

# JACK HALVERSON

Planning + Design Portfolio

## ABOUT ME

Hey there, my name's Jack. I'm a second-year Master of Urban Planning student at the Harvard Graduate School of Design, concentrating in Urban Design. This portfolio is a selection of both my schoolwork and professional experience in the planning field.

I find myself trying to blur the line between planning and design, with the process management skills and systems-thinking of a planner and the visual intuition found in design. My interests are rooted in my experience as a transportation planner, but I've expanded my reach to include the public realm more generally.

I'm a firm believer that climate change is the most pressing challenge we must meet in the planning field and that it's a common thread that touches all of the work cities are facing across the world. One guiding principle I hope to bring into the field is understanding the complexity of interacting factors that influence urban challenges, specifically related to Social Determinants of Health. This portfolio is just a peek into the work I've developed over the past 5 years and I'd love to connect if you feel inspired by my interests!

## CONTENTS

<b>01</b>	<b>INDY WELLNESS NETWORK.....</b>	<b>3</b>
<b>02</b>	<b>URBAN FOOD DISTRICT .....</b>	<b>9</b>
<b>03</b>	<b>COOLING PARIS.....</b>	<b>13</b>
<b>04</b>	<b>MILLS CAMPUS PLANNING.....</b>	<b>16</b>
<b>05</b>	<b>EAST BOSTON PARKING STUDY.....</b>	<b>18</b>

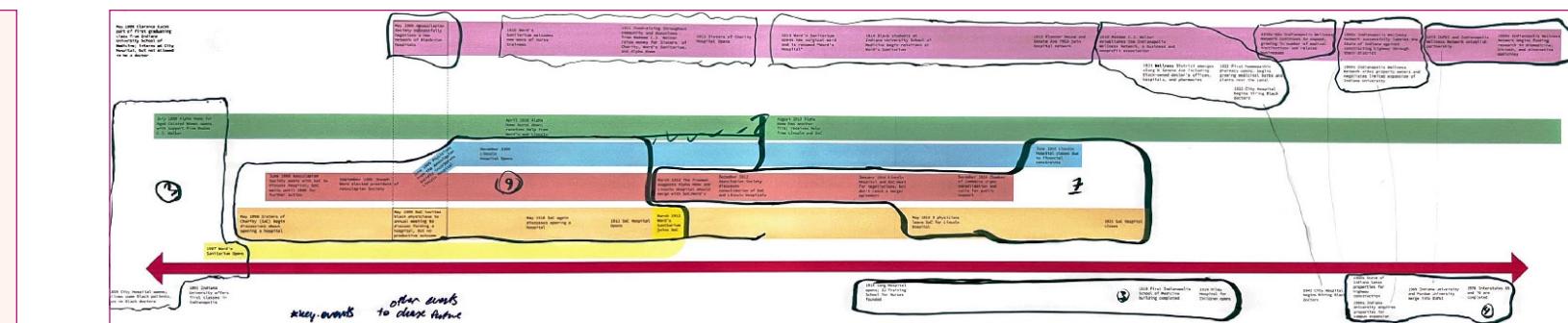
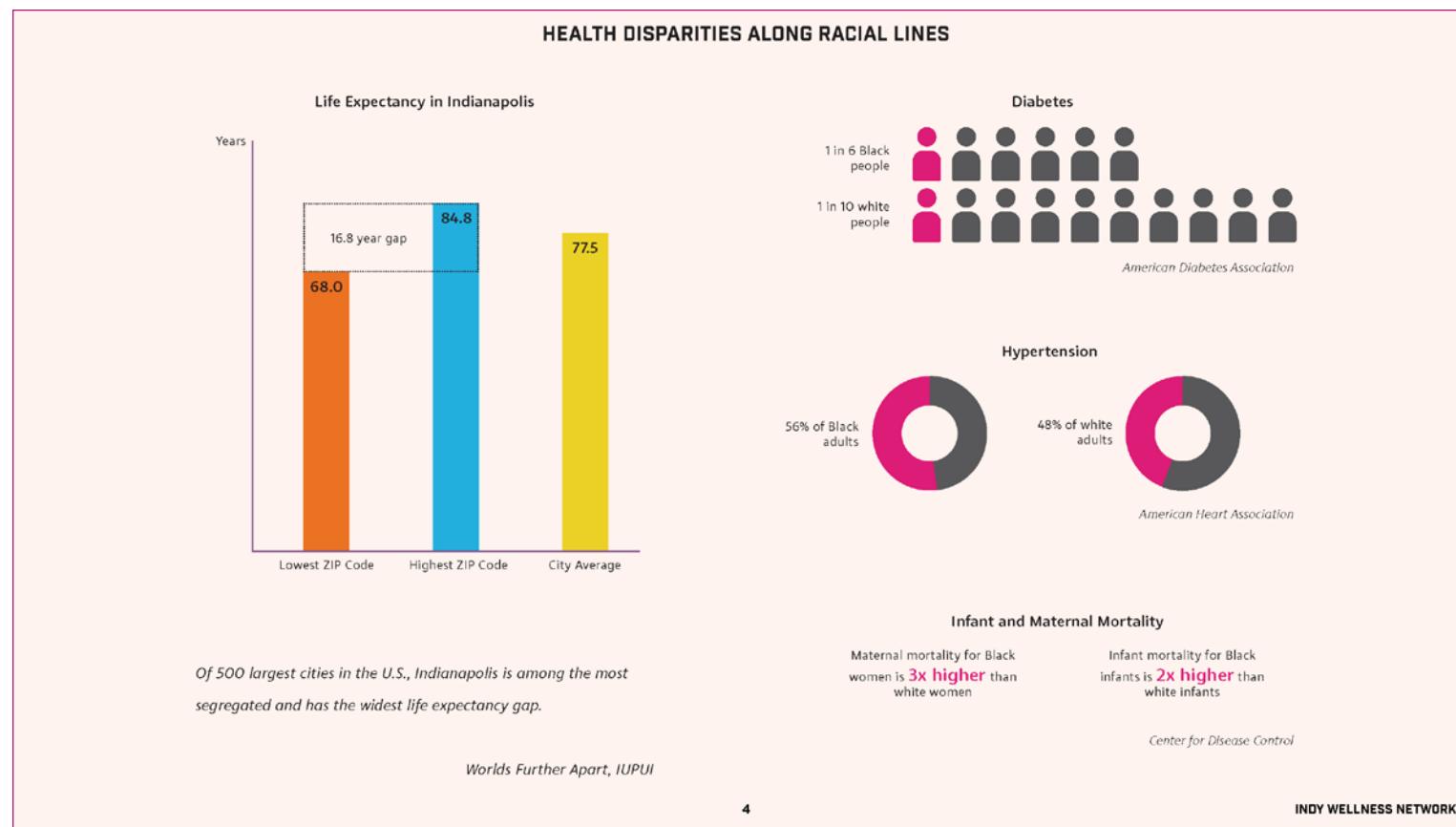


## 01 INDY WELLNESS NETWORK

*Indianapolis, IN*

I produced this project for my third semester option studio titled “Legacy Lands: Protopian Futures.” The studio challenged us to pick a moment of harm in the history of Indianapolis’ displacement of Black and indigenous neighborhoods, imagine a different decision or series of events, and play out the resulting urban conditions to produce a planning framework, urban design plan, or any other medium we wanted to pursue.

My project imagined a unification of the first Black-run hospitals in Indianapolis in the early 1900s that incorporated elements of medicine and wellness rooted in Black and Indigenous practices. The inspiration for this imagination was understanding the continued health disparities we see along racial lines in the United States today at the hands of white-run institutions and displacement through urban renewal. After imagining a different past, I projected how this could look in the future. My “protopian future” shows the Indianapolis Wellness Network: a new ecosystem of health and wellness uses including homeopathic medicine and urban farming, doctor’s offices that take the form of homes in addition to hospitals, spiritual health practices, and more.



### ▲ Draft Timeline

This was my first attempt at a timeline illustrating the point of harm I wanted to re-imagine, to show how the subsequent events branch off. I later adjusted my visualization to fit into a presentation format as the main deliverable for the studio.

### ▲ Health Disparity Statistics

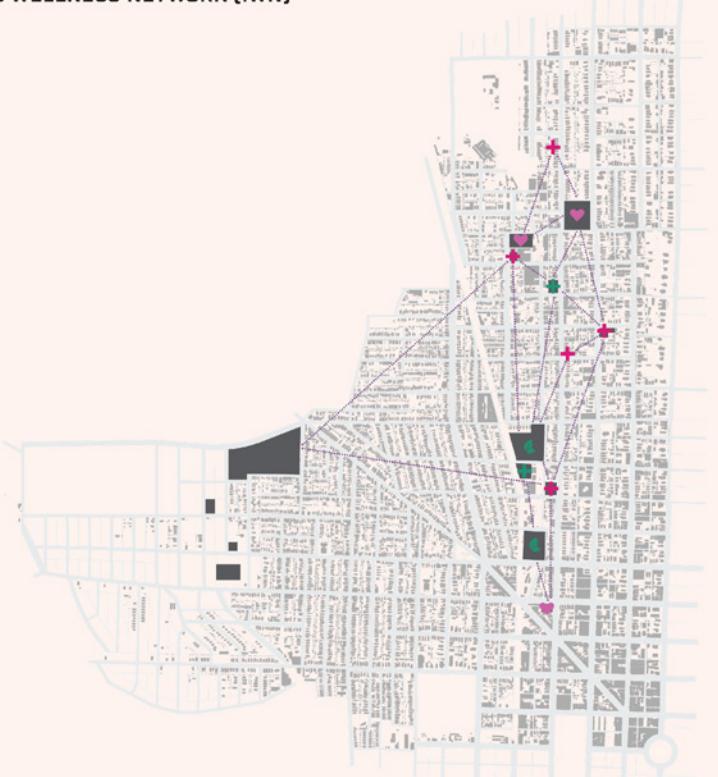
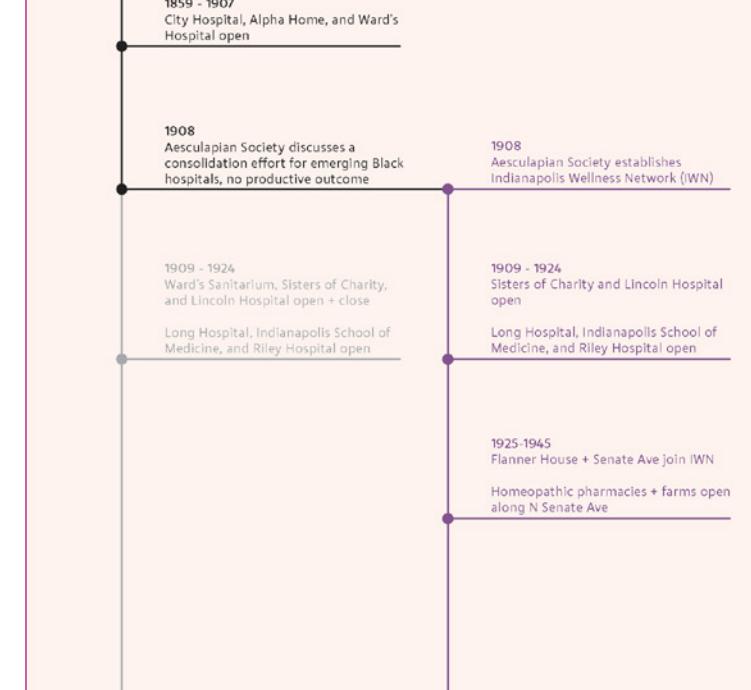
My research for the project was grounded in understanding the health disparities facing Black Americans and Hoosiers (Indiana residents). This provided a baseline issue to address through my imagined intervention.

#### Social Determinants of Health ►

I created this Social Determinants of Health diagram to broaden the scope of my projects beyond just healthcare, but to include other aspects related to the built environment. The diagrammatic framing helped justify the built wellness typologies I introduce in the project.

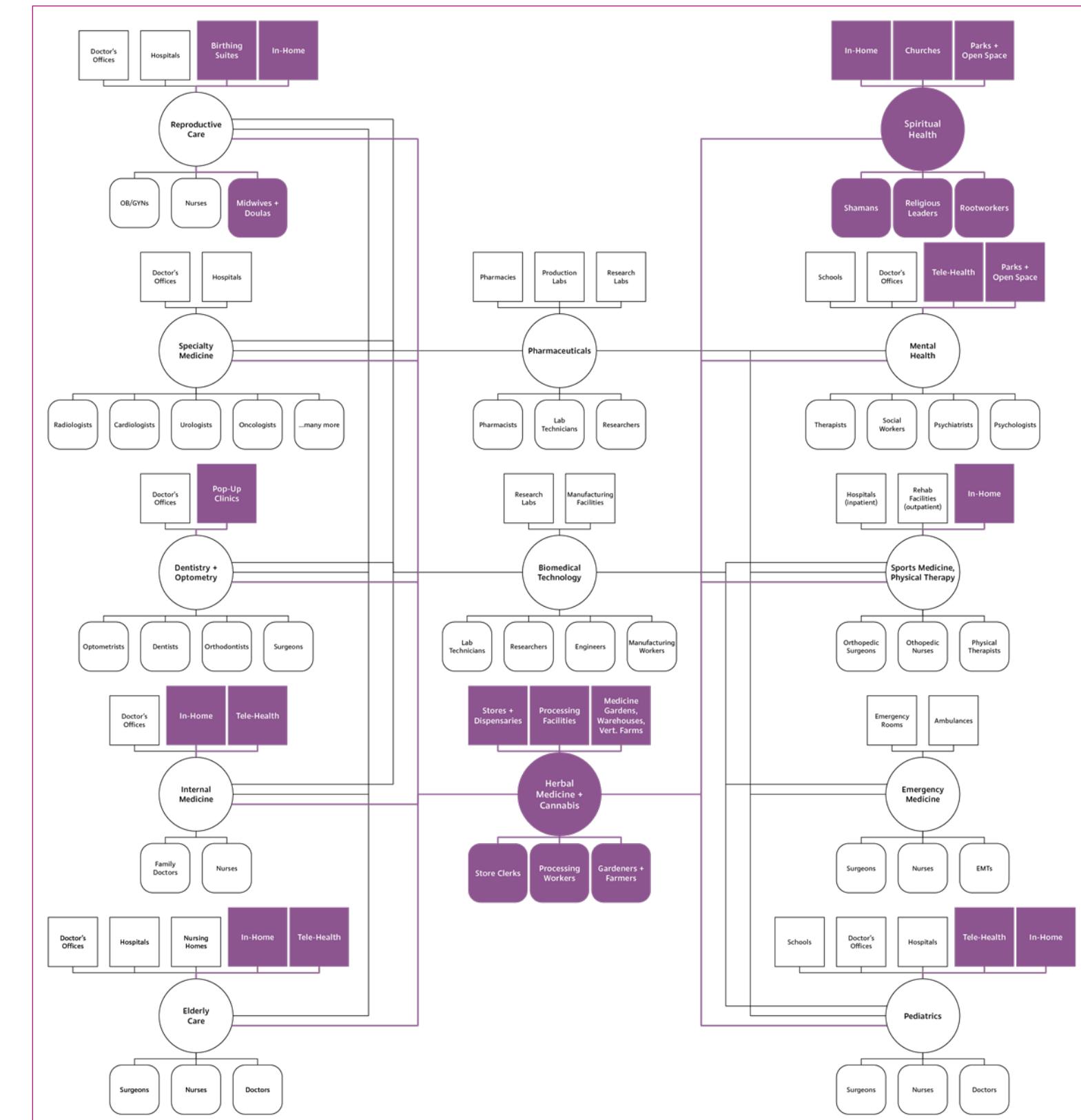
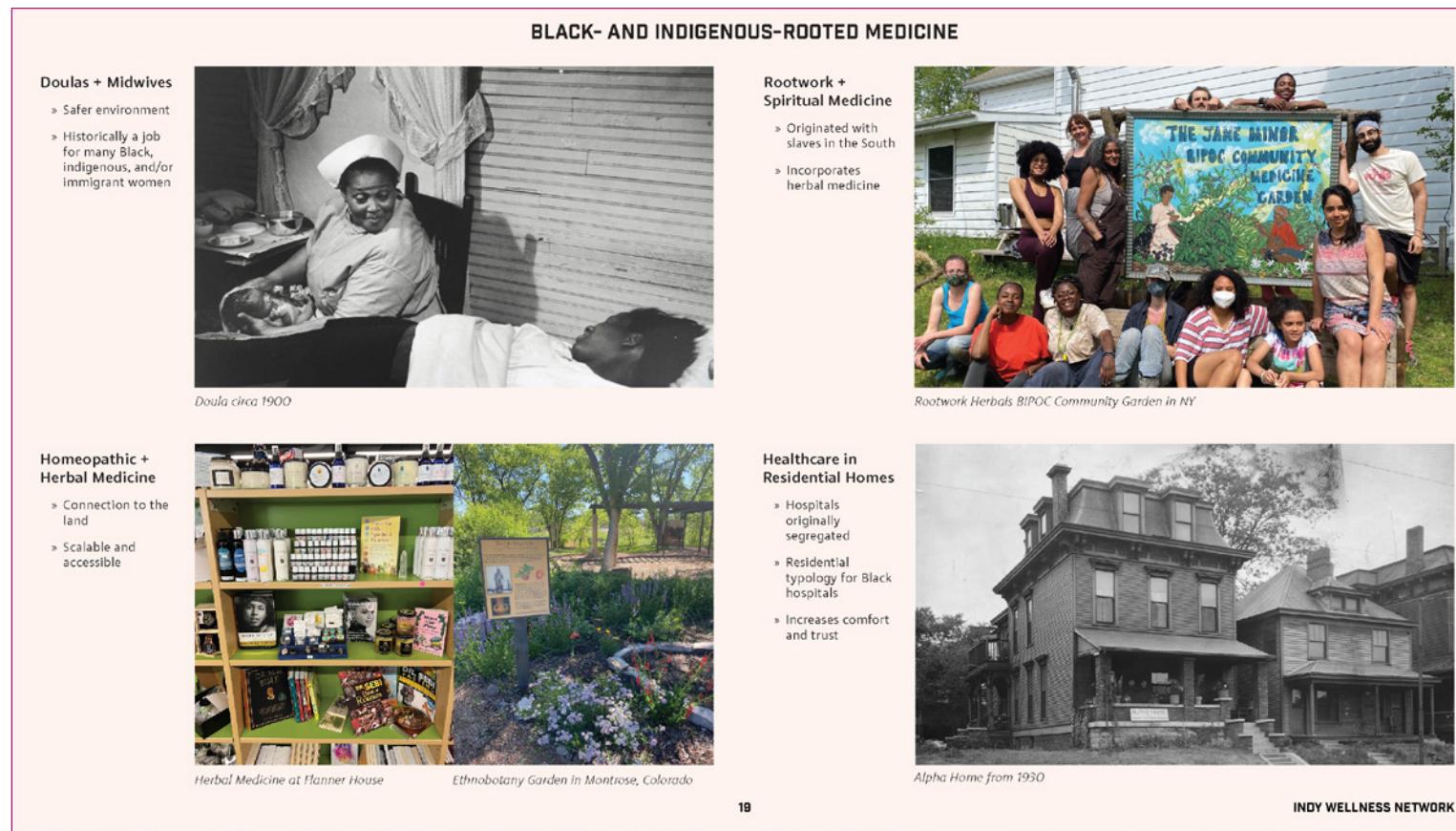


