

An aerial photograph of Manchester-by-the-Sea, Massachusetts, showing a harbor filled with numerous boats. The harbor is surrounded by lush green trees and some buildings. In the background, there are several small islands in the water. A semi-transparent white box is overlaid on the center of the image, containing the title and subtitle text.

Manchester-by-the-Sea

MBTA Communities Act Task Force

MIT Research Presentation
December 7, 2023

Agenda

- Class Context
- Manchester-by-the-Sea Today
- MBTA Communities Act Implementation
- Speculative Design Concept of the Station Area
- Infrastructure Considerations





Agustina R. Biasone
Law & Urban Policy



Ana Letelier
Resilience, Community
Engagement



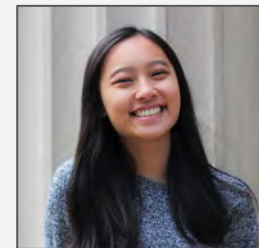
Annabel Consilvio
Design & Community
Development



Claire Gorman
Computing &
Environmental Design



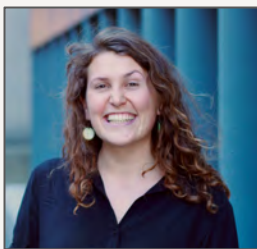
Elisha Zhao
Climate



Emily Fang
Climate Resilience



Emma Heneine
Health & Sustainability



Hazel O'Neil
Public Space & Services



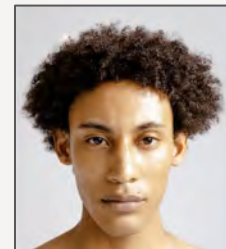
McKenzie Humann
Sustainable Transportation



Melissa Hill
Healthy Communities



Nineveh O'Connell
Equitable Access



Nolen Scruggs
Housing & Climate



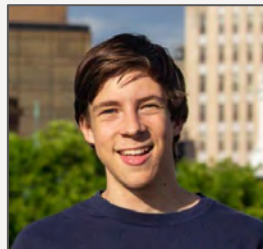
Pancho Mackin-Plankey
Housing & Sustainability



Sanne Wright
Housing & Community
Development



Sally Oh
Equity & Climate



Seamus Joyce-Johnson
Sustainable Transportation



Tiandra Ray
Climate Resilience



Victoria Santiago
Urban Policy



Agustina R. Biasone
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Ana Letelier
**Resilience, Community
Engagement**



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Class Context

MIT's Department of Urban Studies & Planning offers **11.360 Community Growth & Land Use Planning** every other year to support communities in Greater Boston facing a planning challenge related to growth & change.

Class Timeline

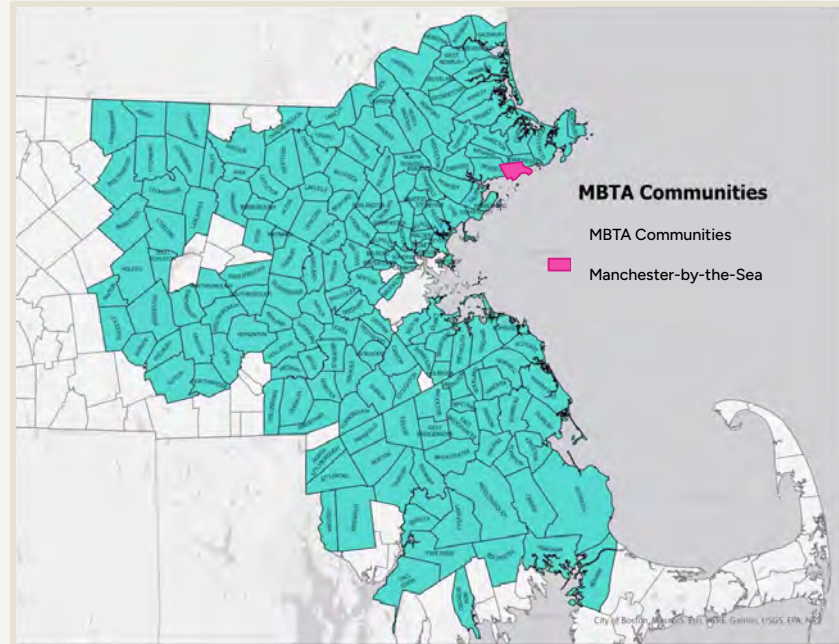
September–December 2023

Instructors

Jeff Levine & David Gamble

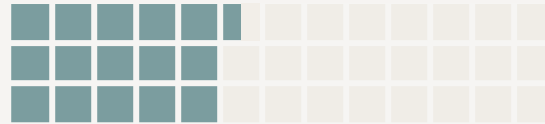


Fall 2023 Focus: Compliance with the MBTA Communities Act

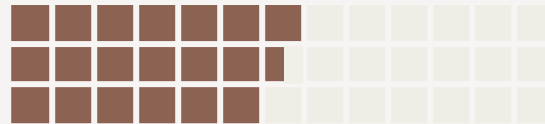


1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26
27	28	29	30	31	32	33	34	35	36	37	38	39

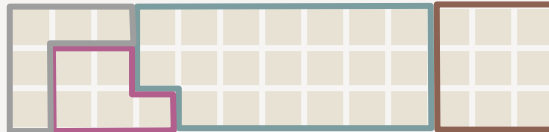
39 acres rezoned to permit **multi-family housing by-right** for min. avg. density of **15 units/acre**



40% of total acres (15.6 acres) are within **1/2-mile** radius of the train station



50% (19.5 acres) of the rezoned districts must be **contiguous**



Minimum acreage for any rezoned district is **5 acres**

585 units of cumulative housing permitted

Semester Timeline



In Our Last Presentation...

- Where would you most like to see new growth in Manchester?
- What characteristics of Manchester today are most important to you to preserve?
- How do you imagine Manchester in the future? ***What are your priorities to achieve this vision?***



What We've Heard: Town Priorities

- Respecting the Town's **character**
- Preserving the **historic** district
- Adjusting parking & **mitigating** traffic congestion
- Ensuring minimal impact on **water** & sewage system
- Increasing affordable **housing**



Our Approach: Principles for Rezoning



- 1. Align design proposals with town character & promote community connection through open space & housing.**
- 2. Prioritize preservation of the historic district, & harmoniously incorporate development.**
Assess influence on the broader mobility landscape, addressing needs & promoting **efficient & sustainable systems.**
- 3. Incorporate water & sewage impact analysis for responsible resource management.**
- 4. Contribute to an increase of affordable housing options, promoting inclusivity & addressing the Town's diverse housing needs.**



Manchester by the Sea Today

Manchester-by-the-Sea is a **Great Historic Town**



With a Beautiful Waterfront



And Many Great Spaces



A street scene in a historic town, likely in the Northeastern United States. The main building is a three-story structure with light-colored horizontal siding and a prominent bay window on the second floor. The ground floor features a storefront with large display windows and a dark wooden awning. To the right, a smaller building with dark grey siding and a sign that reads "MOLISE" is visible. The street is paved with asphalt and has a double yellow line. In the background, other historic buildings and a street lamp are visible under a clear blue sky. A semi-transparent white banner is overlaid across the middle of the image, containing the text "MBTA Communities Act Implementation".

MBTA Communities Act Implementation

Zoning Overlay District Recommendations

Multifamily Residential Overlay

Mixed-Use Development Overlay

Lot Size & Selection

No minimum lot size
50% maximum lot coverage for lots >10,000 ft²; 70% for lots <10,000 ft²
Mix & match sites to meet MBTA Communities Act

Recommended around MBTA Commuter Rail Station
Can be used for ¼ of unit allowance (146 for Manchester)*
State pre-approval required 90 days ahead of Town vote*

Building Makeup

Develop 15 units/acre by right* with no fewer than 3 units/parcel
Develop up to 3 stories

Non-residential use on ground floor (up to ⅓ of building)*

Parking

No minimum for residential use

No minimum for non-residential use*

*Indicate zoning requirements by the State.

