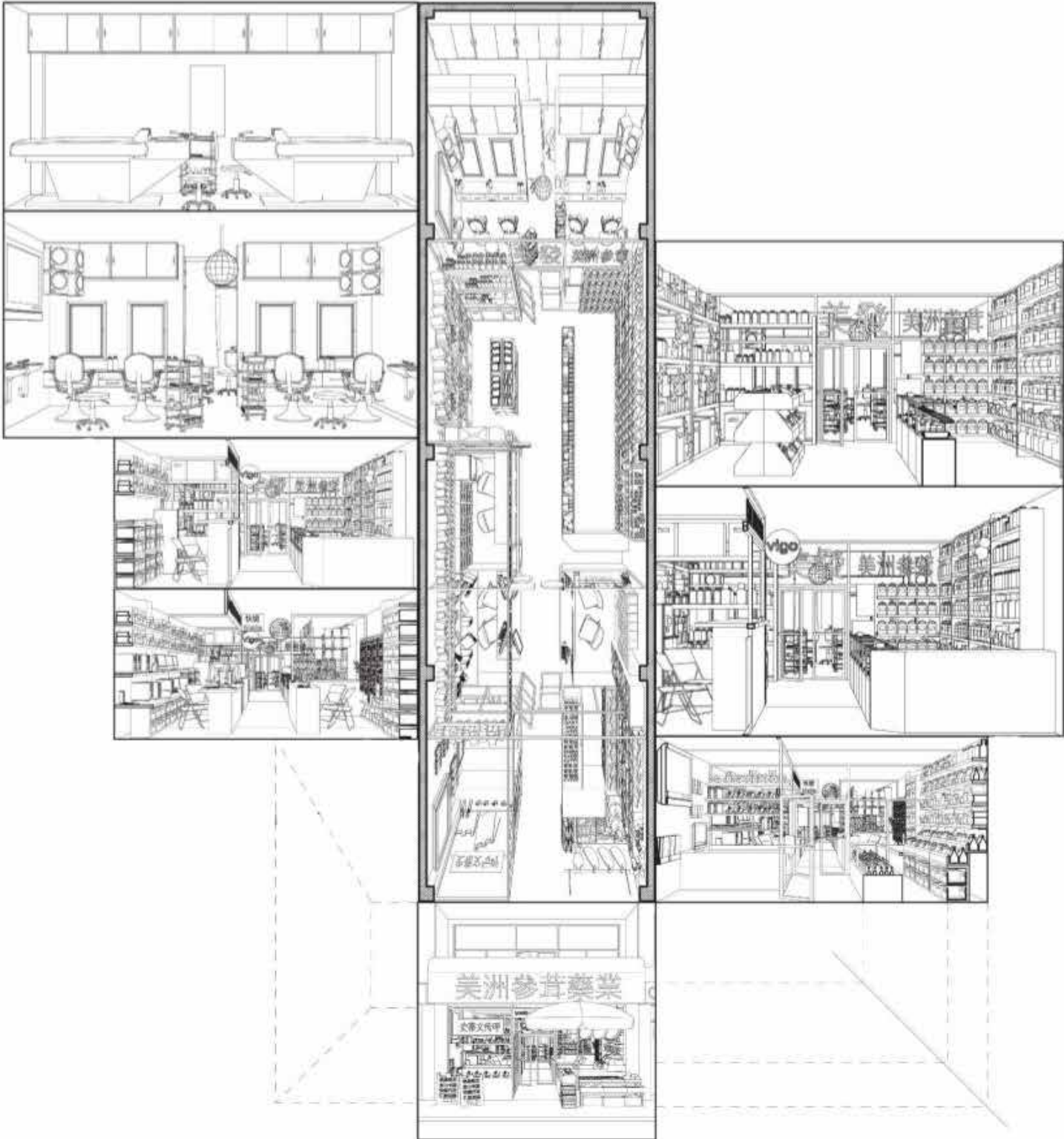


P O R T F O L I O
JIAYING QU

Selected Works From GSAPP
MSAAD, Columbia GSAPP, US
B.Arch, Tianjin University, China

Clinic "SHOPPING MALL"



01

FLUSHING CHAIN-STORE

Chain Activity System for Senior Flushing immigrants

GSAPP F21 Advanced Studio V

Group Work

Academic

December, 2021

Collaborator: Yuening Jiang, Bisheng Hong

Instructor: Phu Hoang

Flushing, New York

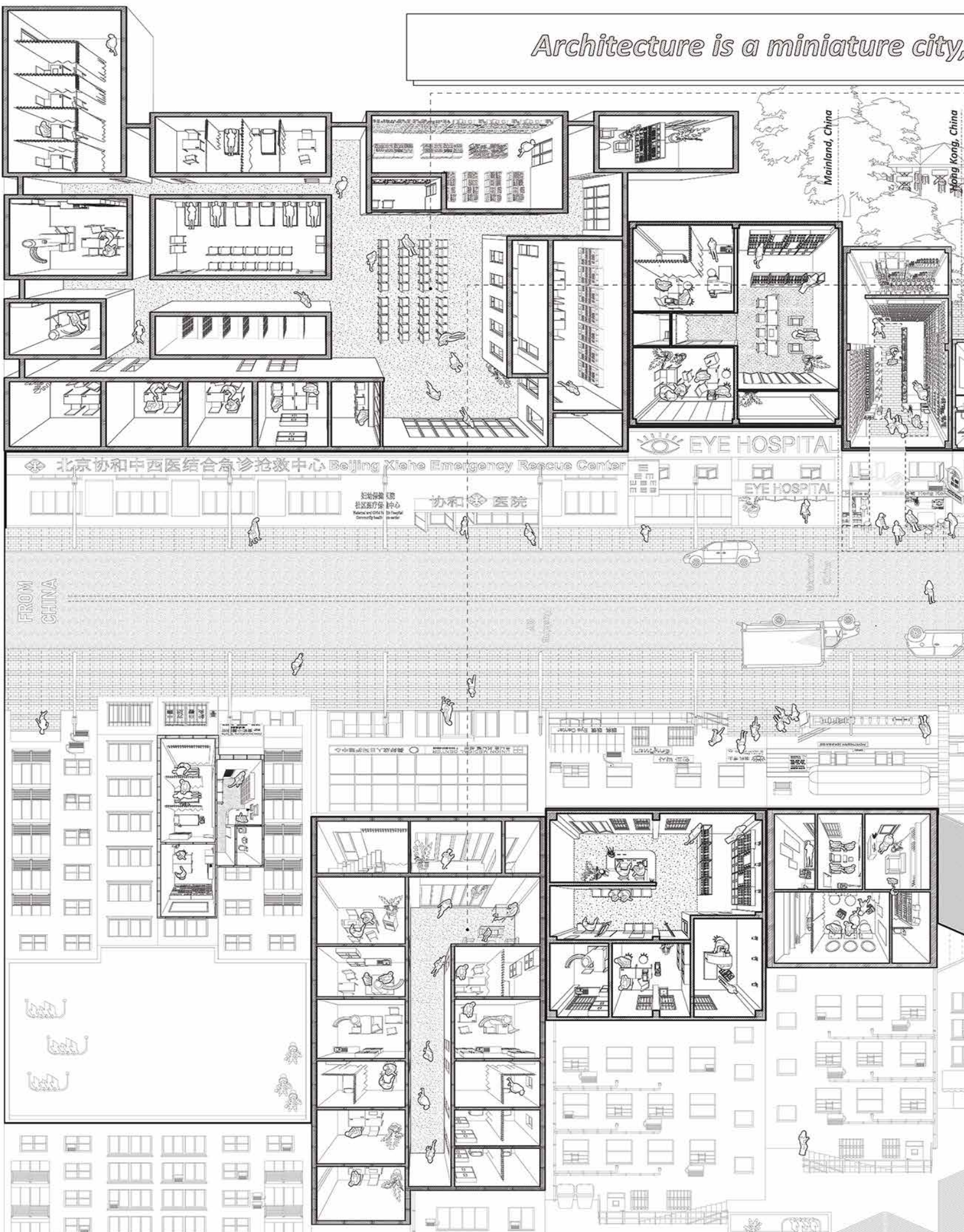
Though as the majority of Flushing immigrants, the seniors' living environment exists problems. The lack of activity space and the change of land property rights have brought many conflicts, such as the "McDonald's incident". To meet seniors' weekly needs and the quality of space, we proposed a system along Main Street providing multiple social and commercial activities in 3 architectural scales due to the current narrow and long lot.

The small house provides semi-exterior space for senior sport. The medium combines retail and diverse businesses for seniors. The large is designed to be a senior dating center which is also mixed with activities for other generations to promote intergenerational communication.

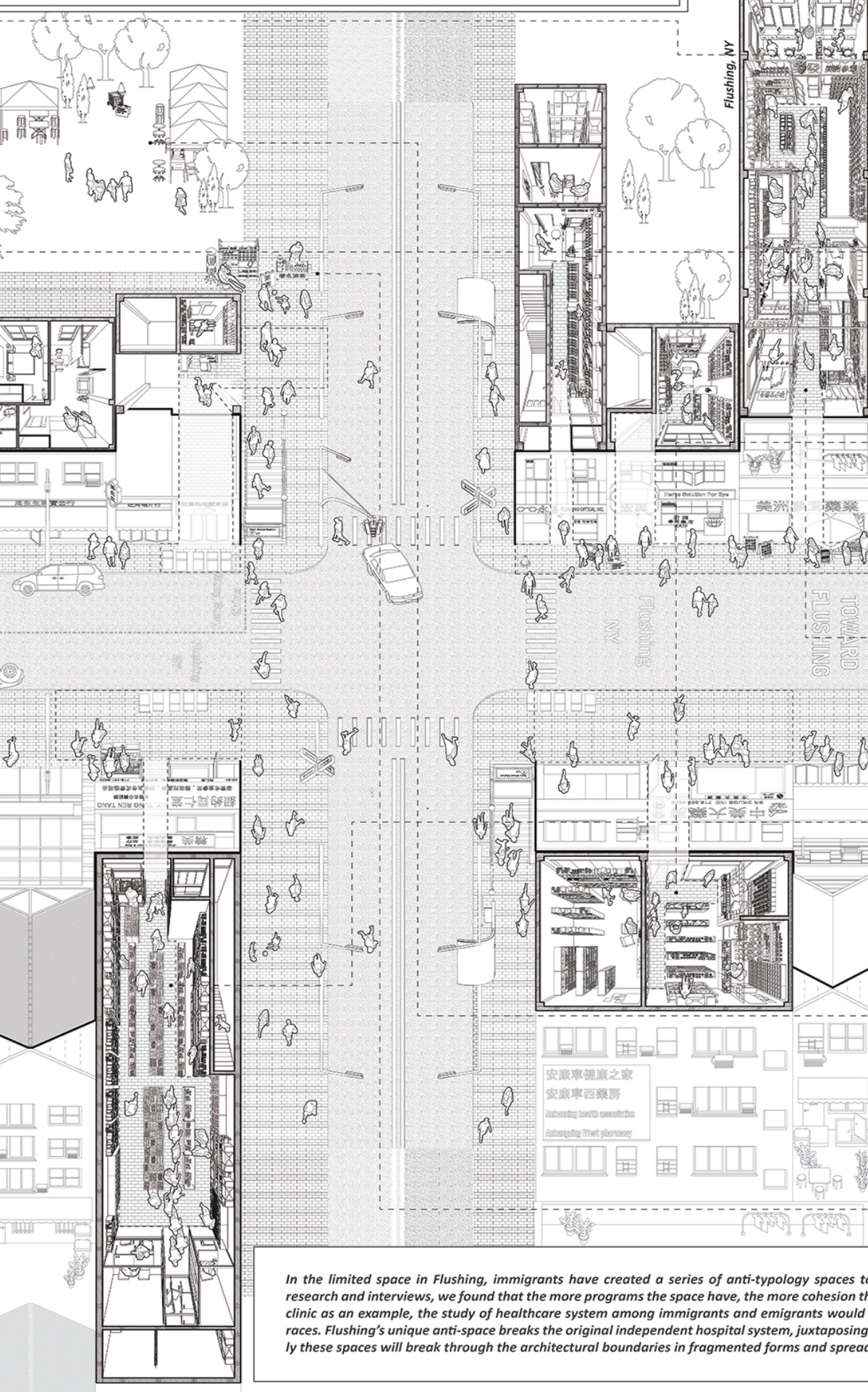
The spatial strategy consists of core, semi-space, and void. Core is the vital element, divided into vertical-circulation core and senior-activity core. Semi-space is an uncertain space for both senior activities and businesses for other generations. Using the movable walls, the size and arrangement of space can be easily changed according to multi-generation use. Void is the gap bringing light and ventilation, also adjusting temperature in all seasons.

The outstanding performance in thermal and energy efficiency of cross-laminated timber ensures the architecture is in a low-carbon and eco-friendly status.

Architecture is a miniature city,



the city is a large architecture.



• Comprehensible. Separate. Indifferent.



• Uncomprehensible. Specialized. Anxious.



• Comprehensible. Combined. Familiar.



• Comprehensible. Pluralistic. Satisfied.



• Comprehensible. Collective. Accepted.



• Comprehensible. Extended. Cared.



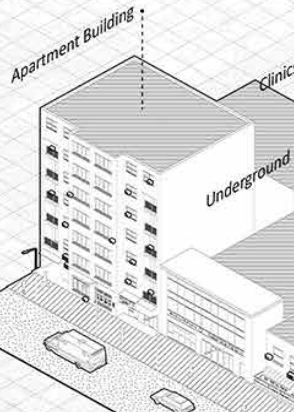
• Comprehensible. Diversified. Active.

In the limited space in Flushing, immigrants have created a series of anti-typology spaces to improve their living efficiency. Through our research and interviews, we found that the more programs the space have, the more cohesion the community have. Taking the private Chinese clinic as an example, the study of healthcare system among immigrants and emigrants would help to promote the cohesion across different races. Flushing's unique anti-space breaks the original independent hospital system, juxtaposing various functions in the same space. Eventually these spaces will break through the architectural boundaries in fragmented forms and spread to streets, parks and other public spaces.

PRESENT

Heating nowadays have brought serious environmental threats to Queens. The urban heat island effect exacerbates heat accumulation. Urban residents especially the elderly and low-income groups, are chronically exposed to the danger of heat diseases. The informal residential pattern in Flushing exacerbates this process.

The huge demand for air conditioning throughout the community will increase greenhouse gas emissions and the higher the indoor temperature the heavier the emission burden on the environment. It can also greatly strain the power grid system in the summer, raising the risk of blackouts, especially for older migrants.



Global warming and the UHI effect interact in a vicious cycle, exacerbating the temperature rise in urban areas.

Hot Air from Interior of the U.S.

Hot Air from Atlantic

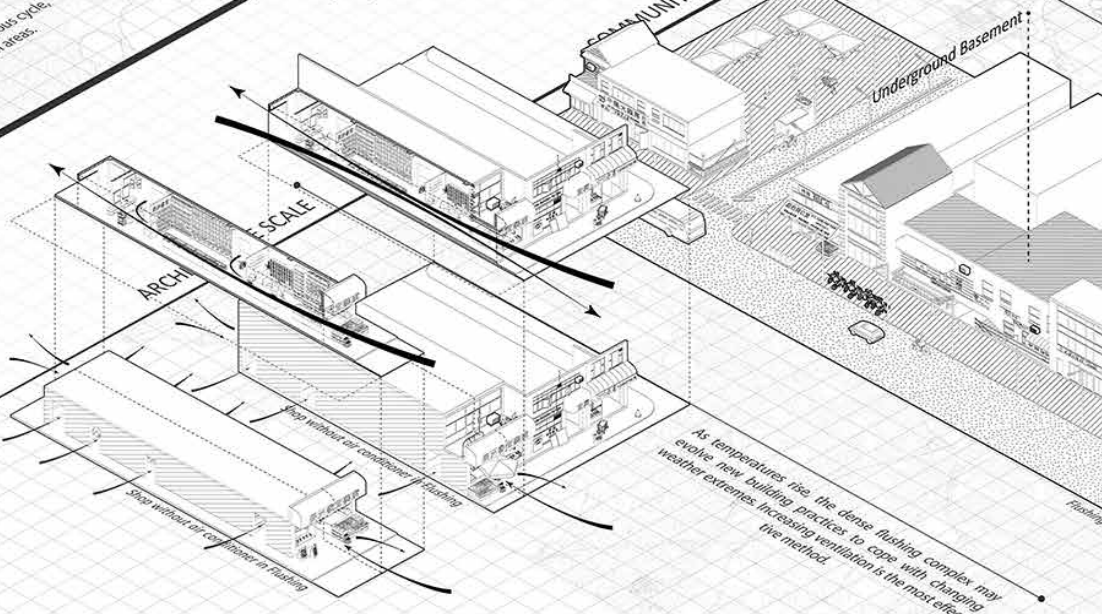
PLANETARY SCALE

COMMUNITY SCALE

ARCHITECTURAL SCALE

HUMAN SCALE

From individual aspect, the lifestyle of reducing emissions can be advocated.



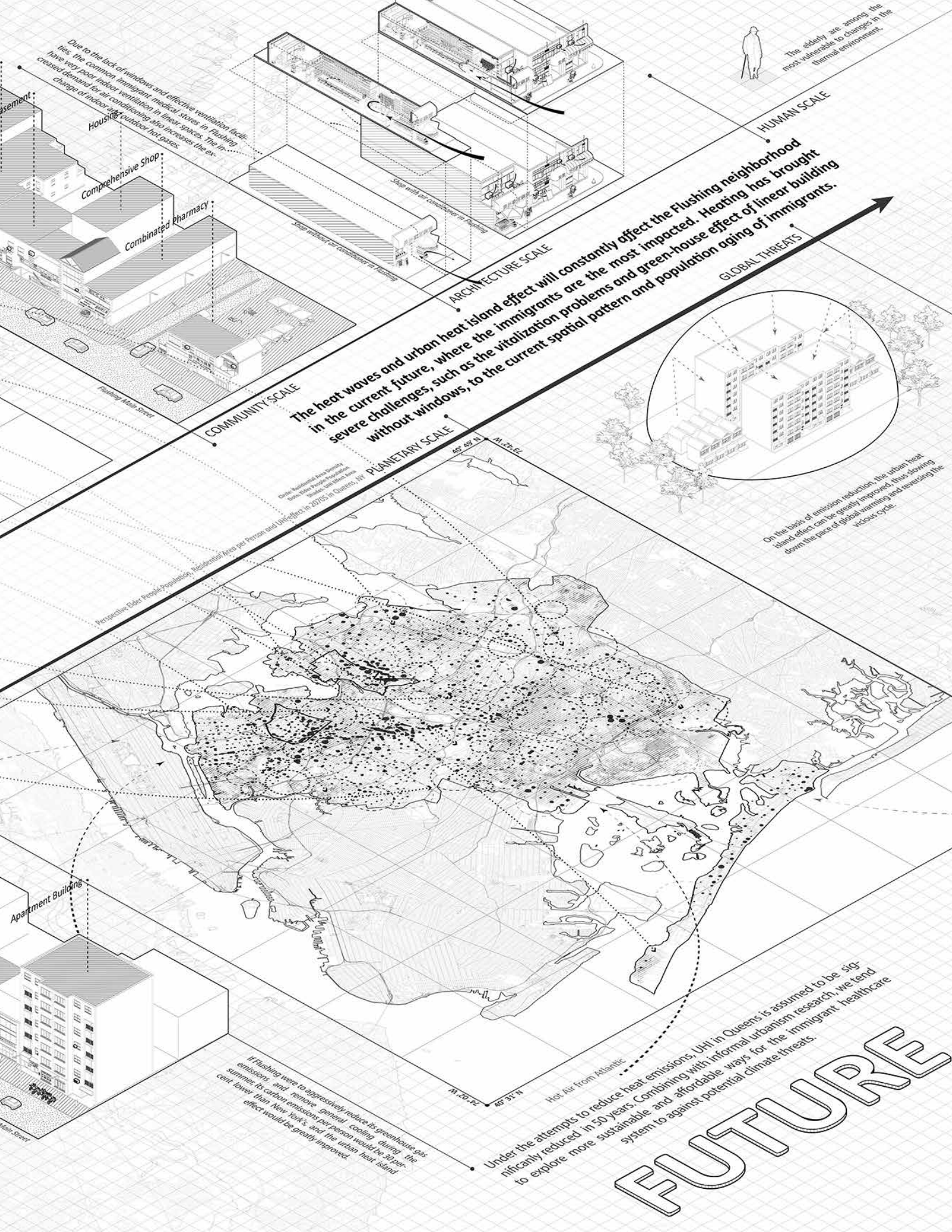
As temperatures rise, the dense flushing complex may evolve new building practices to cope with changing weather extremes. Increasing ventilation is the most effective method.

