

The Rivergreen

A Community Along the Mystic

Submitted by
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"There are two things that interest me: the relation of people to each other, and the relation of people to land." Aldo Leopold, Wherefore Wildlife Ecology?



SETTING + REGIONAL CONTEXT

Location

Our redevelopment site is located along the banks of the Mystic River, situated between the municipalities of Medford and Malden. Medford is a relatively small city of almost 60,000 residents within approximately 8 square miles of land. The site is comprised of commercial shopping centers and industrial operations that were unused wetlands until the 20th century. These historical factors of the site allow us to understand the ecological conditions both pre and post-development. Today, the site abuts US Route 93 and 16, whose vehicular traffic contributes both to air pollution through emissions and other pollutants in the form of oil and other residues. The potential for pollution from this area is cause for concern for the Mystic River Watershed. According to the EPA, which publishes a yearly report card for sections of the watershed, the section of the river directly adjacent to the site scored an "A-" in 2019 with an 85% compliance rate to fishable and boatable water standards.

Proximity to Regional Networks

The site is also proximate to the MBTA orange line, as well as Interstate 93, and MBTA bus routes. The connections to nearby highways and public transportation network allow for greater regional connectivity between the site and adjoining cities as well as the Greater Boston Area.

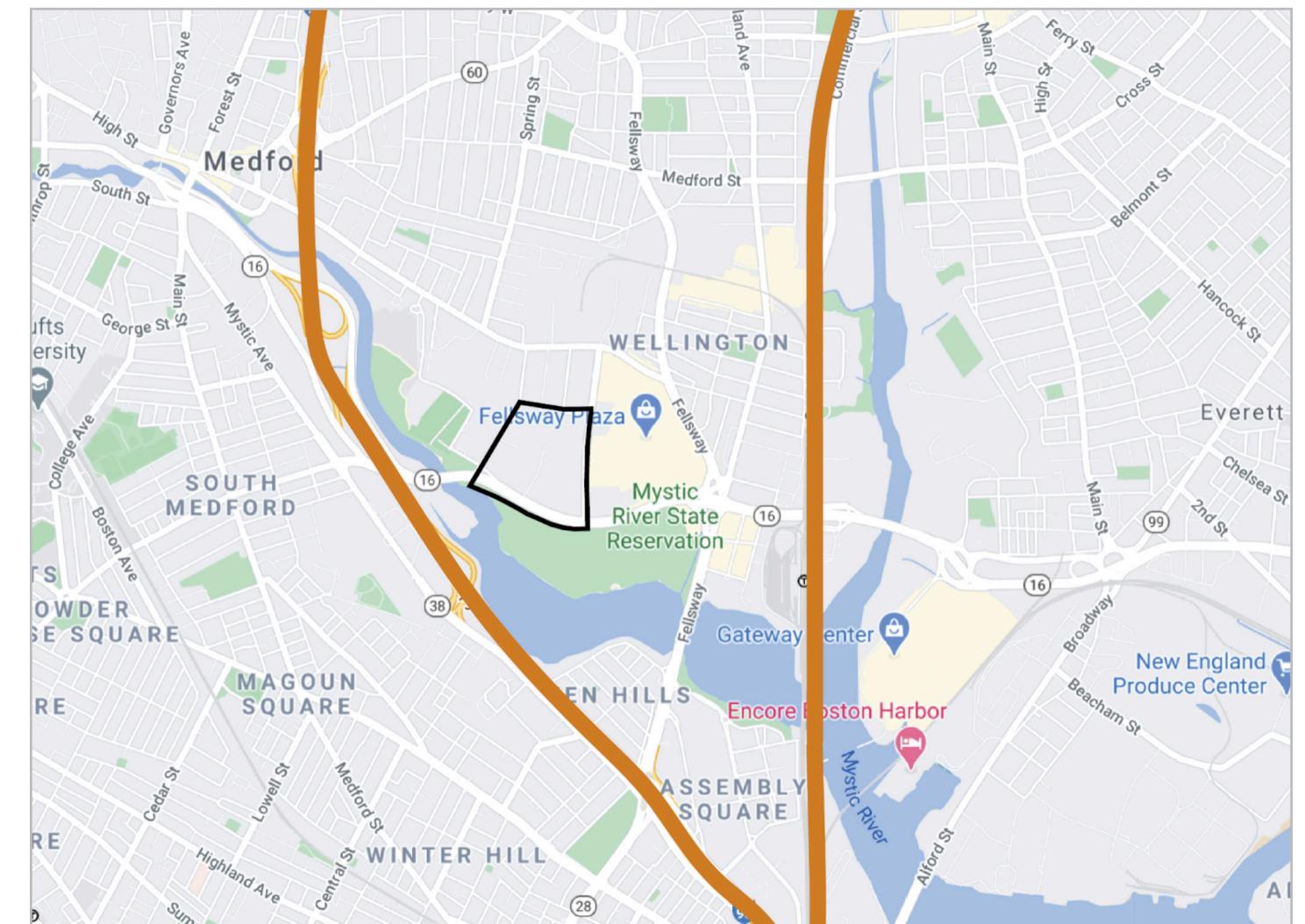
Further, nearby the site there are also residential developments, greenspaces, and a middle school. The regional connectivity of the site could be improved with increased rapid transit infrastructure in the area beyond the existing Wellington station and bus stops. Further, more walking and biking trails would allow greater connectivity of the site to the existing network of natural spaces along the mystic river.

Potential Value

The site has value in that it provides a variety of commercial opportunities through the storefronts located there. The value could be increased by adding housing density in the site, as this would attract residents and patrons to the space. Finally, value could be increased if the site became more connected with pedestrian walkways to nearby open space networks that exist along the Mystic River. The Mystic Valley Parkway separates the site from the existing openspaces and walking trails, limiting the connectivity of our redevelopment site.

Sources

- <https://www.google.com/maps/@42.4065734,-71.0963871,16.25z>
- <https://mysticriver.org/>
- <https://www.medfordma.org/departments/community-development/>
- <https://www.medfordma.org/history/#:~:text=Founded%20in%201630%2C%20Medford%20was,also%20manufactured%20brick%20and%20tile.>



Map of site location From Google Maps

INTRODUCTION TO THE AREA

Overview

This site is located in East Medford on the banks of the Mystic River. The area was previously an industrial neighborhood that has been developed into a shopping center that now contains several chains such as Kohls, Wegman's, and Dick's Sporting Goods. According to zoning maps from 1965, the land on which the Fellsway shopping center was constructed was zoned as commercial and industrial. The block that is bordered by Riverside ave., Fellsway, Mystic Valley Parkway, and Commercial St. (sites 2 and 3) was zoned as commercial. The land that site 1 is located on was zoned as industrial. Land-uses for site 1 are primarily commercial and parking, however there are several apartment buildings located across the street which may explain the lack of diverse land-uses on the site. The Torbert Macdonald Park is located just across the street, providing residents with ample space to bike, walk, run, etc. on the trails that run throughout.

