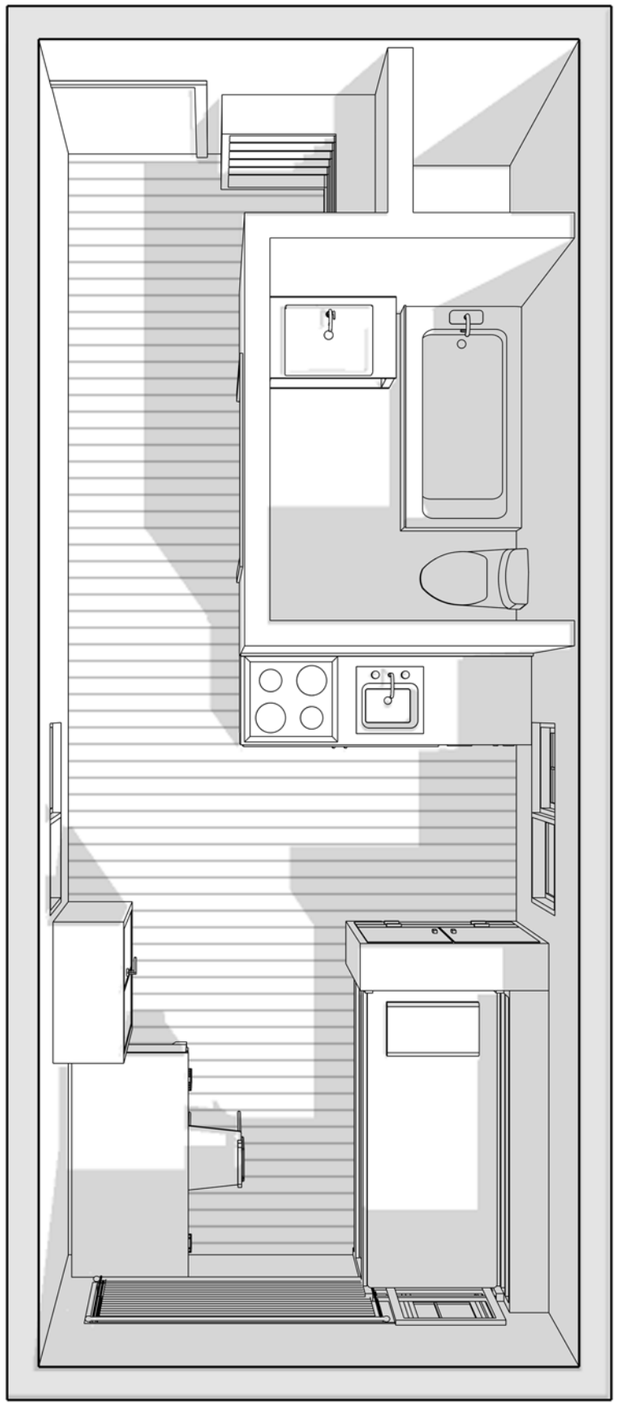


Double Height Module

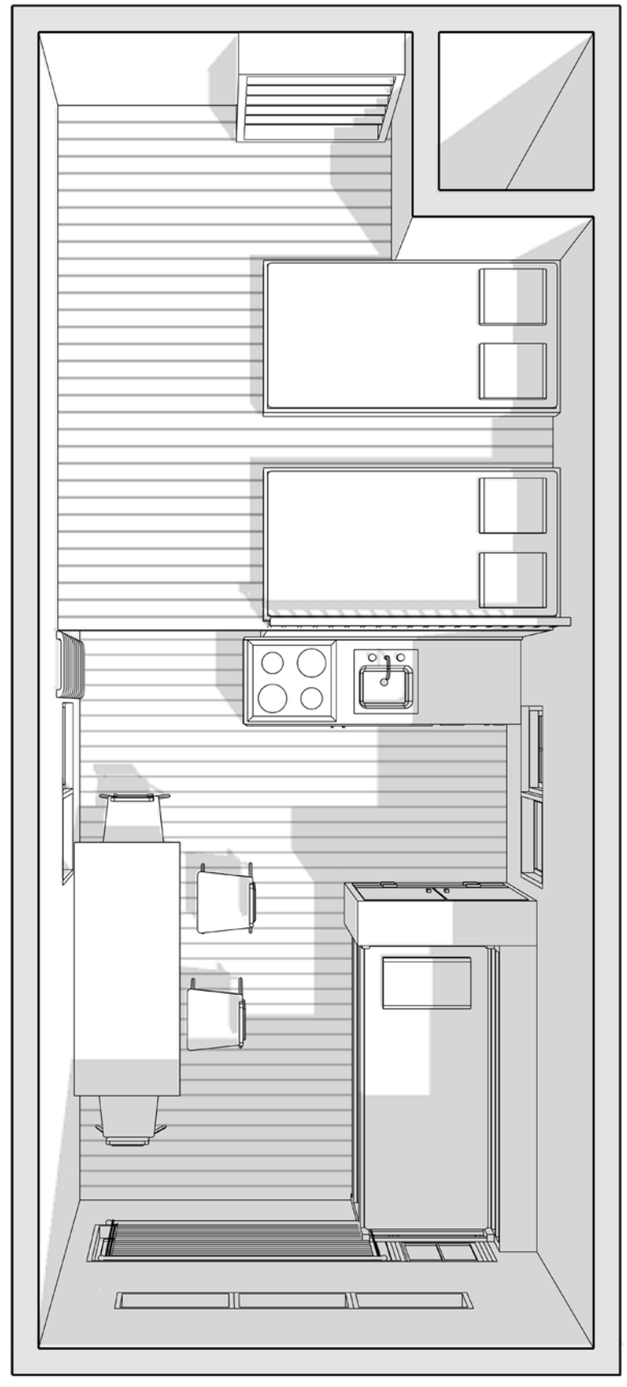
figure 32



1. Wood siding
2. Wall studs
3. Metal flashing
4. Insulation
5. Timber beams
6. Compressive mat
7. Roof
