

Portfolio of HUINING JIA

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Growing up in the coal province, Shanxi, I witnessed the environmental devastation caused by coal pollution firsthand as a child and subsequently devoted myself to the environmental protection movement for over a decade. All of these experiences have strengthened my determination to become a landscape architect. I believe that design of the landscape is the most effective way of protecting the environment by fundamentally altering the way humans interact with their environments.

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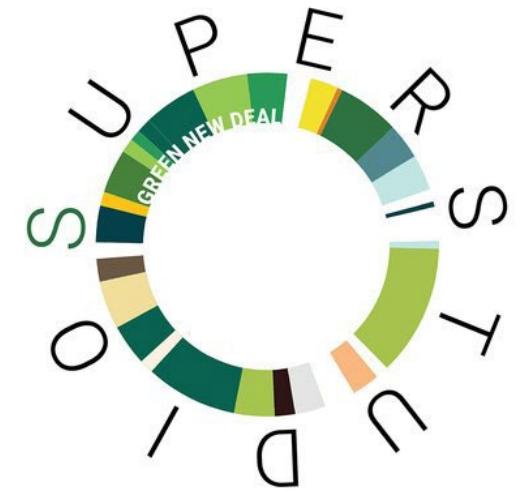
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01

"The Node of Tomorrow"

An Attempt to Integrate Roads and Landscapes in the Next Decade

Spring 2021

Project Location: Denver, CO, USA

Academic Individual Work

Professor: Kelly Curl

Mentor: Matt Shawaker

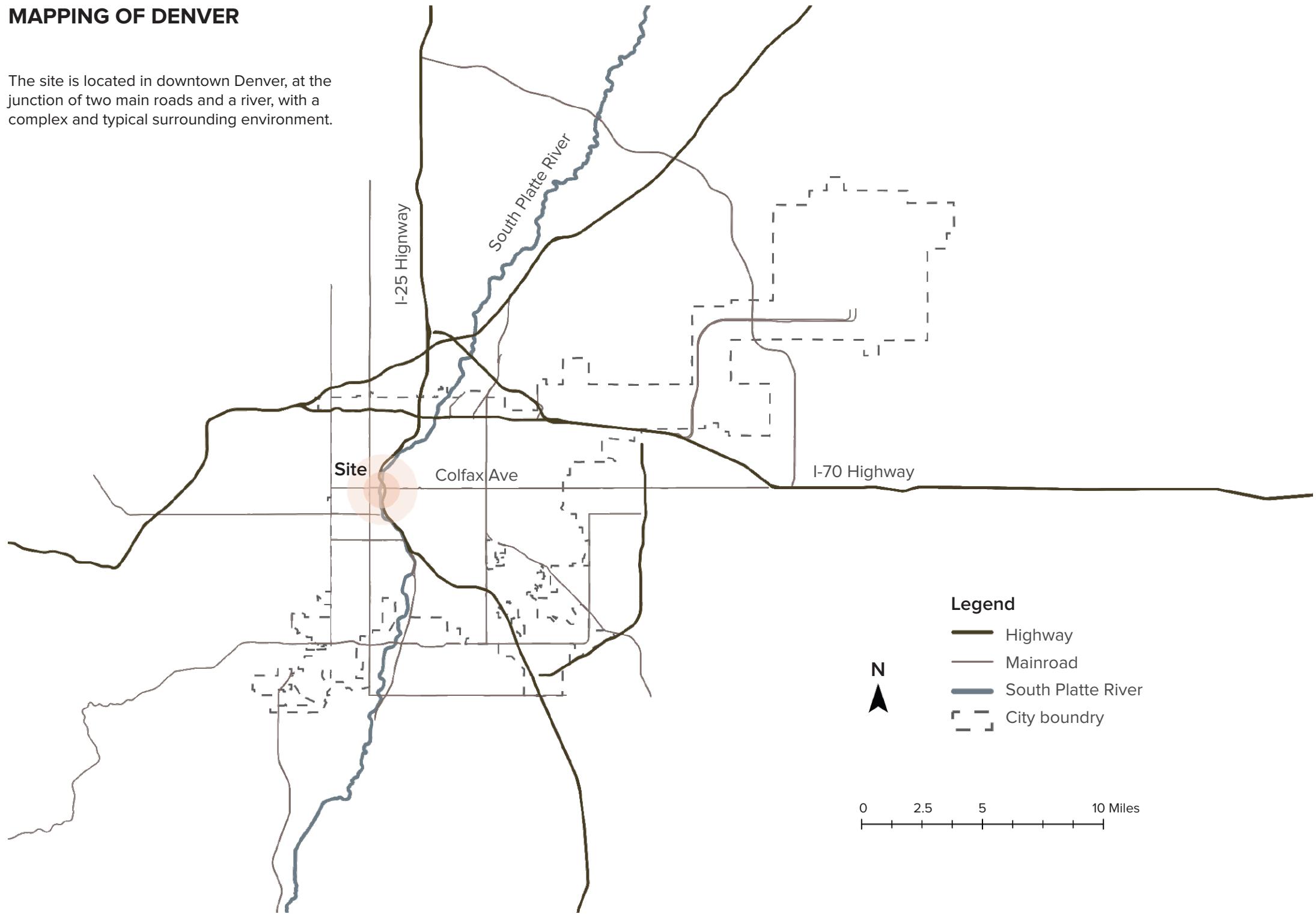
Scale: 91.6 ac

As growth continues, in many parts of the world, roads are dividing cities, creating disparities between rich and poor and environmental inequality. Because the current planning methods can not catch up with people's growing travel needs and constantly updated regional planning, unreasonable road design leads to a large amount of waste of public space.

In this project, I combined the landscape with roads and the charging station, ideally, endowing the landscape with more necessary functions, making it a must-pass node that connects the road, the nature and the future.

MAPPING OF DENVER

The site is located in downtown Denver, at the junction of two main roads and a river, with a complex and typical surrounding environment.



MAPPING OF THE SITE

1 Environmental Justice Issues

The south-eastern part of the city is in stark contrast to the rest of the city because of its poor environment and lack of greenery and public space.

2 Transportation Issues

Disorganized motorways and a serious shortage of pedestrian and bicycle lanes make green travel a lot of inconvenience.

3 Land Utilization Issues

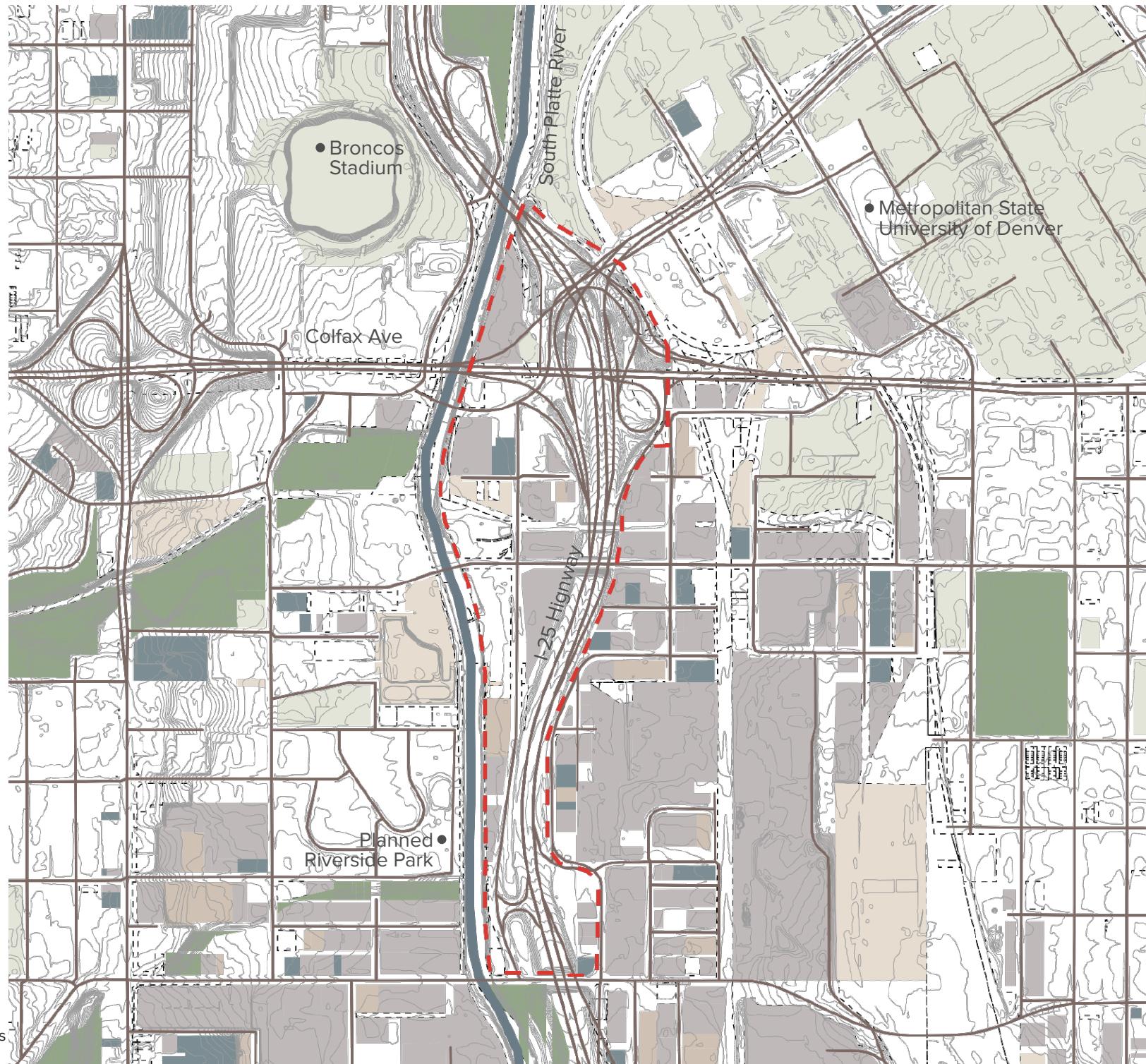
The space between the river and the highway is almost deserted, and the riverbank space that citizens would normally enjoy is not fully utilized.

Legend

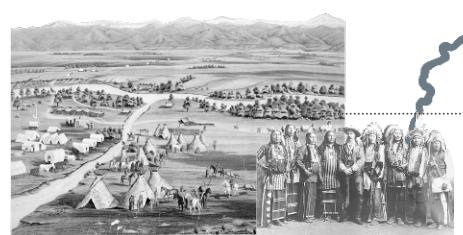
- Roads
- South Platte River
- Factories
- Warehouses
- Utilities
- Offices
- Parks
- Public Places
- Vacant Area
- Site Boundary



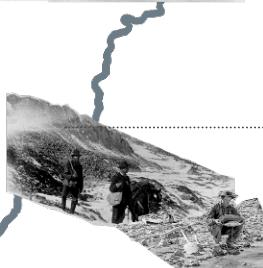
0 0.1 0.2 0.4Miles



HISTORY OF DENVER



Native Arapaho people who lived on Denver's iconic river, **South Platte River**'s banks called it Niinéniiniicíihéhe.



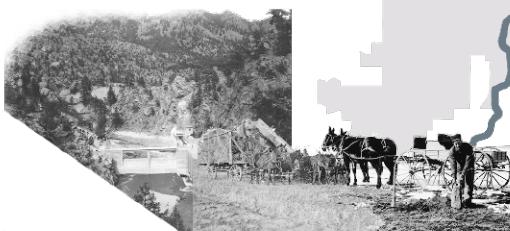
In the 1859-1861, about 100,000 **gold seekers** flocked to the region.



On November 19, 1867, the Denver Pacific **Railway** and Telegraph Company was founded in Colorado. It became integral to the first transcontinental rail link between the east and west coasts of America.



1929, Denver Municipal Airport opened, Denver as a major hub for **air travel** in the region.

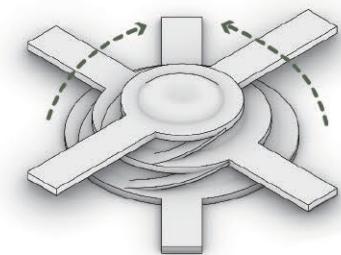
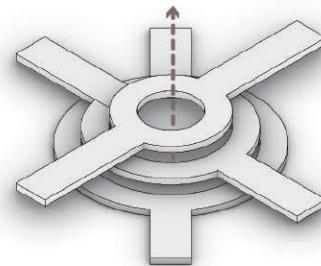
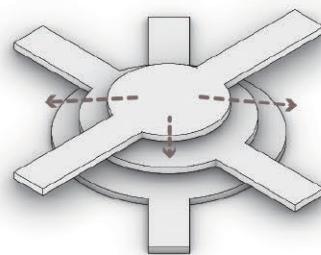
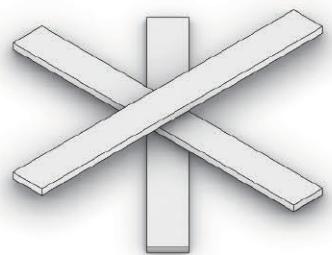


World War II, Denver's economy was dependent mainly on the processing and shipping of minerals and **ranch products**, especially beef and lamb.

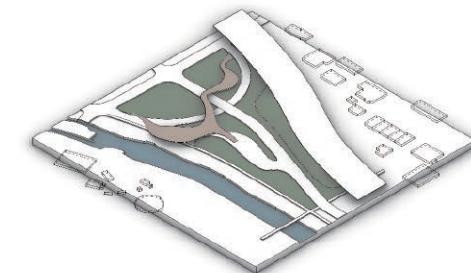
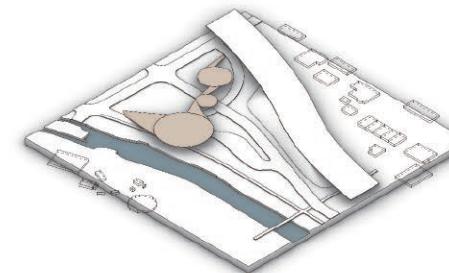
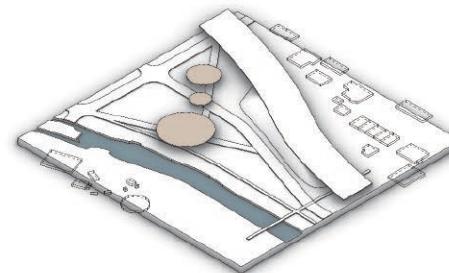
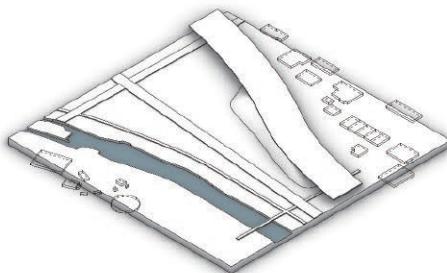


Now, Denver is the capital and most populous city of the U.S. State of Colorado, the 19th-most populous city in the United States, the fifth-most populous state capital, and **the most populous city located in the Mountain states**.

STRATEGIES



"The Node"



NEVs' Park

MASTERPLAN



- N
▲
- 1 "The Node of Tomorrow"
(Road Intersection)
 - 2 Meow Wolf Denver
 - 3 Commercial Area
 - 4 Wetland Park
 - 5 NEVs' Park (with charging function)

0 0.1 0.2 0.4Miles

CIRCULATION

"The Node"



Sample 1



Sample 2

NEVs' Park

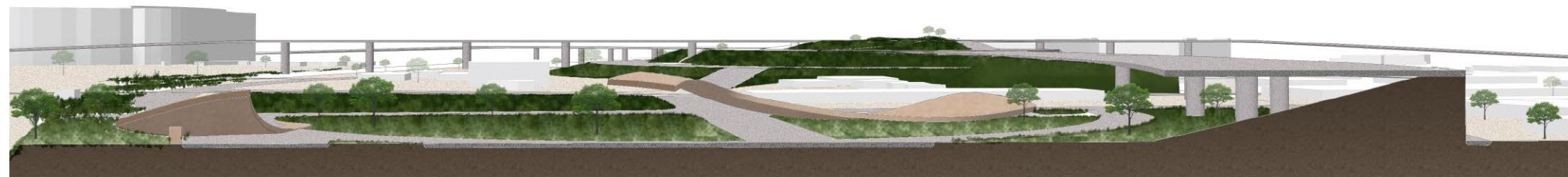


Conventional Electric Vehicle



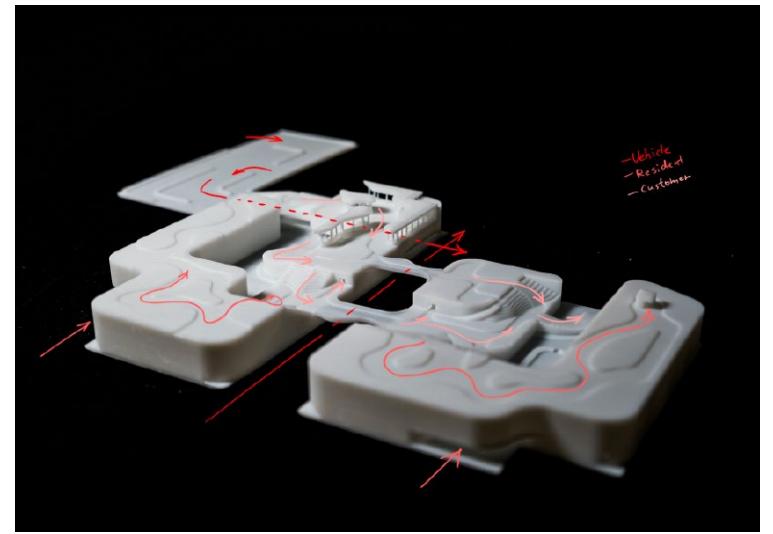
Solar Electric Vehicle

SECTION ELEVATION



PERSPECTIVE





3D Printed Model

02

Redesign of South China Seafood Market

Exploration of New Market Models in China after the Covid-19 Epidemic

Fall 2020

Project Location: Wuhan, China

Academic Individual Work

Instructor: Kexin Ni

Scale: 6.6 ac

The year 2020 is a tough year for the COVID-19 pandemic, which has ravaged the world and claimed countless lives in a brutal way. As one of the outbreak sites, residents and stall owners here have suffered huge losses, and at the same time exposed the huge irrationality of the design of the South China Seafood Market.