### WHAT WASN'T: INDIANAPOLIS WELLNESS NETWORK (IWN)



### ▲ Example Timeline Slide

My mid-review and final presentation walked through my alternative timeline through a series of slides. The timelines events corresponded to hypothetical changing land use patterns dating back to 1909. In my reimagined past, Black-run hospitals, pharmacies, and urban farms grew in the city through a new Wellness Network.

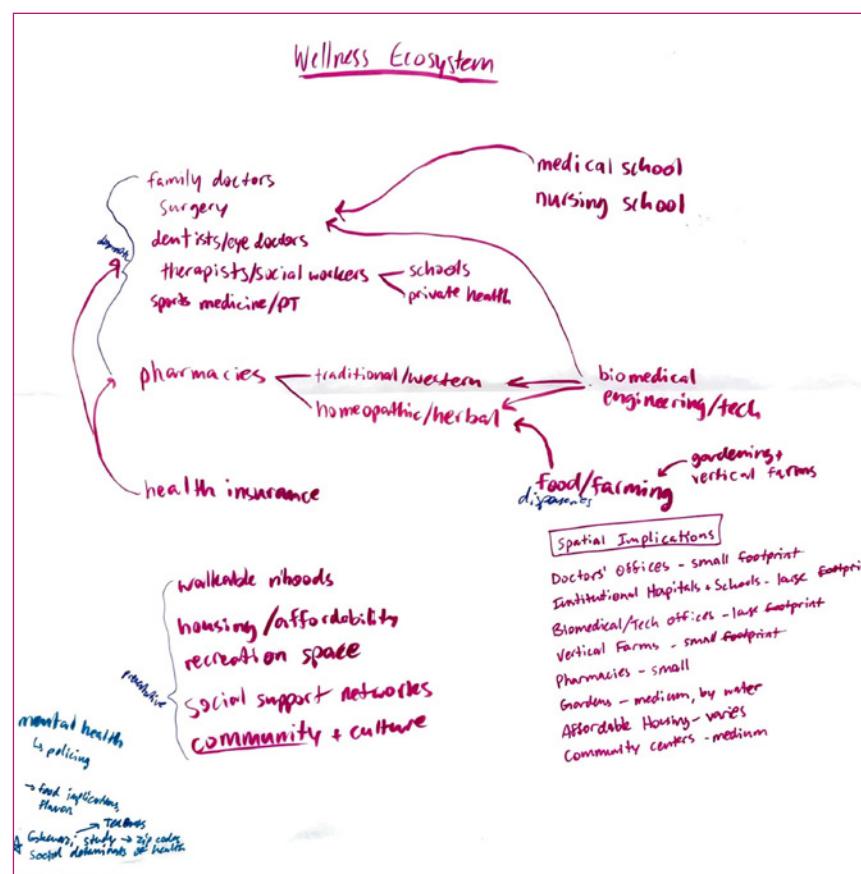


### ▲ Black- and Indigenous-Rooted Medicine

A key component of the project was understanding what Black- and indigenous-rooted medicine included. I then suggested how these elements could fit into a new understanding of health and wellness had Black-run hospitals thrived in the city.

### Draft Wellness Ecosystem ►

This first draft of a wellness ecosystem was a brainstorm to understand the existing system of doctors, medical fields, and their spatial implications and incorporate new wellness practices.



### ▲ Indy Wellness Network Ecosystem

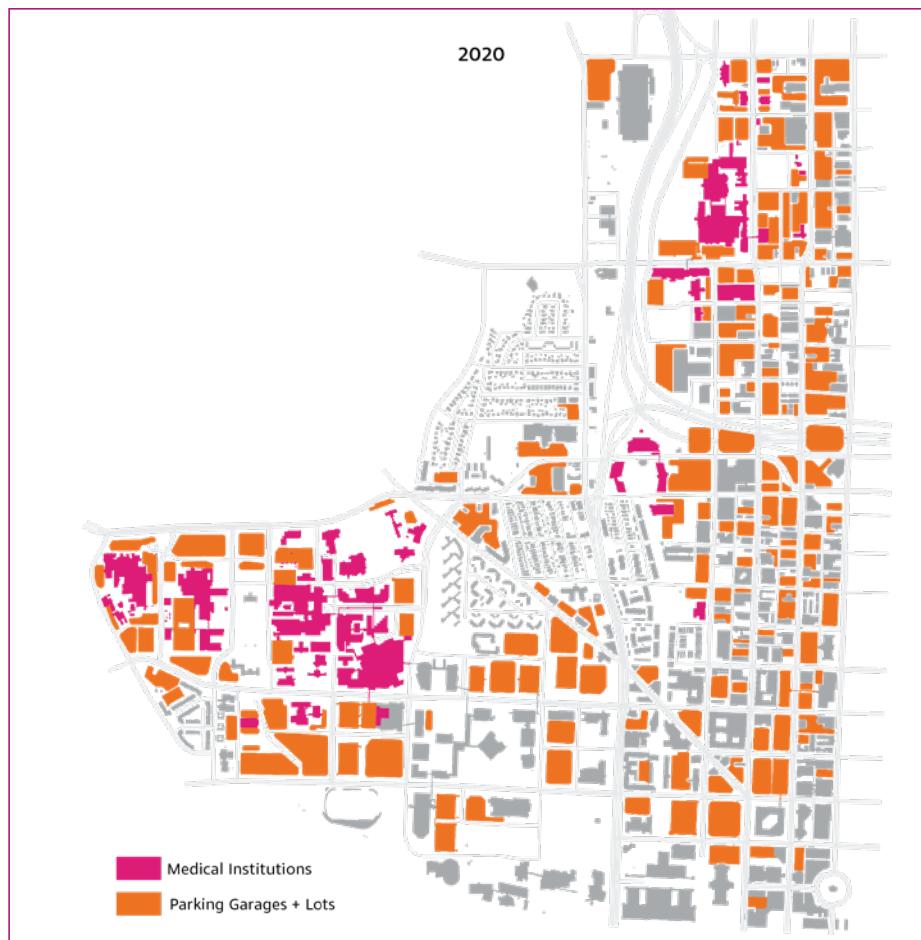
This final version of my ecosystem highlights just 10 different medical fields and 3 supportive medical industries, calling out both the jobs and built environment associated with each. Boxes highlighted in purple are the new elements in my proposal.

**1915 Density Map ▶**

I created this map from stitching together Sanborn maps to get a sense of the original residential density and character of the historically Black neighborhoods in Indianapolis.

**2020 Density Map ▶**

I presented this 2020 map to compare the stark differences from 1915 due to medical institutional expansion and highway I-65. This served to show the deep reach of the medical field in Indianapolis and provoked the question of "how could this look different?"



Mobile Pop-Up Clinic

Home Doctor's Office

Doctor's Office Addition

General Hospital

**Medical Care**

Pocket Garden

Medicine Garden

Growing Warehouse

Community Farm

**Cultivation**

Medical Retail

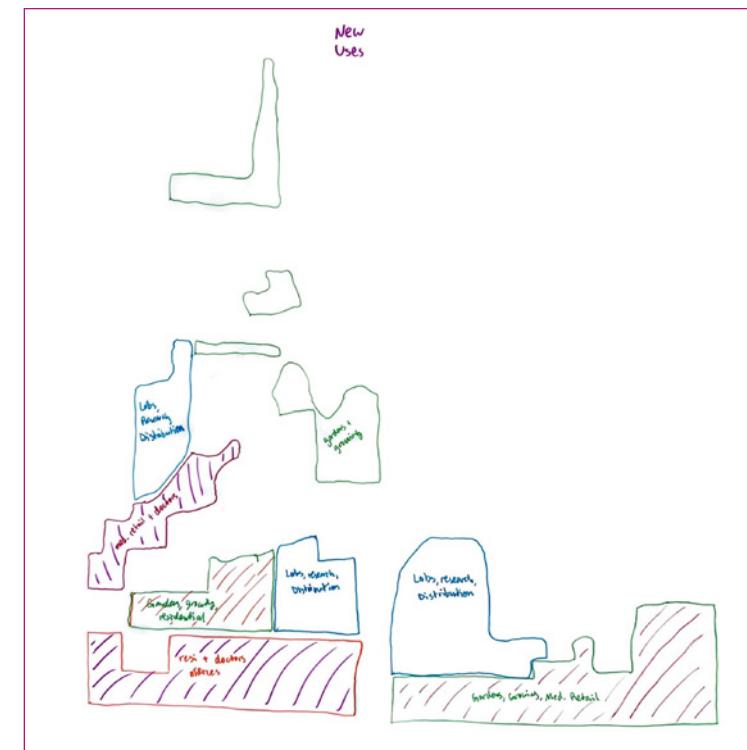
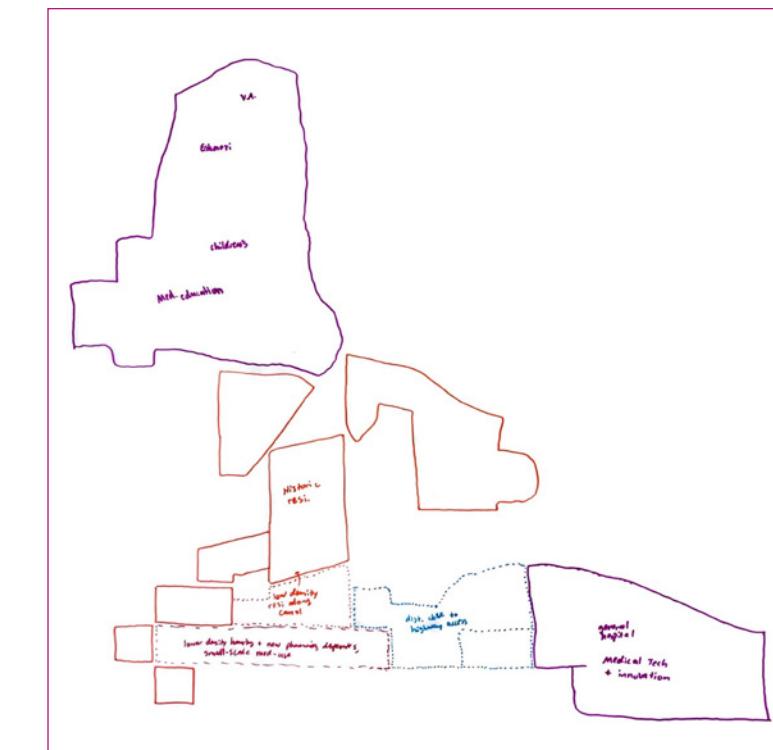
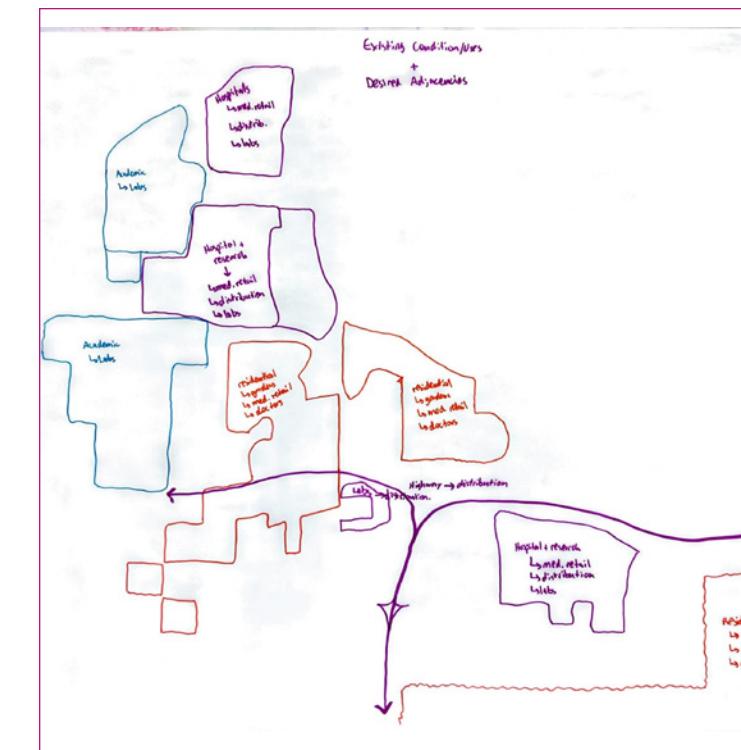
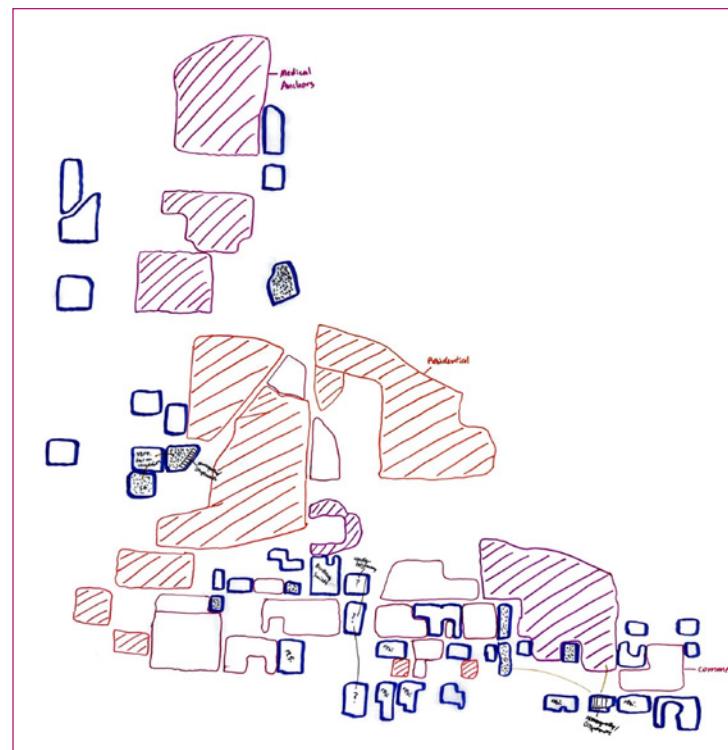
Medicine Production

