











#### January 2020



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## Letter from the Mayor

Dear Neighbors,

After engaging residents and stakeholders across our city, I am delighted to present Providence's Great Streets Initiative and Urban Trail Network Master Plan (Great Streets)—an actionable roadmap to better connect our residents and neighborhoods. The plan will guide the City's efforts to ensure that every street in Providence is safe, equitable and sustainable. As our city looks towards the future, Great Streets guides the day-to-day work of our City's Departments to ensure the investments we make in our public spaces add value to all residents and make Providence a better-connected city.

Thriving cities are cities that offer choices. This plan builds out our infrastructure goals in a way that provides safe transportation options to residents, visitors and commuters of all physical abilities, economic statuses and ages. During our public outreach, we consistently heard that residents crave the freedom to safely live, work, and travel throughout our city, no matter how they chose to get around. With industry best practices and community priorities leading the way, Providence now has a plan to transform feedback into a vision—policy into action.

I am grateful for the support of our community partners, our talented design consultants and the City staff who shared their passion and expertise throughout the development of this plan. Together, we've already begun to put our pedestrian and mobility goals into motion through City Walk, the Woonasquatucket River Greenway Extension, and the diverse array of upcoming projects that are now funded through the City's Capital Improvement Plan.

We've laid out a bold vision for the future of Providence. I am proud to share this vision with you and look forward to building safer and more equitable streets across our City.

Mayor Jorge O. Elorza







# Acknowlegments

Jorge O. Elorza, Mayor

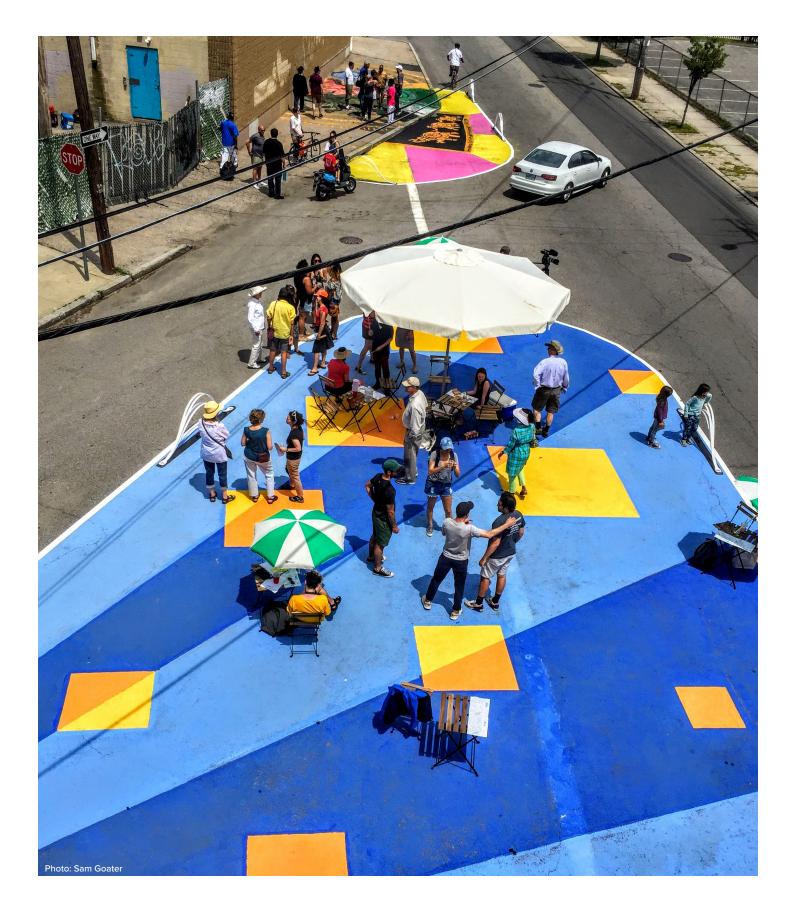
Thank you to many City of Providence staff members who contributed their time, input, and expertise to the creation of the Great Streets Master Plan:

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Sabrina Solares-Hand, Director of Operations Bonnie Nickerson, AICP, Director of Planning and Development Martina Haggerty, Director of Special Projects Alex Ellis, Principal Planner Antonio Morabito, Director of Public Works Nate Urso, Traffic Engineer Craig Hochman, Deputy Chief Engineer Leo Perrotta, Parking Administrator Doug Still, City Forester Ellen Cynar, Director of Healthy Communities Leah Bamberger, Director of Sustainability Gina Rodriguez-Drix, Cultural Affairs Manager

Thank you to the community partners and venues who generously hosted community meetings throughout this process: Grace Church Southside Cultural Center William D'Abate Elementary School Federal Hill House The Church of the Redeemer Alan Feinstein Elementary School The DaVinci Center Vartan Gregorian Elementary School West End Community Center Silver Lake Annex Community Center Saint Pius V Church Harry Kizirian Elementary School Thank you to our consultants: **Toole Design** Nelson\Nygaard Consulting Associates Valerie J Southern Transportation Consultant LLC

Cogent



Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, and commentary contained herein are based on limited data and information, and on existing conditions that are subject to change.





## Contents

| Introduction                 | 8  |
|------------------------------|----|
| How the Plan Was Developed   | 10 |
| Public Input                 | 12 |
| Existing Conditions          | 18 |
| Citywide Urban Trail Network | 22 |
| Neighborhood Visions         | 24 |
| Blackstone                   |    |
| Charles                      |    |
| College Hill                 | 30 |
| Downtown                     | 32 |
| Elmhurst                     |    |
| Elmwood                      | 38 |
| Federal Hill                 | 40 |
| Fox Point                    | 42 |
| Hartford                     | 44 |
| Норе                         | 46 |
| Lower South Providence       | 48 |
| Manton                       | 49 |
| Mount Hope                   | 50 |
| Mount Pleasant               | 52 |
| Olneyville                   | 54 |
| Reservoir                    | 57 |
| Silver Lake                  | 59 |
| Smith Hill                   | 61 |
| South Elmwood                | 63 |
| Upper South Providence       | 64 |
| Valley                       | 66 |
| Wanskuck                     | 67 |
| Washington Park              | 69 |
| Wayland                      | 71 |
| West End                     | 73 |

### Assessment of Regulations,

| Programs, and Policies76                              |
|---|
| City Commissions81                                    |
| City Departments82                                    |
| External Agencies83                                   |
| Existing Project Development and Delivery Processes84 |
| Recommendations                                       |
| Update City ordinances                                |
| Align City policies and procedures                    |
| Traffic controls and street operations                |
| State laws and policies                               |
| Engagement, education, and encouragement              |

# Introduction

The Providence Great Streets Initiative is based on the belief that every street in Providence should be safe, clean, healthy, inclusive, and vibrant. As our largest public asset, covering over 13 percent of Providence's total land area (over 1,500 acres), our streets play a central part in shaping our neighborhoods and impact the way we live, work, play, and move around our city.

Our Vision: Every street in Providence should be safe, clean, healthy, inclusive, and vibrant.

## What makes a Great Street?

- Safety for all people
- Clean, green, and sustainable
- Inclusive and welcoming for all
- Vibrant and prosperous

## What do Great Streets include?

- · Improvements to make walking safer
- Improvements to make riding bicycles safer
- · Improvements to make transit safer and more efficient
- Traffic calming improvements to reduce speeding and cut through traffic
- Streetscape and placemaking improvements like lighting, trash and recycling cans, landscaping, pocket parks, and benches
- Creation of a "spine" network of Urban Trails that connect every Providence neighborhood

## What does this plan do?

The Great Streets Master Plan establishes a vision and framework for specific public realm improvements citywide that will ultimately connect every Providence neighborhood to a safe, comfortable, high-quality network of public improvements where residents and visitors can walk, run, bike, scoot, and skate to get to schools, jobs, parks, and other important destinations.



## Goals

- Improve traffic safety and personal safety by bringing more order to the public realm.
- · Ensure our public realm is clean and well-maintained.
- Connect every neighborhood in the city with low-stress, high-comfort facilities for people of all ages and abilities to walk, run, bike, scoot, and skate along.
- Increase opportunities for gathering, socializing, playing, and creating.
- Celebrate the diverse character of the City's neighborhoods, art, and cultures within the public realm.
- Provide equitable access that meets the needs and desires of all neighborhoods.
- Lower greenhouse gas emissions.
- Reduce stormwater runoff and flooding.

## All streets can be Great Streets.

A lot goes into a street being great, and it's hard to summarize all of that in a few categories. That's why in a few places in this plan you'll see "walkability improvements," "other Great Streets project," or "intersection improvements." All of these include improvements to make it safer and more comfortable for people to cross or walk along streets, but may also include slowing down traffic where speeding is an issue, improving aesthetics with street trees, landscaping, lighting, or other streetscape improvements that will be further explored with community members. The inclusion of these projects is based on community feedback, crash history, and other data.

## **Providence Urban Trail Network**

Providence's Urban Trail Network will connect every neighborhood with high-quality routes for people walking, riding bicycles, accessing transit, or using shared micromobility options, like scooters and e-bikes, with a goal that residents and visitors can safely and comfortably travel to schools, jobs, and other important destinations like parks, libraries, and museums. The Urban Trail Network will also seamlessly and comfortably connect Providence residents to regional trails and paths, including the East Bay Bike Path, Blackstone Bike Path, Woonasquatucket River Greenway Bike Path, and Washington Secondary Trail.

#### What are Urban Trails?

Urban Trails are on- or off-street paths that are safe, comfortable, and easily accessible for people of all ages and abilities. On busy streets, Urban Trails are fully separated from vehicle traffic. In other instances, off-road trails and paths like the Blackstone Bike Path and Woonasquatucket River Greenway serve as part of the Urban Trail Network. On smaller neighborhood streets, Urban Trails take the form of "neighborhood greenways" - where a combination of traffic calming and wayfinding provide a consistent, easy to understand, high-comfort experience for people using the trail.

The Urban Trail Network needs to be connected to work well, just like streets that we drive cars on need to be connected to work. Using the Urban Trail Network, people will be able to access destinations using active modes without having to traverse high-stress segments or intersections. The Network will be intuitive to use and easy to navigate through the use of consistent design elements and branded wayfinding signage.

**Qualities of Urban Trails** 

Easily identified

and understood Connect to the rest of

the Urban Trail Network

#### Types of Urban Trails



from motor vehicles Neighborhood Greenways



Off-road bike path or trail

Some streets have existing bike lanes that do not meet the Urban Trail threshold. Streets with existing bike lanes that are proposed for Urban Trails have an "Upgrade Due" label in this plan.









# How the Plan Was Developed

## Intersection improvements

Recommendations for intersection improvements include intersections with a history of numerous crashes, intersections repeatedly mentioned by community members as needing improvements, unusually wide intersections, intersections with a complex or confusing layout, and key crossing locations for the Urban Trail Network.

Intersections included in the plan were refined based on data analysis, stakeholder input, and comments collected from the neighborhood workshops.

Improvement strategies include, but are not limited to:

- Crossing improvements
- Lane configuration modifications
- Urban Trail crossings (priority treatment based on context)
- Lighting improvements at crossings
- Placemaking and public art opportunities

Certain improvement types should be considered universal for intersection improvement projects, such as ADA/accessibility, signage, pavement marking, and signal upgrades as needed to meet design standards.

An intersection crash cluster is an intersection with at least six reported traffic crashes involving vulnerable users (people walking or riding bicycles) between 2009-17.

## **Traffic calming**

This plan recommends a new approach to traffic calming in Providence: implement traffic calming in small areas, or zones, within neighborhoods instead of on individual streets. A zone-based traffic calming program allows groups of streets within neighborhoods to be comprehensively evaluated for traffic calming. The resulting implementation would strategically occur on several streets, to prevent higher-speed traffic being pushed to adjacent streets from traffic-calmed streets. The Recommendations section suggests that the City should establish a process to evaluate zones proposed by neighborhoods for traffic calming. Candidate traffic calming zones are included for each neighborhood group below, but this should not limit traffic calming implementation on other streets if warranted. Refer to the Assessment of Regulations, Programs, and Policies section of this document for more detailed recommendations.



## Streetscape improvements

Streetscape improvements include physical changes to improve walkability, transportation amenities, aesthetics, or green infrastructure. The Implementation Guide serves as the primary reference for integrating such improvements into existing projects where possible or when necessary creating standalone projects.

## **Network planning principles**

- To achieve a robust network that reaches all Providence neighborhoods, the target minimum spacing between Urban Trail Network links is ½ mile.
- The Network will connect all Providence neighborhoods and provide access to major destinations throughout the city including job centers, schools, parks, libraries, museums, and other civic amenities.
- 3. The Network will connect to the regional trail system, including the Woonasquatucket River Greenway, Washington Secondary Trail, Blackstone River Bikeway, and East Bay Bike Path.
- 4. The Network should be direct and minimize detours.
  - a. Note: Direct routes in Providence are generally
     Commercial Streets, Neighborhood Collector Streets, and
     other corridors that serve travel between neighborhoods
     or extend outside of the city. Moderate detours may be
     used to address barriers when the most direct routes are
     not feasible. Research on route choice and ridership
     indicates that a detour should not exceed a 30 percent
     increase in distance over the most direct route.
- Where two or more parallel routes may feasibly accommodate an Urban Trail, preference will be given to corridors with more amentities (e.g. businesses, parks) for trail users.

#### Table 1. Network building blocks and references

| Dublic Input   | Public comments at community meetings                |
|--|--|
| Public Input   | Public comments via online mapper                    |
|  | Data analysis  |
| Existing conditions research                         | Feasibility  |
|  | Equity, safety, and connectivity                     |
|  | Route suggestions for the Great Streets Plan         |
| Bicycle and Pedestrian<br>Advisory Commission (BPAC) | Previous staff reports and committee recommendations |
|  | State Bicycle Mobility Plan candidate routes         |
| Planning documents and<br>processes                  | Previous plans                                       |
| p.000000   | Traffic calming requests                             |
| Current Urban Trail Network                          | In-progress  |
| Current Orban Hall Network                           | Existing   |

### Segment/link design principles

- The basic design principles for every type of street in the City are laid out in the Implementation Guide. Whenever road work happens in Providence, rather than replacing as-is, improvements should be made to bring the street closer to the principles in the Guide.
- The Urban Trail Network shall provide a consistent experience and level of comfort not to exceed Bicycle Level of Traffic Stress 1 (lowest stress) and the maximum allowable level is Bicycle LTS 2.
- The Urban Trail Network shall consist of a range of facility types—including physically separated lanes on busy streets, shared use paths in their own rights-of-way, curb-separated paths on the side of the road, and lower-volume, trafficcalmed streets (neighborhood greenways)—depending upon context.
- Connections and transitions between network links shall be seamless and intuitive with identifying elements that link together different segments of the network.

Bicycle Level of Traffic Stress (LTS) is a rating of streets and roads from 1 to 4 that estimates the comfort level people feel while riding bicycles down the street. The rating takes into account characteristics such as posted speed limit, the type of bike facility, travel lane width, and the presence of on-street parking. LTS 1 represents the lowest stress rating and LTS 4 represents the highest.

### **Route feasibility**

1. Routes should be feasible, at least over the long term. A separate prioritization process will recommend shorterterm priorities. Many factors inform the feasibility of a route, but basic considerations of feasibility include topography, environmental constraints, regulatory constraints, design standards, and available right-of-way.



- Preference shall be given to designs that can be implemented with minimal modifications to the roadway.
- 3. Where traffic conditions indicate the need for separated facilities, the following shall be the ranked order of preferred actions to provide necessary space for an Urban Trail:
  - a. Narrow existing lane widths
  - b. Remove travel lane (on multi-lane streets)
  - c. Remove parking lane
  - d. Modify curb line/construction project
  - e. Alternative route
- While no one factor determines the suitability of a neighborhood greenway treatment, considerations for neighborhood greenway treatments include:
  - a. Street generally has a functional classification of collector or local
  - b. Street is low-volume (3,000 ADT or less), or a target low volume can be reasonably achieved with the neighborhood greenway treatment
  - c. Target post-project motor vehicle operating speed is a maximum of 20 mph
  - d. Street has seen a formal traffic calming request from community members
  - e. Due to the width of the street, separation is not feasible or practical after evaluating the above preferred actions
  - f. Based on context, need, and neighborhood priorities, neighborhood greenway recommendations may incorporate other components in addition to traffic calming, including basic sidewalk improvements, landscaping, stormwater management, lighting, and art.

# **Public Input**

In Spring 2019, the City of Providence hosted 12 neighborhood meetings to gather input on Great Streets improvements during which we collected over 275 mapped comments from more than 180 attendees about topics ranging from traffic calming to street lighting to bike lanes. Attendees provided input by adding green and red "like/dislike" stickers to neighborhood and citywide maps.

Comments and ideas gathered at the neighborhood meetings were then translated into draft recommendations for projects. From early May to mid-June, those projects were presented to the public in an online interactive map, where community members could vote on project ideas and provide additional mapped comments.

The neighborhood meeting materials, presentation, and online map were presented in a bilingual (English and Spanish) format.

The result is a plan closely shaped by the community.

## **Neighborhood meeting summary**

 181
 Attendees

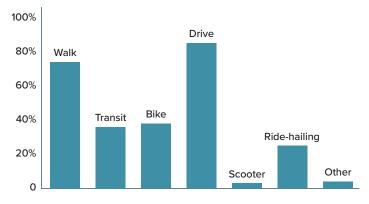
 275
 Mapped Comments

>500 Like/Dislike Stickers on the Citywide Map

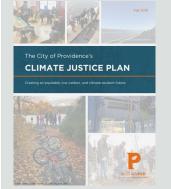


#### How do you travel around Providence? (check all that apply)





#### **Coordination spotlight: Climate Justice Plan**



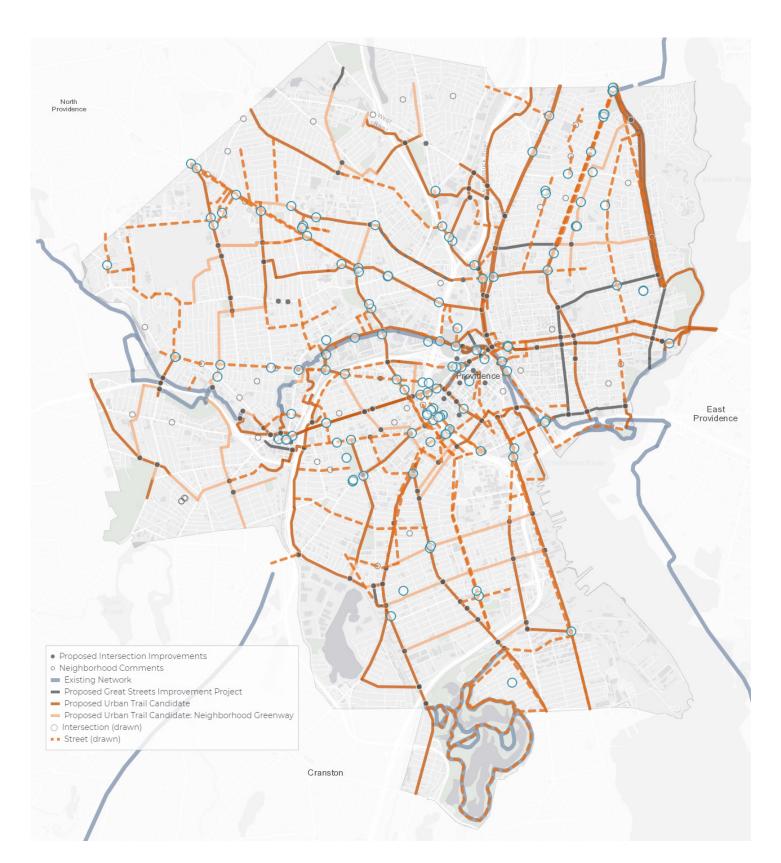
A parallel plan produced in 2019 by the Providence Racial and Environmental Justice Commission and the Office of Sustainability, the Climate Justice Plan featured a nationallyrecognized public engagement process and its transportation section complements the Great Streets Plan.

#### Climate Justice Plan Transportation Targets:

- By 2035, reduce Vehicle Miles Traveled (VMTs) by 11% and by 2050, reduce VMTs by 20%.
- By 2035, 43% of VMTs are electric and by 2050, 80% of VMTs are electric.
- By 2035, increase the number of employers in Providence offering RIPTA's EcoPass to their employees from 50 to 200.
- Increase trips taken using JUMP Boost plan subscriptions to 10%.
- Increase public transit ridership in Providence.
- Reduce diesel truck traffic in frontline communities.
- · Increase low-carbon transit options in frontline communities.
- · Increase sidewalk maintenance and investment in frontline communities.

## **Online map public input summary**

This map was generated based on the draft June 2019 urban trail network map, on top of which community members proposed additional routes and intersections by drawing on the map.



## What we heard

"Lots of pedestrians crossing to church. Better crosswalk needed." (Charles Street at Hawkins Street, Charles)

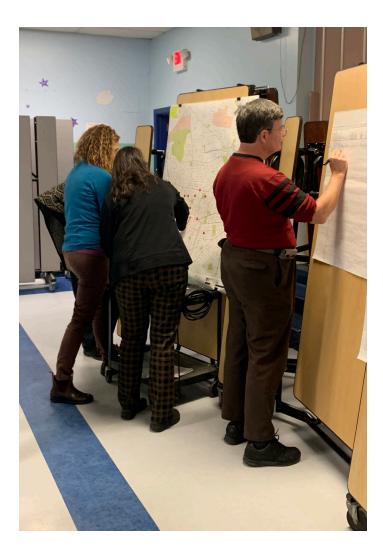
"Speeding, cut through traffic, parking on sidewalk, [happens a lot on this street], stop sign ignored."

(Windmill Street, Charles)

"Crosswalk is long. Cars accelerate uphill – dangerous for crossing pedestrians. There are blind spots as well." (Benefit Street at Benevolent Street, College Hill)

*"Unsafe pedestrian crossing; all double lanes. Pedestrians must* 

**run across."** (I-95 ramps at Point Street, Downtown)







"Like protected lane, but should be longer and more protected with planters, and [highlighted with] green bike lane paint." (Fountain Street, Downtown)

"Traffic interferes with usability of the park [Columbus Square]."

(Elmwood Avenue at Reservoir Avenue, Elmwood/Reservoir)

"Difficult vehicle turns, and large intersections makes it difficult for pedestrians to cross." (Atwells Avenue at Dean Street, Federal Hill)

"Vehicles speed along Knight, and with two way traffic and cars parked on one side, it's dangerous for pedestrians. Consider making it one-way southbound with dedicated parking on one side and a posted lower speed limit." (Knight Street at Grant Street, Federal Hill)

"Hard to cross; fast traffic."

(Gano Street, Fox Point)

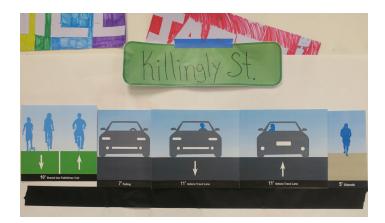
"Need a new bridge across the river to Hartford Ave." (Hartford)

## "Complicated/indirect [pedestrian] crossing."

(Hope Street at Blackstone Boulevard, Hope)

"Congestion, people driving run red lights" (Eddy Street at Thurbers Avenue, Lower South Providence)

"Eliminate the slip lane at Olney + N. Main. It is dangerous to pedestrians." (Mount Hope)



#### "Speeding issues on Mt Pleasant [Avenue]."

(Mount Pleasant Avenue at Old Road, Mount Pleasant)

## "Need crosswalk from parking lot to post office building."

(Hartford Avenue at Atwood Street, Olneyville)

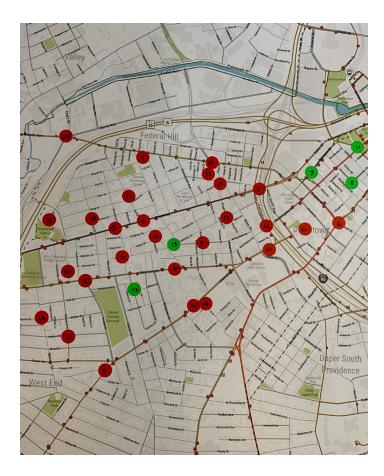
## "Add raised crosswalk to park or speed bumps to reduce travel speeds."

(Woonasquatucket River Greenway at Aleppo Street, Olneyville)

"Fear of being hit by a car, bad visibility, use of Ruggles as cut-through, speeding" (Smith Street at Ruggles Street, Smith Hill)

# "Speed limit does not equal design speed. Streets too wide."

(Roger Williams Park, South Elmwood)







"So congested! Very narrow bridge @ Wanskuck building. People pass through here to detour. Makes it hard to pass through on a bike because it's so congested." (Branch Avenue at Woodward Road, Wanskuck)

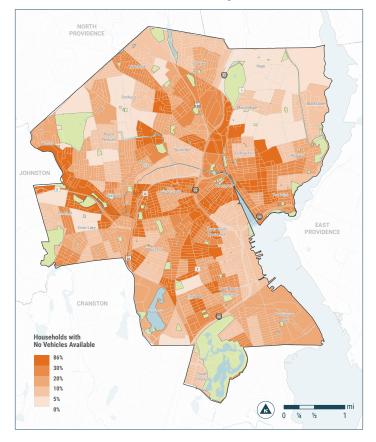
"Burns St is one way, but stop bar @ stop signs only goes half way across street – makes it appear 2 way and encourages wrong way driving." (Burns Street, Wanskuck)

"Too fast – too wide. People don't obey 35 mph speed limit, which is also too high. High traffic volumes. Lots of trucks. Poor lighting. Not safe at night. Dirty." (Allens Avenue at Chapman Street, Washington Park)



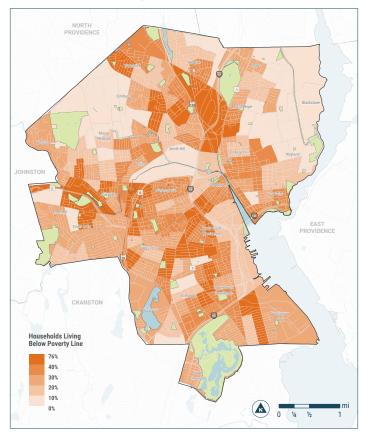
# **Existing Conditions**

#### **Household Vehicle Availability**



- Nearly 20 percent of households do not have a personal car available. This percentage is even higher in Olneyville, Upper South Providence, and Hartford, where 42, 40, and 39 percent of households, respectively, do not have a car available.
- JUMP is contracted to provide electric pedal-assist bicycles for use across the city.
- The City's E-Scooter Share Program issues permits for companies to operate shared e-scooters ciywide.
- There are approximately 11.2 centerline miles of existing Urban Trails and 6.6 centerline miles of existing bike lanes in Providence. This includes facilities in Roger Williams Park as part of the existing Urban Trail network.
- While over 10 percent of Providence residents currently walk to work, and 1 percent ride a bicycle as their primary mode of travel to work, almost two-thirds drive alone. The percentage of people who do not drive to work is significantly higher in College Hill, Fox Point, and Wayland, where 69, 64, and 55 percent of commuters, respectively, do not drive to work.