Older People Population
Global Warming
Urban Heat Island
Urban Heat Island

Controlled Area per Person and Only Effect in Queens, NY

Underground Basement

Flushing



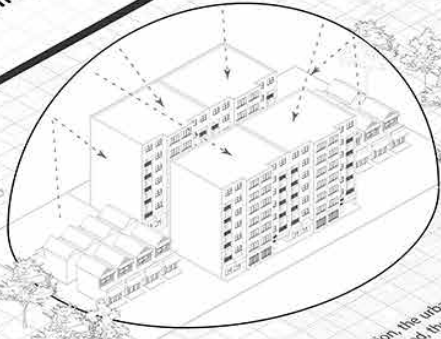
The elderly are among the most vulnerable to changes in the thermal environment.



HUMAN SCALE

The heat waves and urban heat island effect will constantly affect the Flushing neighborhood in the current future, where the immigrants are the most impacted. Heating has brought severe challenges, such as the vitalization problems and green-house effect of linear building without windows, to the current spatial pattern and population aging of immigrants.

GLOBAL THREATS



On the basis of emission reduction, the urban heat island effect can be greatly improved. It thus slowing down the pace of global warming and reversing the vicious cycle.

PLANETARY SCALE

COMMUNITY SCALE

ARCHITECTURE SCALE

Due to the lack of windows and effective ventilation facilities, the common immigrant medical stores in Flushing have very poor indoor air conditioning. In addition, the increased demand for air conditioning also increases the exchange of indoor and outdoor hot gases.

Housing

Comprehensive Shop

Combinated Pharmacy

Flushing Main Street

Urban Residential Area Density Data from Census Bureau, Census of Population and Housing, Census of Queens, NY, 2015

Perspective Elder People Population, Residential Area per Person and Unit Effect in Queens, NY

45° 59' N, 73° 52' W

45° 20' N, 73° 51' W

Hot Air from Atlantic

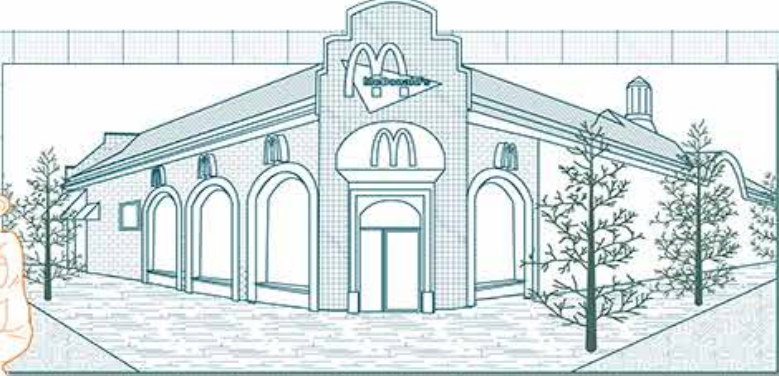
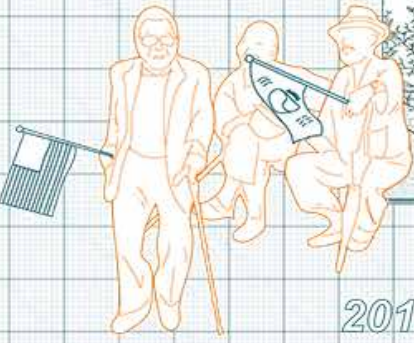
Under the attempts to reduce heat emissions, UHII in Queens is assumed to be significantly reduced in 50 years. Combining with informal urbanism research, we tend to explore more sustainable and affordable ways for the immigrant healthcare system to against potential climate threats.

FUTURE

If Flushing were to aggressively reduce its greenhouse-gas emissions and remove general cooling during the summer, its carbon emissions per person would be 30 percent lower than New York's, and the urban heat island effect would be greatly improved.

Apartment Buildings

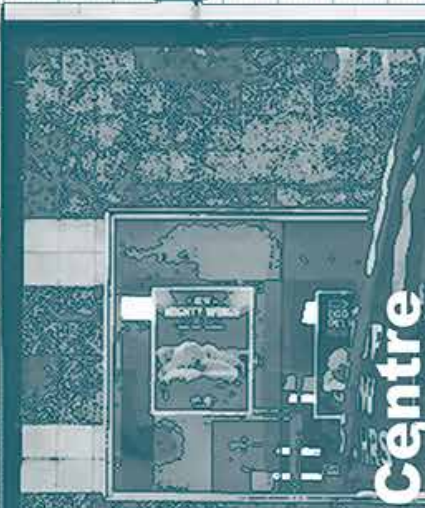
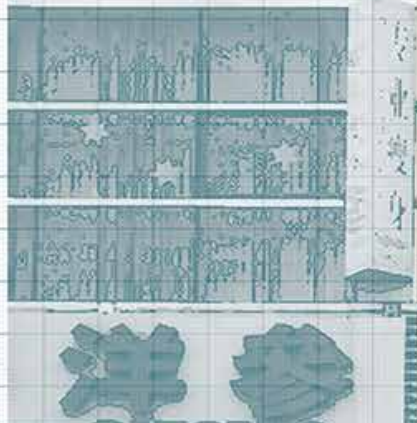
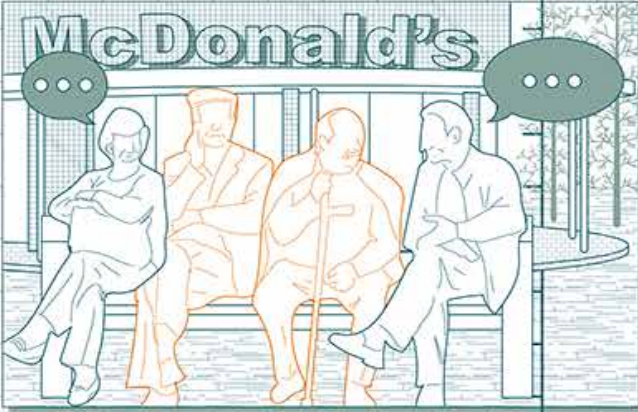
Main Street



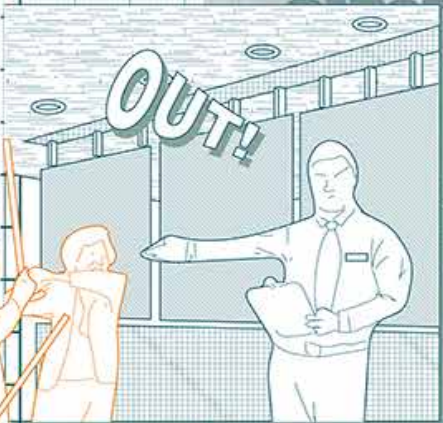
McDonald's
14401 Northern Blvd
Flushing, NY11354

2012

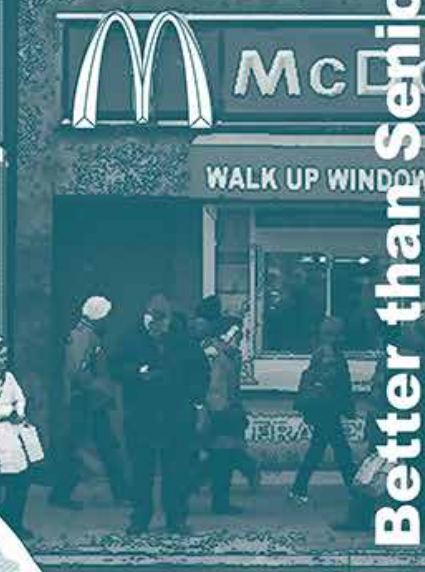
Beauty Salon (總店)
718-661-1116
Entrance at 40th Rd



Better than Senior Centre



April.2013



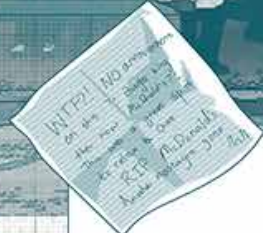
2018



Jan.2014

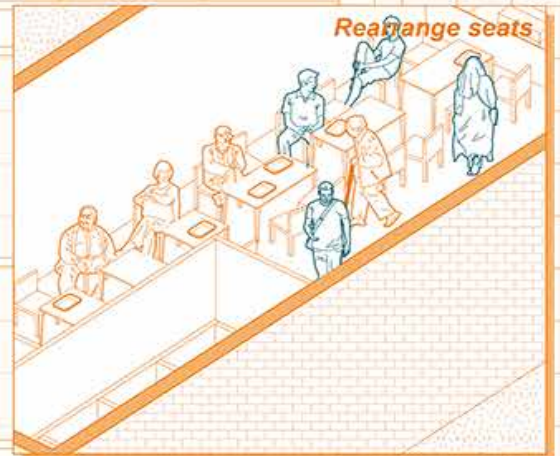
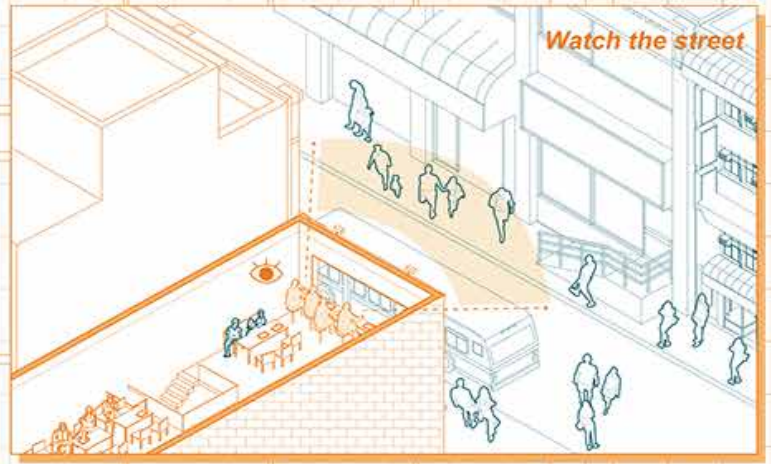


McSolution



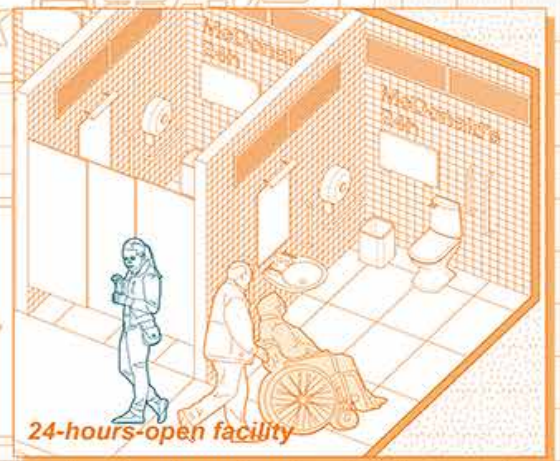


Affordable food

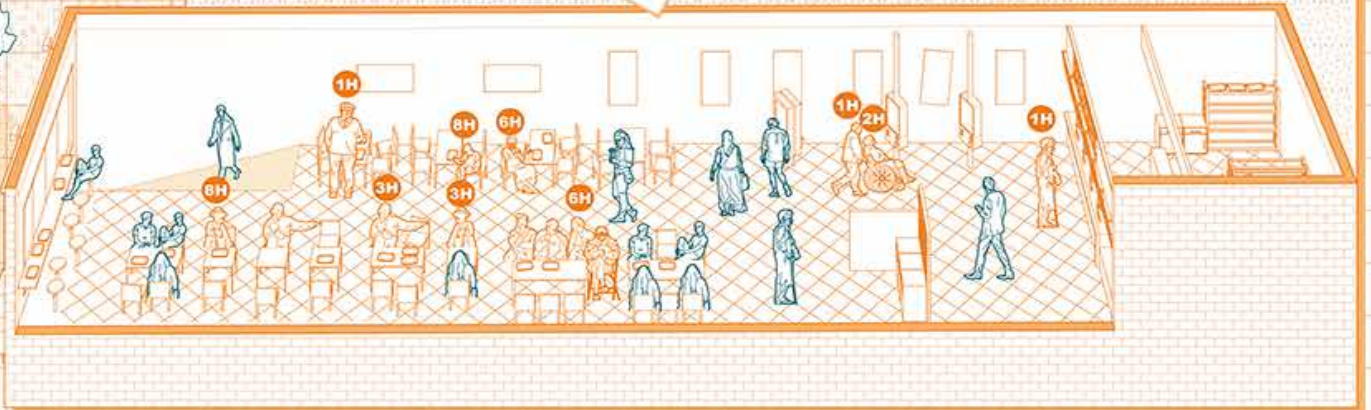
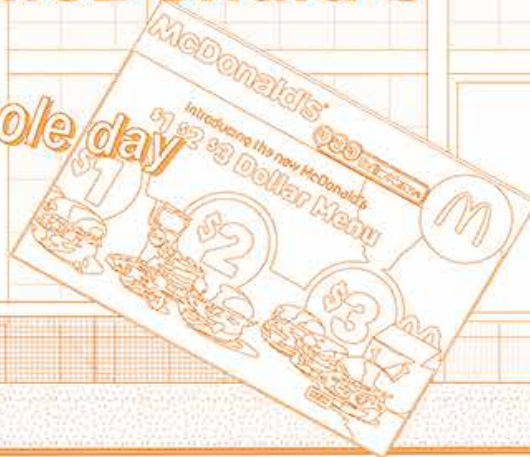


SENIOR LOVE

McDonald's



2\$ = A whole day



McDonald's

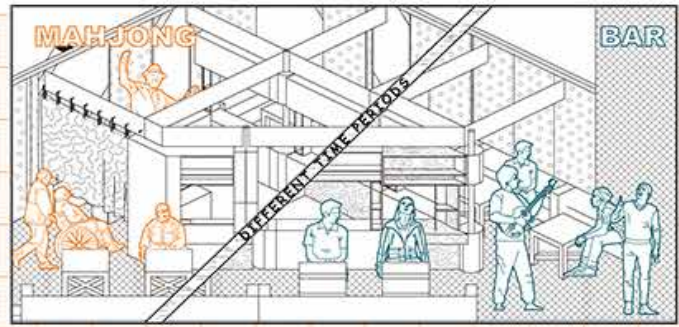
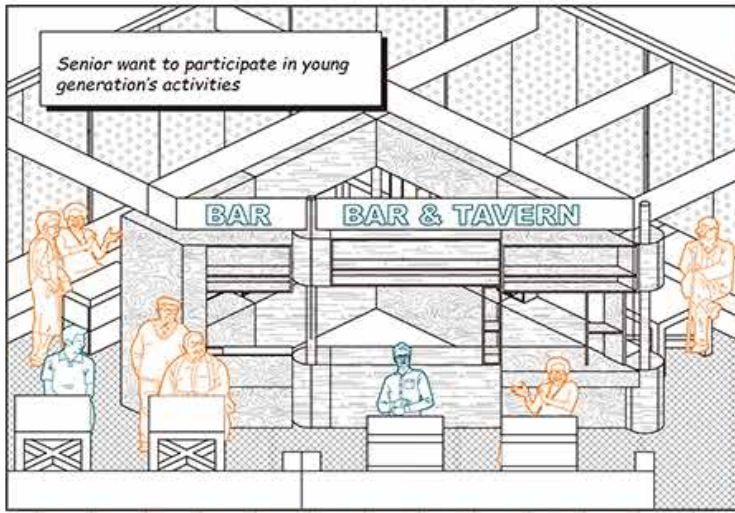
McDonald's

McDonald's

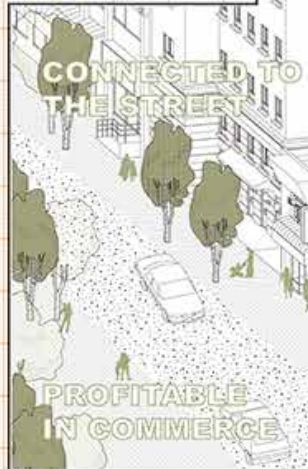
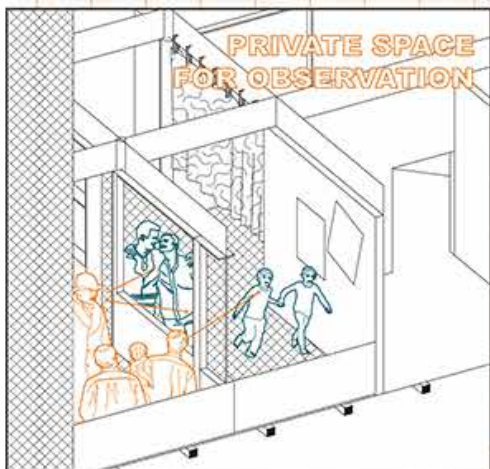
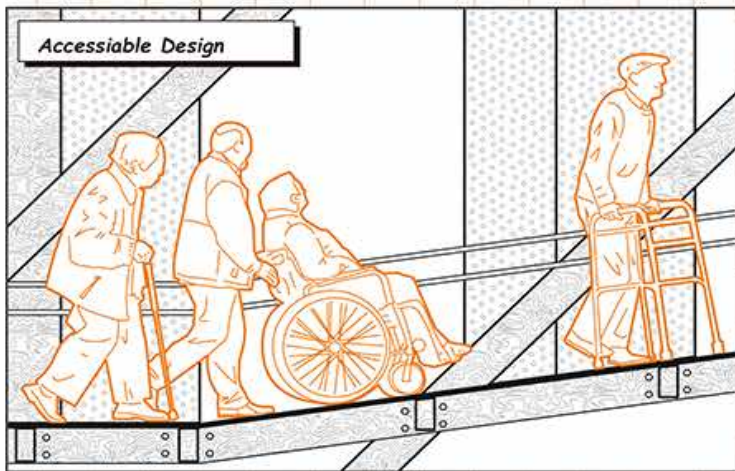
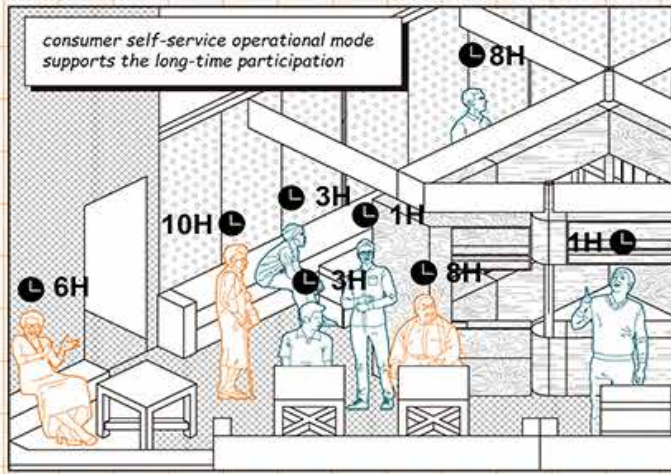


Flushing Main St.