Standalone Pharmacy

Research + Lab

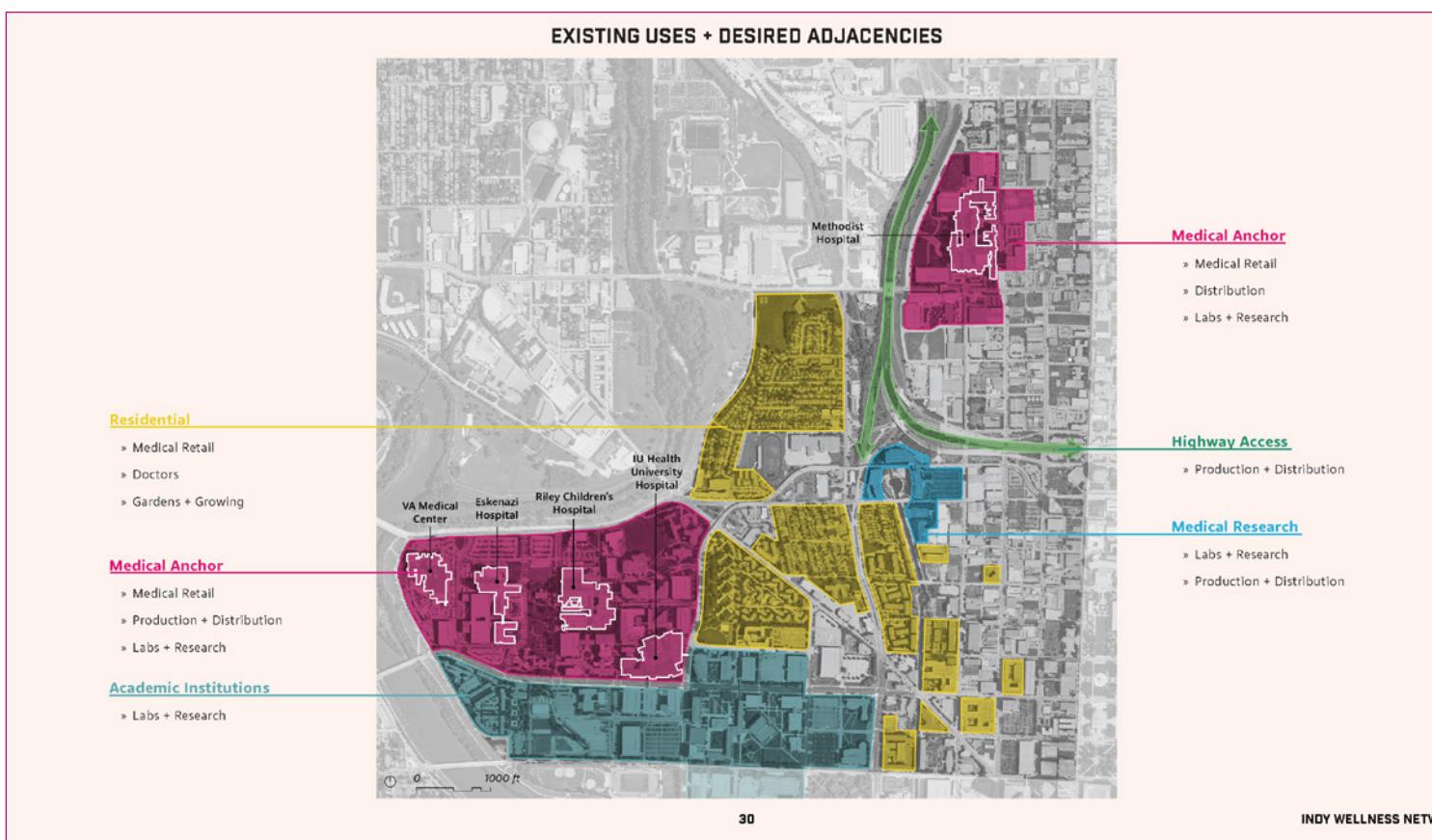
**Production + Distribution****▲ Wellness Network Typologies**

These typology diagrams incorporate built elements from the Indy Wellness Network Ecosystem. My process pivoted at this point from understanding the past harms to suggesting a different physical form of the city.



### ▲ Plan Diagram Drafts 1 + 2

To incorporate my new uses and typologies, I mapped the existing medical uses and proposed what new uses should be situated adjacent to them. My sketching at first started too granular, so I took a step back to draw broader categorizations.

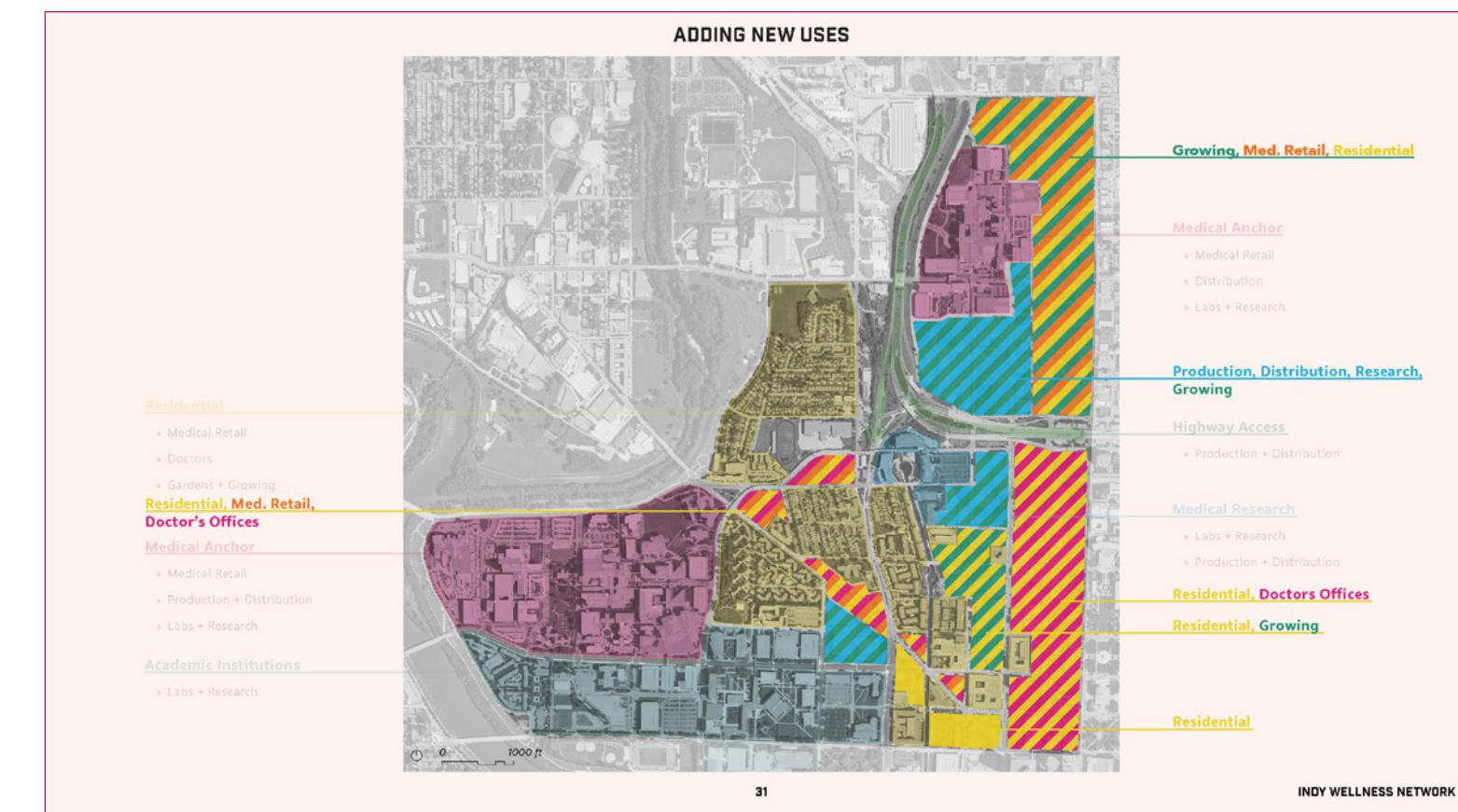


### ▲ Existing Uses + Desired Adjacencies

This map resulted from my first brainstorming drafts and was the first in a series of 3 maps showing the development of my illustrative plan.

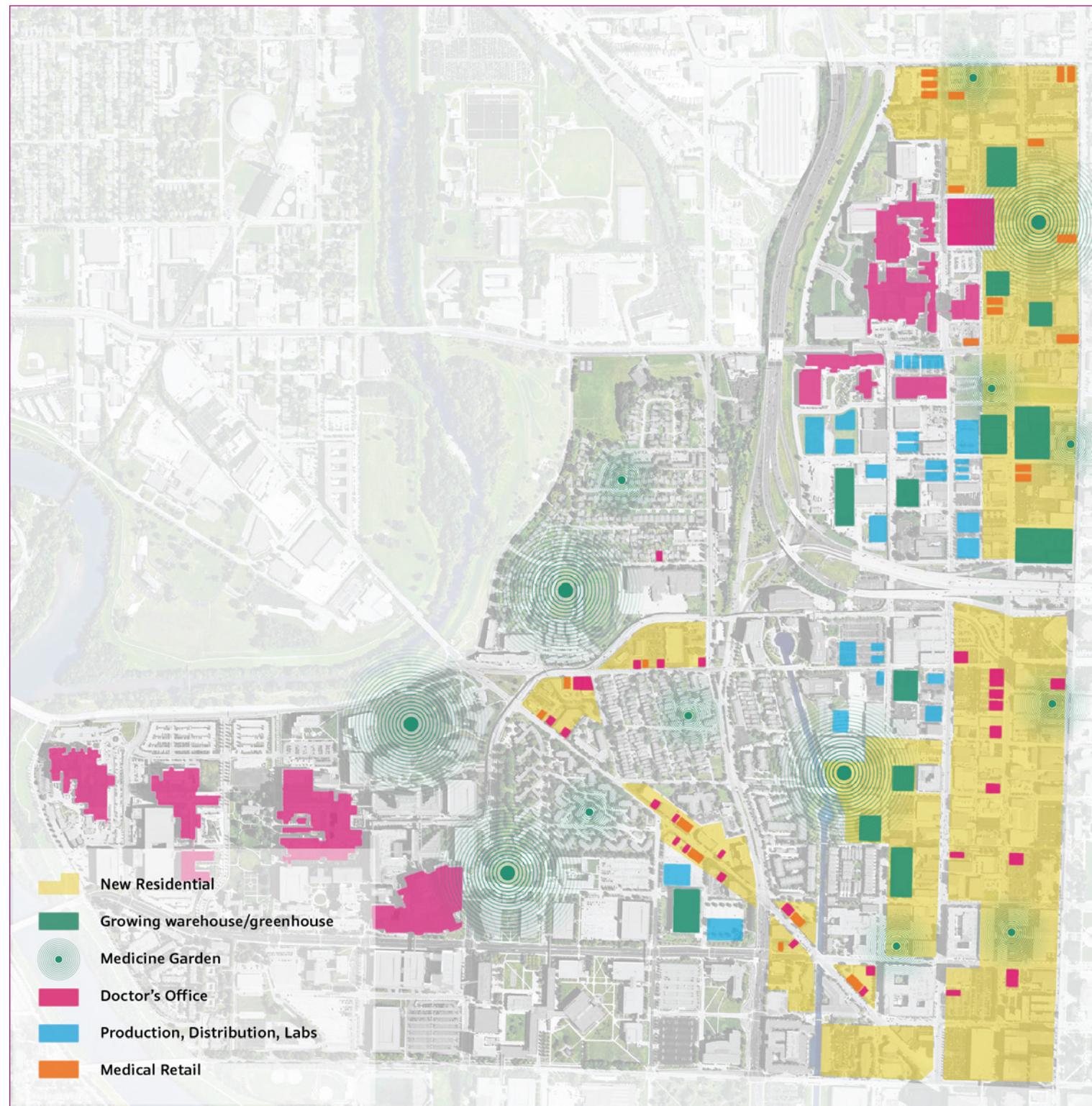
### ▲ Plan Diagram Drafts 3 + 4

These trace sketches now propose outlines of new use zones that correspond with the existing uses map. The trace paper process was essential for quick drafts before digitizing.



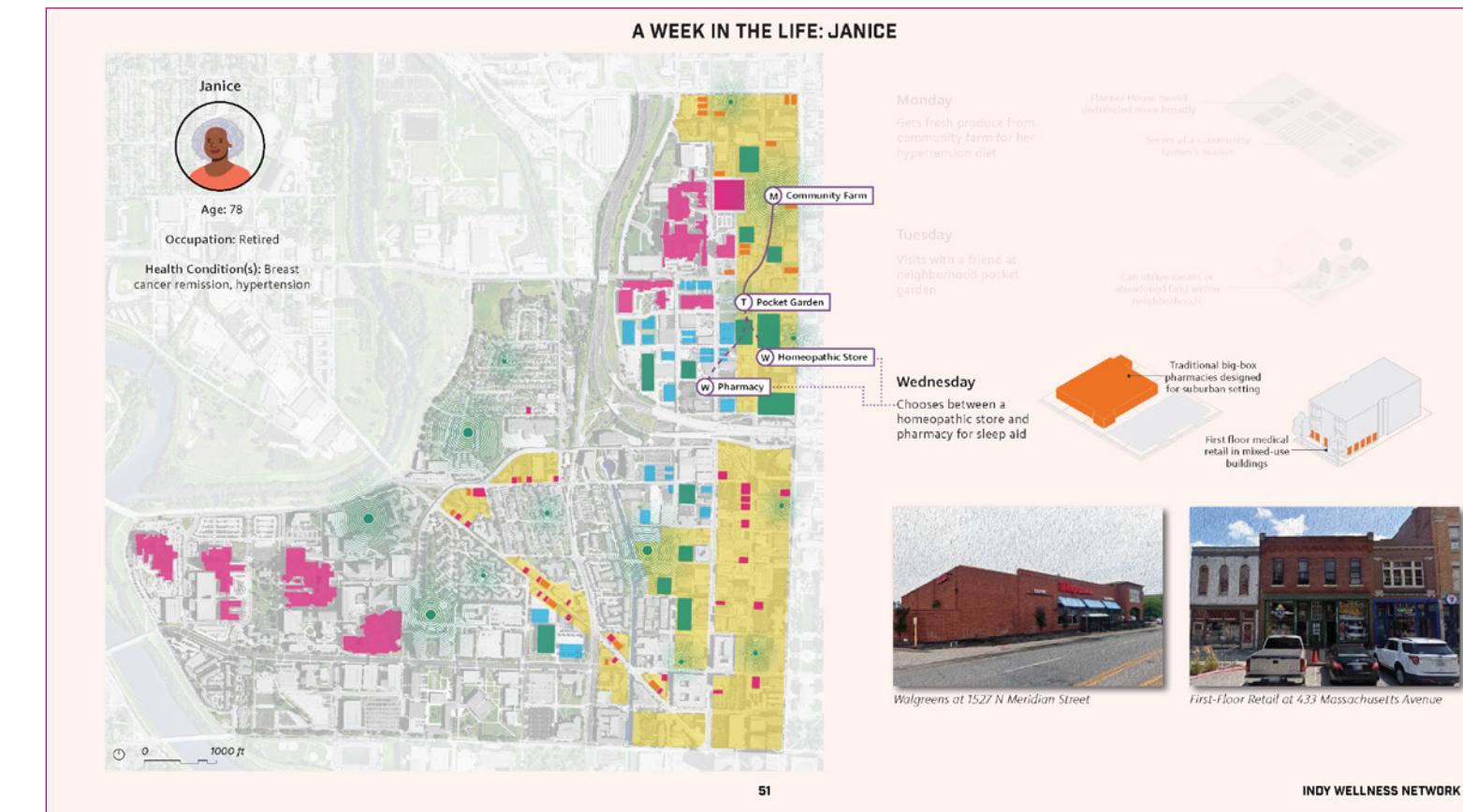
### ▲ Adding New Uses

This was the second in my series of 3 maps to highlight new use zones; color coding was essential to show mixed-use and maintain consistent messaging throughout the presentation.