#### **Household Poverty**







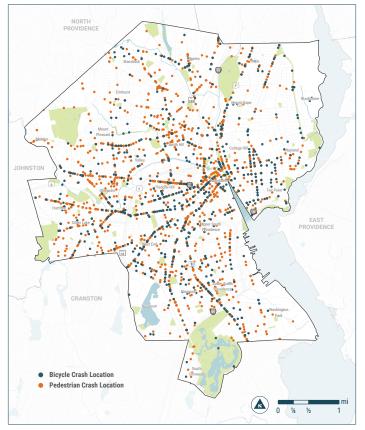


**30%** of all citywide emissions come from vehicles



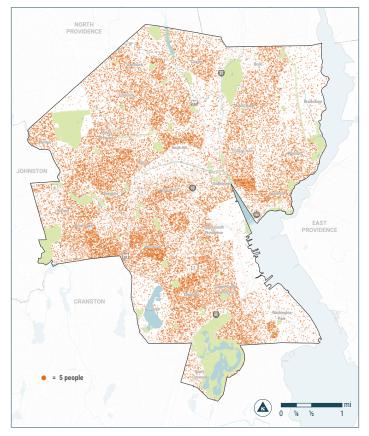
**1 st** Providence County is the **most polluted** county in New England

## Crashes Involving People Walking and Bicycling (2009-17)



• Every year, on average, from 2009 to 2017, over 150 people walking and over 60 people riding bicycles were hit by cars in Providence.

#### **Population Density**



- Providence's compact size and population density (over 9,000 people per square mile) makes it easy to walk, ride a bicycle, and use other micromobility options to get around.
- The average Providence household creates over 18,000 vehicle miles traveled (VMT) per year, which contributes to traffic congestion, noise, physical inactivity, and more than 500,000 tons of carbon dioxide equivalent (CO2e) emissions from transportation and mobile sources each year.

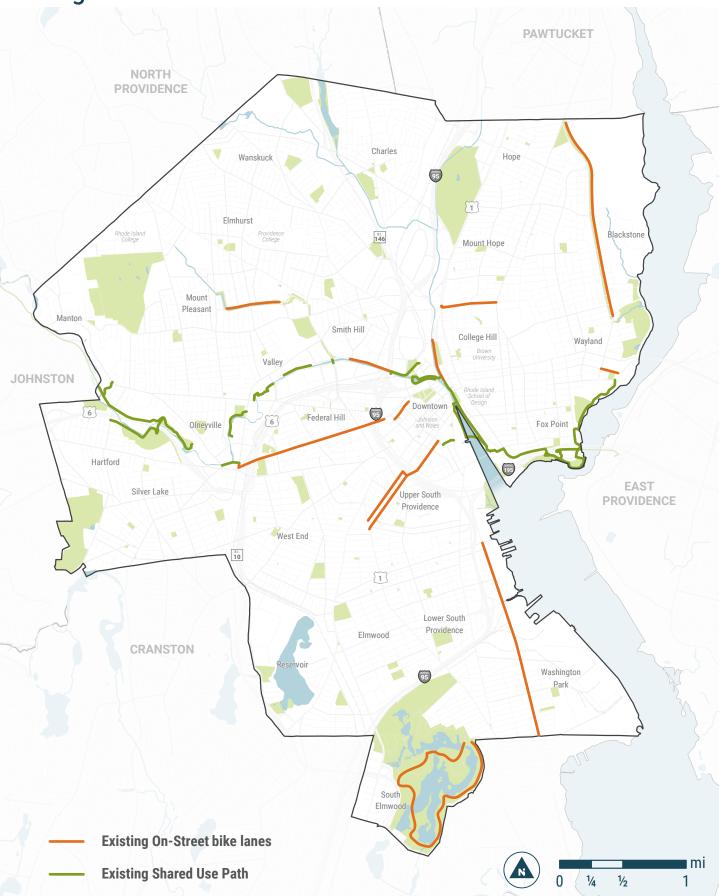
#### Lower speeds = fewer roadway fatalities

Slower driving speeds increase the chance that drivers will see people walking or biking in time to stop and avoid injuring them. A large body of national and international research shows that even small changes in driving speeds can significantly reduce fatalities and injuries. Lowering speed limits is a good idea, but most people pick a speed based on the street configuration and the speed of other cars around them regardless of the speed limit. That's why we need to design our streets for people not just cars to create a city that is safe for everyone.

Graphic: Seattle Vision Zero plan, Data: NACTO



## **Existing Network**



#### 2019 OVERALL SCORE Measures how many people are riding. The overall score is based on Ridership, Safety,

National nonprofit People For Bikes created the Bicycle Network Analysis tool to help communities measure the quality of our low-stress bike networks. It assesses the degree to which people can

comfortably bike to the places they want to go. The below is the result of the analysis for Providence.



Network, Reach and Acceleration. It includes publicly available data and data gathered from our Community Survey, City Snapshot, and Bike Network Analysis

Providence, RI CITY SCORECARD

**People For Bikes Bike Network Analysis** 

### SAFETY 🕒

Measures how safe it is and feels to ride a bike.



All mode fatalities and injuries 1.5 Bicycle fatalities and injuries 2.5 Perceptions of safety 2.3

### REACH 2

leasures how well the bike network serves everyone equally.



| Demographic gap in BNA            | 1.7 |
|-----------------------------------|-----|
| Bicycle commuting rates by gender | 3.1 |





0.3 Bicycle commuting Recreational bike riding 2.8 Perceptions of bike use 2.7



Measures how well the bike network connects people to destinations.



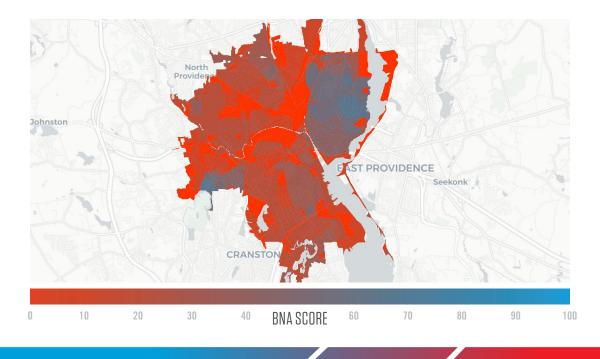
Bicycle Network Analysis (BNA) 2.0 Perceptions of network quality 2.5

### ACCELERATION | 🗤 🛈

sures the city's commitment to growing bicycling quickly.



Growth in bike facilities and events 4.7 Perceptions of progress 2.7



More information at https://bna.peopleforbikes.org/



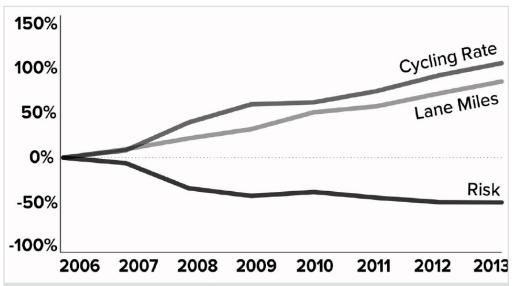
# **Citywide Urban Trail Network**

A central principle of the Providence Great Streets Master Plan is to connect every neighborhood to a complete and intuitive Urban Trail Network. The Urban Trail Network proposed within this Master Plan comprises:

- Over 150 projects along corridors
- Over 300 intersections prioritized for improvements. Other neighborhood comments are embedded in Urban Trail projects to mark important intersections to be addressed in project development.
- 78 miles of new projects (43 miles of new separated on-street or off-street/shared use path Urban Trails, 22 miles of new neighborhood greenways, 6 miles of walkability projects, and 6 miles of upgrades to existing bike lanes and shared use paths to improve conditions for people walking, cycling, and using micromobility)

The proposed Urban Trail Network touches every part of Providence, bringing 93 percent of residents and 93 percent of jobs within easy walking distance. The Urban Trail Network:

- Connects 166,792 Providence residents living within ¼-mile of the proposed network (compared to 36,452 living within ¼-mile of the existing network), resulting in a 458 percent increase in the number living within easy walking distance of the Urban Trail Network
- Connects 99,324 people who work within ¼-mile of the proposed network (compared to 38,596 working within ¼-mile of the existing network), resulting in a 257 percent increase in the number of people working within easy walking distance of the Urban Trail Network



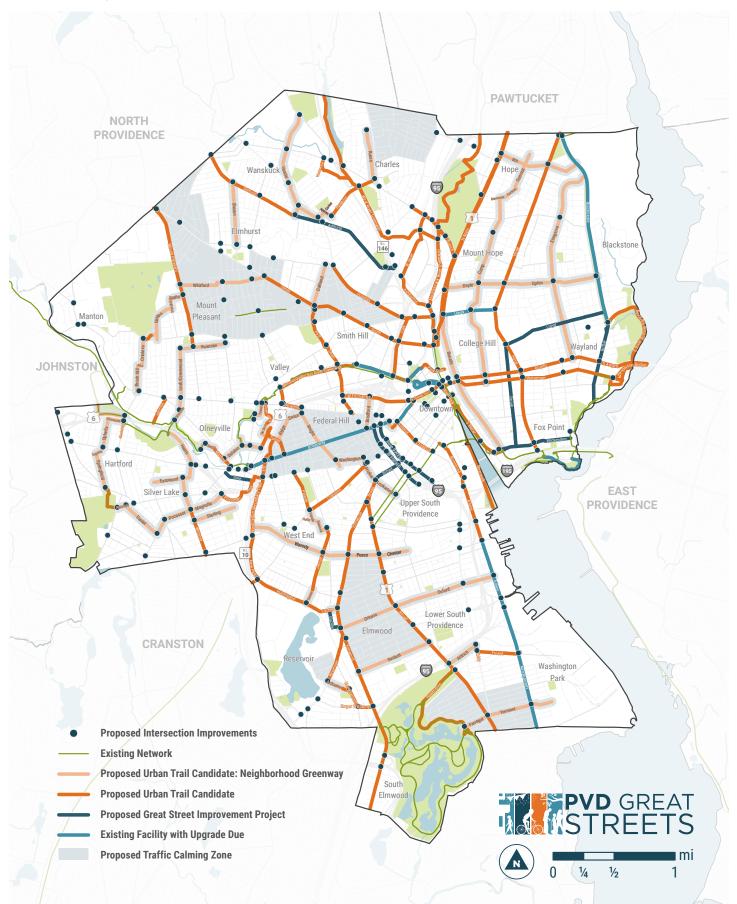
Aggregate data from Portland, New York City, Chicago, San Francisco, and Philadelphia Source: NACTO

#### Urban Trails reduce risk of bicycling

Data compiled by the National Association of City Transportation Officials and visualized above shows a clear correlation between lane-miles of urban trails and safety. While helmets often dominate the discourse about bicycling safety, and crash data is often presented without context, this analysis shows that more urban trails get more people biking, and when more people are biking, everybody's safety improves. In order to improve the safety of our neighbors who already bike, and to give another option for safely getting around our city to more people, this plan calls for connecting every neighborhood to the Urban Trail Network.



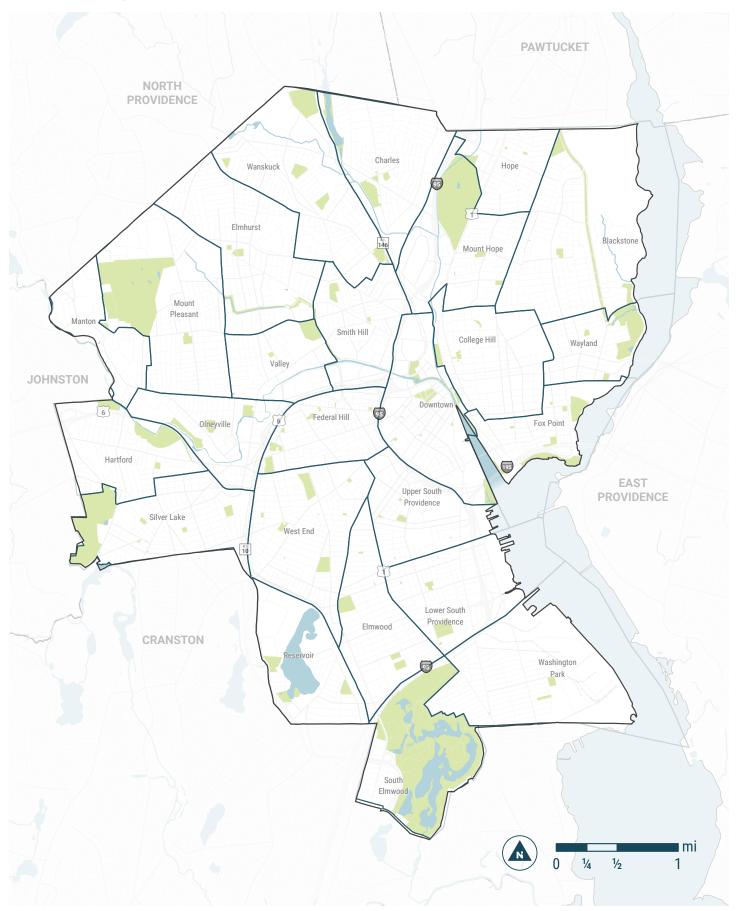
#### **Proposed Citywide Urban Trail Network**



# Neighborhood Visions

It should be safe, intuitive, and easy for residents and visitors to get around every neighborhood in Providence. Recommended improvements in each neighborhood include investments that build toward the community's vision for Great Streets that are safe, clean, healthy, inclusive, and vibrant. During the 12 neighborhood meetings held throughout March and April 2019, community members provided 275 mapped comments, as well as other general feedback, which informed these neighborhood visions. Many ideas and comments have been translated into specific improvement projects. Other comments that were outside of the purview of the Great Streets Master Plan have been catalogued in Appendix B.

### **Providence Neighborhoods**



## **Blackstone**

#### **Key Urban Trail Recommendations**

**Create north-south Urban Trails on Hope Street and Blackstone Boulevard.** Address north-south connectivity for people walking, riding bicycles, and using other micromobility options on these three corridors, while responding to each of the their contexts with different conceptual designs.

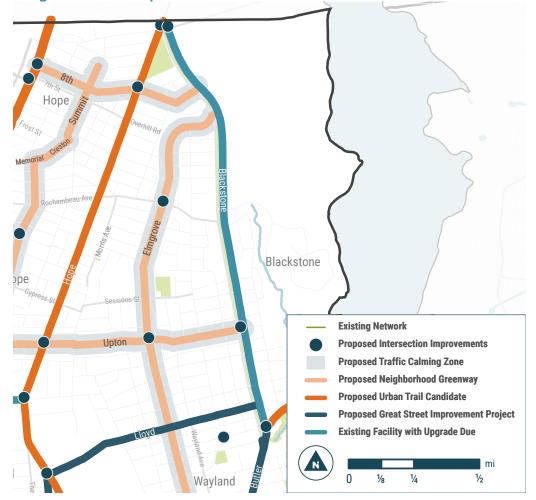
- Hope Street: Hope Street is a major north-south route. It is a
  primarily residential street with commercial nodes at
  Rochambeau Avenue, Ninth Street, and Blackstone
  Boulevard. Continuing the Urban Trail on Hope Street north of
  College Hill was one of the most frequently-made
  suggestions from public comments on the Draft Urban Trail
  Network.
- Blackstone Boulevard: Blackstone Boulevard is a key segment on the Statewide Bicycle System and East Coast Greenway. It already provides space for people to walk via the boulevard and ride bicycles via conventional striped bike lanes. The plan envisions minor upgrades to the bike lanes to better buffer and separate them from the adjacent travel lane.

**Create neighborhood greenways for greater network density.** A neighborhood greenway on Elmgrove Avenue would supplement the connectivity provided by the north-south Urban Trails. Neighborhood greenways along Doyle and Upton avenues in the southern part of the neighborhood and along Eighth Street and Lorimer Avenue in the northern part would provide east-west connectivity between Hope and Blackstone.

#### **Key Traffic Calming Recommendations**

Areas along and around proposed neighborhood greenways:

- Doyle and Upton avenues
- Elmgrove Avenue
- 8th Street and Lorimer Avenue



#### **Neighborhood Map**

### **Project List**

| Street or<br>Trail Name            | From                               | То                            | Project<br>Type | Why is this important?   | Recommendation                                     | Implementation Action   |
|------------------------------------|------------------------------------|-------------------------------|-----------------|--|--|---|
| Норе                               | Doyle                              | Lloyd                         | Urban<br>Trail  | Connects proposed Doyle Urban Trail to Olney<br>Urban Trail and further south to Waterman;<br>enhances access to schools and Brown University  | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Consolidate parking one side  |
| Норе                               | Blackstone Blvd                    | Doyle                         | Urban<br>Trail  | Serves three neighborhoods; creates a regional connection to North Providence; enhances micromobility access to parks, schools, and retail districts                                     | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Consolidate parking one side,<br>Move curbs   |
| Alfred Stone                       | Blackstone Blvd                    | City limit                    | Urban<br>Trail  | Connects Blackstone Blvd path to Pawtucket   | Two-Way Shared Use<br>Path                         | Narrow travel or parking lane<br>(Lane Diet), Move curbs                                |
| Doyle/Upton                        | Blackstone Blvd                    | Норе                          | Urban<br>Trail  | Provides central east-west Urban Trail for the east<br>side of the City; connects several neighborhoods<br>and proposed Hope and Elmgrove Urban Trails with<br>the Blackstone River path | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| 8th                                | N Main                             | Lorimer                       | Urban<br>Trail  | Connects Hope and Blackstone; connects to<br>proposed N Main, Summit, Hope, and Lorimer<br>Urban Trails  | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Lorimer                            | 8th                                | Blackstone<br>Blvd            | Urban<br>Trail  | Completes proposed 8th St Urban Trail connection to Blackstone Blvd path   | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Elmgrove                           | Blackstone Blvd                    | Lloyd                         | Urban<br>Trail  | Provides traffic calming and a north-south<br>connection between Blackstone and Wayland;<br>connects Blackstone Blvd path to proposed Doyle/<br>Upton Urban Trail                        | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| E River St/<br>River Rd/<br>Irving | Blackstone River<br>Bikeway/Pitman | Irving/<br>Blackstone<br>Blvd | Urban<br>Trail  | Fills in a gap in the Blackstone River Bikeway and<br>East Coast Greenway; connects to future<br>Henderson Bridge path and proposed Waterman<br>Urban Trail                              | Two-Way Shared Use<br>Path                         | Move curbs, Independent ROW   |
| Blackstone                         | Норе                               | Irving                        | Upgrade<br>Due  | Improves conditions for people bicycling and using<br>micromobility with additional separation from<br>motor vehicle traffic   | One-Way Urban Trail<br>with Accessible<br>Sidewalk | Enhance quality of existing facility  |

#### Key Intersection Improvement Recommendations

| Street 1   | Street 2      | Туре   |
|------------|---------------|--|
| Blackstone | Норе          | Priority from draft map comments<br>Neighborhood comment                         |
| Blackstone | Alfred Stone  | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
| Blackstone | Lorimer       | Network crossing   |
| Blackstone | Elmgrove      | Neighborhood comment   |
| Blackstone | Upton         | Network crossing   |
| Blackstone | Irving/Butler | Network crossing<br>Large or complicated intersection                            |
| Elmgrove   | Doyle/Upton   | Network crossing   |
| Firglade   | Elgin         | Neighborhood comment   |
| Норе       | 8th           | Network crossing   |
| Норе       | Olney         | Network crossing<br>Large or complicated intersection                            |
| Норе       | Doyle         | Network crossing<br>Large or complicated intersection                            |
| Rochambeau | Cole          | Neighborhood comment   |

### **Project Highlight: Hope Street**



The most frequent request made during public outreach for this plan was to implement an Urban Trail on Hope Street, especially north of Olney Street. Hope Street is long and while in many places it is predominantly residential and of adequate width to create an Urban Trail, there are less clear-cut sections. The commercial area north of Rochambeau Avenue and the area between Lloyd Ave and Angell Street are busier. In these busy areas, the City will need to conduct a thorough process to evaluate the best compromises to satisfy this need while sufficiently accommodating existing uses.

## Charles

#### **Key Urban Trail Recommendations**

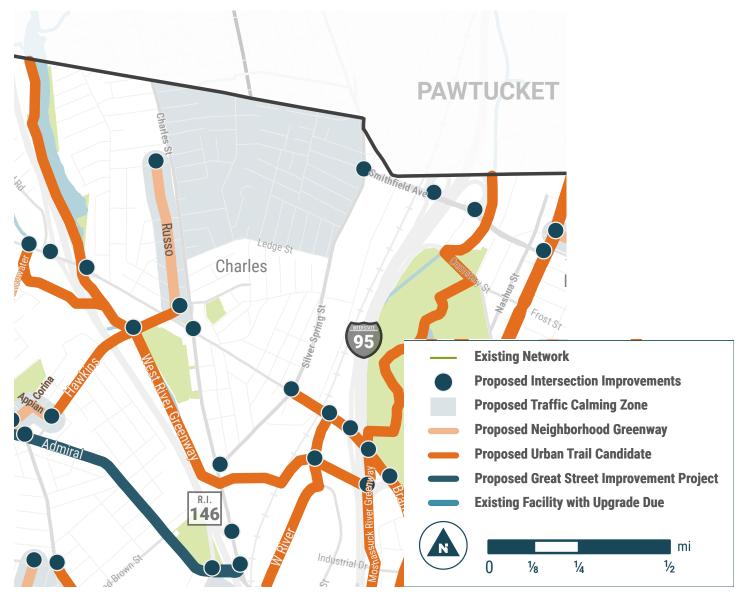
**Implement a neighborhood greenway on Russo Street as a parallel route to Charles Street.** In coordination with residents, property owners, and other stakeholders, study the feasibility of making the informal path north of Paul Street more accessible to people with limited mobility and enhancing access north to Hagan Street by widening the path to 5-10 feet wide, installing a firm, stable, and slip-resistant surface, and installing an ADA-compliant ramp at Paul Street.

**Implement an Urban Trail on Hawkins Street,** whose bridge over Route 146 is being replaced in 2020, to connect the two neighborhoods. This project would extend to Hawkins Square.

#### Establish off-road Urban Trails along the West and Moshassuck

**rivers.** A long-term vision is for Mount Hope, Charles, and Wanskuck to one day be connected to the Urban Trail Network with an off-road path and greenway along the West and Moshassuck rivers. The West River primarily flows through Charles and Wanskuck. The City should begin collaboration with property owners, residents, and other stakeholders to establish a concept and bring these segments from vision to reality. The City should also work with the State, City of North Providence, and other stakeholders to study alignment alternatives for a path along State Route 146 and Canada Pond that would establish an Urban Trail connection between Providence and the eastern part of North Providence.

#### Neighborhood Map



### **Project List**

| Street or<br>Trail Name | From                   | То         | Project<br>Type | Why is this important?   | Recommendation                                  | Implementation Action   |
|-------------------------|------------------------|------------|-----------------|--|---|---|
| West River<br>Greenway  | Vandewater             | I-95       | Urban<br>Trail  | Long-term recommendation for a<br>continuous east-west greenway connecting<br>Charles and Wanskuck   | Two-Way Shared Use<br>Path                      | Independent ROW   |
| Canada Pond<br>Path     | West River<br>Greenway | City limit | Urban<br>Trail  | Long-term recommendation for a<br>north-south greenway parallel to SR 146 and<br>Canada Pond (alignment to be studied) to<br>connect Providence and North Providence | Two-Way Shared Use<br>Path                      | Independent ROW   |
| Hawkins                 | Appian                 | Monticello | Urban<br>Trail  | Key connection between Charles and<br>Wanskuck, enhancing access to parks,<br>schools, and neighborhood business<br>districts  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side   |
| Russo/<br>Monticello    | Hawkins                | Hagan      | Urban<br>Trail  | Provides traffic-calmed Urban Trail route parallel to Charles St   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

#### **Key Traffic Calming Recommendations**

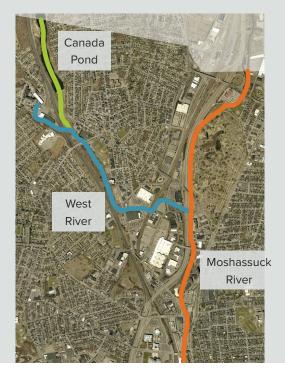
- Neighborhood meeting comments included concerns about speeding on Windmill and Ledge streets
- Areas along and around proposed neighborhood greenway
   on Russo Street

#### Key Intersection Improvement Recommendations

| Street 1               | Street 2                                | Туре   |  |
|------------------------|---|--|--|
| Branch                 | Silver Spring                           | Large or complicated intersection  |  |
| Branch                 | West River<br>Greenway Network crossing |  |  |
| Branch                 | Rt 146 NB ramps                         | Large or complicated intersection  |  |
| Charles                | Admiral                                 | Large or complicated intersection  |  |
| Charles                | Branch                                  | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |  |
| Charles                | Hawkins                                 | Neighborhood comment<br>Network crossing   |  |
| Charles                | Rt 146 NB<br>on-ramp                    | Large or complicated intersection  |  |
| Charles                | Rt 146 SB<br>off-ramp/<br>Whipple       | Large or complicated intersection  |  |
| Charles                | Silver Spring                           | Large or complicated intersection  |  |
| Greenley               | Alaska                                  | Neighborhood comment   |  |
| Hawkins                | Monticello                              | Network crossing   |  |
| Hawkins                | West River<br>Greenway                  | Network crossing   |  |
| Job                    | Bismark                                 | Neighborhood comment   |  |
| Russo                  | Hagan                                   | Network crossing   |  |
| Smithfield             | Silver Spring/<br>Foch                  | Large or complicated intersection  |  |
| West River<br>Greenway | Hawkins                                 | Network crossing   |  |

#### Project Highlight: new river greenways

The most ambitious projects proposed as part of this plan, the Moshassuck, West River, and Canada Pond greenways seek to replicate the Woonasquatucket River Greenway's success at bringing Providence residents closer to the city's sometimes-hidden natural beauty. Currently, these three water bodies are often overshadowed by I-95 and Route 495, which they parallel respectively, and overlooked behind commercial plazas and industrial parks. Besides access to nature, these paths offer the opportunity to connect Charles and its adjacent neighborhoods to the Urban Trail Network when the street network provides relatively few opportunities to make on-road connections. While these paths are purely conceptual at this time, it is recommended that the City study their feasibility.