A

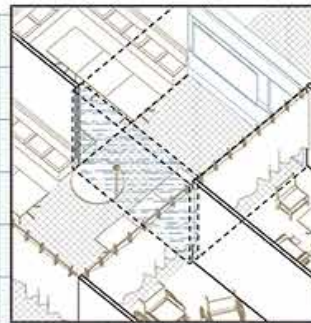
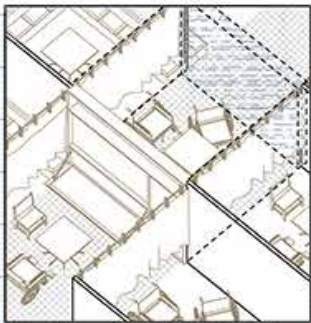


the same space can be used in two different way in different time periods, which could increase the profitability and efficiency.

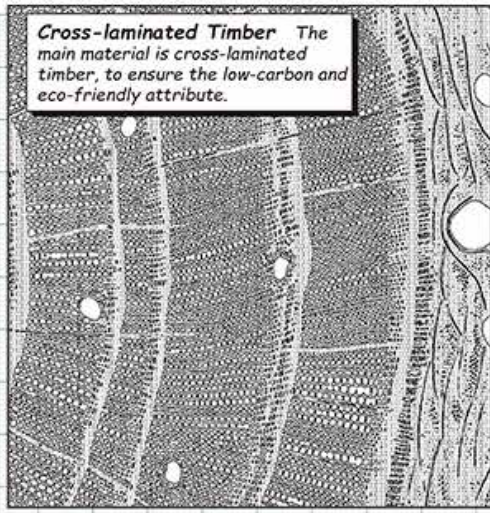




Young man like to play Mahjong too



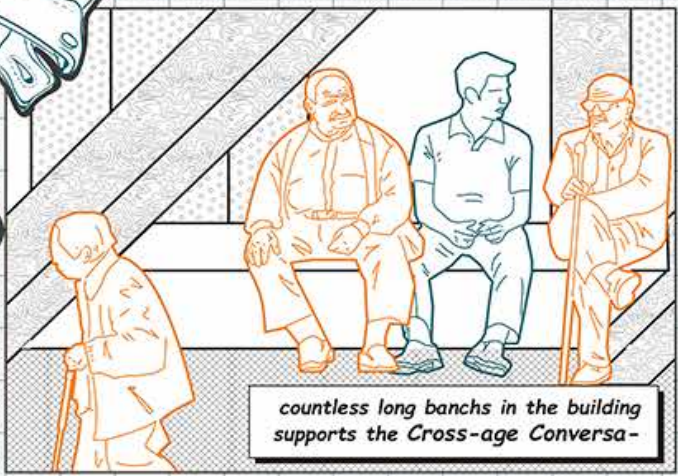
Operational Opening Moveable furniture wall allows the space to be re-divided. The space dominated by the elderly expands and contracts through the movement of the operational opening.



Cross-laminated Timber The main material is cross-laminated timber, to ensure the low-carbon and eco-friendly attribute.



Senior activities core as ventilation pipe to attach positive representation to senior.



countless long banchs in the building supports the Cross-age Conversa-



x 1



x 10+

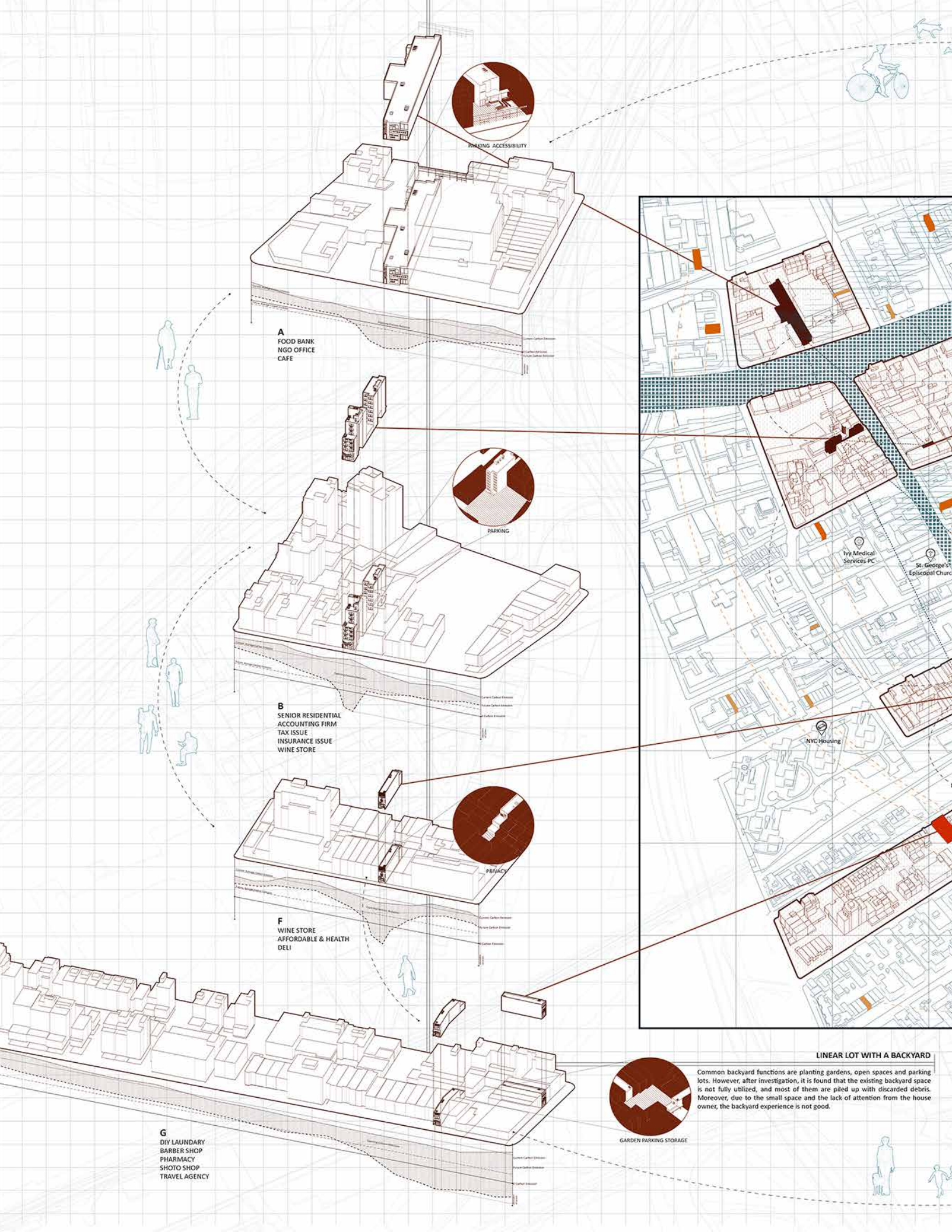


x 100+

- A business model that will be reused
- A business system that is friendly to the elderly
- A environment friendly design
- A project help to reduce CO2 emission

.....
the power grow strong when the system is duplicated in the Queens/NYC





PARKING ACCESSIBILITY



PARKING



PHARMACY



GARDEN PARKING STORAGE

A
FOOD BANK
NGO OFFICE
CAFE

B
SENIOR RESIDENTIAL
ACCOUNTING FIRM
TAX ISSUE
INSURANCE ISSUE
WINE STORE

F
WINE STORE
AFFORDABLE & HEALTH
DELI

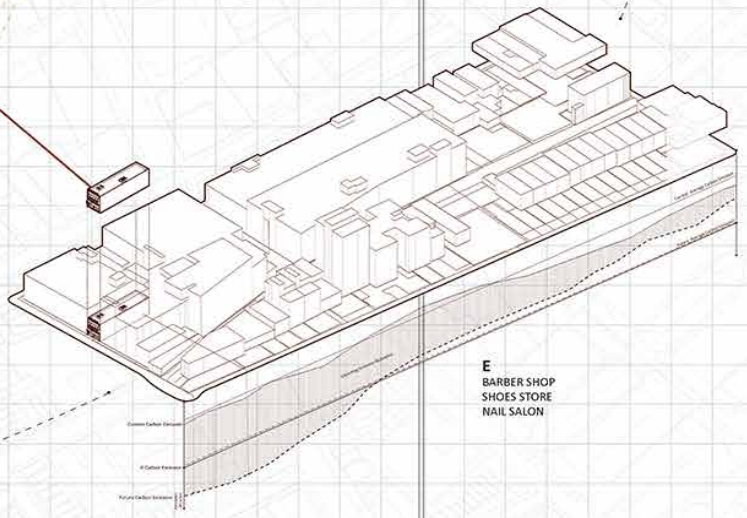
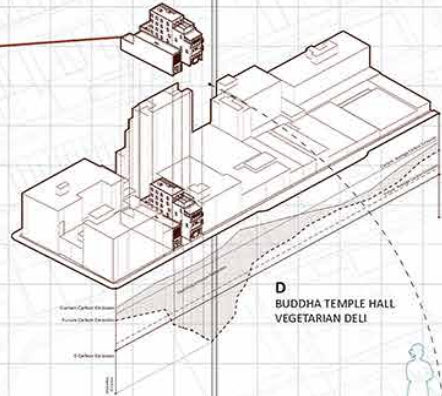
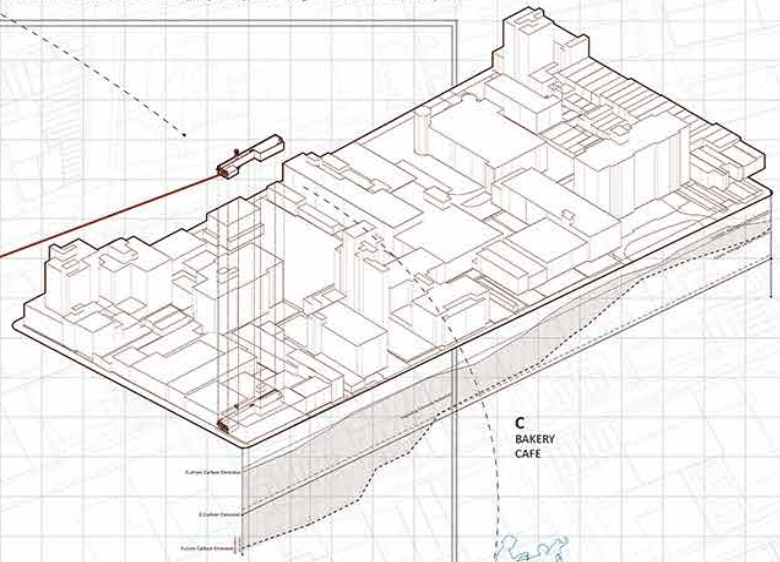
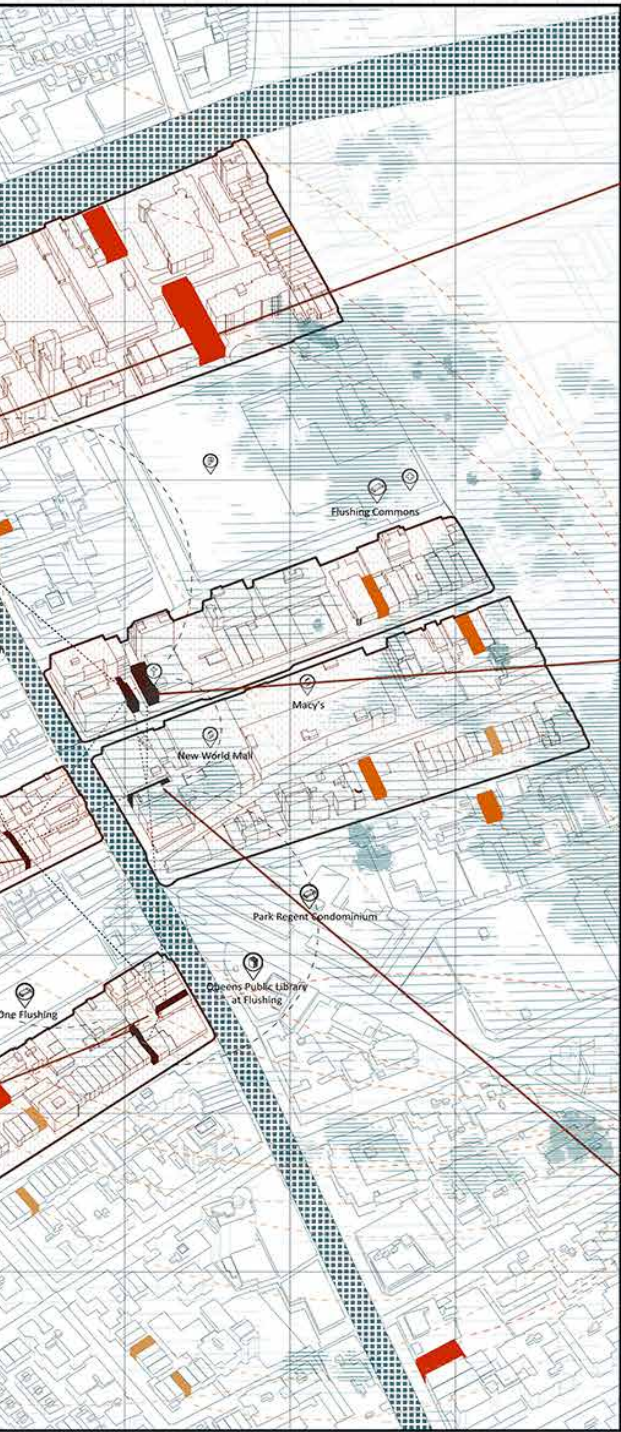
G
DIY LAUNDRY
BARBER SHOP
PHARMACY
SHOTO SHOP
TRAVEL AGENCY

LINEAR LOT WITH A BACKYARD

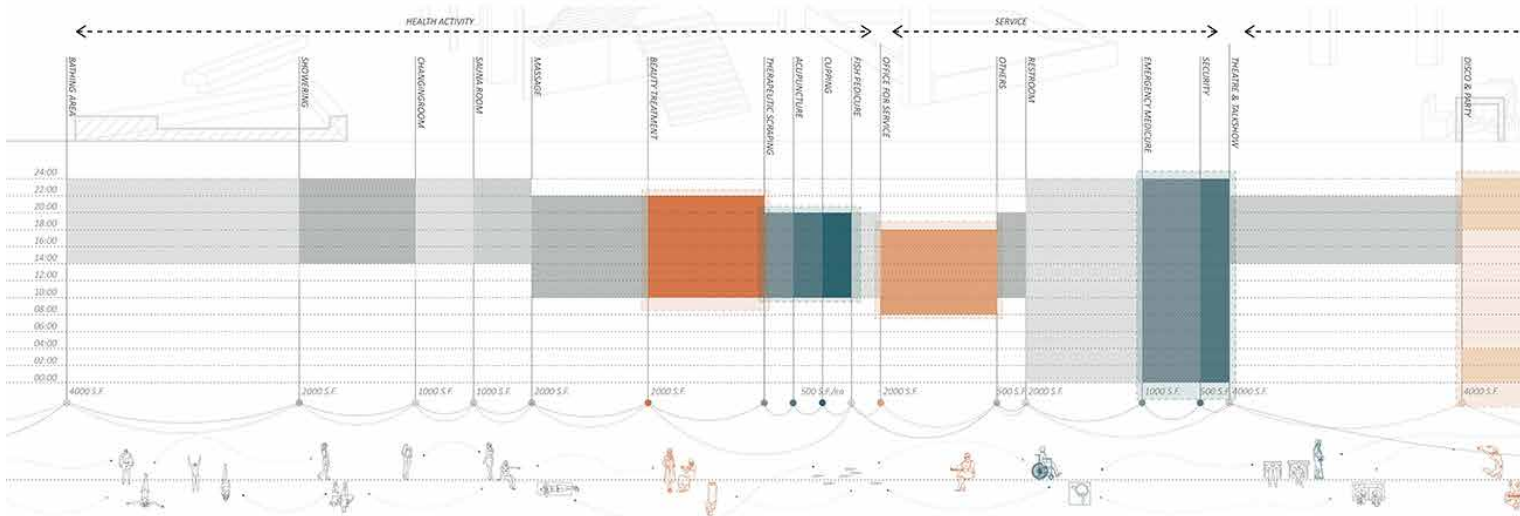
Common backyard functions are planting gardens, open spaces and parking lots. However, after investigation, it is found that the existing backyard space is not fully utilized, and most of them are piled up with discarded debris. Moreover, due to the small space and the lack of attention from the house owner, the backyard experience is not good.