Overall Map of Sites

7. Limited Commercial District (LCD)

6. Old Essex Road

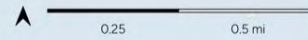
5. School Street

4. Saw Mill Circle

2. Summer Street

3. Bridge Street

1. Station Area

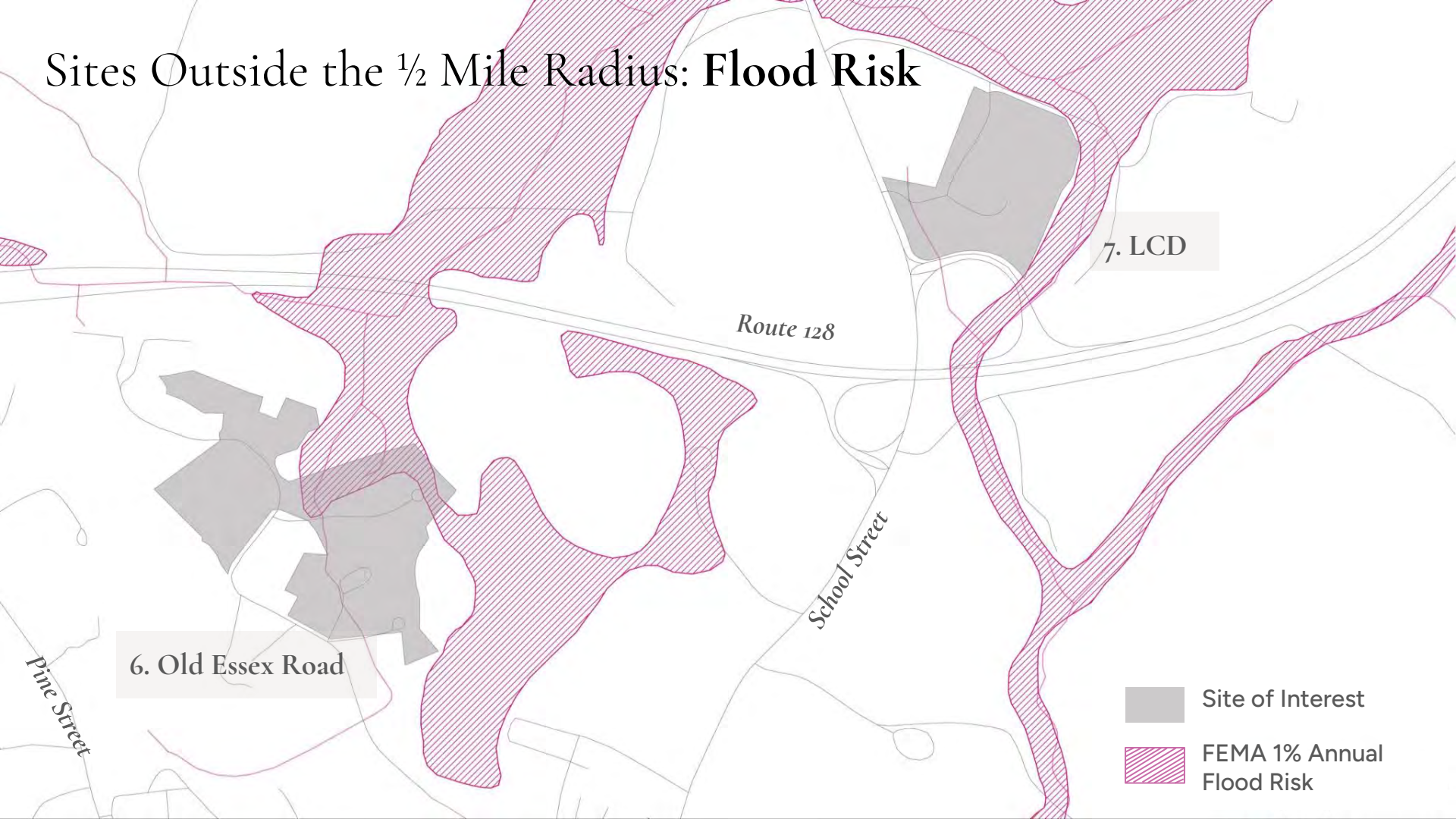


Site Overviews: Outside the ½ Mile Radius

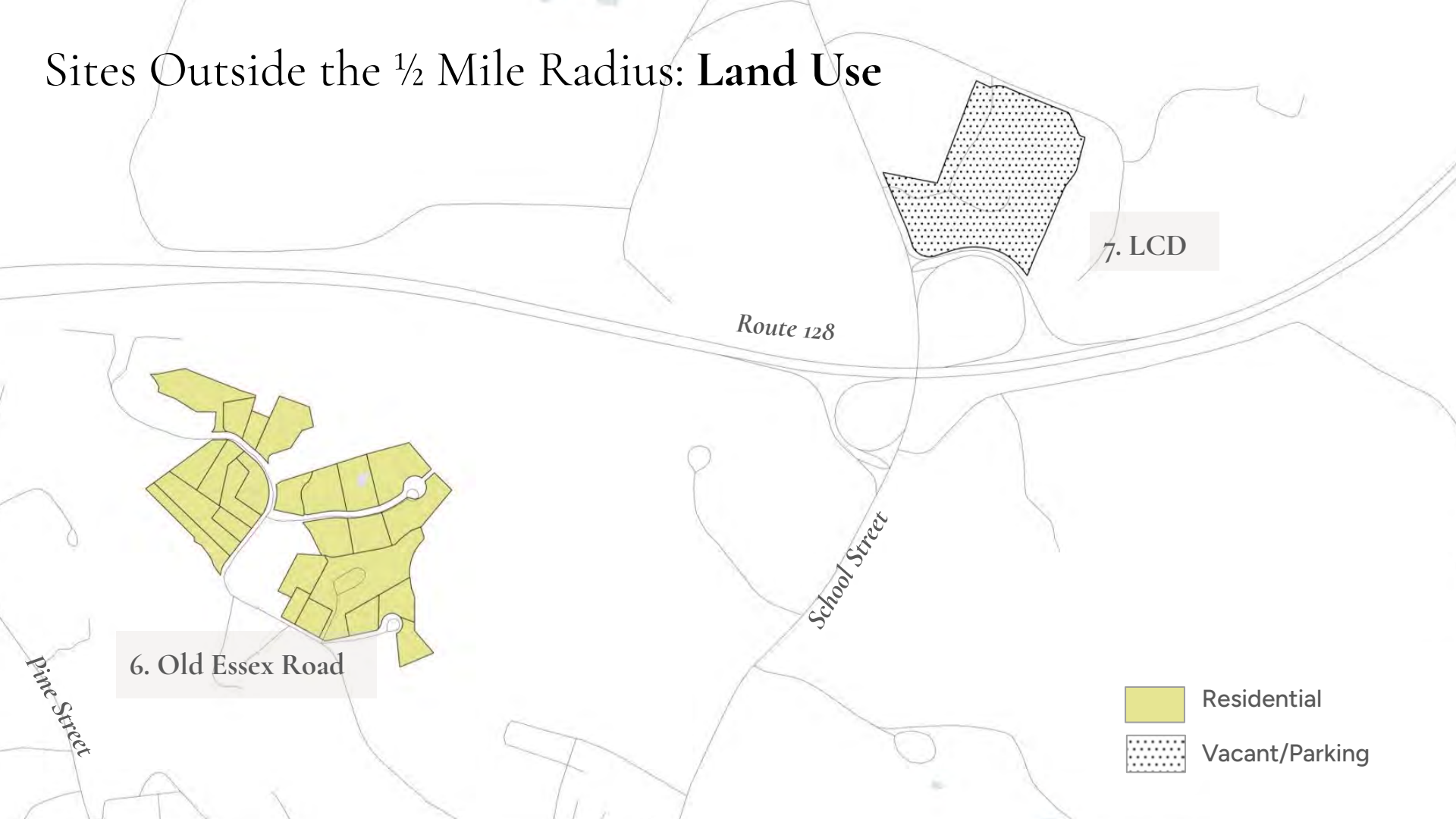


	Existing High Density	Available Land to Develop	Within Historic District	Acreage
Site 7: LCD	✓	X	X	13
Site 6: Old Essex Road	X	✓	X	22.5

Sites Outside the ½ Mile Radius: Flood Risk



Sites Outside the ½ Mile Radius: Land Use




7. LCD

Route 128

School Street

Pine Street

6. Old Essex Road

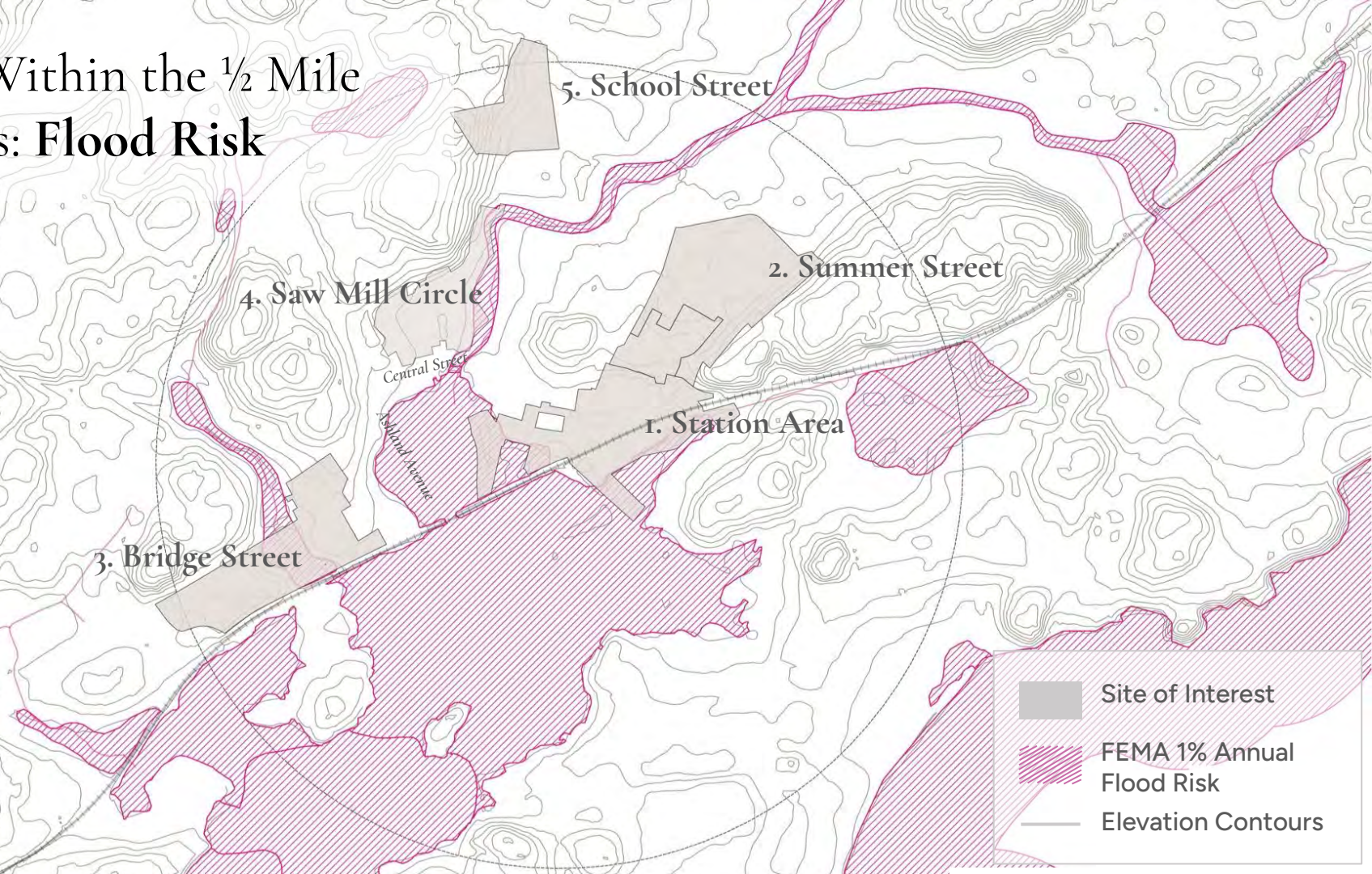
-  Residential
-  Vacant/Parking

Site Overviews: Within the ½ Mile Radius



	Existing High Density	Available Land to Develop	Within Historic District	Acreage
Site 5: School Street	X	✓	X	6.9
Site 4: Saw Mill Circle	✓	X	X	7.3
Site 3: Bridge Street	X	✓	X	11.8
Site 2: Summer Street	X	✓	Partial	12.3
Site 1: Station Area	✓	✓	Partial	14.2

