



Jack Halverson

Portfolio



I'm a first year Master in Urban Planning candidate at the Harvard University Graduate School of Design. Prior to graduate school, I worked for the Boston Planning & Development Agency on the transportation planning team. I grew up in a suburb outside of Minneapolis and found my interest in Urban Planning when I moved to Boston to attend Tufts University.

I find myself straddling the line between planning and design, with the process management skills associated with planning and the visual intuition found in design. My interests began in transportation, but have expanded to meet the moment of climate change, rapid urbanization, and a desire to live in and shape beautiful cities. This portfolio represents my academic and professional work to date with an emphasis on process and skill demonstration.

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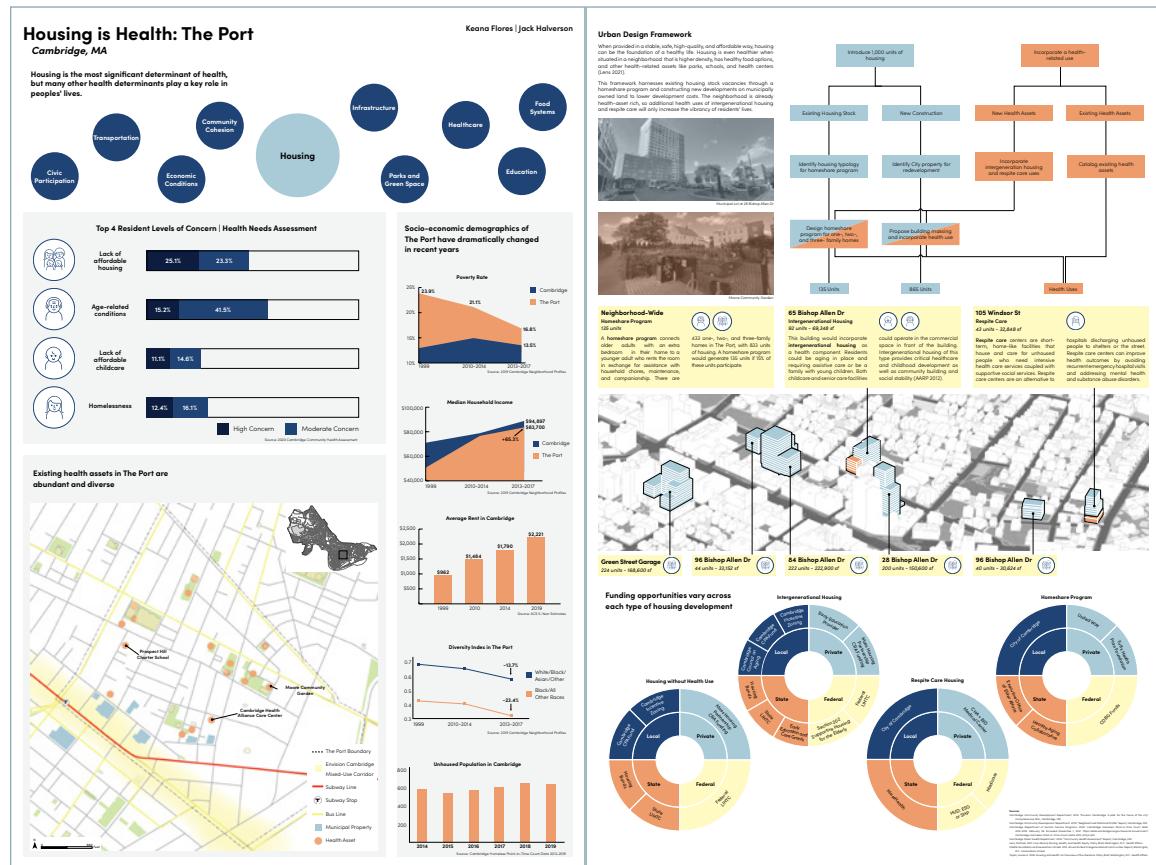
Fairmount Line Wayfinding | *BPDA* 33

Healthy Housing | Central Square

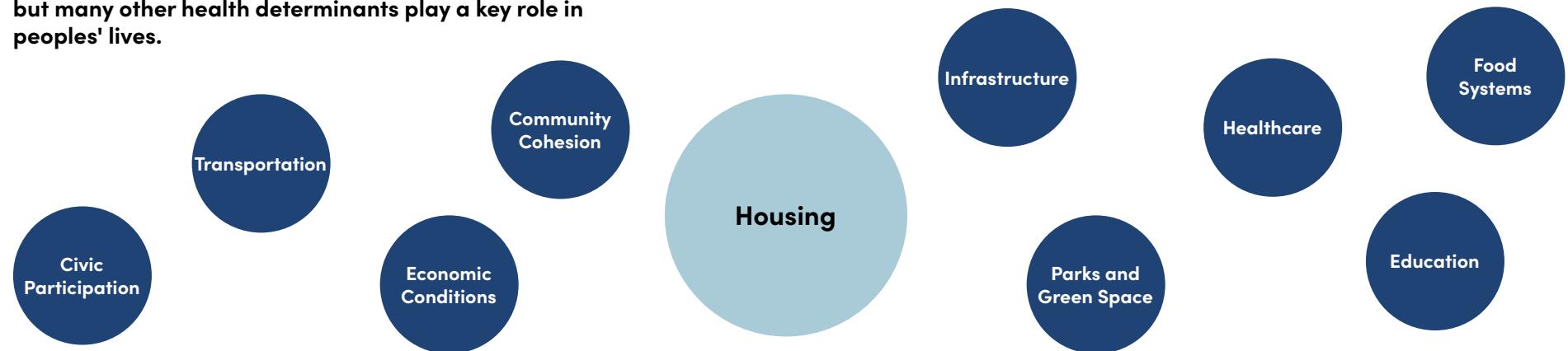
My first planning studio included 4 distinct modules focused on themes of equity, access, health, and climate, spanned multiple scales, and used lenses of infrastructure, land use, community, and public realm.

This project used the theme of health, scale of a neighborhood, and lens of community to allocate 1000 units of housing. The resulting product was 2 presentation boards with a proposal for 1000 units using a homeshare program and new construction including intergenerational housing and respite care to address community needs.

Role: On a project team with partner, Keana Flores. I produced all of the graphics on the following pages.

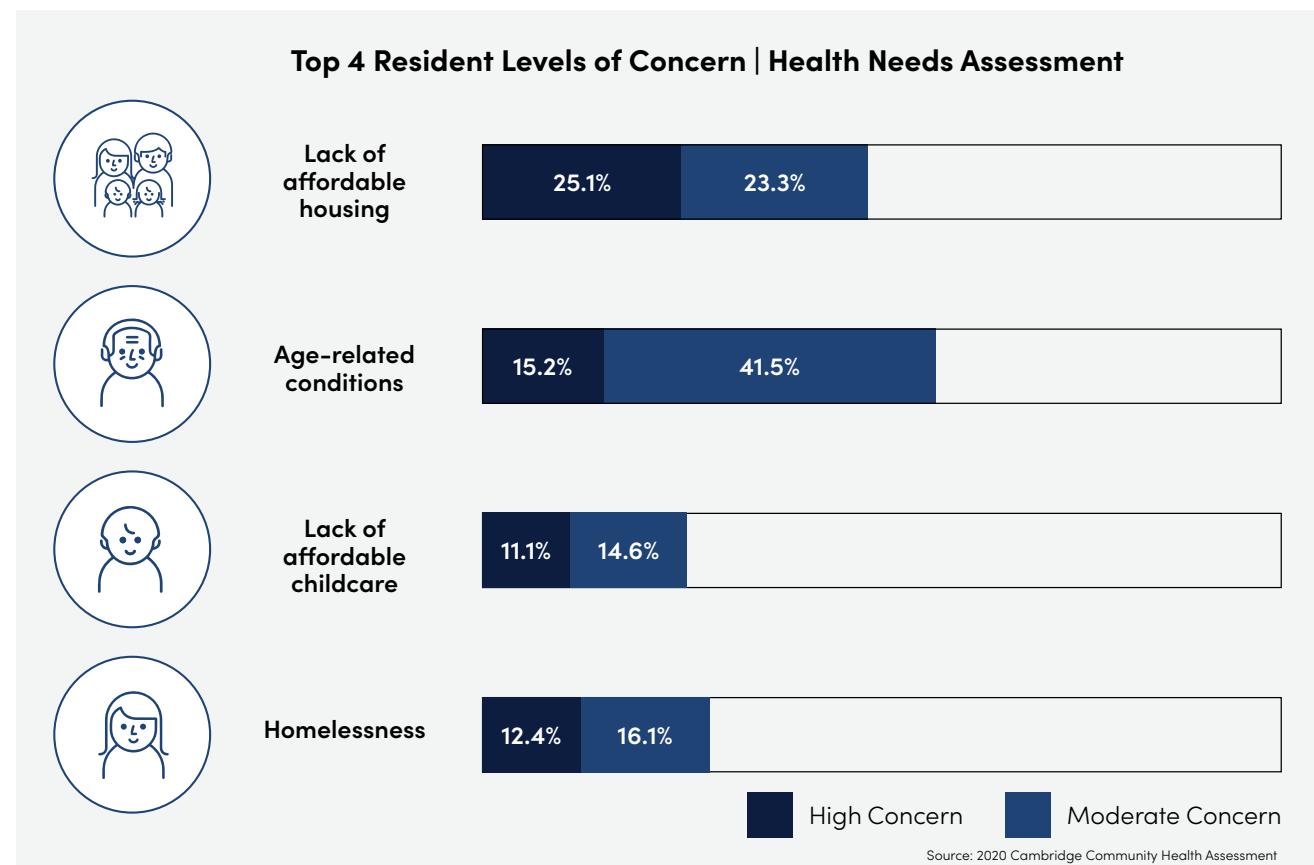


Housing is the most significant determinant of health, but many other health determinants play a key role in peoples' lives.