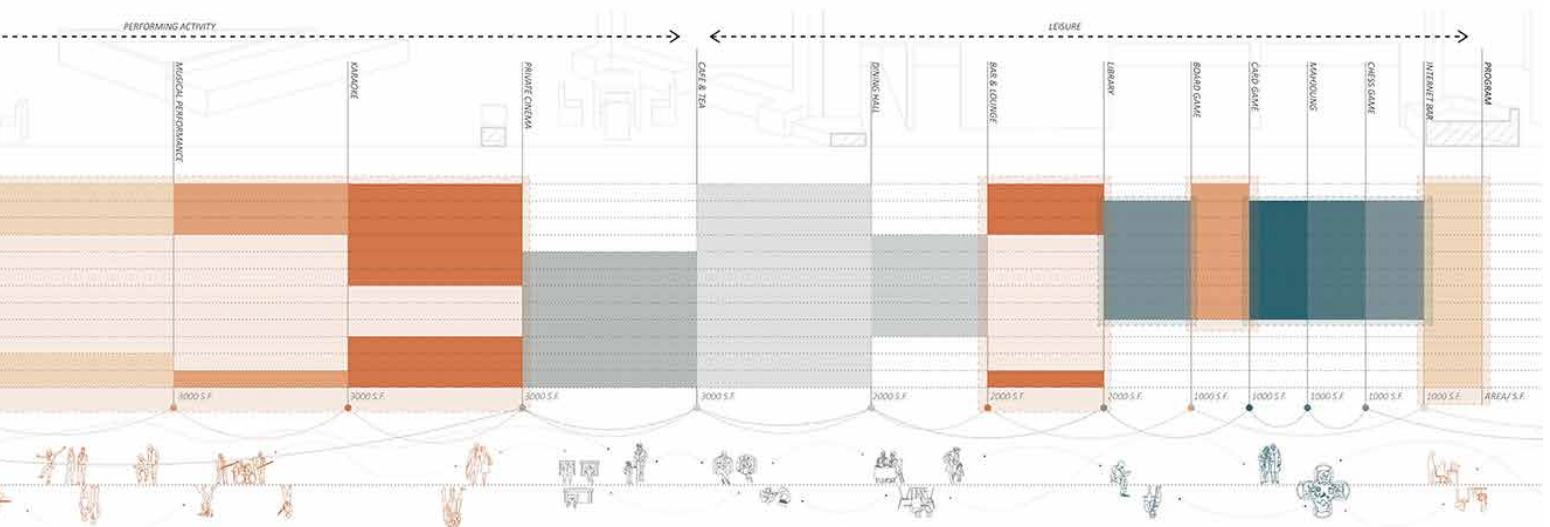
The linear long space without a backyard has Flushing's worst ventilation environment. Relying only on a high window or a small door on the back wall cannot meet the indoor air circulation demand. As a result, the use of air conditioners increases, which has an impact on the urban climate. This type of building has a huge contact area with the surrounding buildings, but in fact, it has no connection at all. The indoor environment is not user-friendly, especially since the ground floor needs to rely on artificial light sources and ventilation systems.

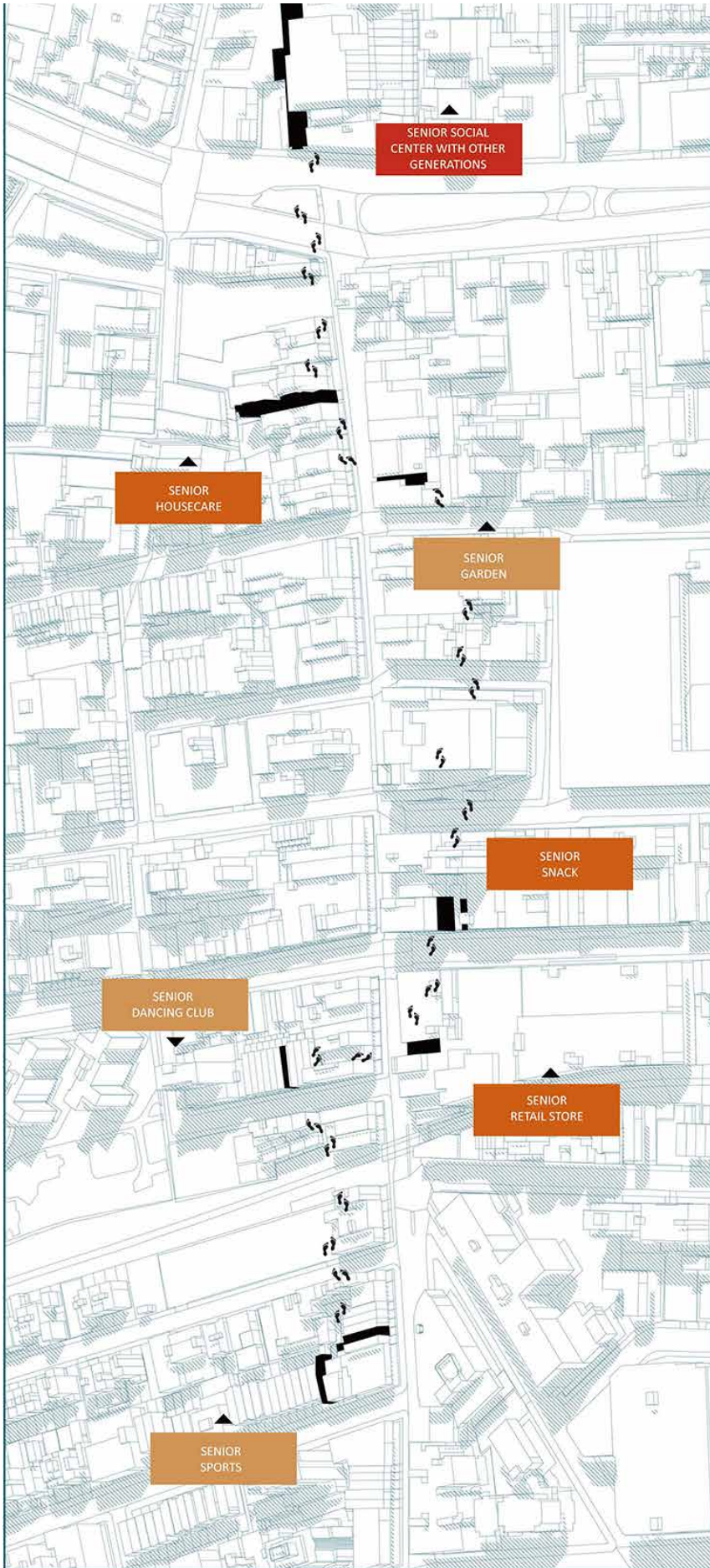
LINEAR LOT WITHOUT A BACKYARD



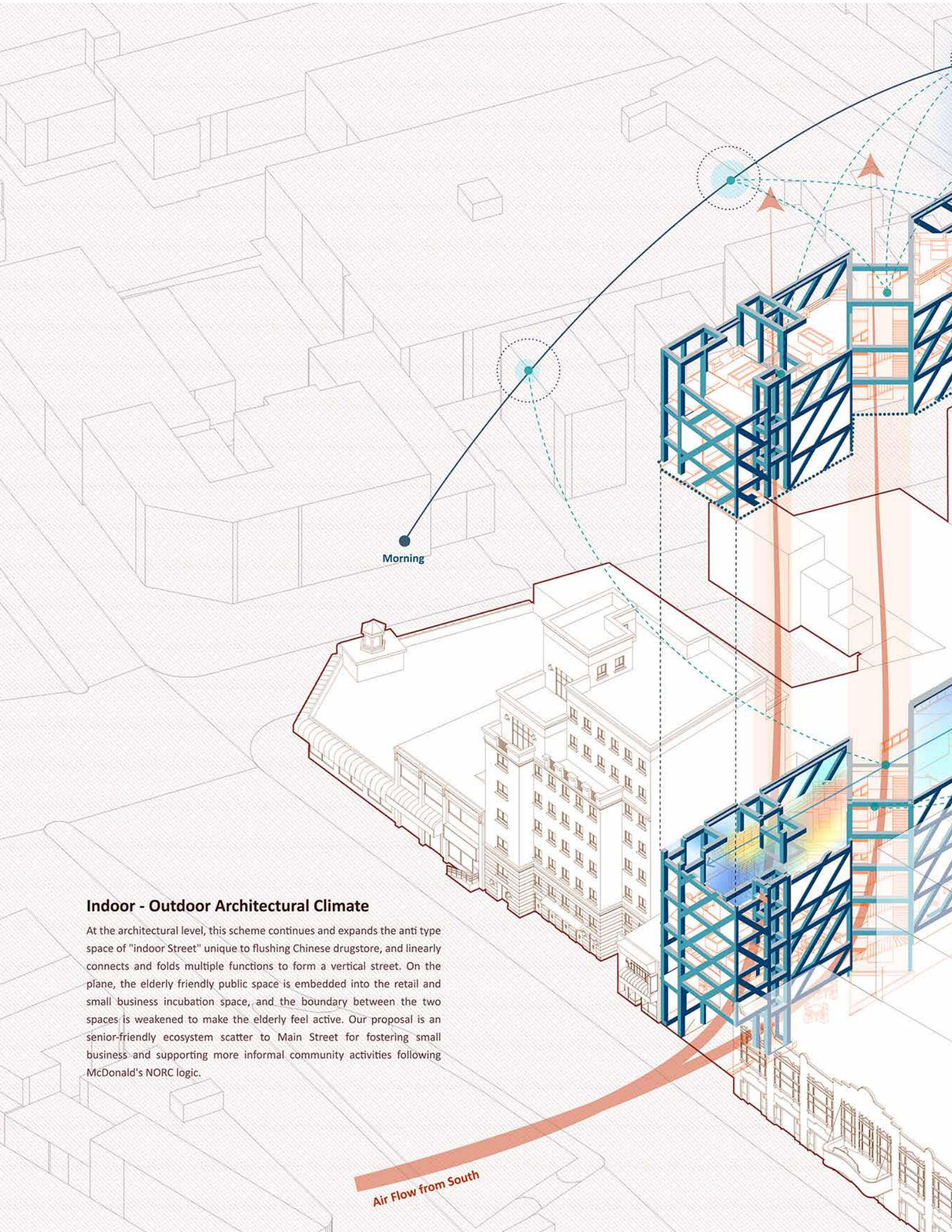
- Large site (35-45 feet)
- Medium site (25-35 feet)
- Small site (10-30 feet)







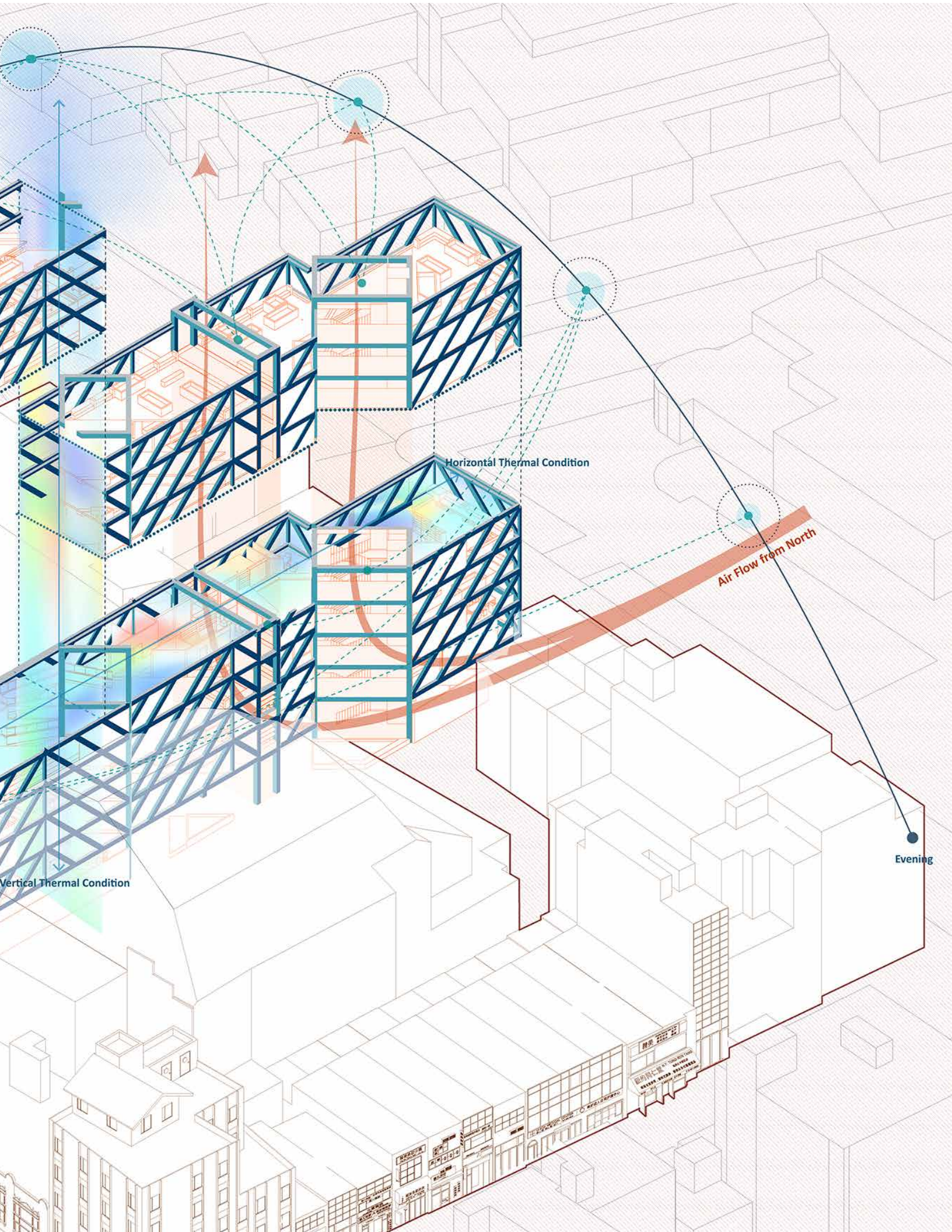


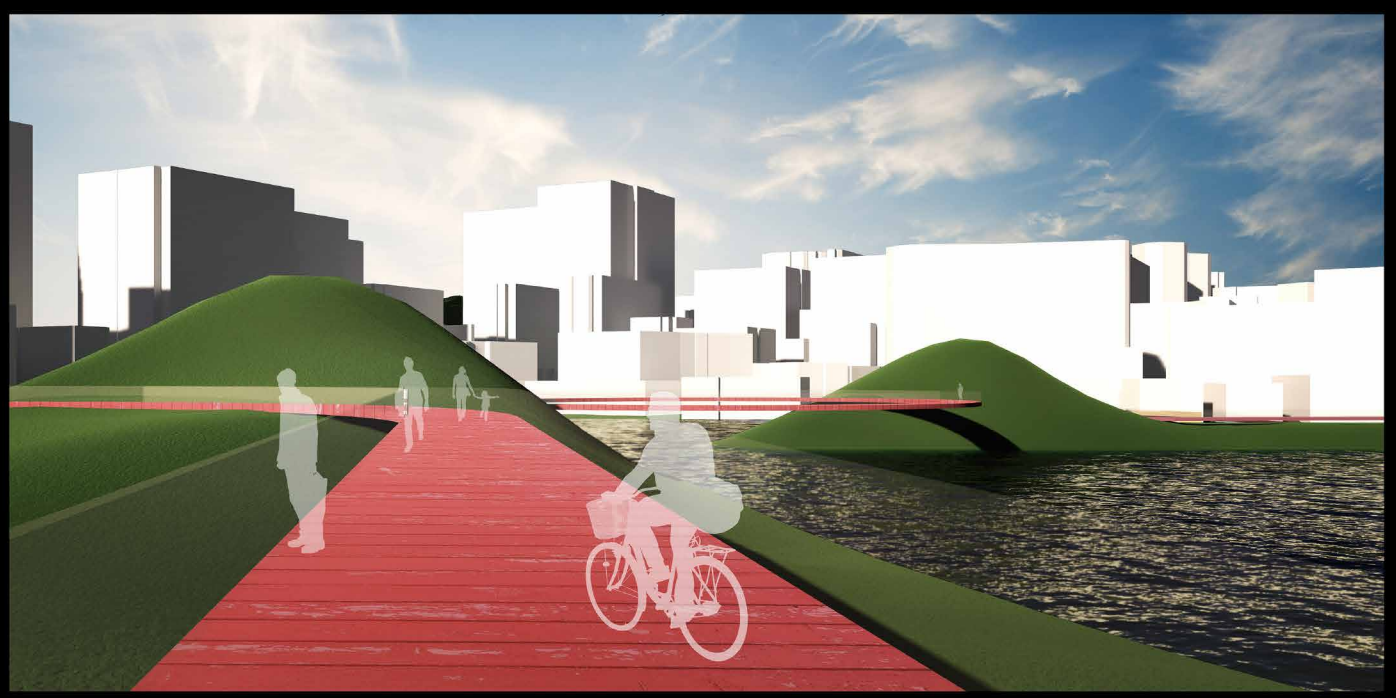
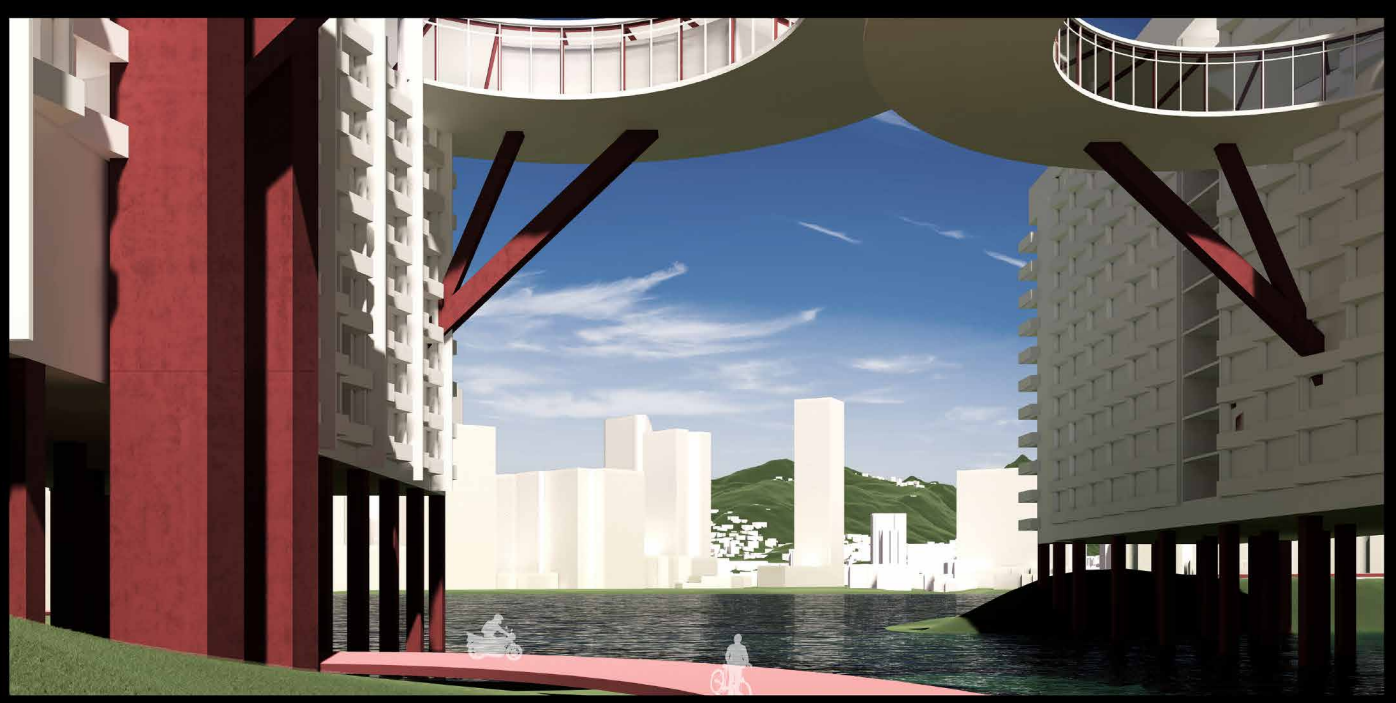


Indoor - Outdoor Architectural Climate

At the architectural level, this scheme continues and expands the anti type space of "indoor Street" unique to flushing Chinese drugstore, and linearly connects and folds multiple functions to form a vertical street. On the plane, the elderly friendly public space is embedded into the retail and small business incubation space, and the boundary between the two spaces is weakened to make the elderly feel active. Our proposal is an senior-friendly ecosystem scatter to Main Street for fostering small business and supporting more informal community activities following McDonald's NORC logic.