## **College Hill**

#### **Key Urban Trail Recommendations**

**Implement Urban Trails on Angell and Waterman streets** to serve as a one-way couplet connecting College Hill, RISD, and Brown University with Wayland, the Blackstone Bike Path, and the Henderson Bridge.

Implement an Urban Trail on Hope Street between Blackstone Boulevard and George M. Cohan Boulevard to connect the Hope, Mount Hope, Blackstone, College Hill, and Fox Point neighborhoods. In College Hill, this project will enhance access to India Point Park and the East Bay Bike Path in the south and join together several east-west Urban Trails. This also provides an opportunity to reduce speeding and improve safety for people walking along Angell and Waterman streets. The City should work closely with community members, Brown University, and other stakeholders to investigate converting Brook and Hope into a one-way pair for vehicular circulation and providing angled parking along Brook Street to increase local parking capacity.

**Improve walkability** on Brook Street to supplement the connectivity provided by the recommended Urban Trail Network.

**Study uphill routes from the Providence River.** A remaining challenge is topography, especially with regard to identifying relatively direct routes up the hill from the river to Brown University. Further study of potential solutions to help people riding bicycles overcome the steep incline of College Hill along streets such as Meeting, Thomas, Angell, Waterman, and College streets is suggested. In addition to on-road solutions discussed in this plan, creative ideas implemented elsewhere in the world such as Trondheim, Norway's bicycle escalator could be considered.

#### **Key Intersection Improvement Recommendations**

| Street 1 | Street 2       | Туре  |
|----------|----------------|---|
| Angell   | Benefit/Thomas | Large or complicated intersection                               |
| Angell   | Brown          | Network crossing  |
| Benefit  | Benevolent     | Neighborhood comment  |
| Brook    | Angell         | Network crossing  |
| Brook    | Waterman       | Network crossing  |
| Canal    | Mill           | Large or complicated intersection                               |
| Canal    | Smith          | Large or complicated intersection                               |
| Canal    | Steeple        | Large or complicated intersection                               |
| Canal    | Park Row       | Network crossing<br>Pedestrian/bicycle crash focus intersection |
| Норе     | Angell         | Network crossing  |
| Норе     | Waterman       | Network crossing  |
| Норе     | George         | Pedestrian/bicycle crash focus intersection                     |
| Норе     | Lloyd/Brook    | Network crossing  |
| Норе     | Olney          | Network crossing  |

#### Neighborhood Map



| Street 1 | Street 2                | Туре  |
|----------|-------------------------|---|
| N Main   | College                 | Pedestrian/bicycle crash focus intersection                     |
| N Main   | Mill/Canal              | Large or complicated intersection                               |
| N Main   | Thomas/Steeple          | Large or complicated intersection                               |
| N Main   | Olney                   | Network crossing  |
| N Main   | Waterman/<br>Washington | RISD Priority   |
| Olney    | Camp/Brown              | Network crossing  |
| Thayer   | Meeting                 | Neighborhood comment  |
| Waterman | Benefit                 | RISD Priority   |
| Waterman | Brown                   | Network crossing<br>Pedestrian/bicycle crash focus intersection |

### **Project List**

| Street or<br>Trail Name | From                  | То                     | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-------------------------|-----------------------|------------------------|-----------------|---|---|---|
| Benefit                 | Wickenden             | Waterman               | Urban<br>Trail  | Connects Fox Point and College Hill;<br>enhances north-south access to the existing<br>path at Wickenden  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Benefit                 | Waterman              | Main                   | Urban<br>Trail  | Connects College Hill and Mount Hope;<br>connects proposed Waterman and Olney<br>Urban Trails   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Норе                    | Doyle                 | Lloyd                  | Urban<br>Trail  | Connects proposed Doyle Urban Trail to<br>Olney Urban Trail as it extends further south<br>to Waterman; enhances access to schools<br>and Brown University  | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side  |
| Норе                    | Lloyd                 | Waterman               | Urban<br>Trail  | Extends proposed Waterman Urban Trail to Brown University destinations and schools  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side,<br>Narrow travel or parking lane<br>(Lane Diet)                |
| Норе                    | Waterman              | George M<br>Cohan Blvd | Urban<br>Trail  | Connects College Hill and Fox Point; links<br>proposed Angell and Waterman Urban Trails<br>with India Point Park  | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side  |
| Charles/Mill/<br>Canal  | Ashburton/<br>Randall | Smith                  | Urban<br>Trail  | Connects to one-way Urban Trail on Canal<br>and proposed W. River St. Urban Trail;<br>moves toward better access to Downtown<br>from Charles and Mount Hope | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet),<br>Move curbs   |
| Canal                   | Smith                 | Washington             | Urban<br>Trail  | Enhances access to Downtown, the train station, and the Providence and Woonasquatucket Rivers   | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet)  |
| Brook                   | Lloyd                 | Wickenden              | Great<br>Street | Serves as parallel to Hope St. to enhance<br>micromobility connectivity and parking for<br>commercial areas and Brown University                            | Other Great Street<br>Improvement               | Enhance quality of existing facility  |
| S Angell/Angell         | Henderson<br>Bridge   | Норе                   | Urban<br>Trail  | Connects in-progress Henderson Bridge<br>path, proposed Elmgrove and Hope St.<br>Urban Trails; enhances access to schools,<br>parks, and Brown University   | One-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Angell                  | Норе                  | Prospect               | Urban<br>Trail  | Connects to proposed Hope St. Urban Trail;<br>enhances access to Brown University   | One-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet)  |
| Waterman                | Норе                  | Butler                 | Urban<br>Trail  | Connects College Hill and Wayland   | One-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Waterman                | Prospect              | Норе                   | Urban<br>Trail  | Provides a central micromobility route for<br>Brown University and College Hill; connects<br>to proposed Hope St. Urban Trail                               | One-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet)  |
| Waterman                | Benefit               | Prospect               | Urban<br>Trail  | Allows separated space for micromobility users to climb the hill  | One-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Brown                   | Olney                 | Waterman               | Urban<br>Trail  | Connects College Hill and Mount Hope and several proposed Urban Trails  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Lloyd                   | Норе                  | Blackstone             | Great<br>Street | Enhances walkability along this route<br>connecting several schools, recreational<br>areas, and the Blackstone Blvd path                                    | Other Great Street<br>Improvement               | Enhance quality of existing facility  |

#### **Key Traffic Calming Recommendations**

Using the Implementation Guide as a reference, install traffic calming elements as part of walkability projects on Lloyd and Brook streets.

Areas along and around proposed neighborhood greenways:

- Benefit Street
- Brown Street

## Downtown

#### **Key Urban Trail Recommendations**

#### Build on the momentum of new Urban Trails.

- The completion of the Providence River Bridge project provides a new connection for people walking, riding bicycles, and using other micromobility options between Downtown, Fox Point, and College Hill and helps link the Providence Riverwalk, City Walk, and the East Bay Bike Path.
- The completion of the Urban Trail and bike lane segments along Canal Street and Canal Walk between Smith and Washington streets provides an important north-south route connecting part of the East Side to Downtown.

#### Complete in-progress Urban Trails.

- Improvements to Kennedy Plaza will include an Urban Trail on Exchange Terrace.
- Convert the existing separated bike lane on Fountain Street to a permanently protected two-way Urban Trail and extend it from Union Street through the Dorrance Street intersection to connect to the planned Exchange Terrace project.

Create a continuous Urban Trail route on Greene, Empire, Chestnut, and Richmond streets to offer enhanced north-south connectivity within Downtown. The Empire/Chestnut/Richmond Urban Trail will perpendicularly intersect the newly-completed City Walk project on Clifford Street and connect to the north and south with the Broadway (via one-block segments on Greene and Fountain streets) and Allens Avenue (via a one-block segment on Eddy Street) proposed Urban Trails. **Enhance and extend the Riverwalk.** Enhance the accessibility of the Providence Riverwalk and access points to it for people with limited mobility and for people riding bicycles. Study an extension of the Riverwalk to Collier Point Park.

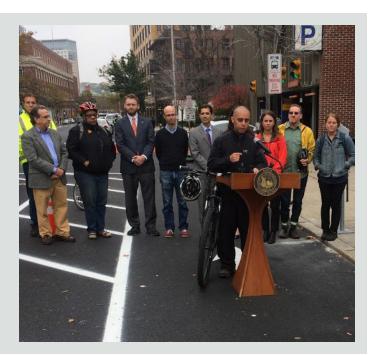
#### Connect the Urban Trail Network to Transit Priority Corridors.

RIPTA has identified parts of Broad, Dorrance, Dyer, Eddy, Exchange, Washington, and Weybosset streets as Transit Priority Corridors. These corridors will enhance bus access to and from Downtown. The Urban Trail Network does not overlap the Transit Priority Corridors but the combination and intersection of the two substantially enhance options for people who cannot or do not prefer to drive Downtown. Continued coordination between RIPTA's Transit Master Plan and the recommendations of this plan is suggested in order to ensure investments are made in ways that advance the goals of both plans.

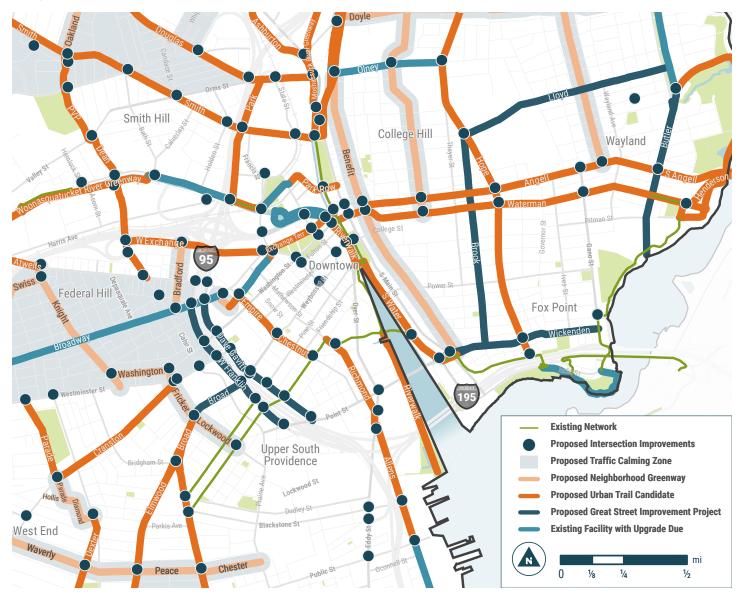
#### **Project Highlight: Fountain Street**

The first protected bike lane in the city was on Fountain Street, which opened in October 2016. The project was integrated into the end of the "Downtown Circulator" project which reconfigured several major downtown streets. The bike lane terminated at Union Street due to the complexity of the intersection with Dorrance Street.

Initially separated from vehicular traffic only by parked cars and pavement markings, in May 2017 a community activist placed toilet plungers in the buffer area to draw attention to the need for vertical separation to keep cars from parking in the bike lane. The City embraced the point, and in June 2017 installed flexible delineators in the buffer. During the winters of 2017 and 2018, the flexposts were removed so that the street could be plowed. In winter 2019 they were left in, and plans were made to replace them with more durable rubber car stops in 2020, and for the bike lane itself to be plowed as well.



#### **Neighborhood Map**



#### **Project Highlight: Providence River Pedestrian and Bicycle Bridge**

In 2010, the City held a design competition to create a car-free bridge using the bridge footings of the former I-195 bridge that was relocated as part of the I-195 Redevelopment project. The new Providence River Pedestrian and Bicycle Bridge officially opened in August 2019 and was immediately a popular attraction for transportation and passive recreation purposes.



### **Project List**

| Street or<br>Trail Name     | From                                | То                     | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action  |
|-----------------------------|-------------------------------------|------------------------|-----------------|---|---|--|
| Chestnut                    | Weybosset                           | Clifford               | Urban<br>Trail  | In-progress project that extends proposed<br>Empire and new Clifford Urban Trails   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side,<br>Consolidate parking one side   |
| Richmond                    | Clifford                            | Eddy                   | Urban<br>Trail  | In-progress project that serves as part of an<br>Urban Trail route through Downtown;<br>connects new Clifford Urban Trail segment<br>with new path through Wexford<br>development and Providence River Bridge   | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side,<br>Remove travel lane (Road Diet)  |
| Exchange Terr               | Fountain                            | Exchange St            | Urban<br>Trail  | In-progress Downtown Urban Trail and<br>transit improvements as part of Kennedy<br>Plaza Project  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)   |
| Exchange Terr/<br>Steeple   | Exchange St                         | Canal                  | Urban<br>Trail  | Provides a cross-river connection between<br>Downtown and College Hill; connects<br>in-progress Exchange Terrace Urban Trail<br>with proposed Memorial Boulevard Urban<br>Trail, Riverwalk, Canal Walk, and Canal<br>Street bike lane                                       | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)   |
| Empire                      | Fountain                            | Broad/<br>Weybosset    | Urban<br>Trail  | Serves as part of an Urban Trail route<br>through Downtown; connects to existing<br>Fountain Urban Trail and proposed<br>Broadway Urban Trail   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)   |
| Riverwalk                   | Existing<br>southern<br>terminus    | Collier Point<br>Park  | Urban<br>Trail  | Extends existing Riverwalk south to serve<br>Collier Point Park; expanding riverfront<br>access   | Two-Way Shared Use<br>Path                      | Independent ROW  |
| Broadway                    | Westminister                        | Greene                 | Upgrade<br>Due  | Key connection for Downtown, Federal Hill,<br>and Olneyville neighborhoods  | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet)   |
| Park Row                    | Railroad St                         | N Main                 | Urban<br>Trail  | Provides a cross-river connection between<br>Downtown and College Hill; connects the<br>Canal Street Urban Trail to the train station   | One-Way Urban Trail with<br>Accessible Sidewalk | Remove parking two sides   |
| Memorial Blvd/<br>Riverwalk | Dyer/S Water                        | Park                   | Upgrade<br>Due  | Connects to several Downtown proposed<br>Urban Trails and destinations, enhances<br>micromobility options along the river   | Two-Way Shared Use<br>Path                      | Enhance quality of existing<br>facility, Move curbs, Remove<br>travel lane (Road Diet)                           |
| Enhance<br>existing path    | Francis/Finance<br>Way intersection | Amtrak<br>station      | Upgrade<br>Due  | Better connects existing path along River under Providence Place Mall   | Two-Way Shared Use<br>Path                      | Enhance quality of existing facility   |
| Eddy                        | Allens                              | Richmond               | Urban<br>Trail  | Key link between Downtown Urban Trail<br>network and proposed Allens Urban Trail  | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet)   |
| Fountain                    | Greene                              | Union                  | Urban<br>Trail  | Convert existing one-way separated bike<br>lane to a permanently protected two-way<br>Urban Trail; new Urban Trail would connect<br>to proposed Broadway Urban Trail (via<br>Greene) and in-progress Exchange Terrace<br>Urban Trail (via Fountain/Emmet Square<br>project) | Two-Way Urban Trail with<br>Accessible Sidewalk | Enhance quality of existing<br>facility, Consolidate parking one<br>side   |
| Greene                      | Broadway                            | Fountain               | Urban<br>Trail  | Connects the proposed Broadway and<br>Fountain Urban Trails   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side  |
| Fountain/Emmet<br>Square    | Union                               | Exchange               | Great<br>Street | Fills a gap by connecting the Fountain Street and future Exchange Terrace Urban Trails  | Buffered Bike Lanes                             | Remove parking one side  |
| Park                        | Promenade                           | Smith                  | Urban<br>Trail  | Longer-term recommendation to connect<br>Downtown and Smith Hill  | Two-Way Urban Trail with<br>Accessible Sidewalk | Move curbs, Remove travel lane<br>(Road Diet)  |
| W Exchange                  | Bradford                            | Exchange<br>Terr/Sabin | Urban<br>Trail  | Connects Federal Hill and Downtown;<br>connects to proposed W Exchange<br>(Dean-Bradford), Bradford, and Exchange<br>Terr Urban Trails  | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet), Remove travel lane<br>(Road Diet), Consolidate parking<br>one side |
| E Franklin                  | Broadway                            | Point                  | Great<br>Street | Improves walking, bicycling, and<br>micromobility conditions on a route<br>connecting the proposed Broadway and new<br>Clifford Urban Trails  | Other Great Street<br>Improvement               | Enhance quality of existing facility   |

#### **Key Traffic Calming Recommendations**

Although all Downtown streets should be designed for slow movement of motor vehicles, focus corridors for traffic calming interventions in Downtown include:

- Washington Street: Five intersections with crash clusters involving people walking and riding bicycles (six or more crashes per intersection between 2009-17): Dorrance Street, Union Street, Mathewson Street, Empire Street, and Greene Street
- Dorrance Street: Three intersections with crash clusters involving people walking and riding bicycles: Washington Street, Fulton Street, Weybosset Street; the complex intersection with Fountain and Sabin Streets and Exchange Terrace (Emmet Square)
- Greene Street: Two intersections with crash clusters involving people walking and riding bicycles: Washington Street, Broad Street
- Memorial Boulevard: Two intersections with crash clusters involving people walking and riding bicycles: Francis Street, Westminster Street; Neighborhood meeting comments regarding traffic calming, crossing concerns, and conditions for people riding bicycles at College/Westminster streets and Exchange Terrace
- I-95 service roads: The East Franklin Street/Broad Street intersection is a crash cluster for people walking and riding bicycles; Neighborhood meeting comments regarding general safety concern with I-95 crossings and a specific concern about speeding and pedestrian safety at the I-95 off-ramp/ Point Street intersection

#### Key Intersection Improvement Recommendations

| Street 1 | Street 2             | Туре   |
|----------|----------------------|--|
| Allens   | Eddy/Globe           | Priority from draft map comments   |
| Atwells  | E Franklin           | Large or complicated intersection  |
| Broad    | Greene               | Pedestrian/bicycle crash focus intersection  |
| Broad    | E Franklin           | Large or complicated intersection<br>Priority from draft map comments<br>Pedestrian/bicycle crash focus intersection |
| Broad    | Claverick            | Pedestrian/bicycle crash focus intersection  |
| Broadway | Atwells              | Large or complicated intersection  |
| Broadway | E Franklin           | Priority from draft map comments   |
| Chestnut | Clifford             | Network crossing   |
| Chestnut | Bassett              | Neighborhood comment   |
| Clifford | Dyer                 | Neighborhood comment   |
| Eddy     | Point                | Large or complicated intersection  |
| Eddy     | Richmond/<br>Marengo | Priority from draft map comments   |

| Street 1      | Street 2                                 | Туре   |
|---------------|--|--|
| E Franklin    | Clifford                                 | Priority from draft map comments   |
| E Franklin    | Pine                                     | Priority from draft map comments   |
| Empire        | Fountain                                 | Network crossing<br>Large or complicated intersection                            |
| Exchange St   | Exchange Terr                            | Large or complicated intersection  |
| W Exchange St | Exchange Terr/<br>Sabin                  | Large or complicated intersection  |
| Fountain      | Dorrance                                 | Priority from draft map comments   |
| Francis       | Finance/Path to<br>Providence<br>Station | Network crossing<br>Priority from draft map comments                             |
| Francis       | Gaspee                                   | Large or complicated intersection  |
| Fulton        | Dorrance                                 | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
| I-95 NB ramps | Point                                    | Priority from draft map comments<br>Neighborhood comment                         |
| Memorial Blvd | Francis                                  | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
| Memorial Blvd | Exchange Terr                            | Network crossing<br>RISD priority  |
| Memorial Blvd | Exchange St                              | Network crossing   |
| Memorial Blvd | Washington                               | RISD priority  |
| Memorial Blvd | Westminster                              | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
| Promenade     | Park                                     | Priority from draft map comments   |
| Richmond      | Wexford path                             | Network crossing   |
| Riverwalk     | Providence<br>River Bridge               | Network crossing   |
| Riverwalk     | Waterplace Park                          | Network crossing   |
| Smith         | State                                    | Priority from draft map comments   |
| Smith         | Park                                     | Network crossing   |
| Washington    | Exchange St                              | Priority from draft map comments   |
| Washington    | Dorrance                                 | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
| Washington    | Union                                    | Pedestrian/bicycle crash focus intersection                                      |
| Washington    | Mathewson                                | Pedestrian/bicycle crash focus intersection                                      |
| Washington    | Empire                                   | Pedestrian/bicycle crash focus intersection                                      |
| Washington    | Greene                                   | Pedestrian/bicycle crash focus intersection                                      |
| Westminster   | Cathedral<br>Square                      | Neighborhood comment   |
| Westminster   | E Franklin                               | Priority from draft map comments   |
| Westminster   | Weybosset                                | Large or complicated intersection  |
| Weybosset     | Empire                                   | Large or complicated intersection  |
| Weybosset     | Dorrance                                 | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
|               |  |  |

## **Elmhurst**

#### **Key Urban Trail Recommendations**

**Create an Urban Trail along Smith Street.** With with RIDOT to implement an Urban Trail on Smith Street (a state-owned and state-maintained street) from Oakland Avenue to the Wyndham Avenue-Whitford Avenue intersection. This project will connect Elmhurst with Smith Hill and tie together several in-progress or proposed Urban Trails.

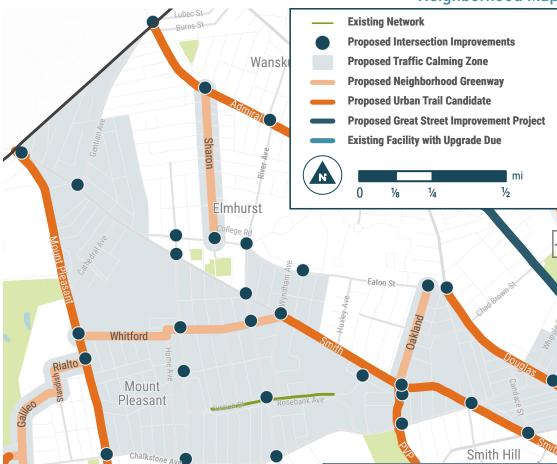
**Create neighborhood greenways on Sharon Street, Oakland Avenue, and Whitford Avenue**. Implement neighborhood greenways to better connect the neighborhood to adjacent neighborhoods and key destinations on traffic-calmed routes.

- *Sharon Street* will connect Wanskuck and Elmhurst, connect to the proposed Admiral Street Urban Trail, and enhance access to schools and a park.
- *Oakland Avenue* will extend the Dean Street/Pleasant Valley Parkway Urban Trail north, connecting to the Smith Street Urban Trail and enhancing access to Providence College.
- *Whitford Avenue* will connect the proposed Smith Street Urban Trail to the proposed Mount Pleasant Avenue Urban Trail.

#### **Project Highlight: Whitford Avenue**

Neighborhood greenways such as the one proposed on Whitford Avenue are great opportunities to meet several demands at the same time. Whitford Avenue has been the location of a number of traffic calming requests in recent years and is also a valuable connector route between the Urban Trails proposed on Mt Pleasant Avenue and Smith Street. Since neighborhood greenways involve traffic calming to reduce traffic speed and traffic volume to a level that is safe and comfortable for all ages and abilities of people walking and bicycling, along with signage and pavement markings to clearly designate the street as part of the Urban Trail Network, the neighborhood's quality of life may be improved in multiple ways at once.