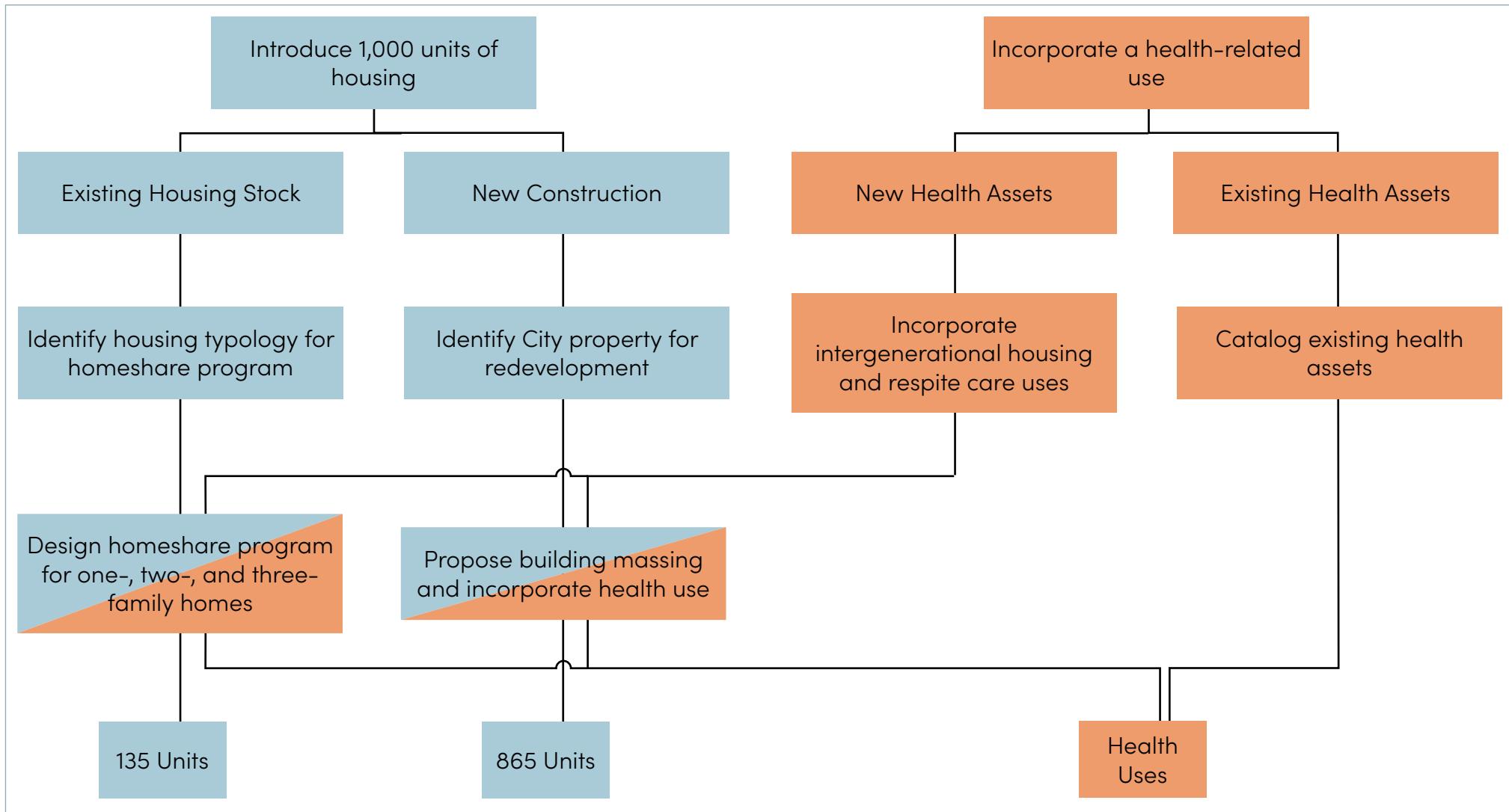
- ▲ We identified housing as a key determinant of health, among many other factors. This framework guided our resulting proposal.

We used a Cambridge Community Health Assessment to determine 4 populations to serve with this proposal: folks experiencing homelessness, the aging population, families with children, and anyone in need of affordable housing.



A mapping exercise revealed neighborhood health assets, areas planned for growth by the Envision Cambridge plan, and municipally owned properties that could be used for new development. This neighborhood, "The Port", has abundant health assets, so could be ready to grow with new housing.





▲ This framework illustrates the challenge at hand, our approach to the challenge, and the resulting programmatic elements.

Neighborhood-Wide**Homeshare Program**

135 units



A homeshare program connects older adults with an extra bedroom in their home to a younger adult who rents the room in exchange for assistance with household chores, maintenance, and companionship. There are

433 one-, two-, and three-family homes in The Port, with 833 units of housing. A homeshare program would generate 135 units if 15% of these units participate.

65 Bishop Allen Dr**Intergenerational Housing**

92 units - 69,348 sf

This building would incorporate **intergenerational housing** as a health component. Residents could be aging in place and requiring assistive care or be a family with young children. Both childcare and senior care facilities

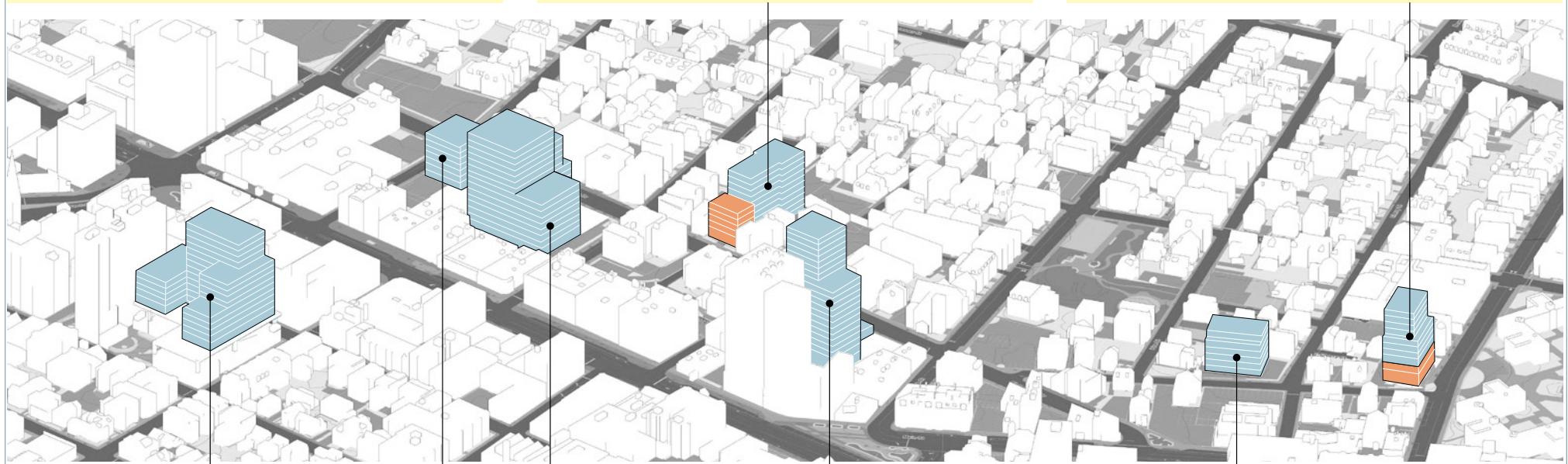
**105 Windsor St****Respite Care**

43 units - 32,848 sf

could operate in the commercial space in front of the building. Intergenerational housing of this type provides critical healthcare and childhood development as well as community building and social stability (AARP 2012).



Respite care centers are short-term, home-like facilities that house and care for unhoused people who need intensive health care services coupled with supportive social services. Respite care centers are an alternative to hospitals discharging unhoused people to shelters or the street. Respite care centers can improve health outcomes by avoiding recurrent emergency hospital visits and addressing mental health and substance abuse disorders.

**Green Street Garage**

224 units - 168,600 sf

**96 Bishop Allen Dr**

44 units - 33,152 sf

**84 Bishop Allen Dr**

222 units - 222,900 sf

**28 Bishop Allen Dr**

200 units - 150,600 sf

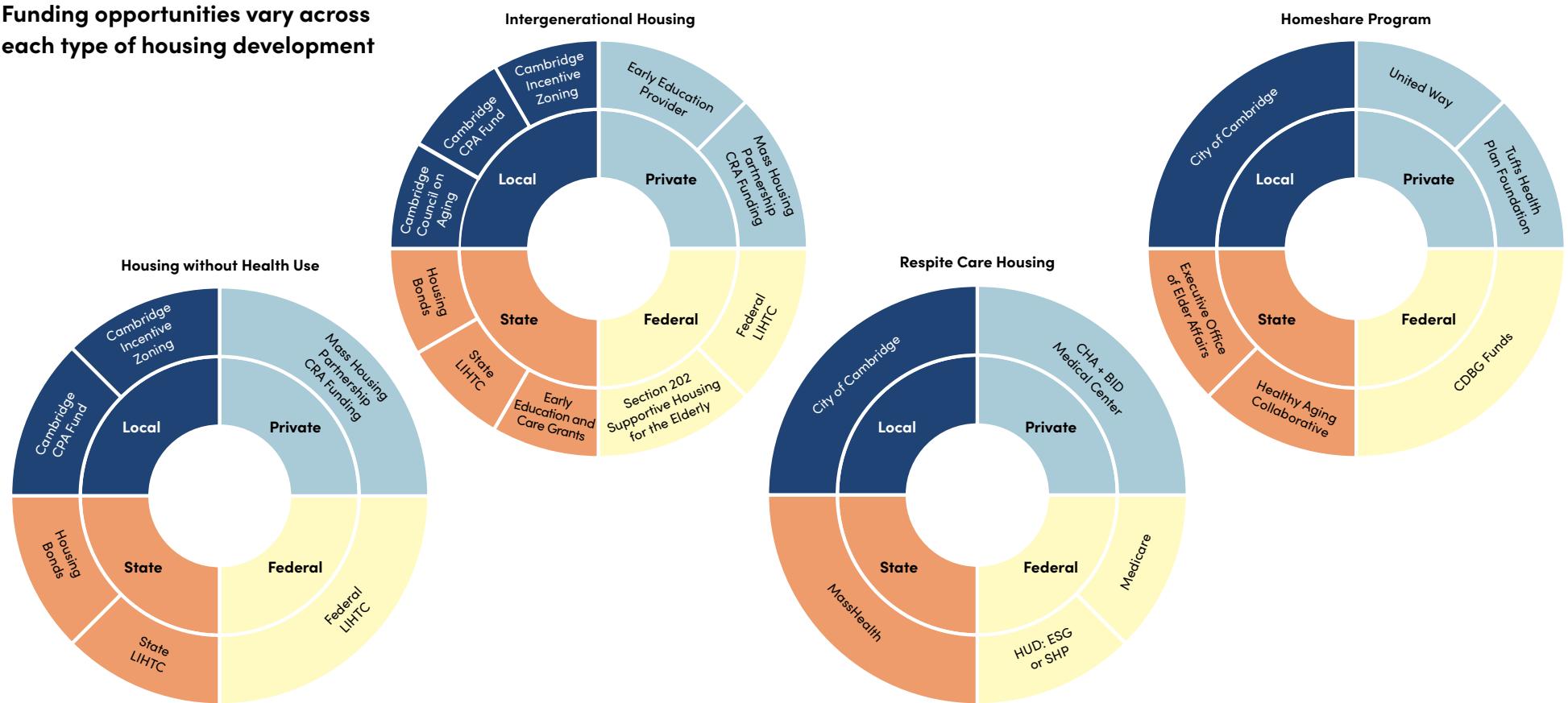
**96 Bishop Allen Dr**

40 units - 30,624 sf



- ▲ New construction is proposed in a concentrated corridor using municipally owned land. Intergenerational housing, respite care, and a homeshare program address the target populations identified previously in the framework.

Funding opportunities vary across each type of housing development



- ▲ Draft funding opportunities include many partners across local, state, federal, and private entities.