Air Flow from South





02

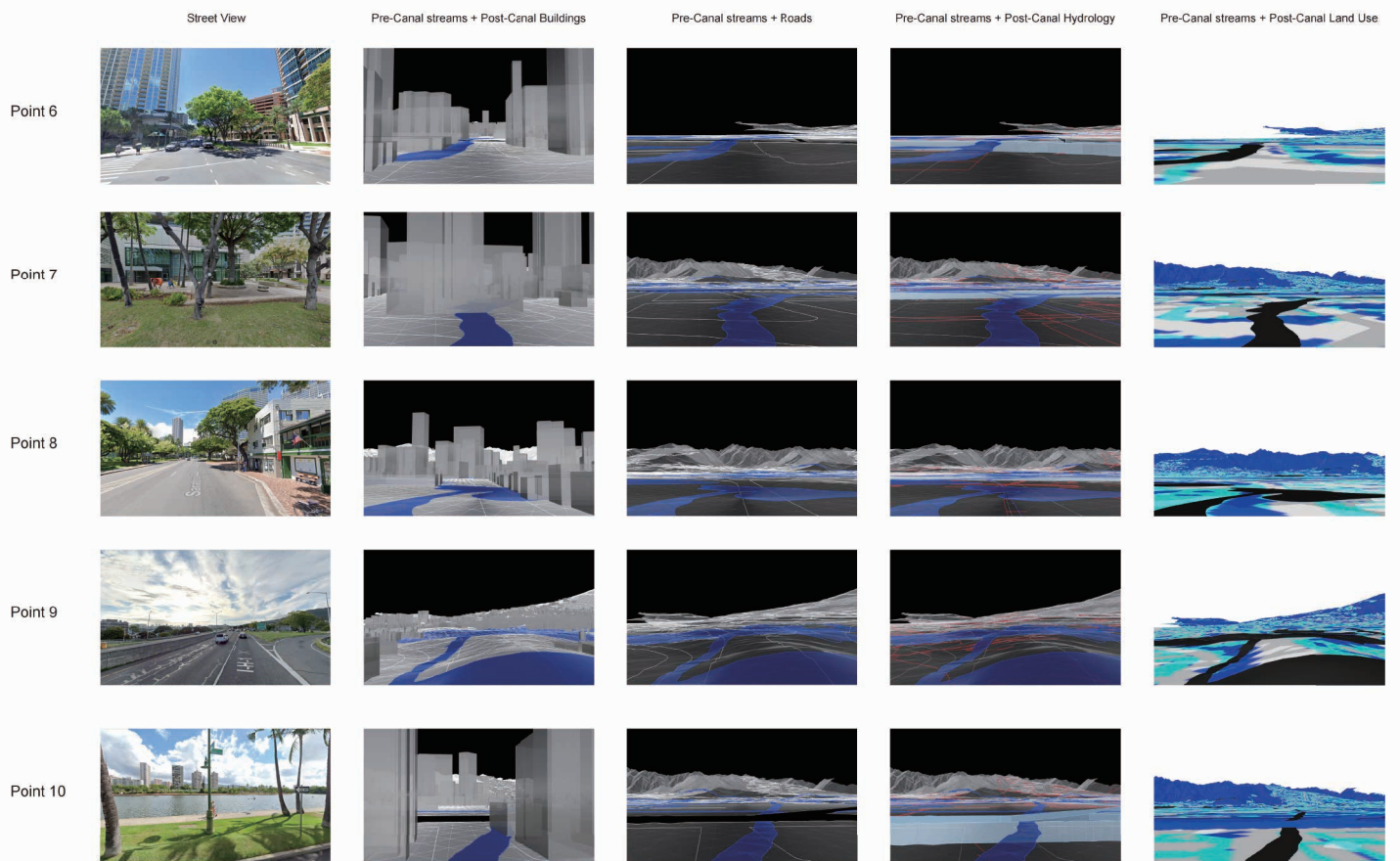
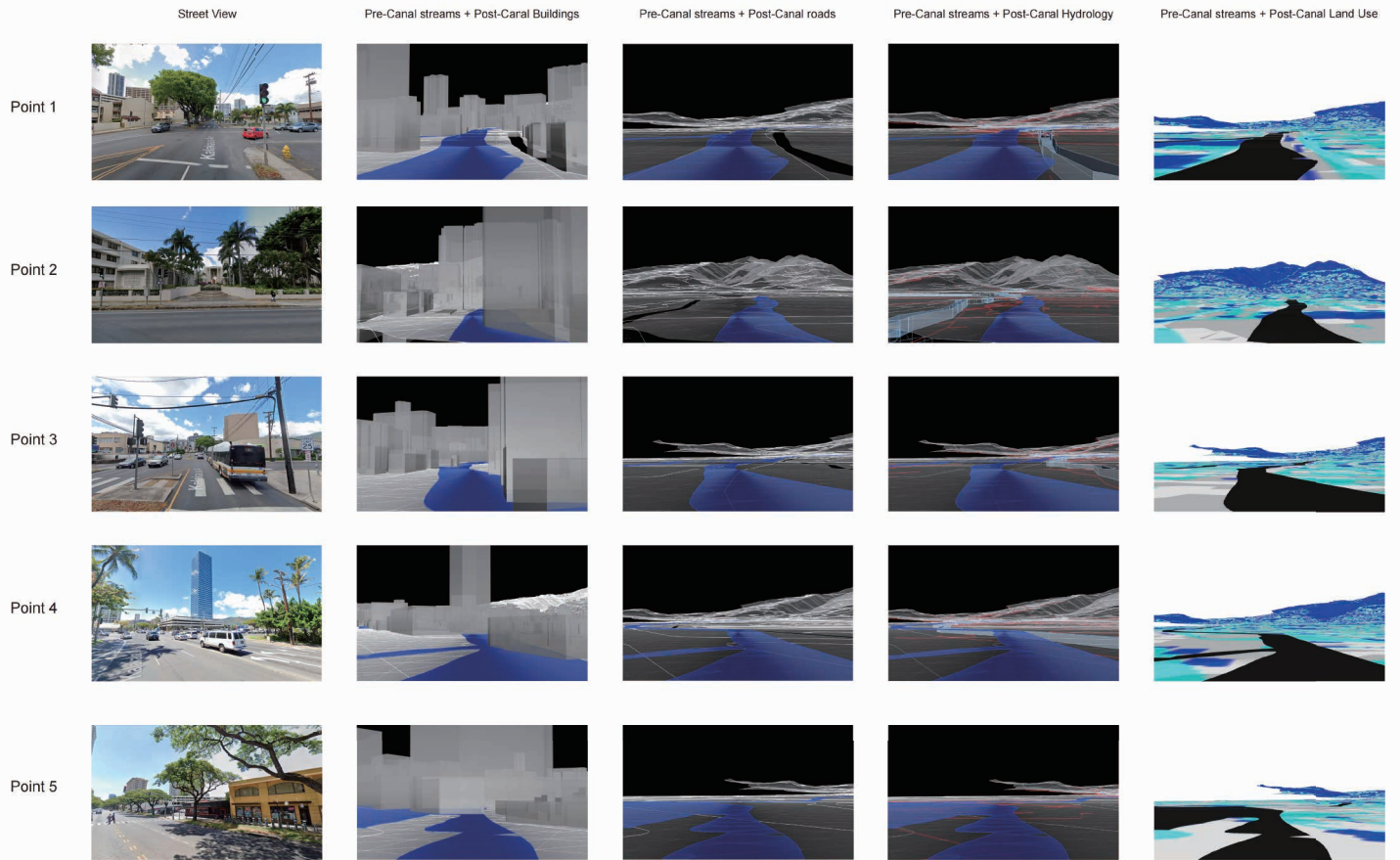
BACK TO GROUND

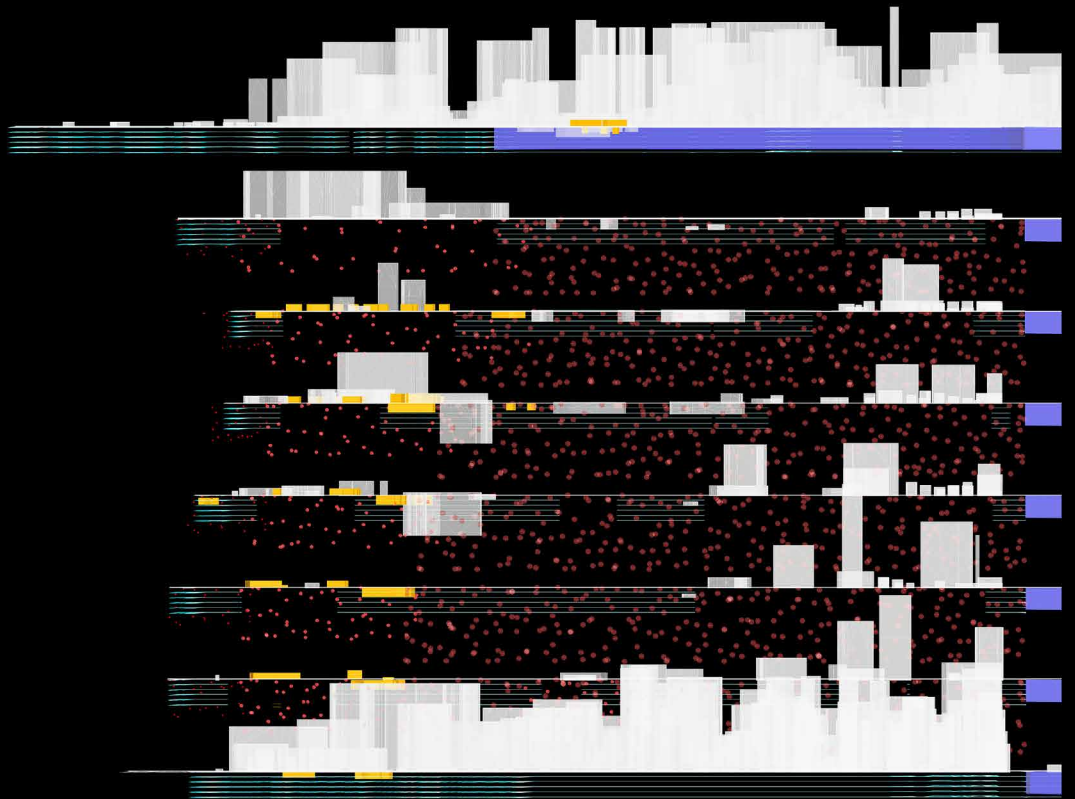
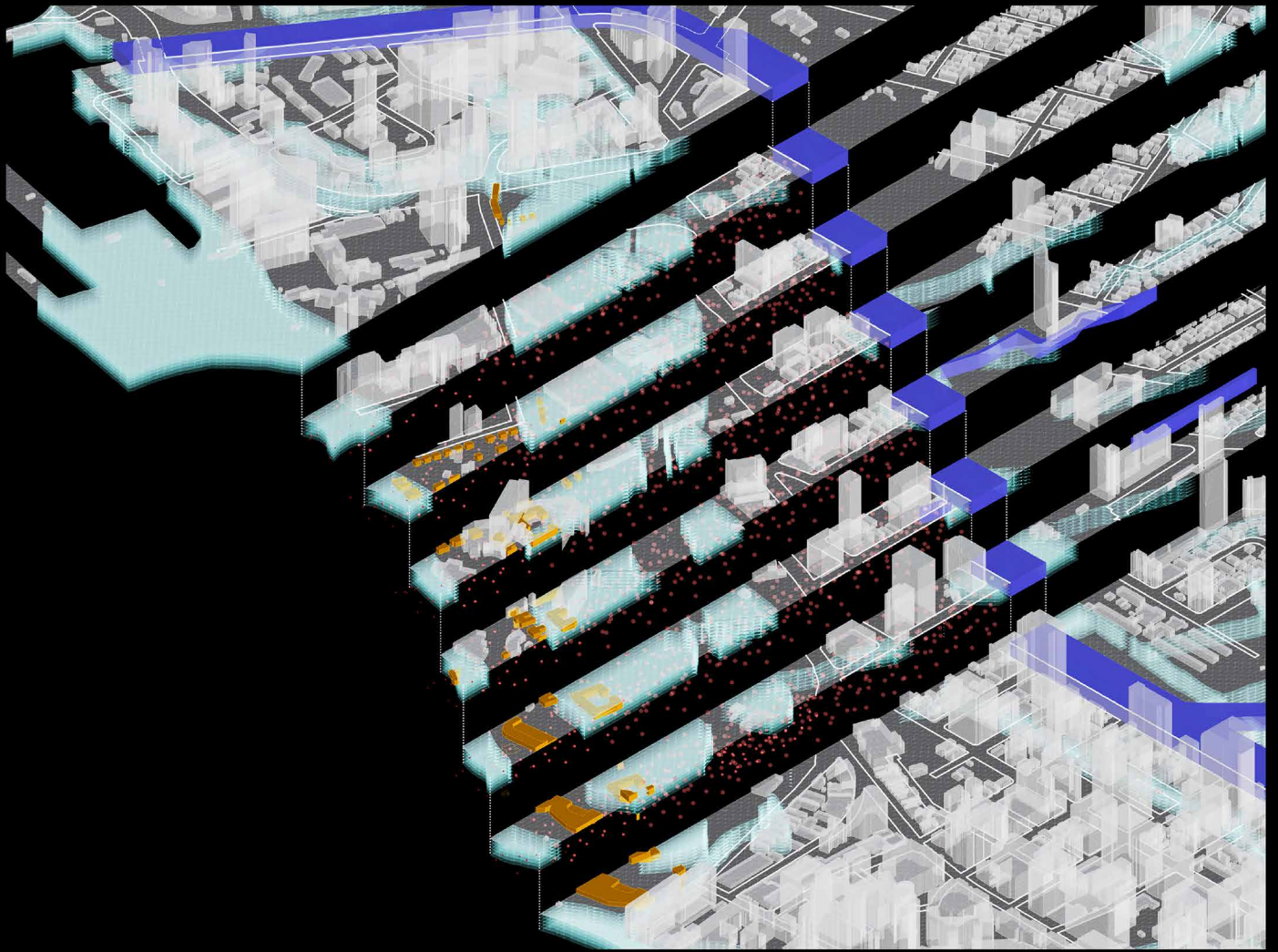
The Space of Water: Coloniality, Water, and Indigeneity

*GSAPP S22 Advanced Studio VI
Individual Work
Academic
April, 2022
Instructor: Mario Gooden
Waikiki, Hawaii*

Abundant taro fields and fish pond ecology form an important part of native Hawaiian life, and these are not only a feedback of daily culture, but also a symbol of the spirit that comes from the abundance of living resources. However, the spirit of these places, which followed the native culture, was gradually stripped away from the original sites during the century of colonization. The establishment of Fort Derussy directly overwrote the original residual natural state, interfering with the natural growth of native civilization in a forceful manner. Under colonialism, the destructive removal and addition for the sake of profit destroyed the original state of the WAIKIKI beach area, forming an overly composite artifact.

Therefore, for this site, I hope to use water as an opportunity to intervene, following the clues of the original stream and fish pond system, reintroducing the system of fresh and sea water by linking this footprint, thus restoring the natural properties of the site itself, and fading the unnecessary artifacts in the water system as a decolonization practice.