#### **Neighborhood Map**

| Street or<br>Trail Name | From                           | То                   | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-------------------------|--------------------------------|----------------------|-----------------|---|---|---|
| Whitford                | Mount Pleasant                 | Smith                | Urban<br>Trail  | Connects to in-progress Mount<br>Pleasant Urban Trail with proposed<br>Smith Urban Trail; enhances access to<br>schools and Rhode Island College                      | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Smith                   | Oakland                        | Wyndham/<br>Whitford | Urban<br>Trail  | Connects the southern part of<br>Elmhurst with Smith Hill and ties<br>together several Urban Trails   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side   |
| Admiral                 | City Limit near<br>Gentian Ave | Eva                  | Urban<br>Trail  | Longer-term recommendation to<br>enhance Urban Trail connectivity to<br>North Providence  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side   |
| Sharon                  | Admiral                        | Eaton                | Urban<br>Trail  | Connects Elmhurst and Wanskuck;<br>connects to proposed Admiral Urban<br>Trail; enhances access to schools and<br>a park  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Oakland                 | Smith                          | Eaton                | Urban<br>Trail  | North-south connection between<br>neighborhoods; enhances access to<br>Providence College, Davis Park, and<br>schools; extends proposed Dean/PVP<br>Urban Trail north | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

#### **Key Traffic Calming Recommendations**

The area bordered by Mount Pleasant Avenue, Smith Street, and Chalkstone Avenue

- Includes proposed Urban Trail/traffic calming on Mount Pleasant Avenue and neighborhood greenway/traffic calming on Whitford Avenue
- Area has seen over 20 traffic calming requests over the last 10 years

The area bordered by River Avenue, Eaton Street, Hilltop Avenue, and Smith Street

- Area has seen two traffic calming requests over the last 10 years
- Online map comments received for Fairoaks Avenue and Quincy Street focused on traffic calming and improvements for people walking
- Area includes St. Pius V Elementary School and is adjacent to
   Providence College

Northwest Elmhurst centered around Gentian Avenue

 Comments on speeding and wide intersection geometry along Gentian Avenue. Consider coordination with North Providence.

Areas along and around proposed neighborhood greenways:

- Sharon Street
- Oakland Avenue

## Key Intersection Improvement Recommendations

| Street 1        | Street 2        | Туре   |
|-----------------|-----------------|--|
| Academy         | Pleasant Valley | Large or complicated intersection                    |
| Academy         | Chalkstone      | Priority from draft map comments                     |
| Admiral         | Gentian         | Priority from draft map comments                     |
| Admiral         | Sharon          | Network crossing                                     |
| Admiral         | River           | Large or complicated intersection                    |
| Admiral         | Eva             | Network crossing                                     |
| Chalkstone      | Canton          | Pedestrian/bicycle crash focus intersection          |
| Chalkstone      | Tiffany         | Pedestrian/bicycle crash focus intersection          |
| Chalkstone      | River           | Large or complicated intersection                    |
| Gentian         | Hillside        | Neighborhood comment                                 |
| Gentian         | Isabella        | Neighborhood comment                                 |
| Oakland         | Pleasant Valley | Priority from draft map comments                     |
| Pleasant Valley | Convent         | Priority from draft map comments                     |
| River           | Eaton           | Priority from draft map comments                     |
| Smith           | Mount Pleasant  | Large or complicated intersection                    |
| Smith           | Longwood        | Neighborhood comment                                 |
| Smith           | Gentian         | Priority from draft map comments                     |
| Smith           | Eaton           | Neighborhood comment                                 |
| Smith           | Academy         | Priority from draft map comments                     |
| Smith           | River           | Large or complicated intersection                    |
| Smith           | Wyndham         | Priority from draft map comments                     |
| Smith           | Oakland         | Network crossing<br>Priority from draft map comments |

# Elmwood

#### **Key Urban Trail Recommendations**

Implement City Walk along Broad Street and extend it along all of Elmwood Avenue. City Walk is an in-progress Urban Trail project on Broad, Pine, Friendship, and Clifford streets that will: strengthen connections between South Providence, other neighborhoods, parks, and civic institutions; improve safety for people traveling by all modes; and celebrate the diversity and culture of Providence neighborhoods through public art, wayfinding signage, and vibrant public places. City Walk Phase 1 on Clifford, Pine, and Friendship streets is now complete. City Walk should be extended along all of Elmwood Avenue as envisioned by the 2014 City Walk study.

**Create east-west neighborhood greenways** on Peace, Ontario, and Sackett streets, and Chester Avenue, to connect surrounding neighborhoods, City Walk, and other Urban Trails and reduce speeding on these neighborhood streets.

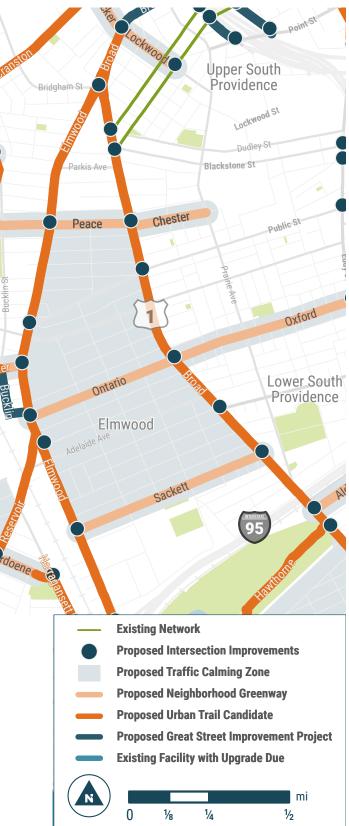
## **Key Traffic Calming Recommendations**

Areas along and around proposed neighborhood greenways:

- Ontario/Oxford Streets
- Sackett Street
- Peace Street/Chester Avenue

The area between Elmwood Avenue, Plenty Street, Broad Street, and Sackett Street:

- Area has seen at least eight traffic calming requests over the last 10 years
- Area includes Peace, Ontario, and Sackett neighborhood
   greenways



| Street or<br>Trail Name | From       | То                   | Project<br>Type | Why is this important?   | Recommendation                                  | Implementation Action   |
|-------------------------|------------|----------------------|-----------------|--|---|---|
| Broad                   | Hawthorne  | Fricker/<br>Lockwood | Urban<br>Trail  | City Walk project  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Broad                   | City Limit | Hawthorne            | Urban<br>Trail  | Future City Walk phase; enhances access<br>from Washington Park to Roger Williams<br>Park  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Carter                  | Bucklin    | Elmwood              | Urban<br>Trail  | Part of link between proposed Huntington<br>and Elmwood Urban Trails; provides<br>contraflow connection for micromobility<br>users along this one-block, one-way<br>segment  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Carter                  | Mashapaug  | Bucklin              | Urban<br>Trail  | Part of link between proposed Huntington<br>and Elmwood Urban Trails   | Two-Way Urban Trail with<br>Accessible Sidewalk | Move curbs  |
| Ontario                 | Elmwood    | Broad                | Urban<br>Trail  | Connects Elmwood and South Providence;<br>connects to proposed Elmwood Urban Trail<br>and City Walk; uses route with existing traffic<br>calming   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Elmwood                 | City limit | Broad                | Urban<br>Trail  | Key north-south connection for West End<br>and Elmwood; connects to several Urban<br>Trails and enhances access to Trinity Square<br>in the north, Roger Williams Park in the<br>south, and many destinations in between | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Sackett                 | Elmwood    | Broad                | Urban<br>Trail  | Provides east-west connection in south<br>Elmwood between proposed Elmwood<br>Urban Trail and City Walk  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Peace/Chester           | Elmwood    | Prairie              | Urban<br>Trail  | Connects West End and South Providence   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

# Key Intersection Improvement Recommendations

| Street 1 | Street 2       | Туре  |
|----------|----------------|---|
| Broad    | Elmwood        | Network crossing<br>Large or complicated intersection                           |
| Broad    | Friendship     | Network crossing<br>Large or complicated intersection                           |
| Broad    | Ontario/Oxford | Network crossing<br>Pedestrian/bicycle crash focus intersection                 |
| Broad    | Peace/Chester  | Network crossing  |
| Broad    | Pennsylvania   | Pedestrian/bicycle crash focus intersection                                     |
| Broad    | Pine           | Network crossing  |
| Broad    | Public         | Priority from draft map comments<br>Pedestrian/bicycle crash focus intersection |
| Broad    | Sackett        | Network crossing  |

| Street 1  | Street 2        | Туре   |
|-----------|-----------------|--|
| Broad     | Thurbers/Lenox  | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
| Elmwood   | Atlantic        | Neighborhood comment<br>Priority from draft map comments                         |
| Elmwood   | Carter          | Network crossing   |
| Elmwood   | Ontario         | Network crossing<br>Large or complicated intersection                            |
| Elmwood   | Peace           | Network crossing   |
| Elmwood   | Plenty          | Pedestrian/bicycle crash focus intersection                                      |
| Elmwood   | Public/Stanwood | Large or complicated intersection  |
| Elmwood   | Sackett         | Network crossing   |
| Whitmarsh | Updike          | Neighborhood comment   |

# **Federal Hill**

#### **Key Urban Trail Recommendations**

**Create an Urban Trail along Broadway.** Convert the existing bike lanes on Broadway to an Urban Trail to create a primary route for people walking, riding bicycles, and using micromobility options within and through the neighborhood, connecting with Olneyville and Downtown as well as new 6/10 Connector Project Urban Trails.

#### Create new Urban Trail connections to adjacent neighborhoods.

Implement Urban Trails on Dean Street north of Atwells Avenue, Atwells Avenue west of Knight Street, and West Exchange Street east of Dean Street to better connect Federal Hill to Smith Hill, Valley, and Downtown respectively. **Complete the Urban Trail along the 6/10 Connector.** The project that involves an off-road shared-use path along the west side of the neighborhood from Westminster Street to Tobey Street is planned to be complete as part of the State's 6-10 Connector project. The project will also complete an Urban Trail connection between the shared-use path and the terminus of the planned Gotham Greens path on De Soto Street.

**Create neighborhood greenways.** Create neighborhood greenways on Knight, Bradford, Washington, Winter, Ridge and Swiss streets to fill the gaps in the neighborhood's Urban Trail network.

#### **Key Traffic Calming Recommendations**

The area between Westminster Street and Atwells Avenue:

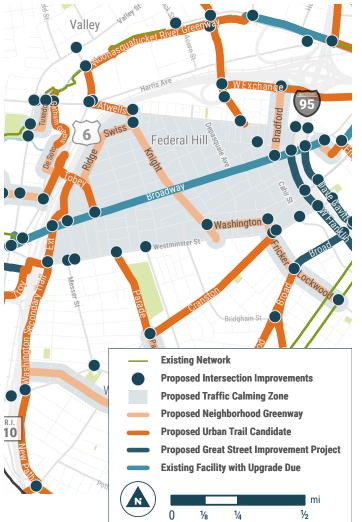
- Includes several neighborhood greenways
- Neighborhood meeting comments received on speeding and cut-through traffic on multiple streets, including Almy, America, Courtland, Marshall, Sutton, and Vinton streets, and Bainbridge Avenue
- Neighborhood comments also included traffic calming requests at the intersections of Carpenter and Ringgold streets and West Fountain and Battey streets

Areas along and around proposed neighborhood greenways:

- Bradford Street
- Fricker Street

#### Key Intersection Improvement Recommendations

| Street 1 | Street 2    | Туре   |
|----------|-------------|--|
| Atwells  | De Pasquale | Pedestrian/bicycle crash focus intersection          |
| Atwells  | Knight      | Network crossing<br>Priority from draft map comments |
| Atwells  | W Franklin  | Priority from draft map comments                     |
| Broadway | Barton      | Large or complicated intersection                    |
| Broadway | W Franklin  | Priority from draft map comments                     |
| Broadway | Knight      | Network crossing                                     |
| Broadway | Vinton      | Pedestrian/bicycle crash focus intersection          |
| Broadway | Dean        | Pedestrian/bicycle crash focus intersection          |
| Broadway | Bradford    | Network crossing                                     |
| Broadway | Tobey/Ridge | Network crossing<br>Priority from draft map comments |



# Key Intersection Improvement Recommendations (continued)

| Street 1   | Street 2                 | Туре   |
|------------|--------------------------|--|
| Broadway   | US 6-10 NB<br>ramps/path | Network crossing<br>Priority from draft map comments |
| Carpenter  | Ringgold                 | Neighborhood comment                                 |
| Carpenter  | W Franklin               | Neighborhood comment                                 |
| Cranston   | Dexter                   | Pedestrian/bicycle crash focus intersection          |
| Dean       | Atwells                  | Priority from draft map comments                     |
| Dean       | Federal/Kenyon           | Large or complicated intersection                    |
| Dean       | US 6-10 EB<br>ramps      | Large or complicated intersection                    |
| Knight     | Swiss                    | Network crossing                                     |
| Knight     | Washington               | Network crossing                                     |
| Tobey      | Wash Trail Ext           | Network crossing                                     |
| W Exchange | Bradford                 | Network crossing                                     |
| W Exchange | Dean                     | Network crossing                                     |

| Street 1    | Street 2                    | Туре  |
|-------------|-----------------------------|---|
| W Fountain  | Battey                      | Neighborhood comment  |
| Washington  | W Franklin                  | Priority from draft map comments  |
| Washington  | Winter                      | Network crossing  |
| Westminster | Cranston/<br>Winter/Fricker | Network crossing<br>Large or complicated intersection<br>Priority from draft map comments |
| Westminster | Bridgham                    | Pedestrian/bicycle crash focus intersection   |
| Westminster | Wash Trail Ext              | Network crossing  |
| Westminster | Dexter                      | Priority from draft map comments  |
| Westminster | US 6-10 NB<br>ramps         | Large or complicated intersection   |
| Westminster | Messer                      | Large or complicated intersection   |
| Westminster | Barton                      | Large or complicated intersection   |
| Westminster | Parade                      | Priority from draft map comments  |

| Street or<br>Trail Name     | From                        | То          | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-----------------------------|-----------------------------|-------------|-----------------|---|---|---|
| Dean                        | Atwells                     | Valley      | Urban<br>Trail  | Connects across key gap in pedestrian,<br>bicycle, and micromobility access between<br>Federal Hill, Valley, and Smith Hill   | Two-Way Urban Trail with<br>Accessible Sidewalk | Move curbs  |
| Washington Sec<br>Trail Ext | Union                       | Tobey       | Urban<br>Trail  | New extension of existing trail to be completed by 6/10 Reconstruction Project  | Two-Way Shared Use<br>Path                      | Move curbs  |
| Tobey                       | Helme                       | Broadway    | Urban<br>Trail  | New connection between Federal Hill and<br>Olneyville neighborhoods to be partially<br>completed by 6/10 Reconstruction Project                                     | Two-Way Shared Use<br>Path                      | Move curbs  |
| Ridge/Swiss                 | Knight                      | Tobey       | Urban<br>Trail  | Connects proposed Knight and Tobey Urban<br>Trails and in-progress path related to the<br>6/10 Reconstruction Project   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Washington/<br>Winter       | Knight                      | Westminster | Urban<br>Trail  | Connects proposed Knight and Fricker<br>Urban Trails  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Atwells                     | Eagle                       | Knight      | Urban<br>Trail  | Uses bridge over 6-10 Connector to connect<br>proposed Eagle and Knight Urban Trails and<br>Olneyville and Federal Hill   | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side,<br>Narrow travel or parking lane<br>(Lane Diet)           |
| Knight                      | Atwells                     | Westminster | Urban<br>Trail  | Connects proposed Atwells, Swiss,<br>Broadway, and Washington Urban Trails;<br>enhances connections between Olneyville,<br>Federal Hill, and West End neighborhoods | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Broadway                    | Westminister                | Greene      | Upgrade<br>Due  | Key connection for Downtown, Federal Hill, and Olneyville neighborhoods   | Two-Way Urban Trail with Accessible Sidewalk    | Narrow travel or parking lane<br>(Lane Diet)  |
| New path/<br>bridge         | Washington Sec<br>Trail Ext | Dike        | Urban<br>Trail  | 6/10 Reconstruction Project path connecting<br>Olneyville and West End  | Two-Way Shared Use<br>Path                      | Move curbs  |
| W Exchange                  | Dean                        | Bradford    | Urban<br>Trail  | Connects proposed Dean and Bradford<br>Urban Trails   | Two-Way Urban Trail with Accessible Sidewalk    | Consolidate parking one side,<br>Move curbs   |
| Bradford                    | W Exchange St               | Broadway    | Urban<br>Trail  | Connects proposed W Exchange St Urban<br>Trail with proposed Broadway Urban Trail;<br>enhances access to park and retail  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| W Franklin                  | Broadway                    | Point       | Great<br>Street | Connects Federal Hill and South Providence  | Other Great Street<br>Improvement               | Enhance quality of existing facility  |

# **Fox Point**

#### **Key Urban Trail Recommendations**

**Complete in-progress Urban Trails.** The completion of the Providence River Bridge project provides a new connection for people walking, riding bicycles, and using other micromobility options between Downtown, Fox Point, and College Hill and helps link the Providence Riverwalk, City Walk, and the East Bay Bike Path. The India Point Park bridge overpass and George Redman Linear Park continue this east-west connectivity and directly tie the East Bay Bike Path, which runs nearly 15 miles southeast to Bristol, into Fox Point. Wayfinding will be an important strategy for the navigability of this connection. RIDOT has just completed an important north-south connection on the east side of Fox Point, where the Gano Gateway project has connected the Blackstone Bikeway with India Point Park and the East Bay Bike Path.

**Create an Urban Trail on South Water Street.** The completion of the Providence River Bridge emphasizes the need for safer conditions for walking and bicycling on South Water Street. This Urban Trail would create a valuable connection between Wickenden and the Canal Walk shared use path.

Implement an Urban Trail on Hope Street between Blackstone Boulevard and George M. Cohan Boulevard to connect the Hope, Mount Hope, Blackstone, College Hill, and Fox Point neighborhoods. In Fox Point and College Hill, this project will enhance access to India Point Park and the East Bay Bike Path in the south and join together several east-west Urban Trails. The City should work closely with community members and other stakeholders to investigate converting Brook and Hope into a one-way pair for vehicular circulation.

**Improve walkability** on Wickenden and Brook streets and supplement the connectivity provided by the recommended Urban Trail Network.

**Implement a neighborhood greenway on Benefit Street**. This historically significant corridor is an important connection between Wickenden Street and North Main Street for those walking and bicycling.



| Street or<br>Trail Name | From          | То        | Project<br>Type | Why is this important?   | Recommendation                                  | Implementation Action   |
|-------------------------|---------------|-----------|-----------------|--|---|---|
| Benefit                 | Wickenden     | Waterman  | Urban<br>Trail  | Connects Fox Point and College Hill;<br>enhances north-south access to the existing<br>path at Wickenden                         | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Wickenden               | Benefit       | Gano      | Great<br>Street | Enhances walkability along this key<br>east-west street  | Other Great Street<br>Improvement               | Enhance quality of existing facility  |
| Brook                   | Lloyd         | Wickenden | Great<br>Street | Serves as parallel to Hope St. to enhance<br>micromobility connectivity and parking for<br>commercial areas and Brown University | Other Great Street<br>Improvement               | Enhance quality of existing facility  |
| S Water                 | Memorial Park | Wickenden | Urban<br>Trail  | Separates micromobility users from adjacent motor vehicle traffic and parking  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |

## **Key Traffic Calming Recommendations**

Using the Implementation Guide as a reference, install traffic calming elements as part of walkability projects on Wickenden and Brook streets.

Areas along and around proposed neighborhood greenways:

Benefit Street

#### Key Intersection Improvement Recommendations

| Street 1  | Street 2                   | Туре                              |
|-----------|----------------------------|-----------------------------------|
| Brook     | Wickenden                  | Network crossing                  |
| Gano      | Amy                        | Neighborhood comment              |
| Gano      | Trenton                    | Large or complicated intersection |
| Норе      | George M<br>Cohan Blvd     | Network crossing                  |
| Норе      | Wickenden                  | Large or complicated intersection |
| lves      | Williams                   | Neighborhood comment              |
| S Main    | Wickenden                  | Large or complicated intersection |
| S Water   | Providence<br>River Bridge | Network crossing                  |
| S Water   | Wickenden                  | Priority from draft map comments  |
| Wickenden | Gano                       | Network crossing                  |

# **Project Highlight: Gano Gateway**

When the Gano Park path, otherwise known as Blackstone River Bikeway Segment 1A, opened in August 2017, there was a clear gap between the new path, which ended at the intersection of Gano Street and Trenton Street, and India Point Park and the connection there to the East Bay Bike Path. Neighborhood residents requested that the Rhode Island Department of Transportation incorporate a safe urban trail connection into the realigment of the southern end of Gano Street planned as the last piece of the I-195 Relocation project. The connection, called Gano Gateway and completed in Fall 2019, parallels the bank of the Seekonk River under I-195.





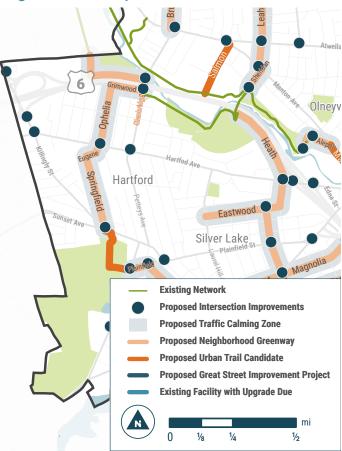
# Hartford

#### **Key Urban Trail Recommendations**

Create neighborhood greenways to connect Hartford to Merino Park and the Woonasquatucket River Greenway. These projects leverage the existing Hartford-Olneyville connection of the Woonasquatucket River Bridge over US 6 in Merino Park with proposed neighborhood greenways leading to it from the southwest and southeast. The traffic-calmed route along Grimwood, Ophelia, Eugene, and Springfield streets will not only better connect both Hartford to the Greenway but will also enhance Safe Routes to Schools for DelSesto Middle School and Anthony Carnevale Elementary School, as well as connectivity to Neutaconkanut Park. A new neighborhood greenway on Heath Street and Eastwood Avenue would connect the east sides of Hartford and Silver Lake to Merino Park and the Greenway.

**Create an Urban Trail along Glenbridge Avenue** over US-6 as part of RIDOT's planned replacement of the Glenbridge Avenue bridge over US 6. This will enhance connectivity for people walking, riding bicycles, and using other micromobility options between Hartford, Olneyville, and Manton and serve as a parallel route to the Woonasquatucket River Greenway crossing of US 6. This connection would also involved neighborhood greenway improvements on Buttonhole Drive to connect to the Woonasquatucket Greenway around the golf course.

#### **Neighborhood Map**



| Street or<br>Trail Name | From                | То   | Project<br>Type | Why is this important?   | Recommendation                                  | Implementation Action   |
|-------------------------|---------------------|--|-----------------|--|---|---|
| Grimwood                | Glenbridge          | Ophelia                                      | Urban<br>Trail  | Connects Merino Park path to proposed<br>Ophelia/Eugene Urban Trail  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Ophelia/Eugene          | Grimwood            | Springfield                                  | Urban<br>Trail  | Connects to proposed Grimwood and<br>Springfield Urban Trails; enhances access to<br>Merino Park, the Woonasquatucket River<br>Greenway, and schools                   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Springfield             | Eugene              | Killingly                                    | Urban<br>Trail  | Enhances access to schools and<br>Neutaconkanut Park; connects proposed<br>Ophelia-Eugene and Plainfield/Daniel Urban<br>Trails (via park paths)                       | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Eastwood                | Laurel Hill         | Heath  | Urban<br>Trail  | Connects proposed Webster and Heath/<br>Merino Park Urban Trails; enhances access<br>to schools  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Heath                   | Eastwood            | Merino Park<br>(trailhead in<br>parking lot) | Urban<br>Trail  | Enhances access to Merino Park   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Glenbridge              | Merino Park<br>Path | Button Hole                                  | Urban<br>Trail  | Proposed long-term recommendation for<br>enhancing connectivity between Manton,<br>Olneyville, Mount Pleasant, and Hartford,<br>potentially when the bridge is rebuilt | Two-Way Urban Trail with<br>Accessible Sidewalk | Enhance quality of existing facility  |

## **Key Traffic Calming Recommendations**

Along and around the proposed Grimwood Street, Ophelia/ Eugene Street, Springfield Street, Heath Street, and Eastwood Avenue neighborhood greenways

## Key Intersection Improvement Recommendations

| Street 1   | Street 2               | Туре                              |
|------------|------------------------|-----------------------------------|
| Glenbridge | Button Hole            | Network crossing                  |
| Glenbridge | Grimwood               | Network crossing                  |
| Hartford   | Heath                  | Network crossing                  |
| Hartford   | Kinfield               | Neighborhood comment              |
| Hartford   | Killingly              | Large or complicated intersection |
| Hartford   | Ophelia                | Network crossing                  |
| Hartford   | Ponagansett            | Neighborhood comment              |
| Hartford   | US-6 EB ramps          | Large or complicated intersection |
| Killingly  | Springfield/<br>Sunset | Large or complicated intersection |
| Killingly  | US-6 ramps             | Large or complicated intersection |
| Plainfield | Daniel                 | Network crossing                  |
| Plainfield | Duxbury                | Network crossing                  |
| Plainfield | Killingly/Lowell       | Large or complicated intersection |
| Webster    | Eastwood               | Network crossing                  |

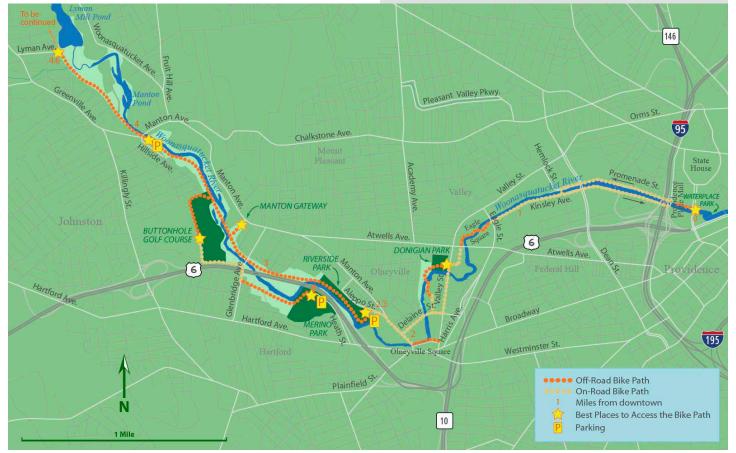
## Project Highlight: Connecting the Woonasquatucket Greenway to Neutaconkanut Park

The Woonasquatucket Greenway has a number of segments throughout Hartford, Manton, Olneyville, and Valley. The Greenway, advocated for by the Woonasquatucket River Watershed Council for many years, has raised awareness of the River, improved access to sustainable transportation for surrounding neighborhoods, and led to the clean up and redevelopment of numerous properties along the River.