History

Medford, Massachusetts was founded in 1630 and served as an industrial hub in the region, producing Clipper Ships, bricks, and tiles. The city, incorporated in 1892, was the site of many historically relevant events dating as early as the Revolutionary War. The land that would eventually become the city of Medford was initially a plantation owned by the

first Governor of the Massachusetts colonies, Mathew Cradock. Following his death, his heirs inherited the land and sold it to Edward Collins. Collins began selling the land to the public which led to residential development in the area and the formation of a town. Today, Medford is a city of over 57,000 and is home to Tufts University and several other important historical institutions such as the Isaac Royall House and Amelia Earhart's former residence.

Zoning

The site is primarily zoned for commercial and industrial uses.

Sources

<https://www.medfordma.org/history/>

<https://datausa.io/profile/geo/medford-ma/>

<https://www.census.gov/quickfacts/fact/table/medfordcitymassachusetts/POP715219>



The Mystic River and Cradock Bridge

DEMOGRAPHICS

SITE 1

MEDIAN HOUSEHOLD INCOME

\$ 98,705

MEDIAN RESIDENT AGE

47.8
years old

MEDIAN HOUSE OR CONDO VALUE

\$ 396,200

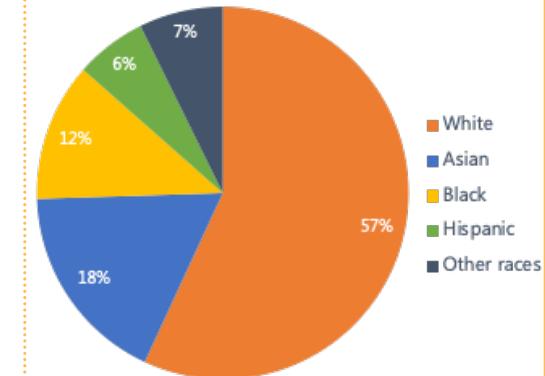
AVERAGE HOUSEHOLD SIZE

5.6
people

TOTAL POPULATION

57,637
(2019)

RACE (census block group)

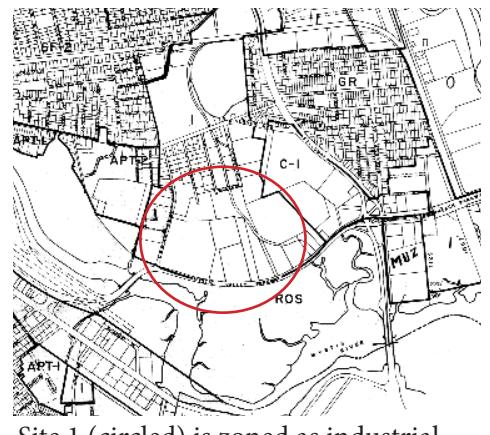


PERCENTAGE OF FAMILY HOUSEHOLDS

49.8%

Source:
<https://www.city-data.com/neighborhood/Wellington-Medford-MA.html>

ZONING



Site 1 (circled) is zoned as industrial

EXISTING CONDITIONS | SITE INFORMATION

Challenges:

Limited connectivity

The site's connectivity is very limited overall, with fragmented land parcels and few connections between them. The grid system of the area is extremely large and makes walking connections between buildings difficult. The Mystic Valley Parkway cuts the site off from easy access to the Mystic River Reservation, and public transit is provided solely by one bus route. As mentioned before, it is difficult to navigate the area by foot or by public transit, in addition to by bicycle or other alternative means of transportation.

High traffic boundary roads

The site is bounded on one side by the Mystic Valley Parkway, a high traffic arterial road that carries higher-speed traffic flows. It is prone to both congestion and underutilization, depending on the time of day. This can be a concern with regards to pedestrian safety, as high-speed traffic poses an immediate threat to the safety of sidewalk users. The boundary roads also present issues with connectivity between the site and its surroundings, which can be cut off by such large roads.

Opportunities:

Parks and recreation

The site is adjacent to the large Mystic River Reservation, which can provide green space and recreation. The reservation includes wide, manicured lawns, walking and biking paths, and a wetland reservation. It is also near to a city-owned ice rink, which could be accessed with improved connectivity. Hormel Stadium, an outdoor track complex, is also adjacent to the site.

School access

The site is near several elementary and middle schools, allowing kids to walk to these locations. The Columbus School is 0.9 miles away, the Arthur D. Healey School is 1.3 miles away, and Roberts Elementary School is 1.5 miles away. McGlynn Middle School is 0.5 miles away from the site, while Andrews Middle School is 0.7 miles away.