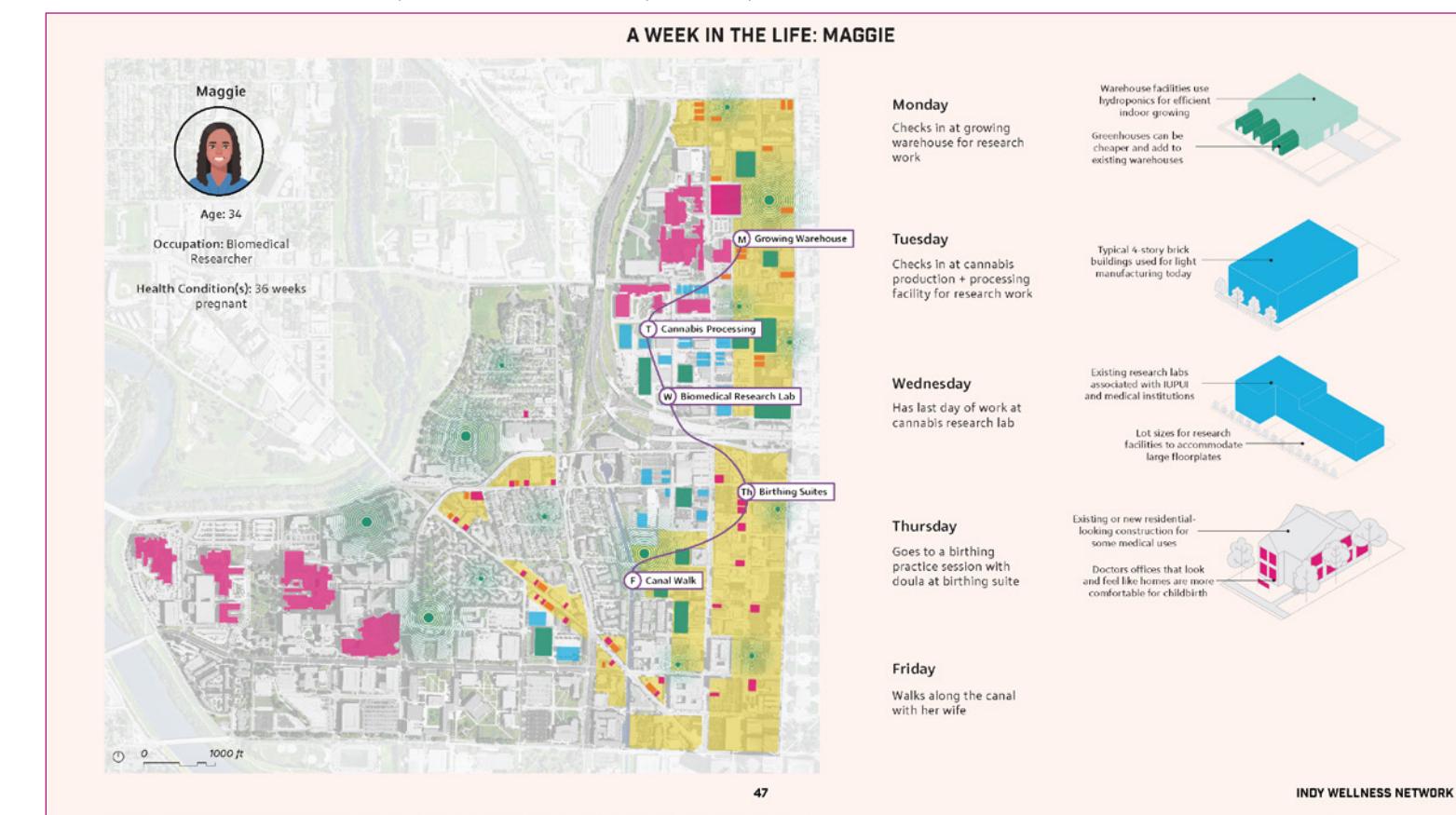
#### ▲ Final Illustrive Plan

This final map was the culmination of my previous brainstorming and the final map in a series of 3. The highlighted buildings and parcels continue to be color-coded corresponding to the new typologies. I then used this illustrative plan to show 3 hypothetical Indianapolis residents in a journey mapping exercise that walked through a week in their life of navigating the new Indy Wellness Network.



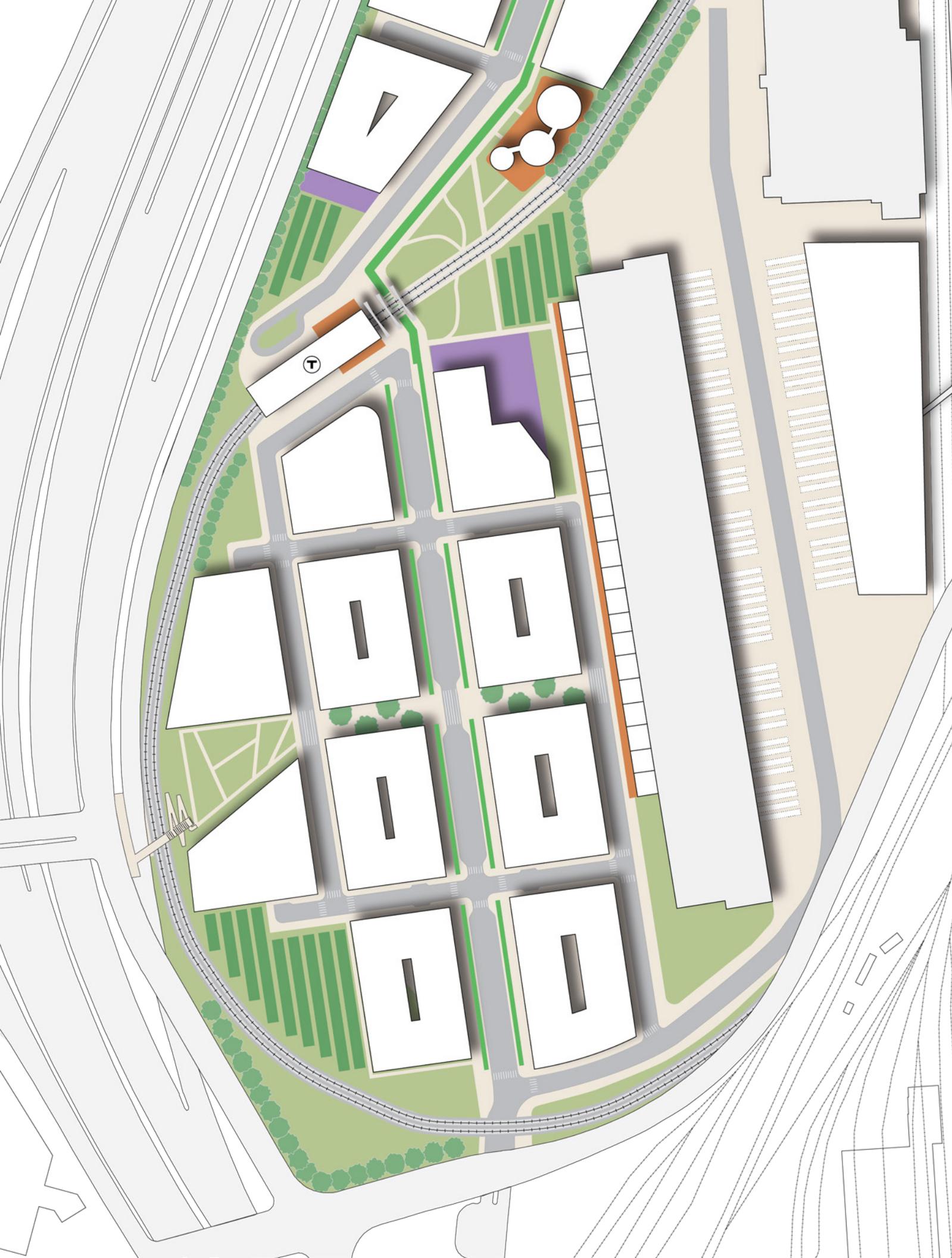
#### ▲ Journey Map Process Slide

The journey maps walked through each of the typologies in greater detail over a series of 5 slides. Each character had specific health conditions that correspond to the health disparities I presented earlier.



#### ▲ Journey Map Summary Slide

Ultimately, I found journey mapping to be a helpful narrative tool to make the content more approachable and relatable.

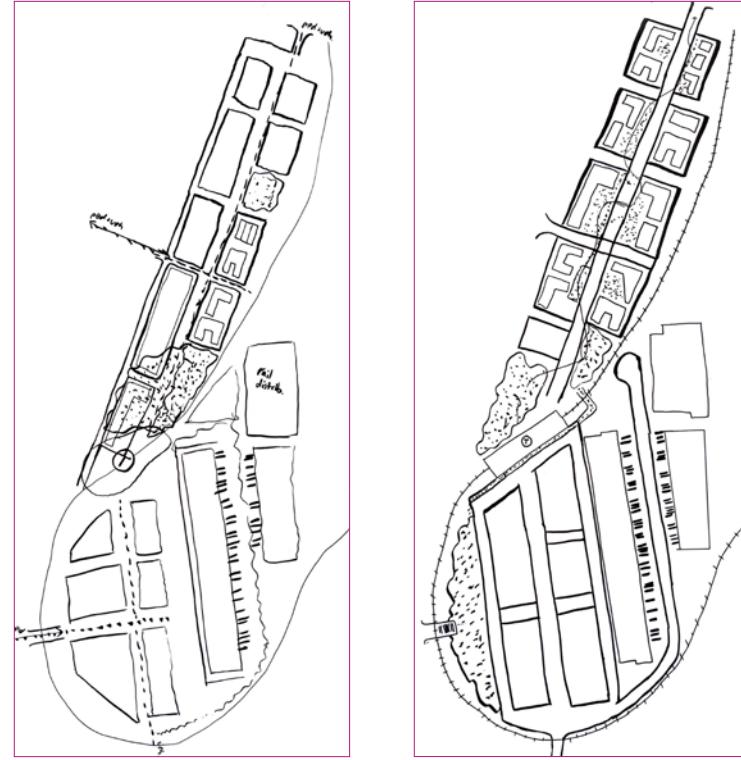


## 02 URBAN FOOD DISTRICT

Boston, MA

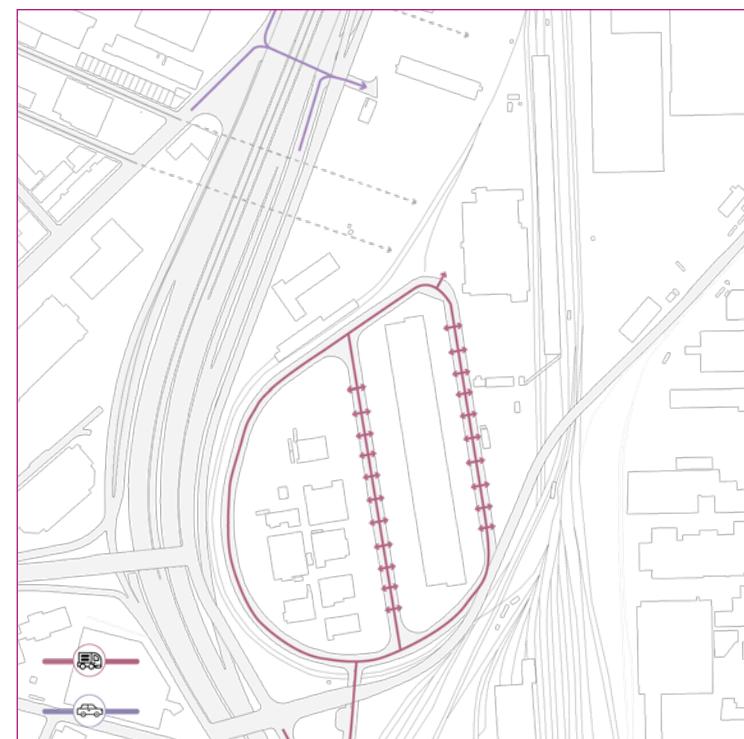
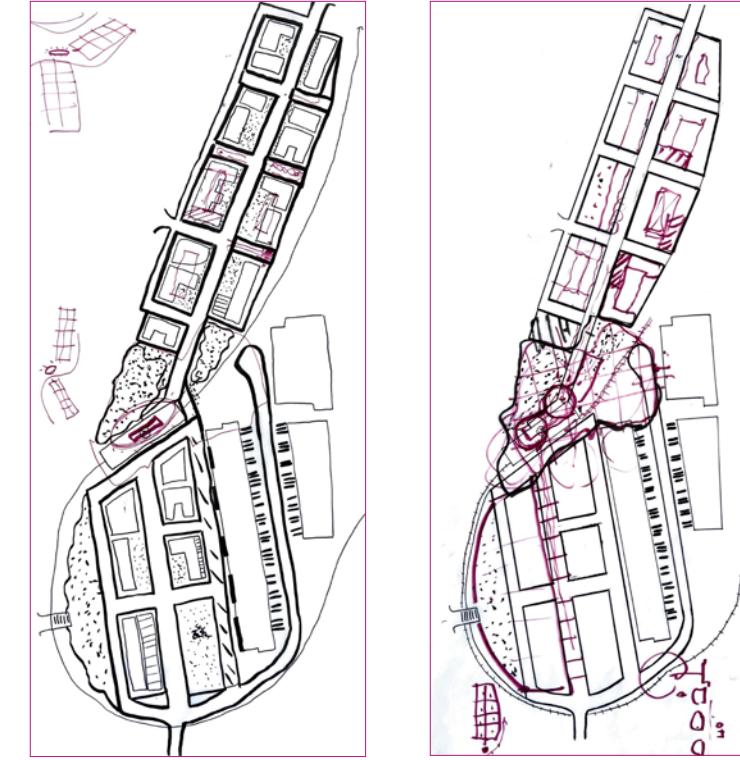
This project was the culmination of a class called Urban Design for Planners, a course that taught planning students basic urban design principles and the software used to create site plans, 3D renderings, collages, and cross-sections. The subsequent selections show the development process for these graphics that I placed on a final presentation board. This course was foundational in developing my graphic design language and helped me gain the skills to both communicate like and communicate with designers.