Affordable Resilience | Central Square

This project is an evolution of the previous project, but focused on climate and aging adults. We used data from the Cambridge Housing Authority to justify a need for affordable housing, but also acknowledge the need for more climate resilient infrastructure and housing.

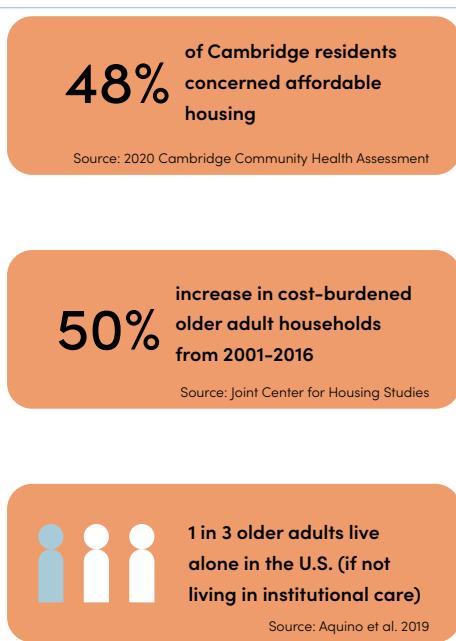
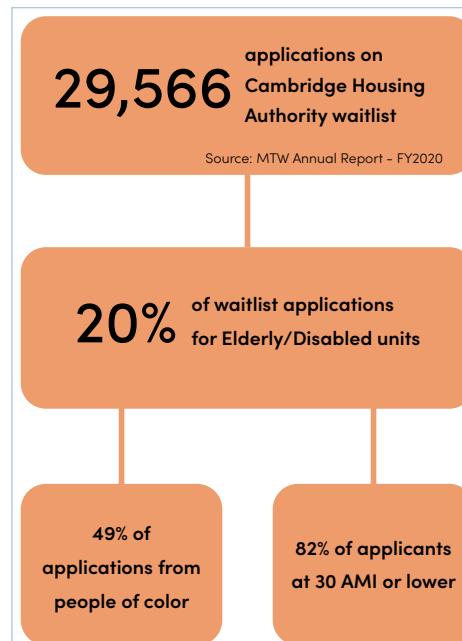
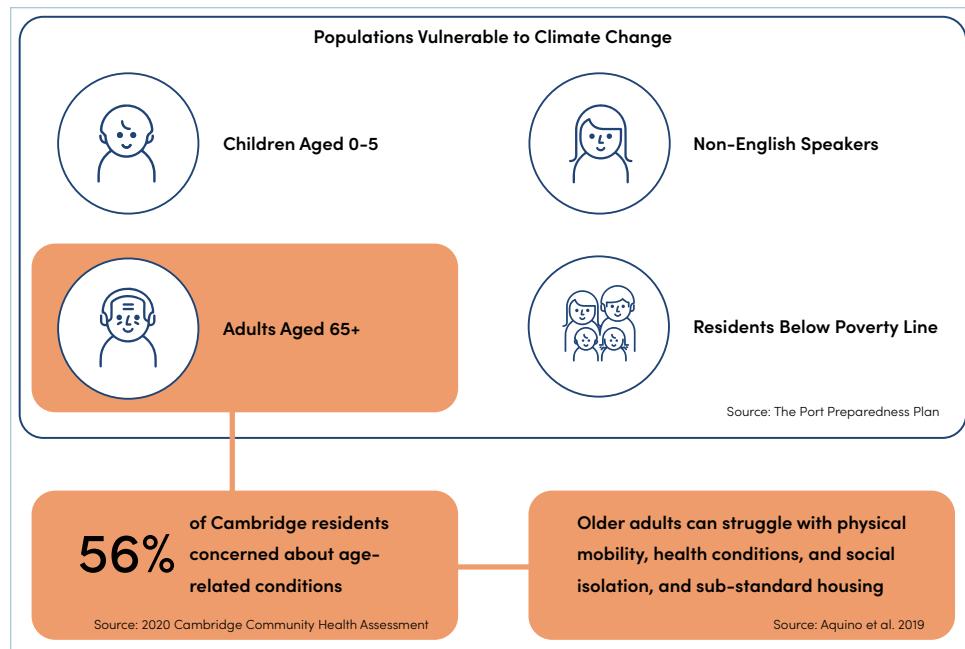
Our proposal addresses affordable housing for aging adults who may experience adverse effects of increased flooding and urban heat through two key project elements: 1) construction of new, green/blue housing and 2) establishing a resilience hub annex to provide services before, during, and after major climate events.

Role: On a project team with partner, Keana Flores. I produced most of the graphics on the following pages; any work that is not my own is annotated.



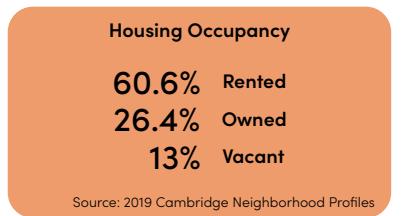
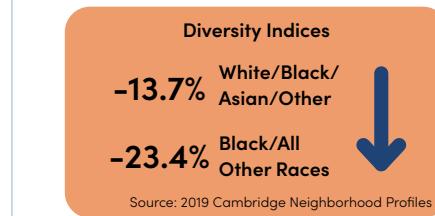
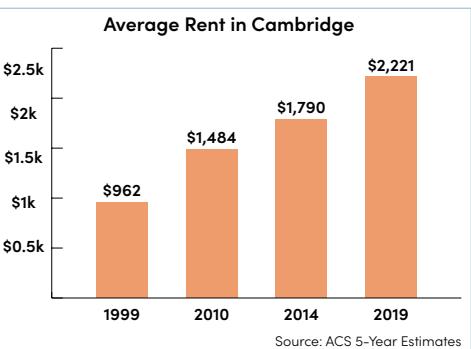
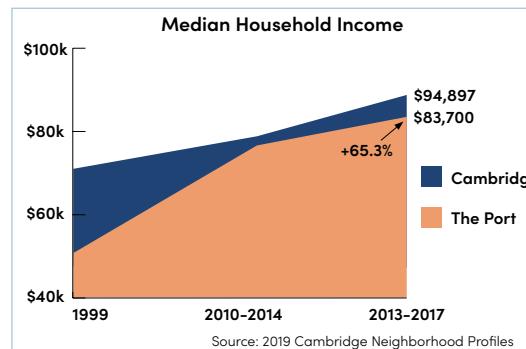
Affordable Resilience District: The Port

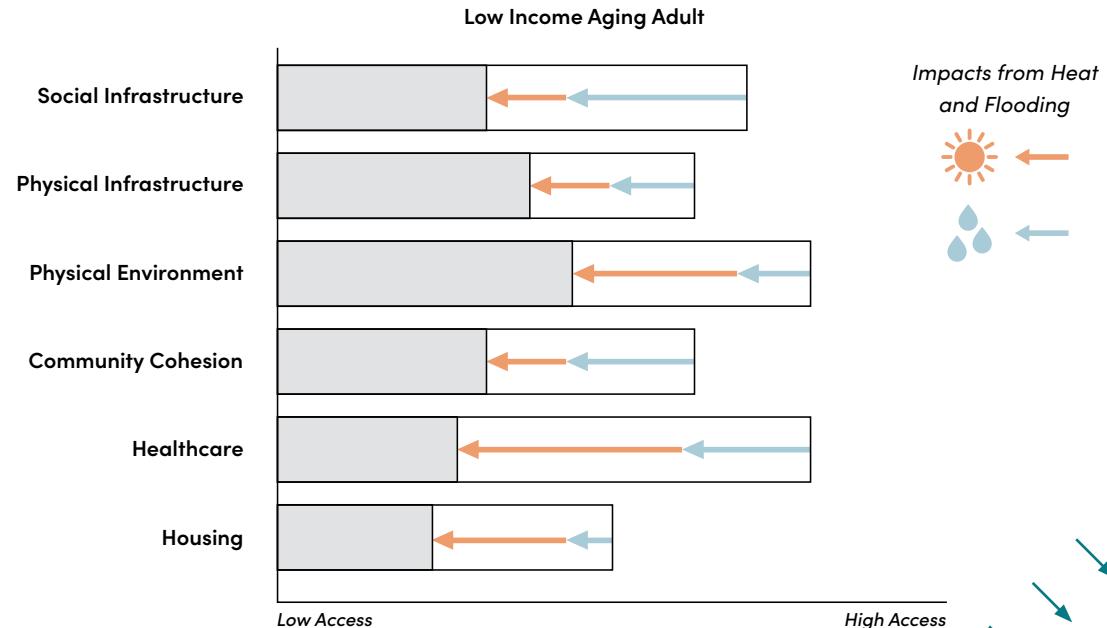
Keana Flores + Jack Halverson



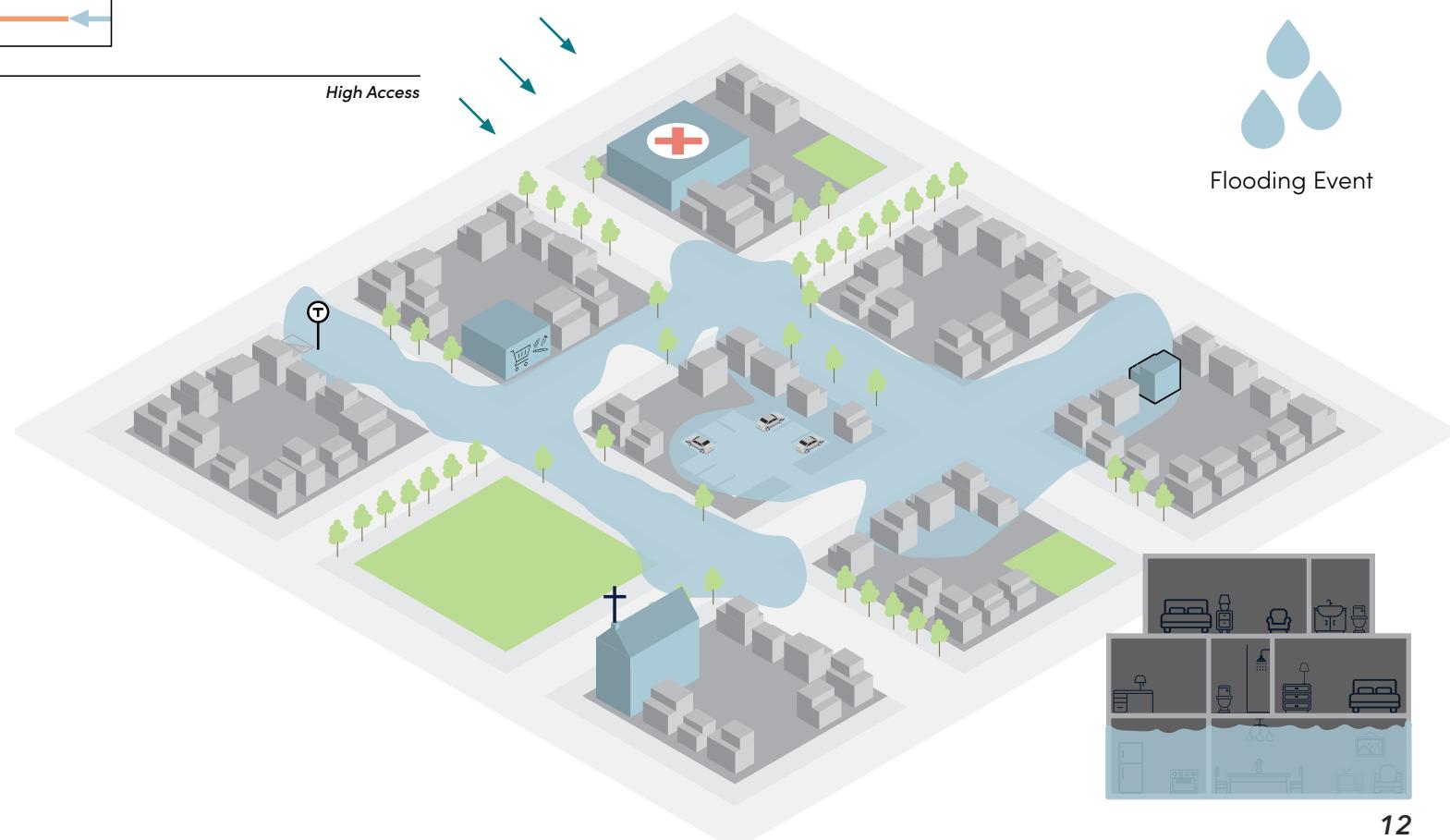
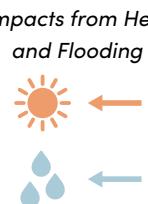
- ▲ Our framework picked up on our previous project, but added in the lens of climate change to identify older adults as a target population.