Access to major thoroughfares

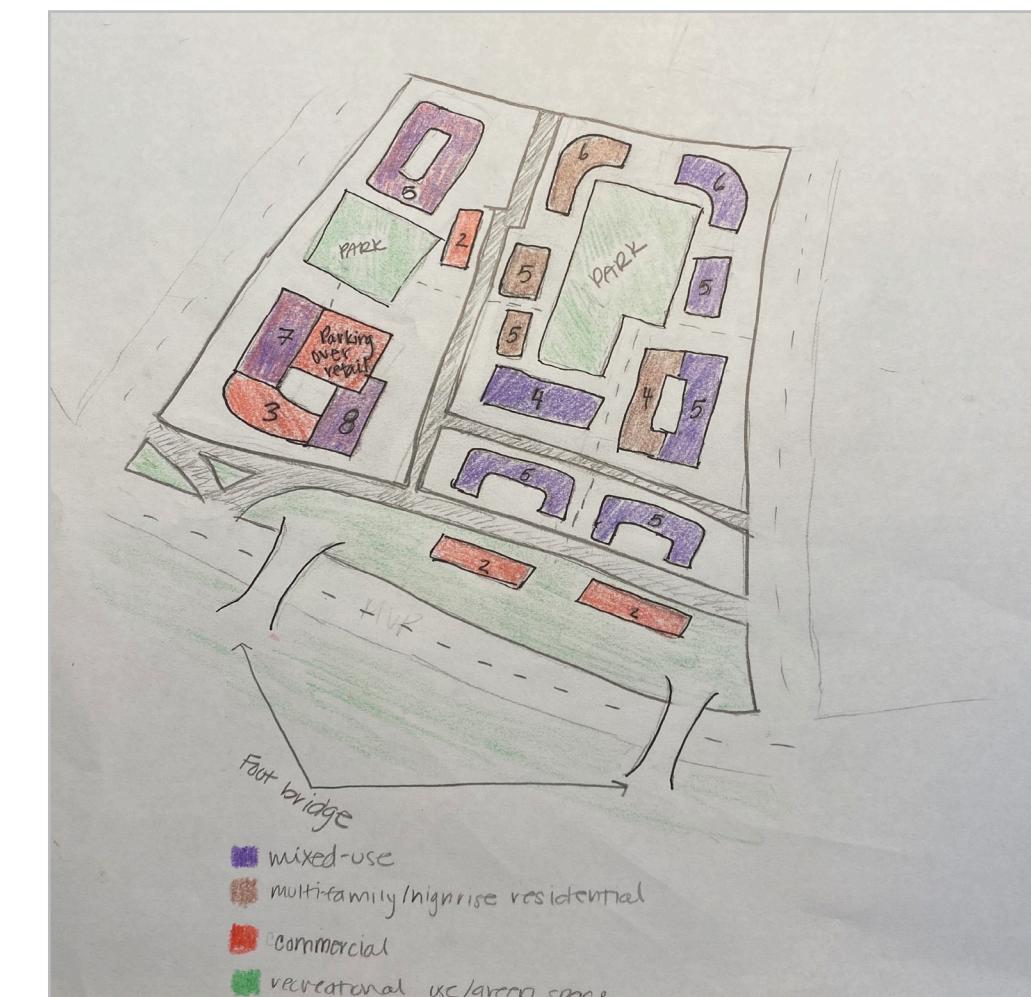
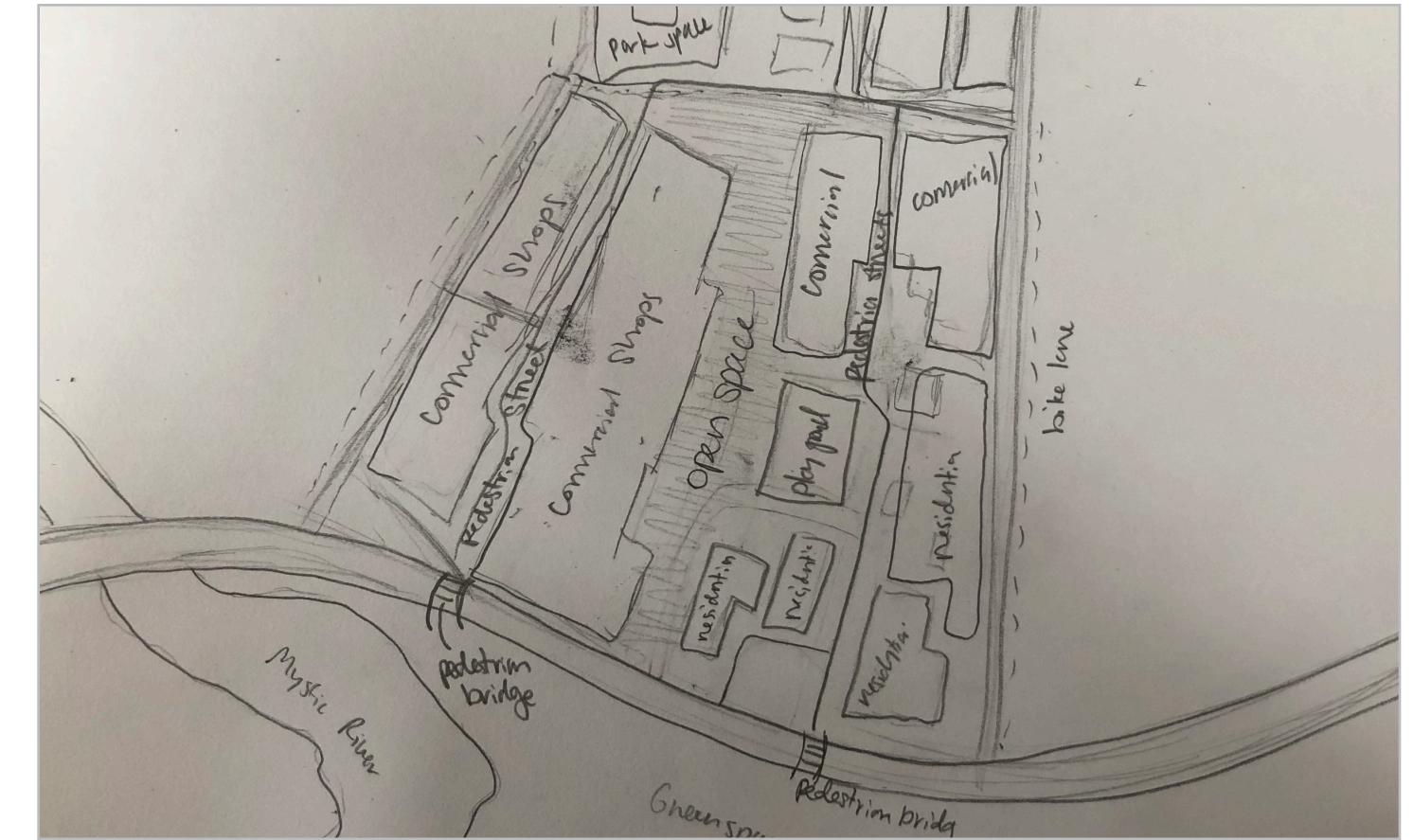
The site provides quick access to Route 16 and Riverside Ave in Medford. Locust Street, which bounds the site on one side, connects these two roads.

Current underutilization

The site is quite large in footprint, allowing for a vast improvement in the utilization of space, most of which is currently just parking.



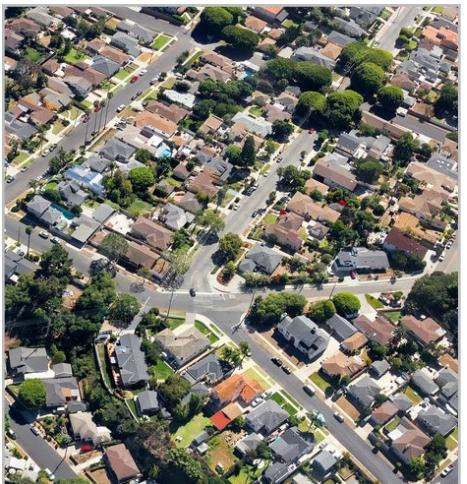
PRELIMINARY CONCEPT SKETCHES | MENTAL MAP



THE RIVERGREEN VISION | GOALS

1| Improving Connectivity

It's vital that residents of the development are able to easily access all parts of the area. Car-dependent design leads to a lack of connectivity stemming from a disregard for other forms of movement. The result of this is often that residents can have difficulty accessing services and amenities that should be within walking distance as-the-crow-flies, isolating them from parks, businesses, schools, and public transportation, among other things. There are several ways that this can be remedied; among the methods used in this project are creating an easier-to-understand, gridded street system, increasing the number of connections points between paths, and removing or bridging large obstacles such as very large buildings, highways, or undeveloped land that is difficult to navigate.