Connecting other neighborhood destinations such as Neutaconkanut Park, Delsesto Middle School, and Carnevale Elementary School to the Greenway will create a safe, walkable, and bikeable network within Hartford that people of all ages and abilities can enjoy.

Much of this connectivity can be accomplished by creating neighborhood greenways along Grimwood, Ophelia, and Springfield streets, which do not require significant changes. Neighborhood greenways along these streets would likely consist of traffic calming (if deemed necessary in consultation with residents) as well as minor directional signs and roadway markings designating the street as part of the Urban Trail Network.

Watershed Council map of the Greenway



# Норе

#### **Key Urban Trail Recommendations**

**Create north-south Urban Trails on North Main Street and Hope Street.** Address north-south connectivity for people walking, riding bicycles, and using other micromobility options on these three corridors, while responding to each of the their contexts with different conceptual designs.

- North Main Street: North Main Street is a commercial street, RIPTA R-Line route, and high-ranking crash corridor in the City's Vulnerable Road User Safety Action Plan (2009-15).
   Implement an on-road Urban Trail from Smith Street to the northern city limit. Additionally, consider the potential for a north-south route using the existing paths in North Burial Ground. Coordinate with RIPTA to integrate transit improvements along North Main Street such as light rail or bus rapid transit.
- Hope Street: Hope Street is a major north-south route shared by the three neighborhoods. It is a primarily residential street with commercial nodes at Rochambeau Avenue, Ninth Street, and Blackstone Boulevard. Continuing the Urban Trail on Hope Street north of College Hill was one of the most frequently-made suggestions from public comments on the Draft Urban Trail Network.

Establish an off-road Urban Trail along the Moshassuck River. A long-term vision is for Mount Hope, Charles, and Wanskuck to one day be connected to the Urban Trail Network with an off-road path and greenway along the West and Moshassuck rivers. North of Cemetery Street, which is the southern boundary of the Hope neighborhood, the river flows past the Peter Pan bus station, under Smithfield Avenue near the highway ramps, and past a shopping center before crossing into Pawtucket. The City should begin collaboration with property owners, residents, and other stakeholders to establish a concept and bring these segments from vision to reality.

**Create a neighborhood greenway on Camp Street and Summit Ave.** These neighborhood greenways would supplement the connectivity provided by the north-south Urban Trails and provide a greater resolution in the Urban Trail Network. Coordinate with stakeholders such as RIPTA and The Miriam Hospital on project designs.

**Create a neighborhood greenway on 8th Street.** The connection over the hill between North Main Street and Hope Street is an important one for the Urban Trail Network, and 8th Street is recommended to make it because it connects to Lorimer Ave on the other side of Hope Street, and ultimately to Blackstone Boulevard.

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## Project Highlight: North Main Street

North Main Street is an important commercial and transportation corridor connecting Pawtucket and Providence, and it is currently designed primarily for motor vehicles, with inhospitable conditions for walking and bicycling and despite being a critical transit corridor, putting buses in the same traffic as cars. In RIPTA's Transit Forward RI master plan, enhanced transit infrastructure is proposed on the corridor. In collaboration with RIPTA's plans, the City and State should evaluate how North Main Street can become a more welcoming place for everyone, no matter how they're getting around.



| Street or<br>Trail Name | From            | То                 | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-------------------------|-----------------|--------------------|-----------------|---|---|---|
| Норе                    | Blackstone Blvd | Doyle              | Urban<br>Trail  | Serves three neighborhoods; creates a regional connection to North Providence; enhances micromobility access to parks, schools, and retail districts                          | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side,<br>Move curbs   |
| N Main                  | City limit      | Branch/<br>Cypress | Urban<br>Trail  | Long-term recommendation to improve<br>connectivity between Hope, Mount Hope,<br>College Hill, and Downtown, as well as north<br>to Pawtucket                                 | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| 8th                     | N Main          | Lorimer            | Urban<br>Trail  | Connects Hope and Blackstone; connects to<br>proposed N Main, Summit, Hope, and<br>Lorimer Urban Trails   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Camp/Creston/<br>Summit | 10th            | Olney              | Urban<br>Trail  | Provides north-south connectivity for Mount<br>Hope, Hope, and College Hill; connects to<br>multiple Urban Trails; enhances access to<br>parks, schools, and Brown University | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

## **Key Traffic Calming Recommendations**

Areas along and around proposed neighborhood greenways:

- Camp Street, Creston Way, and Summit Avenue
- 8th Street and Lorimer Avenue

#### Key Intersection Improvement Recommendations

| Street 1               | Street 2                     | Туре   |
|------------------------|------------------------------|--|
| Blackstone             | Норе                         | Priority from draft map comments<br>Neighborhood comment                         |
| Blackstone             | Alfred Stone                 | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
| Норе                   | 8th                          | Network crossing   |
| N Main                 | 8th                          | Network crossing   |
| N Main                 | Smithfield                   | Priority from draft map comments   |
| N Main                 | Stenton/<br>Cemetery         | Large or complicated intersection  |
| Smithfield             | I-95 NB ramps                | Large or complicated intersection  |
| Smithfield             | I-95 SB ramps                | Large or complicated intersection  |
| Summit                 | Edgehill                     | Neighborhood comment   |
| Summit                 | 7th                          | Neighborhood comment   |
| West River<br>Greenway | Moshassuck<br>River Greenway | Network crossing   |

## **Project Highlight: Summit Avenue**

During the community engagement phase of the Great Streets planning process, North Main and Hope streets were two of the most commonly requested Urban Trail routes in the city. Given the complexity of both projects, Summit Avenue (along with its extensions to the south on Camp and Brown streets) is included in the plan as a neighborhood greenway to provide north-south connectivity until the more complex North Main and Hope street improvements can be completed.

Neighborhood greenways do not require significant changes to streets that, like Summit Avenue, are already fairly comfortable places to walk and bike. Because Summit is already a pleasant route to take, it was suggested by some members of the public for inclusion. The neighborhood greenway improvements in this case would likely consist of any necessary traffic calming to ensure cars are driving a safe speed on the street, as well as signage and road markings designating the street as a quiet and comfortable place to walk or bike.



# **Lower South Providence**

#### **Key Urban Trail Recommendations**

**Implement City Walk along Broad Street.** City Walk is an inprogress Urban Trail project on Broad, Pine, Friendship, and Clifford streets that will: strengthen connections between South Providence, other neighborhoods, parks, and civic institutions; improve safety for people traveling by all modes; and celebrate the diversity and culture of Providence neighborhoods through public art, wayfinding signage, and vibrant public places. City Walk Phase 1 on Clifford, Pine, and Friendship streets is now complete.

**Create a neighborhood greenway on Oxford Street** to connect the neighborhood to City Walk, Elmwood Avenue via Ontario Street, and Allens Avenue and reduce speeding on a neighborhood street.

Upgrade Allens Avenue for people walking, bicycling, and using micromobility and create an Urban Trail. An Urban Trail and other walking, bicycling, and micromobility improvements on this major street will help residents connect to Downtown, the Hospital District, and Washington Park. Since it is a state-maintained road, an Urban Trail on Allens Avenue will require partnership and coordination with RIDOT.

#### **Key Traffic Calming Recommendations**

Areas along and around the proposed neighborhood greenway on Oxford Street

#### Key Intersection Improvement Recommendations

| Street 1 | Street 2                    | Туре   |
|----------|-----------------------------|--|
| Allens   | Oxford                      | Network crossing   |
| Allens   | Thurbers/I-95<br>ramps      | Large or complicated intersection<br>Priority from draft map comments            |
| Broad    | Ontario/Oxford              | Network crossing<br>Pedestrian/bicycle crash focus intersection                  |
| Broad    | Pennsylvania                | Pedestrian/bicycle crash focus intersection                                      |
| Broad    | Sackett                     | Network crossing   |
| Broad    | Thurbers/Lenox              | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
| Eddy     | Thurbers/I-95<br>ramps      | Priority from draft map comments   |
| Eddy     | Willard/I-95 SB<br>off-ramp | Large or complicated intersection  |

## **Project List**

| Street or<br>Trail Name | From       | То                   | Project<br>Type | Why is this important?   | Recommendation                                  | Implementation Action   |
|-------------------------|------------|----------------------|-----------------|--|---|---|
| Broad                   | Hawthorne  | Fricker/<br>Lockwood | Urban<br>Trail  | City Walk project  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Oxford                  | Broad      | Allens               | Urban<br>Trail  | Along with proposed Ontario Urban Trail,<br>provides east-west Urban Trail connection<br>between Elmwood and Lower South<br>Providence | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Allens/<br>Narragansett | City limit | Public               | Upgrade<br>Due  | North-south connection between South<br>Providence and Washington Park   | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet), Move curbs                                |



# Manton

#### **Key Urban Trail Recommendation**

Create north-south neighborhood greenway route on Ortoleva Drive, Ada Street, and Brush Hill Road. This will enhance north-south connectivity for the neighborhood and calm traffic on these residential streets.

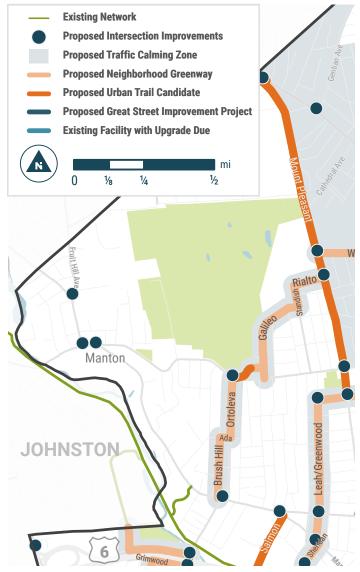
## **Key Traffic Calming Recommendations**

Areas along and around proposed neighborhood greenways on Brush Hill Road, Ada Street, and Ortoleva Drive.

# **Project List**

| Street or<br>Trail Name     | From   | То         | Project<br>Type | Why is this important?  | Recommendation        | Implementation Action   |
|-----------------------------|--------|------------|-----------------|---|-----------------------|---|
| Brush Hill/Ada/<br>Ortoleva | Manton | Chalkstone | Urban<br>Trail  | Connects Manton, Mount Pleasant,<br>and Olneyville; southern portion of a<br>proposed Urban Trail route extending<br>over one mile between in-progress<br>Mount Pleasant Urban Trail and<br>Manton Avenue | Neighborhood Greenway | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

## **Neighborhood Map**



## Key Intersection Improvement Recommendations

| Street 1        | Street 2   | Туре                              |
|-----------------|------------|-----------------------------------|
| Chalkstone      | Ortoleva   | Network crossing                  |
| Manton          | Glenbridge | Large or complicated intersection |
| Manton          | Baltimore  | Neighborhood comment              |
| Manton          | Ortoleva   | Neighborhood comment              |
| Manton          | Chalkstone | Large or complicated intersection |
| Manton          | Fruit Hill | Large or complicated intersection |
| Woonasquatucket | Fruit Hill | Priority from draft map comments  |

# **Mount Hope**

#### **Key Urban Trail Recommendations**

**Create Urban Trails on North Main Street and Hope Street.** Address north-south connectivity for people walking, riding bicycles, and using other micromobility options on these three corridors, while responding to each of the their contexts with different conceptual designs.

- North Main Street is a commercial street, RIPTA R-Line route, and high-crash corridor. Implement an on-road Urban Trail from Smith Street to the Pawtucket city line. Coordinate with RIPTA to integrate transit improvements along North Main Street such as light rail or bus rapid transit.
- Hope Street is a major north-south route. Continuing the Urban Trail on Hope Street north of College Hill was one of the most frequently-made suggestions from public comments on the Draft Urban Trail Network.

**Create a neighborhood greenway on Camp Street.** This would supplement the connectivity provided by the north-south Urban Trails and provide a greater resolution in the Urban Trail Network.

**Create a neighborhood greenway on Doyle Avenue** to provide east-west connectivity in the southern part of Mount Hope that, via extending on Upton Avenue, connects from North Main Street all the way to Blackstone Boulevard.

Establish an off-road Urban Trail along the Moshassuck River. A long-term vision is for Mount Hope, Charles, and Wanskuck to one day be connected with an off-road greenway along the West and Moshassuck rivers. Through Mount Hope, the river runs from Charles Street alongside I-95. Due to space constraints between North Burial Ground and I-95, enhance portions of the existing path system through North Burial Ground to connect through to Cemetery Street. The City should begin collaboration with property owners, residents, and other stakeholders to establish a concept and bring these segments from vision to reality. Near the Branch Avenue ramps to I-95, this long-term vision would see a path branching off from the Moshassuck River there to follow the West River and connect to Charles and Wanskuck.

**Reduce barriers to Urban Trail connectivity.** Implement Urban Trails on Branch Avenue, West River Street, and Ashburton Street to increase overall connectivity within Mount Hope and mitigate the east-west barrier posed by I-95.

| Street or<br>Trail Name | From       | То                  | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-------------------------|------------|---------------------|-----------------|---|---|---|
| Норе                    | Doyle      | Lloyd               | Urban<br>Trail  | Connects proposed Doyle Urban Trail to Olney<br>Urban Trail and further south to Waterman;<br>enhances access to schools and Brown University                                 | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side  |
| Doyle                   | N Main     | Норе                | Urban<br>Trail  | Enhances walking conditions; connects to propoesd<br>N Main, Camp, and Hope Urban Trails; enhances<br>access to parks and schools   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| N Main                  | City limit | Branch/<br>Cypress  | Urban<br>Trail  | Long-term recommendation to improve connectivity<br>between Hope, Mount Hope, College Hill, and<br>Downtown, as well as north to Pawtucket                                    | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Olney                   | N Main     | Норе                | Upgrade<br>Due  | Connects proposed N Main, Camp, Brown, and<br>Hope Urban Trails (corridor includes existing striped<br>bike lanes)  | One-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side,<br>Narrow travel or parking lane<br>(Lane Diet)           |
| Ashburton               | W River St | Randall/<br>Charles | Urban<br>Trail  | Links proposed W River St and Charles/Mill/Canal<br>Urban Trails  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side,<br>Remove travel lane (Road Diet)                              |
| W River St              | Charles    | Branch              | Urban<br>Trail  | Connects proposed Ashburton and Branch Urban<br>Trails; potential for a long-term connection to West<br>River Greenway  | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet), Move curbs                                |
| Branch                  | N Main     | Silver<br>Spring    | Urban<br>Trail  | Connects Charles and Mount Hope neighborhoods<br>and proposed N Main and W River St Urban Trails  | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet), Move curbs                                |
| N Main                  | Branch     | Smith               | Urban<br>Trail  | Key north-south Urban Trail connection; enhances<br>access to Downtown; connects to existing Urban<br>Trail on Canal and proposed Urban Trail on Smith                        | One-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Camp/Creston/<br>Summit | 10th       | Olney               | Urban<br>Trail  | Provides north-south connectivity for Mount Hope,<br>Hope, and College Hill; connects to multiple Urban<br>Trails; enhances access to parks, schools, and<br>Brown University | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

# **Neighborhood Map**





# Key Traffic Calming Recommendations

Areas along and around proposed neighborhood greenways:

- Doyle Avenue
- Camp Street
- 8th Street and Lorimer Avenue

## Key Intersection Improvement Recommendations

| Street 1               | Street 2                     | Туре   |
|------------------------|------------------------------|--|
| Branch                 | W River                      | Network crossing   |
| Branch                 | I-95 NB ramps                | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection                     |
| Branch                 | I-95 SB ramps                | Large or complicated intersection  |
| Branch                 | Moshassuck<br>River Greenway | Network crossing   |
| Branch                 | N Main                       | Network crossing<br>Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection |
| Camp                   | Abbott                       | Neighborhood comment   |
| Camp                   | Doyle                        | Network crossing   |
| Camp                   | Evergreen                    | Priority from draft map comments   |
| Charles                | Ashburton/<br>Randall        | Network crossing<br>Large or complicated intersection  |
| Charles                | Orms                         | Network crossing   |
| Firglade               | Elgin                        | Neighborhood comment   |
| Норе                   | Olney                        | Network crossing<br>Large or complicated intersection  |
| Норе                   | Doyle                        | Network crossing<br>Large or complicated intersection  |
| N Main                 | 8th                          | Network crossing   |
| N Main                 | Randall/Doyle                | Network crossing<br>Large or complicated intersection  |
| N Main                 | Olney                        | Network crossing<br>Large or complicated intersection  |
| N Main                 | Smithfield                   | Priority from draft map comments   |
| N Main                 | Stenton/<br>Cemetery         | Large or complicated intersection  |
| Olney                  | Camp                         | Network crossing   |
| Orms                   | State                        | Pedestrian/bicycle crash focus intersection<br>Large or complicated intersection                     |
| West River<br>Greenway | W River                      | Network crossing   |
| West River<br>Greenway | Moshassuck<br>River Greenway | Network crossing   |
| W River                | Ashburton                    | Network crossing   |

# **Mount Pleasant**

#### **Key Urban Trail Recommendations**

Create an Urban Trail along Mount Pleasant Avenue between Smith Street and Roanoke Street. This project will enhance Safe Routes to School for Mount Pleasant High School, George West Elementary School, and Saint Augustine's School, and connect to neighborhood greenways proposed along Whitford Avenue, Rialto Street, Roanoke Street, and Leah Street.

**Create north-south neighborhood greenways**. Implement primarily north-south neighborhood greenways to better connect the three neighborhoods to each other, adjacent neighborhoods, and key destinations on traffic-calmed routes.

- *Leah Street* south of Roanoke Street will provide a trafficcalmed route connecting Mount Pleasant to Olneyville and the Woonasquatucket River Greenway.
- *Rialto Street, Standish Avenue, Galileo Avenue, and Marconi Street* will help connect to Chalkstone Avenue and destinations further south. A short off-road connector path through the fringe of Triggs Golf Course would create a safe and comfortable connection to another neighborhood greenway on Ortoleva Drive.

**Create east-west neighborhood greenways.** Implement eastwest neighborhood greenways on Whitford Avenue and Roanoke Street to fill in the Urban Trail network and better connect Mount Pleasant, Elmhurst, and Valley. These projects will benefit access to Mount Pleasant High School, La Salle Academy, George J. West Elementary School, Mount Pleasant Academy, and Rhode Island College.

#### **Key Traffic Calming Recommendations**

The area bordered by Mount Pleasant Avenue, Smith Street, and Chalkstone Avenue

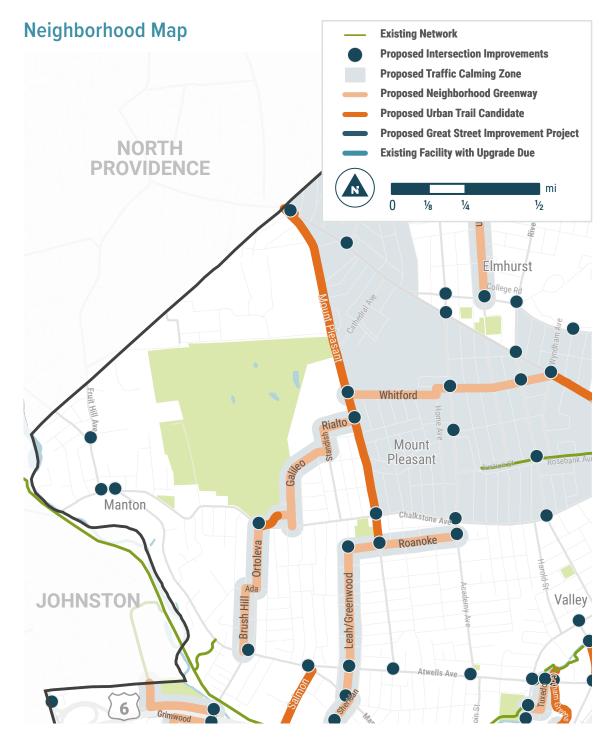
- Includes proposed Urban Trail/traffic calming on Mount Pleasant Avenue and neighborhood greenway/traffic calming on Whitford Avenue
- Area has seen over 20 traffic calming requests over the last 10 years

Areas along and around proposed neighborhood greenways:

- Leah Street
- Rialto Street, Standish Avenue, Galileo Avenue, and Marconi Street



| Street or<br>Trail Name             | From           | То                                    | Project<br>Type | Why is this important?   | Recommendation                                  | Implementation Action   |
|-------------------------------------|----------------|---------------------------------------|-----------------|--|---|---|
| Mount Pleasant                      | Smith          | Roanoke                               | Urban<br>Trail  | In-progress RIDOT project to provide<br>traffic calming and enhance conditions<br>for micromobility users  | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side,<br>Narrow travel or parking lane<br>(Lane Diet)           |
| Whitford                            | Mount Pleasant | Smith                                 | Urban<br>Trail  | Connects to in-progress Mount<br>Pleasant Urban Trail with proposed<br>Smith Urban Trail; enhances access to<br>schools and Rhode Island College | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Roanoke                             | Leah           | Academy                               | Urban<br>Trail  | Connects in-progress Mount Pleasant<br>and proposed Leah Urban Trails;<br>enhances access to schools   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Leah/<br>Greenwood/<br>Sheridan     | Roanoke        | Woonasquatucket<br>River Greenway     | Urban<br>Trail  | Provides connections to schools and the Woonasquatucket River Greenway   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Rialto/Standish/<br>Galileo/Marconi | Mount Pleasant | Chalkstone/Triggs<br>Golf Course path | Urban<br>Trail  | Connects in-progress Mount Pleasant<br>Urban Trail to proposed Triggs Golf<br>Course path; enhances access to<br>schools                         | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Triggs Golf<br>Course path          | Chalkstone     | Marconi                               | Urban<br>Trail  | Connects proposed Brush Hill/Ada/<br>Ortoleva and Rialto/Standish/Galileo/<br>Marconi Urban Trails   | Two-Way Shared Use<br>Path                      | Independent ROW   |



# **Key Intersection Improvement Recommendations**

| Street 1       | Street 2        | Туре                              |
|----------------|-----------------|-----------------------------------|
| Academy        | Pleasant Valley | Large or complicated intersection |
| Academy        | Chalkstone      | Priority from draft map comments  |
| Atwells        | Manton          | Neighborhood comment              |
| Atwells        | Mount Pleasant  | Large or complicated intersection |
| Atwells        | Academy         | Priority from draft map comments  |
| Chalkstone     | Ortoleva        | Network crossing                  |
| Mount Pleasant | Rialto          | Network crossing                  |
| Mount Pleasant | Whitford        | Network crossing                  |

| Street 1       | Street 2       | Туре   |
|----------------|----------------|--|
| Mount Pleasant | Chalkstone     | Pedestrian/bicycle crash focus intersection<br>Large or complicated intersection |
| Mount Pleasant | Roanoke        | Network crossing   |
| Smith          | Mount Pleasant | Large or complicated intersection  |
| Smith          | Longwood       | Neighborhood comment   |
| Smith          | Gentian        | Priority from draft map comments   |
| Smith          | Eaton          | Neighborhood comment   |
| Smith          | Academy        | Priority from draft map comments   |

# Olneyville

#### **Key Urban Trail Recommendations**

Create new Urban Trail segments to extend and fill in gaps along the Woonasquatucket River Greenway. Extend access for people walking, riding bicycles, and using micromobility options along the Woonasquatucket River by implementing several new segments.

- An off-road path along the Woonasquatucket River at the Gotham Greens site: This project, the groundwork for which was laid as part of the Gotham Greens development, will connect the existing Woonasquatucket Greenway segment across Atwells Avenue at Eagle Square to the Urban Trail on the future Tobey Street bridge being constructed as part of the 6/10 Reconstruction project.
- Neighborhood greenway improvements on Delaine Street, Sonoma Court, Tuxedo Ave, Amherst St, and Aleppo Street to make existing on-road Woonasquatucket Greenway routes clearer and safer.
- Create an on-road Urban Trail on Manton Avenue between Olneyville Square and Aleppo Street. If a feasible off-road alternative connection between the Square and Riverside Park is available, this connection may be unnecessary.
- Create a new access path to the Woonasquatucket Greenway near Manton Heights. Salmon Street is the backbone of a potential new connection between Manton Avenue and the Greenway.

#### Create new Urban Trail connections to adjacent neighborhoods.

- Convert the existing bike lanes on Broadway (between Downtown and Olneyville) to an Urban Trail and extend the trail to Valley Street.
- The 6/10 Reconstruction Project will provide new Urban Trail connections to Federal Hill via a new Tobey Street bridge and to the West End via a new bicycle and pedestrian bridge to Westminster Street from Dike Street.
- Create a new on-road Urban Trail connecting to Silver Lake along Pilsudski streets. Because Troy Street is narrow and high-traffic, also create a new off-road connection paralleling the reconstructed US-6 ramp to connect to the new bicycle and pedestrian bridge at Dike Street.
- Extend the proposed Leah Street neighborhood greenway from Mount Pleasant into Olneyville via Greenwood Street, Manton Avenue, and Sheridan Street to provide access to the Woonasquatucket River Greenway.
- Connect Valley to Federal Hill via an on-road Urban Trail on Atwells Avenue between Eagle and Knight streets.