8. Interior wall



Standard Module

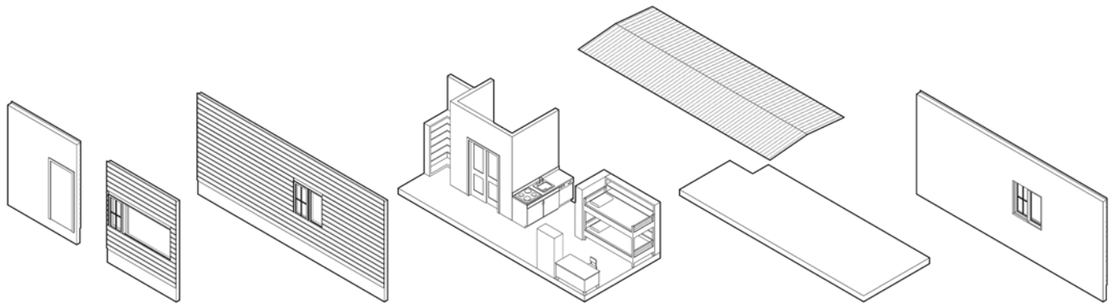


Double Height Module

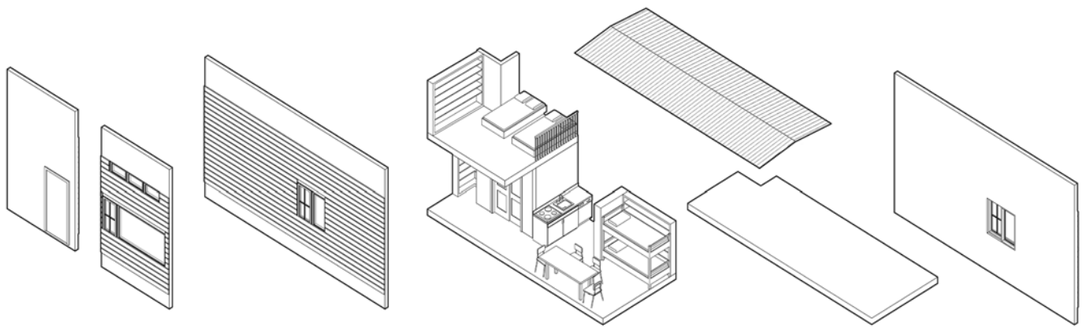
Section

figure 3458

Exploded View

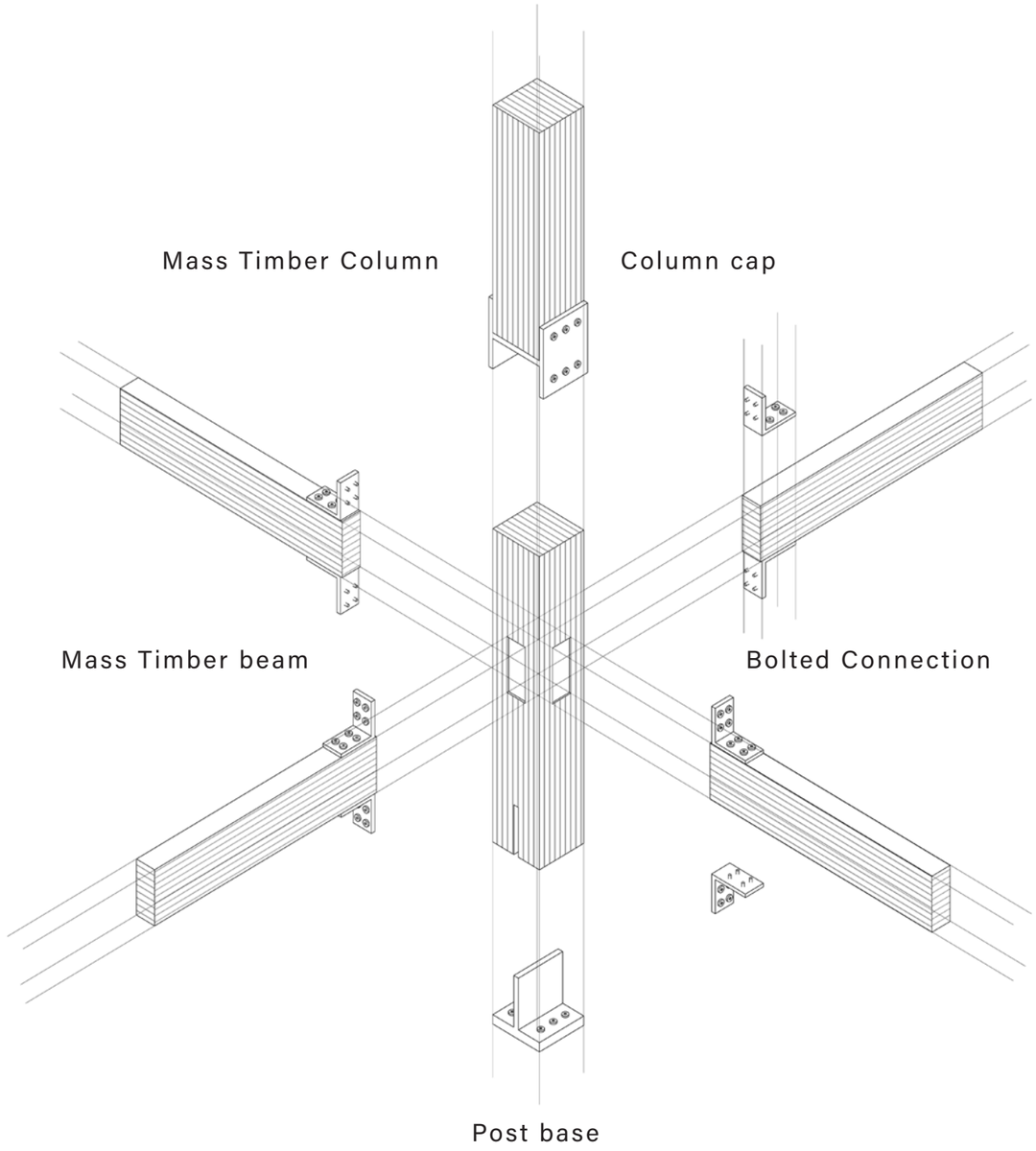