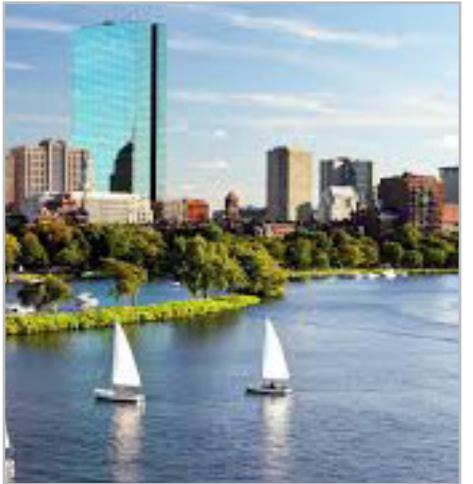


A gridded suburban street network in Southern California
Source: Getty Images

2| Create Climate Resilience

It is critical to think about the future implications of climate change and the ways in which the site will be impacted. Given the site's proximity to a waterway, flooding and Urban Heat Island are both concerns to be addressed. To mitigate and adapt to these environmental conditions, green infrastructure and low impact development design strategies are critical. For example, bioswales, permeable pavement, green roofs and biodiverse gardens are low impact development strategies that are known to mitigate temperature increase and flooding in cities.

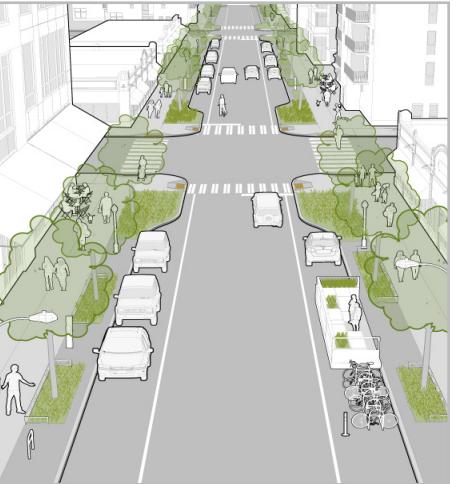
Beyond this, they hold additional aesthetic and recreational value for residents who can enjoy greater access to nature and recreation. In redesigning this site, it is critical that we think about development as a tool through which we can improve our natural environment and create communities that are climate resilient



A view of Boston from the harbor.
source: <https://www.theguardian.com/environment/2020/apr/20/climate-change-waterfront-living-wealthy-boston>

3| Democratized Streets

Ensuring that streets are accessible to and safe places for everyone play a significant role in building one's connection to their neighborhood. In this context, democratized streets do not prioritize automotive transportation. They encourage pedestrian and bike use. They promote social, physical, and cultural activity. By reducing the space dedicated to car use in favor of wider sidewalks, parklets, and bike lanes, and forming a connection from the development to the Mystic River Greenway, the development will feel livelier, building community as people begin to congregate in these common spaces. Through using woonerfs as inspiration, the development intends to share streets for a multitude of uses.

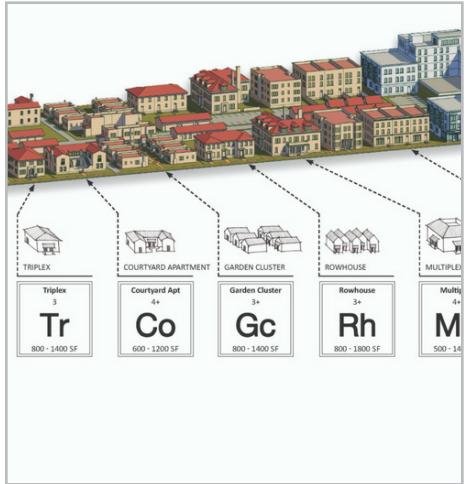


A street that allows for a diversity of uses, no longer prioritizing vehicles.

source: <https://streetsillustrated.seattle.gov/street-type-standards/downtown-neighborhood-access/>

4| Access to affordable and diverse housing

In its current condition, the site is devoid of residential lots and the two closest apartment complexes, the Lumiere and the Hanover, are luxury complexes where one-bedroom units start at \$2,262/month and \$2,469/month respectively. In order to promote equity and diversity within the site and the neighborhood at large, the site will be made up of several affordable housing developments for low- and middle-income residents. Increased housing density will ensure that all future residents' needs will be taken into account when constructing residential units.



Missing middle housing.

source: <https://opticospdesign.com/missing-middle-housing/>

5| Create space for creating community

Spaces should be designed to maximize social cohesion. Plazas, parks, and greenspaces are all integral to effectively designing at the human scale. Without these areas for recreation and outdoor enjoyment, the site is not inviting for people, thus reducing the opportunity to create community. Further, it is imperative that such spaces are filled with native plants, benches, fountains, and play equipment. Empty spaces are not inviting places in which to create connection, build community, or spend any time at all. In our redesign, we believe it is crucial to create space that goes beyond the physical infrastructure and extends into the social atmosphere. Each area within the site has been designed in order to maximize utility at the human scale, in order to create spaces where the community can thrive, where people can live, work and play.



Harris Park in East Somerville.

source: <http://www.thesomervilletimes.com/archives/40412>

6| Re-use instead of Raze

The environmental impact of construction can be very large. Construction of new development creates greenhouse gas emissions, requires the production of construction materials, and can be disruptive to the immediately local environment. As global warming continues to be an impending global catastrophe, it's important that every possible measure is taken in attempting to reduce emissions and overall environmental impact. In keeping with this principle, as much of the original, existing site structures as possible are retained in the redesign. This reduces the amount of construction material needed for the project, therefore reducing the overall environmental impact. Existing structures can continue in their current programs or can have their superstructures retrofitted to contain uses that are more conducive to the overall vision of the development.



McAllen Main Library, McAllen, TX, converted from a former Walmart
source: alucobond

POEM/ POSTCARD/ PHOTO COLLAGE



Photo Collage Submitted by Richard Nakatsuka, Top Postcard Submitted Brenna Trollinger, Bottom Postcard Submitted by Zahra Morgan



THE RIVERGREEN PROPOSED CONTEXT PLAN



KEY:

Site border



Bus stops



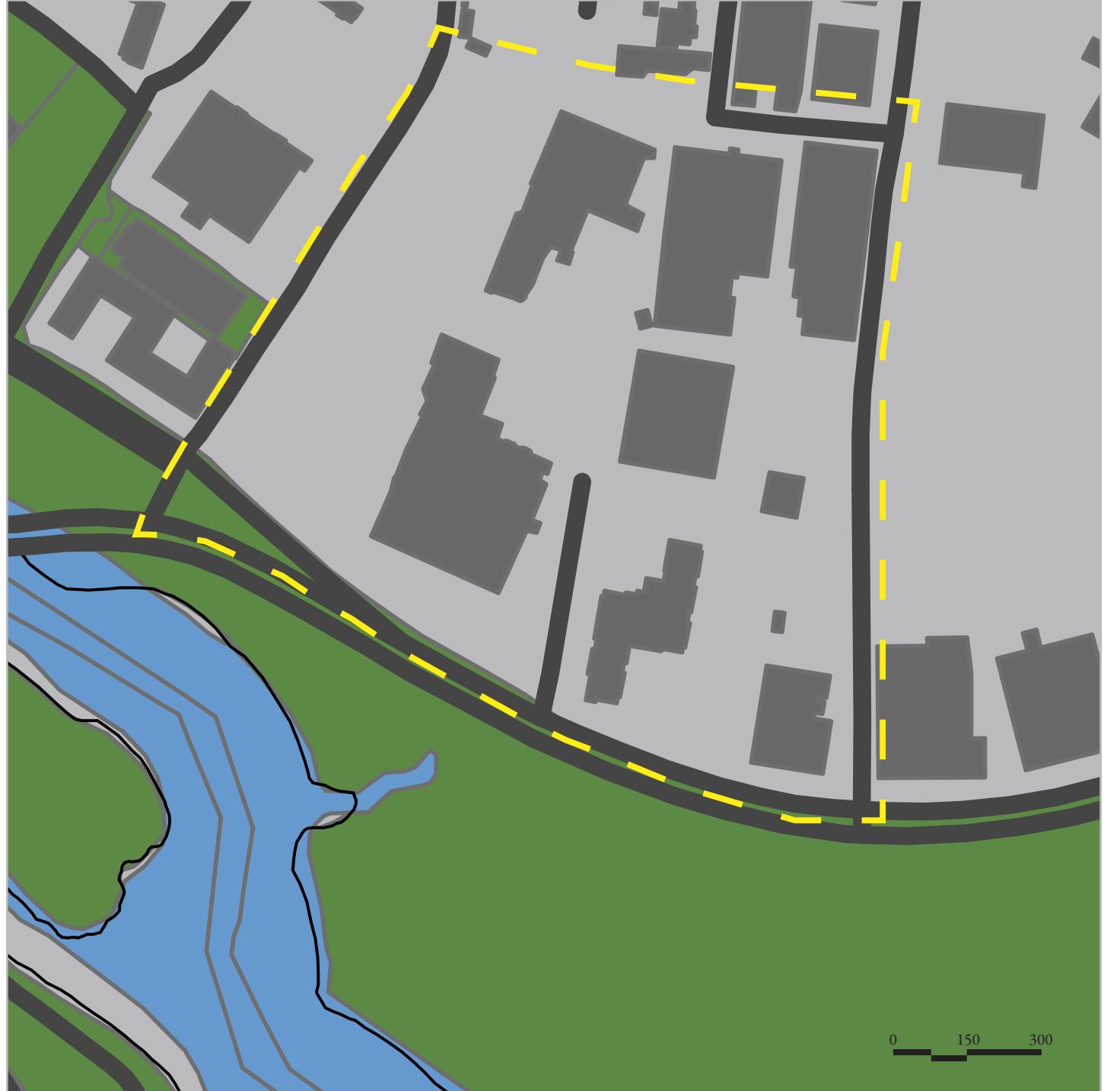
T Station (Wellington)



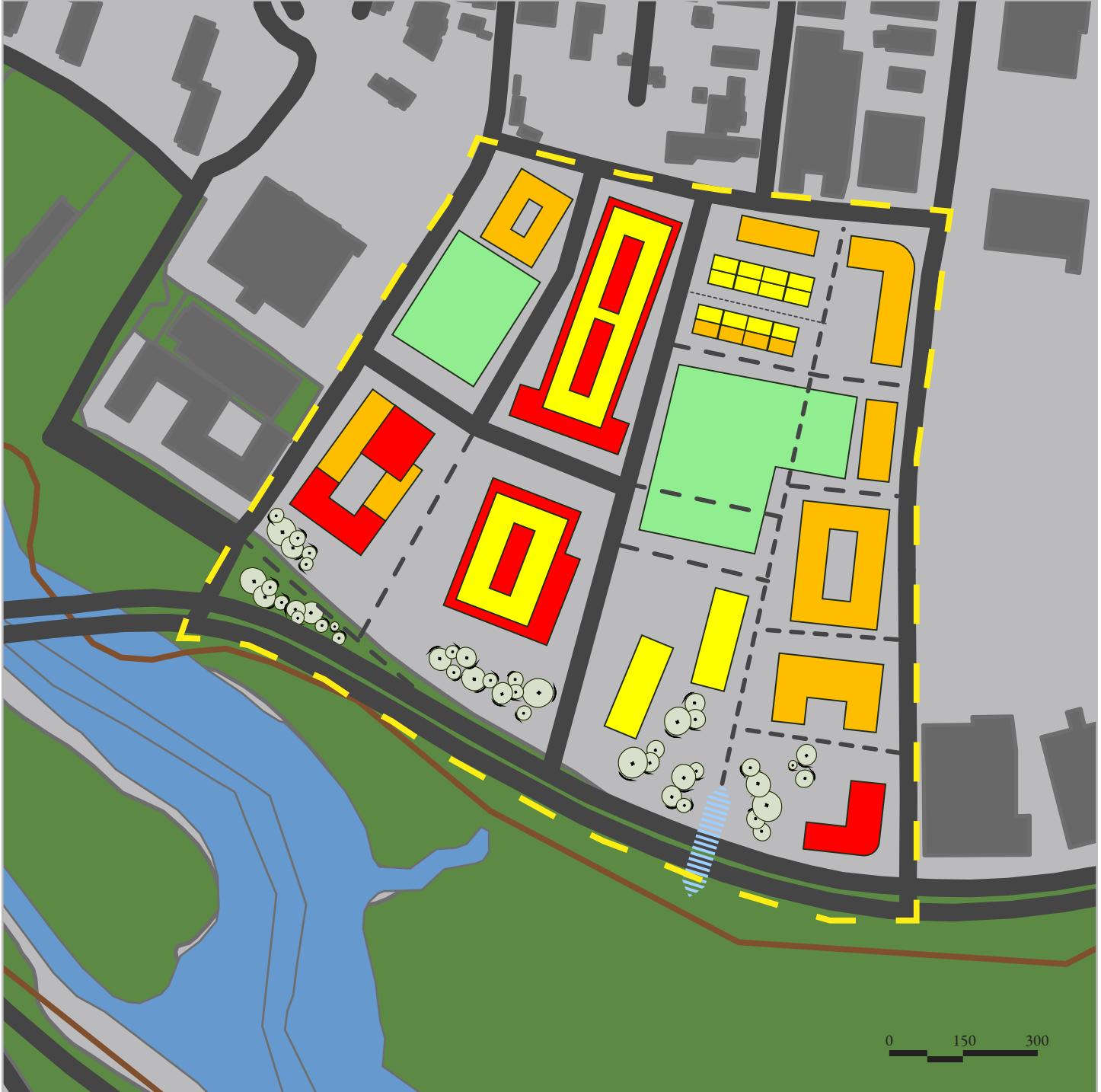
Mystic Valley Parkway

Bike trail





**SITE 1
EXISTING**



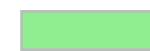
**THE RIVERGREEN
PROPOSED**

KEY:

Residential



Open space



Commercial



Trees



Mixed-Use



Walkways



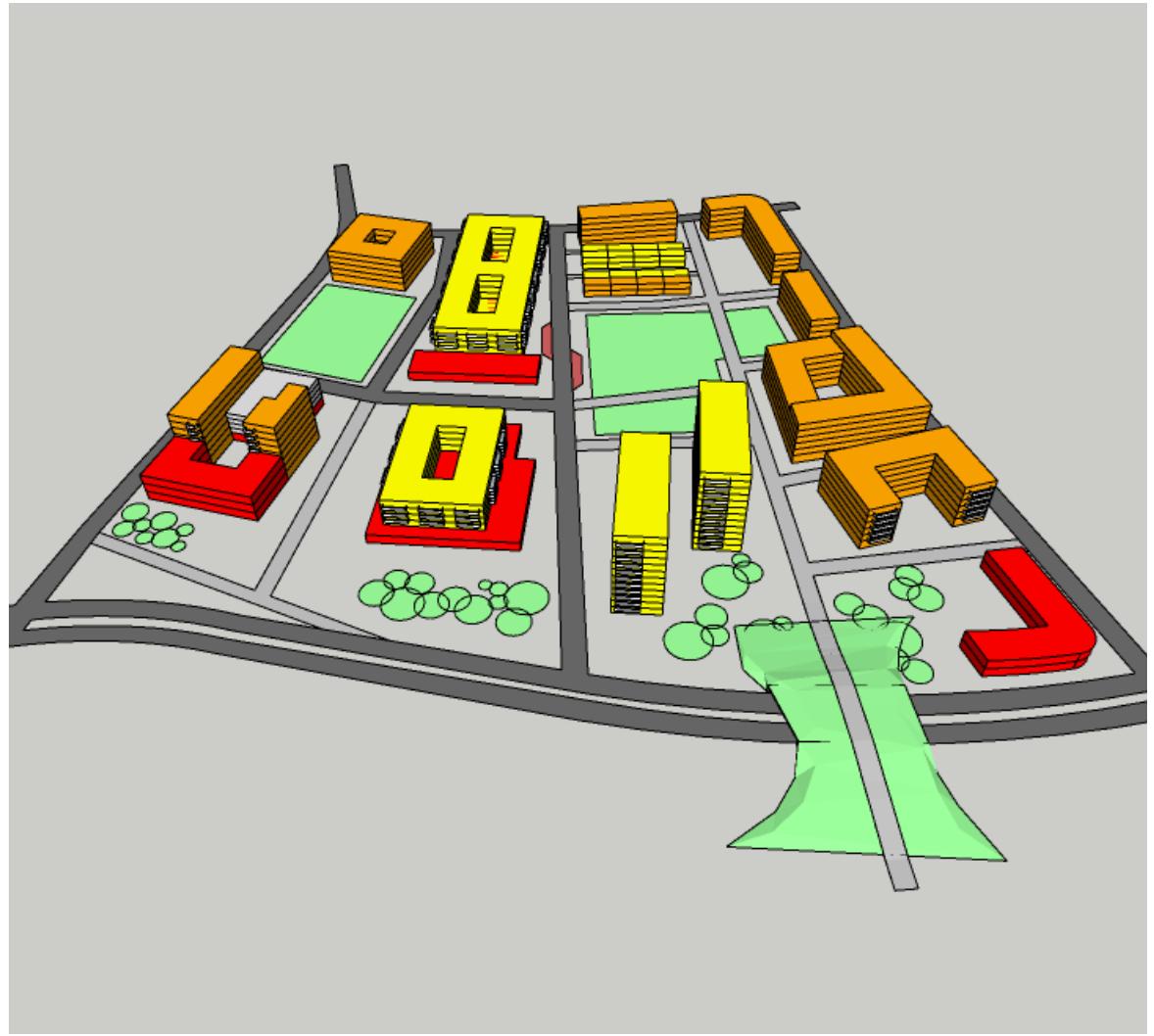
Footbridge



Streets



**THE RIVERGREEN
PROGRAM OF USES**



MASSING DIAGRAM



Legend

- [Yellow square] Residential
- [Red square] Commercial
- [Light Green square] Green space
- [Orange square] Mixed-Use

THE RIVERGREEN PROPOSED

STREET SECTION



Mystic Valley Parkway Before

STREET SECTION B-B



Commercial Street Before



Mystic Valley After



Commercial Street After

IMPLEMENTATION PLAN

Implementation Agencies

Assuming that the City of Medford will be retrofitting the RiverGreen site, and has gained access to the necessary property, there are several municipal, state, and federal agencies that will need to be involved. First, zoning may be a concern for this site as it is currently zoned for commercial and industrial uses. In order to redevelop the site, it would need to be rezoned for mixed use. To change this, Medford's Zoning Board of Appeals will likely need to be involved in approving our proposed plan and allowing for the necessary variances. The Zoning Board of Appeals will also need to approve our plan to build commercial and residential buildings. Next, the Massachusetts Department of Transportation would also need to be involved, as our proposed development involves changing existing traffic patterns through the addition of bike lanes, pedestrian walkways, and vegetated buffer strips. Further, we added a bus stop along the edge of RiverGreen, thus, the

development plan will comply with Chapter 40B, the Comprehensive permit law. This will allow us to streamline our permitting process and make affordable housing a priority within the redeveloped site. Finally, community stakeholders will be a crucial component of our project through their feedback and participation throughout the development process.

Implementation Strategy and Phases

The preliminary phase of this redevelopment involves getting the project proposal approved by all relevant municipal agencies, gathering community feedback, and securing all necessary permits. It is likely that several zoning and transportation permits will be required for this site. For some permits, environmental and biological assessments may be needed to determine the impact our redevelopment plan would have on the surrounding community and ecosystems. Most importantly, the site needs to be rezoned before development can begin.

in on how our development plan would impact current and future public transportation plans within Boston. Since we propose adding several new greenspaces to the site, the Massachusetts Department of Conservation and Recreation would be required to approve plans. Further, they would need to approve our plan to build a pedestrian bridge connecting the RiverGreen site to the adjoining park along the Mystic River. Finally, the Massachusetts Housing Authority will need to be involved in our development plan as we intend to add a diversity of housing types and affordability. Further, with regard to Medford's affordability laws, our Project Tallies up Right and Left.