Cambridge Housing Authority data and neighborhood housing demographics demonstrate a need for more affordable housing in an increasingly expensive neighborhood that's losing diversity.





- ◀ In Process: This framework initially attempted to capture how different climate impacts affect access to health determinants. The complexity of these topics was a challenge, and this was only the first iteration.



Final Outcome: Through project development and iterations, we landed on using a series of slides showing a generic neighborhood block. During our presentation we were able to narrate various impacts of flooding or increased heat on a neighborhood scale and individual home scale.

We mapped projected flooding in the neighborhood to determine where impacts would be most prevalent. This cursory GIS analysis revealed that flooding would be concentrated in the areas where we are proposing new housing.



Precipitation flooding will occur along Bishop Allen Drive, restricting access to social infrastructure and limiting walkability.



Source: City of Cambridge



Source: City of Cambridge

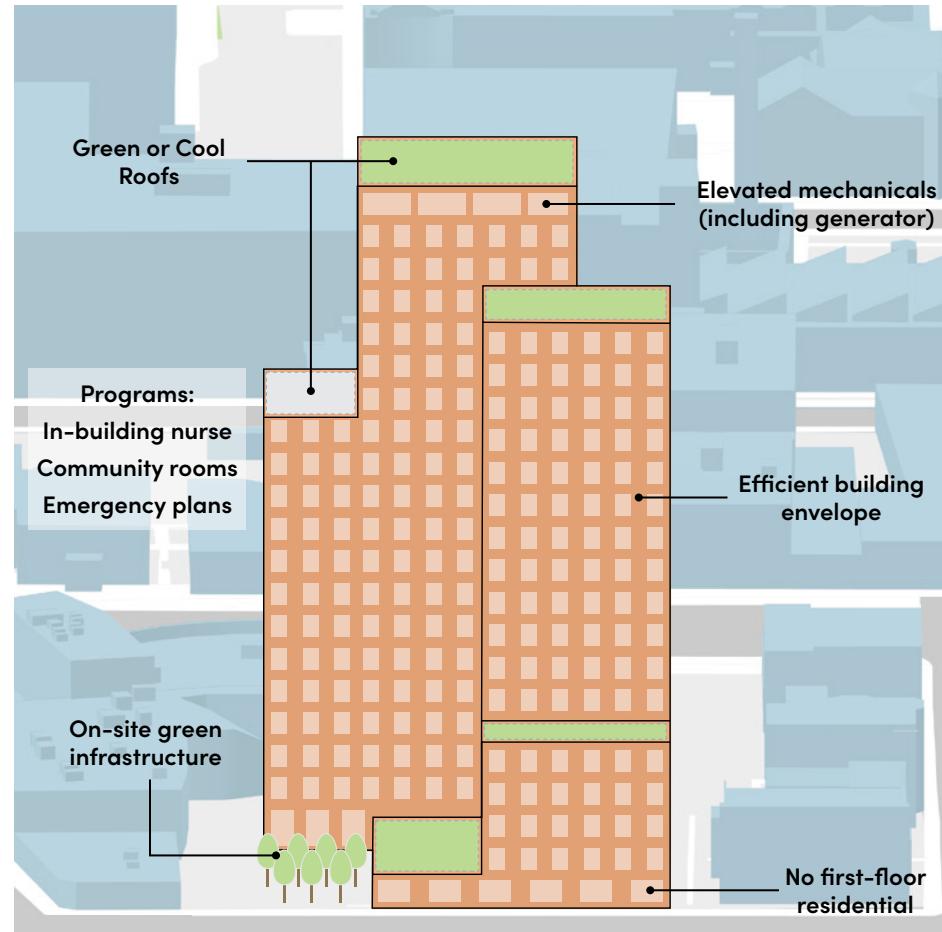
Our two project components ► address a housing need and a resilience need by building new green/blue housing for seniors and establishing a climate resilience hub annex to support neighborhood residents.



We proposed a prototypical senior housing building with green/blue infrastructure and programmatic elements to support new residents.

#1: Affordable Senior Housing

Building-scale green and blue infrastructure can mitigate urban heat, manage stormwater, and complement safe and affordable housing.



1 2 3 4 **Proposal** 5

Affordable housing
Community + Communal Living
Housing Infrastructure

A resilience hub annex would provide a central location for crisis services and be a community asset for education and advocacy purposes.

Narrative content here was created by my partner, Keana Flores.

#2: Resilience Hub Annex

1 2 3 4 **Proposal** 5

A community-based organization focused on education, services, and advocacy can help the neighborhood better prepare, respond, and recover from climate events

Physical Site Upgrades

- Upgrade AC units
- Raise electrical panel
- Power pack-up

Crisis Services

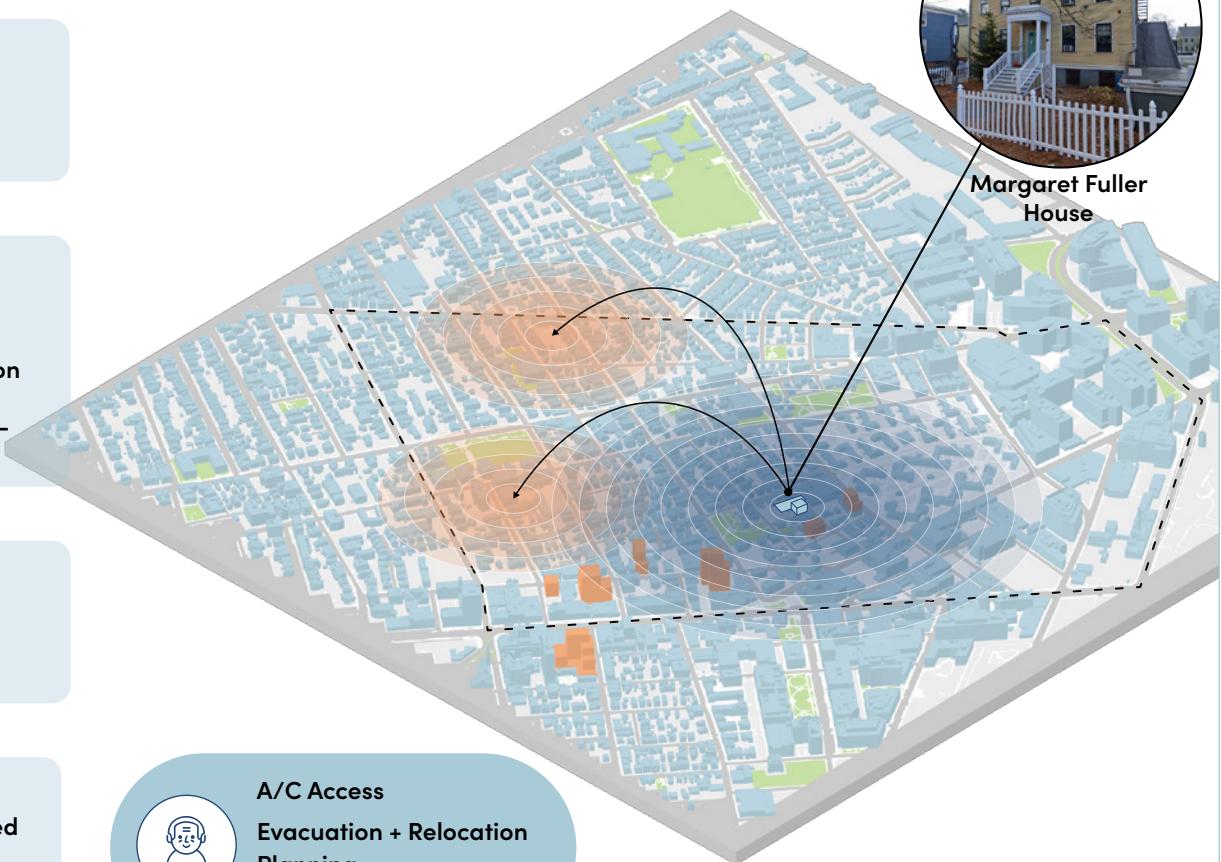
- Food distribution
- Host a cooling center
- Coordinate local evacuation and relocation plans
- Coordinate a "Daily Check-In" program

Educational

- Educate and engage the community on effects of climate change

Advocacy

- Advocate for community-led strategies to combat and mitigate climate change in The Port



A future vision of Bishop Allen Drive would be a greener street lined with new affordable senior housing and be a safer, more resilient neighborhood for residents.