**Improve pedestrian environment within Olneyville.** During the neighborhood meetings for this plan, improved lighting on Dike Street was suggested to enhance walkability.



| Street or<br>Trail Name           | From   | То                                | Project<br>Type | Why is this important?  | Recommendation                                     | Implementation Action   |
|-----------------------------------|--|-----------------------------------|-----------------|---|--|---|
| Manton                            | San Souci                                    | Aleppo                            | Urban<br>Trail  | Helps connect San Souci Urban Trail to<br>Woonasquatucket River Greenway via<br>Aleppo St.  | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Consolidate parking one side  |
| Tobey                             | Washington Sec<br>Trail Ext                  | Helme                             | Urban<br>Trail  | New connection between Federal Hill and<br>Olneyville neighborhoods to be completed<br>by 6/10 Reconstruction Project   | Two-Way Shared Use<br>Path                         | Move curbs  |
| Broadway                          | Valley                                       | Greene                            | Urban<br>Trail  | Key connection for Downtown, Federal Hill,<br>and Olneyville neighborhoods  | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Narrow travel or parking lane<br>(Lane Diet)  |
| Valley                            | San Souci                                    | Broadway                          | Upgrade<br>Due  | Connects new San Souci Urban Trail with<br>in-progress Broadway Urban Trail   | Two-Way Shared Use<br>Path                         | Move curbs  |
| Aleppo                            | Manton                                       | Woonasquatucket<br>River Greenway | Urban<br>Trail  | Key Woonasquatucket River Greenway<br>access point  | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| New path/<br>bridge               | Washington Sec<br>Trail Ext                  | Dike                              | Urban<br>Trail  | As part of 6/10 Reconstruction Project,<br>enhances connectivity between Olneyville<br>and West End   | Two-Way Shared Use<br>Path                         | Move curbs  |
| Woonasquatucket<br>River Greenway | Riverside Park                               | Manton                            | Urban<br>Trail  | Longer-term project, subject to available<br>right-of-way, to extend the greenway south<br>and enhance access to Olneyville destinations  | Two-Way Shared Use<br>Path                         | Independent ROW   |
| Salmon/new<br>path                | Woonasquatucket<br>River Greenway            | Manton                            | Urban<br>Trail  | Enhances access to the Woonasquatucket<br>River Greenway  | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Dike                              | Plainfield                                   | New path/<br>bridge               | Great<br>Street | Aligns with recommendations in Dike St.<br>Special Area Plan; street will lead to and<br>from new path over 6/10 Connector  | Other Great Street<br>Improvement                  | Enhance quality of existing facility  |
| Gotham Greens<br>path             | De Soto                                      | Atwells                           | Urban<br>Trail  | Extends Woonasquatucket River Greenway<br>south of Atwells and connects to Tobey<br>path being built as part of the 6/10<br>Reconstruction Project                                    | Two-Way Shared Use<br>Path                         | Independent ROW   |
| Woonasquatucket<br>River Greenway | Future Gotham<br>Greens bike<br>path/De Soto | Donigian Park                     | Urban<br>Trail  | Links Donigian Park path to the future<br>Woonasquatucket River Greenway<br>segment on Gotham Greens site and new<br>Tobey path being built as part of 6/10<br>Reconstruction Project | Two-Way Shared Use<br>Path                         | Independent ROW   |
| Leah/<br>Greenwood/<br>Sheridan   | Roanoke                                      | Woonasquatucket<br>River Greenway | Urban<br>Trail  | Provides connections to schools and the Woonasquatucket River Greenway  | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| New path                          | Dike/6-10<br>Connector                       | Pilsudski                         | Urban<br>Trail  | Connects proposed Pilsudski Urban Trail<br>with 6/10 Reconstruction Project<br>in-progress path connection  | Two-Way Shared Use<br>Path                         | Independent ROW   |
| Amherst/Tuxedo                    | Valley                                       | Atwells                           | Urban<br>Trail  | Connects Donigian Park path to<br>Woonasquatucket River Greenway at<br>Atwells  | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Delaine                           | Manton                                       | Harris                            | Urban<br>Trail  | Connects in-progress Manton Urban Trail to 6/10 Reconstruction Project path   | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Sonoma                            | Delaine                                      | Donigian Park<br>Bikeway          | Urban<br>Trail  | Connects proposed Delaine Urban Trail with existing bike path   | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

# **Key Traffic Calming Recommendations**

Areas along and around proposed neighborhood greenways: Aleppo Street, Amherst Street and Tuxedo Avenue, Greenwood and Sheridan streets, Delaine Street

#### Key Intersection Improvement Recommendations

| Street 1                          | Street 2               | Туре  |
|-----------------------------------|------------------------|---|
| 6/10 Connector path               | Dike                   | Network crossing  |
| Atwells                           | Academy                | Priority from draft map comments  |
| Atwells                           | Manton                 | Large or complicated intersection<br>Neighborhood comment                           |
| Atwells                           | Mount Pleasant         | Large or complicated intersection   |
| Atwells                           | Bowdoin                | Neighborhood comment  |
| Atwells                           | Valley                 | Pedestrian/bicycle crash focus<br>intersection<br>Large or complicated intersection |
| Atwells                           | Eagle                  | Pedestrian/bicycle crash focus<br>intersection<br>Large or complicated intersection |
| Atwells                           | Gotham Greens<br>path  | Network crossing  |
| Atwells                           | Tuxedo                 | Network crossing  |
| Broadway                          | Westminster            | Large or complicated intersection<br>Pedestrian/bicycle crash focus<br>intersection |
| Delaine                           | Harris                 | Network crossing  |
| Delaine                           | Sonoma                 | Network crossing  |
| Donigian Park path                | Amherst                | Network crossing  |
| Florence                          | Amherst                | Neighborhood comment  |
| Hartford                          | Atwood                 | Neighborhood comment  |
| Hartford                          | US 6 WB ramps          | Large or complicated intersection   |
| Manton                            | Delaine                | Network crossing<br>Pedestrian/bicycle crash focus<br>intersection                  |
| Manton                            | Greenwood/<br>Sheridan | Network crossing  |
| Manton                            | San Souci              | Network crossing<br>Large or complicated intersection                               |
| Manton                            | Hyat                   | Neighborhood comment  |
| Plainfield                        | Hartford               | Large or complicated intersection   |
| Westminster                       | Stokes                 | Neighborhood comment  |
| Woonasquatucket<br>River Greenway | Aleppo                 | Network crossing  |
| Woonasquatucket<br>River Greenway | Sheridan               | Network crossing  |

#### **Project Highlight: San Souci Greenway**

In 2016, the Woonasquatucket River Watershed Council advocated for San Souci Drive to be included for funding in the statewide Green Economy Bond along with other bicycle projects around the state. The bond passed, and the City took on management of the project in collaboration with the Watershed Council. After extensive community engagement in 2018 and 2019, the project was substantially completed in December 2019. Once other sections of the Greenway are completed, the San Souci project will connect the rest of the Woonasquatucket Greenway directly to Olneyville Square.

Before: Google Street View from 2016



**During:** Rendering presented to neighbors in October 2018



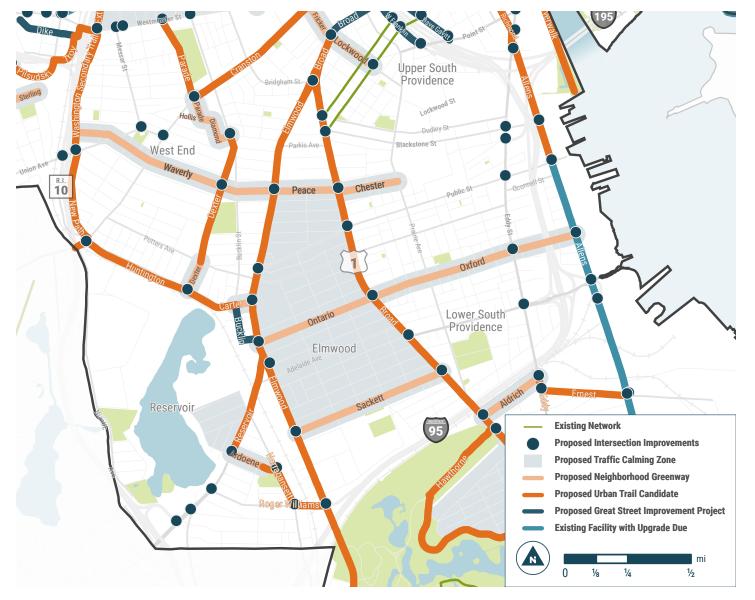
After: Substantial completion in October 2019



# Reservoir

#### **Key Urban Trail Recommendations**

**Create Urban Trails along the 6/10 Connector and Huntington Avenue**. Urban Trails along Salvati Way and Huntington Avenue will combine with the Washington Secondary Trail to create an Urban Trail arc that threads together Elmwood, Reservoir, and West End. **Create Urban Trails on Reservoir, Narragansett, and Roger Williams avenues.** Along with a neighborhood greenway on Ardoene Street, these projects would complete a loop of trails serving the Reservoir neighborhood and connect to the Elmwood Avenue Urban Trail.



| Street or<br>Trail Name | From         | То                | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-------------------------|--------------|-------------------|-----------------|---|---|---|
| Reservoir               | Elmwood      | Ardoene           | Urban<br>Trail  | Connects Reservoir and Elmwood; connects to proposed Urban Trails on Elmwood and Ardoene  | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet), Remove travel lane<br>(Road Diet)         |
| Ardoene                 | Reservoir    | Ardoene<br>Park   | Urban<br>Trail  | Connects proposed Reservoir Urban Trail<br>with Ardoene Park; provides traffic calming<br>between a park and a school                             | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Ardoene Park<br>path    | Ardoene      | Narra-<br>gansett | Urban<br>Trail  | Connects the proposed Ardoene and<br>Narragansett Urban Trails, potentially<br>through enhancing the existing park path<br>and access at each end | Two-Way Shared Use<br>Path                      | Independent ROW   |
| Narragansett            | Ardoene Park | Roger<br>Williams | Urban<br>Trail  | Connects proposed Ardoene Urban Trail (via<br>Ardoene Park) with proposed Roger Williams<br>Urban Trail   | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side,<br>Move curbs   |
| Roger Williams          | Narragansett | Elmwood           | Urban<br>Trail  | Connects proposed Narragansett and<br>Elmwood Urban Trails; enhances access to<br>Roger Williams Park   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side   |

#### **Key Traffic Calming Recommendations**

The area between Reservoir Avenue and Mashapaug Pond:

- Includes Dr. Jorge Alvarez High School
- Area has seen traffic calming requests on Algonquin, Crescent, and Sibley streets
- As part of the proposed Reservoir Avenue Urban Trail project, prioritize improvements at intersections in the vicinity of Reservoir Avenue Elementary School for people walking, including crossing improvements for students walking to school and people accessing bus stops

## Key Intersection Improvement Recommendations

| Street 1     | Street 2                  | Туре                              |
|--------------|---------------------------|-----------------------------------|
| Elmwood      | Reservoir                 | Network Crossing                  |
| Narragansett | Roger Williams            | Network Crossing                  |
| Narragansett | Ardoene Park<br>Path      | Network Crossing                  |
| Reservoir    | Ardoene                   | Network Crossing                  |
| Reservoir    | Pontiac/Rounds            | Large or complicated intersection |
| Reservoir    | Pontiac/US-10<br>NB ramps | Large or complicated intersection |
| Reservoir    | Roger Williams            | Large or complicated intersection |

#### Project Highlight: Ardoene Park Connector

One of the values of having a connected Urban Trail Network is that existing community resources such as parks become more accessible to the members of the community who might use them. That access is valuable in bigger parks such as Roger Williams Park, Neutaconkanut Park, and India Point Park, but also for smaller parks such as Ardoene Park. Featuring a ballfield and playground, Ardoene Park lies at the heart of the neighborhood, yet access is restricted by nearby Reservoir and Elmwood avenues. Both of those streets are proposed to include separated, two-way Urban Trails, but an important part of making sure neighborhood residents can get safely to Ardoene Park and elsewhere are connections to the park on Roger Williams Avenue, Narragansett Avenue (both also separated two-way Urban Trails) and Ardoene Street (a proposed neighborhood greenway).



# Silver Lake

#### **Key Urban Trail Recommendations**

**Create neighborhood greenways through Silver Lake** on Daniel, Pocasset, Eastwood, and Sterling avenues, and Magnolia Street, to fill in the network and improve access between Silver Lake and Hartford, Olneyville, the West End, and Federal Hill.

Create an Urban Trail along Pilsudski Street from Magnolia Street in Silver Lake to Troy Street to connect Silver Lake and Olneyville. Activate the Troy Street underpass of US 6 with lighting and placemaking elements to make it more comfortable for people walking, riding bicycles, and using other micromobility options. This Urban Trail will connect to the recommended off-road path connection to the west of the railroad tracks from Dike Street to Magnolia Street in Olneyville. Work with the property owner of the vacant parcel between Pilsudski Street and the end of Sterling Avenue to determine the feasibility of an off-street path connecting the two Urban Trails. **Create an Urban Trail connection on Plainfield Street** between Duxbury Street and Daniel Avenue to connect to the proposed Daniel Avenue neighborhood greenway and enhance access to Neutaconkanut Park.

Make a north-south Urban Trail on Webster Avenue. South of Pocasset Avenue, Webster Avenue has the width and traffic volume to recommend a separated Urban Trail. North of Pocasset Avenue, a neighborhood greenway may be more suitable.

**Create an off-road Urban Trail through Neutaconkanut Park.** The popular neighborhood park features a recreation center, a skate park, and baseball fields. There are existing paths connecting many of these features, and those paths could be enhanced to create an Urban Trail Network connection between Silver Lake and the proposed neighborhood greenway on Springfield Street.

#### **Key Traffic Calming Recommendations**

Along and around the proposed neighborhood greenways on Daniel, Sterling, Pocasset, and Lowell avenues, and on Plainfield Street

#### Hartford Biver Lake Plaining St Plaining

### Key Intersection Improvement Recommendations

| Street 1   | Street 2                    | Туре                              |
|------------|-----------------------------|-----------------------------------|
| Daniel     | Ethan                       | Neighborhood comment              |
| Dorchester | Daniel                      | Neighborhood comment              |
| Killingly  | Springfield/<br>Sunset      | Large or complicated intersection |
| Mercy      | Ethan                       | Neighborhood comment              |
| Pilsudski  | Magnolia                    | Network crossing                  |
| Plainfield | Daniel                      | Network crossing                  |
| Plainfield | Duxbury                     | Network crossing                  |
| Plainfield | Killingly/Lowell            | Large or complicated intersection |
| Plainfield | Pocasset/US-6<br>EB on-ramp | Large or complicated intersection |
| Plainfield | Union                       | Large or complicated intersection |
| Pocasset   | Daniel                      | Network crossing                  |
| Pocasset   | Laurel Hill                 | Priority from draft map comments  |
| Pocasset   | Union                       | Large or complicated intersection |
| Union      | US-6 SB ramps               | Large or complicated intersection |
| Webster    | Eastwood                    | Network crossing                  |
| Webster    | Plainfield                  | Network crossing                  |
| Webster    | Pocasset/<br>Magnolia       | Network crossing                  |
| Webster    | Sterling                    | Network crossing                  |

| Street or<br>Trail Name | From                   | То   | Project<br>Type | Why is this important?   | Recommendation                                  | Implementation Action   |
|-------------------------|------------------------|--|-----------------|--|---|---|
| Grimwood                | Glenbridge             | Ophelia                                      | Urban<br>Trail  | Connects Merino Park path to proposed<br>Ophelia/Eugene Urban Trail  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Ophelia/Eugene          | Grimwood               | Springfield                                  | Urban<br>Trail  | Connects to proposed Grimwood and<br>Springfield Urban Trails; enhances access to<br>Merino Park, the Woonasquatucket River<br>Greenway, and schools                   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Plainfield/Daniel       | Duxbury                | Pocasset                                     | Urban<br>Trail  | Enhances access to Neutaconkanut Park and<br>Paul Grande Park; connects to proposed<br>Pocasset and Springfield (via park paths)<br>Urban Trails                       | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Pocasset                | Daniel                 | Webster/<br>Magnolia                         | Urban<br>Trail  | Connects proposed Daniel, Webster, and<br>Magnolia Urban Trails  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Pilsudski/Troy          | Magnolia (s/o<br>US 6) | Magnolia<br>(n/o US 6)                       | Urban<br>Trail  | Key connection between Silver Lake and<br>Olneyville underneath US 6   | Two-Way Urban Trail with<br>Accessible Sidewalk | Move curbs  |
| Webster                 | Eastwood               | Pocasset/<br>Magnolia                        | Urban<br>Trail  | Provides a north-south connection between the Hartford and Silver Lake neighborhoods   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Webster                 | Pocasset/<br>Magnolia  | City limit                                   | Urban<br>Trail  | Provides a north-south connection between<br>Silver Lake and Cranston  | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side  |
| Springfield             | Eugene                 | Killingly                                    | Urban<br>Trail  | Enhances access to schools and<br>Neutaconkanut Park; connects proposed<br>Ophelia-Eugene and Plainfield/Daniel Urban<br>Trails (via park paths)                       | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Sterling                | Eastern<br>terminus    | Webster                                      | Urban<br>Trail  | Connects proposed Webster Urban Trail with<br>proposed trail connection near Forys<br>Playground; enhances access to playground<br>and school                          | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Eastwood                | Laurel Hill            | Heath  | Urban<br>Trail  | Connects proposed Webster and Heath/<br>Merino Park Urban Trails; enhances access<br>to schools  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Heath                   | Eastwood               | Merino Park<br>(trailhead in<br>parking lot) | Urban<br>Trail  | Enhances access to Merino Park   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Glenbridge              | Merino Park<br>Path    | Button Hole                                  | Urban<br>Trail  | Proposed long-term recommendation for<br>enhancing connectivity between Manton,<br>Olneyville, Mount Pleasant, and Hartford,<br>potentially when the bridge is rebuilt | Two-Way Urban Trail with<br>Accessible Sidewalk | Enhance quality of existing facility  |

#### **Project Highlight: Neutaconkanut Park**

Most of the proposed Urban Trail routes in Silver Lake are neighborhood greenways, which would mostly involve traffic calming and signage. While the goal of these is to provide residents with the option and access to use the Urban Trail Network, another goal is to connect residents to Neutaconkanut Park. The proposed route through the park would similarly use existing routes (around the ballfields) with only minor changes necessary: widening of the path in some places, potentially some new curb ramps, and signage. The dotted lines at right indicate alternative route options. Inclusion of this connection will provide better access to the park and allow more people to use this valued community resource.



# Smith Hill

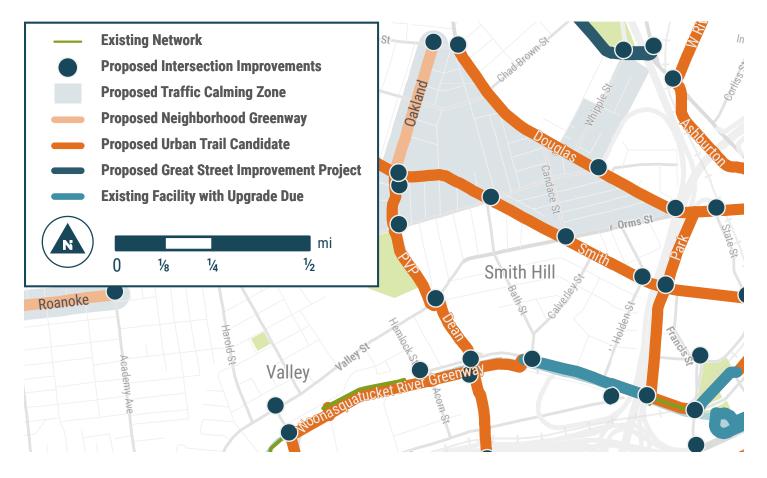
#### **Key Urban Trail Recommendations**

#### Create an Urban Trail along the Woonasquatucket River

between Eagle Square and Downtown: This will fill in the largest Urban Trail gap between Olneyville and Downtown. This project has received approximately \$6 million in Statewide Transportation Improvement Program funding and is expected to be completed in 2022.

**Create an Urban Trail along Dean Street/Pleasant Valley Parkway.** Complete an Urban Trail connection along Dean Street and Pleasant Valley Parkway from Atwells Avenue through Davis Park to Eaton Street (via the proposed Oakland Avenue Urban Trail), connecting Elmhurst, Smith Hill, Valley, and Federal Hill. **Create an Urban Trail along Smith Street.** Work with RIDOT to implement an Urban Trail on Smith Street (a state-owned and state-maintained street) from Canal Street to Whitford Avenue in Elmhurst. This would connect with the new Canal Street Urban Trail, traversing the steep grade and passing over I-95, enhancing east-west connectivity for the neighborhood. A project on Smith Street would also be an opportunity to address some of the neighborhood comments related to speeding and crossing the street on Smith Street, especially between Oakland Avenue and Orms Street.

**Implement an Urban Trail along Douglas Avenue.** In the northern part of the neighborhood, the City will be installing an Urban Trail on Douglas Avenue to improve conditions for people walking, bicycling, and using micromobility.



| Street or<br>Trail Name                        | From                  | То     | Project<br>Type | Why is this important?  | Recommendation                                     | Implementation Action   |
|--|-----------------------|--------|-----------------|---|--|---|
| Dean   | Atwells               | Valley | Urban<br>Trail  | Connects across key gap in pedestrian,<br>bicycle, and micromobility access between<br>Federal Hill, Valley, and Smith Hill   | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Move curbs  |
| Dean/Raymond/<br>Oakland/Davis<br>Park Path    | Valley                | Smith  | Urban<br>Trail  | Connects school and major neighborhood<br>park and fills network gap between the<br>Woonasquatucket River and Smith Street  | Two-Way Shared Use<br>Path                         | Move curbs, Enhance quality of existing facility  |
| Woonasquatucket<br>River Greenway<br>Extension | Eagle                 | Park   | Urban<br>Trail  | Project in design that extends<br>Woonasquatucket River Greenway into<br>Downtown   | Two-Way Shared Use<br>Path                         | Remove travel lane (Road Diet)  |
| Smith  | Oakland               | Orms   | Urban<br>Trail  | Completes Smith Hill connection from<br>Oakland to College Hill; enhancing access<br>to schools, parks, downtown, and other<br>destinations                           | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Consolidate parking one side  |
| Smith  | Orms                  | Park   | Urban<br>Trail  | Extends proposed Smith Urban Trail by<br>State Capitol west to Smith Hill<br>neighborhood; enhances access to park  | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Remove parking one side,<br>Narrow travel or parking lane<br>(Lane Diet)                |
| Smith  | Park                  | Canal  | Urban<br>Trail  | Provides connectivity through State Capitol area to new Urban Trail on Canal St.  | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Remove travel lane (Road Diet)  |
| Charles/Mill/<br>Canal                         | Ashburton/<br>Randall | Smith  | Urban<br>Trail  | Connects to new Canal Urban Trail and<br>proposed W. River St. Urban Trail; moves<br>toward better access to Downtown from<br>Charles and Mount Hope                  | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Remove travel lane (Road Diet),<br>Move curbs   |
| Oakland  | Smith                 | Eaton  | Urban<br>Trail  | North-south connection between<br>neighborhoods; enhances access to<br>Providence College, Davis Park, and<br>schools; extends proposed Dean/PVP<br>Urban Trail north | Neighborhood<br>Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Douglas  | Orms                  | Eaton  | Urban<br>Trail  | Enhances access to parks, schools, and<br>Providence College  | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Consolidate parking one side  |

#### **Key Traffic Calming Recommendations**

The area of Smith Hill between Smith Street and Douglas Avenue:

- Investigate speeding concerns along Camden Avenue, Wayne Street, and the area north of Douglas, including Whipple Street
- Area has seen over 10 traffic calming requests over the last 10 years, including on Candace, Goddard, Wayne, Nolan, Chalkstone, Ruggles, Camden, Osborn, Pekin, and Jefferson streets

#### Key Intersection Improvement Recommendations

| Street 1 | Street 2   | Туре  |  |
|----------|------------|---|--|
| Dean     | Kinsley    | Network crossing                                      |  |
| Dean     | Promenade  | Network crossing<br>Large or complicated intersection |  |
| Orms     | Candace    | Large or complicated intersection                     |  |
| Orms     | Jefferson  | Neighborhood comment                                  |  |
| Smith    | Oakland    | Network crossing<br>Priority from draft map comments  |  |
| Smith    | Park       | Network crossing                                      |  |
| Smith    | Chalkstone | Priority from draft map comments                      |  |

# South Elmwood

#### **Key Urban Trail Recommendations**

#### Implement and extend City Walk along Broad Street and

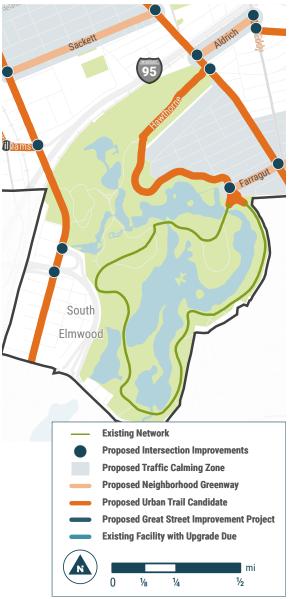
**Elmwood Avenue.** City Walk is an in-progress Urban Trail project on Broad, Pine, Friendship, and Clifford streets that will: strengthen connections between South Providence, other neighborhoods, parks, and civic institutions; improve safety for people traveling by all modes; and celebrate the diversity and culture of Providence neighborhoods through public art, wayfinding signage, and vibrant public places. City Walk Phase 1 on Clifford, Pine, and Friendship streets is now complete. City Walk should be extended along all of Elmwood Avenue as envisioned by the 2014 City Walk study. A road diet on the sourthern portions of Elmwood Avenue paired with improved crossings would transform this from a high-speed highway access road into the great street the neighborhood has been asking for.

**Connect the existing Roger Williams Park loop with City Walk on Broad Street.** Hawthorne Avenue and F.C. Greene Memorial Boulevard are already popular routes for bicycling, but high-speed vehicular traffic in the park is unsafe. This proposed improvement would extend the separated Urban Trails to make the connection between them safer for park users.