Sites Within the ½ Mile Radius: Flood Risk



5. School Street

2. Summer Street

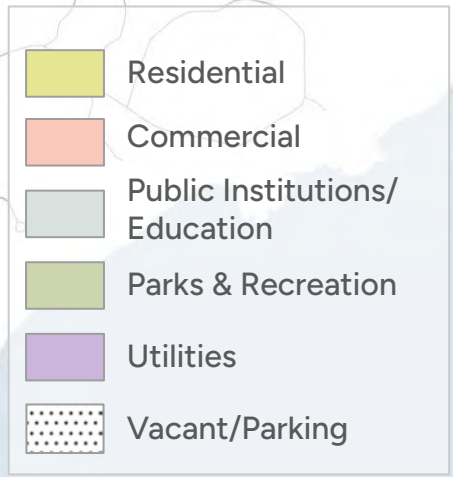
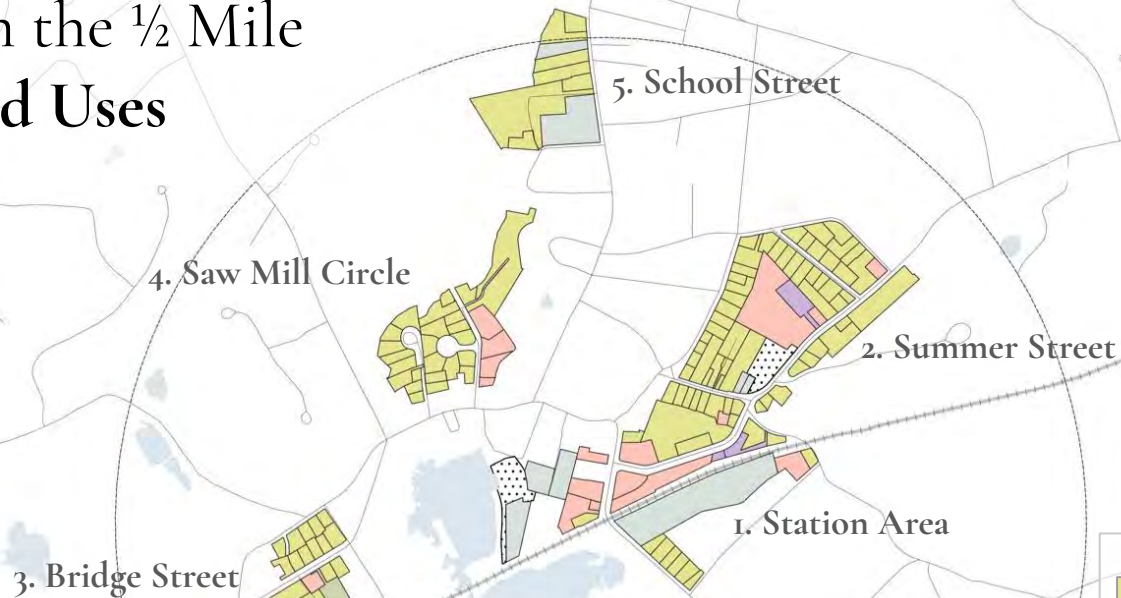
4. Saw Mill Circle

1. Station Area

3. Bridge Street



- Site of Interest
- FEMA 1% Annual Flood Risk
- Elevation Contours

Sites Within the ½ Mile Radius: Land Uses

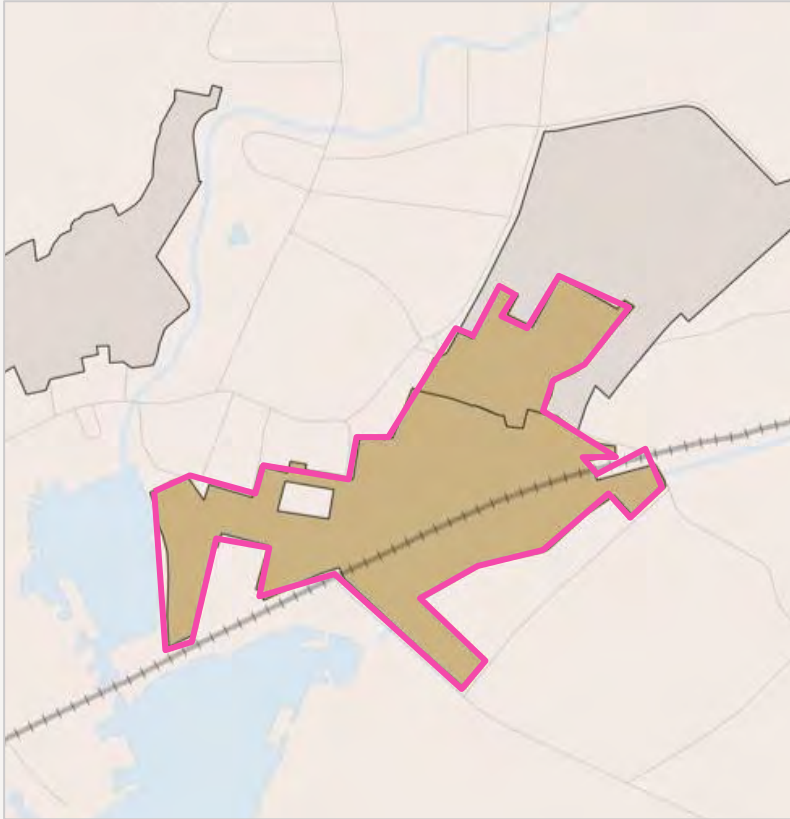


Sites Within the ½ Mile Radius: **Historic District**

-
1. Station Area
 2. Summer Street
 3. Bridge Street
 4. Saw Mill Circle
 5. School Street

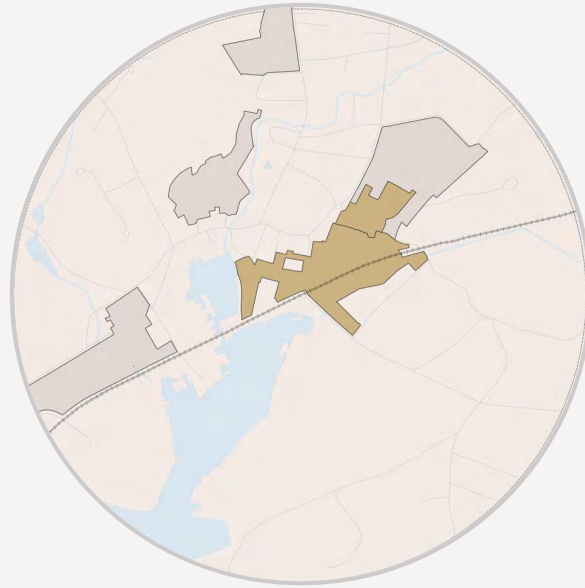
-  Sites of Interest
-  Historic District

Key Takeaway: Opportunity for Redevelopment of Station Area

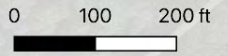


- **Prime location for transit-oriented development** with access to & views of the beautiful waterfront
- **Diverse land uses & commercial core** are desirable for new development
- Flood risk requires mitigation, including **replacing existing impervious surfaces** with permeable surfaces & green spaces
- **Surface parking around train station** exacerbates flood risk & does not contribute to the Town's beauty