Counter Military Drawing

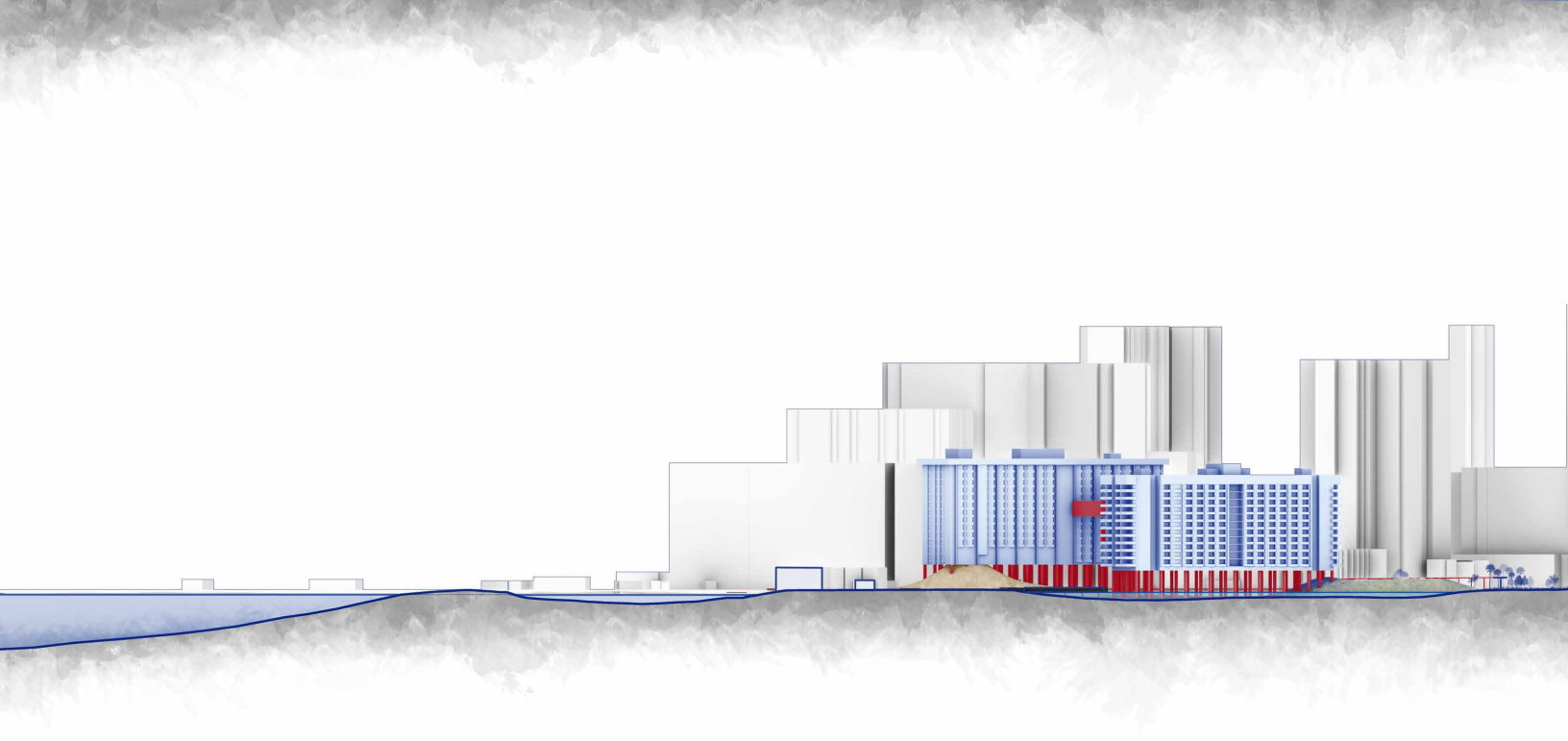




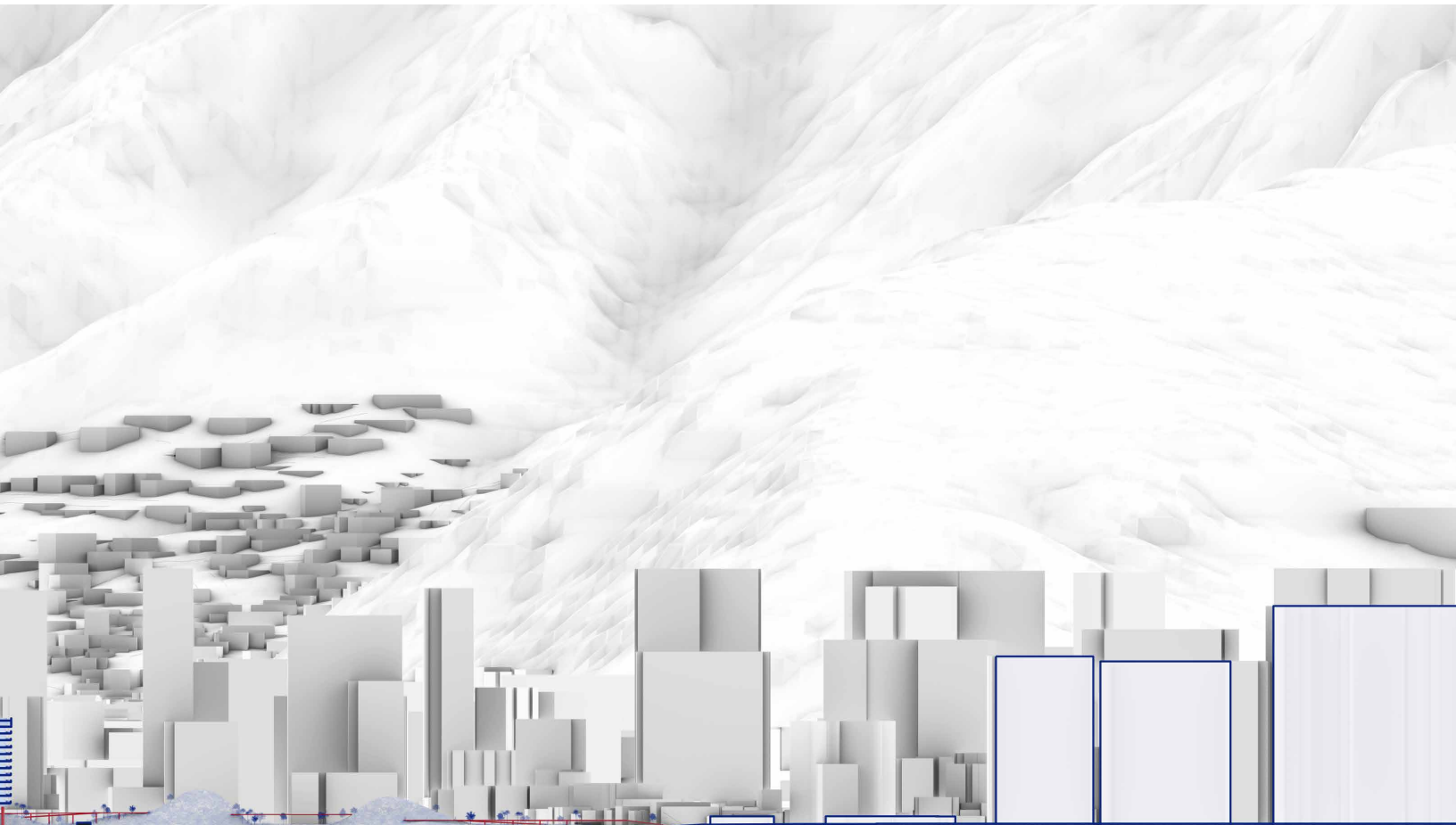
Site Plan
1"=128"

Ala Wai Canal

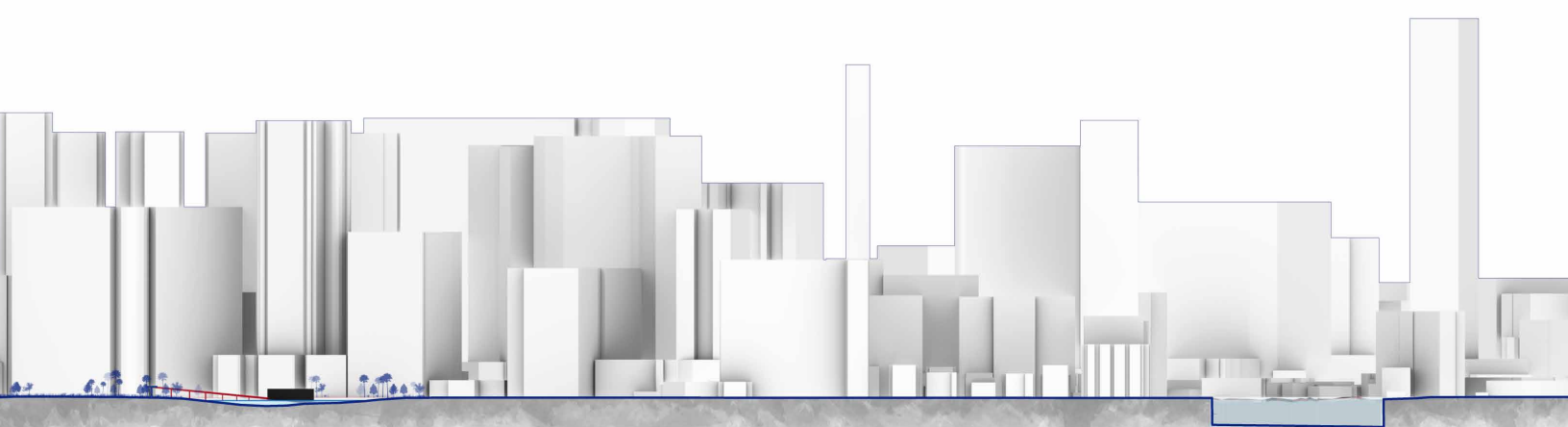




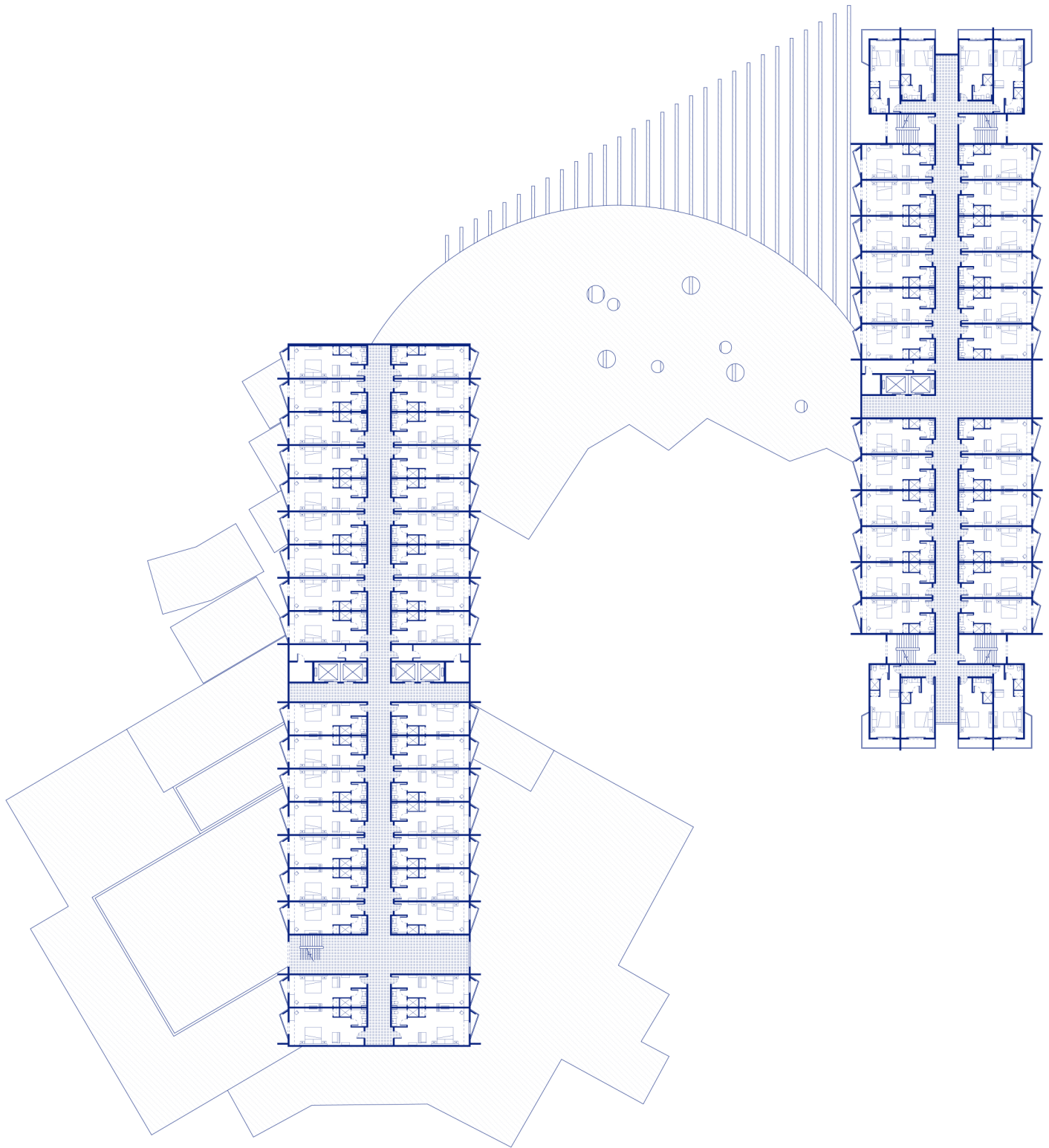
East/West



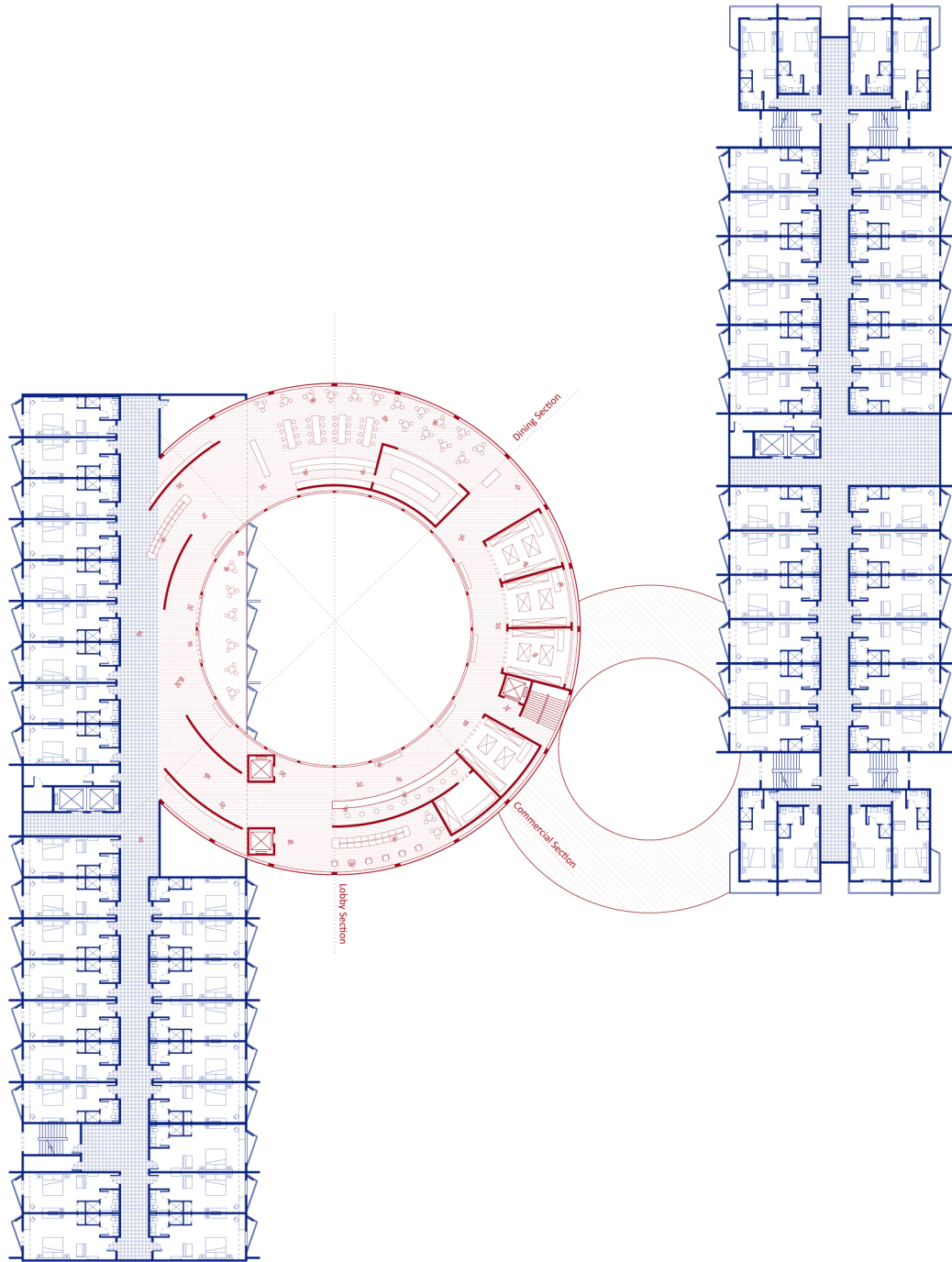
Site Section
From Ocean Toward Mountain
1"=64'



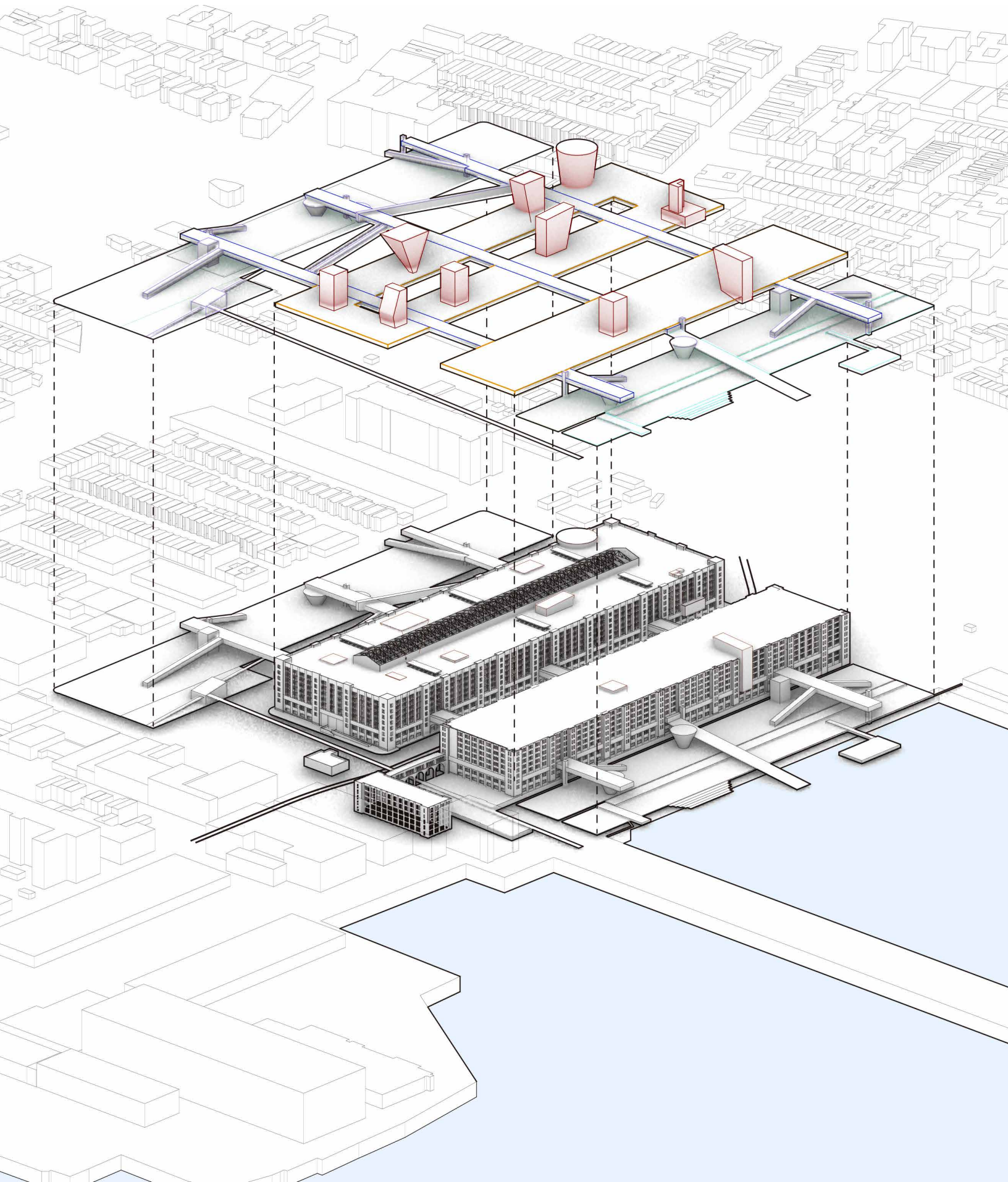
Site Section
From Canal through Fort Derussy to Ocean
1"=64'



Military Hotel
Floor Plan
Before Renovation
1"=32"



Military Hotel
Floor Plan
After Renovation
1"=32"