#### Key Intersection Improvement Recommendations

| Street 1                | Street 2                    | Туре                              |  |
|-------------------------|-----------------------------|-----------------------------------|--|
| Broad                   | Aldrich                     | Network crossing                  |  |
| Broad                   | Hawthorne                   | Network crossing                  |  |
| Elmwood                 | US-10 NB ramps              | Large or complicated intersection |  |
| Elmwood                 | US-10 SB ramps/<br>McKinley | Large or complicated intersection |  |
| Greene<br>Memorial Blvd | Farragut                    | Network crossing                  |  |

# **Project List**



| Street or<br>Trail Name                     | From       | То                   | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|---|------------|----------------------|-----------------|---|---|---|
| Broad                                       | Hawthorne  | Fricker/<br>Lockwood | Urban<br>Trail  | City Walk project   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Broad                                       | City limit | Hawthorne            | Urban<br>Trail  | Future City Walk phase; enhances access<br>from Washington Park to Roger Williams<br>Park   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Elmwood                                     | City limit | Broad                | Urban<br>Trail  | Key north-south connection for West End,<br>Elmwood, and South Elmwood; connects to<br>several Urban Trails and enhances access to<br>Trinity Square in the north, Roger Williams<br>Park in the south, and many destinations in<br>between | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Hawthorne /<br>F.C. Greene<br>Memorial Blvd | Broad      | Cladrastis           | Urban<br>Trail  | Connects existing Roger Williams Park loop to City Walk project on Broad Street   | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet), Remove travel lane<br>(Road Diet) |

# **Upper South Providence**

#### **Key Urban Trail Recommendations**

Implement City Walk along Broad Street. City Walk is an inprogress Urban Trail project on Broad, Pine, Friendship, and Clifford streets that will: strengthen connections between South Providence, other neighborhoods, parks, and civic institutions; improve safety for people traveling by all modes; and celebrate the diversity and culture of Providence neighborhoods through public art, wayfinding signage, and vibrant public places. City Walk Phase 1 on Clifford, Pine, and Friendship streets is now complete. City Walk Phase 2, planned for construction in 2020, will extend the improvements on Broad Street.

**Create neighborhood greenways** on Chester Avenue and Lockwood and Fricker streets, to connect Upper South Providence to surrounding neighborhoods and nearby Urban Trails, and to reduce speeding on these neighborhood streets.

Upgrade Allens Avenue for people walking, bicycling, and using micromobility and create an Urban Trail. An Urban Trail and other walking, bicycling, and micromobility improvements on this major street will help residents connect to Downtown, the Hospital District, and Washington Park. Since it is a state-maintained road, an Urban Trail on Allens Avenue will require partnership and coordination with RIDOT.

# Neighborhood Map Upper South Providence Lockwood St Dudley St **Blackstone St** Chester ace **Existing Network** Proposed Intersection Improvements Proposed Traffic Calming Zone Proposed Neighborhood Greenway **Proposed Urban Trail Candidate** Ontario **Proposed Great Street Improvement Project Existing Facility with Upgrade Due** Elmwood mi 0 1⁄8 1∕₄ 1/2

| Street or<br>Trail Name | From                 | То                   | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-------------------------|----------------------|----------------------|-----------------|---|---|---|
| Broad                   | Fricker/<br>Lockwood | W Franklin           | Great<br>Street | Improves walking, bicycling, and micromobility adjacent to several schools                        | Other Great Street<br>Improvement               | Enhance quality of existing facility  |
| Broad                   | Hawthorne            | Fricker/<br>Lockwood | Urban<br>Trail  | City Walk project   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Allens                  | Public               | Eddy                 | Urban<br>Trail  | North-south connection between Downtown and South Providence                                      | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet), Move curbs                                |
| Peace/Chester           | Elmwood              | Prairie              | Urban<br>Trail  | Connects West End and South Providence  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Lockwood                | Broad                | Friendship           | Urban<br>Trail  | Connects West End and South Providence;<br>connects proposed Fricker Urban Trail and<br>City Walk | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

## Key Traffic Calming Recommendations

Areas along and around proposed neighborhood greenways:

- Peace Street/Chester Avenue
- Lockwood Street

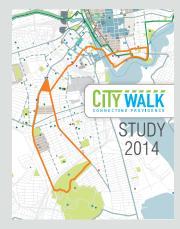
#### Key Intersection Improvement Recommendations

| Street 1    | Street 2                    | Туре   |
|-------------|-----------------------------|--|
| Allens      | Blackstone                  | Large or complicated intersection  |
| Allens      | Public                      | Large or complicated intersection  |
| Broad       | Cahir                       | Pedestrian/bicycle crash focus intersection  |
| Broad       | Elmwood                     | Network crossing<br>Large or complicated intersection  |
| Broad       | Friendship                  | Network crossing<br>Large or complicated intersection  |
| Broad       | Fricker/<br>Lockwood        | Network crossing<br>Large or complicated intersection  |
| Broad       | Peace/Chester               | Network crossing   |
| Broad       | Pine                        | Network crossing   |
| Broad       | Public                      | Priority from draft map comments<br>Pedestrian/bicycle crash focus intersection                          |
| Eddy        | Blackstone                  | Large or complicated intersection  |
| Eddy        | Public                      | Large or complicated intersection  |
| Eddy        | Willard/I-95 SB<br>off-ramp | Large or complicated intersection  |
| Friendship  | Lockwood                    | Large or complicated intersection  |
| W Franklin  | Broad                       | Neighborhood comment<br>Priority from draft map comments   |
| W Franklin  | Friendship                  | Network crossing   |
| W Franklin  | Pine                        | Network crossing<br>Priority from draft map comments   |
| W Franklin  | Point/I-95 SB<br>on-ramp    | Priority from draft map comments   |
| Westminster | Cahir                       | Large or complicated intersection<br>Pedestrian/bicycle crash focus intersection<br>Neighborhood comment |
| Westminster | Cranston/<br>Winter/Fricker | Network crossing<br>Large or complicated intersection<br>Priority from draft map comments                |
| Westminster | W Franklin                  | Priority from draft map comments   |

#### **Project Highlight: City Walk**

The idea for City Walk emerged in the 2006 "Old Harbor Forums" as a way to connect residents to the Providence River and cultural resources such as Roger Williams Park and India Point Park. Advocacy by the Jewelry District Association

and Providence Foundation led to a design report in 2014 highlighting design challenges and ideas between the two parks. In 2016 the State allicated funding to implement safety improvements for biking and walking between the Providence River and Roger Williams Park.



team of locally-hired ambassadors attended

presentations to

events to talk with residents about the project, and numerous meetings (open project-wide public meetings,

neighborhood groups, and an ongoing community advisory group) provided updates and opportunities for the community to weigh in on design decisions.

Construction began on the

The City's implementation of the 2016-2020 City Walk improvements involved

public engagement efforts that set a high standard for Great Streets projects: a demonstration project in summer 2017 created a temporary example for neighborhood passers-by to see what the proposed improvements could look like, a street



Feedback poster at demonstration day

Downtown and Upper South Providence phase in Fall 2019 and improvements on Broad Street are expected to be complete in Fall 2020.

Rendering of improvements at Broad Street & Gallatin Street



# Valley

#### **Key Urban Trail Recommendations**

Create new Urban Trail segments to extend and fill in gaps along the Woonasquatucket River Greenway. Extend access for people walking, riding bicycles, and using micromobility options along the Woonasquatucket River by implementing several new segments.

 An Urban Trail along the Woonasquatucket River between Eagle Square and Downtown: This segment will fill in the largest Urban Trail gap between Olneyville and Downtown. This project has received approximately \$6 million in Statewide Transportation Improvement Program funding and is expected to be completed in 2021 and 2022.

#### Create new Urban Trail connections to adjacent neighborhoods.

 Connect Valley to Federal Hill via on-road Urban Trails on Eagle Street and Atwells Avenue between Eagle and Knight streets.

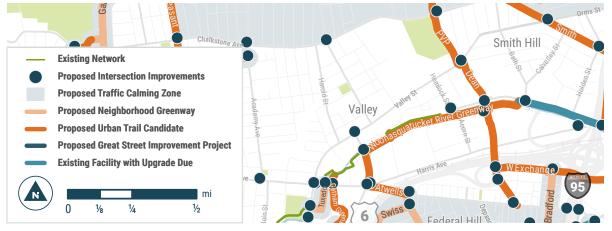
Create an Urban Trail along Dean Street/Pleasant Valley

**Parkway.** Complete an Urban Trail connection along Dean Street and Pleasant Valley Parkway from Atwells Avenue to Eaton Street (via the proposed Oakland Avenue Urban Trail), connecting Elmhurst, Smith Hill, Valley, and Federal Hill.

#### Key Intersection Improvement Recommendations

| Street 1 | Street 2              | Туре  |
|----------|-----------------------|---|
| Atwells  | Academy               | Priority from draft map comments  |
| Atwells  | Bowdoin               | Neighborhood comment  |
| Atwells  | Valley                | Pedestrian/bicycle crash focus<br>intersection<br>Large or complicated intersection |
| Atwells  | Eagle                 | Pedestrian/bicycle crash focus<br>intersection<br>Large or complicated intersection |
| Atwells  | Gotham Greens<br>path | Network crossing  |
| Atwells  | Tuxedo                | Network crossing  |
| Dean     | Kinsley               | Network crossing  |
| Dean     | Promenade             | Network crossing<br>Large or complicated intersection                               |
| Eagle    | Kinsley               | Network crossing  |
| Eagle    | Valley                | Large or complicated intersection   |

#### Neighborhood Map



| Street or<br>Trail Name                        | From    | То             | Project<br>Type | Why is this important?   | Recommendation                                     | Implementation Action                        |
|--|---------|----------------|-----------------|--|--|--|
| Dean   | Atwells | Valley         | Urban<br>Trail  | Connects across key gap in pedestrian,<br>bicycle, and micromobility access between<br>Federal Hill, Valley, and Smith Hill  | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Move curbs                                   |
| Woonasquatucket<br>River Greenway<br>Extension | Eagle   | Park           | Urban<br>Trail  | Project in design that extends<br>Woonasquatucket River Greenway into<br>Downtown  | Two-Way Shared Use<br>Path                         | Remove travel lane (Road Diet)               |
| Eagle  | Kinsley | Harris/Atwells | Urban<br>Trail  | Connects current and future Woonasquatucket<br>River Greenway segments to proposed Urban<br>Trails leading into Federal Hill | Two-Way Urban Trail<br>with Accessible<br>Sidewalk | Narrow travel or parking lane<br>(Lane Diet) |

# Wanskuck

#### **Key Urban Trail Recommendations**

Create a neighborhood greenway on Veazie Street to provide connectivity to schools, a library, and Wanskuck Park and serve as a parallel route to Douglas Avenue, whose narrowness creates challenges for an Urban Trail. Create neighborhood greenways on Eva, Corina, and Appian streets that will extend from the Veazie Street neighborhood greenway to enhance access to Providence College and Hawkins Street.

**Implement an Urban Trail on Hawkins Street,** whose bridge over Route 146 is under replacement in 2020, to connect the two neighborhoods. This project would extend to Hawkins Square.

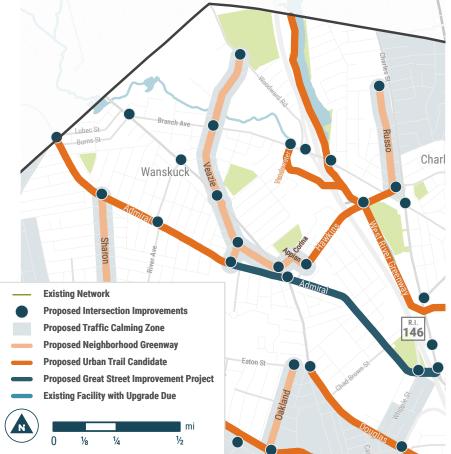


Implement an Urban Trail on Admiral Street from the North Providence city limits to Huxley Avenue adjacent to the Providence College campus. In the short term, an Urban Trail on the one-block segment of Admiral Street between Eva Street to Huxley Avenue would fully connect the Veazie/Eva neighborhood greenway to Providence College. A connection to Elmhurst through and-or around the Providence College campus should be studied further in collaboration with Providence College. Admiral Street east of Huxley Avenue is recommended for a Great Street project.

**Establish off-road Urban Trails along the West River.** A long-term vision is for Mount Hope, Charles, and Wanskuck to one day be connected to the Urban Trail Network with an off-road path and greenway along the West and Moshassuck rivers. The West River primarily flows through Charles and Wanskuck, and the proposed trail would terminate at Branch Avenue at Vandewater Street. The City should begin collaboration with property owners, residents, and other stakeholders to establish a concept and bring these segments from vision to reality.

| Street or<br>Trail Name | From                           | То         | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-------------------------|--------------------------------|------------|-----------------|---|---|---|
| Admiral                 | City limit near<br>Gentian Ave | Huxley     | Urban<br>Trail  | Longer-term recommendation to enhance<br>urban trail connectivity to North Providence   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side   |
| Admiral                 | Huxley                         | Charles    | Great<br>Street | Enhances micromobility connectivity<br>between Wanskuck and Charles, Mount<br>Hope, and Smith Hill  | Other Great Street<br>Improvement               | Enhance quality of existing facility  |
| West River<br>Greenway  | Vandewater                     | I-95       | Urban<br>Trail  | Long-term recommendation for a<br>continuous east-west greenway connecting<br>Charles and Wanskuck  | Two-Way Shared Use<br>Path                      | Independent ROW   |
| Hawkins                 | Appian                         | Monticello | Urban<br>Trail  | Key connection between Charles and<br>Wanskuck, enhancing access to parks,<br>schools, and neighborhood business<br>districts                     | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side   |
| Veazie/Eva              | Woodward                       | Admiral    | Urban<br>Trail  | Connects to proposed Urban Trails leading<br>to Elmhurst and Charles; enhances access to<br>parks and schools                                     | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Veazie                  | Eva                            | Douglas    | Urban<br>Trail  | Connects Veazie/Eva and Corina/Appian<br>Urban Trails and provides a parallel route to<br>Admiral   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Corina/Appian           | Douglas/Veazie                 | Hawkins    | Urban<br>Trail  | Links the proposed Veazie and Hawkins<br>Urban Trails, bypassing the Admiral/Douglas/<br>Hawkins intersection; enhances access to<br>Mansion Park | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

#### **Neighborhood Map**



# Key Traffic Calming Recommendations

Areas along and around proposed neighborhood greenways:

- Veazie Street
- Eva, Corina, and Appian streets

## Key Intersection Improvement Recommendations

| Street 1 | Street 2                       | Туре  |  |  |
|----------|--------------------------------|---|--|--|
| Admiral  | Douglas                        | Large or complicated intersection                         |  |  |
| Admiral  | Eva                            | Network crossing  |  |  |
| Branch   | West River<br>Greenway         | Network crossing  |  |  |
| Branch   | Woodward/Rt<br>146 SB off-ramp | Large or complicated intersection<br>Neighborhood comment |  |  |
| Douglas  | Branch/Burns                   | Large or complicated intersection                         |  |  |
| Douglas  | River/O'Neil                   | Large or complicated intersection<br>Neighborhood comment |  |  |
| Hawkins  | Appian                         | Network crossing  |  |  |
| Veazie   | Branch                         | Network crossing  |  |  |
| Veazie   | Douglas/Easton                 | Network crossing  |  |  |
| Veazie   | Douglas/Corina                 | Network crossing  |  |  |
| Veazie   | Eva                            | Network crossing  |  |  |
| Veazie   | Woodward                       | Network crossing  |  |  |

#### **Project Highlight: West River Greenway**

The envisioned greenway along the West River would connect Branch Avenue in Wanskuck with an underappreciated natural resource and along the river to Charles and Downtown. See page 29 for more details on the full proposed river greenway system. The completion of this path system would help get people biking out of traffic on busy and unsafe Branch Avenue.

Proposed end of West River Greenway at Branch Avenue & Vandewater Street

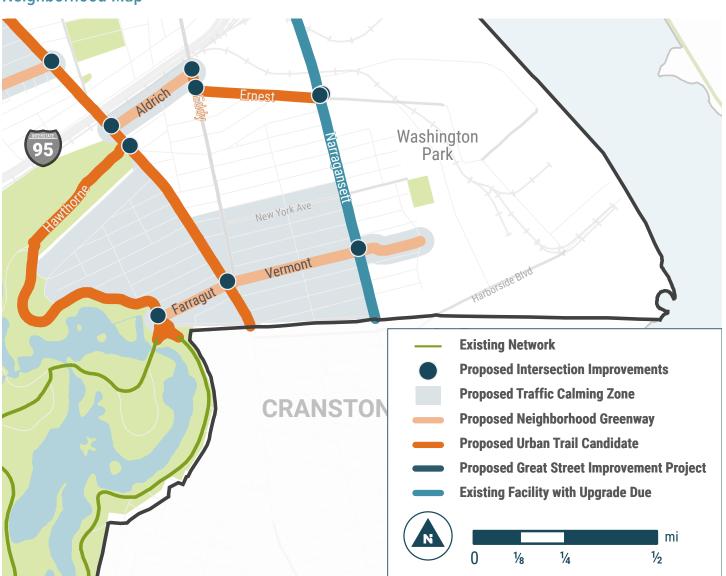


# **Washington Park**

#### **Key Urban Trail Recommendations**

Implement and extend City Walk along Broad Street. City Walk is an in-progress Urban Trail project on Broad, Pine, Friendship, and Clifford streets that will: strengthen connections between South Providence, other neighborhoods, parks, and civic institutions; improve safety for people traveling by all modes; and celebrate the diversity and culture of Providence neighborhoods through public art, wayfinding signage, and vibrant public places. City Walk Phase 1 on Clifford, Pine, and Friendship streets is now complete. City Walk should be extended on Broad Street all the way to the city line as envisioned by the 2014 City Walk study. Upgrade Allens Avenue and Narragansett Boulevard for people walking, bicycling, and using micromobility and create an Urban Trail. An Urban Trail and other walking, bicycling, and micromobility improvements on this major street will help residents connect to Downtown, the Hospital District, and Washington Park. Since they are state-maintained roads, an Urban Trail on Allens Avenue and Narragansett Boulevard will require partnership and coordination with RIDOT.

**Create east-west Urban Trails.** Neighborhood greenways on Aldrich Street, Farragut Avenue, and Vermont Avenue, as well as a separated Urban Trail on Ernest Street, will calm traffic, link the proposed north-south Urban Trails, and enhance access to Roger Williams Park, Johnson & Wales University's Harborside Campus, and other destinations.



| Street or<br>Trail Name | From                    | То                   | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-------------------------|-------------------------|----------------------|-----------------|---|---|---|
| Broad                   | Hawthorne               | Fricker/<br>Lockwood | Urban<br>Trail  | City Walk project   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Broad                   | City limit              | Hawthorne            | Urban<br>Trail  | Future City Walk phase; enhances access<br>from Washington Park to Roger Williams<br>Park   | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Eddy                    | Ernest                  | Aldrich              | Urban<br>Trail  | Connects proposed Ernest and Aldrich<br>Urban Trails  | Two-Way Urban Trail with<br>Accessible Sidewalk | Move curbs  |
| Ernest                  | Eddy                    | Allens               | Urban<br>Trail  | Along with Aldrich, connects proposed<br>Allens Urban Trail with City Walk  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove parking one side,<br>Narrow travel or parking lane<br>(Lane Diet)                |
| Allens/<br>Narragansett | City limit              | Public               | Upgrade<br>Due  | North-south connection between South<br>Providence and Washington Park  | Two-Way Urban Trail with<br>Accessible Sidewalk | Narrow travel or parking lane<br>(Lane Diet), Move curbs                                |
| Aldrich                 | Eddy                    | Broad                | Urban<br>Trail  | Along with proposed Ernest and Eddy Urban<br>Trails, connects proposed Allens Urban Trail<br>with City Walk; enhances access to Roger<br>Williams Park  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Farragut/<br>Vermont    | Greene<br>Memorial Blvd | Michigan             | Urban<br>Trail  | Connects proposed Allens/Narragansett<br>Urban Trail with proposed Broad (City Walk)<br>Urban Trail; enhances access to Roger<br>Williams Park, Columbia Park, and Johnson<br>& Wales Harborside Campus | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

#### **Key Traffic Calming Recommendations**

The area of Washington Park west of Broad Street, adjacent to Roger Williams Park

- Comment received regarding cut-through traffic on Calla Street
- Area has seen 3 traffic calming requests in the last 10 years

The area of southern Washington Park, between Broad Street and Allens Avenue

Comment received regarding speeding in the neighborhood

Along and around the proposed Aldrich Street and Farragut Avenue/Vermont Avenue neighborhood greenways

#### Key Intersection Improvement Recommendations

| Street 1                | Street 2  | Туре                             |
|-------------------------|-----------|----------------------------------|
| Allens                  | Ernest    | Network crossing                 |
| Broad                   | Aldrich   | Network crossing                 |
| Broad                   | Farragut  | Priority from draft map comments |
| Broad                   | Hawthorne | Network crossing                 |
| Eddy                    | Ernest    | Network crossing                 |
| Eddy                    | Aldrich   | Network crossing                 |
| Greene<br>Memorial Blvd | Farragut  | Network crossing                 |
| Narragansett            | Vermont   | Priority from draft map comments |

## **Project Highlight: Allens Avenue**

Allens Avenue was one of the first bike lanes built in Providence, completed in 2001. However, with time and heavy industrial use related to the Port of Providence, the corridor is due for an upgrade. The City has collaborated with and will continue to work with RIDOT on planned improvements including improved crosswalks, physical separation for the bike lanes, stopping trucks from parking in the bike lanes, and the in-road railroad tracks that cross Allens Avenue in multiple places, sometimes at hazardous angles for bicycle tires.

#### **"Inadequate Vulnerable Road User Facilities –** With high pedestrian volumes in various locations along

the corridor due to businesses, there are no marked crossings, ADA compliant wheelchair ramps or paths. Drivers do not behave with an awareness of other roadway users."





"Inadequate Bicycle Accommodations – The existing marked bicycle lane along Allens Avenue is poorly designated with signage and striping. The width of the bicycle lane also varies between 3' and upwards of 8' in width." – 2017 RIDOT Road Safety Assessment

# Wayland

#### **Key Urban Trail Recommendations**

Integrate Urban Trails into the Henderson Bridge improvements. RIDOT's Henderson Bridge Reconstruction Project will add a new shared-use path to the Henderson Bridge, which will enhance multimodal travel options to and from East Providence.

**Implement Urban Trails on Angell and Waterman streets** to serve as a one-way couplet connecting Wayland to College Hill, RISD, and Brown University. A north-south path through Witherby Park is recommended as a key link between Waterman Street and the Blackstone River Bikeway.

Complete an Urban Trail on East River Street, River Road, and Irving Avenue between Richmond Square and Blackstone Boulevard to connect Wayland and Blackstone, fill in a gap on the Statewide Bicycle System, and complete a segment of the East Coast Greenway.





**Improve walkability** on Lloyd and Butler avenues and supplement the connectivity provided by the recommended Urban Trail Network.

Create a neighborhood greenway on Elmgrove Avenue.

Frequently requested by neighborhood comments, this northsouth neighborhood greenway would supplement the proposed Urban Trail on Hope Street and the proposed improvements to the existing facility on Blackstone Boulevard.



#### **Key Traffic Calming Recommendations**

Using the Implementation Guide as a reference, install traffic calming elements as part of walkability improvements on Butler and Lloyd avenues.

Areas along and around proposed neighborhood greenway on Elmgrove Avenue.

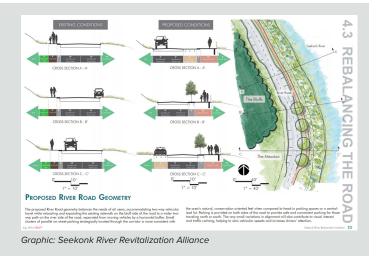
## Key Intersection Improvement Recommendations

| Street 1 | Street 2              | Туре  |
|----------|-----------------------|---|
| Angell   | Butler                | Network crossing  |
| Angell   | Gano                  | Large or complicated intersection                               |
| Angell   | Elmgrove              | Network crossing  |
| Gano     | Amy                   | Neighborhood comment  |
| Gano     | Trenton               | Large or complicated intersection                               |
| Irving   | Humboldt/Cole         | Priority from draft map comments                                |
| Waterman | Witherby Park<br>Path | Network crossing<br>Pedestrian/bicycle crash focus intersection |
| Waterman | Butler                | Network crossing  |
| Waterman | Gano                  | Large or complicated intersection                               |

| Street or<br>Trail Name       | From                               | То                            | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|-------------------------------|------------------------------------|-------------------------------|-----------------|---|---|---|
| S Angell/Angell               | Henderson<br>Bridge                | Норе                          | Urban<br>Trail  | Connects in-progress Henderson Bridge<br>path, proposed Elmgrove and Hope St.<br>Urban Trails; enhances access to schools,<br>parks, and Brown University       | One-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet)  |
| Henderson<br>Bridge           | Angell/<br>Waterman                | East<br>Providence            | Urban<br>Trail  | RIDOT bridge reconstruction project, in<br>design in 2020, will provide critical<br>connection with East Providence   | Two-Way Shared Use<br>Path                      | Move curbs  |
| Waterman                      | Butler                             | Henderson<br>Bridge           | Urban<br>Trail  | Completes connection from Brown<br>University to Blackstone River path (via<br>proposed Witherby Park path) and<br>in-progress RIDOT Henderson Bridge project   | One-Way Urban Trail with<br>Accessible Sidewalk | Enhance quality of existing facility  |
| Waterman                      | Норе                               | Butler                        | Urban<br>Trail  | Connects College Hill and Wayland   | One-Way Urban Trail with Accessible Sidewalk    | Remove travel lane (Road Diet)  |
| Elmgrove                      | Angell                             | Lloyd                         | Urban<br>Trail  | Connects Wayland and Blackstone; connects<br>proposed Angell Urban Trail with Lloyd Great<br>Street and other projects further north in<br>Blackstone           | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Butler                        | Pitman                             | Blackstone<br>Blvd            | Great<br>Street | Enhances walkability along this street, which<br>would connect with proposed River St. and<br>Blackstone Bike path  | Other Great Street<br>Improvement               | Enhance quality of existing facility  |
| Witherby Park<br>path         | Waterman                           | Pitman                        | Urban<br>Trail  | Connects Blackstone River path at Pitman<br>St., future Henderson Bridge path, and<br>proposed Waterman Urban Trail   | Two-Way Shared Use<br>Path                      | Independent ROW   |
| Lloyd                         | Норе                               | Blackstone                    | Great<br>Street | Enhances walkability along this route<br>connecting several schools, recreational<br>areas, and the Blackstone Blvd path  | Other Great Street<br>Improvement               | Enhance quality of existing facility  |
| E River St/River<br>Rd/Irving | Blackstone River<br>Bikeway/Pitman | lrving/<br>Blackstone<br>Blvd | Urban<br>Trail  | Fills in a gap in the Blackstone River<br>Bikeway and East Coast Greenway; connects<br>to future Henderson Bridge path and<br>proposed Waterman St. Urban Trail | Two-Way Shared Use<br>Path                      | Move curbs, Independent ROW   |

# **Project Highlight: River Road**

The Seekonk Riverbank Revitalization Alliance has proposed a new vision for for River Road, which runs along the Seekonk River from underneath the Henderson Bridge to Irving and Gulf avenues. River Road provides access to waterfront recreational activities including fishing and the Narragansett Boat Club, yet it is vulnerable to erosion and sea level rise and is used as a vehicular cut-through. The neighborhood vision to create a shared-use path by narrowing the roadway fits well with the Great Streets plan goals.