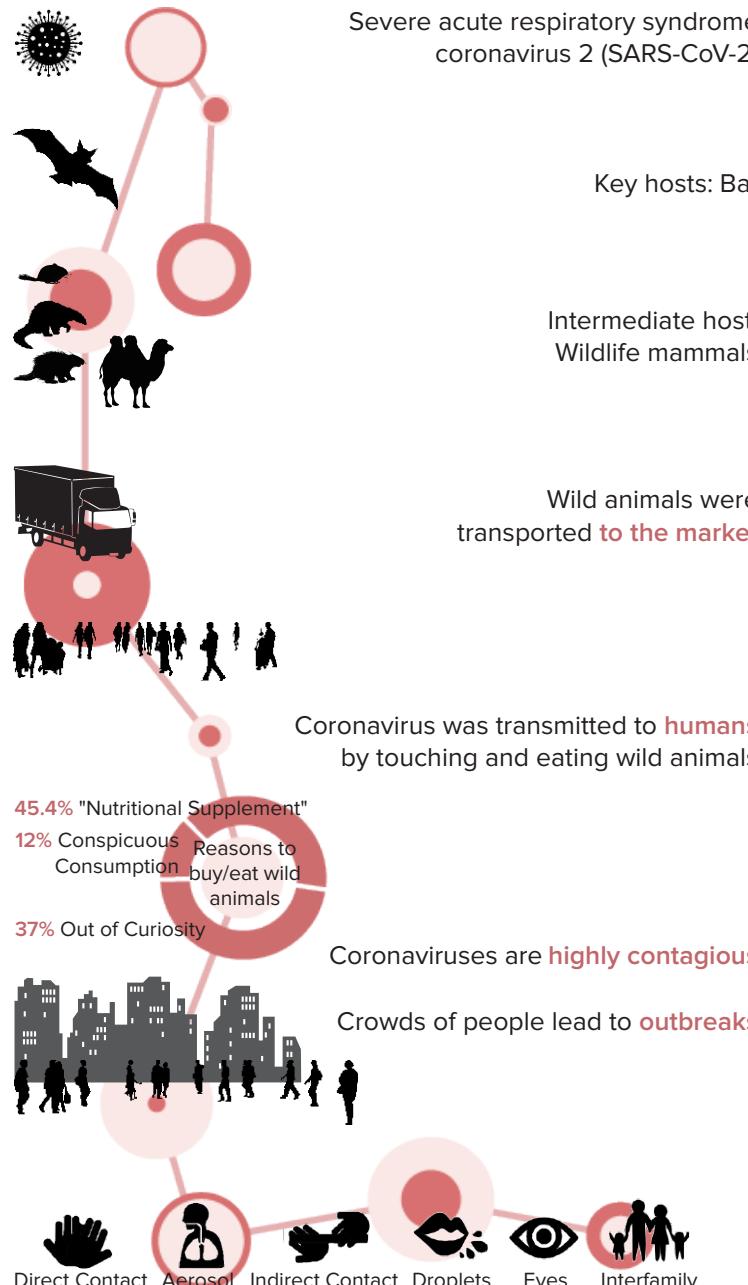
This project aims to re-plan zoning and circulation to alleviate the conflicts between different functional areas. The goal is to serve as an example of the transformation of the Chinese market, and to warn people to respect nature and protect wild animals.

BACKGROUND ANALYSIS

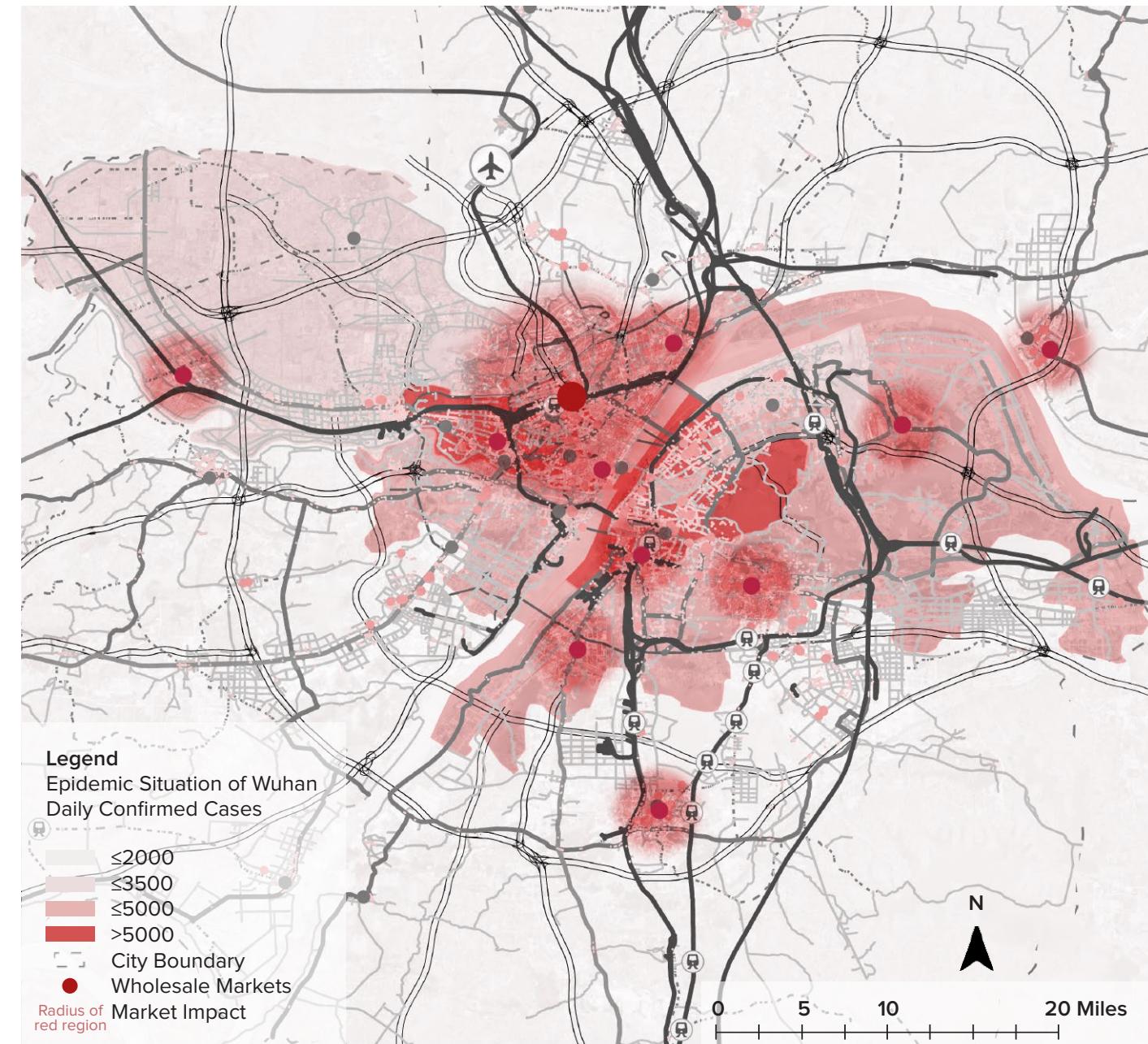
The **illegal sale of wild animals** in South China seafood market has brought the virus into the market.

Due to the **large scale, pedestrian volume** and **complex surrounding traffic**, the epidemic broke out and spread rapidly.

Virus Transmission Chain



Geographical Relationship between South China Seafood Market and Confirmed Cases

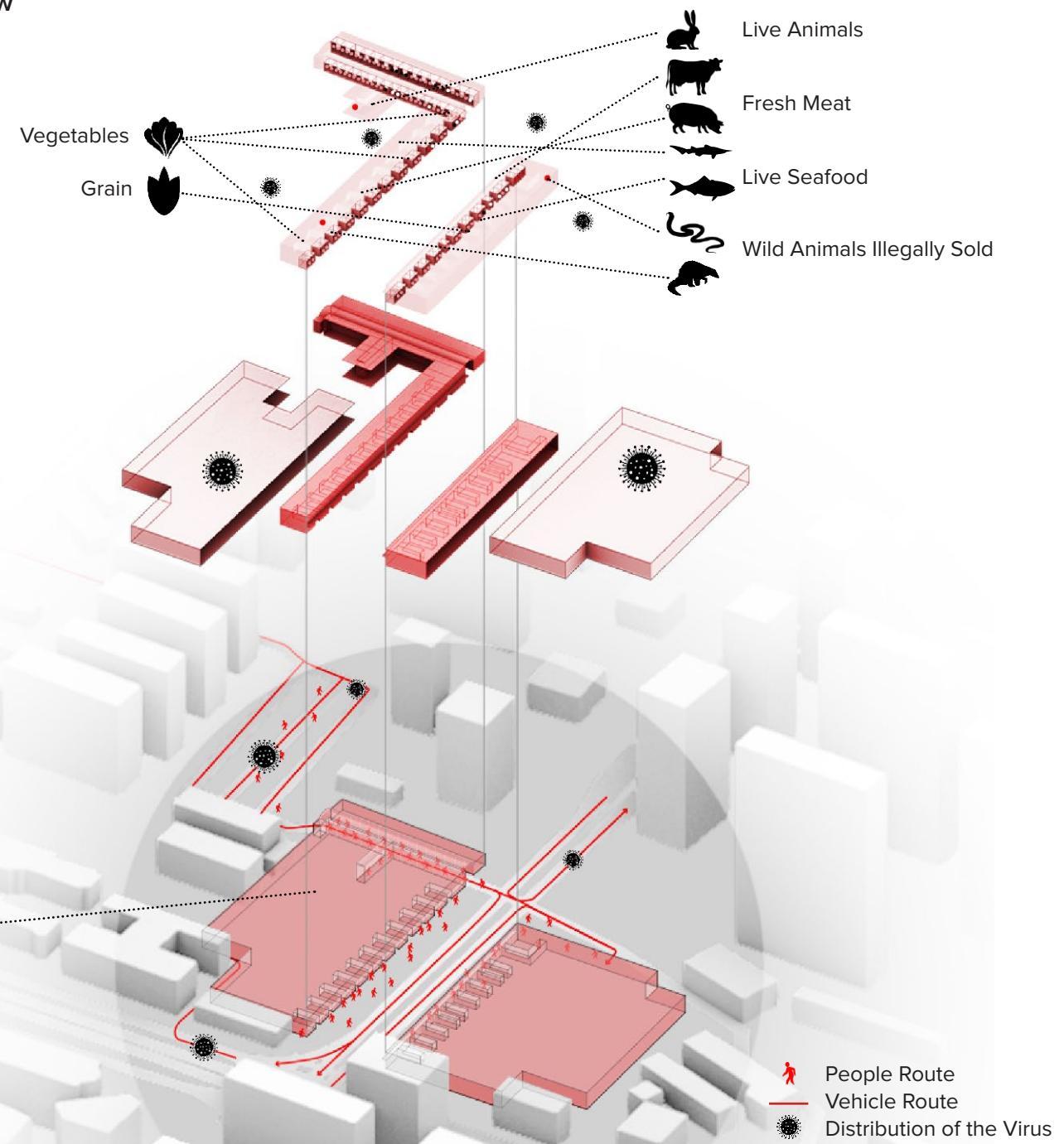


BACKGROUND ANALYSIS

Chaotic food zones and **confusion of routes** lead virus to transfer among different goods after entering the market and cause cross-infection among customers. The closed environment of the market has **no air circulation**, which increases the risk of aerosol transmission of the virus, caused the outbreak of the epidemic.



Exploded View



STRATEGY

1 Separate functional areas

Demand Analysis

Vegetable & seasonings

Existing Area
(Demand)

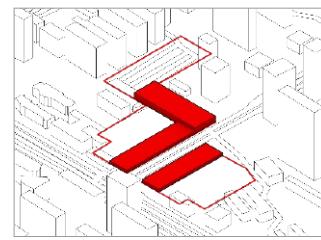
0.20ac

Meat (frozen/fresh)

0.28ac

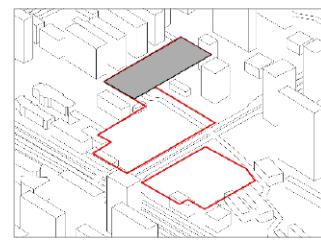
Live seafood

0.75ac



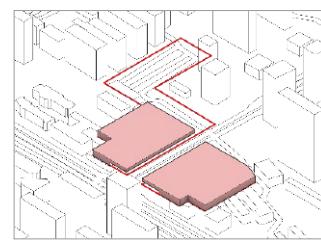
Parking Area

1.43ac



Residential Area

7.96ac
(2x3.98ac)



Redesigned
Area

0.22ac

Vegetable & seasonings

3.00ac

Residential Area

0.29ac

Meat (frozen/fresh)