Speculative Design Concept
Introducing a Revitalized Station Area



Existing Public Green Spaces



Existing Public Green Spaces & Building Frontage



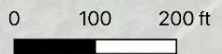
— Building Frontage

0 100 200 ft

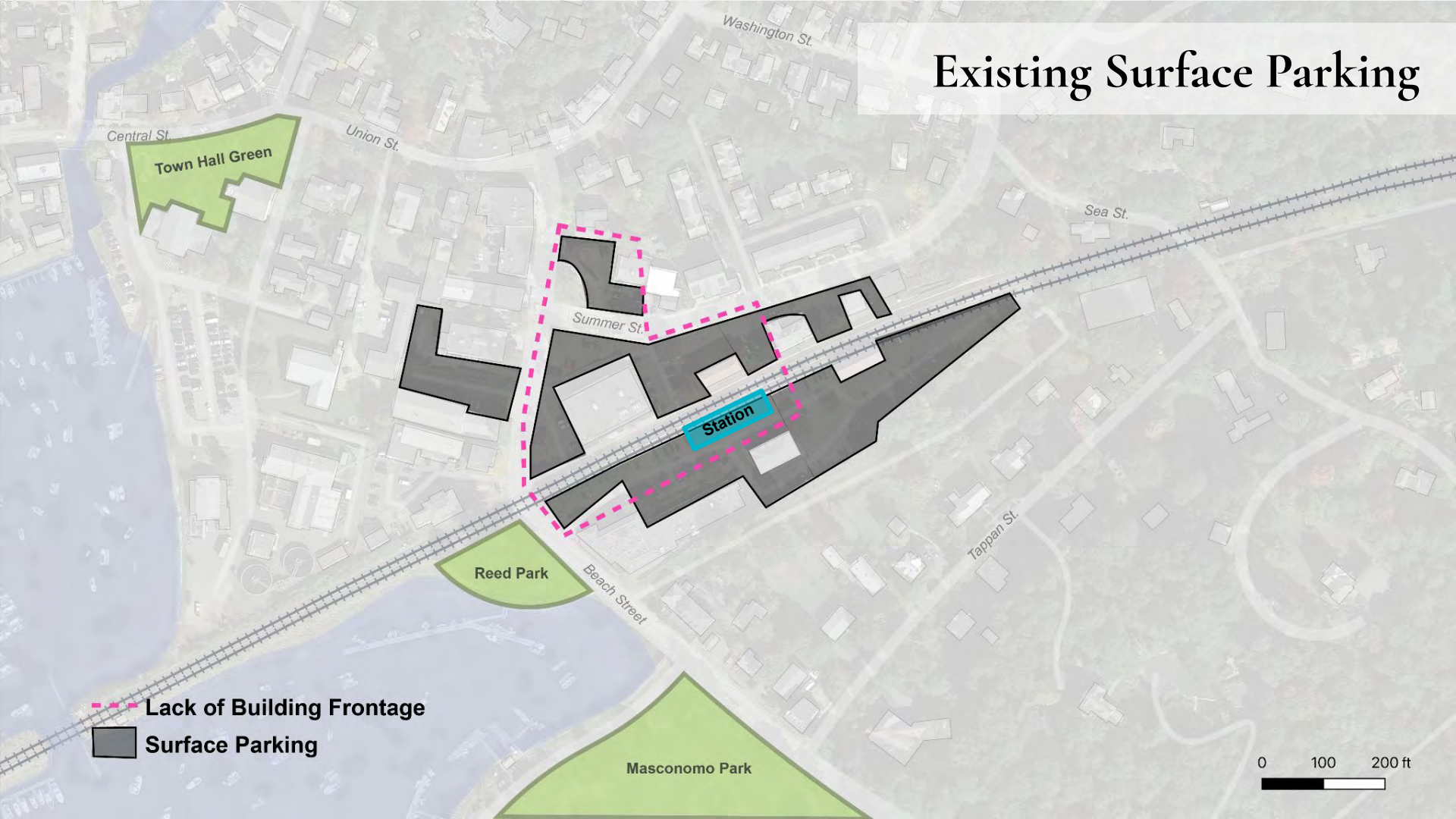
Gap in Existing Building Frontage



- Building Frontage
- - - Lack of Building Frontage



Existing Surface Parking



--- Lack of Building Frontage

■ Surface Parking

0 100 200 ft

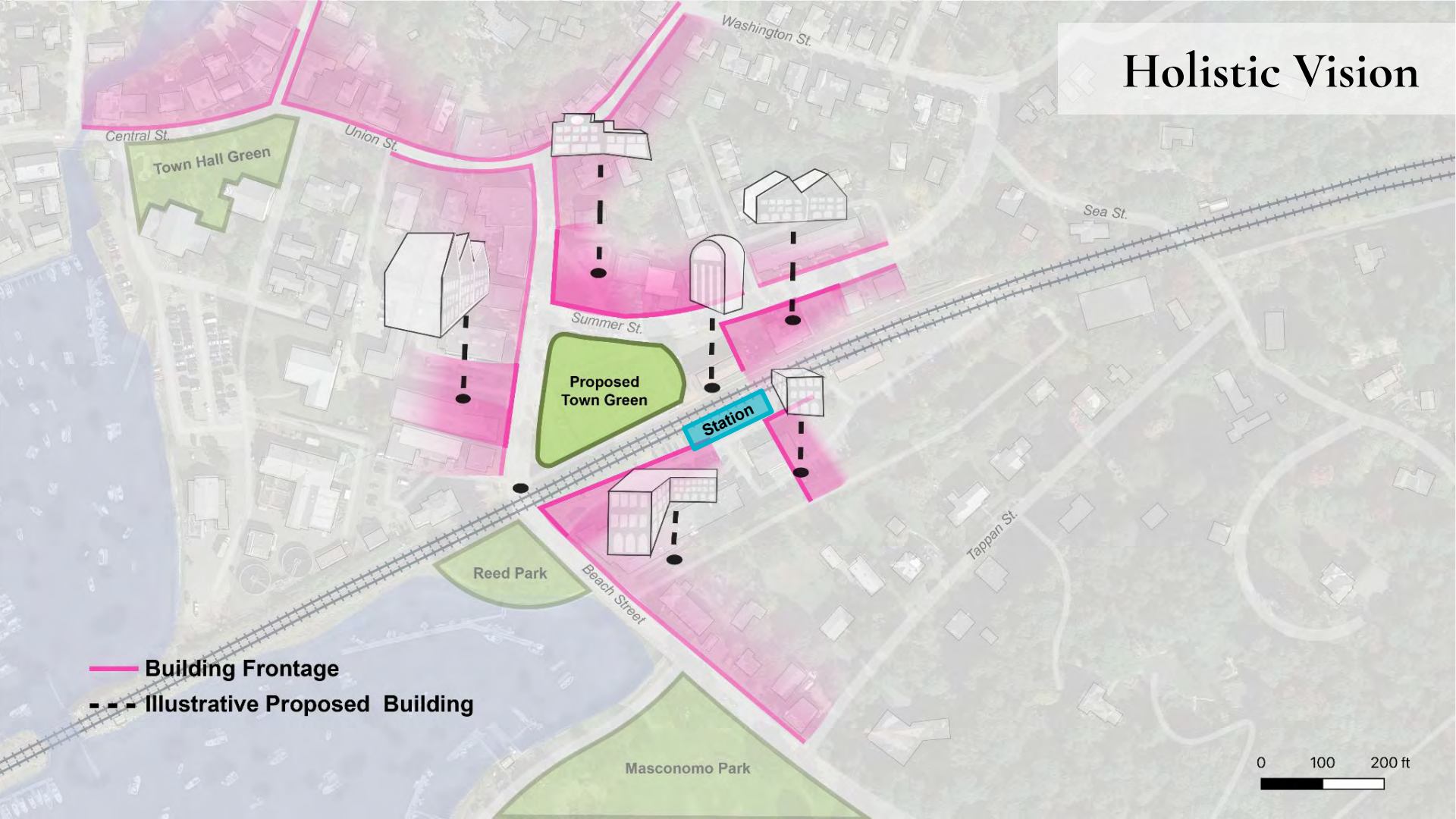
Town Green Introduction



Building Frontage

0 100 200 ft

Holistic Vision



Public Spaces Serve as Focal Points Across Towns in Massachusetts



Nantucket



Lexington



Historic Manchester-by-the-Sea

Manchester by the Sea, Mass. Yachts in Lower Harbor

Revitalizing the Station Area Design Concept



Manchester by the Sea, Mass. Yachts in Lower Harbor

Imagining a vibrant town green that
creates opportunities for
connection



Manchester by the Sea, Mass. Yachts in Lower Harbor

Imagining a vibrant town green that
supports local businesses



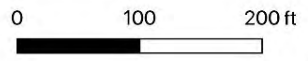
Manchester by the Sea, Mass. Yachts in Lower Harbor

Imagining a vibrant town green that
meets Manchester's housing needs





- 1** Community Center, Grocery Store, Low-Rise Apartments
- 2** Commercial Storefronts, Low-Rise Apartments
- 3** Town Green
- 4** Station Building & Cafe
- 5** Low-Rise Apartments
- 6** Commercial Storefronts, Low-Rise Apartments
- 7** Low-Rise Apartments
- - Existing Buildings to be Replaced



Building Considerations: **Massing**

5 buildings with **3 stories** each

Height of 30-34 ft*,
meeting Multi-Family &
Mixed-Use Development Overlay



*Assuming floor-to-floor height of 10 ft. for residential floors and 14 ft. for commercial floors.

Building Considerations: Housing

122 residential units*

23 units/acre, which exceeds the MBTA Communities Act mandate



*Assuming 80% floor plate efficiency and 1,000 ft²/unit.

Building Considerations: **Parking**

260 parking spots

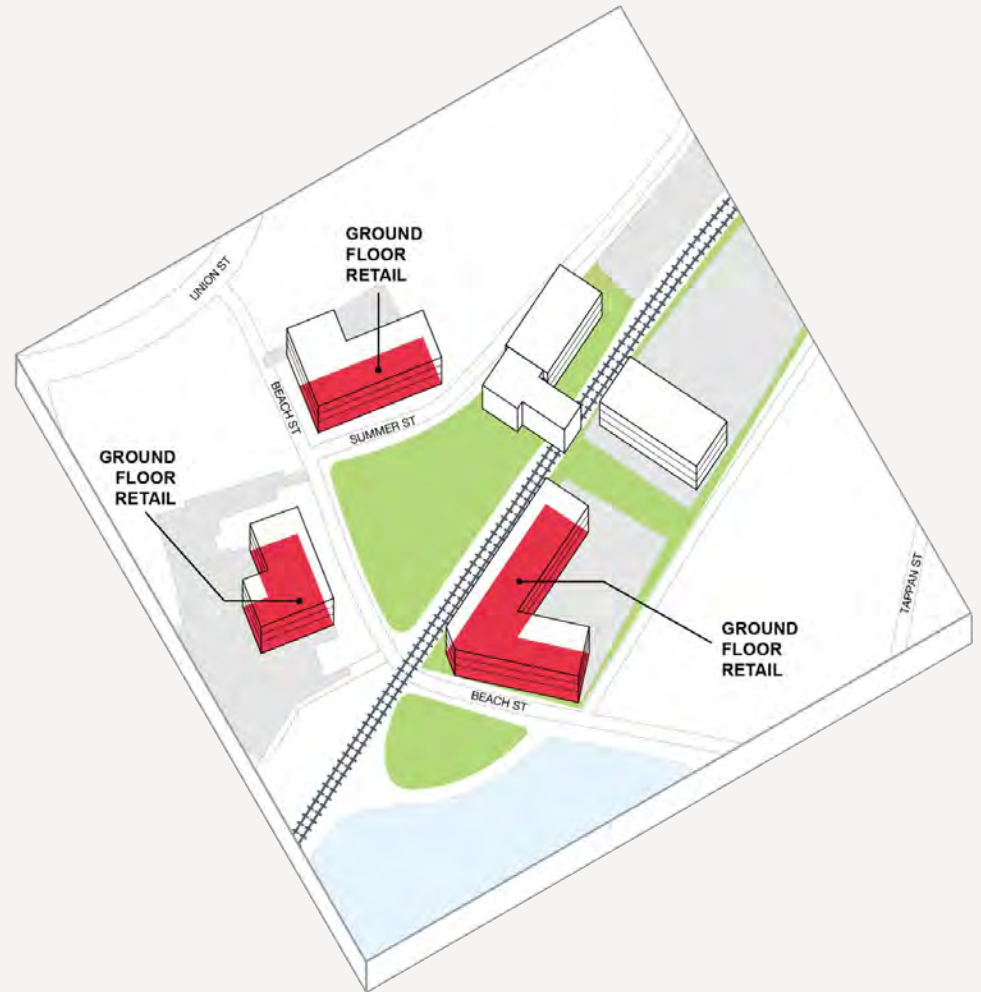
1 spot/housing unit + 138 parking spots* for grocery store, community center, & train commuters



*Existing conditions lot has ~70 parking spots. This design has extra parking spots, and could accommodate more residential density.