My proposal reenvisioned an area of Boston called Widett Circle, the home to a large MBTA railyard and food processing facilities. The project bolsters and improves on the existing food distribution system to incorporate urban farming, restaurant incubators, wholesale markets, and mixed-use developments to support the overall project, hinging on a transit-oriented development model with a new MBTA station. Planning implementation feasibility was not a part of the project brief, but rather the broader urban design framework.



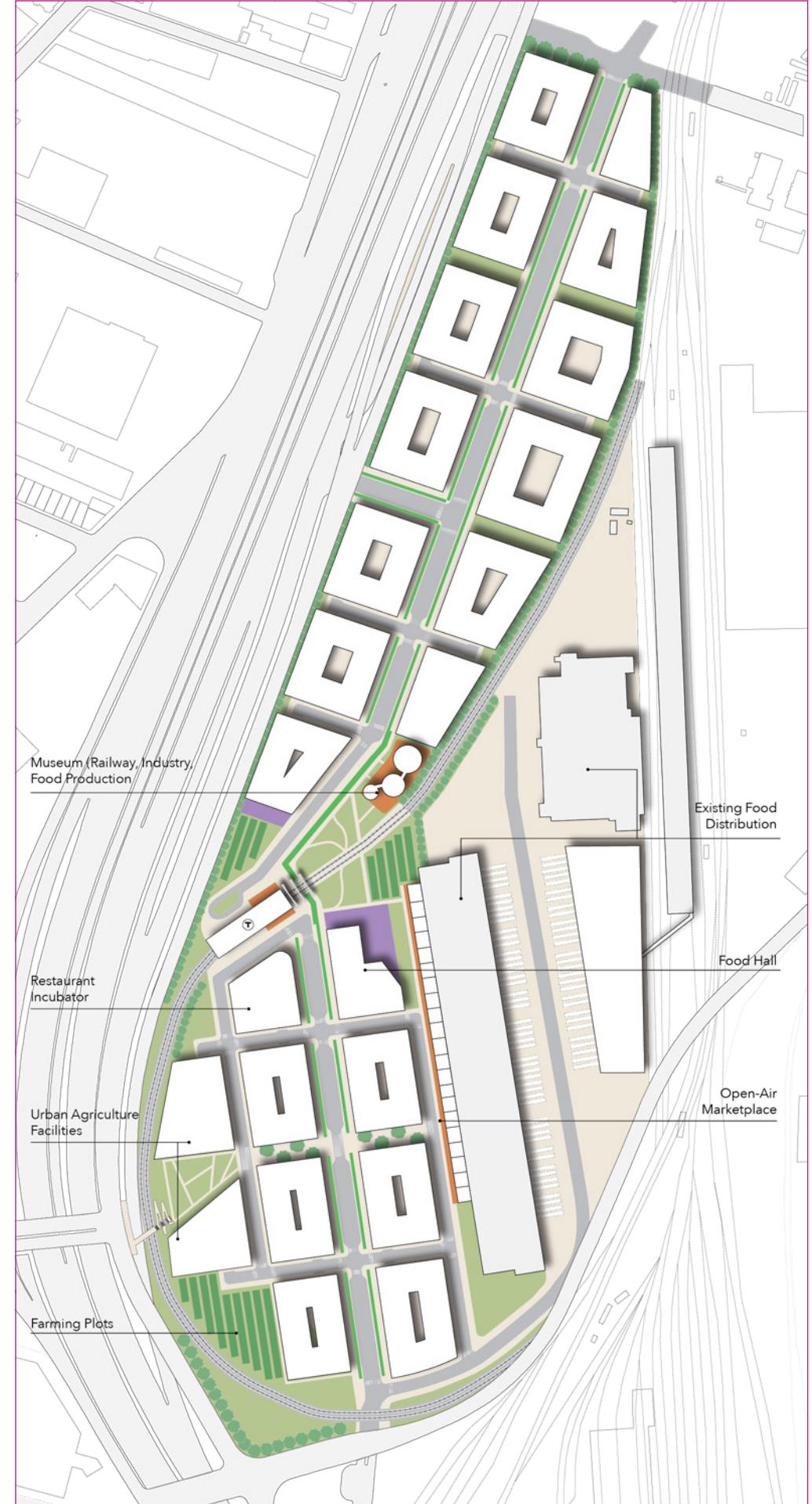
#### ▲ Site Plan Sketch Series

Through individual work and meeting with my professor, I developed this series of sketches on trace paper to realize my site plan. The sketches started on a block scale, from which I then errantly zoomed-in to a building scale. The final suggestions in my site plan zoom back out to a block scale as the focus was on broad strokes rather than building architecture.



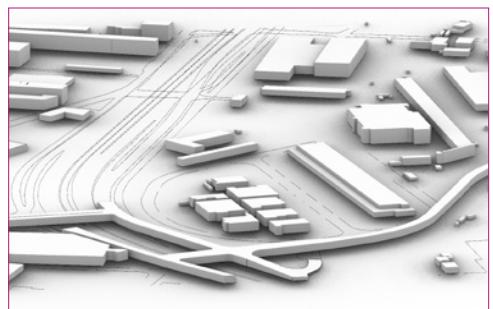
#### ▲ Existing + Proposed Circulation

Transportation access was a significant challenge for this site as it is currently bounded by elevated highways and rail infrastructure. I rationalized the new block structures using these circulation diagrams.



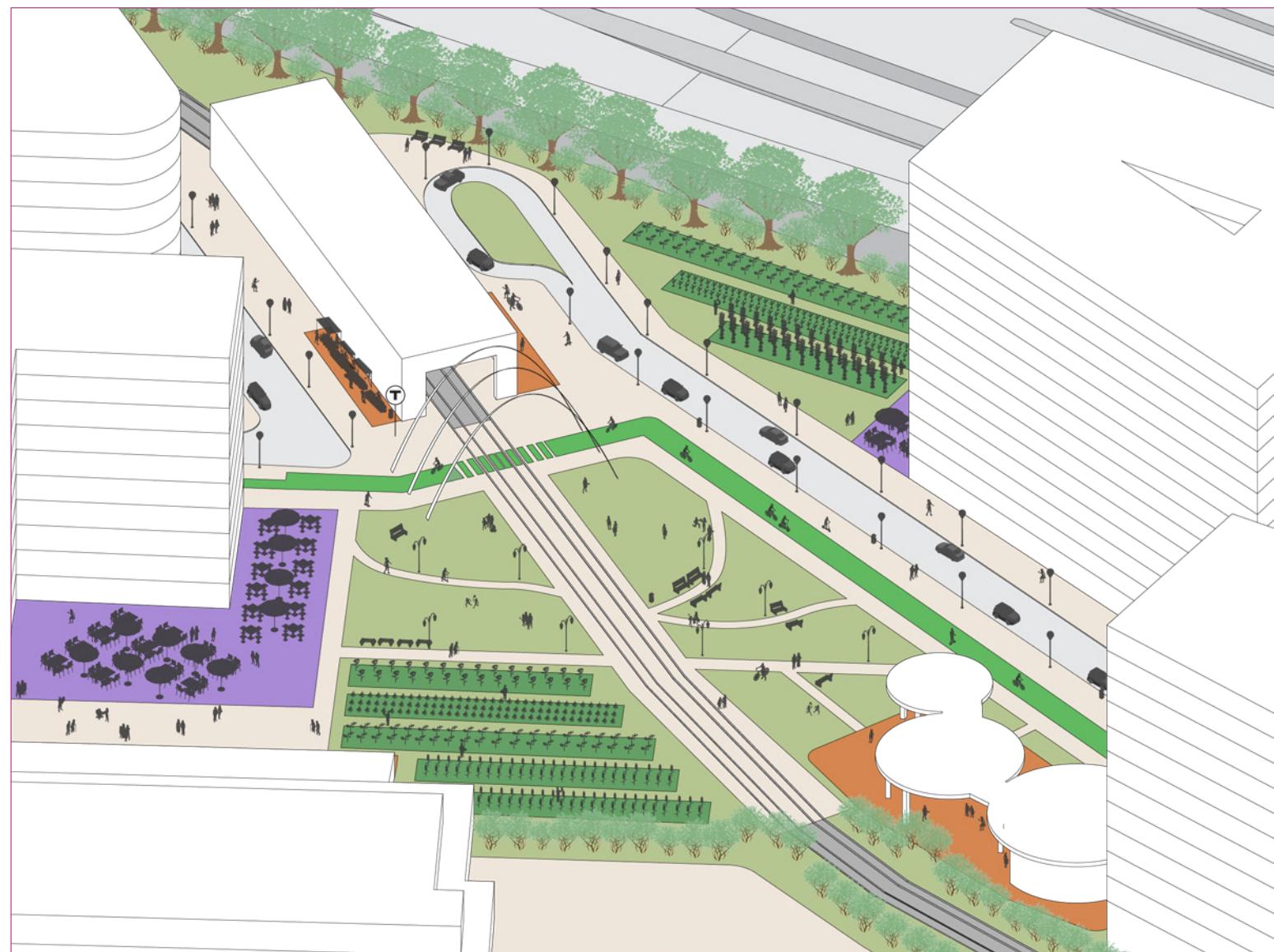
#### ◀ Final Site Plan

The previous sketch work and circulation diagrams led me to this final site plan. A significant challenge was balancing between detail and generalizations, so I ended up focusing primarily on the public realm rather than designing the interior of blocks.



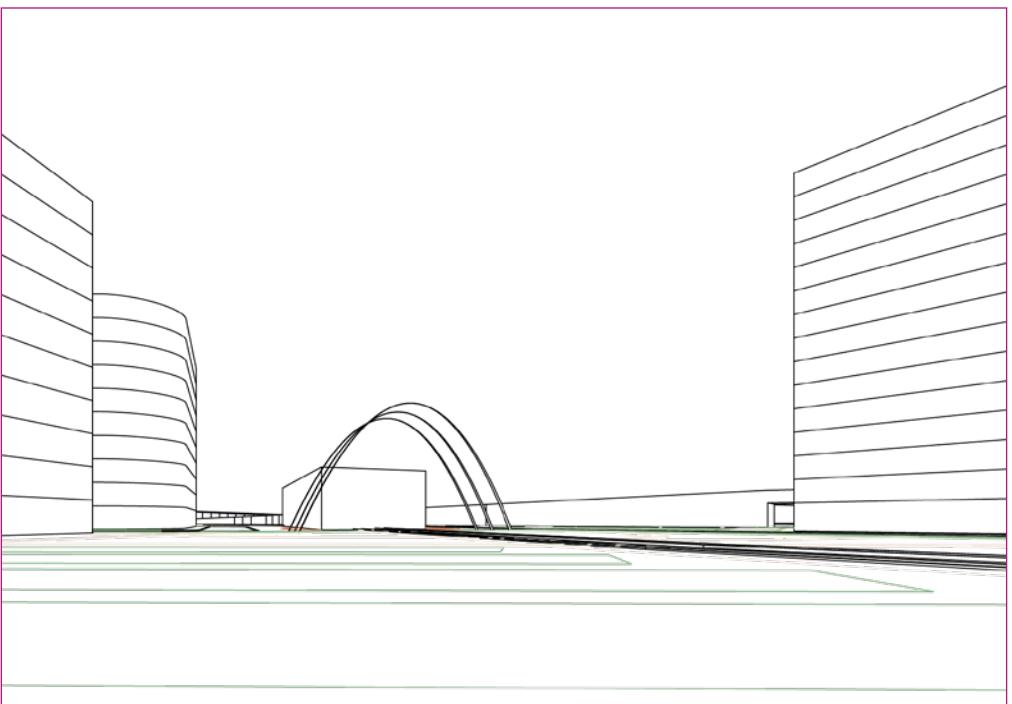
#### ▲ 3D Model Development

I developed these 3 models using Sketchup (1), Rhino (2), and a combination of Rhino and Illustrator (3). I found Rhino to be the most powerful tool and used that to develop my final product. Because I wasn't designing buildings, the proposed massings drew too much focus, so I pivoted to detailing out the public realm surrounding the new MBTA station instead.



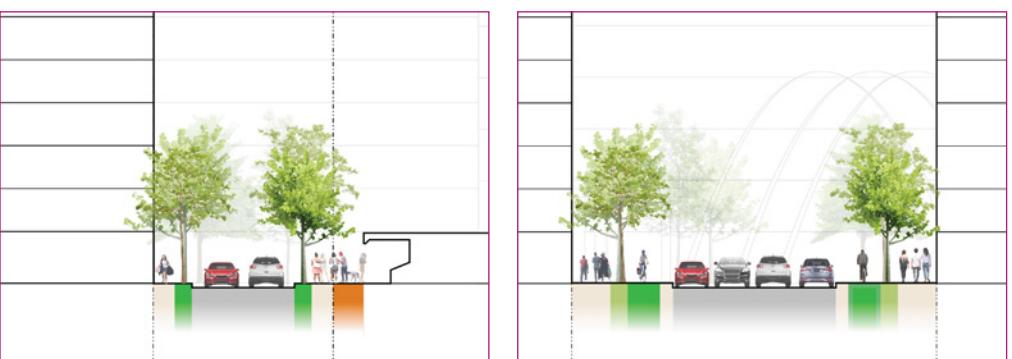
#### ▲ Final 3D Rendering

This final rendering just focuses on the significant public realm in my project, to provide more character to the plan and introduce people into the proposal.



#### ◀ Final Collage

I created this collage in Photoshop on top of the Rhino model, again to introduce people to the visuals and hone my rendering skills.



#### ◀ Street Sections

Another element of the course was creating street sections; I rendered these street sections using Illustrator and Photoshop.

**Final Board ▶**

This final board incorporates all of the previous graphic elements I developed over the semester. We presented these in an open house and round table discussion for our final review.