0.83ac

Live seafood

3.00ac

Residential Area

1.43ac

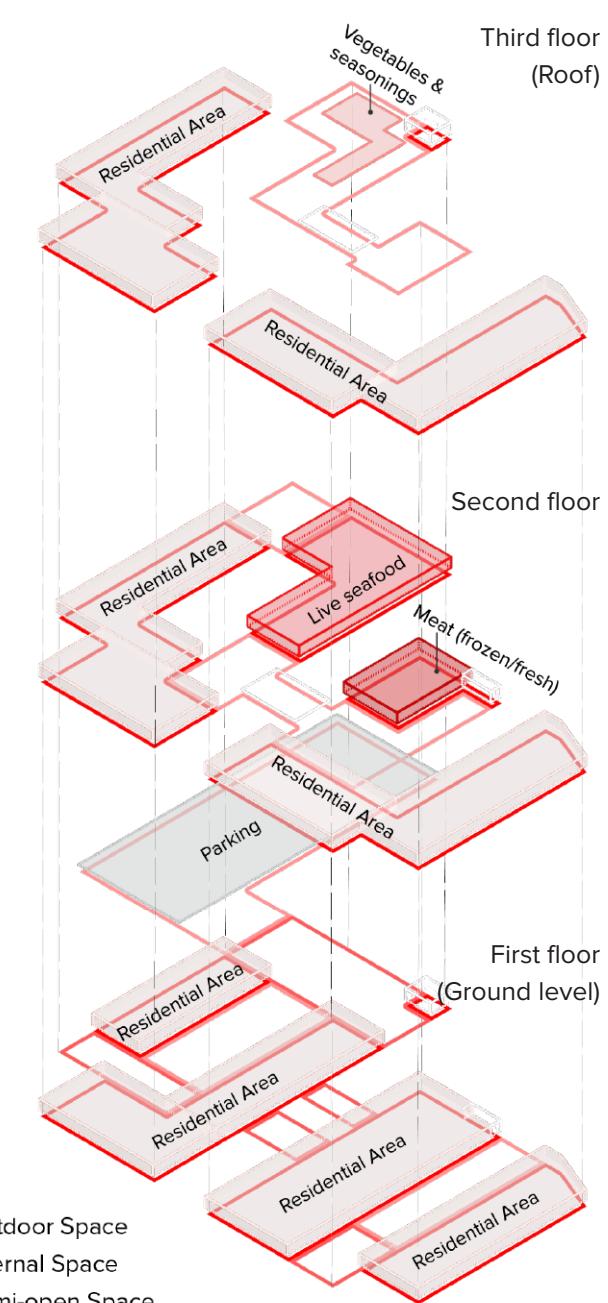
Parking Area

2.15ac

Residential Area

2 Design outdoor market areas

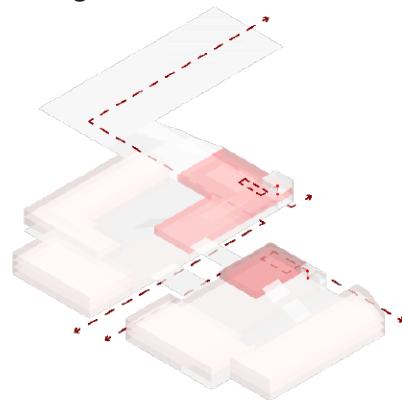
Rezoning of Openness



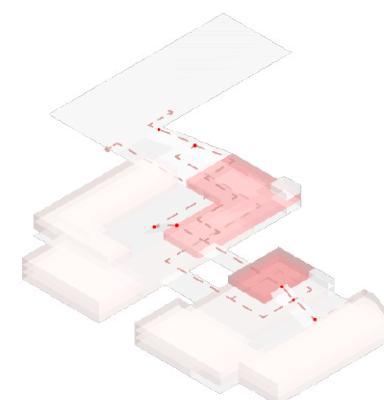
STRATEGY

3 Separate different circulation

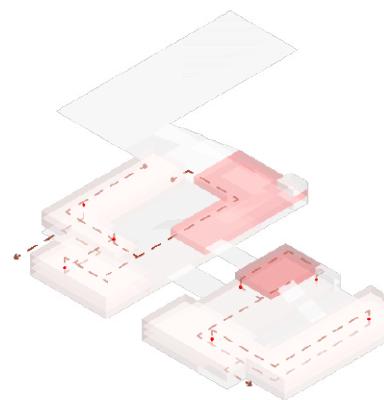
Replanning of Circulation



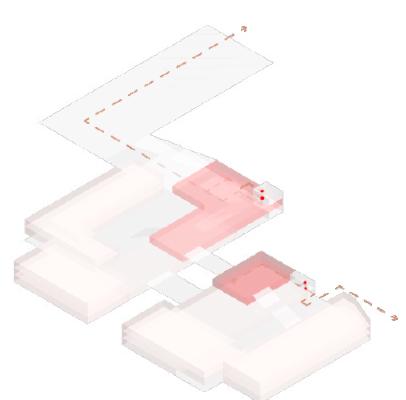
Logistics



Customers

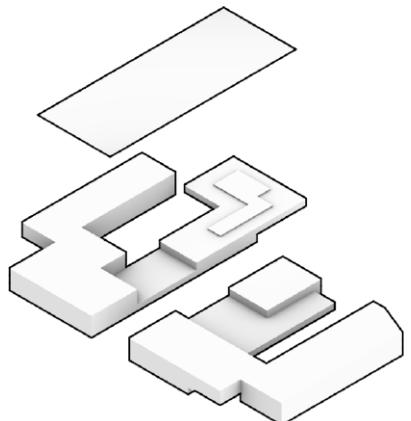


Residents

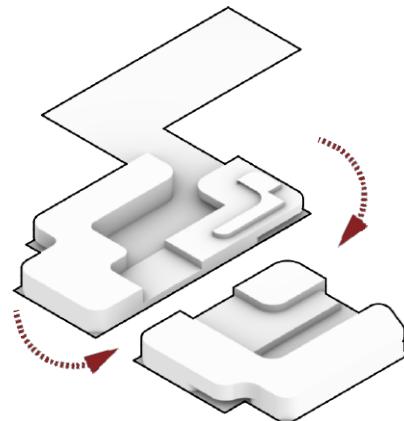


Freight/Merchant

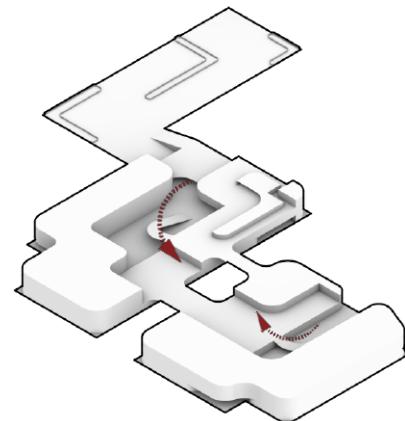
Form Derivation



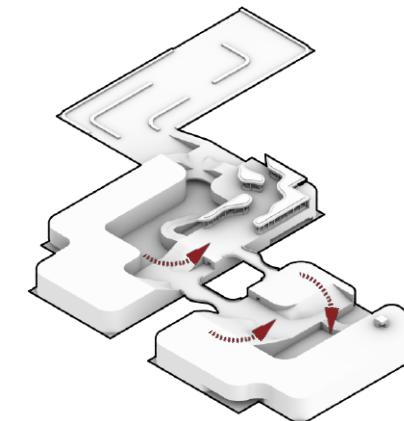
01 Determine the size and location of each functional area according to the requirements



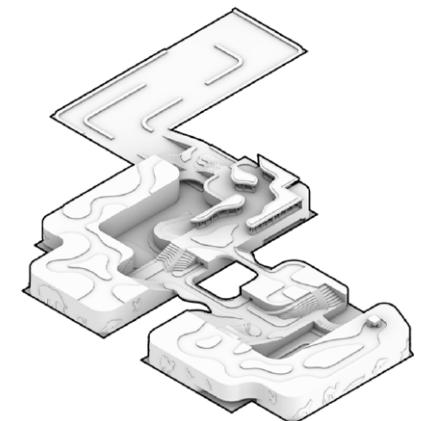
02 Adjust the shape



03 Design other parts according to the circulation



04 Use steps to moderate discrepancy in elevation



05 Add wildlife and natural environment elements

Handworked Model - Ideation

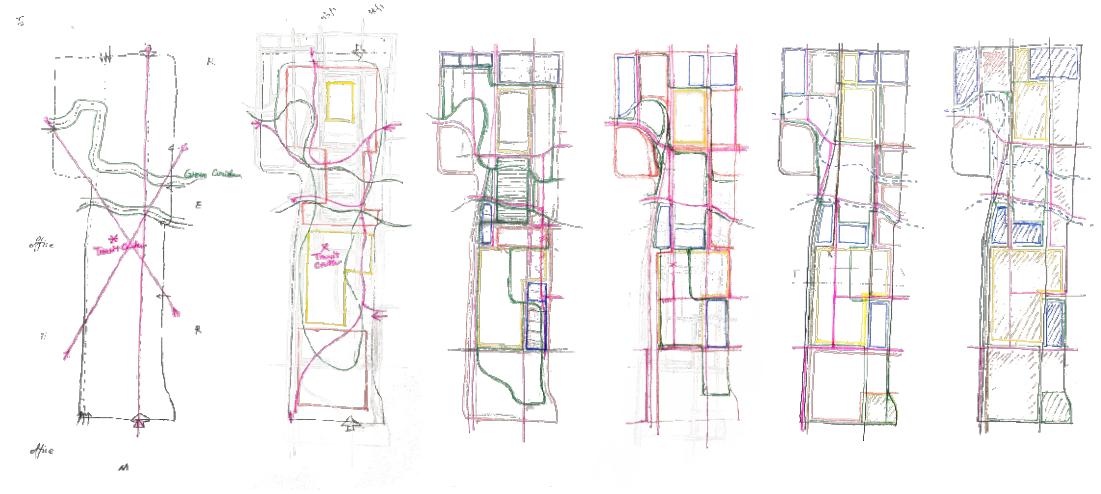


MASTER PLAN



PERSPECTIVE





Design Sketch

03

Prospect South Urban Redevelopment

Planning of the New Downtown Center in Fort Collins

Fall 2020

Project Location: Fort Collins, CO, USA

Academic Individual Work

Professor: Scott Carman

Instructor: Yufei Ding

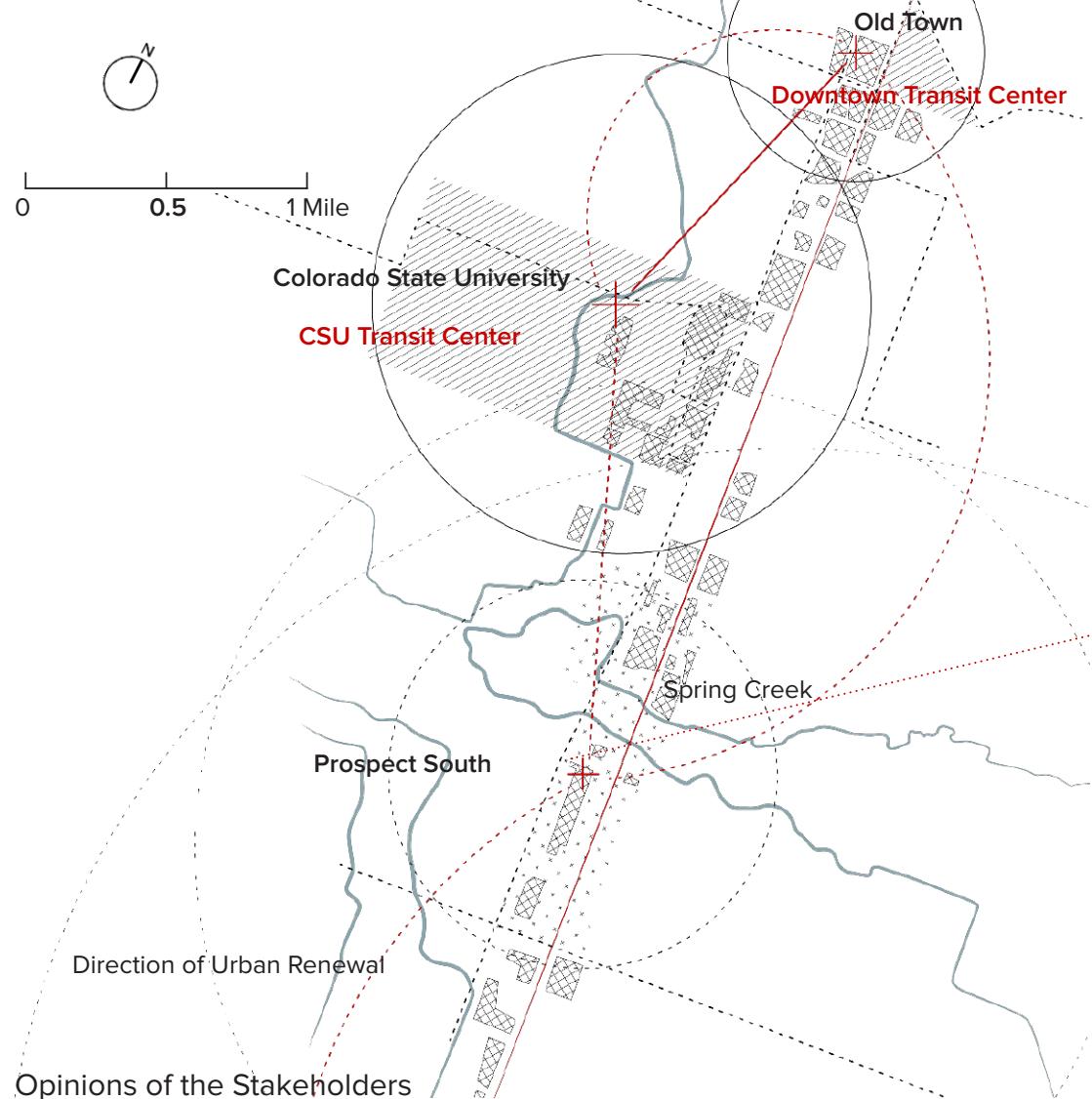
Scale: 162.4 ac

The Fort Collins government hopes to shape a new urban center through the re-planning of Prospect South to drive the overall development of Fort Collins. As one of the most livable cities in the world, Fort Collins is famous in the United States for its healthy lifestyle and sustainable development. However, the Prospect South is seriously lacking in the accessibility of sustainable transportation and environmental-friendly greening design, which makes this area into a dilemma.

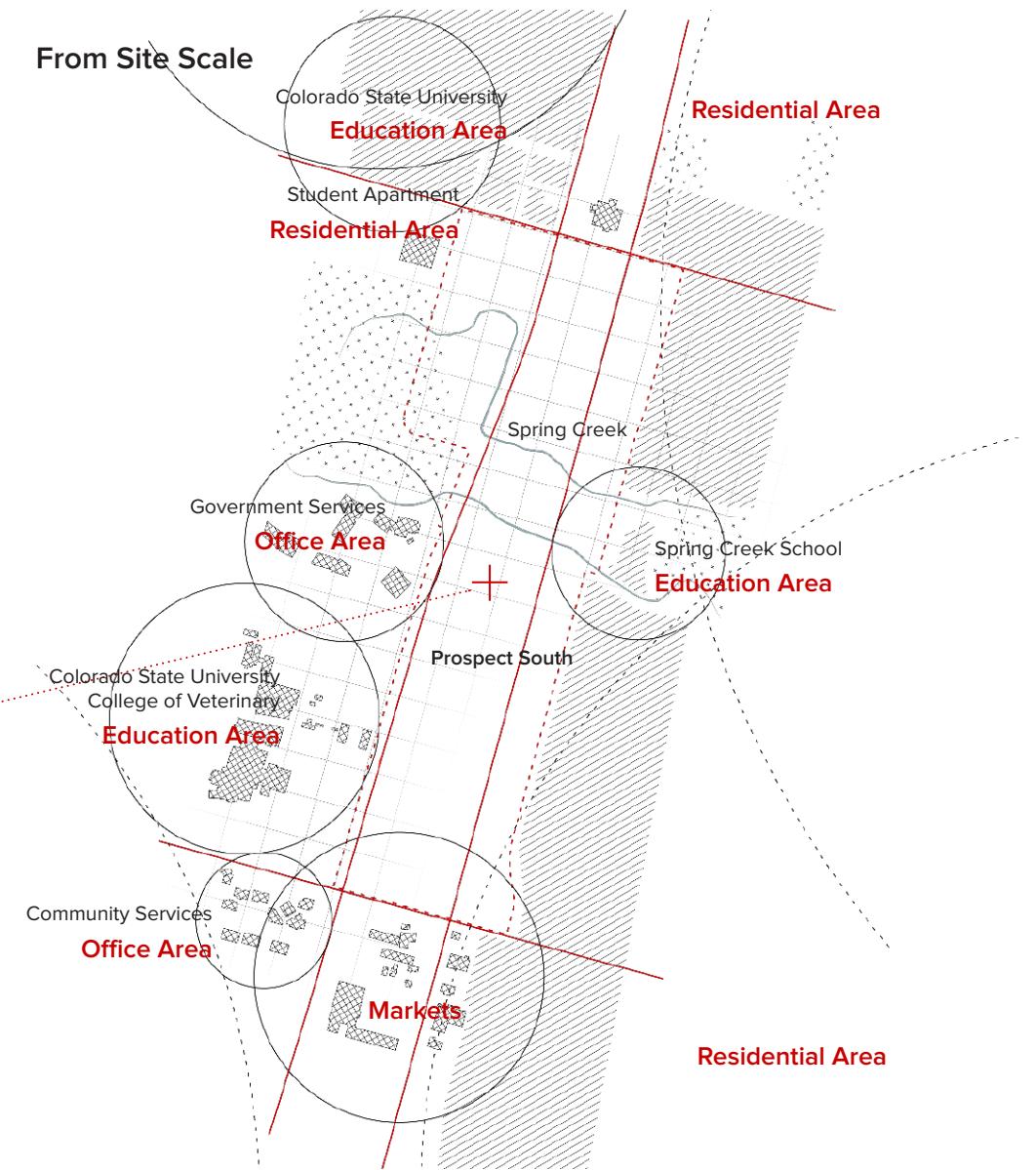
This project aims to create a new sustainable downtown center of Fort Collins through systematic planning to activate the southern part of the city.