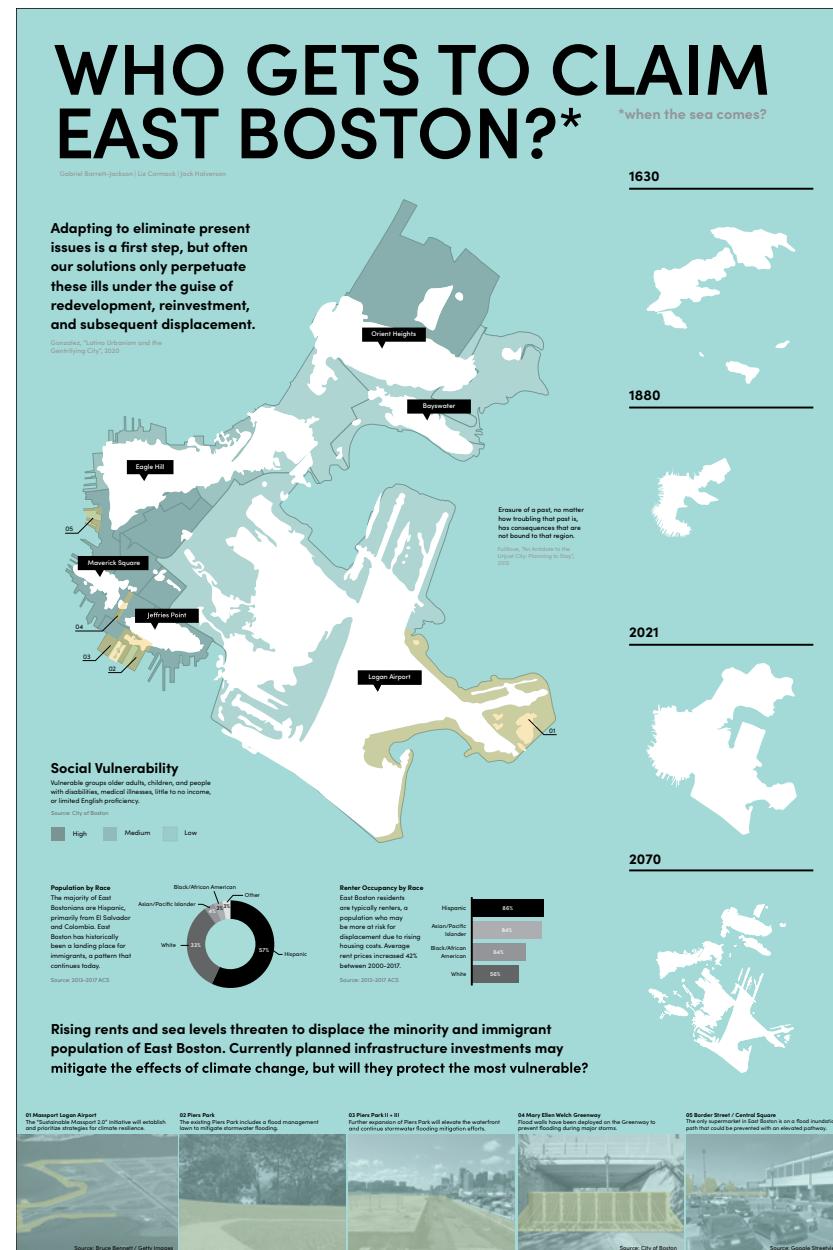


Inequitable Infrastructure | East Boston

This was my first studio project at Harvard GSD, focused on East Boston with a theme of equity and lens of infrastructure. The assignment was open-ended, which led our team to discuss the flooding threats to East Boston's infrastructure and the inequitable impacts that could result.

The project is meant to spur discussion about ownership, social vulnerability, and factors that can or can't be controlled by individual residents.

Role: On a project team with partners Gabriel Barrett-Jackson and Liz Cormack. I did not design the layout for this board, but I did create the following supportive graphics.



1630



1880



2021



2070



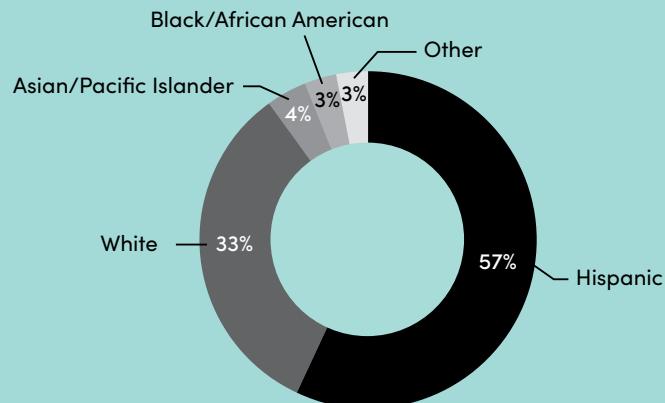
▲ East Boston's land mass has changed drastically over time by being filled in for development, but with unabated flooding, it will return to a series of islands, largely dominated by Boston Logan Airport.

▼ East Boston is a majority-minority neighborhood after waves of immigration in the early 1800s, mid 1900s, and present day. Renters and people of color are traditionally the first to be displaced due to rising housing costs and/or climate threats.

Population by Race

The majority of East Bostonians are Hispanic, primarily from El Salvador and Colombia. East Boston has historically been a landing place for immigrants, a pattern that continues today.

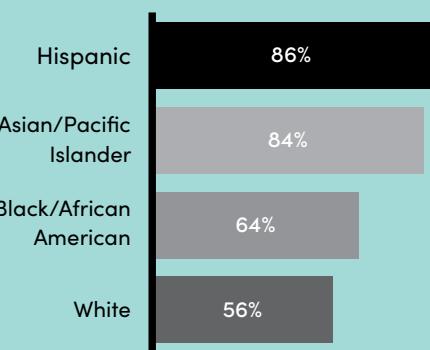
Source: 2013-2017 ACS



Renter Occupancy by Race

East Boston residents are typically renters, a population who may be more at risk for displacement due to rising housing costs. Average rent prices increased 42% between 2000-2017.

Source: 2013-2017 ACS



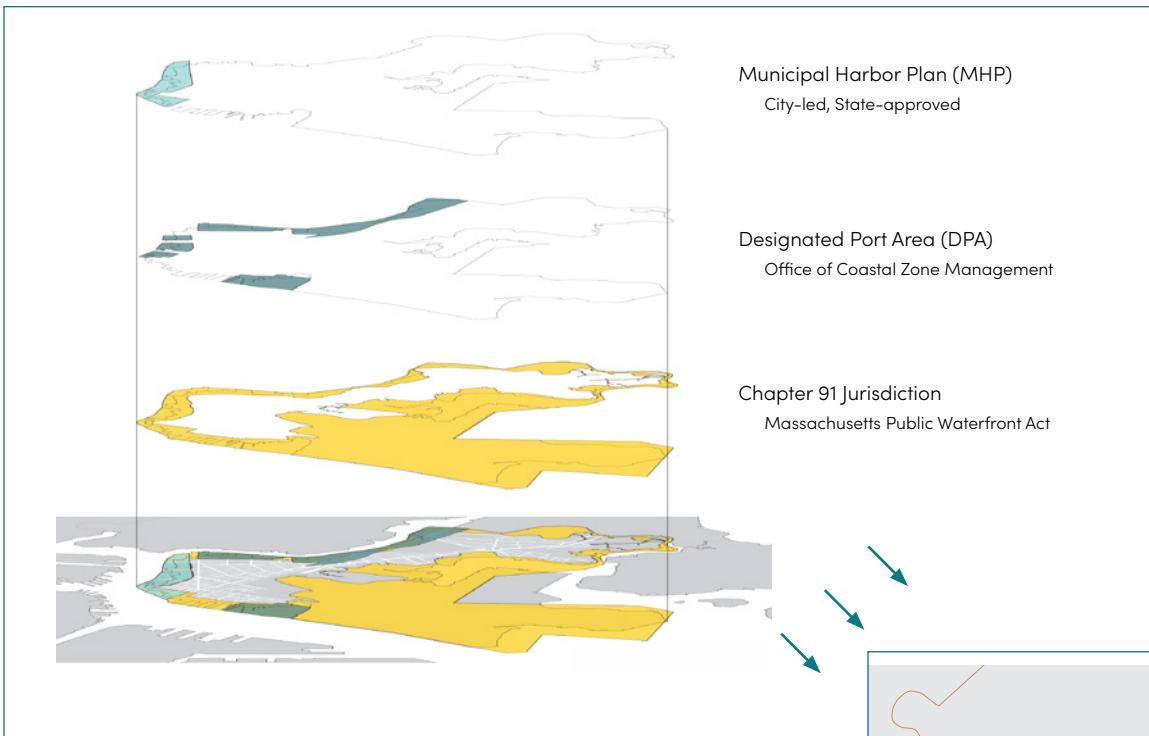
Accessing Public Realm | East Boston

This studio project is an evolution from Inequitable Infrastructure, but focuses now on the theme of access through a public realm lens. The format was a 20-slide presentation and included analysis of the waterfront in East Boston while zooming in on an emerging commercial district.

The culmination of the project (not shown in this portfolio) was a hypothetical vision of a future arts/commercial district that feels and operates in a truly accessible way for all of East Boston, not just those who can afford it.

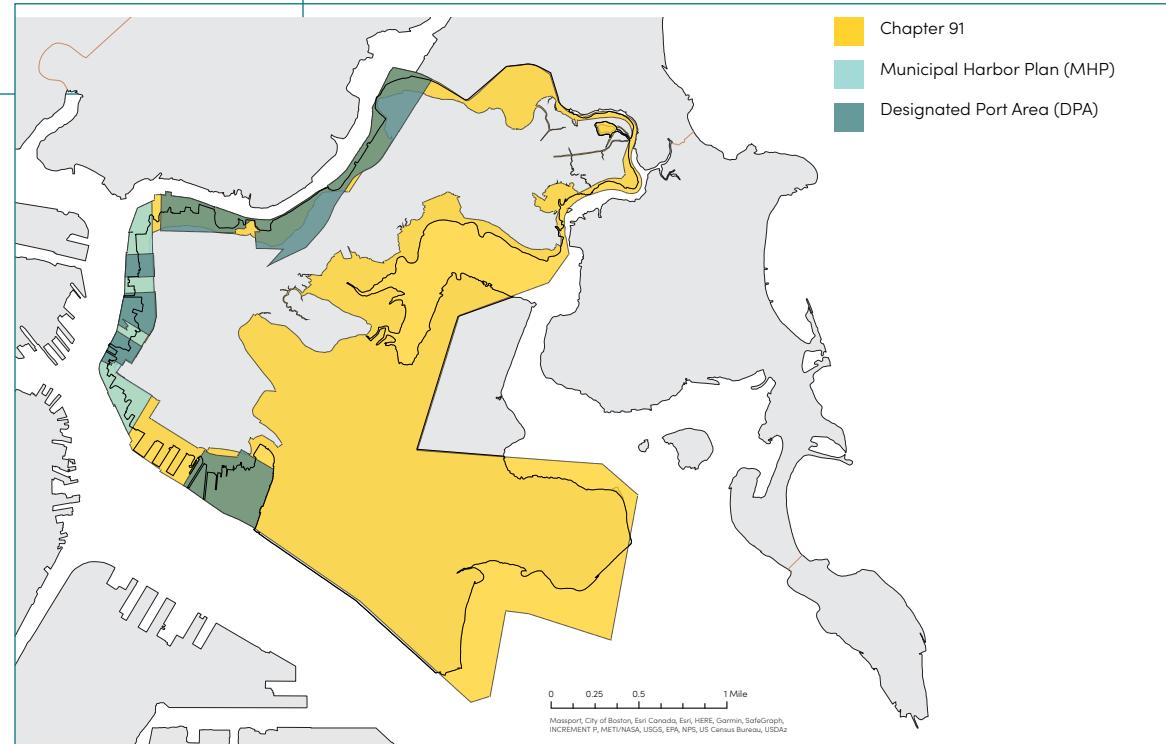
Role: On a project team with partners Gabriel Barrett-Jackson and Liz Cormack. I produced all of the graphics on the following pages.