03

A VIBRANT SCALE

Brooklyn Army Terminal Renovation

GSAPP S21 Advanced Studio

Individual Work

Academic

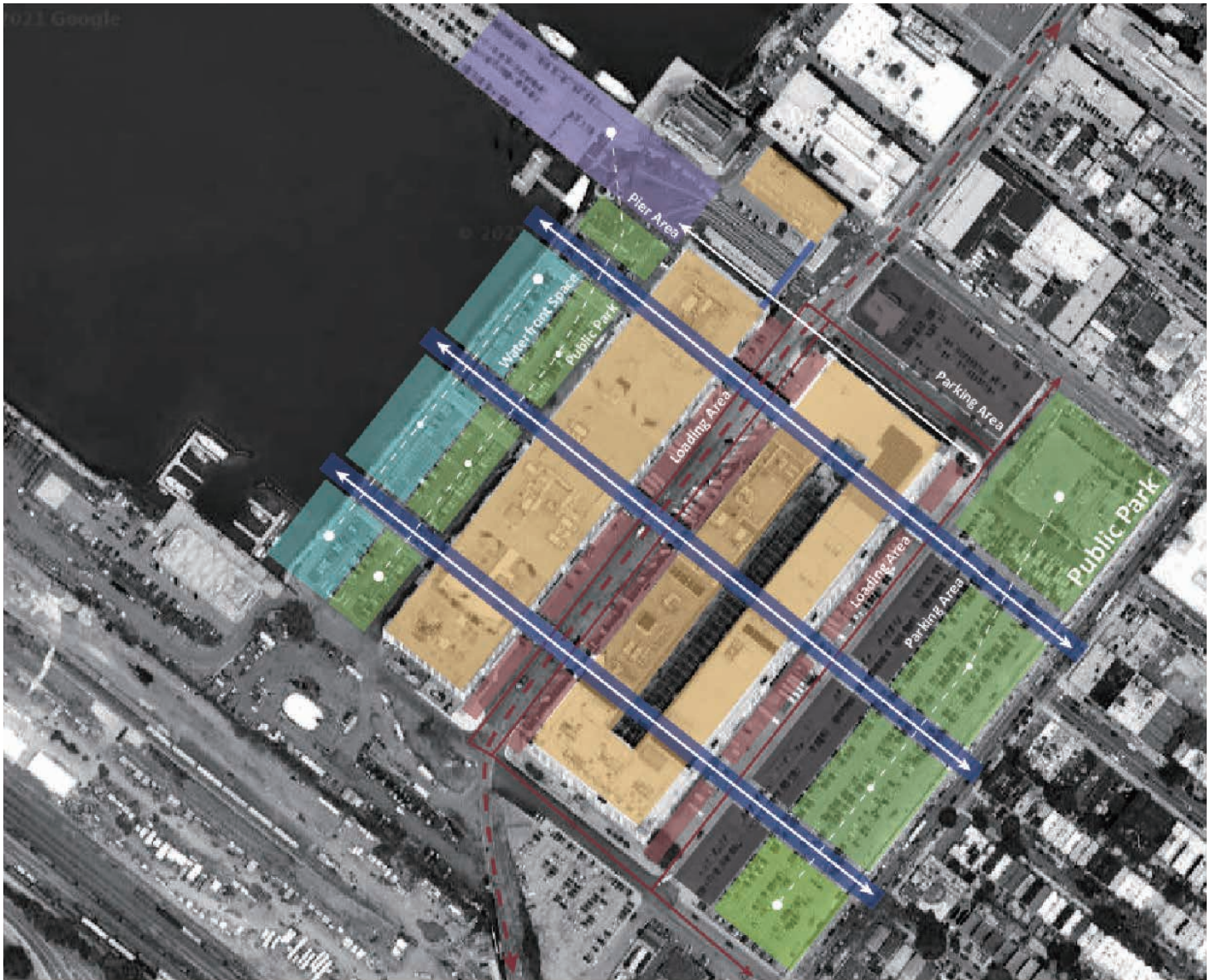
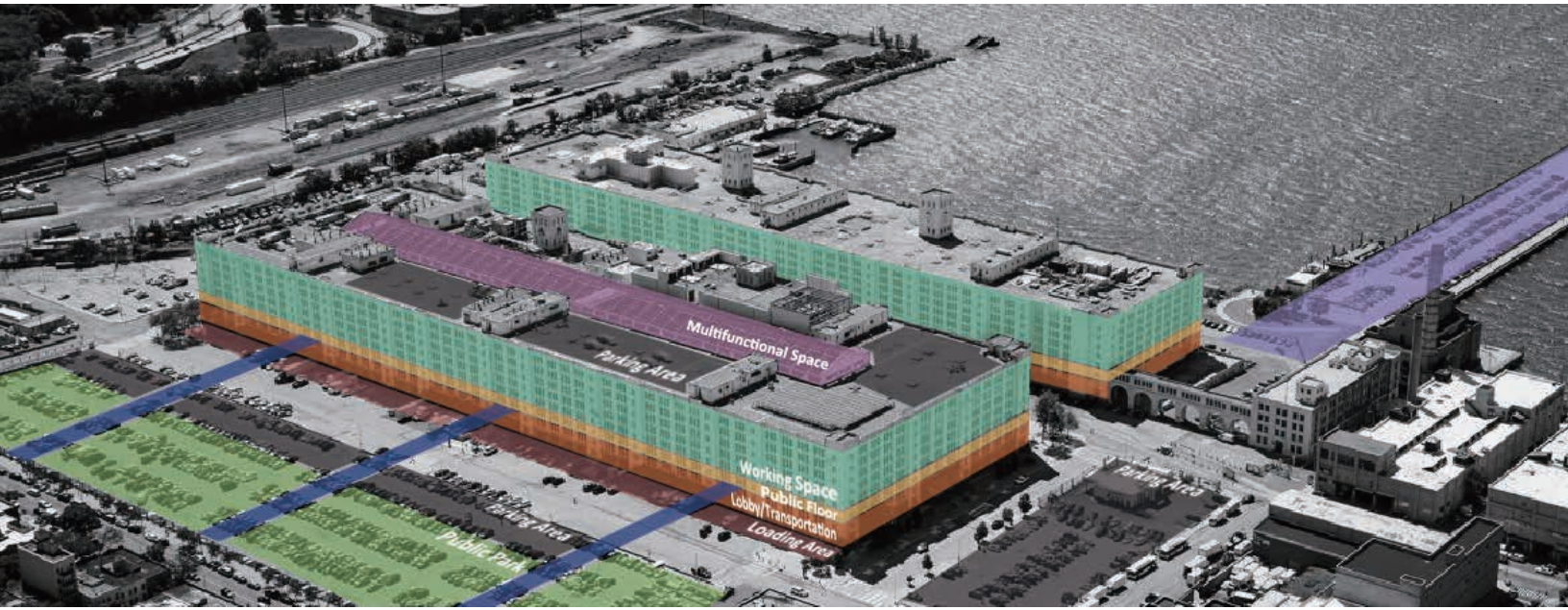
July, 2021

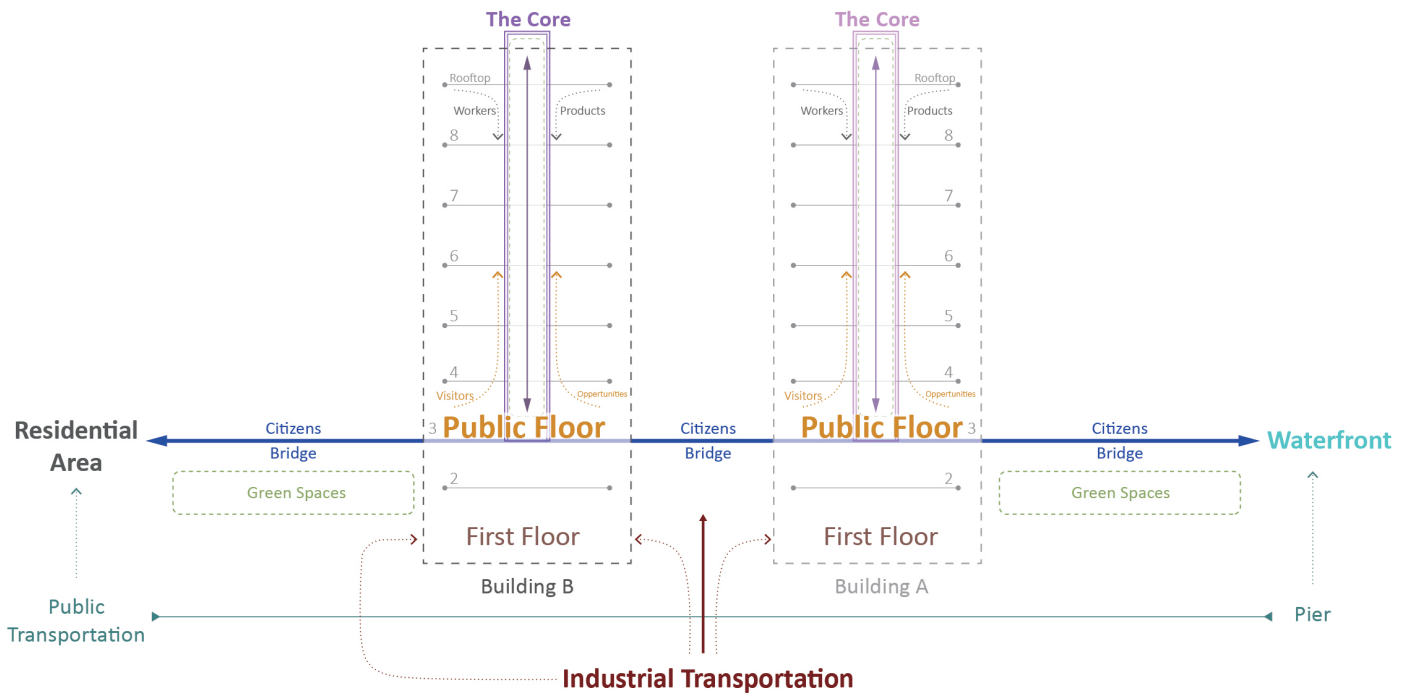
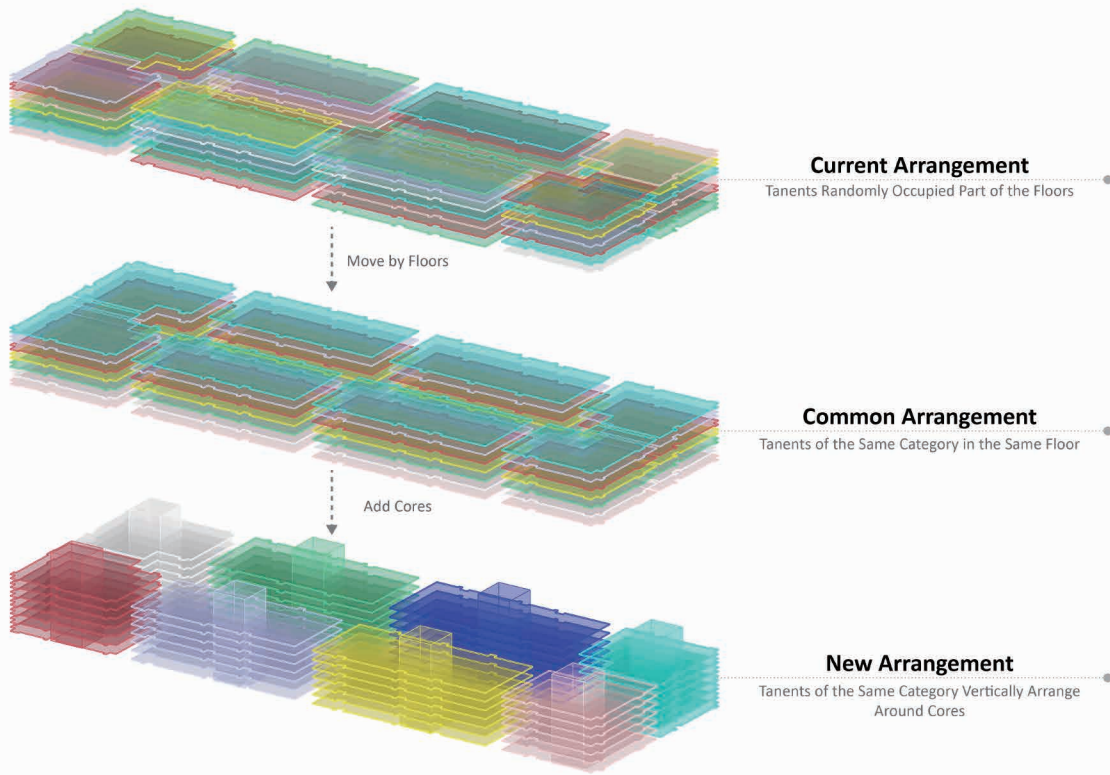
Instructor: Laura González Fierro

Brooklyn, New York

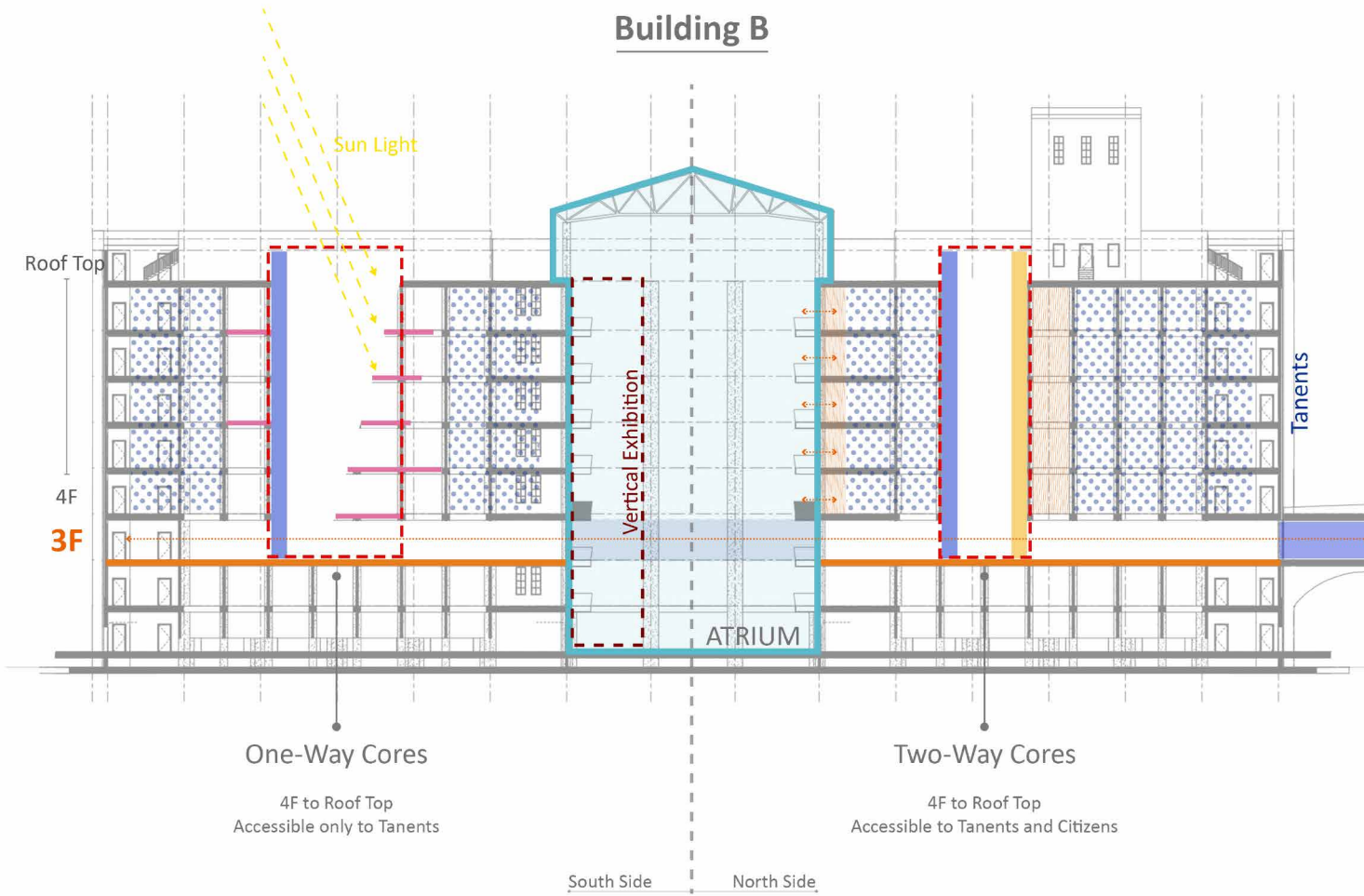
New York City vibrant, from improving regional freight rail to dedicating resources to increasing opportunities in industrial business zones. In pursuit of these goals — to develop and renovate pockets of our city to improve economic growth and revitalize neighborhoods, all while recognizing the value and longevity of well-designed, beautiful spaces — the story of the Brooklyn Army Terminal is one worth telling.”