STATUS ANALYSIS

From Urban Scale



From Site Scale



Opinions of the Stakeholders

- | | | |
|--|-------------------------|--|
| | Fort Collins Government | Fort collins needs a new southern downtown . |
| | Residents | I have to drive long distances to go shopping. |
| | Students | More apartments and public spaces will be helpful. |

- | | | |
|--|------------------|---|
| | Environmentalist | There is a lack of green space and public transport . |
| | Bikers | Fort Collins is bike-friendly but bike accessibility of South Prospect is low. |



SITE STRATEGY

01 Locating the Transit Center and Commercial Areas



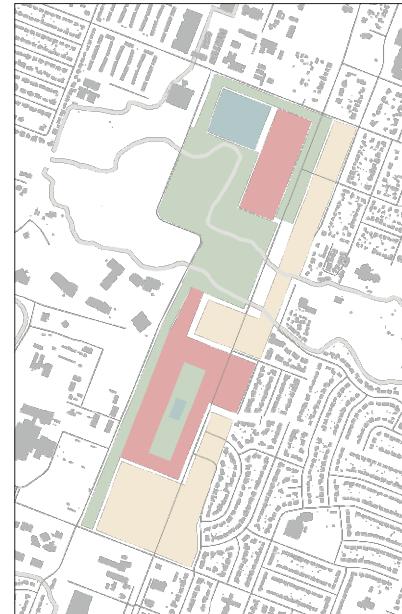
02 Dividing Main Green Spaces



03 Dividing Neighboring Residential Areas



04 Extending the Green Corridor



05 Designing Axis of the Site (Bicycle Chain)



06 Dividing Specific Blocks According to the Axis



07 Functional Zone System

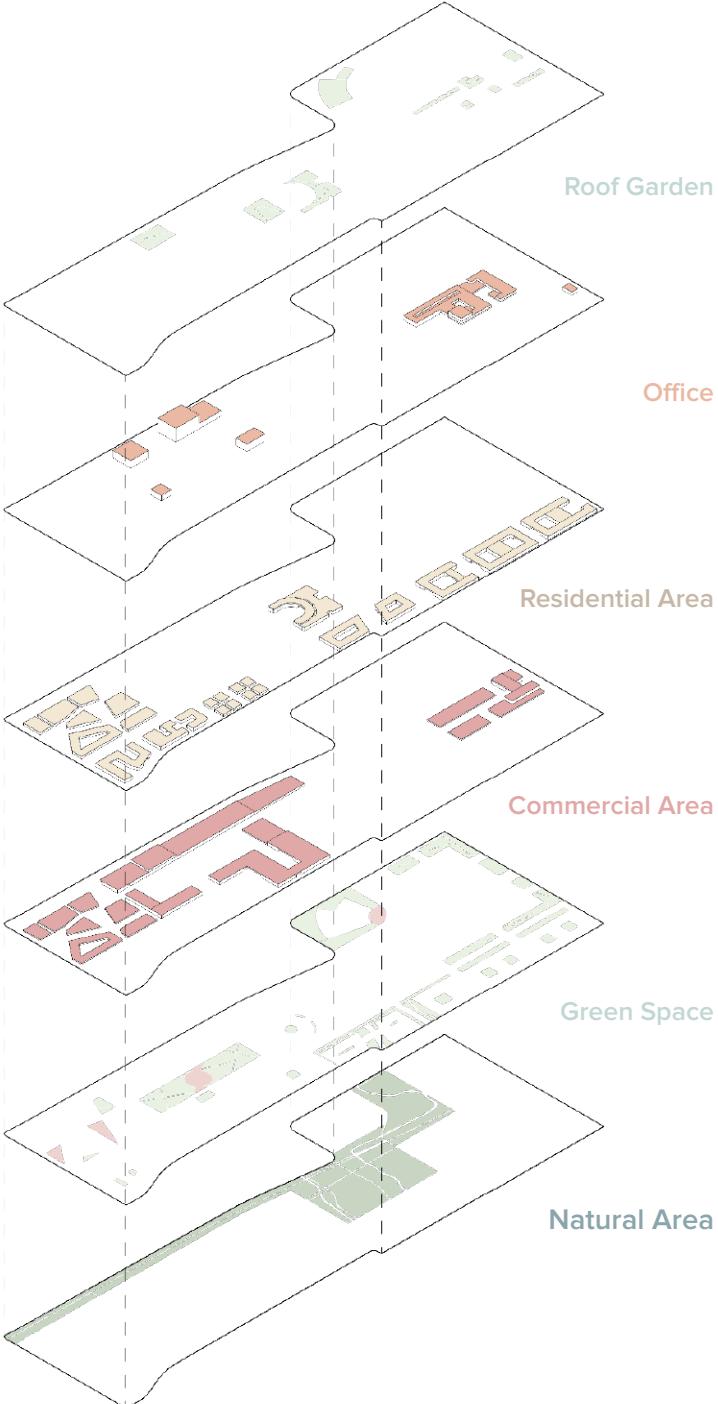


08 Green Space System

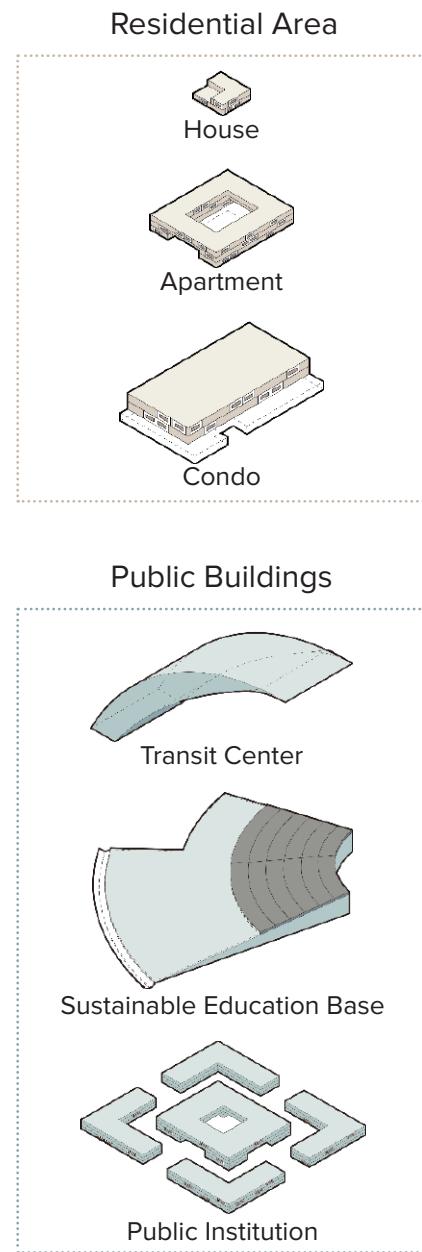


SYSTEM

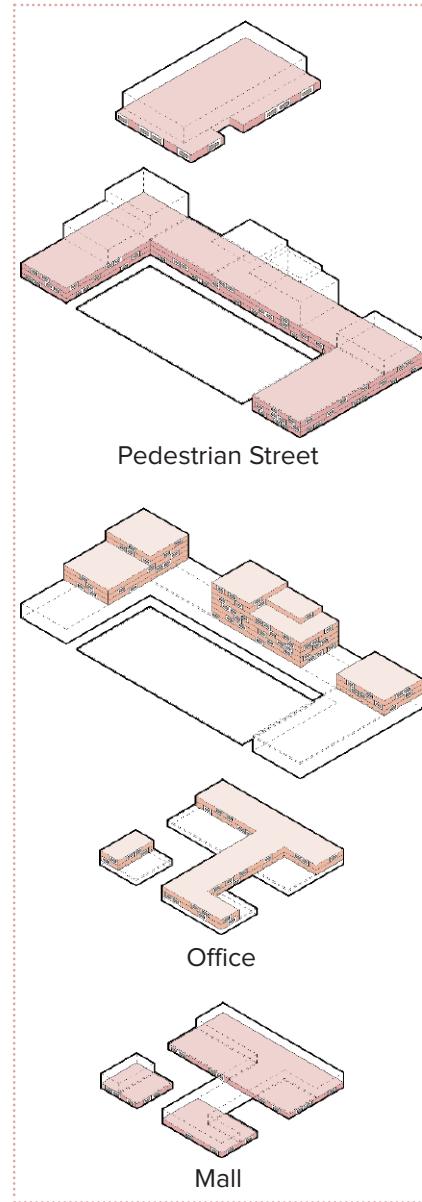
Exploded View



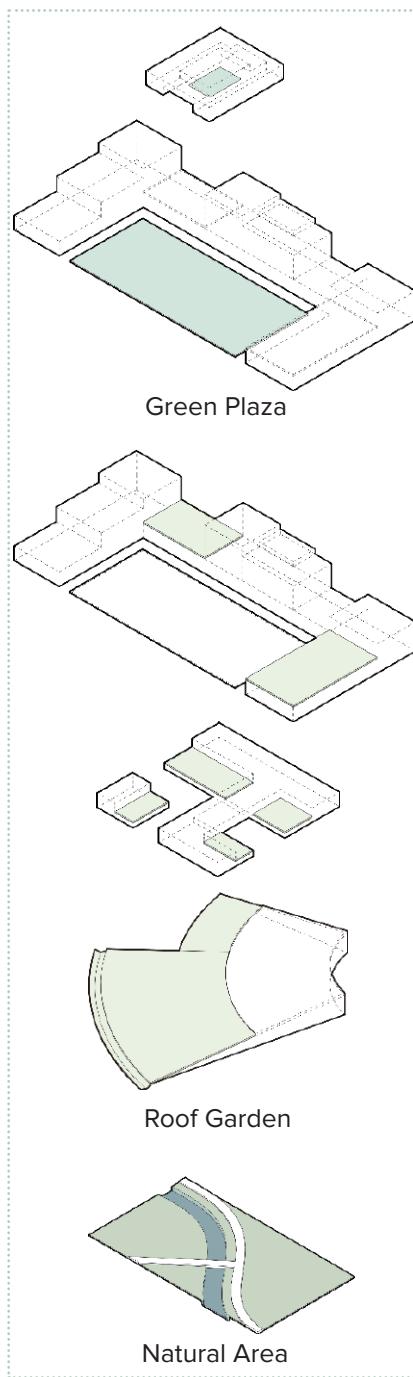
Form Design



Commercial Area

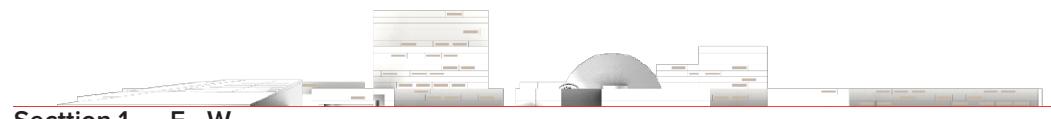


Open Space

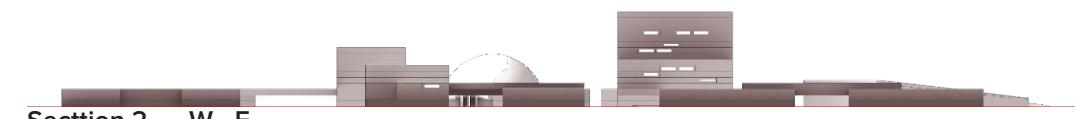


SITE VIEW

Sections

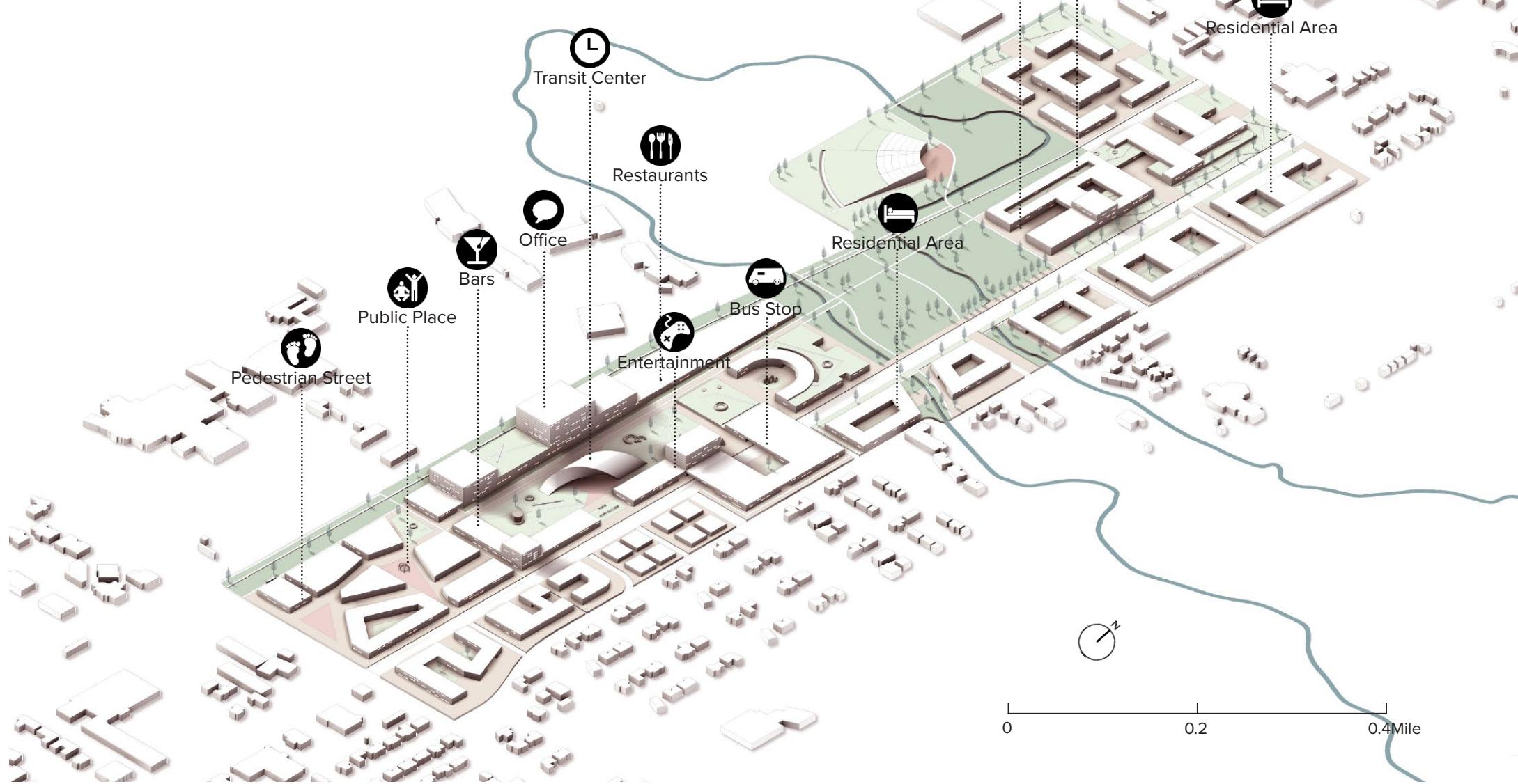


Section 1 E - W



Section 2 W - E

Axonometric



PERSPECTIVE From Biker Village



04

Coexisting with the Flood

Evacuation Design and Refuge Landscape of Flooding

Fall 2020

Project Location: Tokyo, Japan

Academic Team Work

Teammate: Danwen Zhang

Instructor: Yichun Liang

Scale: 40.3 ac

Contribution: Research of site topography, flood distribution; design of strategies; terrain design; 3D models; master plan

The Edogawa area has narrow roads and old buildings, and floods frequently occur during heavy rains and high tides, causing loss of life and property to local people, especially those with limited mobility.

This project achieves the friendly coexistence of human and flood by transforming the waterfront environment.



Perspective: Edogawa Fireworks Festival

CAUSES OF CASUALTIES CAUSED BY THE FLOOD

Flood is a historic disaster

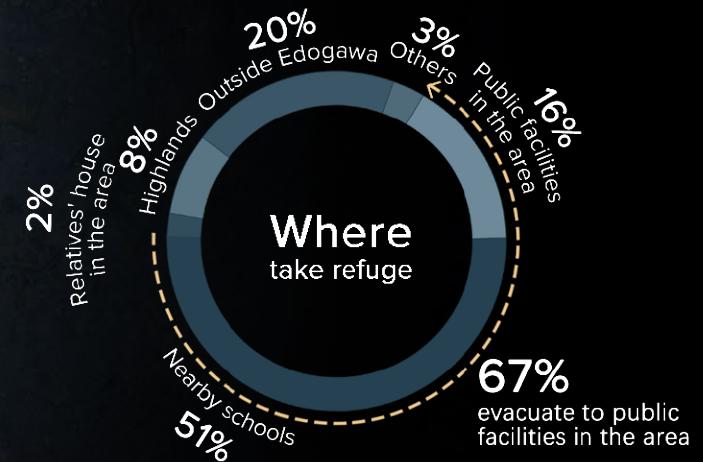


Edogawa City is surrounded by the Arakawa River, Edogawa River, and Tokyo Bay; therefore 70% of its land area is below high tide water levels.