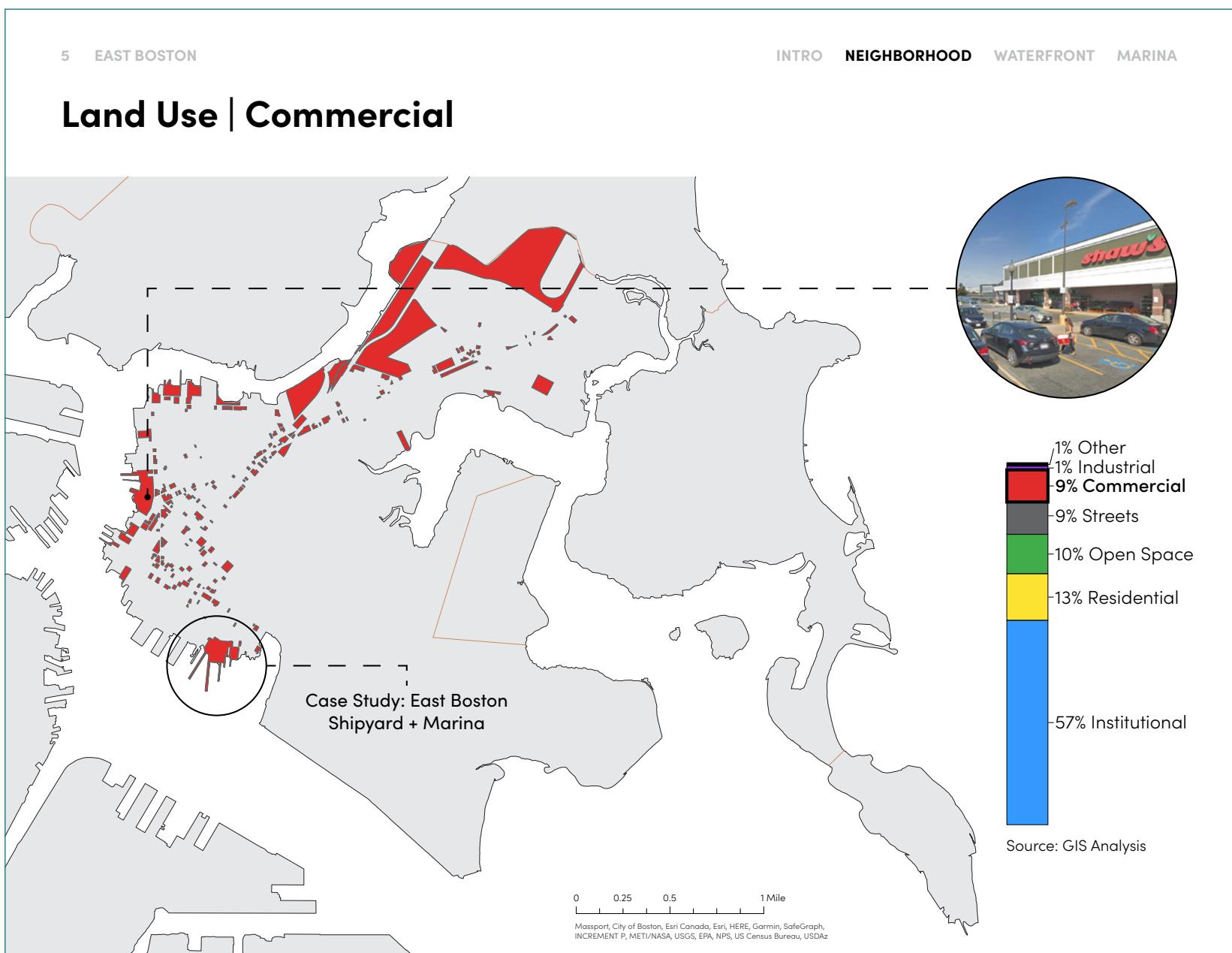


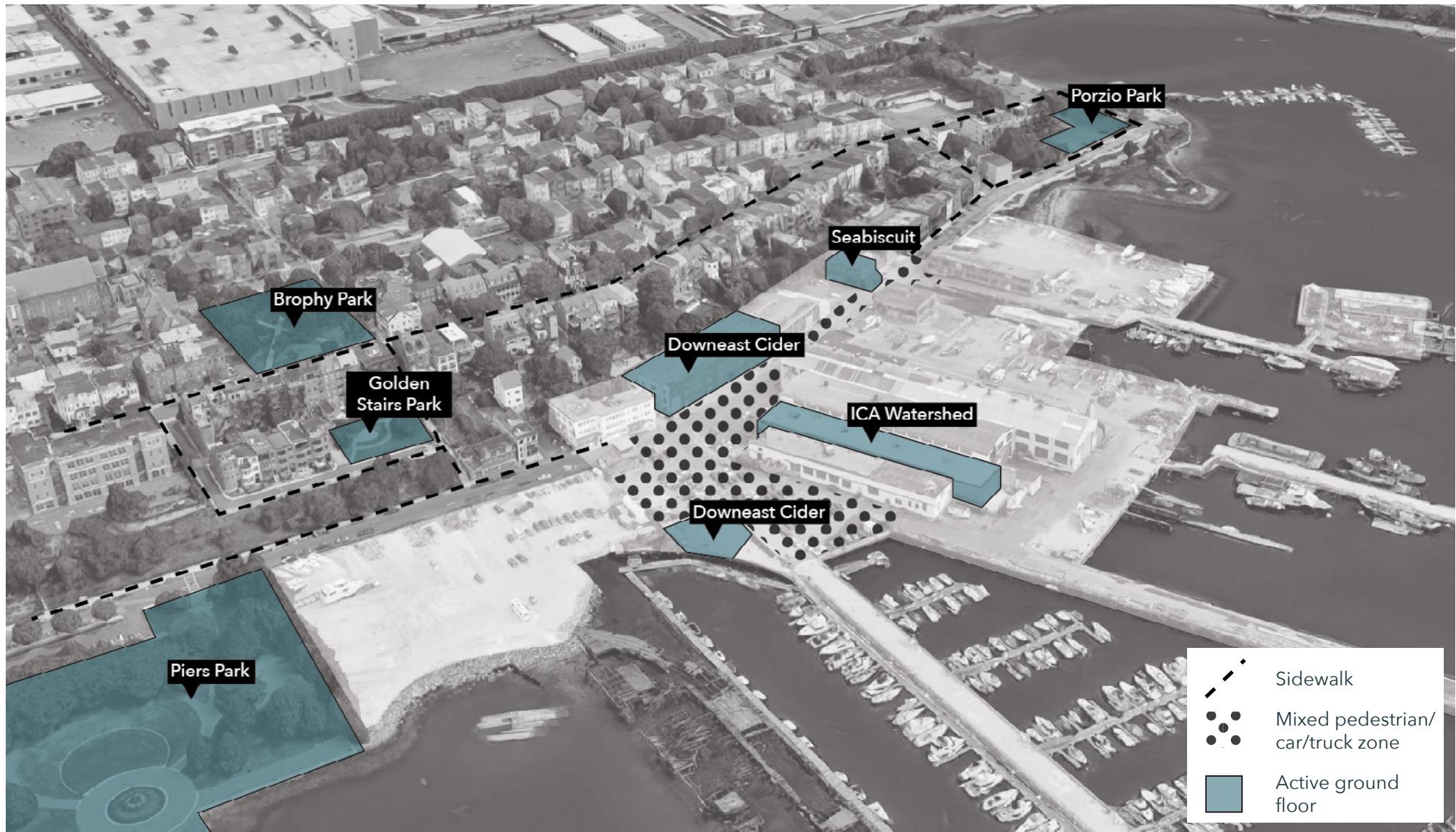
I created this exploded axon to show land ownership, explore possibility of future ownership, and generally communicate an understanding of land use regulations. This first iteration received negative feedback, and was subsequently revised.

This revised map more clearly shows boundaries and was easier to digest within the time and format of a short presentation.



We presented a land use analysis for commercial, residential, and industrial land in East Boston. This analysis revealed a concentration of commercial land uses along major corridors in East Boston, but also in waterfront areas.





▲ I created this graphic for a concurrent class, but we used a similar version for our studio project. This illustrates the emerging active ground floor uses in our focus area and highlights how it remains inaccessible because of the built condition for pedestrians.

Mapping Food Access | East Boston

This assignment involved both analog and digital representation. First, I identified food access as a topic of interest in East Boston, and drew locations of major arterials, convenience stores, and supermarkets (of which there are only 1 in the neighborhood). Then, by freehand, I drew rough 5-minute walksheds to determine access.

Converting this to digital shows more clearly areas with a higher density of food options, but also reveals areas with limited access.

Class: Representation for Planners



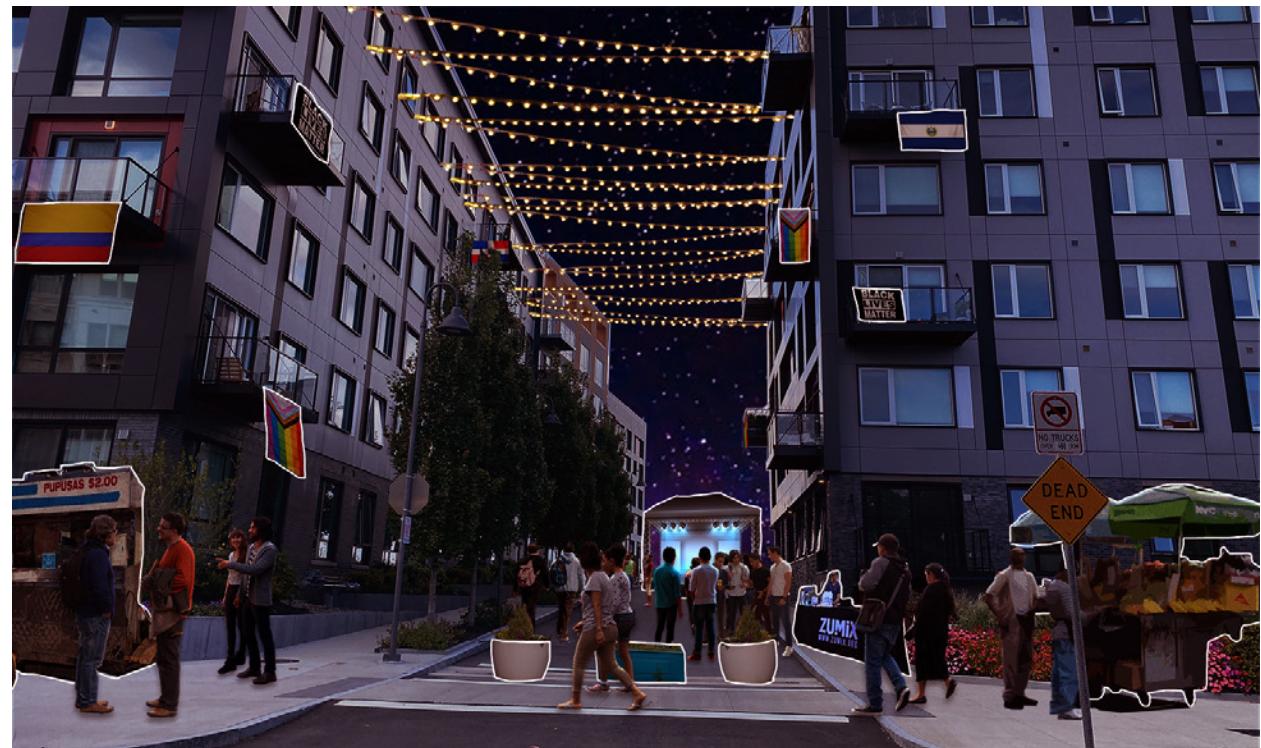
- 5-minute walk
- Convenience Store
- Supermarket

A Truly Public Clippership | East Boston

This open-ended collage assignment tasked me with visualizing what I would imagine a public space should feel like. The base image (buildings and street) is Marginal Street and Clippership Apartments in East Boston.