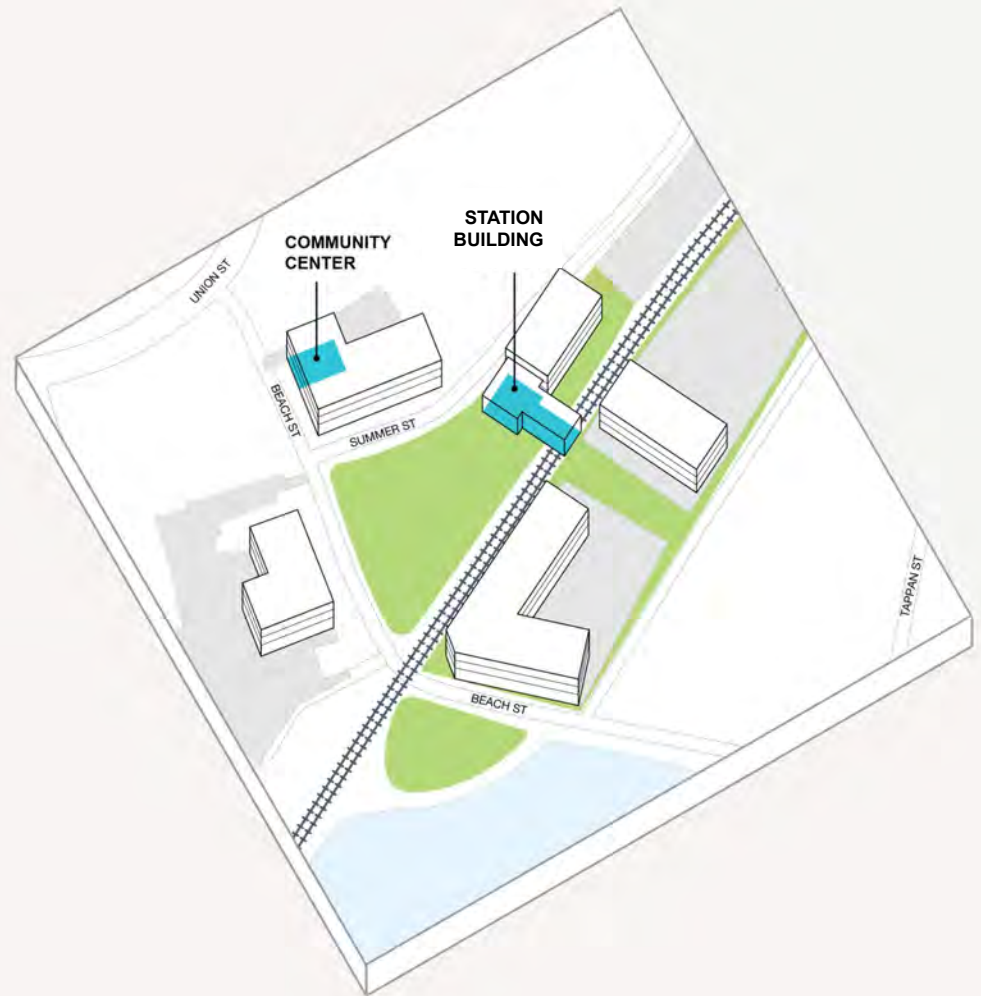
Building Considerations: Retail

Total gross retail floor area of **44,300 ft²**.

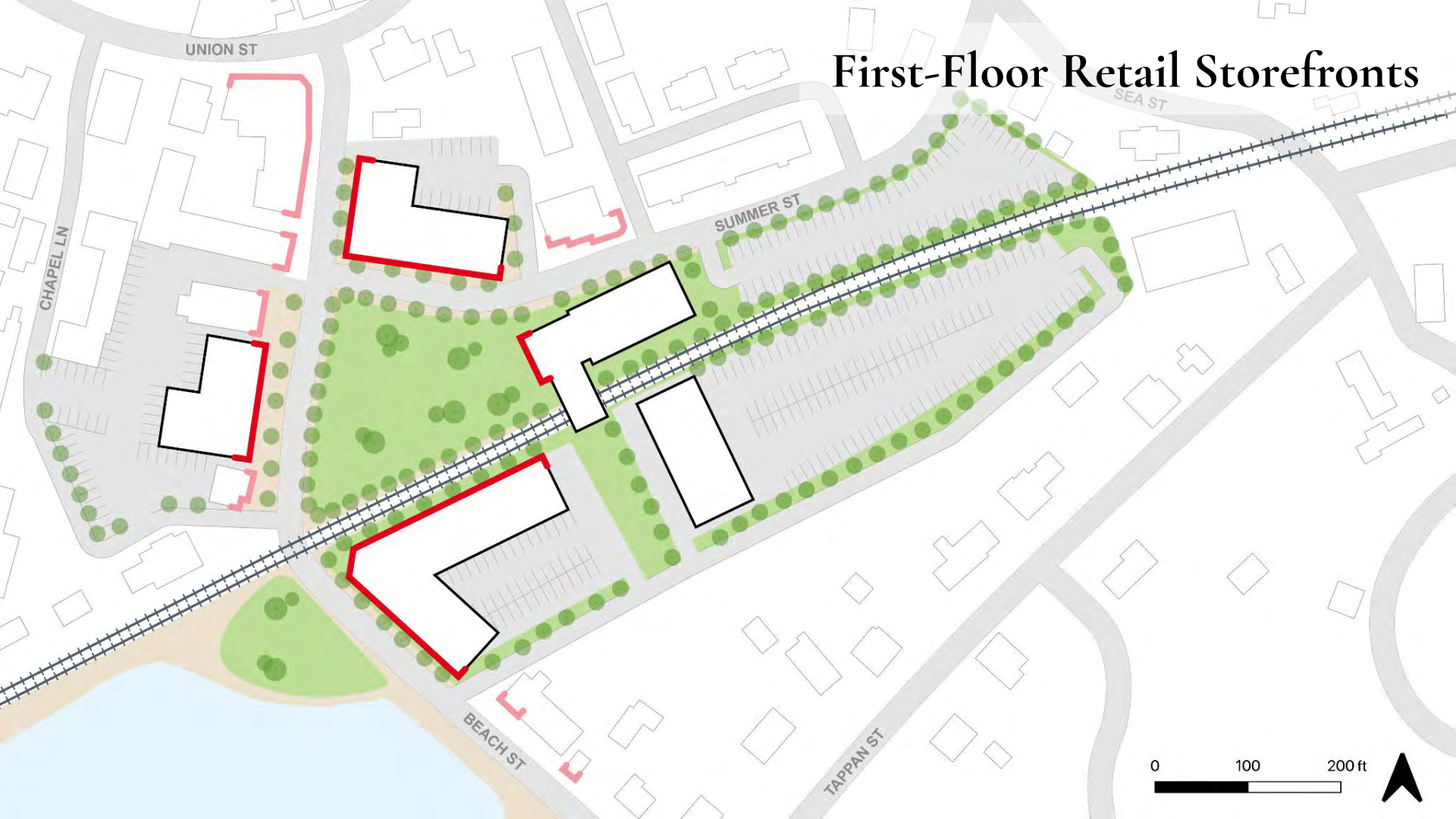


Building Considerations: Civic

Community Center is more proximate to **Town Hall**, while **Train Station** overlooks the Town Green