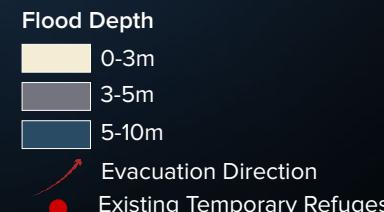
Due to **frequent flooding, complex urban roads, chaotic evacuation routes**, and **insufficient large-scale refuge sites**, the Edogawa area is often flooded

Large-scale Refuges are needed in the Edogawa area

662,000 people need to be evacuated
60% of them were stranded in Edogawa area



Nearly 218,460 people have no refuge to stay



Houses Destroyed by Flood

Casualties Caused by Flood

STRATEGY

1 Reduce Flood Risk



Water Storage



Water Blocking

2 Improve Evacuation Efficiency



Integration

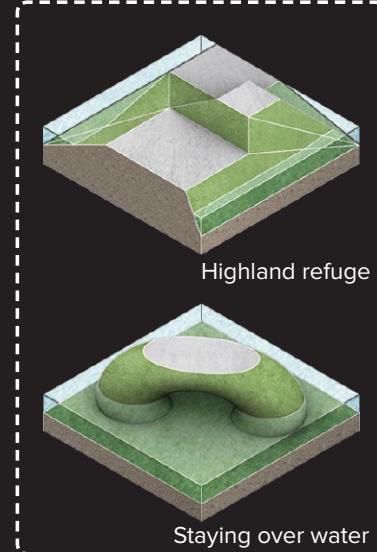
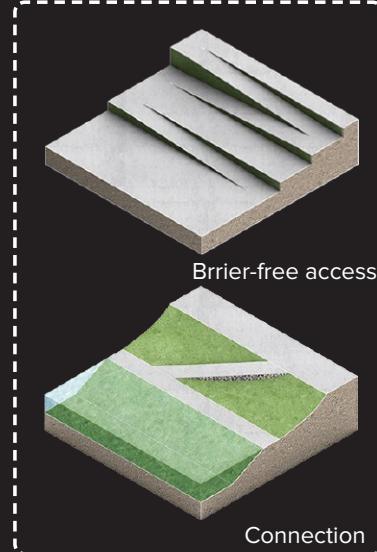
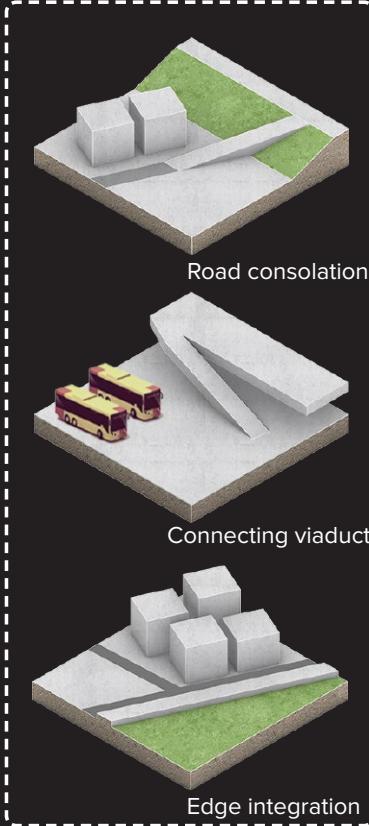
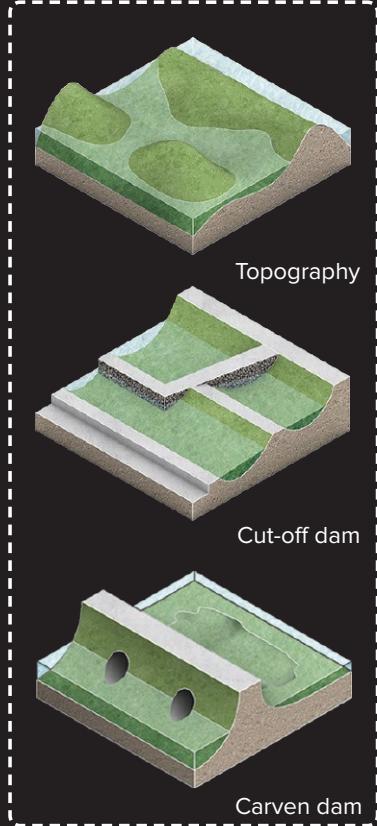
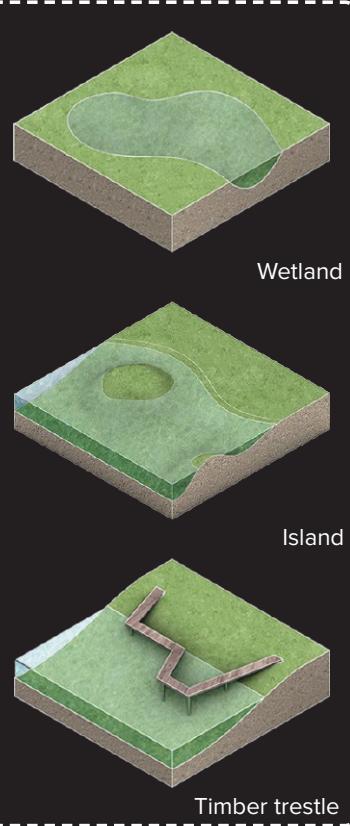


Quickly Access

3 Increase Refuges



Site Offering

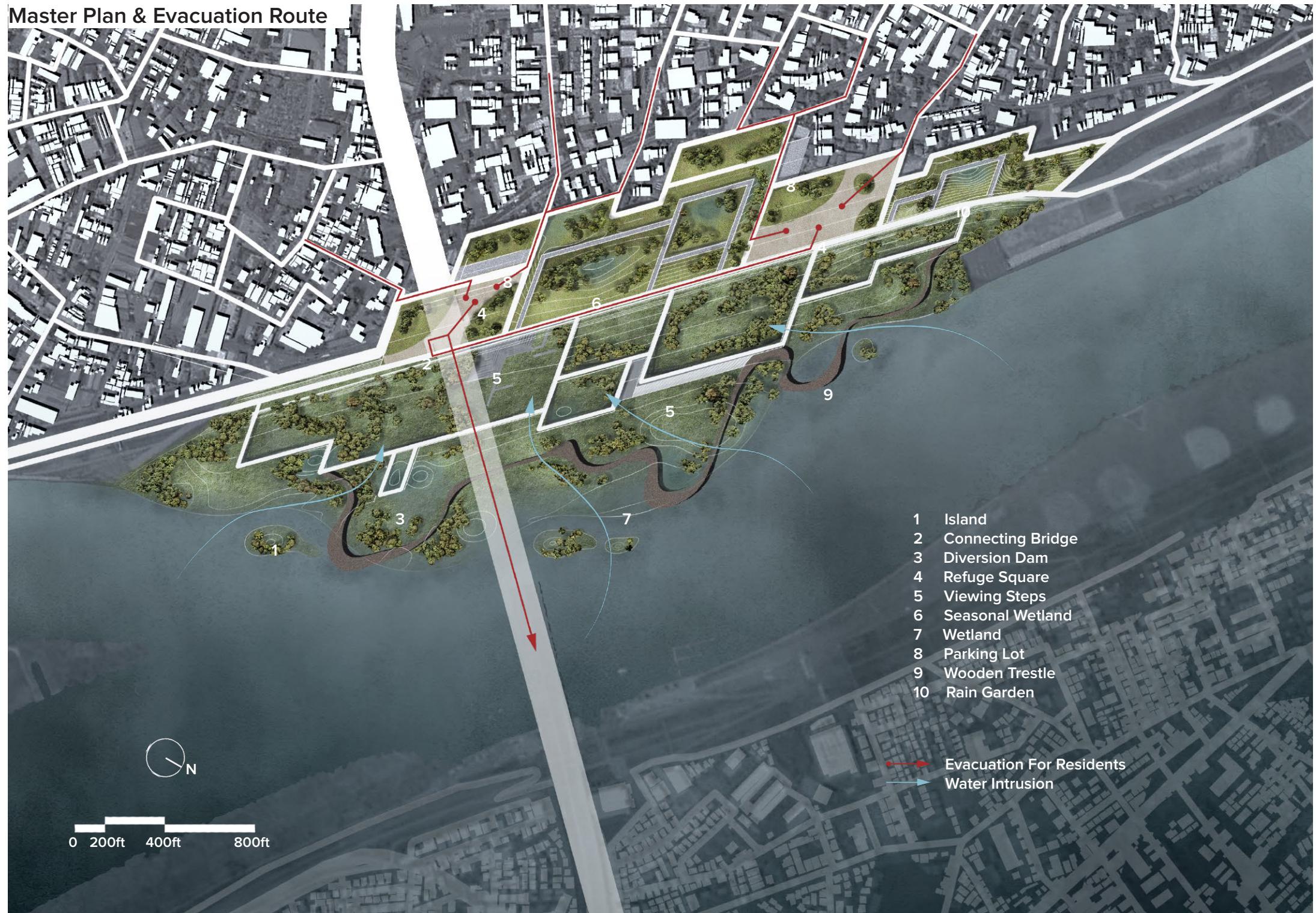


Urban areas need a buffer zone to mitigate flooding

5.0m
4.0m
3.0m
2.0m
1.0m



Master Plan & Evacuation Route

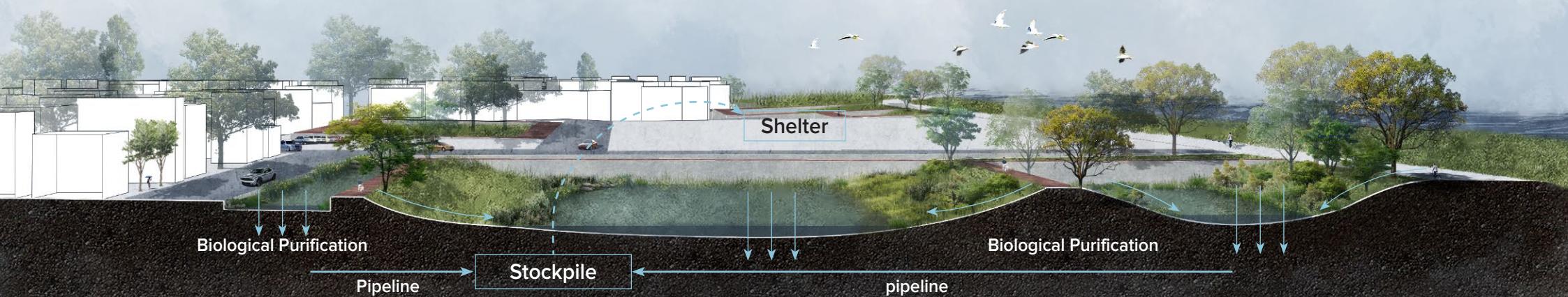
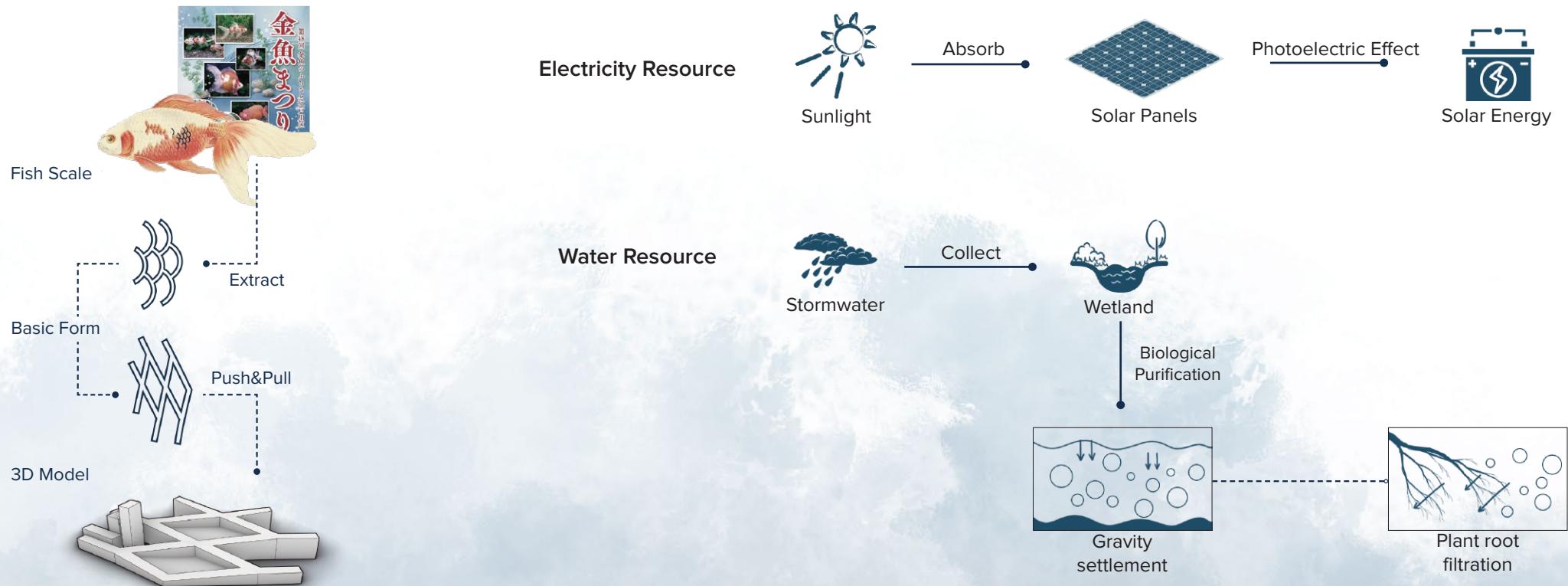


REFUGE RESOURCES

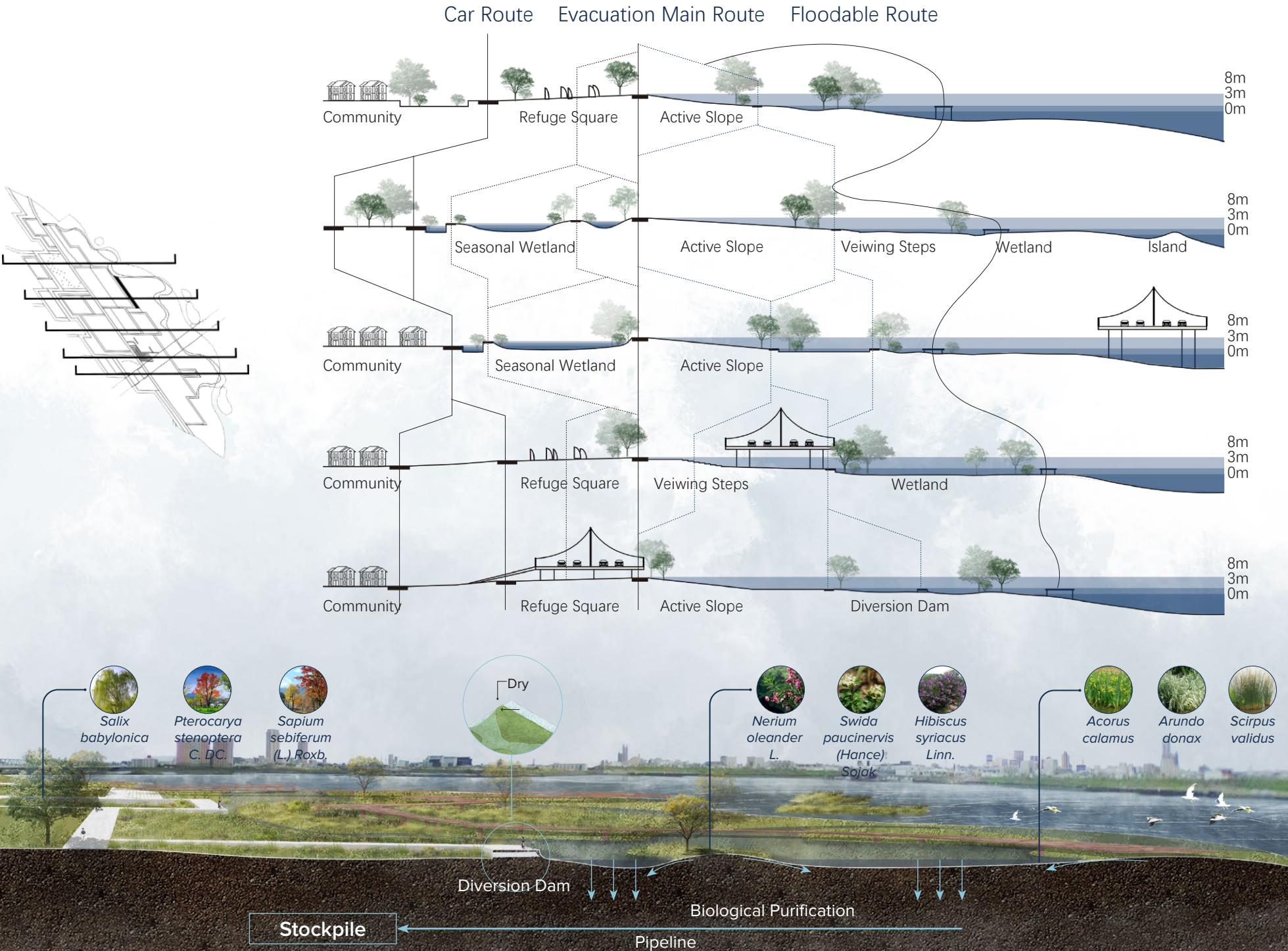
Flooding will cause water and power outages for a certain period of time, and water purification and solar power generation will be integrated into the entire evacuation resource system for emergency water resources and electricity needed during evacuation.