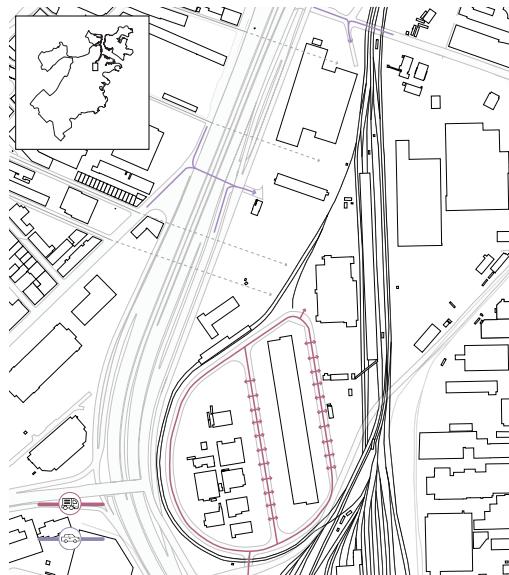
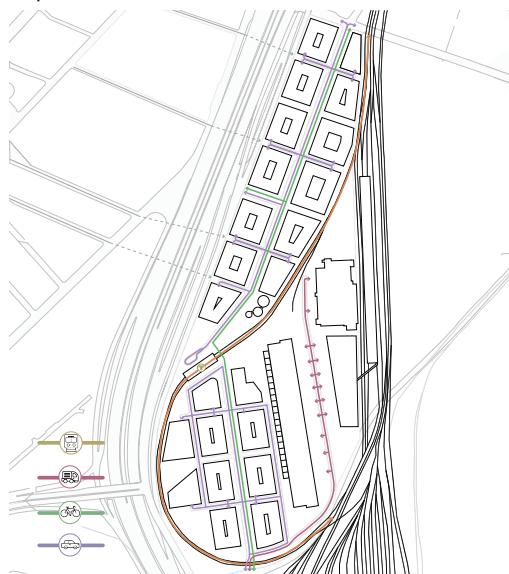
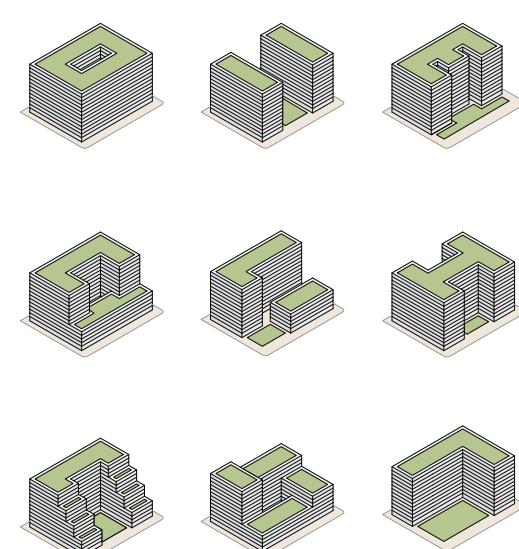
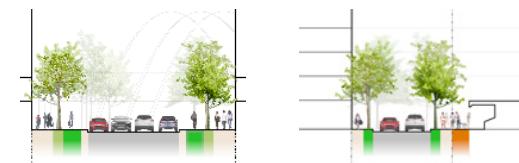
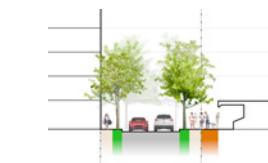
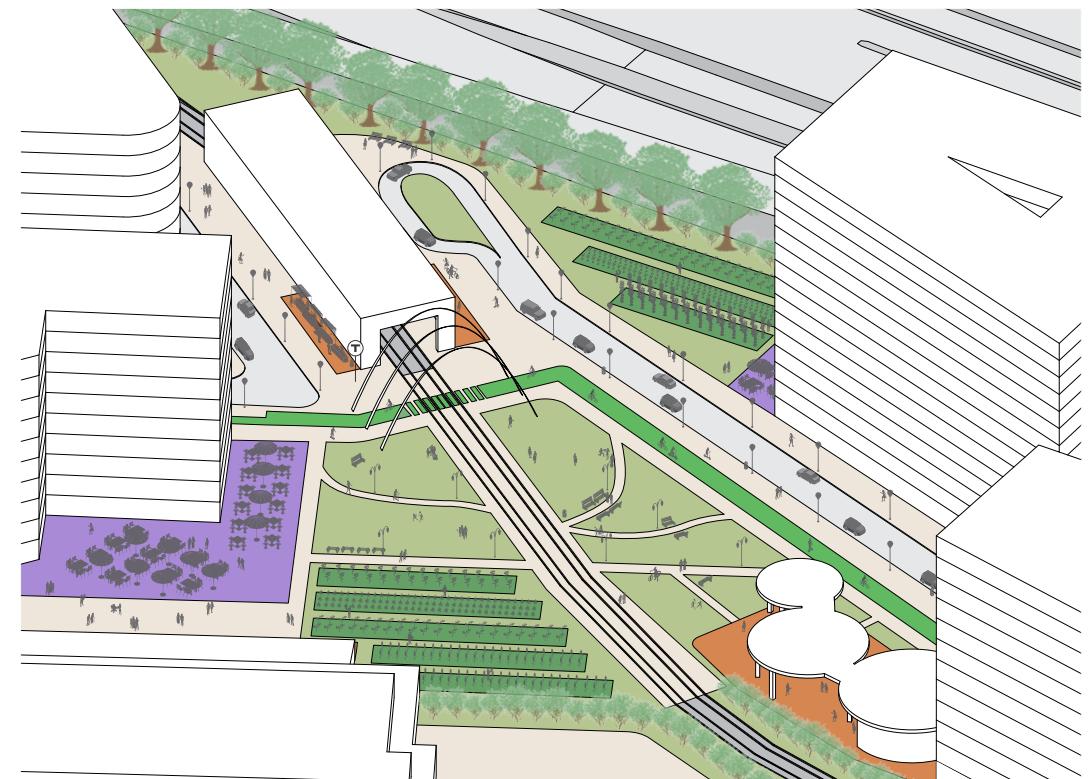
**21st Century Urban Food District**

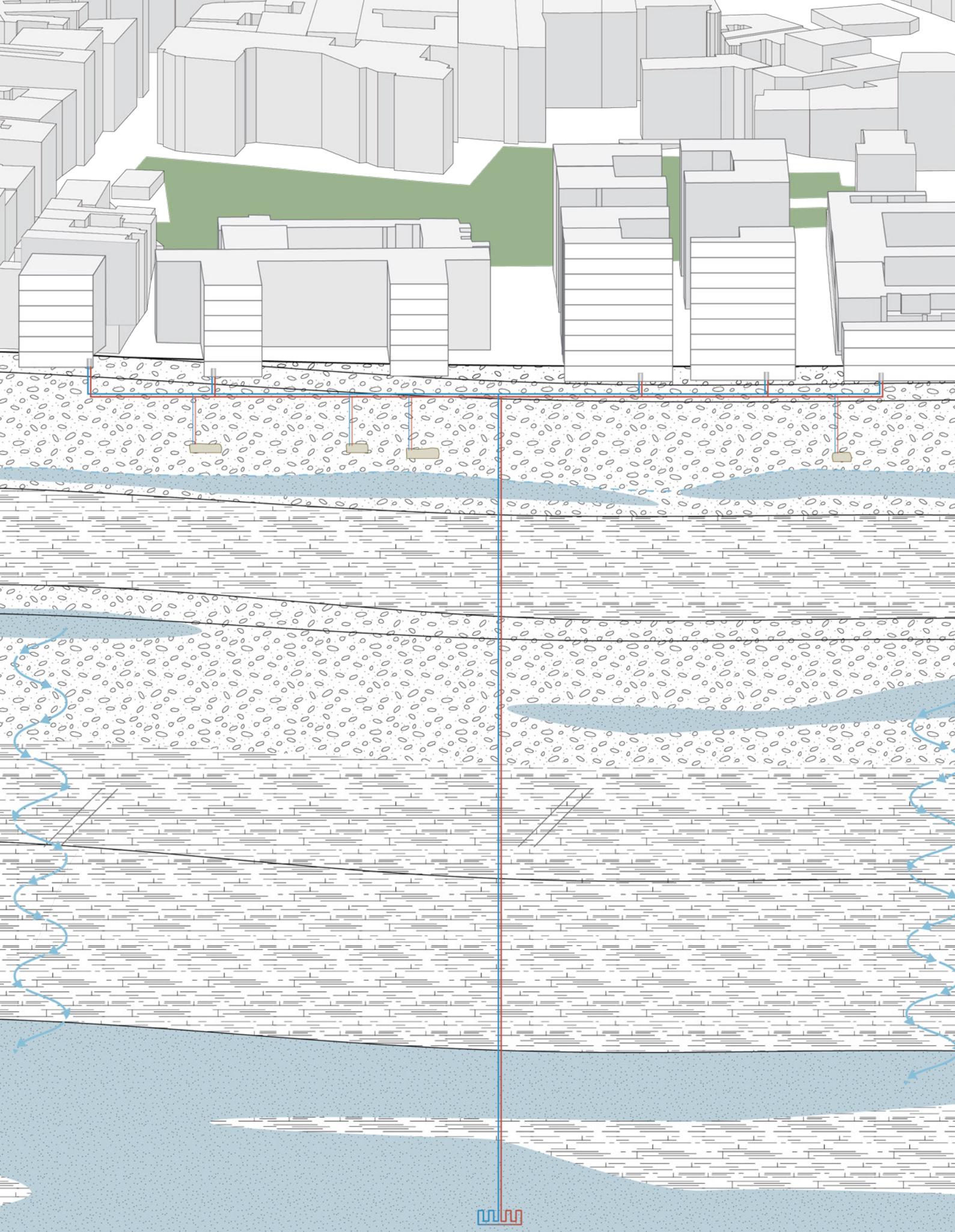
Jack Halverson | SES 5420

**Widett Circle, Boston**

Widett Circle currently serves as a major food distribution hub for the City of Boston and the Northeast region; the area is situated between an active rail yard and several elevated roadways. This proposal revives the Track 61 transit proposal and leverages a new MBTA station to breathe life into the infrastructure-bound swath of impervious surfaces while maintaining some food distribution and establishing this area as a vibrant ecosystem of urban food production and services.

A new transit station anchors the public activity of the project site and provides a space for dense commercial and residential development, urban farming plots for the community, cultural space that includes a museum about Boston's food industry, and a gateway to the open-air marketplace attached to a repurposed food distribution building.

**Existing Circulation Network****Proposed Circulation Network****Plan View****Massing Alternatives****Today****Tomorrow****Section A****Section B****Anchored Public Space**

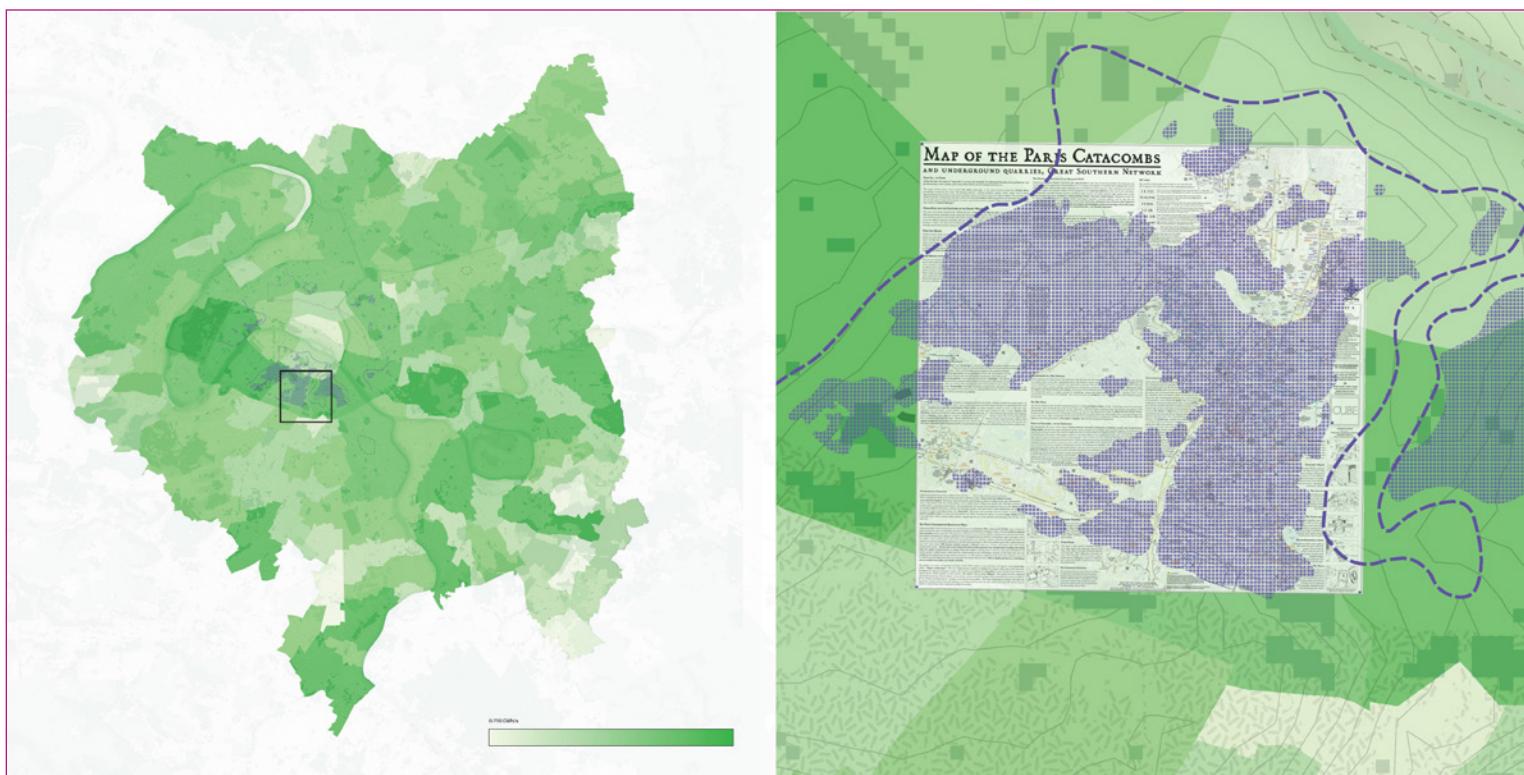


## 03 COOLING PARIS

Paris, FR

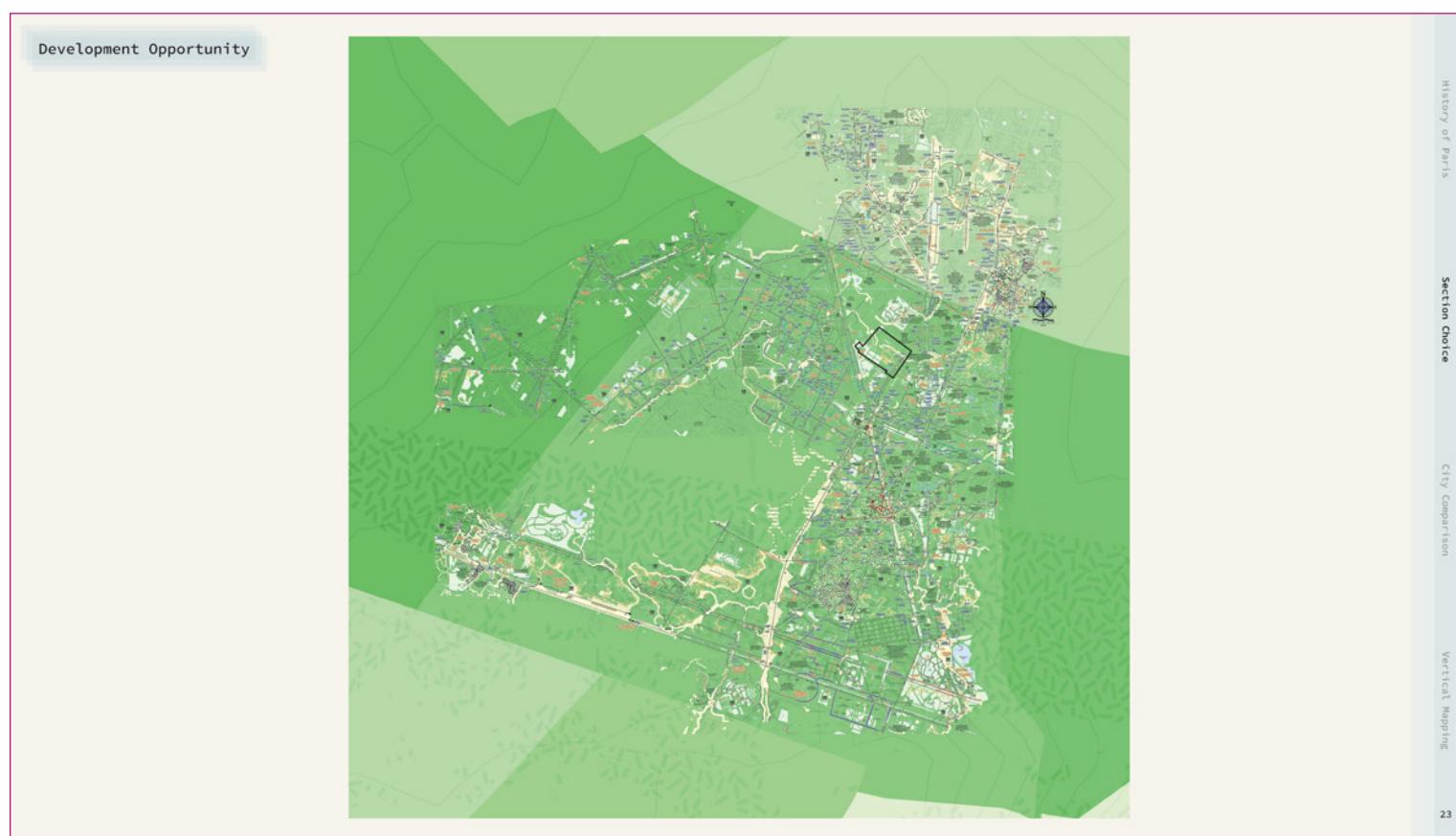
I produced Cooling Paris for a landscape architecture class titled “Lost and Alternative Natures”, where we investigated what natural features were lost in a city during the course of its urbanization. We then had to propose an intervention that could combat the effects of climate change using these identified lost natures with a focus on the subterranean condition.