First-Floor Retail Storefronts



Public Realm



Town Green Visions: Environmental Resilience

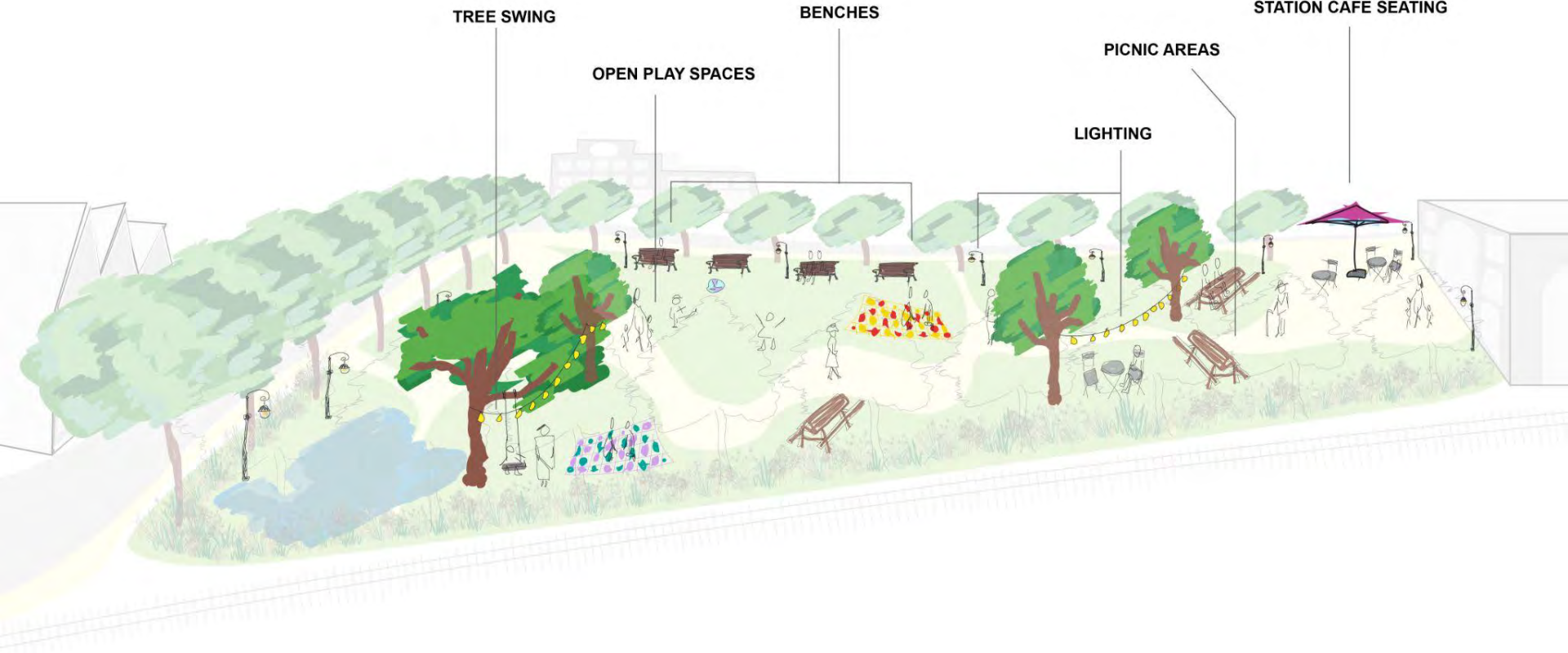


Town Green Visions: Events & Community Gathering

MARKET VENDORS



Town Green Visions: Recreation & Leisure

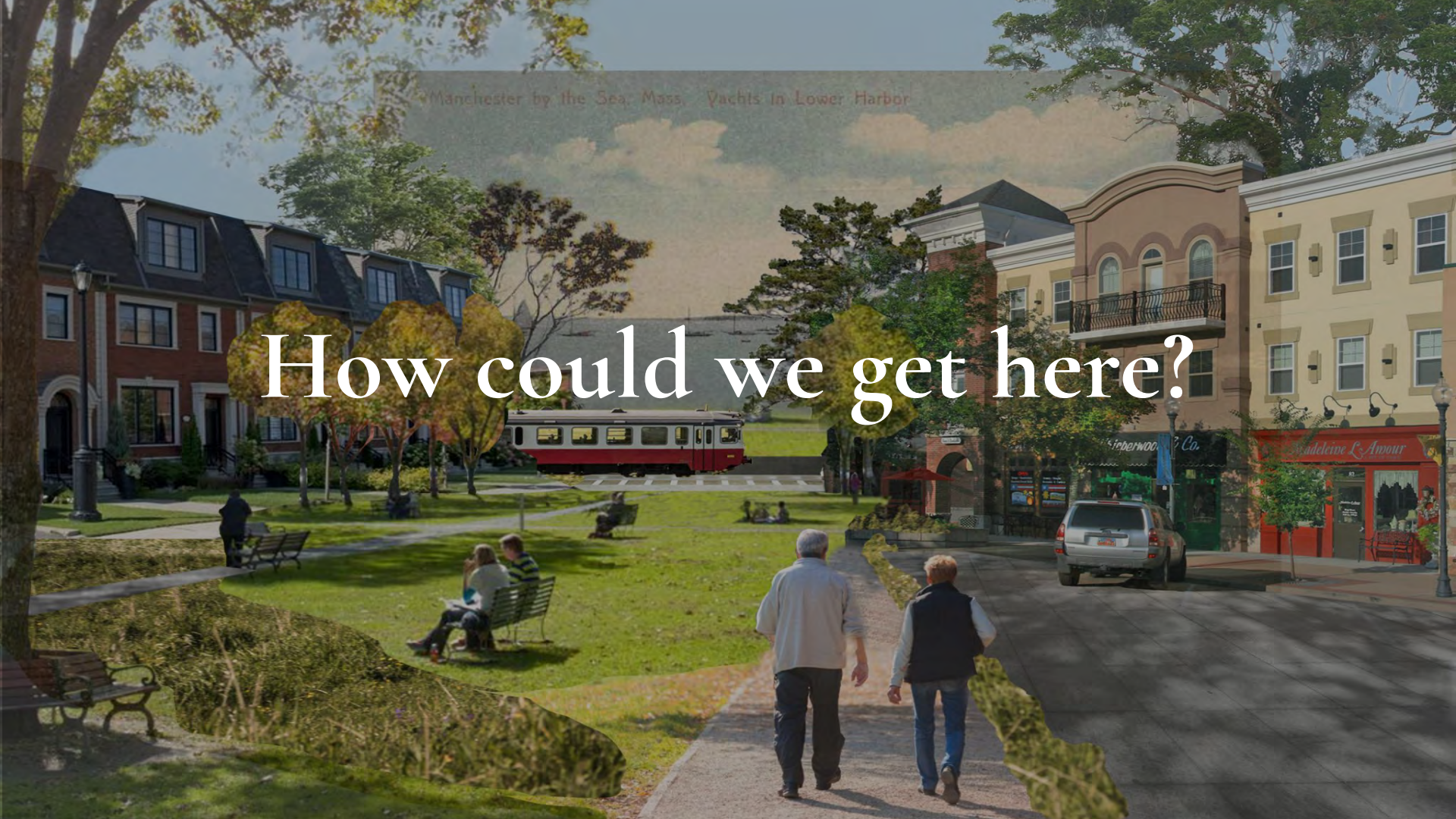


Town Green Visions: **Vibrant Town Center**

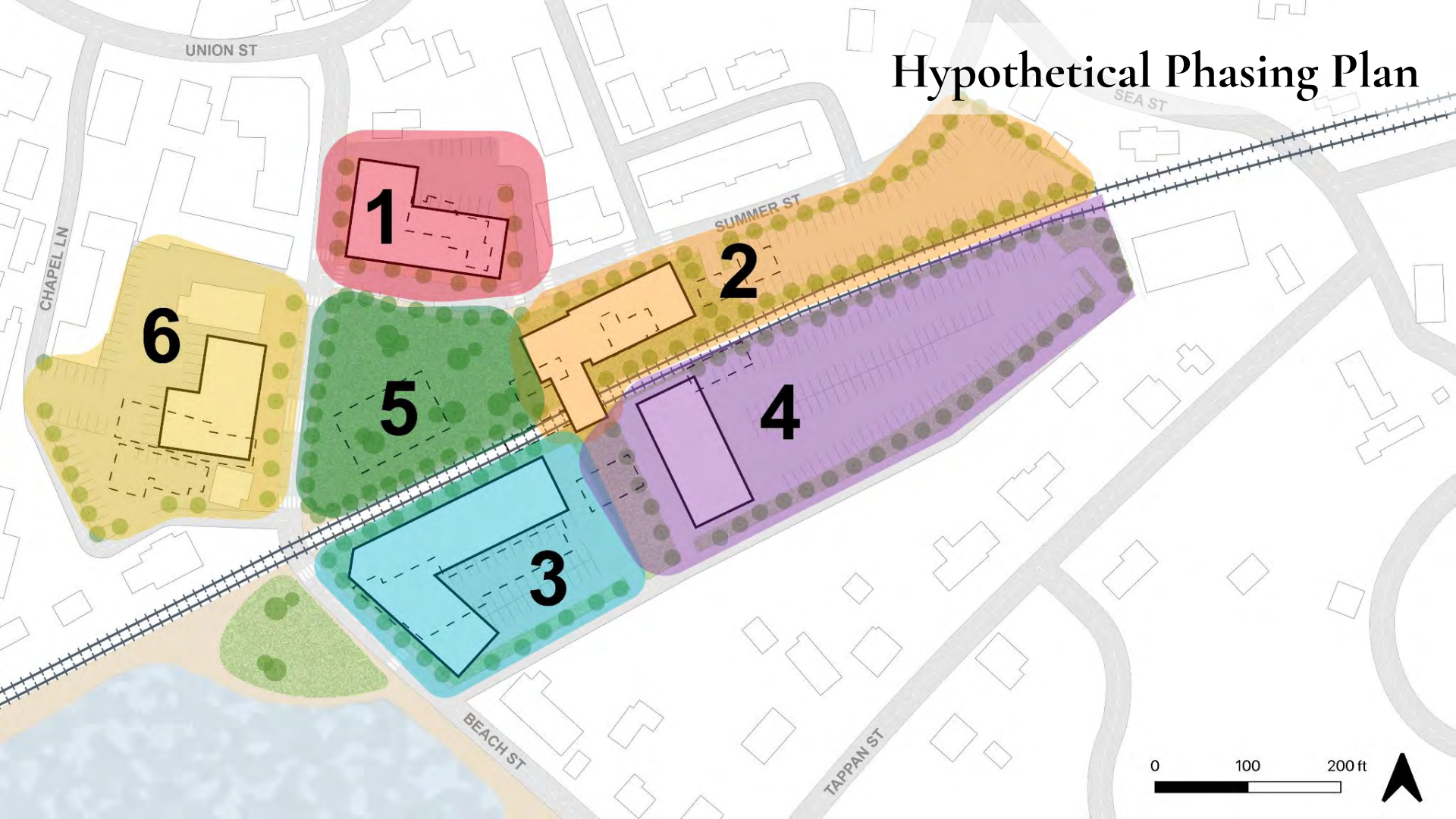


Manchester by the Sea, Mass. Yachts in Lower Harbor

How could we get here?

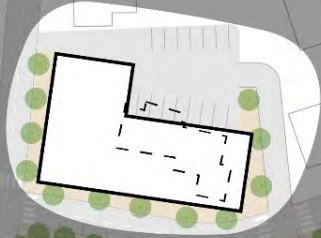


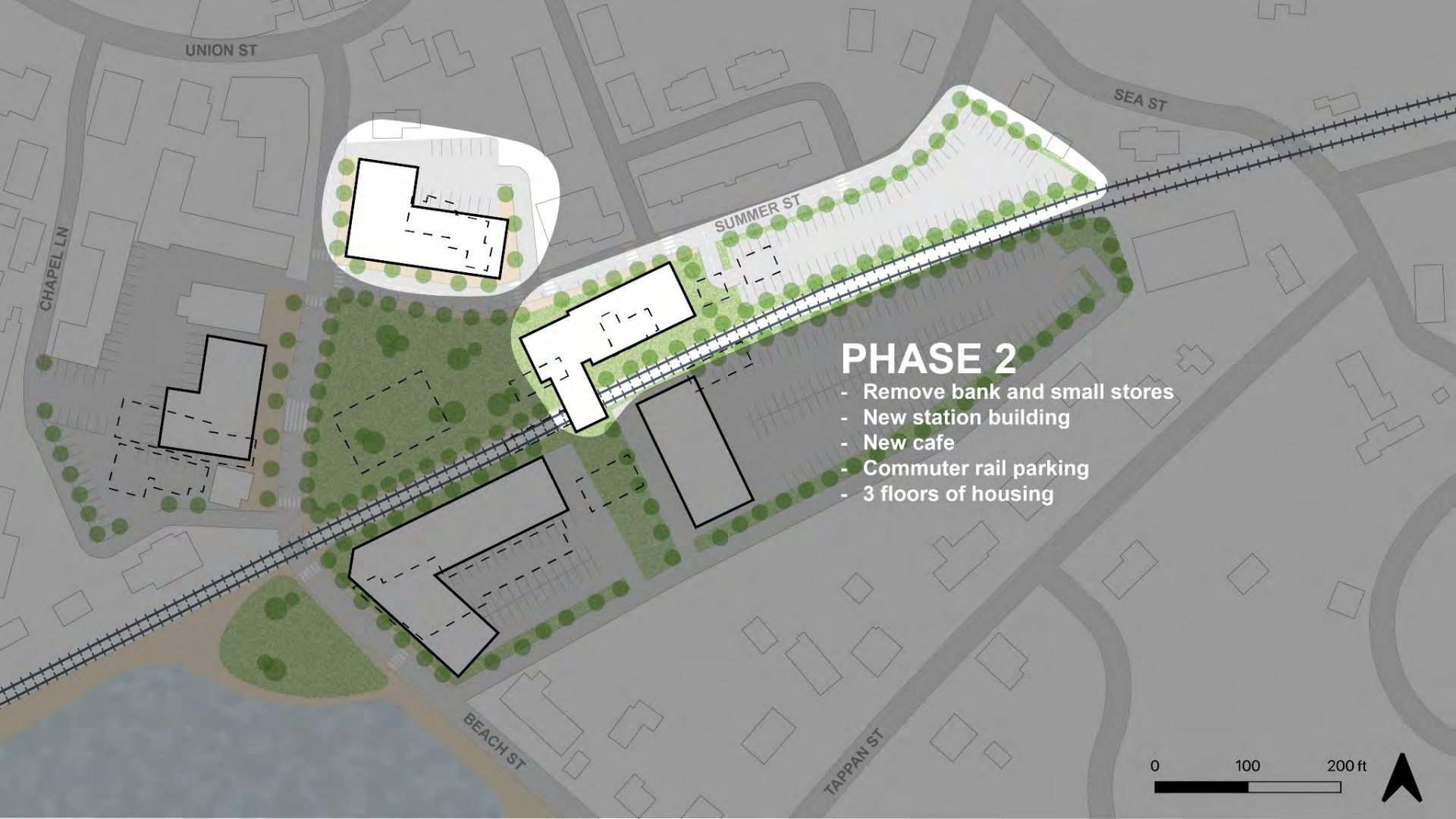
Hypothetical Phasing Plan



PHASE 1

- Remove gas station
- New grocery store
- New community center
- 2 floors of housing