Standard Module

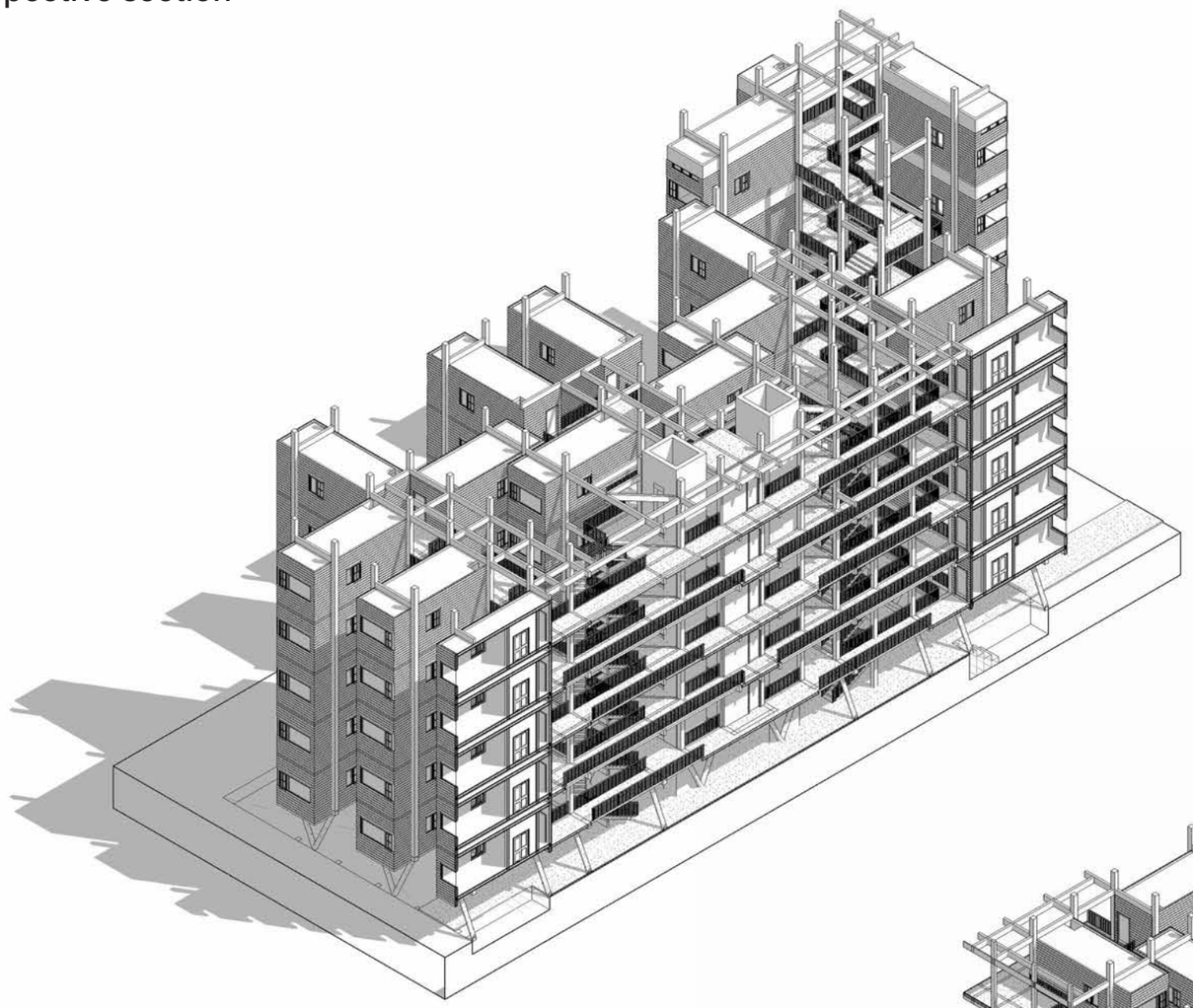


Double Height Module

Structural Connection



Perspective section



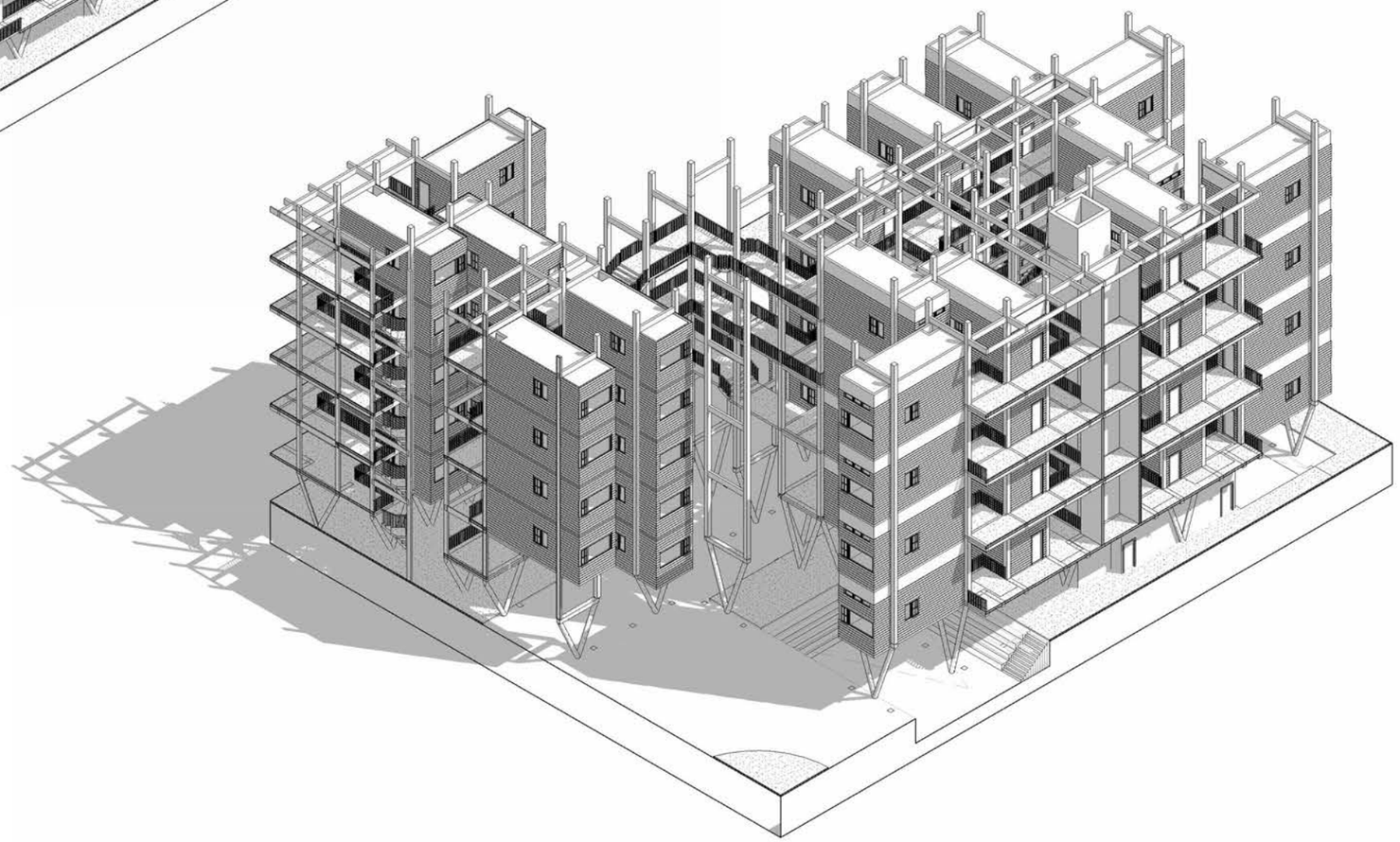
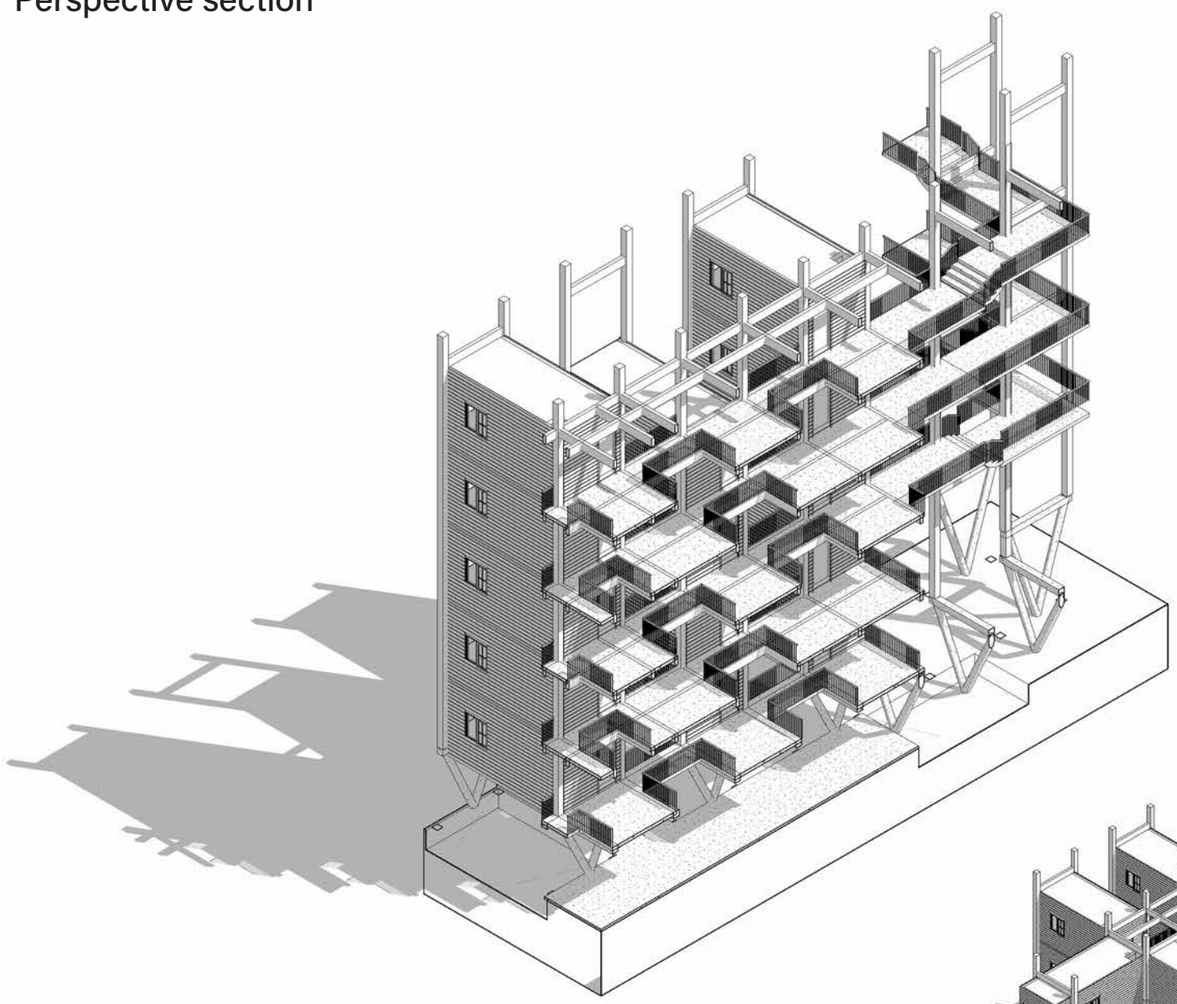