The secondary phase moves to implementation and installation. To fund this project, there are several available routes. Under the new Biden administration, federal funding has been set aside for green infrastructure projects and new housing developments. At the state level, the Affordable Housing Trust Fund can provide up to \$5 million dollars annually for housing projects. Further, as greenspaces can act to mitigate water pollution from the nearby Mystic River, the Coastal Pollutant Remediation Grant Program or Clean Water State Revolving fund are both viable funding options for this project. Funding could also come

from a variety of private sources. As the site is located at the outskirts of a major urban center, there is clear demand for more housing and commercial developments in the Greater Boston Area. This provides an appealing investment opportunity for private developers looking to build on this site.

The final phase would then be construction and maintenance once funding is secured. This would be overseen by the Massachusetts Department of Transportation, the MBTA, Massachusetts HUD, and the Massachusetts Department of Conservation and Recreation as well as the relevant Medford municipal agencies. While this implementation plan outlined here provides the broad strokes for moving forward with this project, it is clear that there may be several viable pathways at the municipal, state, and even federal levels.

Sources

<https://www.fool.com/millionacres/real-estate-investing/rental-properties/how-much-does-it-cost-build-duplex/>

https://www.pedbikeinfo.org/cms/downloads/Countermeasure_Costs_Summary_Oct2013.pdf.

[https://proest.com/construction/
cost-estimates/apartment-complexes/](https://proest.com/construction/cost-estimates/apartment-complexes/)

<https://content.ces.ncsu.edu/cost-analysis-for-improving-park-facilities-to-promote-park-based-physical-activity>

<https://ced.sog.unc.edu/pedestrian-bridges-connecting-people-with-communities/>

Type	Instance	plan sq footage	floors	total sq footage	price per sq foot	total cost
Residential	existing tower west	19200	12	230400.00	\$125.00	\$28,800,000.00
	existing tower east	19200	12	230400.00	\$125.00	\$28,800,000.00
	donut tower north	66329.22	4	265316.88	\$125.00	\$33,164,610.00
	donut tower south	37305	4	149220.00	\$125.00	\$18,652,500.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	residential mew	1750.62	2	3501.24	\$125.00	\$437,655.00
	sub total			917351.76		\$114,668,970.00
mixed use	northwest corner	27496.87	5	137484.35	\$150.00	\$20,622,652.50
	southwest corner west	13111.25	7	91778.75	\$150.00	\$13,766,812.50
	southwest corner east	6302.46	8	50419.68	\$150.00	\$7,562,952.00
	northernmost	13482.5	5	67412.50	\$150.00	\$10,111,875.00
	northeast corner	21687.4	5	108437.00	\$150.00	\$16,265,550.00
	west 1	11275	5	56375.00	\$150.00	\$8,456,250.00
	west 2 lower	17059.26	5	85296.30	\$150.00	\$12,794,445.00
	west 2 upper	27226.08	6	163356.48	\$150.00	\$24,503,472.00
	west 3	25127.81	6	150766.86	\$150.00	\$22,615,029.00
	sub total			911326.92		\$136,699,038.00
commercial	southwest corner north	16187.34	1	16187.34	\$190.12	\$3,077,537.08
	southwest corner south	18600	3	55800.00	\$190.12	\$10,608,696.00
	big box north	101395.62	1	101395.62	\$190.12	\$19,277,335.27
	big box south	76680.85	1	76680.85	\$190.12	\$14,578,563.20
	southeast corner	20085.1	2	40170.20	\$190.12	\$7,637,158.42
	sub total			290234.01		\$55,179,289.98
recreational	Bike lane on Mystic Valley parkway (both ways)			0.00	\$133,170.00	\$101.39
	Bike lane on Commercial street (both ways)			0.00063748	\$133,170.00	\$84.89
	Bike lane on Locust street (both ways)			0.00	\$133,170.00	\$69.85
	sub total					\$256.14
green space		total sq footage		price per sq foot		total cost
	west park	69957.85		\$1.53		\$107,035.51
	east park 1	74181.91		\$1.53		\$113,498.32
	east park 2	18633.94		\$1.53		\$28,509.93
	east park 3	26276.25		\$1.53		\$40,202.66
	footbridge		92500	\$200.00		\$18,500,000.00
	sub total					\$18,789,246.42
TOTAL of construction costs						\$325,336,800.54

VISION STATEMENT

Submitted by Brenna Trollinger

In redesigning this site, the uncertainty created by climate change remained at the front of my mind. Any development, whether retrofitting or creating new infrastructure, will have an impact both on the immediate environment, and the cumulative anthropogenic planetary impact. Spaces need to be imagined with an understanding that flooding and temperature changes are real and present threats to a coastal city such as Boston, and riverine sites, such as Riverview. In our redesign, we emphasized public greenspaces and open spaces. Such communal spaces encourage greater social cohesion and a sense of unity among residents and all users of the space.

Naomi Klein notes in her book *This Changes Everything: Capitalism vs. The Climate* that neighborhoods with lower levels of social cohesion fared worse in general when compared to populations with greater social cohesion and access to resources in New York City during Hurricane Sandy (Klein 2014). Increasing social cohesion and allocating space in which to build community were key points to our design. As a part of our manifesto, we emphasized the need for community spaces. As such, our design features a network of walking paths, plazas, greenspaces, and diverse housing types that offer opportunities for creating community. Further, low impact development strategies will be key to maximize the utility of such features. Parks and greenspaces should be designed to include rain gardens

or bioswales filled with native plants that can increase biodiversity, help reduce temperatures, and retain excess stormwater in high precipitation events.

The impacts of climate change will not only affect the physical aspects of the built environment, they will influence the vast social and economic networks that exist within these spaces. Further, not all residents face the same amount of risk from such impacts, as marginalized groups are at a heightened risk from the effects including extreme heat and flooding. Given the demographic makeup of the site, filled with an aging middle class population of varied racial and ethnic makeups, understanding the social and economic implications of climate change influenced our design choices. For example, areas that are densely populated, lack greenspace, and have limited connection to critical social services experience the impact of flooding and extreme heat more acutely. To remedy this, we mixed residential and commercial buildings in order to create greater housing opportunities and connect the residents to key social services. Mixed use buildings not only make places feel more lively, they allow residents, particularly the elderly and disabled, to have access to key resources within their own neighborhoods. Further, reconnecting neighborhoods to social and commercial zones helps to remedy one flaw of a typical suburban model.

Boston, as well as every major urban center, faces an uncertain climate future. However climate aware urban design can help to create cities that are equipped to meet the needs of future residents as well as future climate conditions. It is time that we look at our streets and neighborhoods as resources through which we may create climate resilient communities. The built environment, when planned intelligently can become sustainable places in which we live, work and play. Climate vulnerability is tied with social vulnerability. In the same way, allowing urban design to reduce social inequities also allows us to simultaneously create climate resilience.