UNION ST

CHAPEL LN

SEA ST

SUMMER ST

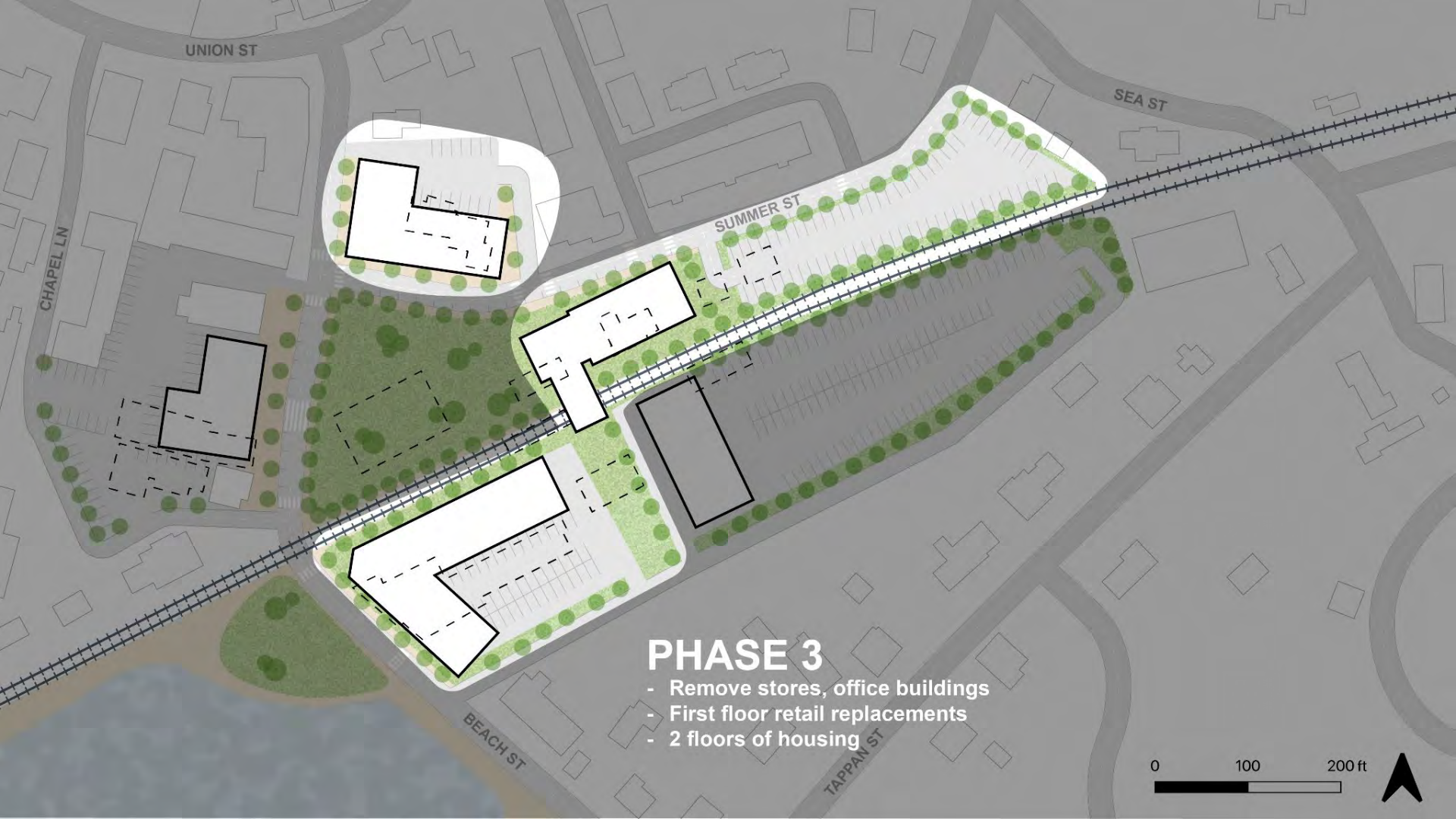
PHASE 2

- Remove bank and small stores
- New station building
- New cafe
- Commuter rail parking
- 3 floors of housing

BEACH ST

TAPPAN ST





UNION ST

CHAPEL LN

SEA ST

SUMMER ST

BEACH ST

TAPPAN ST

PHASE 3

- Remove stores, office buildings
- First floor retail replacements
- 2 floors of housing





UNION ST

CHAPEL LN

SEA ST

SUMMER ST

BEACH ST

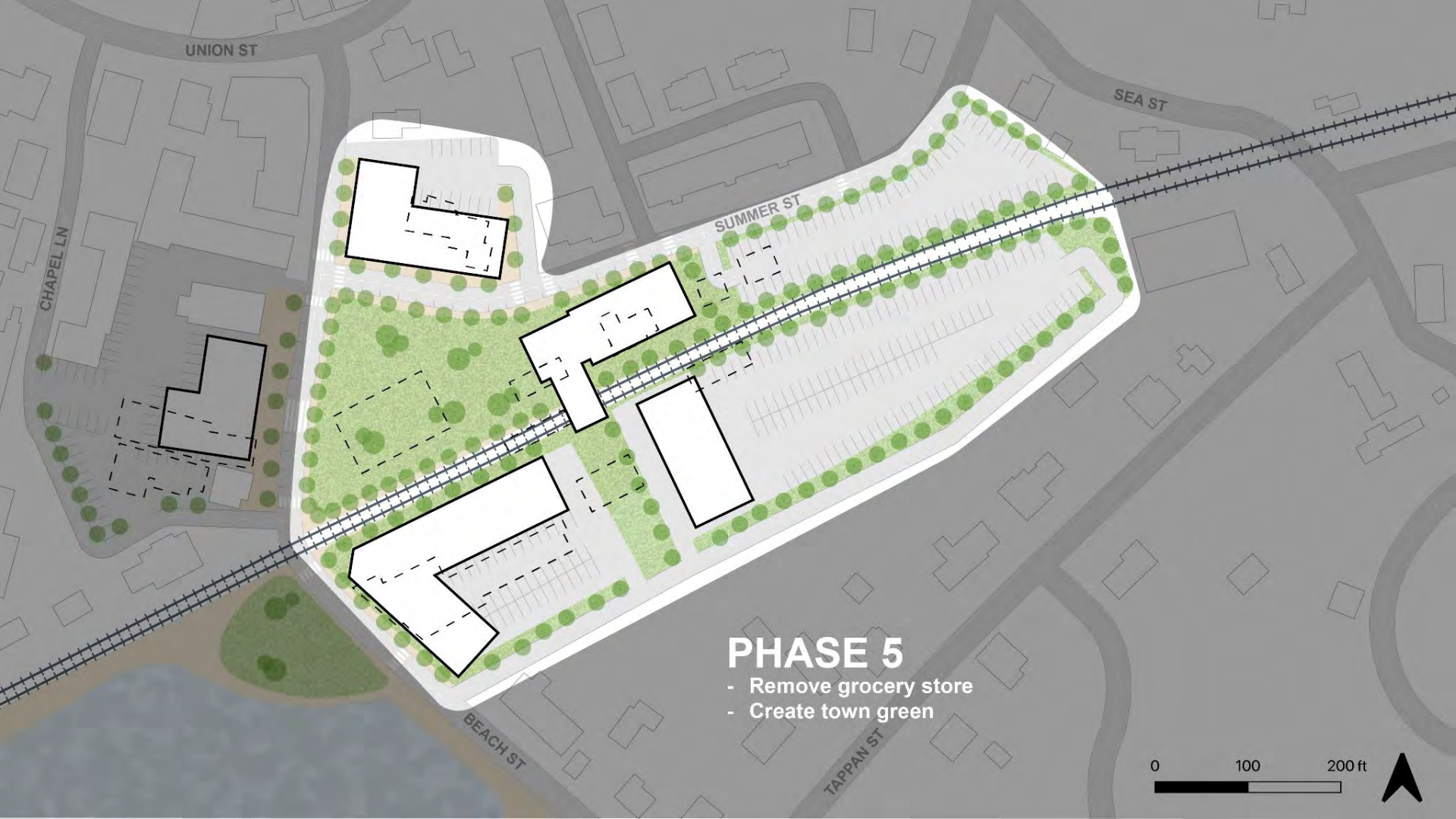
TAPPAN ST

PHASE 4

- Remove community center
- Additional commuter rail parking
- 3 floors of housing