Ronda Kaysen, *The Brooklyn Army Terminal: New York’s Next Manufacturing Hub?* *The New York Times*, November 23, 2018



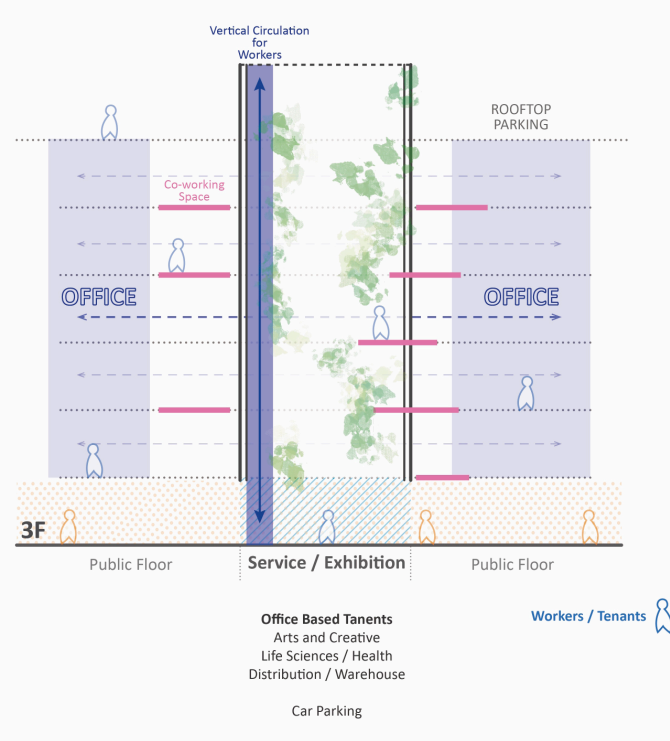


Building B



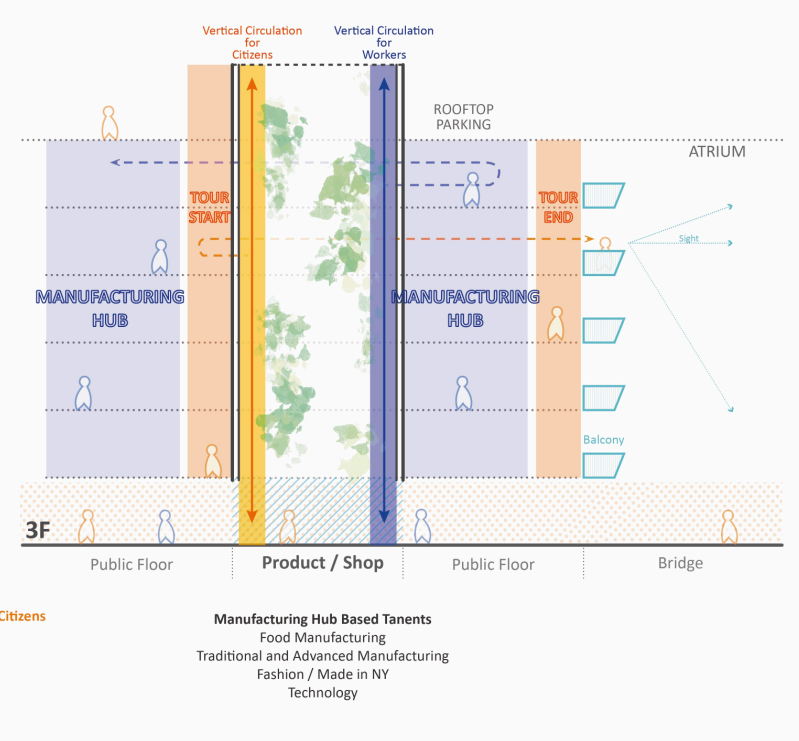
ONE-WAY CORES

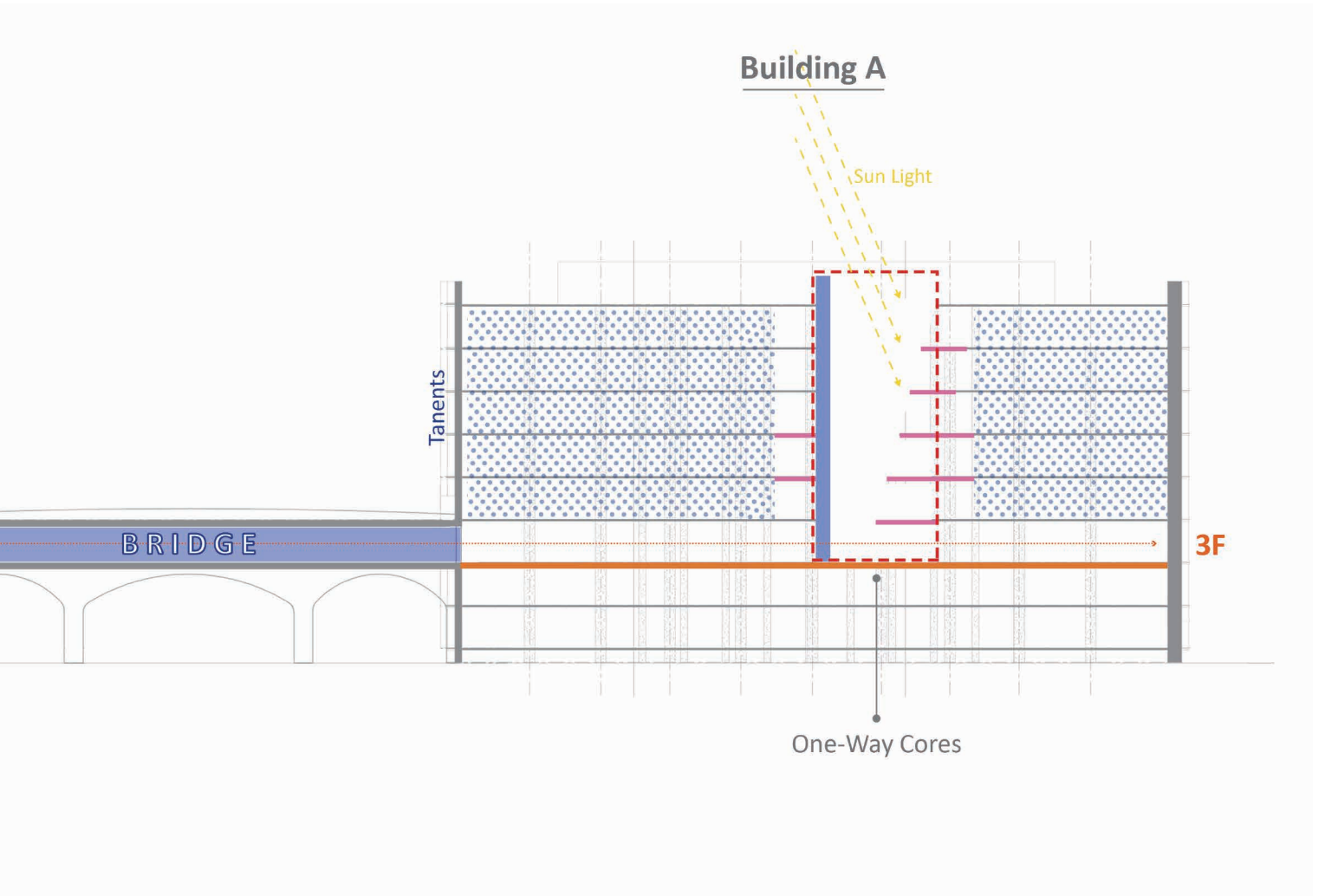
No need to be visited by citizens



TWO-WAY CORES

Need to be visited by citizens





Current Bridge



Bridge A



Near to public transportation. A quick connection of subway / bus and ferry. Serve for workers and citizens during commuting time.

Bridge B

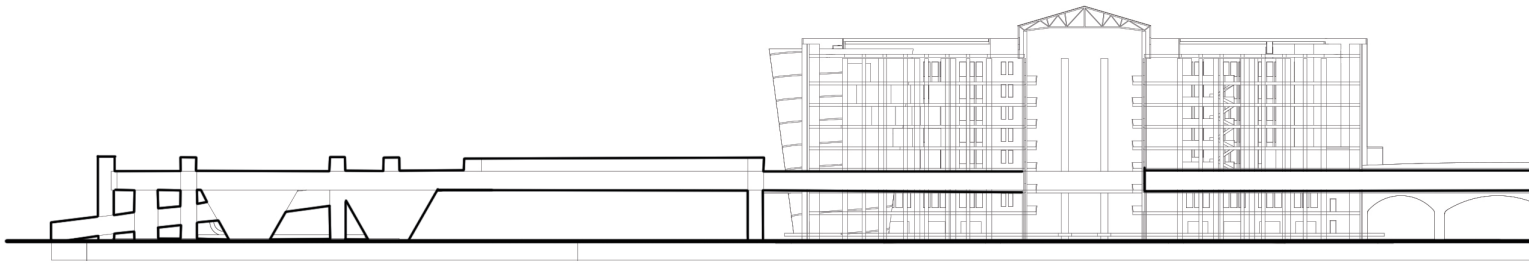


Main entrance for the public to 3rd floor. Slow ramps which welcome all citizens. Getting through the central part of the building.

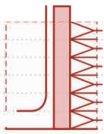
Bridge C



Sports bridge which can let bicycles riding in. Connectors of 2 public parks which are playgrounds for the citizens.



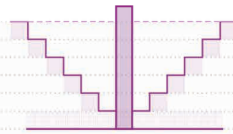
Food Manufacturing
Retail/ Restaurant



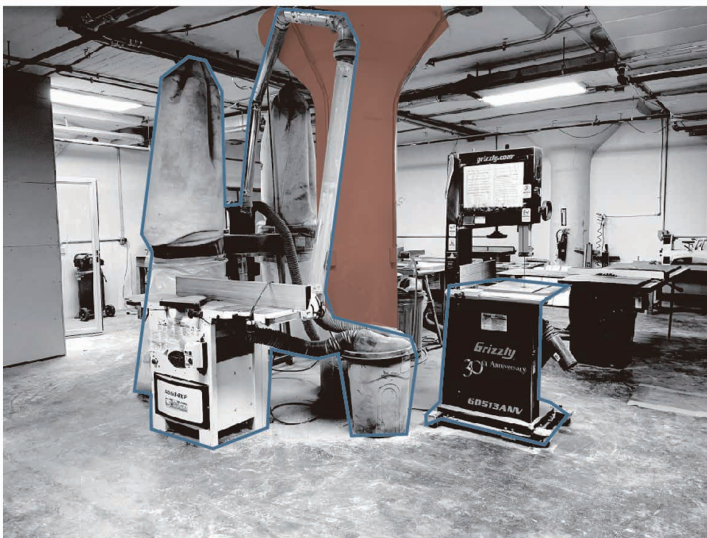
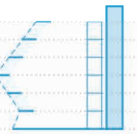
Traditional and Advanced
Manufacturing
Products Experiencing



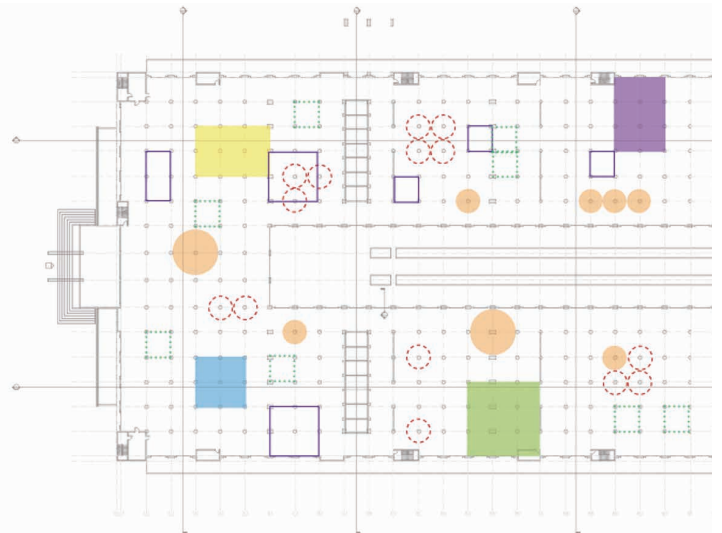
Arts and Creative
Exhibition



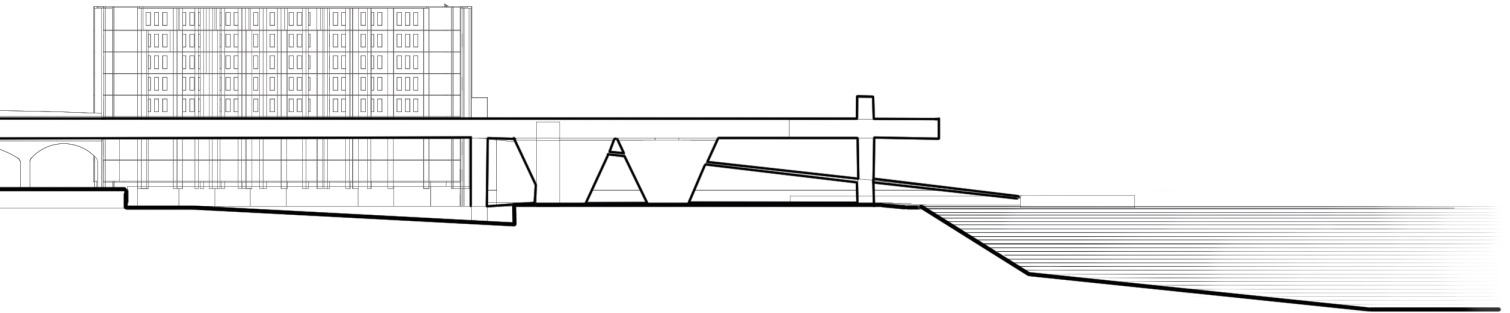
Fashion / Made in NY
Shops



Existing Using Condition



New Plan Pattern
Open Plan and Mixed Scales

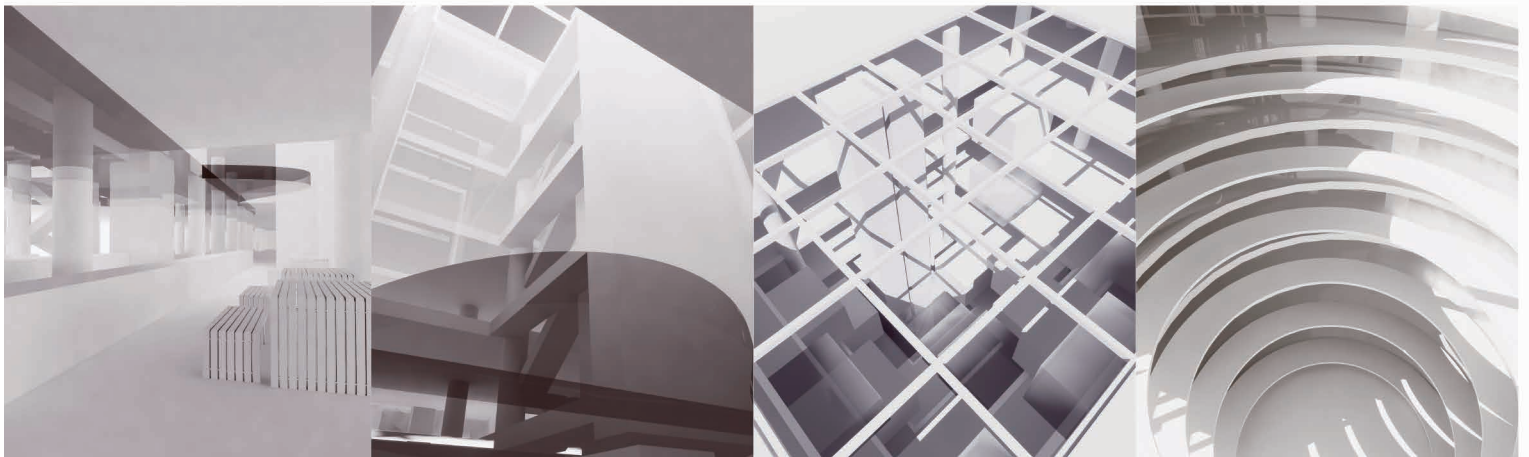
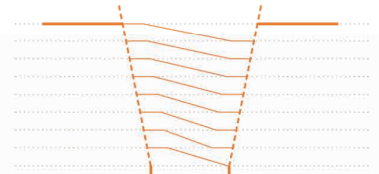
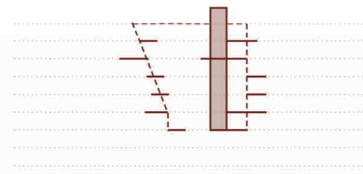
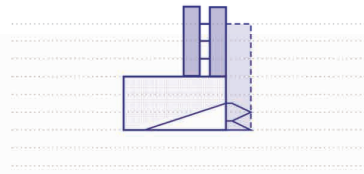
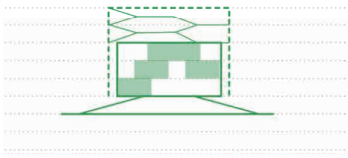


Life Sciences / Health
Therapy/ Service

Technology
Education

Distribution / Warehouse
DIY Hub

Rooftop
Car Parking





Current Bridge

Bridge A

Bridge B

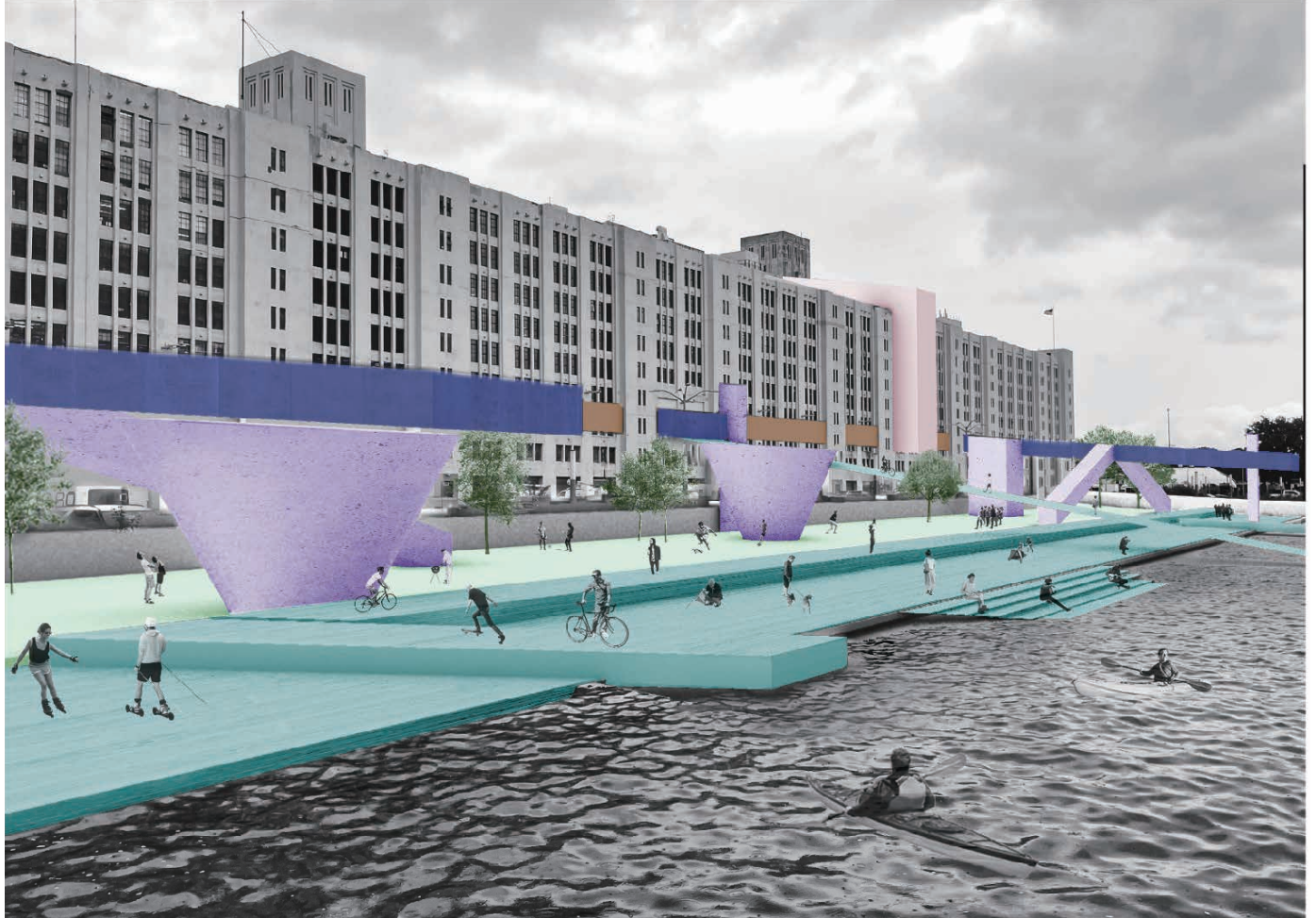
Bridge C



Near to public transportation. A quick connection of subway / bus and ferry. Serve for workers and citizens during commuting time.

Main entrance for the public to 3rd floor. Slow ramps which welcome all citizens. Getting through the central part of the building.

Sports bridge which can let bicycles riding in. Connectors of 2 public parks which are playgrounds for the citizens.



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