A relatively white and wealthy area, I imagined what a truly public space would feel like for everyone in East Boston. I closed the street to make an event space, incorporated local food vendors, provided space for community organizations to table, and envisioned how the apartments might change with more affordable and welcoming policies.

Class: Representation for Planners

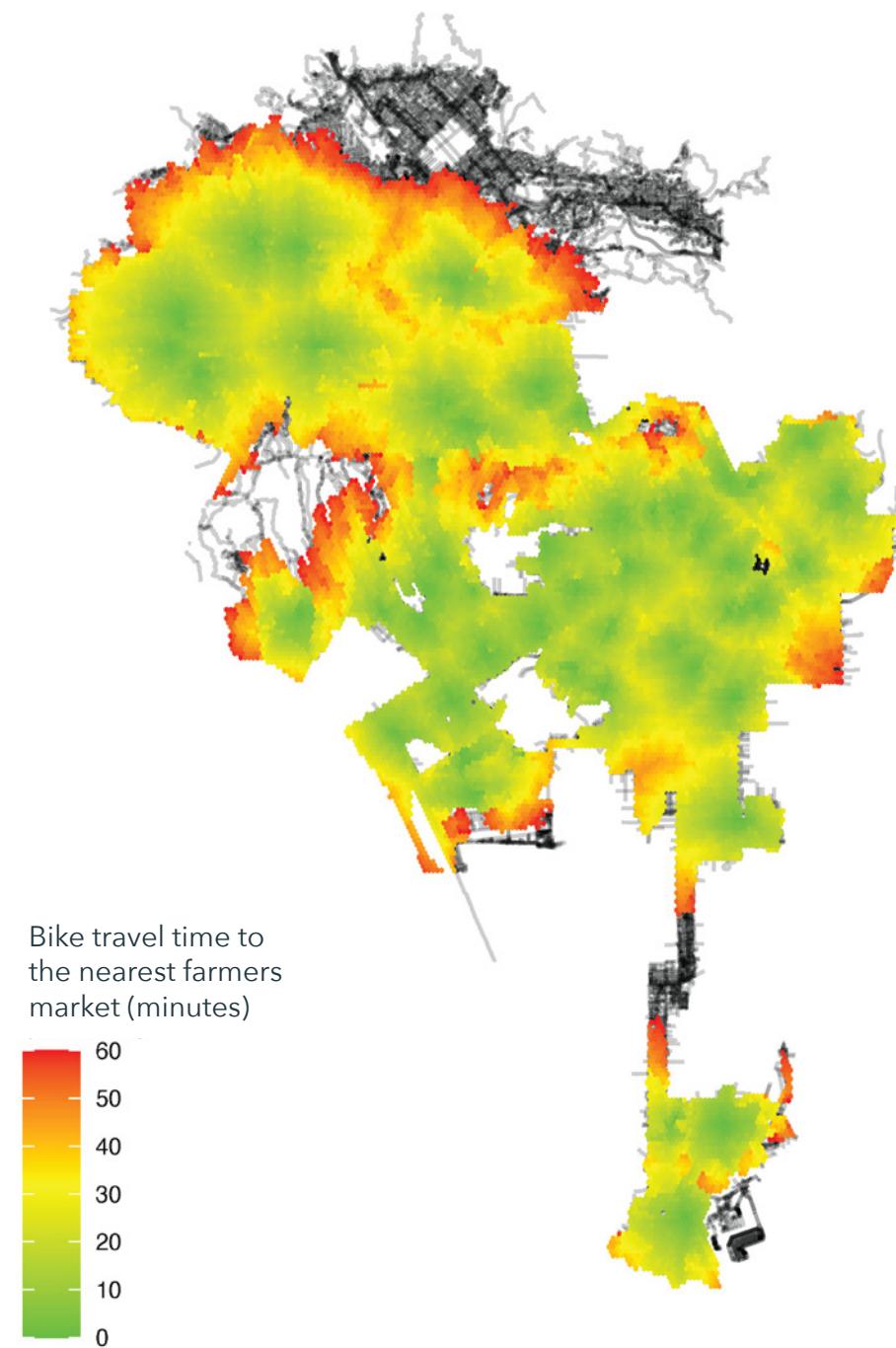


Transportation Analysis | Los Angeles

Using R Studio to analyze transportation networks, my team was interested in transportation access to farmers markets in Los Angeles. This map shows that much of the city has bike access to farmers markets within a 20 minute ride, but many areas are longer than 20 minutes. This map was just one in a series that analyzed different modes of transportation and used multiple visualization methods in R Studio.

Role: Team member with Gabriel Barrett-Jackson and Le Yang. Graphic shown is my own work.

Class: Spatial Analysis



Allston-Brighton Mobility Study | BPDA

In my time working at the Boston Planning & Development Agency (BPDA), I was an integral team member on the Allston-Brighton Mobility Study from start to finish. We managed a transportation consultant for the Plan content and analysis, but the BPDA team managed public engagement.

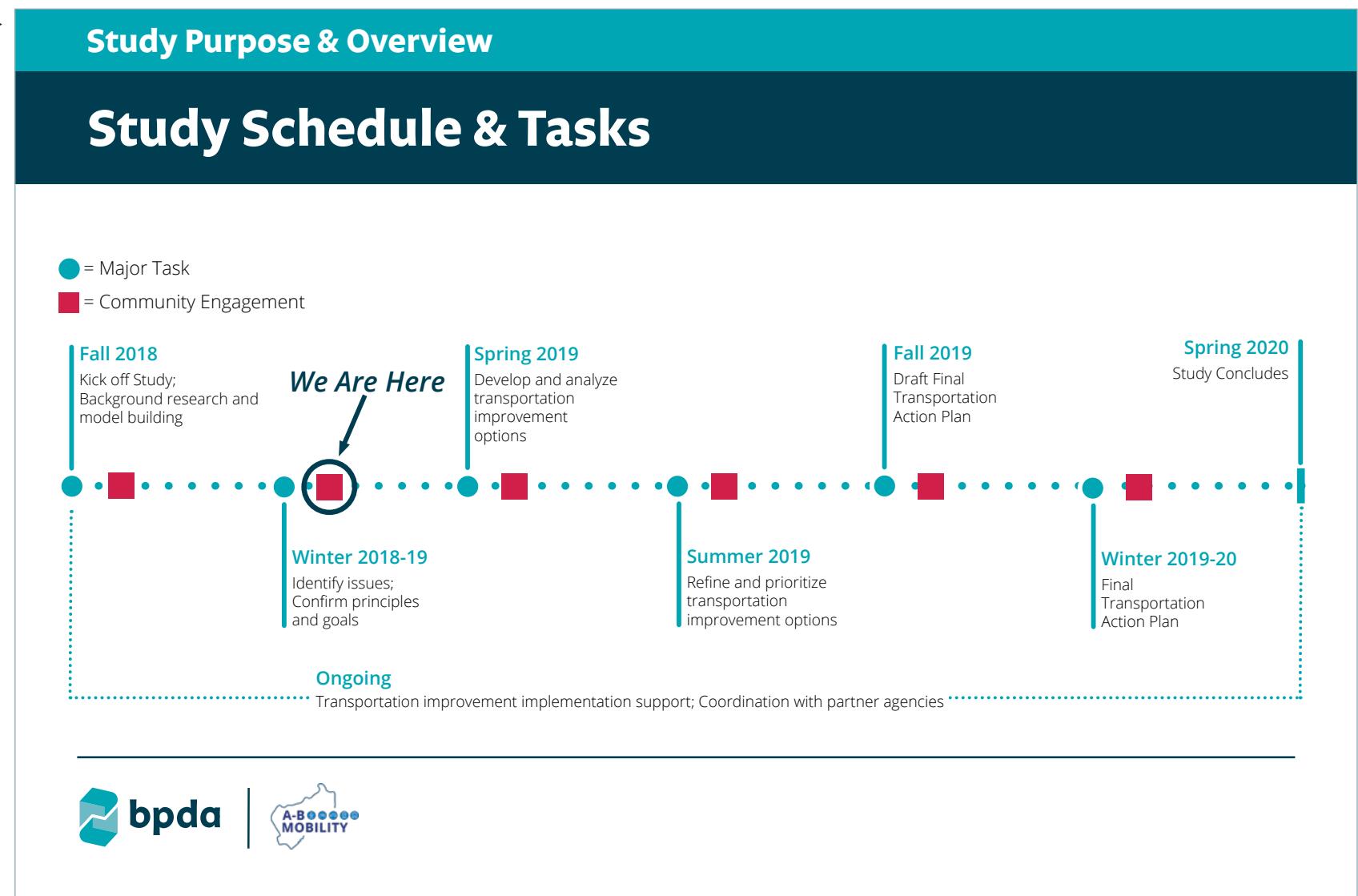
Role: Assistant project-managed for the BPDA, largely organizing community engagement and participating in weekly meetings to execute the Plan. Image on the right is the work of Kittleson & Associates, Inc.



ALLSTON-BRIGHTON MOBILITY PLAN



I created graphics for our public meetings throughout the entire planning process. This board provided a wayfinding point for community members who were part of the planning process.



Part of our public engagement included workshops and activities to prioritize transportation improvements. This activity instruction board helped community members shape the recommendations through a prioritization activity.

Next Steps

Improvements Toolbox

Recommending Improvements

- The A-B Mobility Open House in September 2018 focused on understanding what problems exist and where they are.
- Now, with your input, we want to identify and prioritize the areas of greatest need.
- This Toolbox encompasses a range of possible transportation improvements that we can consider for the A-B Mobility Study.