figure 3662

Perspective section



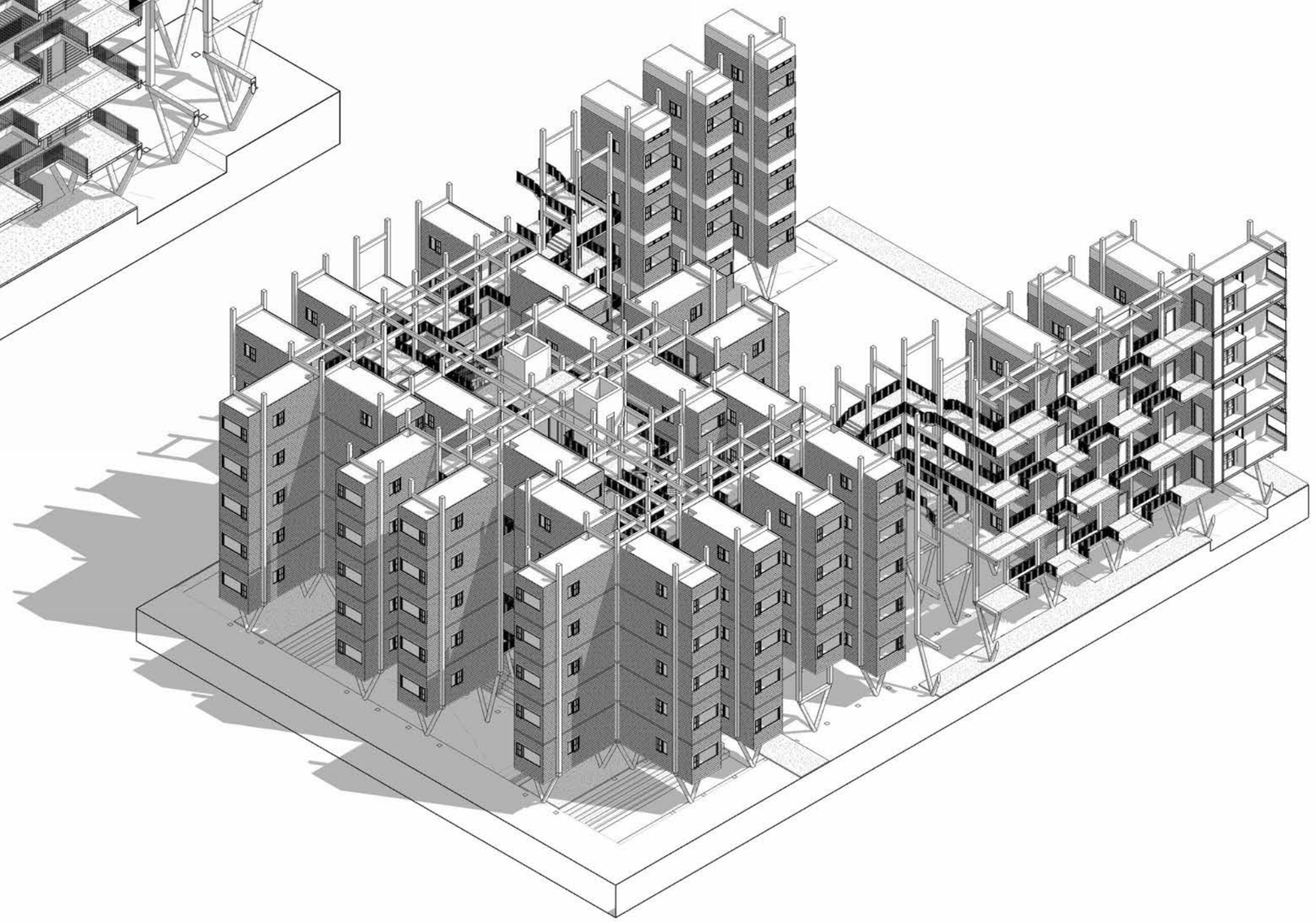
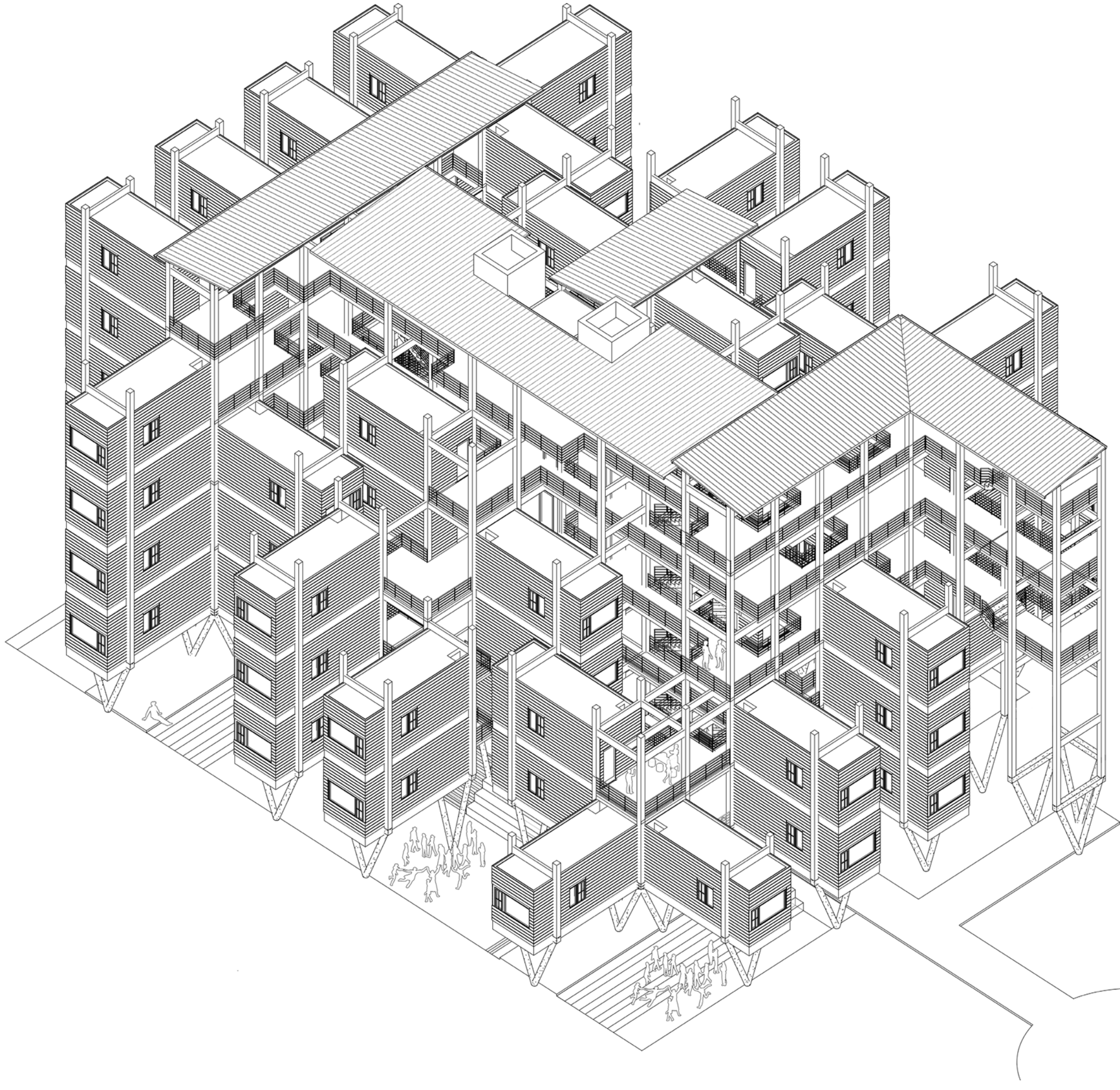
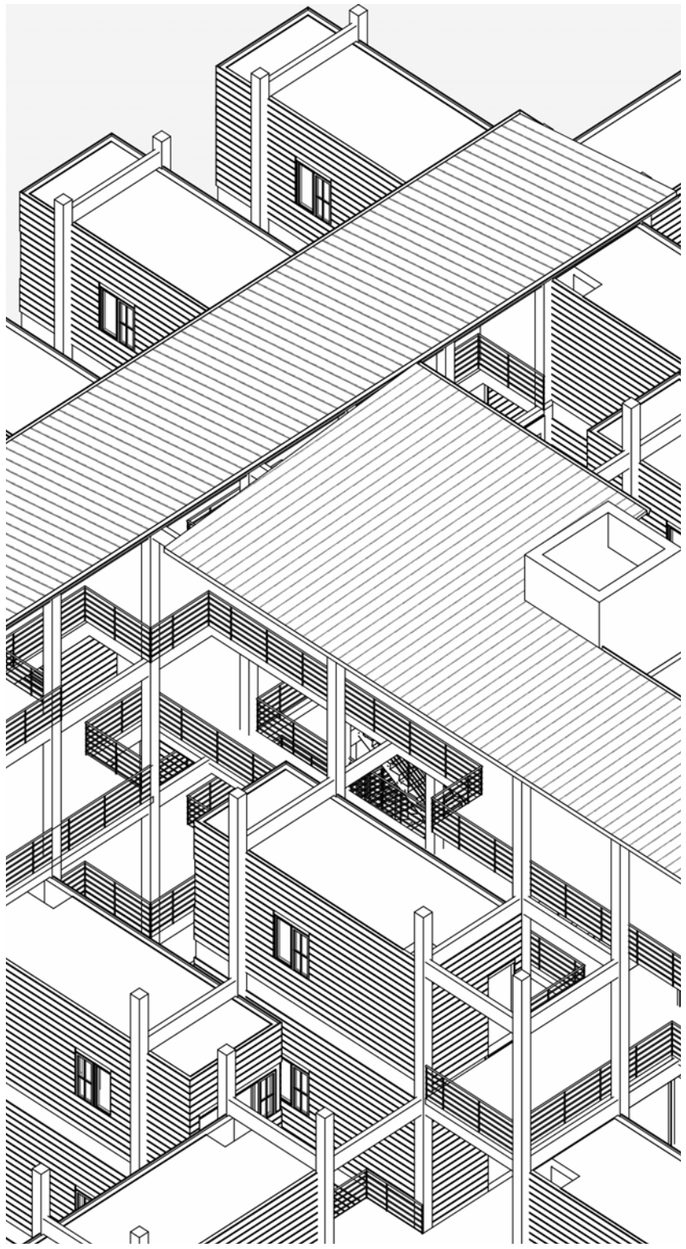