I focused on Paris because of the unique geological condition of the sedimentary Paris Basin, the history of water resource management, and the quarries-turned-catacombs beneath the city. My project is situated on the site of a current development project, where I propose a new system of district-wide geothermal energy for cooling the buildings using deep aquifers. A key focus of the class was developing a representational strategy and skillset for mapping the underground using geological data.



### ▲ Overlapping Challenges + Opportunities

These maps represent a small snippet of my project development, where I mapped the geothermal potential of underground resources and how they coincide with the existing catacombs and previous quarries of Paris.



### ▲ Site Identification

After understanding the potential for geothermal energy production, I located a development site that sits on top of a high-geothermal potential area and a network of catacombs.

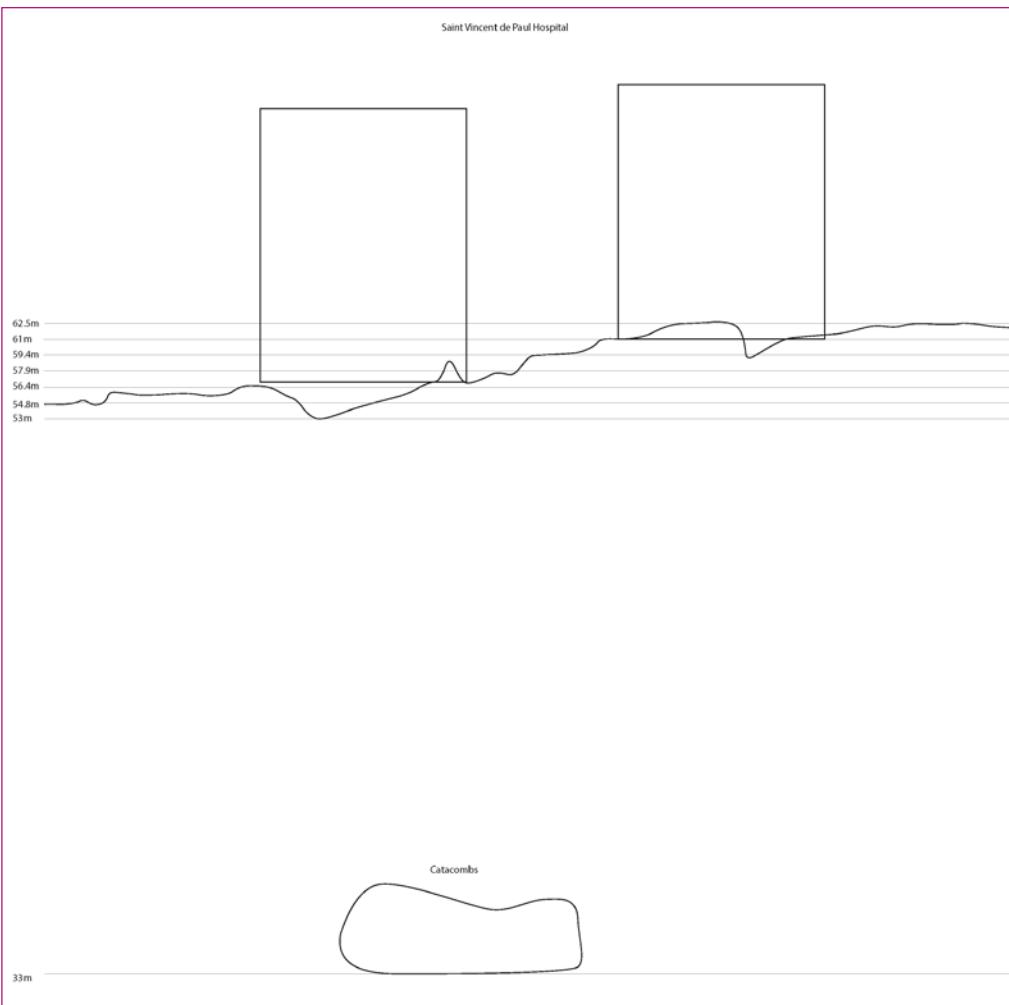


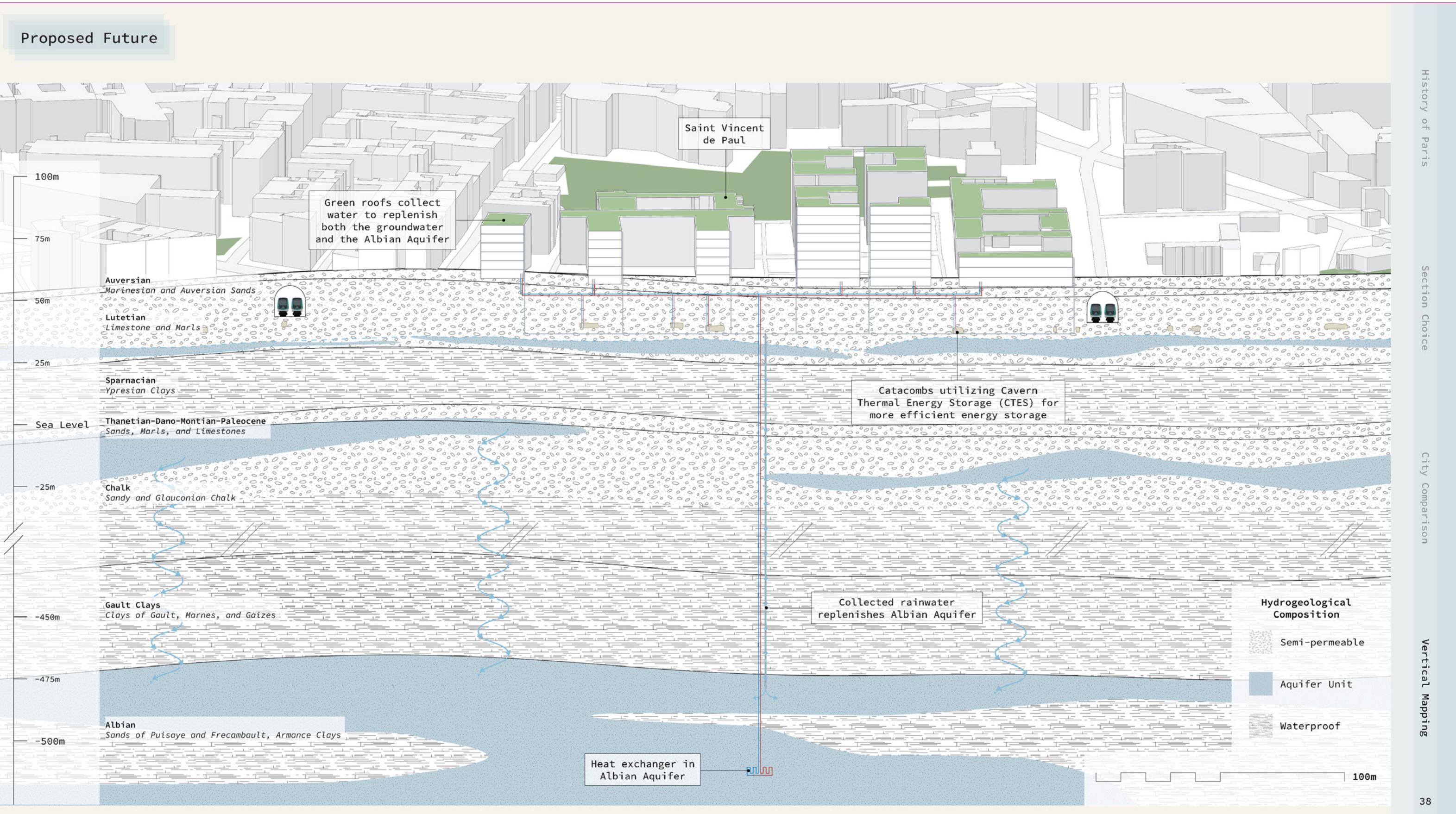
### ▲ Cross Section Process

My underground research started with understanding the landscape of my study area, which I later refined using topology contours in GIS and Rhino.

### Cross Section Draft ▶

This quick draft uses a basic understanding of the catacomb depths and revealed my need to find actual geological data rather than informed estimates of the subterrain.





### ▲ Final Proposed Condition

My final cross section incorporates accurate geological data provided by the French government to determine the hydrogeological layers down to 500m below sea level. The proposal includes a geothermal heat exchanger in a deep aquifer and a series of thermal energy storage systems utilizing the catacombs.



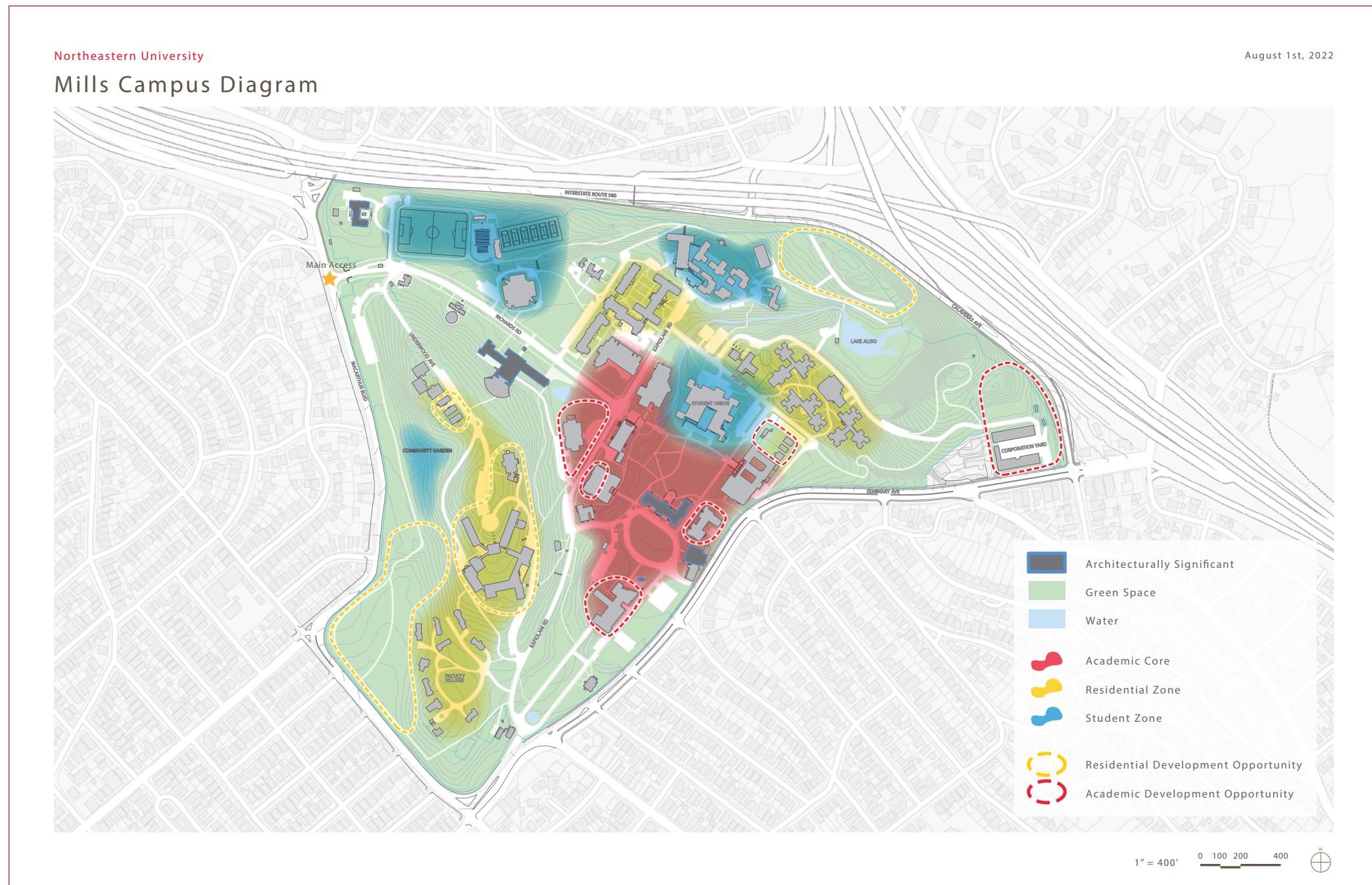
## 04 MILLS CAMPUS PLANNING

Oakland, CA

In the summer of 2022 I interned at Northeastern University in their Campus Planning & Real Estate division. The primary project I worked on was supporting the campus planning initiative for their new Mills College at Northeastern campus in Oakland, California. The University was in the process of hiring a consultant to do a full campus plan, but in the interim they needed internal planning documents for land use and academic space as well as capital planning support.

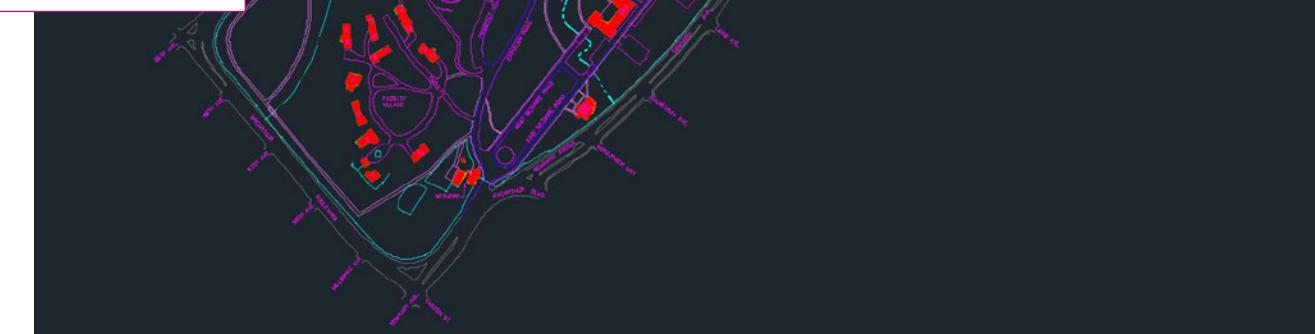
In addition to helping with the 5- and 10-year capital planning, I produced a draft campus plan diagram to assist with internal conversations and university leadership. While the plan is basic, the process was a complex back-and-forth between our facilities and planning teams to produce a unified vision for future opportunities.