Form Derivation

Koi means lucky in Edogawa area



FLOODING SECTIONS & ACCESSIBILITY



PERSPECTIVE



05

Wildlife Passage

Ecological Corridor Planning for Deer and Elk

Fall 2019

Project Location: Summit, CO, USA

Academic Team Work

Teammate: Dongtian Shi

Professor: Kelly Curl

Scale: 165,000 ac

Contribution: Research of site topography and species, site selection; form design for the corridor; all 3D models; section elevation

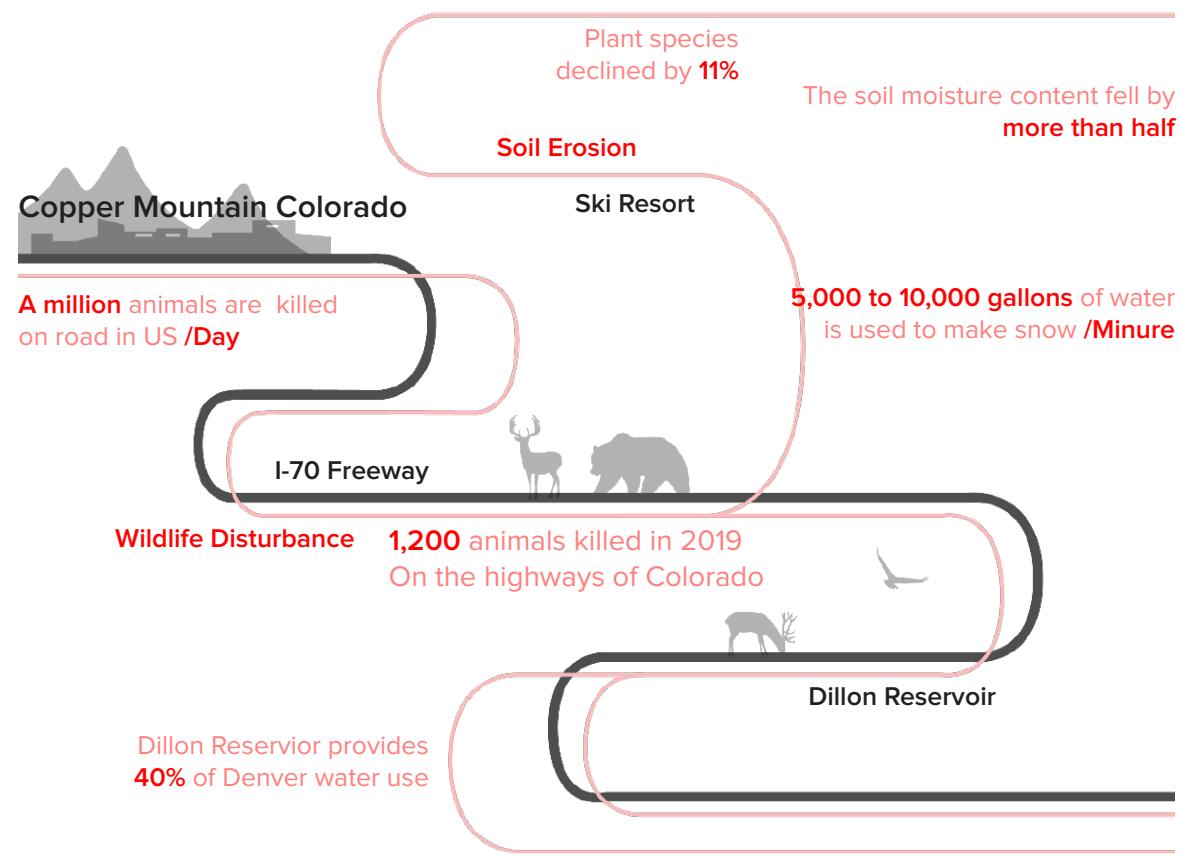
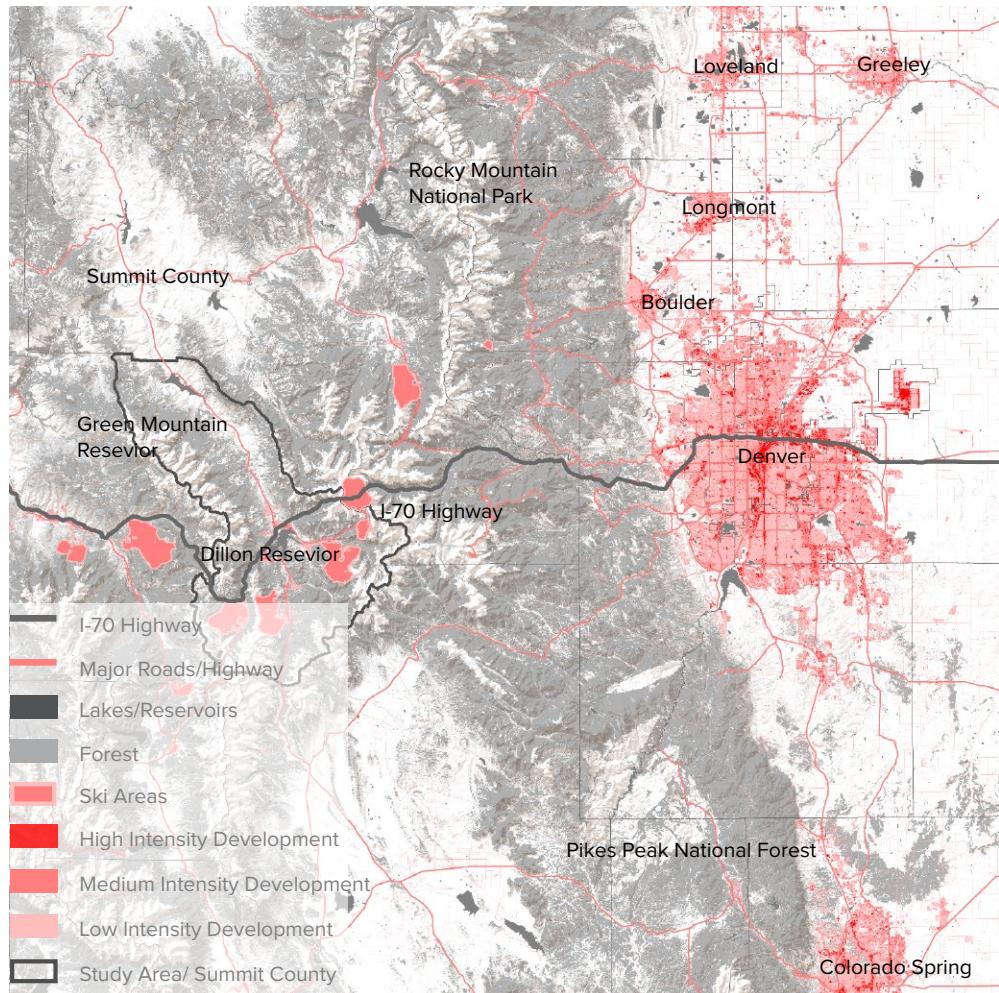
There are many conflicts between people and wild animals in Summit, Colorado. One of the most serious ecological problems is the roadkill on i-70 highway.

In order to protect Colorado's wildlife resources and achieve the vision of harmony between man and nature, this project aims to find a solution by landscaping.

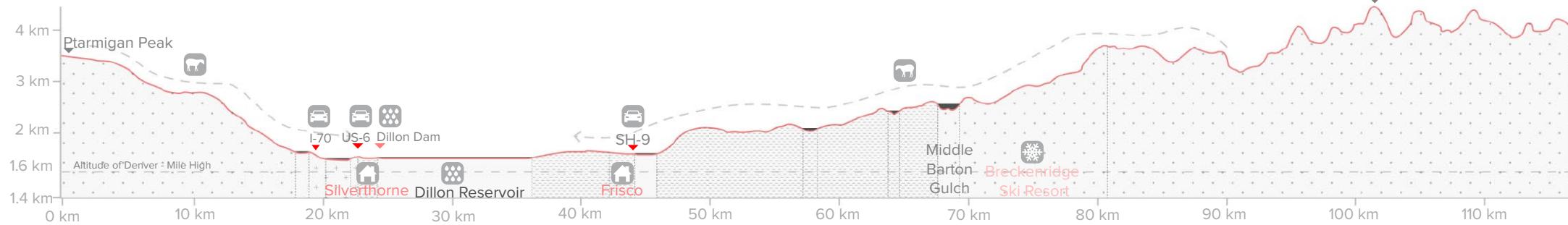


Wildlife Crossing - Study Model (Laser Cut Matboard)

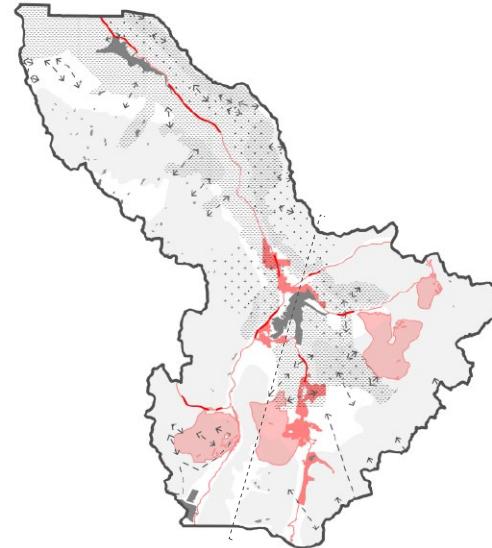
ECOLOGICAL PROBLEMS



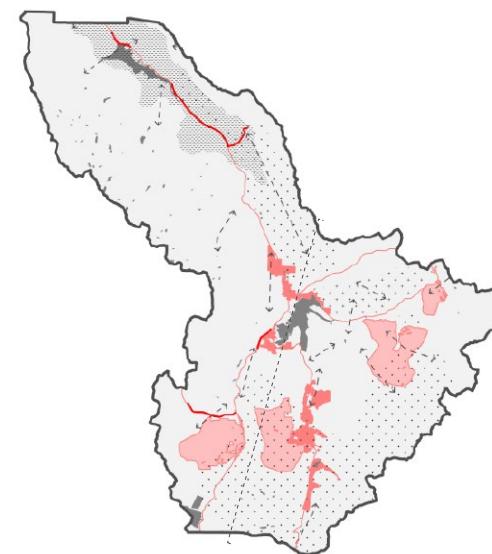
Vertical Migration



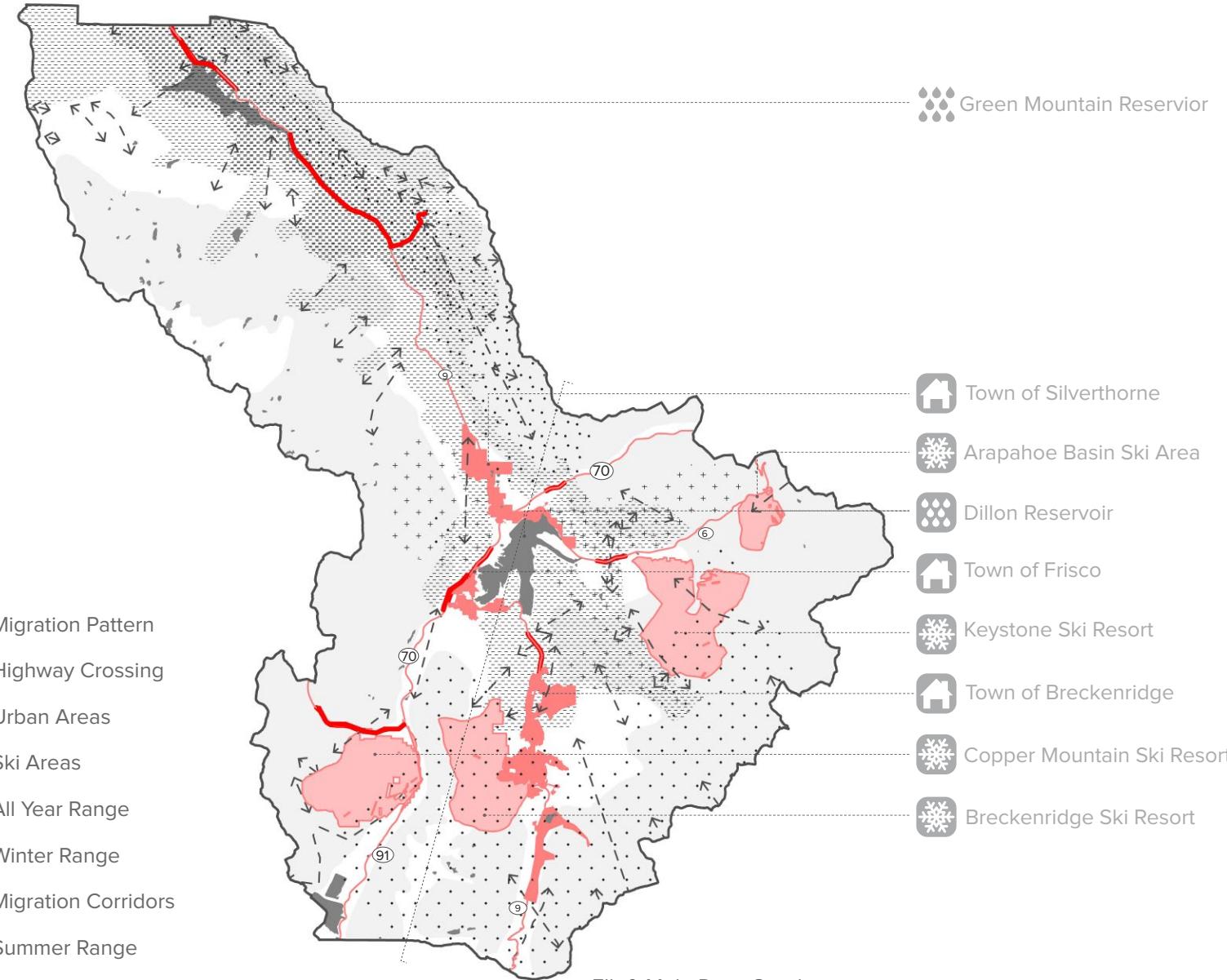
FOCUS ON ROADKILL OF MULE DEER AND ELK



Elk Habitats & Migration

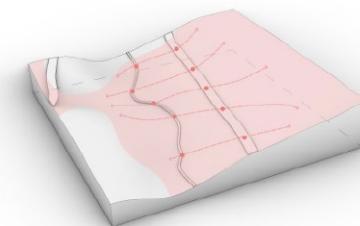
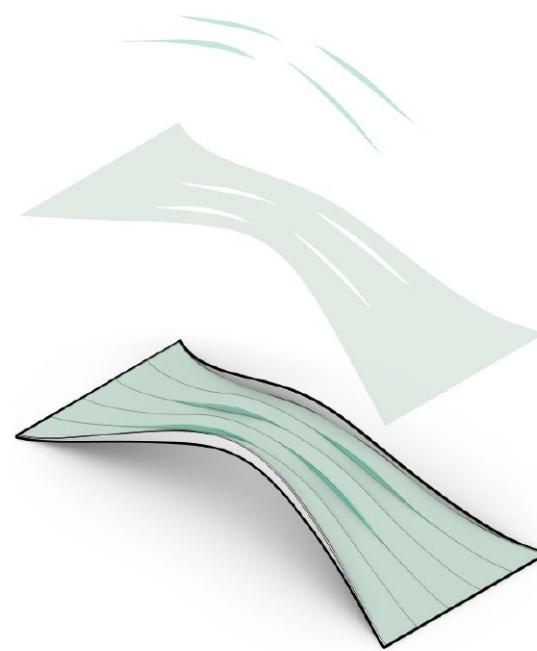