0 100 200 ft





UNION ST

CHAPEL LN

SEA ST

SUMMER ST

BEACH ST

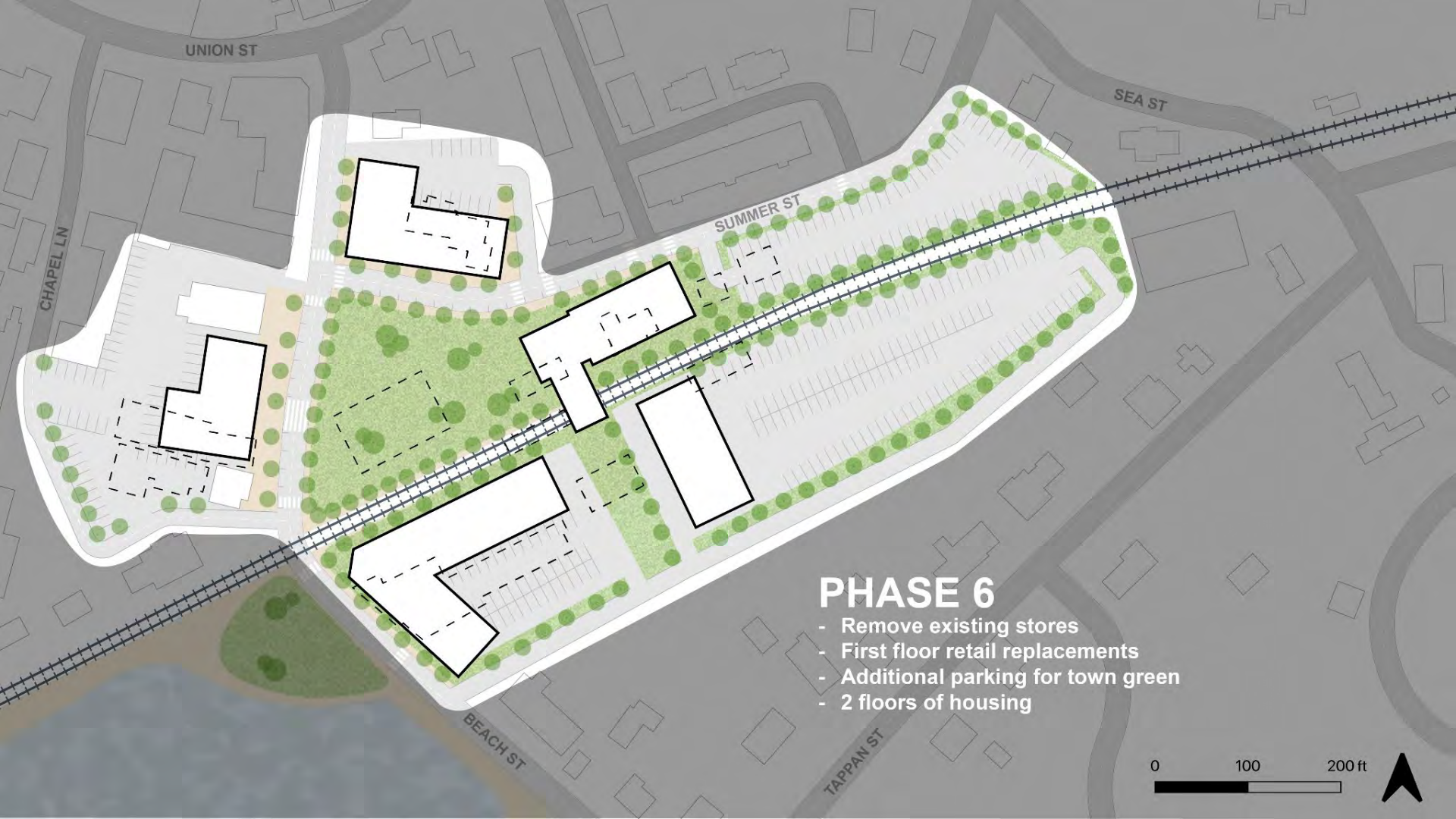
TAPPAN ST

PHASE 5

- Remove grocery store
- Create town green

0 100 200 ft





UNION ST

SEA ST

CHAPEL LN

SUMMER ST

BEACH ST

TAPPAN ST

PHASE 6

- Remove existing stores
- First floor retail replacements
- Additional parking for town green
- 2 floors of housing

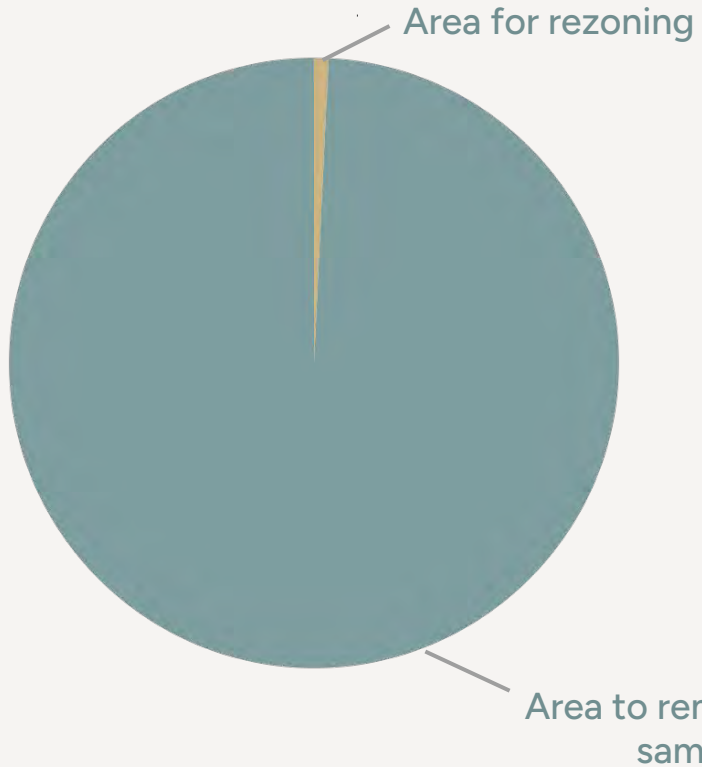
0 100 200 ft



A scenic view of a harbor with a wooden dock, boats, and houses in the background under a cloudy sky. The foreground shows large grey rocks and a rocky shore. The middle ground features a long wooden dock extending into the water, with several small boats and inflatable rafts moored nearby. In the background, there are houses and buildings along the shoreline. The sky is filled with white and grey clouds, with some blue patches visible.

Infrastructure Considerations

Rezoning Impact: Understanding the 39 Acres in Manchester

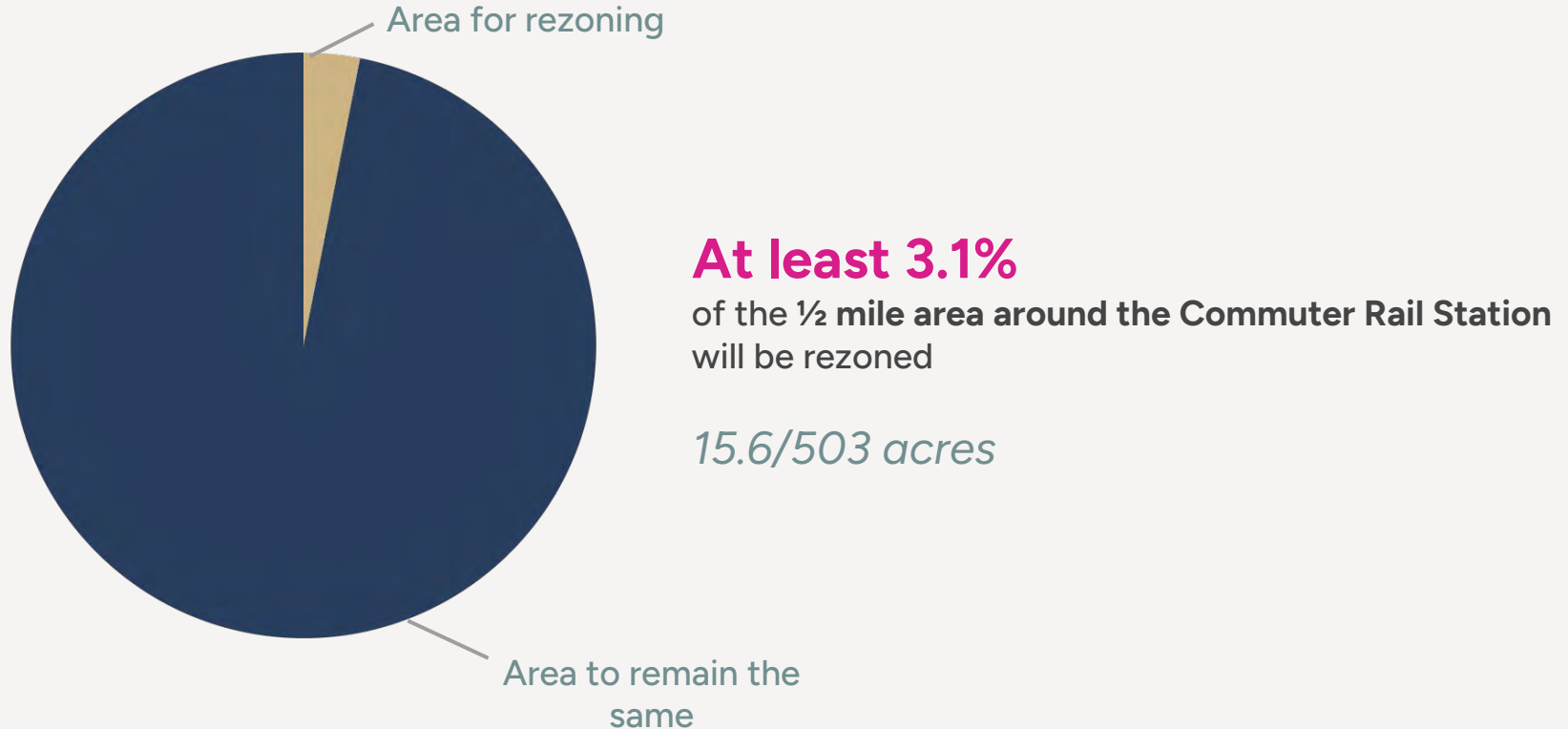


~0.76%

of the **total area in Manchester-by-the-Sea**
will be rezoned

39/~5120 acres

Rezoning Impact: Understanding the 15.6 Acres Around the Station



Rezoning Impact: Flood Mitigation



Direct **development** in areas with **less flood risk**.



New development should **reduce impervious surfaces** to improve water circulation & **set elevation heights** for new construction in floodplains.



Incentivize residents to **flood-proof their homes**.

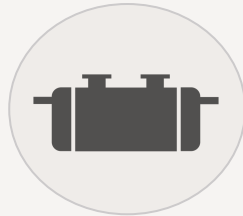
Rezoning Impact: Water & Sewer



Water & sewer systems face challenges from increasing flood risk, but **modest upzoning poses no additional strain.**



Avoid disruptions to watersheds feeding Gravelly Pond & the Lincoln Street Well.



Many Manchester homes utilize **septic systems** instead of sewer.

Rezoning Impact: Traffic & Parking



Only 58% of Manchester residents commute alone by car.¹ Future development can **build on the Town's existing public transit & walkability** to reduce overall car reliance.



With the exception of peak hours on summer weekends, downtown **Manchester has surplus parking capacity.**²

¹2021 US Census American Community Survey 5-year Estimates

²2023 MAPC Parking Study

Vision for the Future

Inner Harbor, Manchester, Mass.



Vision for the Future

Inner Harbor, Manchester, Mass.



Open Space

Vision for the Future

Inner Harbor, Manchester, Mass.



Open Space

Transportation

Vision for the Future

Inner Harbor, Manchester, Mass.

Connection to Community

Transportation

Open Space



Vision for the Future

Inner Harbor, Manchester, Mass.

Connection to Community

Housing

Transportation

Open Space



Thank you!

Inner Harbor, Manchester, Mass.