Sources

Klein, Naomi. 2015. *This Changes Everything: Capitalism vs. the Climate*. New York, New York: Simon & Schuster Paperbacks.

Browning, William, Catherine Ryan, Joseph Clancy. 2014. 14 Patterns of Biophilic Design. Terrapin Bright Green. <https://www.terrapinbrightgreen.com/reports/14-patterns/>

Captions

1. The Tanner Springs Green/Grey Park in New York City
2. A green Roof and some solar panels atop the Boston Medical
3. A skyline view of Boston from the Boston Harbor



Tanner Springs Park in New York City



Green Roof at the Boston Medical Center



Boston Harbor Skyline

VISION STATEMENT – CONNECTIVITY AND TRANSPORTATION

Submitted by Richard Nakatsuka



As it stands, the Meadow Glen shopping center is entirely automobile oriented. Much of the site's square footage is composed of parking space made entirely of impermeable surfaces. The main access to the site is through high-traffic roads that connect the site to MA-16 – the high-speed and extremely congested Mystic Valley Parkway. Additionally, there is a slip road for an intersection that creates even more paved area than is necessary. The only public transportation to the site is provided by the 134 bus, which enters the site on Locust Street from Riverside Avenue. There are no bike lanes on the site, and walking infrastructure is mostly a formality or an afterthought.

In our redesign, we wanted to focus on improving connectivity and transportation. To do this, a couple of approaches are taken. First, the network of paths within the site was heavily modified. In keeping with a desire to create more connections between different sections of the site, new pedestrian streets were created to reduce the length of blocks and recreate a more natural grid system. As Lucas Bergman states in “6 Principles for Re-Designing the Sustainable Suburbs for the Future,” “many suburbs are already optimally dense but the residents still depend on cars because the street grid has been developed as a never-ending maze of back alleys and cul-de-sacs. The lack of traditional sidewalks means people

need to drive their children to school even if it's just 500 yards away.” This kind of lack of connectivity forces residents into dependence on personal automobiles.

By adding additional cross-streets to create a smaller grid, we want to create a community where internal connectivity of the site can help combat car dependency. The addition of streets and intersections orients the overall scale of the development towards people, as opposed to cars. Shorter blocks, in the range of three hundred feet in our plan, allow for people to walk to their destinations within the site in a way that is more direct than with longer blocks. With additional pedestrian cross streets, the path between buildings by foot can be made to be closer to the distance “as-the-crow-flies.” Some buildings were split into smaller sections in order to allow for this, namely the main building of the shopping center, which was modified to allow for a new pedestrian road through its center to connect two extant streets.

In chasing the goal of improved connectivity, we also decided to fundamentally shift the way that the site treats different forms of transportation. In order to do this, the site's internal and boundary streets were heavily modified. Space on streets within the site was taken away from traffic lanes and given to other uses, such as bike lanes and

expanded sidewalks. This will improve connectivity for transportation modes other than the car, allowing for residents to use the mode that they feel the most comfortable with, rather than mandating the use of a car. By taking space away from cars and giving it to other methods of transportation, we can improve the overall connectivity of the site.

Sources

<https://www.slightlyastray.com/downtown-portland-oregon-is-a-foodies-dream/>

Caption: A street in downtown Portland, Oregon, which has short, walkable blocks.

VISION STATEMENT – BIOPHILIC DESIGN FOR IMPROVED RESIDENT WELL-BEING

Submitted by Zahra Morgan

Growing up, I always found comfort in parks. I was fortunate enough to live in close proximity to a beautiful park in my town called Brookdale Park. Designed by Fredrick Law Olmstead, its expansive nature made it easy to get lost in different nooks of the park. I'm still discovering new corners of the park today. It has been the site of many important events during my formative years: learning how to ride a bike, learning about landscape photography, improving soccer skills, and meeting some of my best friends.

As I've grown and spent time elsewhere, I've always seemed to find myself seeking out parks to find my bearings in a new place. In Mexico City, I'd drag my parents to Parque México every evening to sit and take in the noises and various flora and fauna of the lively park, a welcome respite from the cacophony of the bustling city. It felt therapeutic. In the neighborhood I lived in Dakar, Sacré-Cœur, there were very small parks dispersed throughout where people would gather to play soccer, exercise, or just hang out. I loved walking by and hearing the sounds of the neighborhood. It made a place that was very new to me feel like home. Many of the memories I cherish most took place in parks. They have served as sites of education, refuge, and camaraderie cultivation. Parks can be central to the process of place-making.

Our group's vision, "Create space for creating community," will be achieved through improving the site's connection to the greenway across the street. It will feel like an extension of the park. The central location of the two parks on-site and their proximity to the residential buildings will democratize access to green spaces. Residents will hopefully be able to build a positive sense of place and relationship to their homes.

The reading 14 Patterns of Biophilic Design by Browning, Ryan, and Clancy informed my sketches for this site. Of the fourteen patterns of Biophilic design, the Rivergreen's parks (and its proximity to the greenway across the street) provide residents with a visual connection to/with nature. The tree canopy that separates the site from the Mystic Valley Parkway will block noise pollution and will help make the view from the site looking out towards the Mystic River more appealing, concealing the unpleasant view of the street. Three patterns of Biophilic design that are present in the Rivergreen are: 1) Visual Connection with Nature, 2) Presence of Water, and 3) Connection with Natural Systems.

The first pattern, a "Visual Connection with Nature," will be facilitated through the presence of balconies oriented towards the parks in the neighborhood as well as the Mystic River. Residents will have access to views of nature from all points on the site; this will also be accomplished through planting trees throughout and principally in the parks.

Additionally, water has proven to "elicit a higher restorative response and generally have a greater preference among populations in comparison to landscapes without water." (Browning et al., 2014) Some residents will have an uninterrupted view of the Mystic River from their units, this may have a relaxing and reinvigorating effect. This view/access to water, coupled with diverse vegetation around them/access to green spaces will make their homes feel like rehabilitative spaces. This effect will also extend outside of their homes, forging a deeper connection between them and their

environment.

Forming physical and visual connections between residents and their environments deepens their "Connection with Natural Systems." A footbridge connecting their homes to the greenway across the parkway, for example, can bring them physically closer to nature, giving them the opportunity to better understand their environment. Depending on the way residents end up using the park (e.g. community gardens, bee gardens, etc.), the interactive nature of their creations can serve an educational purpose, and will motivate them to become stewards of their environment.

Source:

Browning, William, et al. "14 Patterns of BIOPHILIC DESIGN." Terrapin Bright Green, Terrapin Bright Green, 12 Sept. 2014, www.terrapinbrightgreen.com/reports/14-patterns/#what-is-good-biophilic-design.

Caption: The Highline, a great example of biophilic design



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