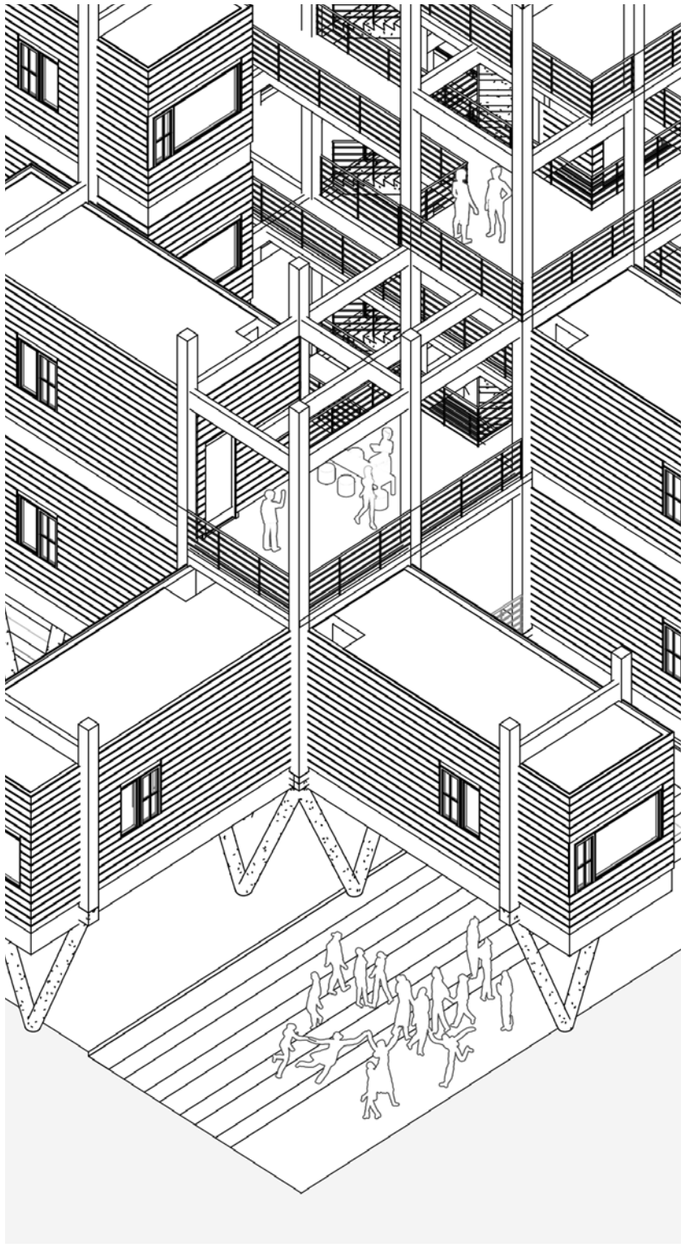
figure 3664

Isometric view

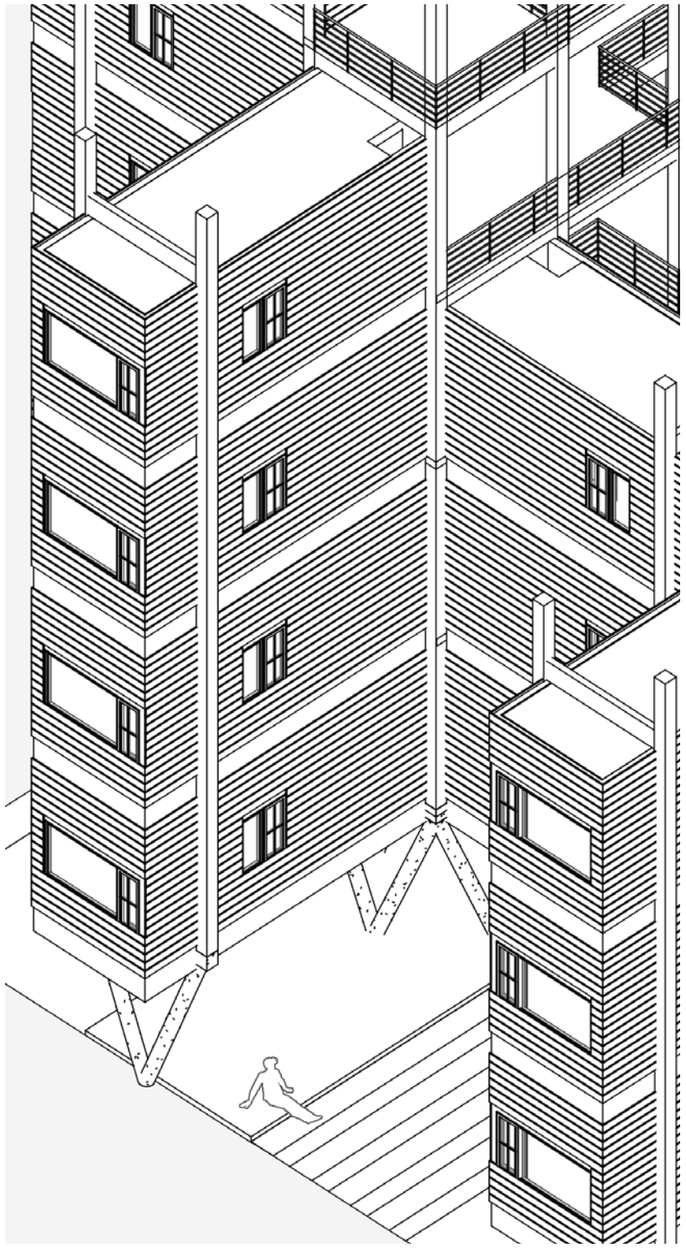




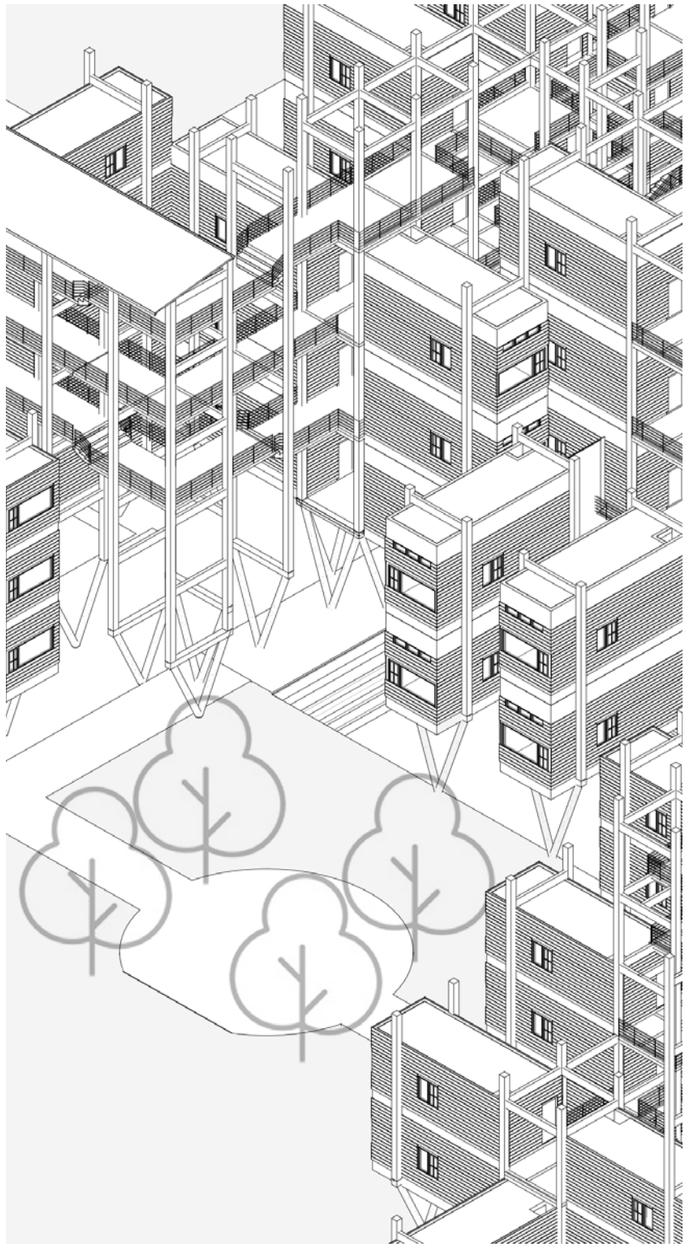
Roof Installation



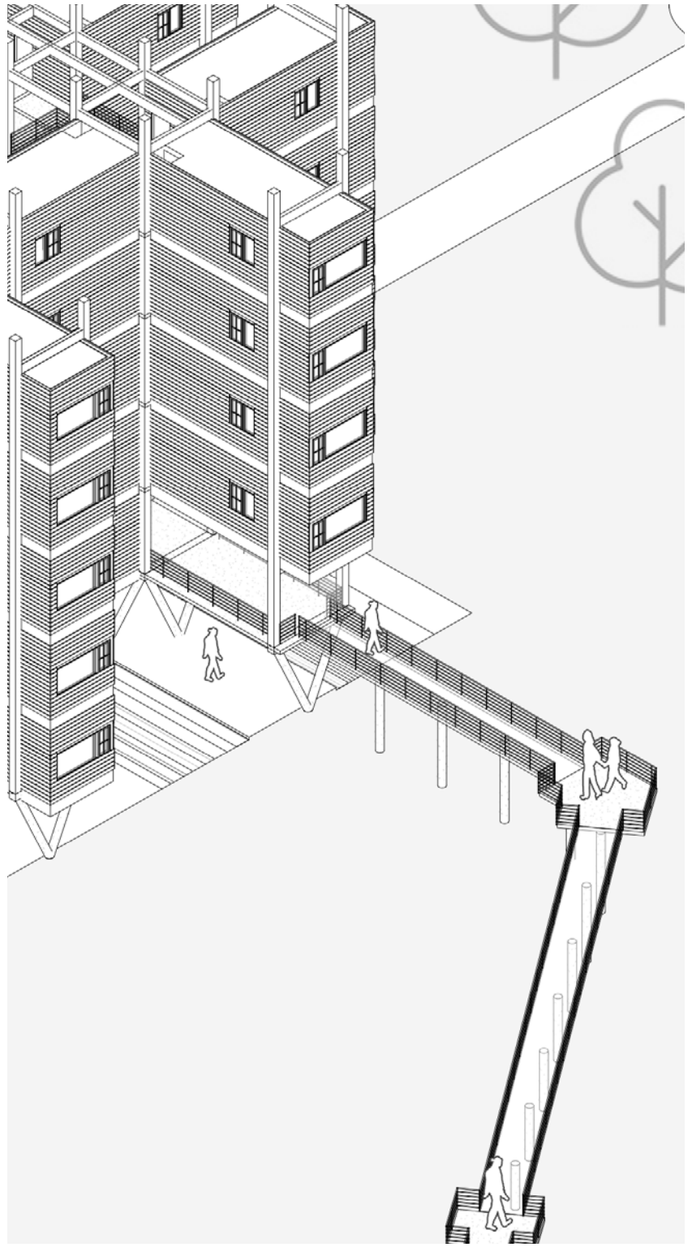
Amphitheatre



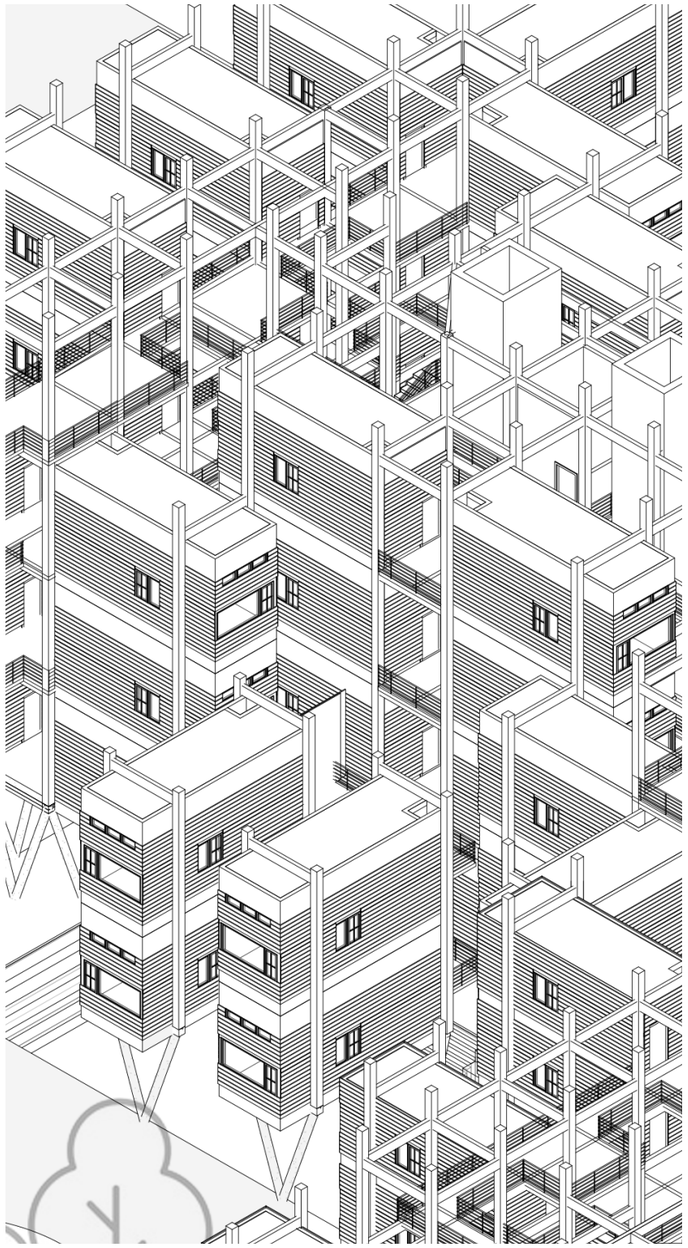
Stilt



Activity space



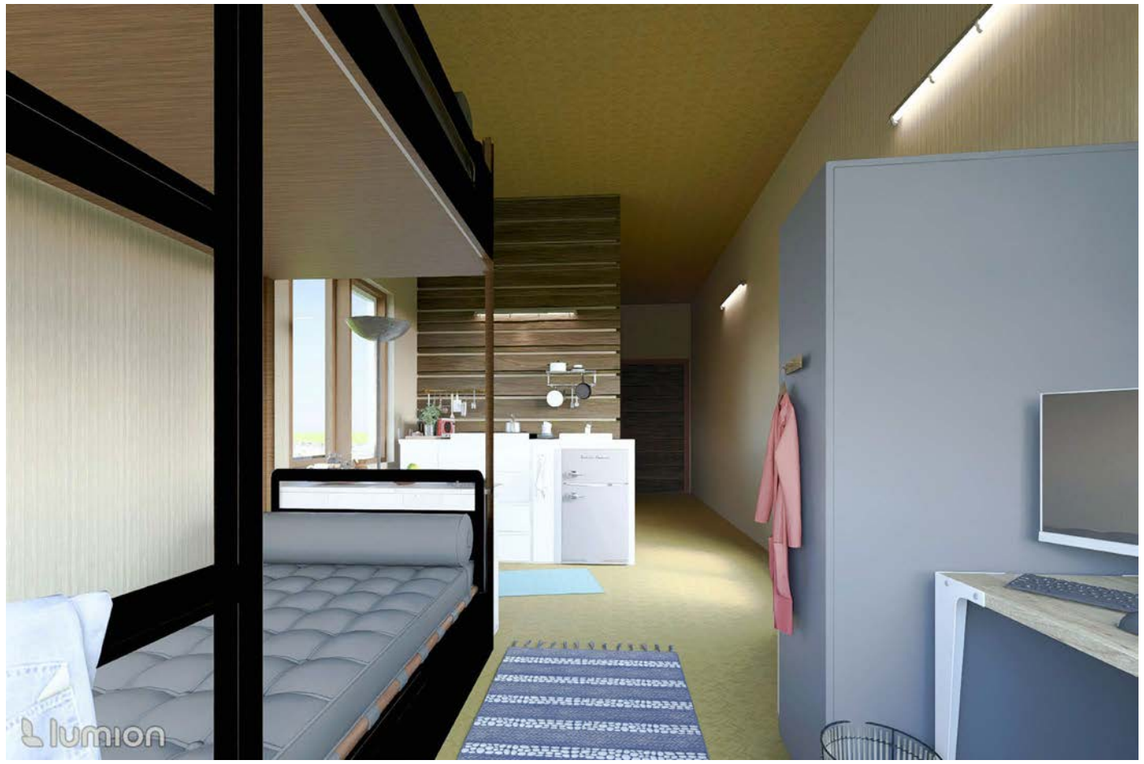
Ramp



Cluster

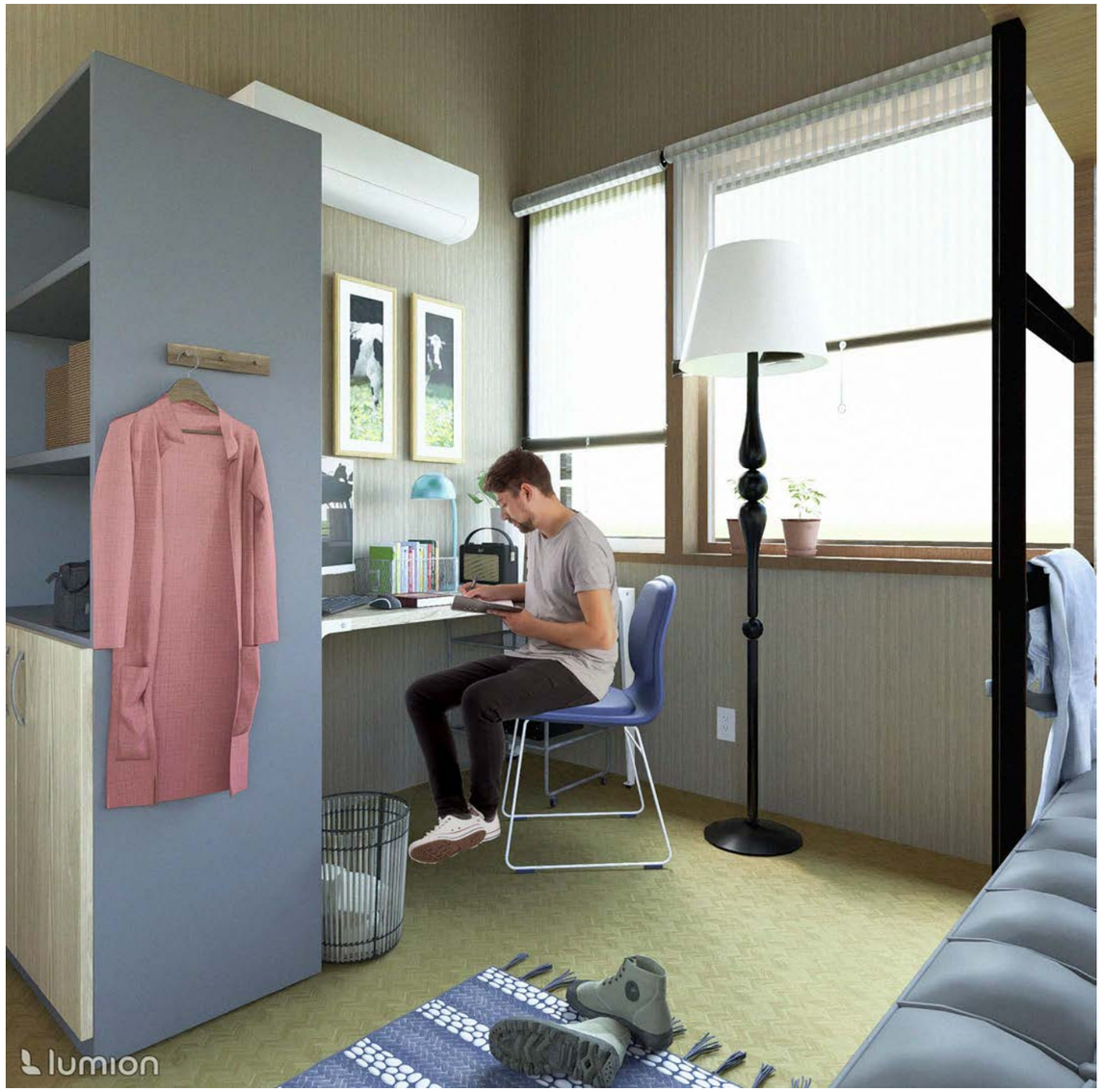
Interior view from double height module