***PLEASE NOTE: This draft plan was for internal planning purposes only, and reflects simply a suggestion of the future for the campus. No conclusions should be drawn regarding construction, demolition, or other strategic moves by Northeastern.***



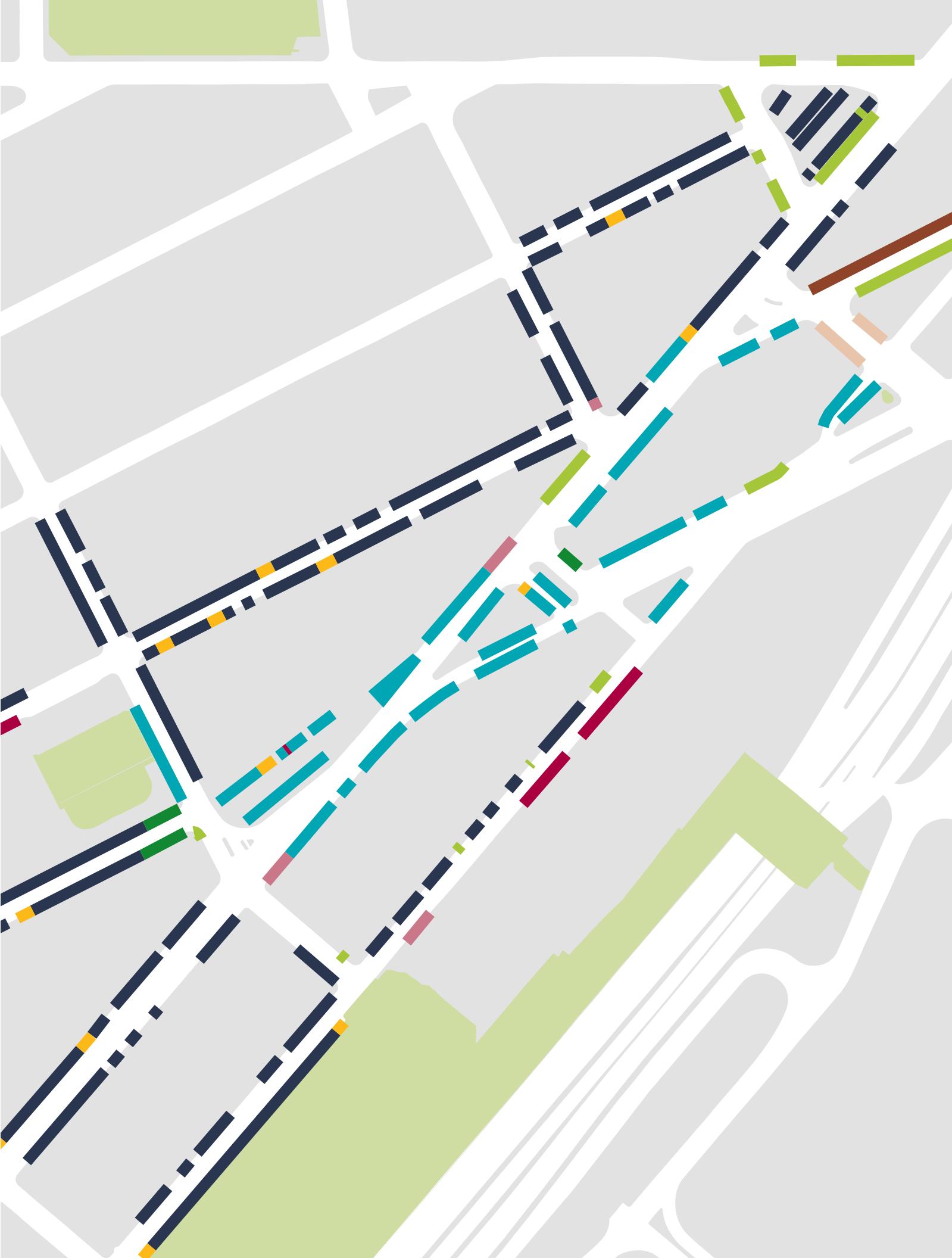
#### ▲ Draft Campus Plan

This Plan was used in senior leadership meetings to discuss potential residential and academic development opportunities. A key challenge that I worked through with my supervisor was representing these zones in a fluid way, and presenting development opportunities only as suggestions and not set actions. This campus sits in a residential neighborhood of Oakland, so we needed a nuanced approach to proposing institutional development that respects the surrounding community context.



#### ▲ AutoCAD Data

The only existing data from Mills College was a campus-wide AutoCAD file, which carried significant inconsistencies and coded language that I had to decipher to make the planning map.

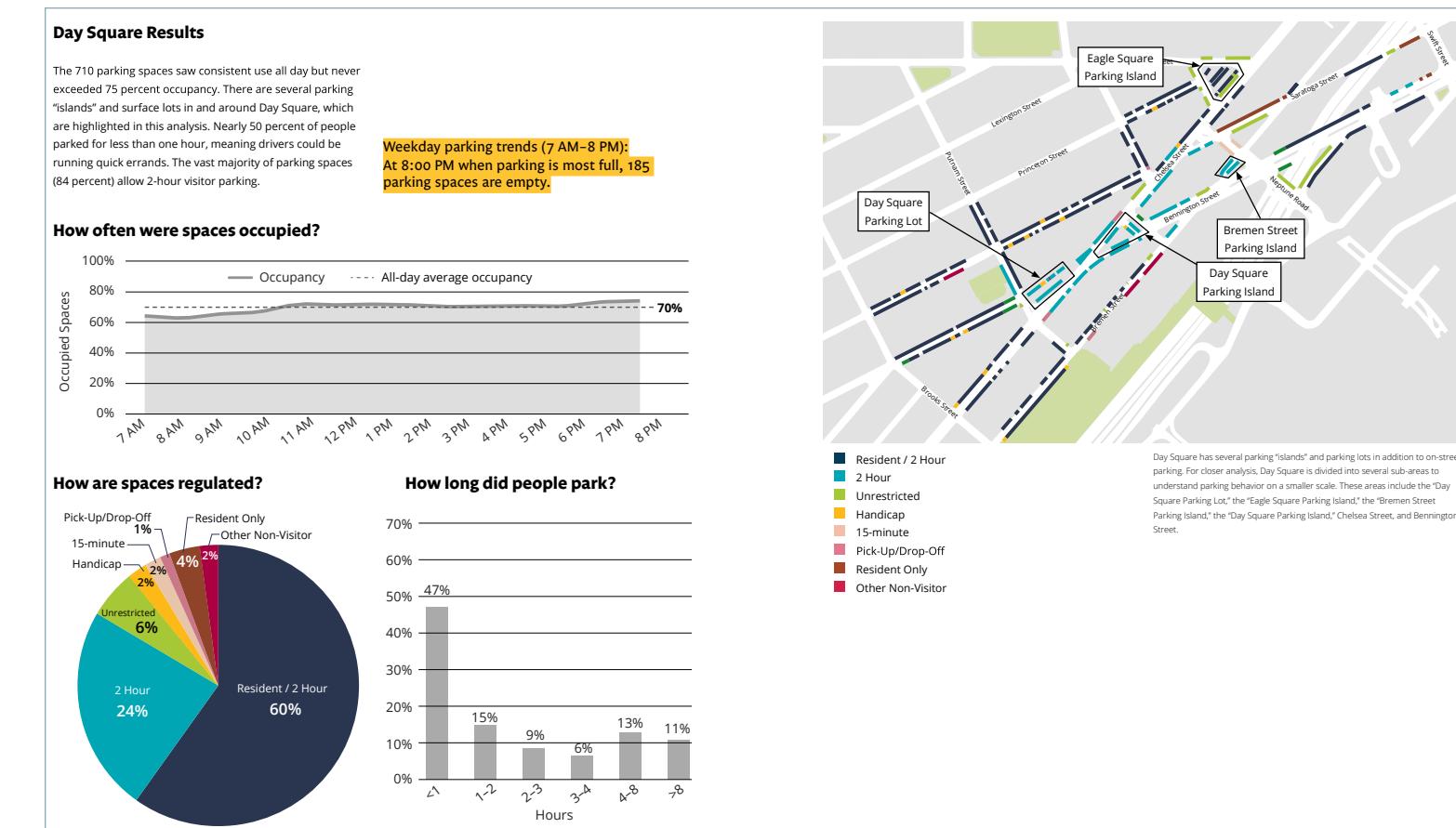
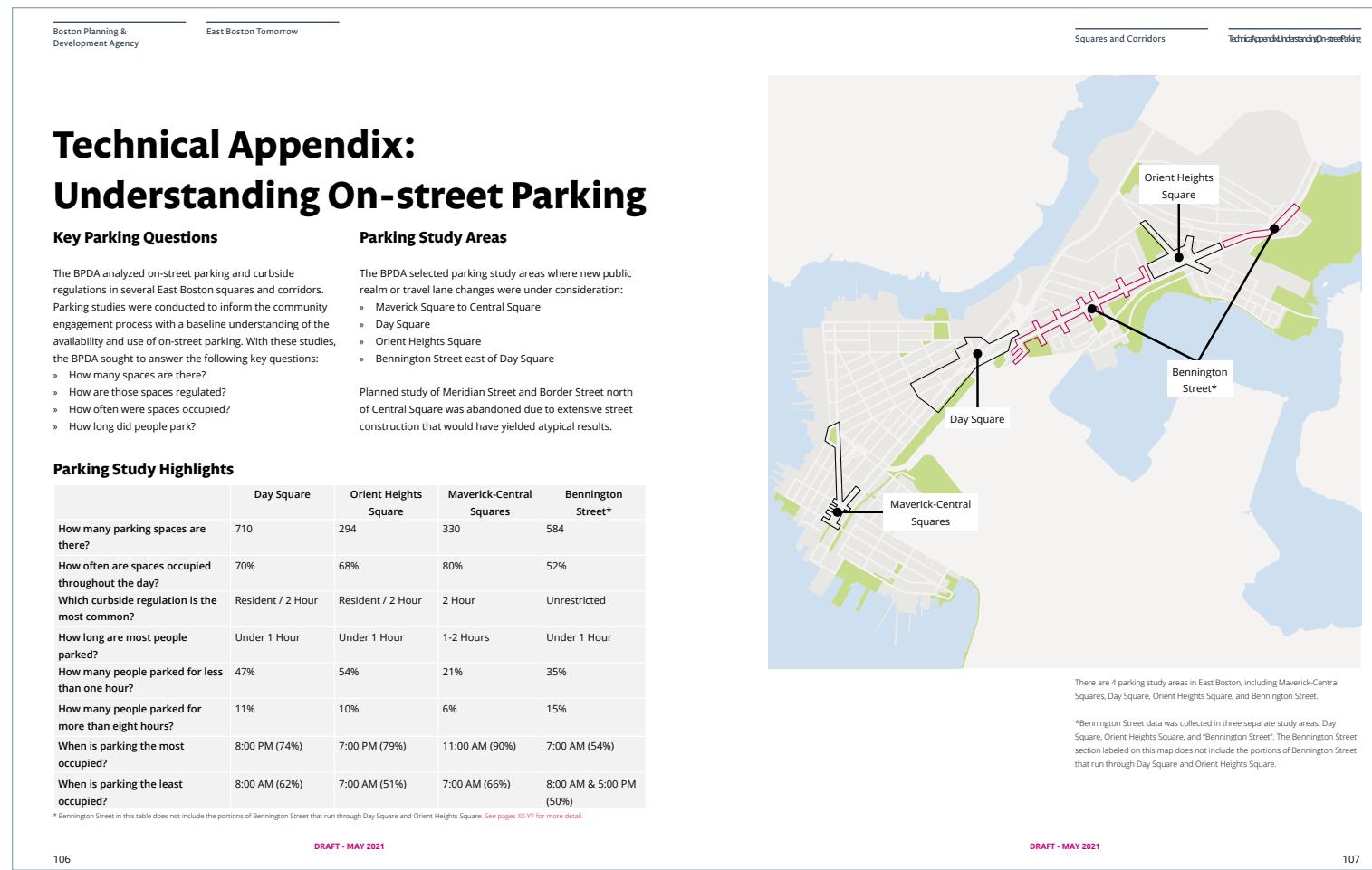


## 05 EAST BOSTON PARKING STUDY

*East Boston, MA*

I worked as a transportation planner for the Boston Planning & Development Agency from 2018 to 2021. For a majority of that time I was working on the PLAN: East Boston comprehensive plan and transportation plan. To contextualize and inform our transportation plan, I conducted a parking analysis for 4 study areas in the neighborhood including defining a data collection process, coordinating 20 volunteers for data collection over 2 weeks, and synthesizing and visualizing the data for a technical appendix deliverable.

The selected excerpt here shows just one of the four analyzed areas and how it was published in the report. I created all of the subsequent graphics except for the page layouts and formatting.



**▲ Study Overview**  
Our four study areas captured the majority of East Boston's commercial areas as we were interested in understanding how street parking was being used and how road redesigns would impact parking patterns.

### Day Square Summary

I summarized parking trends for each study area using this standard graphic language to communicate to non-technical readers.

### How are spaces regulated?

	Total	Resident / 2 Hour			Unrestricted	Resident Only	Handicap	Pick-Up/ Drop-Off	15-min M-F 8-6	Commercial	Other Non-Visitor	
		Resident / 2 Hr M-F 8-6	Resident / 2 Hr	2 Hr M-F 8-6							School Day	School Pick-Up/ Drop-Off 7-4
Study Area*	710	220	205	168	40	25	16	8	13	1	10	4
Eagle Square Parking Island	37	37	0	0	0	0	0	0	0	0	0	0
Bremen Street Parking Island	9	0	0	9	0	0	0	0	0	0	0	0
Day Square Parking Island	24	0	0	23	0	0	1	0	0	0	0	0
Day Square Parking Lot	42	0	0	39	0	0	2	0	0	1	0	0
Chelsea Street	129	60	0	50	12	0	3	4	0	0	0	0
Bennington Street	117	35	46	29	2	3	2	0	0	0	0	0

### How often were spaces occupied?

Study Area*	Capacity	7 AM 8 AM 9 AM 10 AM 11 AM 12 PM 1 PM 2 PM 3 PM 4 PM 5 PM 6 PM 7 PM 8 PM												Avg. Spaces Occupied			
		7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM		7 PM	8 PM	
Study Area*	710	64%	62%	65%	66%	72%	71%	72%	71%	70%	70%	71%	70%	73%	74%	70%	
Eagle Square Parking Island	37	92%	100%	92%	84%	95%	86%	81%	84%	89%	89%	88%	89%	65%	68%	70%	84%
Bremen Street Parking Island	9	33%	56%	67%	78%	89%	89%	78%	78%	100%	100%	67%	33%	67%	89%	89%	68%
Day Square Parking Island	24	58%	50%	54%	83%	92%	96%	92%	96%	96%	96%	96%	96%	96%	96%	96%	85%
Day Square Parking Lot	42	64%	55%	50%	74%	81%	67%	57%	57%	57%	57%	71%	81%	86%	93%	93%	68%
Chelsea Street	129	59%	54%	67%	73%	82%	81%	82%	84%	75%	75%	84%	75%	78%	86%	75%	75%
Bennington Street	117	64%	63%	69%	68%	69%	62%	64%	65%	66%	66%	63%	68%	65%	68%	66%	66%

Less Occupied More Occupied

### How long did people park?

Study Area*	Parkd Vehicles	<60 mins 1-2 hrs 2-3 hrs 3-4 hrs 4-5 hrs 5-6 hrs 6-7 hrs 7-8 hrs 8-9 hrs 9-10 hrs 10-11 hrs 11-12 hrs 12-13 hrs 13-14 hrs Vehicles/ Space														Average Duration (hrs)	Median Duration (hrs)	
		<60 mins	1-2 hrs	2-3 hrs	3-4 hrs	4-5 hrs	5-6 hrs	6-7 hrs	7-8 hrs	8-9 hrs	9-10 hrs	10-11 hrs	11-12 hrs	12-13 hrs	13-14 hrs			
Study Area*	2011	47%	15%	9%	6%	5%	3%	3%	2%	2%	1%	1%	1%	4%	2.8	4.0	1.5	
Eagle Square Parking Island	82	26%	17%	7%	6%	4%	7%	5%	2%	5%	5%	1%	1%	2%	11%	2.2	5.3	3.5
Bremen Street Parking Island	32	59%	9%	6%	3%	6%	0%	3%	9%	0%	3%	0%	0%	0%	0%	3.6	2.6	0.5
Day Square Parking Island	118	58%	13%	7%	9%	3%	3%	4%	0%	1%	3%	0%	0%	1%	4.9	4.2	0.5	
Day Square Parking Lot	197	63%	17%	9%	2%	2%	3%	1%	2%	0%	1%	0%	1%	1%	4.7	2.1	0.5	
Chelsea Street	420	49%	17%	9%	7%	5%	2%	2%	2%	1%	1%	0%	0%	4%	3.3	4.0	1.5	
Bennington Street	329	45%	14%	9%	9%	5%	4%	4%	2%	3%	1%	1%	1%	3%	2.8	3.8	1.5	

Shorter Duration Longer Duration

\*The Study Area line includes all of the segments shown on the map from the previous page. The sub-areas listed below "study area" do not comprise the entire study area, so the total sum of these sub-areas will not equal the Study Area value.

**▲ Day Square Details**  
I also presented the full data analysis for each study area using a color gradient to more clearly distill the dense information.