Instructions

- Grab a "Next Steps" handout; it describes two ways you can use the Toolbox including the Area Workshops happening in February and March as well as how to use the Online Map on your own time at maps.kittelson.com/allston-brighton

Pedestrian Improvements	Ramps/Neckdowns	Countdown Signal	Pedestrian Warning Signs	Lighting Improvements	Crosswalk Striping
Bicycle Improvements	Bicycle Lane	Bike Box/Bicycle Paint	Bicycle Parking	Bike Sharing	Bike Signage
Transit Improvements	Station Shelter	Bus Stop Signage	Post Schedules/Maps	Bus Lane	Bus Stop Consolidation
Vehicles & Parking	Traffic Calming	Enforcement	Drop-off/Pick-up Zone	Regulatory/Directional Signs	Signal/Timing Improvements
Placemaking & Beautification	Parklet	Street Trees/Landscaping	Wayfinding	Plaza/Art	Street Furniture



East Boston Parking Analysis | BPDA

I worked on PLAN: East Boston for 2 of my years at the BPDA, largely doing supportive work for the transportation components of the project. One aspect of this was running a parking study for 4 key areas in East Boston including developing a study methodology, organizing data collection, and running analysis.

The following graphics are included in the "East Boston Tomorrow" report that was released halfway through the planning process.

Role: Supporting team member. I did not design report layouts, but did create the content shown here.

Boston Planning & Development Agency
East Boston Tomorrow

Squares and Corridors
Technical Appendix Understanding On-street Parking

Technical Appendix: Understanding On-street Parking

Key Parking Questions
Parking Study Areas

The BPDA analyzed on-street parking and curbside regulations in several East Boston squares and corridors. Parking studies were conducted to inform the community engagement process with a baseline understanding of the availability and use of on-street parking. With these studies, the BPDA sought to answer the following key questions:

- » How many spaces are there?
- » How are those spaces regulated?
- » How often were spaces occupied?
- » How long did people park?

The BPDA selected parking study areas where new public realm or travel lane changes were under consideration:

- » Maverick Square to Central Square
- » Day Square
- » Orient Heights Square
- » Bennington Street east of Day Square

Planned study of Meridian Street and Border Street north of Central Square was abandoned due to extensive street construction that would have yielded atypical results.

Parking Study Highlights

	Day Square	Orient Heights Square	Maverick-Central Squares	Bennington Street*
How many parking spaces are there?	710	294	330	584
How often are spaces occupied throughout the day?	70%	68%	80%	52%
Which curbside regulation is the most common?	Resident / 2 Hour	Resident / 2 Hour	2 Hour	Unrestricted
How long are most people parked?	Under 1 Hour	Under 1 Hour	1-2 Hours	Under 1 Hour
How many people parked for less than one hour?	47%	54%	21%	35%
How many people parked for more than eight hours?	11%	10%	6%	15%
When is parking the most occupied?	8:00 PM (74%)	7:00 PM (79%)	11:00 AM (90%)	7:00 AM (54%)
When is parking the least occupied?	8:00 AM (62%)	7:00 AM (51%)	7:00 AM (66%)	8:00 AM & 5:00 PM (50%)

* Bennington Street in this table does not include the portions of Bennington Street that run through Day Square and Orient Heights Square. See pages XX-YY for more detail.

DRAFT - MAY 2021

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The map shows the geographic locations of the four parking study areas. Day Square is located in the central business district. Orient Heights Square is in the northern part of the study area. Maverick-Central Squares includes both Maverick and Central Squares. Bennington Street is a corridor running east-west through the study area, with sections labeled as Day Square and Orient Heights Square.

There are 4 parking study areas in East Boston, including Maverick-Central Squares, Day Square, Orient Heights Square, and Bennington Street.

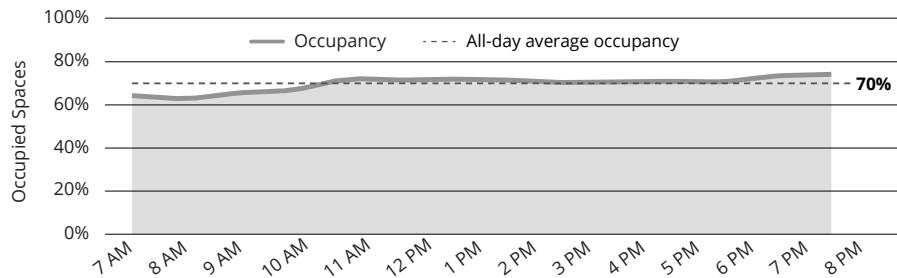
*Bennington Street data was collected in three separate study areas: Day Square, Orient Heights Square, and "Bennington Street". The Bennington Street section labeled on this map does not include the portions of Bennington Street that run through Day Square and Orient Heights Square.

Day Square Results

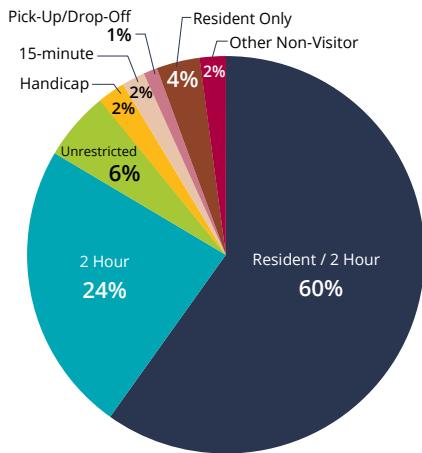
The 710 parking spaces saw consistent use all day but never exceeded 75 percent occupancy. There are several parking "islands" and surface lots in and around Day Square, which are highlighted in this analysis. Nearly 50 percent of people parked for less than one hour, meaning drivers could be running quick errands. The vast majority of parking spaces (84 percent) allow 2-hour visitor parking.

Weekday parking trends (7 AM-8 PM):
At 8:00 PM when parking is most full, 185 parking spaces are empty.

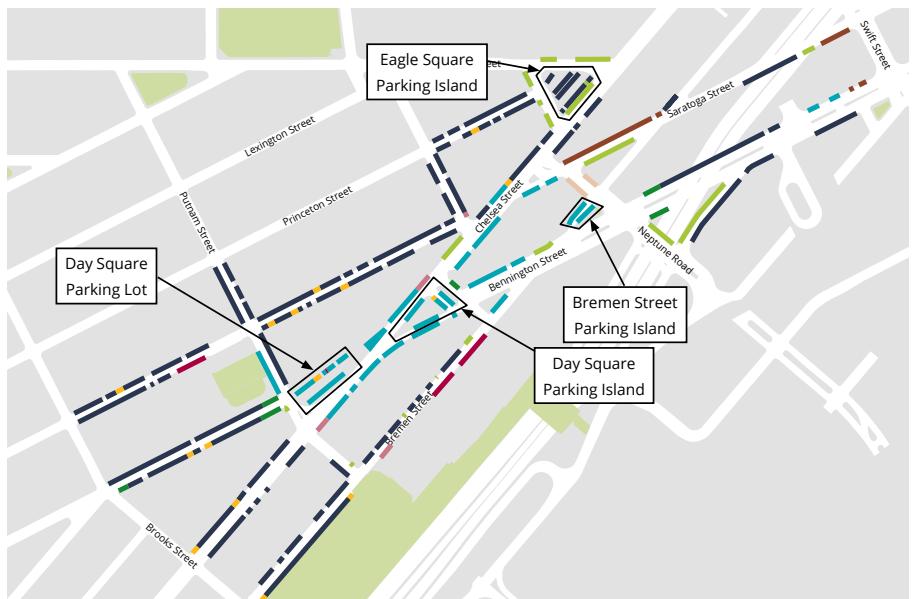
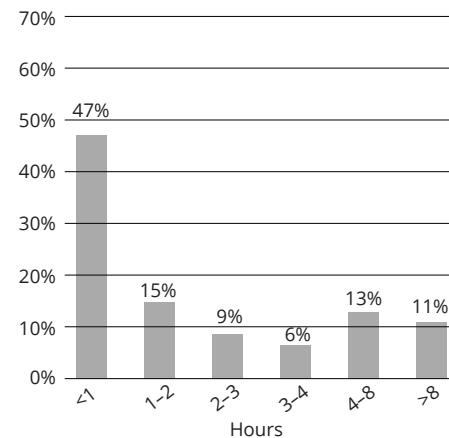
How often were spaces occupied?



How are spaces regulated?



How long did people park?



Day Square has several parking "islands" and parking lots in addition to on-street parking. For closer analysis, Day Square is divided into several sub-areas to understand parking behavior on a smaller scale. These areas include the "Day Square Parking Lot," the "Eagle Square Parking Island," the "Bremen Street Parking Island," the "Day Square Parking Island," Chelsea Street, and Bennington Street.

- ▲ Each study area included a summary analysis of occupancy, parking duration, and inventory of parking space regulations.

How are spaces regulated?

	Total		Resident / 2 Hour		2 Hour		Unrestricted	Resident Only	Handicap	Pick-Up/ Drop-Off	15-minute		Commercial	Other Non-Visitor	
	Resident / 2 Hr M-F 8-6	Resident / 2 Hr	2 Hr M-F 8-6	15 Min M-F 8-6	15 Min M-F 8-6	School Day Parking 7-5	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?

	Capacity	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	Avg. Spaces Occupied
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%	92%	84%	95%	86%	81%	84%	89%	65%	68%	76%	70%	84%
Bremen Street Parking Island	9	33%	56%	67%	78%	89%	89%	78%	78%	100%	67%	33%	67%	89%	33%	68%
Day Square Parking Island	24	58%	50%	54%	83%	92%	96%	92%	96%	92%	96%	100%	96%	96%	96%	85%
Day Square Parking Lot	42	64%	55%	50%	52%	74%	81%	67%	57%	57%	57%	71%	81%	86%	93%	68%
Chelsea Street	129	59%	54%	67%	73%	82%	81%	82%	84%	75%	75%	84%	75%	78%	86%	75%
Bennington Street	117	64%	63%	69%	68%	69%	62%	64%	65%	62%	66%	63%	68%	65%	68%	66%

Less Occupied

More Occupied

How long did people park?

	Parked Vehicles	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%	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%	0%	1%	4.9	4.2	0.5
Day Square Parking Lot	197	63%	17%	9%	2%	2%	2%	2%	1%	2%	0%	0%	1%	0%	1%	4.7	2.1	0.5
Chelsea Street	420	49%	17%	9%	7%	5%	2%	2%	2%	2%	1%	1%	1%	0%	4%	3.3	4.0	1.5
Bennington Street	329	45%	14%	9%	9%	5%	4%	4%	2%	3%	2%	1%	1%	1%	3%	2.8	3.8	1.5

*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.

Shorter Duration

Longer Duration

▲ A detailed table is included for each study area to show an inventory of regulated spaces as well as occupancy and duration throughout the day.

Fairmount Line Wayfinding | BPDA

As part of the Imagine Boston 2030 initiative, the BPDA and Boston Transportation Department created wayfinding signs for the Fairmount Commuter Rail Line to let residents and visitors know where the stations are and what destinations or other points of interest are nearby.

I created these signs for 6 stations along the Fairmount Line. They were installed throughout my tenure at the BPDA, with the signs for two stations being installed after I departed the agency.

Role: Cataloged all destinations and times for each station, created all signs for stations, and coordinated on implementation. I did not design the original layout for the signs, but refined the design when I joined the project team.