Interior view from double height module



Interior view from standard module

Interior view from standard module

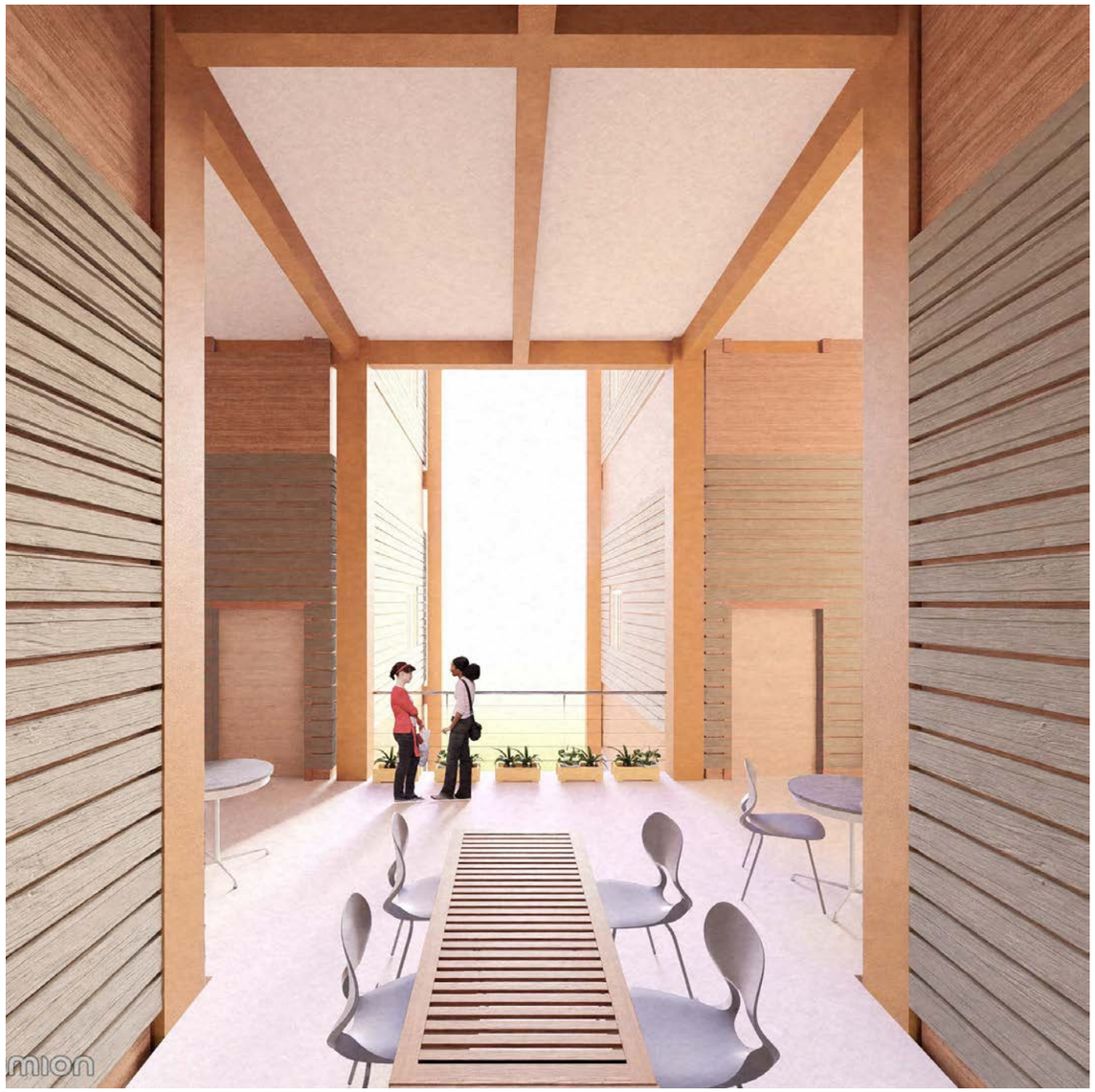


Interior view from standard module

Interior view from standard module

Communal Space

Communal Space



Communal Space

Passage view

Passage view

figure 4082

Passage view

CONCLUSION

This thesis demonstrates the transformative potential of modular, prefabricated housing as both an immediate response and a long-term solution for communities impacted by climate disasters. It proves that housing is more than just shelter and it should be a catalyst for resilience, healing, and meaningful change. Through the use of prefabricated mass timber, the project offers fast, sustainable construction that respects the land while providing spaces where people can live, connect, and grow. With adaptable design and a strong focus on community, it presents a bold, scalable vision for urban resilience. As a testament to the power of modular housing, this project fosters continuity and connection in the face of disruption. This is architecture that responds, restores, and reimagines clearly for a better future.

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https://experience.arcgis.com/experience/7fa7e6aa17364d3188ab25772c11d9ef

https://www.harriscountyfemt.org/