Mule Deer Habitats & Migration

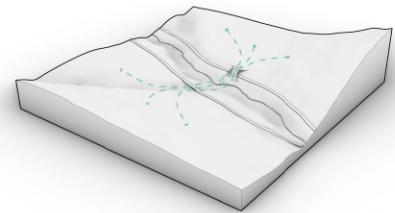


FOCUS SITE - I-70 WILDLIFE CROSSING

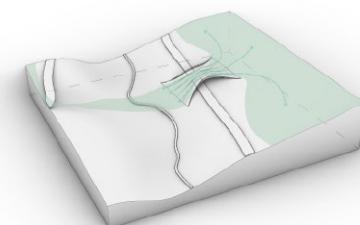
Form of the Corridor



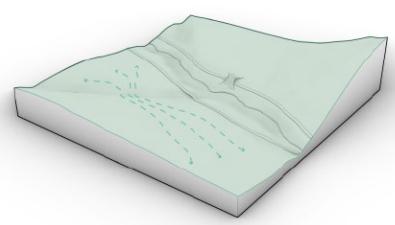
Before



Mule Deer

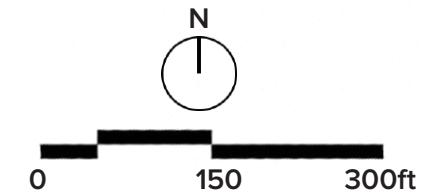
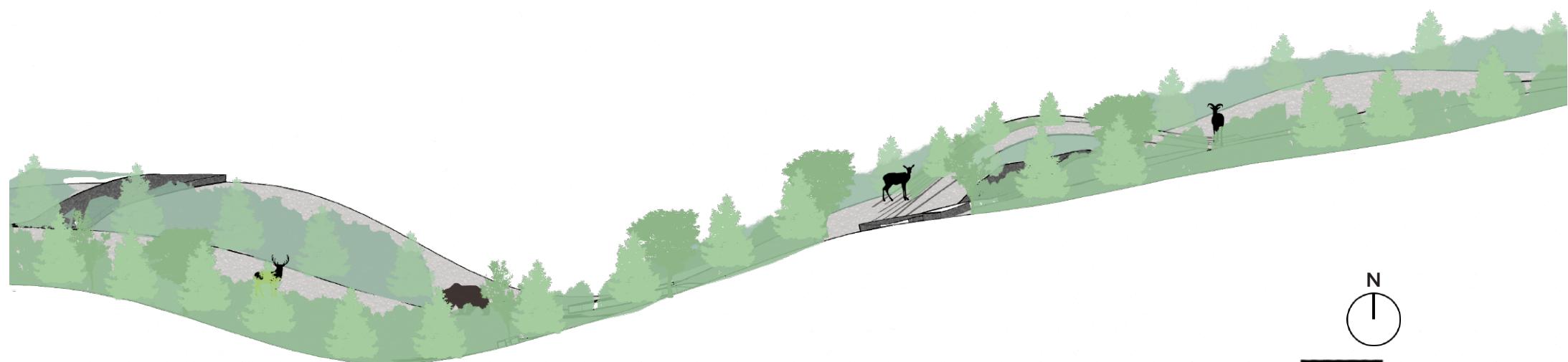


After



Elk

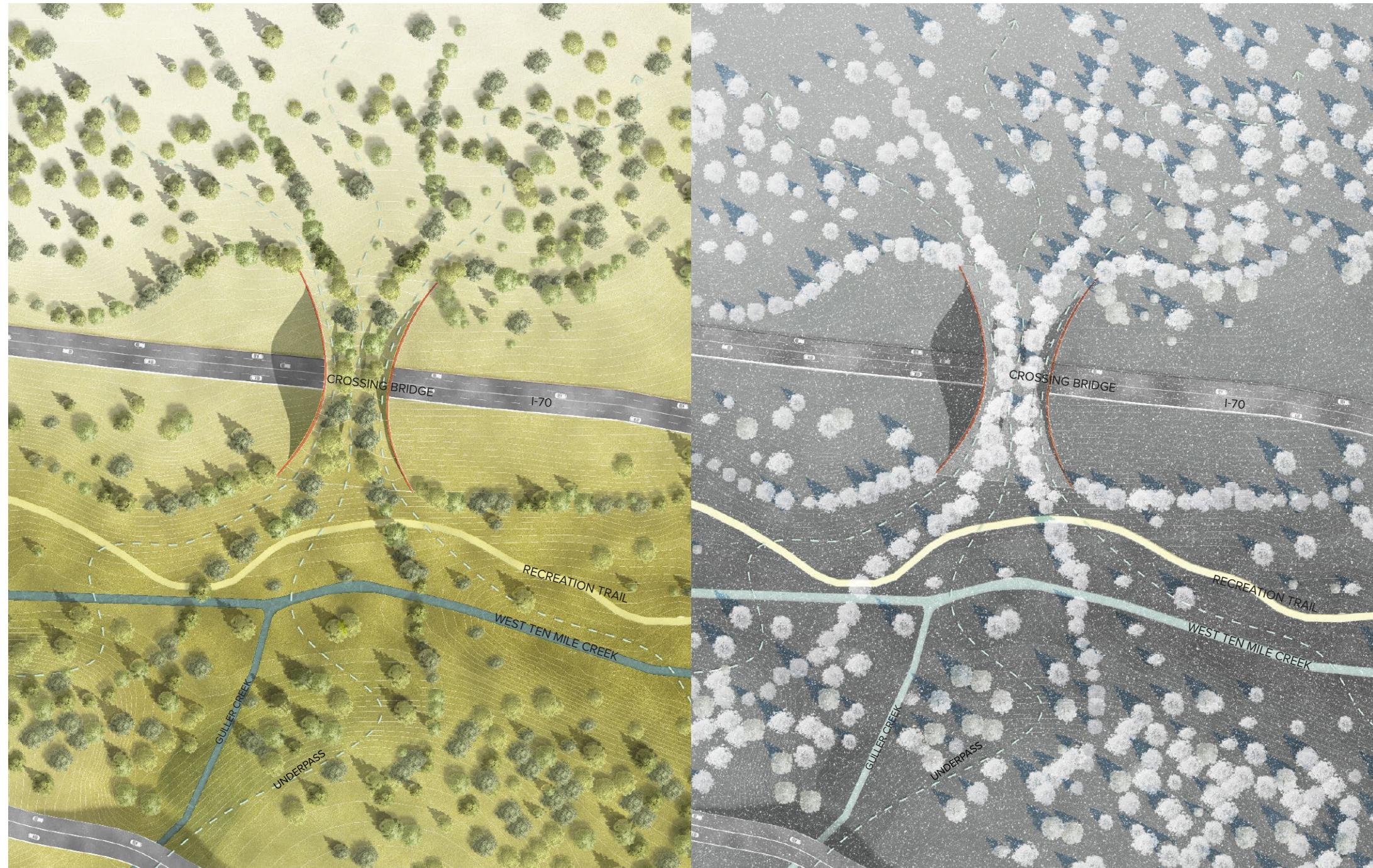
Section Elevation



MASTER PLAN

Summer

Winter



06

Urban Color Park

Construction Documents

Fall 2019

Project Location: Fort Collins, CO, USA

Academic Individual Work

Professor: Lori Catalano



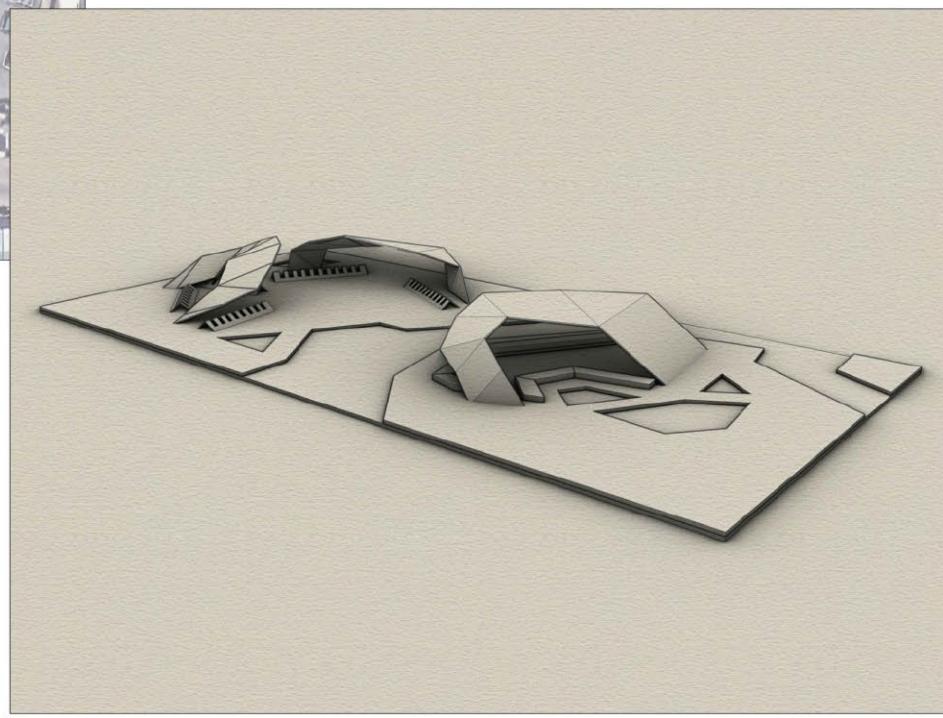
Urban Color Park



LOCATION MAP

SHEET INDEX

- LC Cover sheet
- L-1 Layout plan
- L-2 Paving plan
- L-3 Planting plan
- L-4 Elevations
- L-5 Details
- L-6 Details



BIKE PARK PERSPECTIVE

Drawn by:
Huining Jia

Due Date:
December 19, 2019

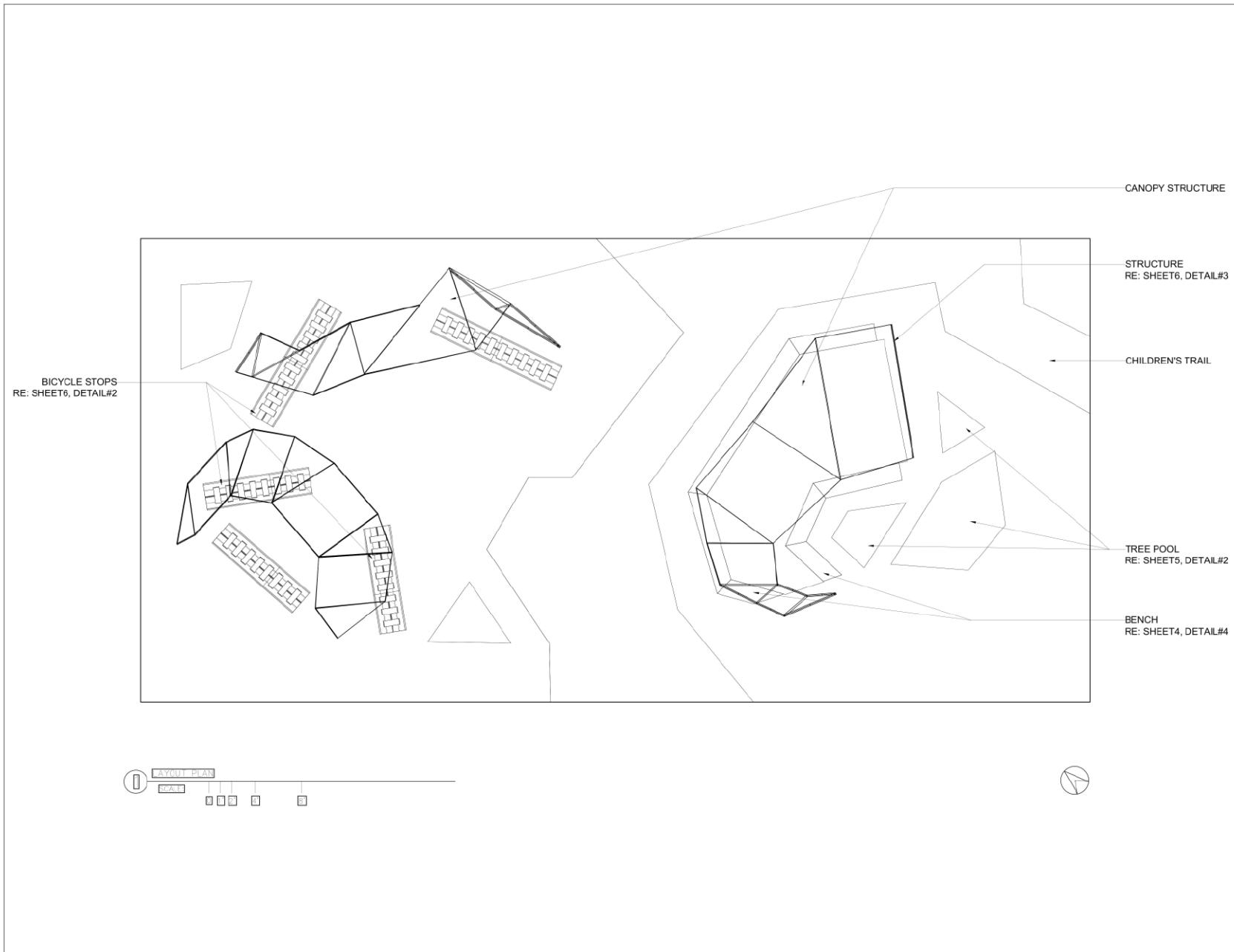
Bike Park and Garden

255 Old Firehouse Alley, Fort Collins, CO 80521

Land 365 - Colorado State University

Cover Sheet

LC



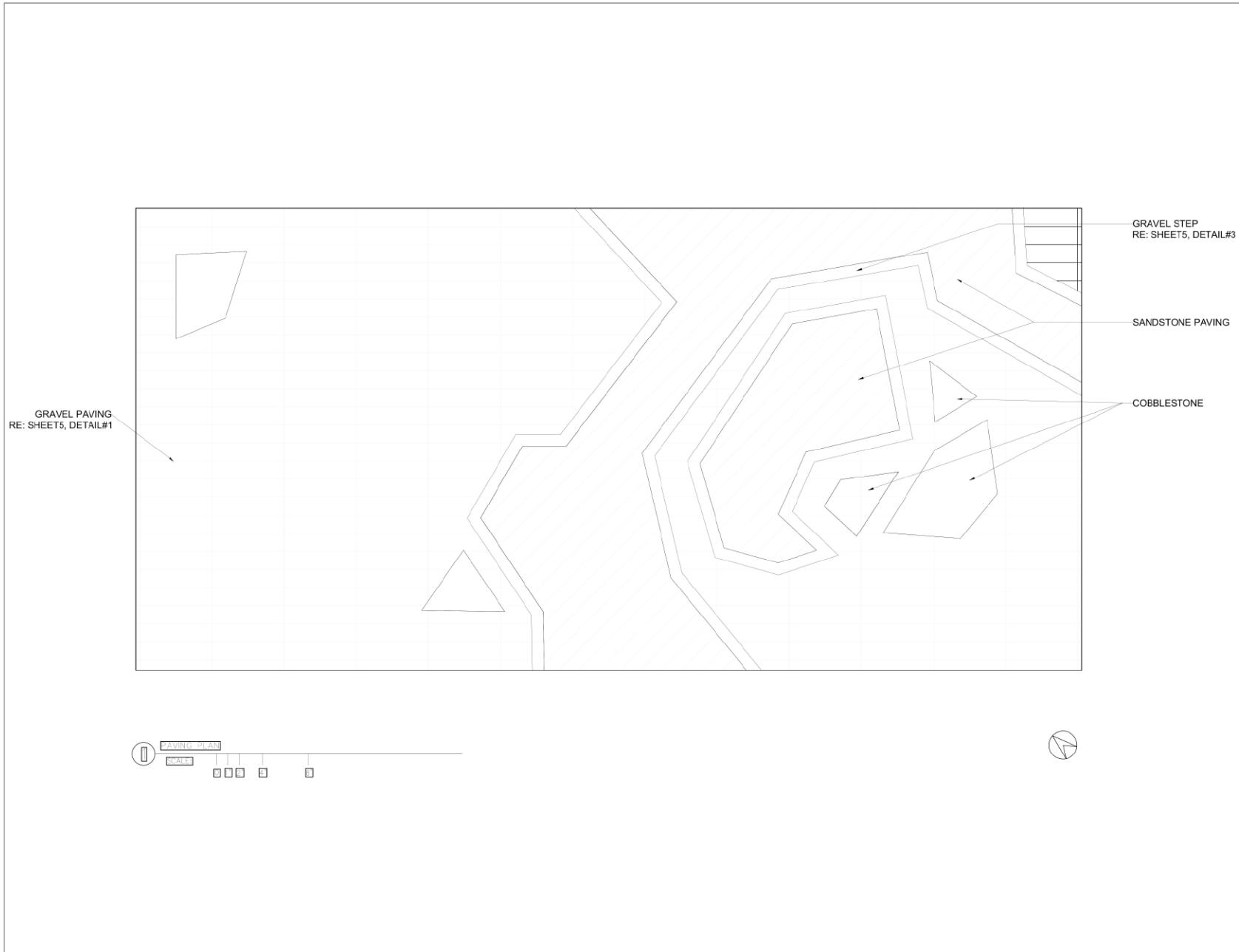
Drawn by:
Huining Jia

Due Date:
December 19, 2019

Bike Park and Garden
255 Old Firehouse Alley. Fort Collins, CO 80521
Land 365 - Colorado State University

Layout Plan

L-1



Drawn by:
Huining Jia

Due Date:
December 19, 2019

Bike Park and Garden
255 Old Firehouse Alley. Fort Collins, CO 80521
Land 365 - Colorado State University

Paving Plan
L-2

Drawn by:
Huining Jia

Due Date:
December 19, 2019

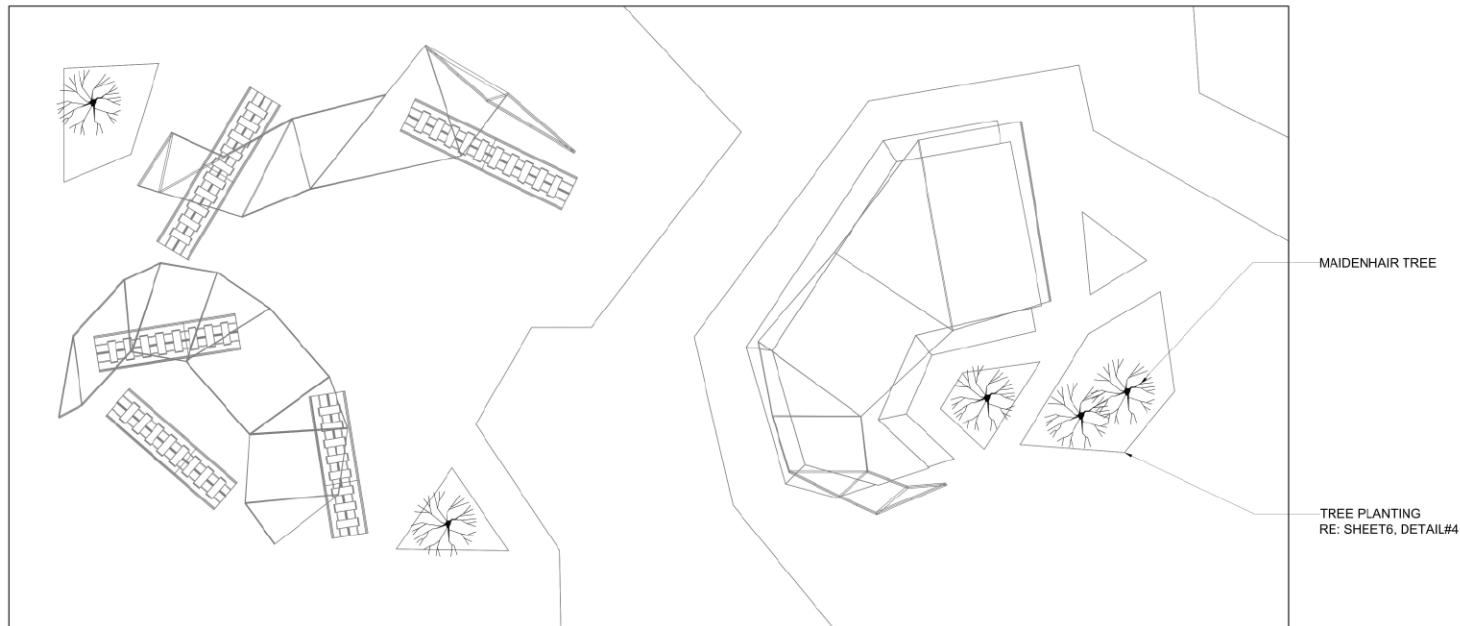
Bike Park and Garden

255 Old Firehouse Alley. Fort Collins, CO 80521

Land 365 - Colorado State University

Planting Plan

L-3



Drawn by:
Huining Jia

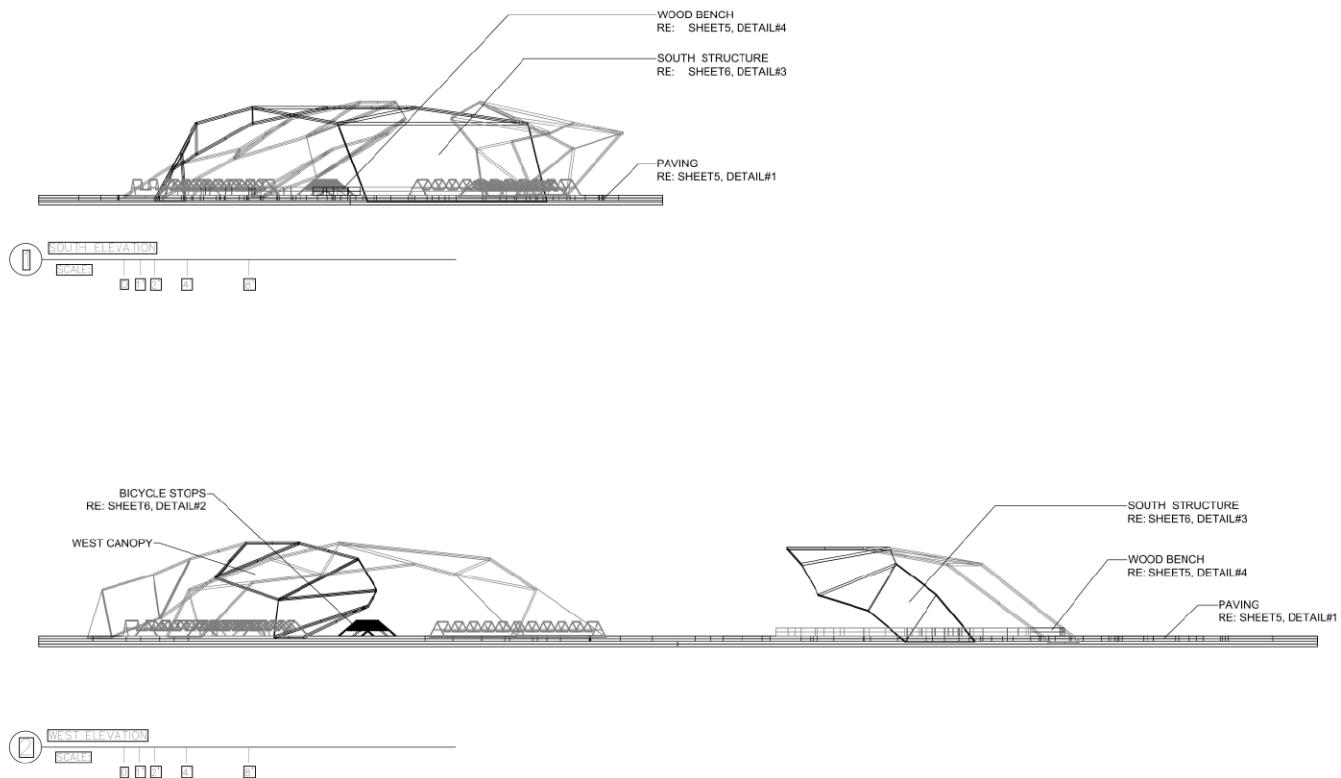
Due Date:
December 19, 2019

Bike Park and Garden

255 Old Firehouse Alley. Fort Collins, CO 80521

Land 365 - Colorado State University

Elevations
L-4



Drawn by:
Huining Jia

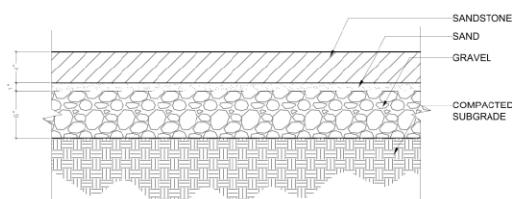
Due Date:
December 19, 2019

Bike Park and Garden

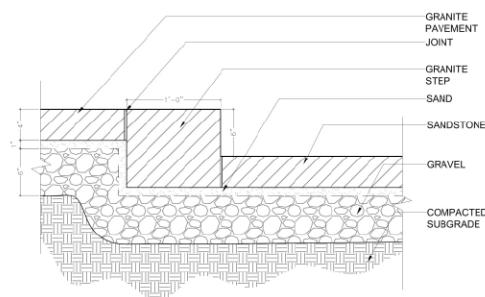
255 Old Firehouse Alley. Fort Collins, CO 80521

Land 365 - Colorado State University

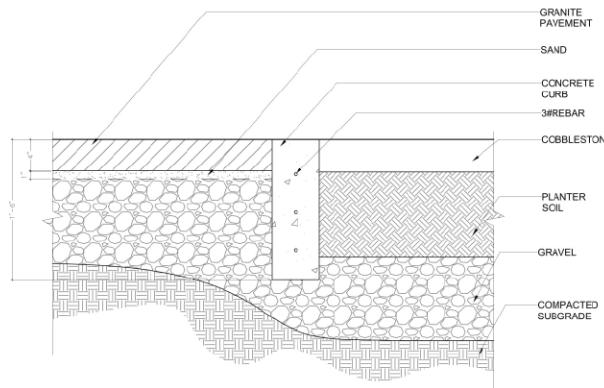
Details
L-5



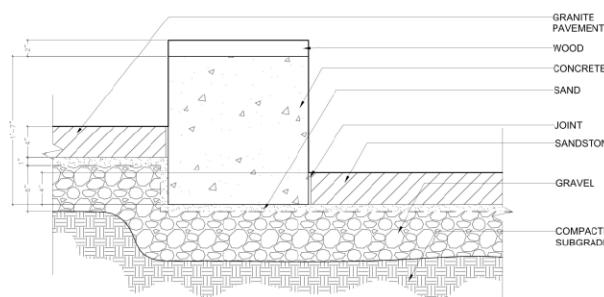
(1) GRAVEL PAVING SCALE



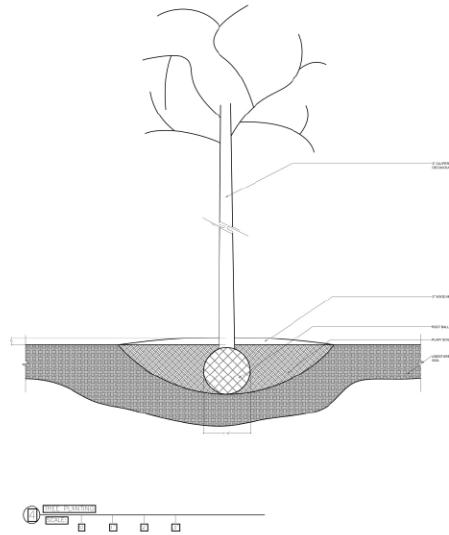
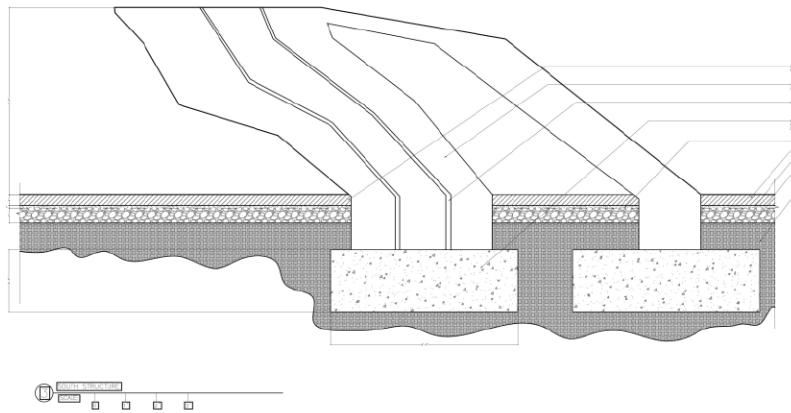
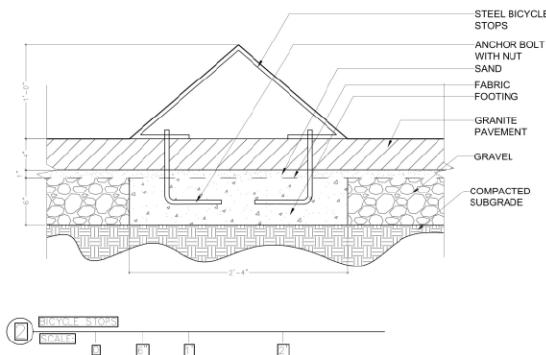
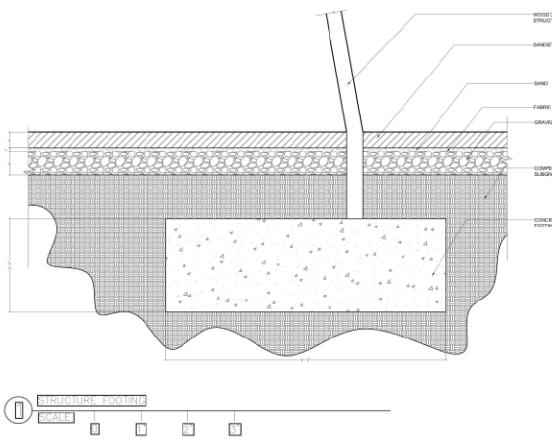
(2) GRAVEL STEP SCALE



(3) Curb Planter SCALE



(4) BENCH SCALE



Drawn by:
Huining Jia

Due Date:
December 19, 2019

Bike Park and Garden
255 Old Firehouse Alley. Fort Collins, CO 80521
Land 365 - Colorado State University

Details

L-6

OTHER WORKS: Drawing & Painting



Gouache Practice



Pencil Sketch: Robin



Acrylics: *Tragopan satyra*

OTHER WORKS: Drawing & Painting



Acrylics: Spring Creek

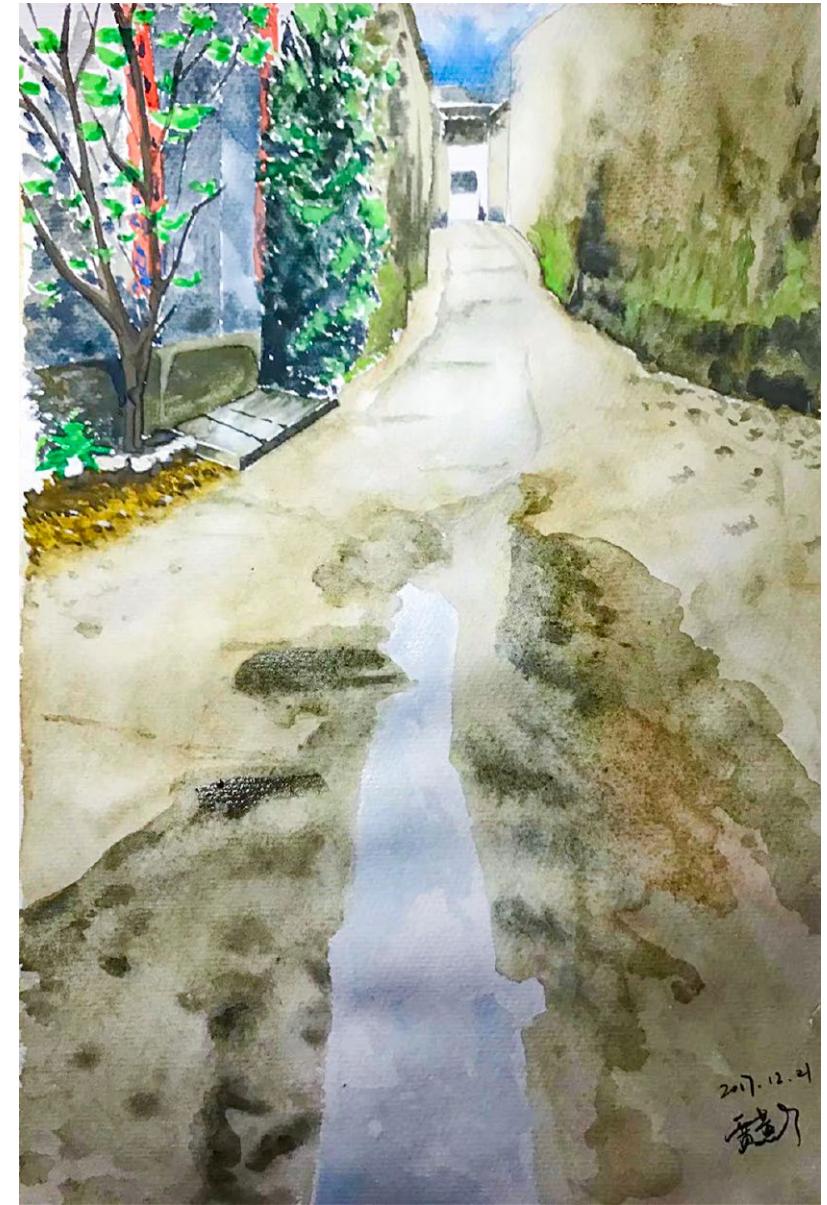


Gouache: Devils Tower

OTHER WORKS: Drawing & Painting



Pen Sketch



Watercolor: The Alley



Watercolor:
Anhui building

OTHER WORKS: Photography



Tears of Eos
11/2018

OTHER WORKS: Photography



A Warm Cold Night
11/2018

OTHER WORKS: Photography



The Mirror of CSU
09/2018

OTHER WORKS: Photography



Sanitation Worker
06/2018



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