### West End

#### **Key Urban Trail Recommendations**

#### Create new Urban Trail connections to neighborhood parks.

Implement Urban Trails on Dexter, Parade, Cranston, Waverly, and Peace streets to better connect neighborhood residents to Dexter Training Ground and Bucklin Park. Create neighborhood greenways on Parade, Hollis, Diamond, and Superior streets to calm traffic and provide a connection around the narrow, busy part of Dexter Street just south of Cranston Street.

#### Create Urban Trails along the 6/10 Connector and Huntington

**Avenue.** Create an Urban Trail on Salvati Way to extend the Washington Secondary Trail from its terminus in Cranston to connect with the new off-road Urban Trail being constructed to the east of the 6/10 Connector between Union and Tobey streets. Connect the West End to Elmwood and Reservoir via a new off-road Urban Trail along Huntington Avenue.

#### **Key Traffic Calming Recommendations**

The area between Union Avenue, Waverly Street, Dexter Street, and Waldo Street:

Area has seen two traffic calming requests over the last 10 years

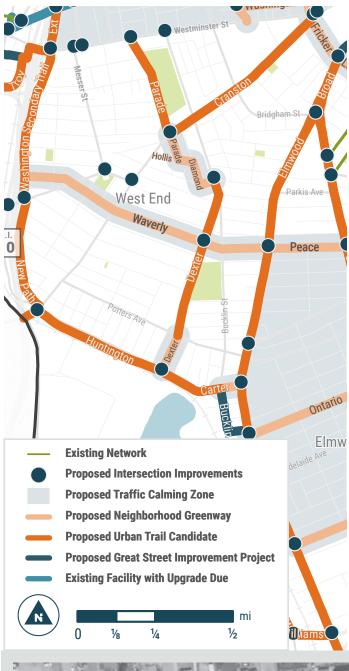
Areas along and around proposed neighborhood greenways:

- Dexter Street between Huntington and Potters avenues
- Fricker Street
- Parade, Hollis, Diamond, and Sprague streets
- Peace and Waverly streets

#### **Project List**

| Street or<br>Trail Name               | From                        | То       | Project<br>Type | Why is this important?  | Recommendation                                  | Implementation Action   |
|---------------------------------------|-----------------------------|----------|-----------------|---|---|---|
| Washington Sec<br>Trail Ext           | Union                       | Tobey    | Urban<br>Trail  | New extension of existing trail to be completed by 6/10 Reconstruction Project  | Two-Way Shared Use<br>Path                      | Move curbs  |
| Ridge/Swiss                           | Knight                      | Tobey    | Urban<br>Trail  | Connects proposed Knight and Tobey Urban<br>Trails and in-progress path related to the<br>6/10 Reconstruction Project   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Parade                                | Westminster                 | Cranston | Urban<br>Trail  | Connects West End to Federal Hill; connects<br>to proposed Cranston and Dexter Urban<br>Trails  | Two-Way Urban Trail with<br>Accessible Sidewalk | Remove travel lane (Road Diet),<br>Consolidate parking one side                         |
| Parade/Hollis/<br>Diamond/<br>Sprague | Cranston                    | Dexter   | Urban<br>Trail  | Connects proposed Parade Urban Trail<br>(Westminster to Cranston) with proposed<br>Dexter Urban Trail   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Dexter                                | Huntington                  | Potters  | Urban<br>Trail  | With other Dexter project, provides<br>north-south connection between West End<br>and Federal Hill  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Dexter                                | Potters                     | Sprague  | Urban<br>Trail  | Part of a north-south Urban Trail connection<br>between West End and Federal Hill;<br>enhances school access  | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side  |
| Cranston                              | Fricker                     | Parade   | Urban<br>Trail  | Threads together multiple proposed Urban<br>Trails in West End; enhances school access  | Two-Way Urban Trail with<br>Accessible Sidewalk | Consolidate parking one side,<br>Narrow travel or parking lane<br>(Lane Diet)           |
| Huntington                            | Mashapaug                   | Cranston | Urban<br>Trail  | Provides key east-west connection for West<br>End and Elmwood; connects to proposed<br>Dexter and Elmwood Urban Trails and<br>Anthony Avenue/Salvati Way path | Two-Way Shared Use<br>Path                      | Narrow travel or parking lane<br>(Lane Diet)  |
| Salvati                               | Cranston                    | Union    | Urban<br>Trail  | Connects proposed Huntington Urban Trail<br>with in-progress Washington Secondary Trail<br>Ext as part of 6/10 Reconstruction Project                         | Two-Way Shared Use<br>Path                      | Narrow travel or parking lane<br>(Lane Diet)  |
| Fricker                               | Cranston/<br>Westminster    | Broad    | Urban<br>Trail  | Connects to multiple proposed Urban Trails;<br>enhances access to schools   | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |
| Peace/Waverly                         | Washington Sec<br>Trail Ext | Elmwood  | Urban<br>Trail  | Connects in-progress Washington Secondary<br>Trail Extension with proposed, Dexter and<br>Elmwood Urban Trails  | Neighborhood Greenway                           | Neighborhood Greenway<br>Toolbox (Speed management,<br>major intersections, wayfinding) |

#### **Neighborhood Map**



#### Key Intersection Improvement Recommendations

| Street 1    | Street 2                    | Туре  |  |  |
|-------------|-----------------------------|---|--|--|
| Cranston    | Dexter                      | Pedestrian/bicycle crash focus intersection   |  |  |
| Cranston    | Messer                      | Large or complicated intersection   |  |  |
| Cranston    | Parade                      | Network crossing<br>Priority from draft map comments                                      |  |  |
| Dexter      | Sprague                     | Network crossing  |  |  |
| Dexter      | Waverly                     | Network crossing  |  |  |
| Elmwood     | Greenwich                   | Neighborhood comment  |  |  |
| Huntington  | Dexter                      | Network crossing  |  |  |
| Huntington  | Cranston                    | Large or complicated intersection<br>Network crossing                                     |  |  |
| Messer      | Marvin                      | Neighborhood comment  |  |  |
| Sycamore    | Hudson                      | Neighborhood comment  |  |  |
| Union       | Messer                      | Large or complicated intersection   |  |  |
| Union       | US 10 NB ramps              | Large or complicated intersection   |  |  |
| Westminster | Cranston/<br>Winter/Fricker | Network crossing<br>Large or complicated intersection<br>Priority from draft map comments |  |  |
| Westminster | Bridgham                    | Pedestrian/bicycle crash focus intersection   |  |  |
| Westminster | Wash Trail Ext              | Network crossing  |  |  |
| Westminster | Dexter                      | Priority from draft map comments  |  |  |
| Westminster | US 6-10 NB<br>ramps         | Large or complicated intersection   |  |  |
| Westminster | Messer                      | Large or complicated intersection   |  |  |
| Westminster | Barton                      | Large or complicated intersection   |  |  |
| Westminster | Parade                      | Priority from draft map comments  |  |  |



#### **Project Highlight: Huntington Greenway**

Huntington Avenue is currently built to encourage driving fast: multiple lanes of traffic in each direction that are a width similar to a highway are a subtle signal to drive 40 mph or more. This street is at the edge of a dense residential neighborhood, and could provide safe access for everyone and actually improve mobility in the neighborhood. A conceptual design that the City collaborated with RIDOT on in 2017-18 involves reducing the number of travel lanes and providing a separated, shared-use path along one side of the street. This would provide an important connection between Elmwood Avenue and the extension of the Washington Secondary Trail at Cranston Street and would also absorb stormwater runoff into a widened linear park. This page intentionally left blank.

## Assessment of Regulations, Programs, and Policies

This chapter includes an assessment of and recommendations regarding policies, processes, and regulations that govern and provide context for Great Streets and Urban Trails in the City of Providence. This includes descriptions of the existing framework of regulations, policies, programs, and stakeholders, identification of gaps in the current process, and recommendations for improvement. The recommendations derive from a number of sources, including document review, interviews and discussions with key stakeholders, and best practices research. Although this chapter includes many recommendations related to a variety of needed improvements to policies, processes, and regulations, the recommendations generally align with five key areas of focus:

- Revise outdated and enact new City ordinances related to mobility
- Align City policies and procedures to invest in and preserve great streets
- Prioritize safety and comfort for people who walk, ride bicycles, and use public transit
- Advocate for friendlier state laws and policies related to mobility
- Expand opportunities for engagement, education, and encouragement

### Legal Framework

The legal framework for City departments profiled in this chapter is City Charter Article X – City Departments (Providence, RI Code of Ordinances). Ordinance Articles VII–IX½ cover Public Works, the City Engineer, Traffic Engineering, and Planning and Development. Appendix A<sup>1</sup> presents relevant ordinance language. The City Departments section of this chapter contains additional discussion of ordinances governing each profiled department.

Several other City Ordinance sections are flagged and recommended to be updated to further support the Great Streets Initiative. See the actual ordinance language for specifics and Appendix A for more detail.

### 2014 Zoning Ordinance

The City's current Zoning Ordinance became effective on December 24, 2014, and contains amendments up to and including July 27, 2018. The Zoning Ordinance guides building dimensions, design, and uses in established zoning districts. Sections of the Ordinance important to Great Streets govern off-street parking requirements – including shared vehicular parking, bicycle parking requirements, placement and dimensions of driveways and curb cuts, trees and landscaping, signs, and lighting.

### City of Providence Code of Ordinances Chapter 14 – Licenses

#### Vendors

Article IX, last revised in 2015, regulates temporary vendors, including those operating in the public realm. Section 14-171 assigns the Department of Public Works with responsibility for reviewing and confirming that proposed locations do not "interfere with public access to and along the sidewalk" before granting approval.

#### **Registration and Licensing of Bicycles**

While Article XI is titled, "Registration and Licensing of Bicycles," other than the title and definition of a bicycle, there are no requirements relating to bicycles in this article; the remainder of this article applies to pedicabs.

### City of Providence Code of Ordinances Chapter 15 – Motor Vehicles and Traffic

#### Parking

Section 15-2 includes the following penalties for violating parking rules that are directly applicable to bicycle and pedestrian movement. There is no specific fine listed for parking in or blocking a bicycle facility.

- Parking so as to obstruct the flow of traffic: \$75
- Parking within twenty-five (25) feet of corner: \$30
- Parking in marked bus stop: \$30
- Parking on marked crosswalk or within intersection: \$30
- Parking on sidewalk: \$100

1 Pending

#### **Bus Lanes**

Sections 15-55—15.57 established exclusive bus lanes on portions of Washington Street, Weybosset Street, and Empire Street in 1962 with implementation of the Westminster pedestrian mall. This is notable because many cities, including Providence, are establishing bus-only lanes to improve transit operations.

#### **Bicycles**

Sections 15-70—15-75 date from 1946 and cover a number of requirements for operating a bicycle. These requirements are out of date and likely not enforced as written. For example, Section 15-73 prohibits carrying a passenger on a bike. This effectively prohibits carrying passengers on cargo bikes, bikes with trailers, child seats, and other common desired means of bicycle transportation.

#### **Reasonable Speeds**

Sections 15-108–15-109 include provisions for reducing speeds at intersections, and when geometry dictates care. Some cities have updated such ordinances to lower citywide speed limits.

#### **Use of Motorized Devices on Sidewalks**

Section 15-131 prohibits use of some motorized devices (except scooters, wheelchairs for persons with disabilities, and Segways) on sidewalks, streets, public parks, or other City-owned property.

### City of Providence Ordinance Chapter 18 – Parks and Recreation

Section 18-29 (subsection a) obligates the Board of Parks Commissioners to superintend maintenance and control of public parks, including "avenues...and all other property thereon or therein."

### City of Providence Ordinance Chapter 23 – Streets, Sidewalks, and Public Places

#### **Snow and Ice Removal**

Sections 23-13–23-17 cover removal of snow and ice and prohibit placement of removed snow into already plowed areas or onto streets. See Implementation Guide Chapter 4 for details on the importance of snow removal from sidewalks and Urban Trails.

#### Skateboards

Passed in 1965, Section 23-31 prohibits riding a skateboard on any street, highway, sidewalk, or pedestrian mall within city limits. This is antiquated and should be repealed.

### **City of Providence Complete Streets Resolution**

The City of Providence's Complete Streets Resolution, enacted January 5, 2012, encourages the City's Department of Planning and Development and Department of Public Works to "use Complete Streets concepts in planning and redevelopment of transportation related infrastructure" and requests both departments to incorporate Complete Streets principles as it develops plans and ordinances, reviews development projects and funds transportation and other infrastructure.

As written, the 2012 resolution is supportive and encouraging but not as strong as it should be. Formal adoption of the Providence Great Streets Master Plan will dramatically expand integration of Complete Streets principles into planning and implementation processes. Recommendations for changes to policies and procedures within this chapter will address existing gaps in the process.

### City of Providence Traffic Calming Guidelines and Program

Providence's Traffic Calming Design Guidelines define traffic calming as 'measures instituted to reduce traffic speeds and cut-through traffic volumes on city streets to improve public safety and neighborhood livability'. Measures are mostly physical (street width, deflecting or vertically altering vehicle paths). Regulatory measures such as stop signs and speed limit signs are not part of the current traffic calming scope.

The Guidelines are meant to assist City departments in implementing traffic calming throughout the city. An interdepartmental committee, the Traffic Calming Advisory Group (TCAG), reviews traffic calming requests and advises DPW, other City departments, and City Council on the appropriateness of traffic calming measures in response to requests. The TCAG

#### **Current traffic calming thresholds**

A traffic calming request is eligible for preliminary approval if:

- \*  $\geq$  15% of vehicles were traveling faster than 30 mph
- ≥ 20% of vehicles were traveling faster than 35 mph during a 2-hour period on 2 days
- On a local road, average daily traffic was > 3000 vehicles per day
- On a road narrower than 18 feet, ≥ 10% of vehicles were traveling faster than 25 mph, or
- The past 3 years of crash history on the street shows a high incidence of speed-related crashes

consists of the City Traffic Engineer and traffic engineering staff, the Assistant City Engineer, and representatives from DPD, Providence Police, Providence Fire, and the Providence City Council. TCAG recommendations are advisory and the DPW Director is vested with the authority to make decisions on which projects to advance to implementation.

As noted in Section II, Traffic Calming Review Process,

A request to the Traffic Calming Advisory Group (TCAG) for installing a traffic calming device can be initiated many ways. Requests can come through any individual, city council resolution or request, through neighborhood groups, City departments or as part of a transportation or streetscape project. At this time the TCAG will be a group that reacts to requests instead of taking a proactive role in seeking out areas needing traffic calming. The TCAG will provide recommendations to the Public Works Director on the request with the final decision being that of the Public Works Director.

Providence's program is reactive by design, does not limit how many and from whom requests may be initiated, does not restrict where traffic calming may be implemented, and does not adequately explain the process in a transparent manner to community members. Traffic calming programs have been in place for more than 20 years in a number of U.S. cities with some dating back even longer. Because traffic calming programs are popular, to conserve resources, a number of cities have changed their programs in important ways. See the Recommendations section of this chapter for a discussion of recommended improvements to the City's traffic calming program.

# Other Procedures, Policies, and Programs

#### Sidewalk Repair Standard Operating Procedure

Implementing Urban Trails and Great Streets presents an opportunity to improve conditions for people walking along and crossing streets. The City of Providence has a draft Sidewalk Repair Policy, which guides how the City plans, executes, and maintains sidewalk repairs. This policy considers factors such as ADA compliance, sidewalk condition, available funding, adjacent and nearby uses, volume of people walking, and existence of legal claims. As described in the Policy, the City of Providence Department of Public Works (DPW) visits each location where there is a request for sidewalk repair or legal claim related to sidewalks and assigns a condition of good, fair, or poor based on the existence and extent of cracks, defects, and trip hazards. Field notes are stored in the City's Sidewalk Repair Database.

In 2017, DPW contracted with a company to conduct a complete inventory and condition evaluation of all sidewalks in the city. This resulted in an overall condition rating for each sidewalk in the city. As noted in the current Policy:

Prior to each construction season, the DPW will decide which sidewalks are assigned to be repaired based on a balance of these factors, with the goal being to improve overall safety for pedestrians on a macro level, while at the same time decreasing the City's exposure to claims for trips and fall claims attributed to known sidewalk defects. Additionally, directing assets to repair a pedestrian corridor or block rather than spot fixes results in cost efficiencies in construction.

Each Urban Trail or Great Streets project is an opportunity for coordination where a scheduled sidewalk repair could be accomplished in conjunction with an Urban Trail project. Because the Sidewalk Repair Policy already articulates prioritization factors specific to sidewalks, an Urban Trail or Great Street recommendation in the same corridor should not be a sidewalk repair prioritization factor. Rather, an Urban Trail or Great Street project can supplement the list of sidewalk repairs identified by DPW for each construction season. As stated in the current Policy:

Occasionally, a project funded and constructed by the Rhode Island Department of Transportation, the Providence Department of Planning and Development or the City's Capital Improvement Plan will include sidewalk repairs in the project scope.

#### **Capital Improvement Program**

The Capital Improvement Program (CIP)—as applied to Great Streets—includes street, sidewalk, traffic calming, Complete Streets, off-road path, parks, and sewer projects. Street and sidewalk projects are typically paving or maintenance. The City's pavement management program is currently part of the CIP. Sewer projects include proactive and reactive repairs and some of these can include associated restoration work of roads and sidewalks.

See discussion of CIP under DPD and Department of Public Properties in the City Departments section of this chapter for more information.

#### **Community Development Block Grant (CDBG)**

Through these annual federal formula funds, the City funds projects and programs related to housing affordability, parks and open space, transportation infrastructure, quality of life issues, economic development, and workforce development. This program is an important potential funding source for special Great Streets projects and appropriate coordination is needed to ensure Great Streets principles are considered for all applicable projects.

#### Speed Camera Location Selection Criteria Memorandum

According to this draft document, prior speed camera placements on low-volume streets throughout Providence did not produce many violations while results on arterial streets were better. The proposed strategy prioritizes schools, arterials or collectors, and vulnerable crash corridors identified in the 2017 Vulnerable Road User Safety Action Plan. The strategy also identifies camera placement on streets with an identified speeding issue confirmed by studies. Speeding is defined as when traffic counts show 1 percent of traffic exceeding 30 mph or when enforcement yields at least two violations in four hours of enforcement. The memo also lays out procedures for formally relocating speed enforcement cameras. The placement of future speed cameras appropriately prioritizes critical locations.

#### **Right-of-Way Encroachment Rules**

DPW rules adopted on March 5, 2012, govern excavation and construction of encroachments not for habitation (e.g., awnings, canopies, marquees, signs, architectural embellishments, foundations, wheelchairs, etc.) and encroachments for habitation (balconies, bay windows, arcades, overhangs, basements vaults, subterranean parking garages, etc.). DPW must find the encroachment will not impair public health, safety, or welfare and — if supported by the ground within the public right-of-way — does not have an adverse impact on access for people walking or using wheelchairs.

These rules are consistent with Great Streets. City staff resources are needed to ensure compliance. This includes internally communicating planned and ongoing construction activities.

#### **Overnight Resident Parking Permit Program**

This permit program allows vehicle owners/lessees to purchase a permit (\$100 for Providence-registered vehicles and \$200 for non-Providence vehicles) to park overnight on local streets as designated by the City Traffic Engineer. Other parking restrictions (daytime prohibitions or time limits, snow emergencies, and street sweeping) still apply. If two-thirds of a street's residents sign a petition in opposition, the City may exclude the street from the program and the overnight parking ban continues.

#### **Public Utilities Agreement**

This agreement incorporates Standards to be Employed by Public Utility Operators when Restoring any of the Streets, Lanes and Highways in Providence, applicable ordinances, and A Plan for Supervision of Utility Cuts.

As noted in Appendix A, "Under the Standards, [utility companies] are required to obtain permits for work in City streets and guarantee the work for a period of Five (5) years. The Standards impose a permit fee of Seventy Five Dollars (\$75) per excavation

and include work standards and safety requirements. They include provisions governing excavation, backfill and compaction, and pavement restoration. Finally, the Standards include two provisions that are designed to lead to better coordination between the Utilities and Providence. The first is the Street Paving Program under which the Utilities will receive advance notice of Providence's paving plans. The second is the Utility Coordinating Committee which will be composed of representatives of City departments and the Utilities and will meet regularly to coordinate utility work in City streets."

Utility projects, particularly those that affect sidewalks, present an opportunity to piggyback improvements to the public realm. In general, larger planned projects present the greatest opportunity. Note the current agreement does not explicitly address bicycles. As discussed below, the 2014 Bicycle Master Plan recommended adding provisions to this permit process to prevent roadway patches from creating hazards for people riding bicycles, providing bicycle detours when temporarily closing roads, and pavement marking replacement.

## Road and Sidewalk Opening Standards for Contractors

A November 20, 2017, Public Works document outlines rules and regulations to assist contractors on proper standards to be employed for public roadway and sidewalk opening. The City requires contractors excavating or constructing within the public right-of-way to obtain a road opening permit. Unlike the utility agreement, bicycle-related provisions are included. Similar to utility projects, contractor activities present an opportunity to piggyback improvements to the public realm.

#### **Valet Parking Guidelines**

The Traffic Engineering Division has established guidance for valet parking licensing and operation that requires among other things, all cars to be parked in an off-street lot that the applicant controls and not on a city street. It also prohibits blocking the public right-of-way. The potential blocking of bike lanes, sidewalks, Urban Trail crossings, or other important facilities requires enforcement.

#### **Vulnerable Road Users Safety Action Plan**

The purpose of the January 2017 Vulnerable Road Users Safety Action Plan, is to "identify and utilize available data to evaluate crash patterns involving people walking or riding bicycles and develop a citywide approach that improves safety and complements ongoing initiatives in the City of Providence. By effectively using data to identify problem areas and risk factors, funding can be focused on areas and approaches with the greatest potential to reduce fatal and serious injuries to vulnerable roadway users." The Action Plan includes strategies aimed at improving young user safety, improving older user safety, improving infrastructure, increasing compliance with traffic laws, and focusing on specific corridors. Corridors with data and identified countermeasures include Broad Street, Chalkstone Avenue, North Main Street, Westminster Street, Smith Street, Washington Street, Cranston Street, Francis Street, Hope Street, Angell Street, Branch Avenue, Elmwood Avenue, Manton Avenue, Allens Avenue, Pine Street, Steeple Street/Memorial Boulevard, Douglas Avenue, Hartford Avenue, Admiral Street, and Dorrance Street.

#### 2014 Bicycle Master Plan

Bike Providence<sup>2</sup> is Providence's 2014 Bicycle Master Plan. The plan's intent was to "provide the framework to identify, prioritize and implement bicycle facilities in the City of Providence." The plan provided an existing bikeways inventory, compiled crash data, listed ongoing and planned bicycle facility projects, and evaluated level of traffic stress, among other tasks. In addition to recommending projects, recommendations applicable to the City's Great Streets Initiative included the following discussion. Items with a check mark (</ ) indicate those which have been completed since 2014. Recommendations not yet completed have been incorporated into the recommendations of the Great Streets Master Plan and updated as needed.

General recommendations include:

- Modify the current City roadway design standards and regulations to include a Complete Streets approach.
- Modify the City pavement management program to include consideration for City streets that are on the bike network.
   Evaluations of pavement surface conditions should take into account defects that may impact bicycles such as longitudinal cracks and unsafe drainage grates.
- Include provisions in the City's utility/roadway opening permit process to consider roadways in the bike network. For example, utility patches must not create a hazard for bicycles, and temporary road closures and detours must accommodate bicyclists. Bikeways pavement markings that are covered over or damaged by road/utility repairs must be replaced.
- ( $\checkmark$ ) Modify the City's current zoning and development regulations

to include provisions for a Complete Streets approach and for bicycle parking in new and redevelopment projects.

- Develop a policy and designs to permit commercial establishments to replace on-street parking with on-street bike parking stalls/bike corrals.
- In addition to recommendations on education and evaluation, the plan recommended enhancements to enforcement activities. See discussion of Public Safety.

#### The Big Jump

The City of Providence is one of several US cities selected to participate in PeopleForBikes' Big Jump project. The Big Jump project, which includes technical assistance and professional development assistance, is helping ten cities radically reimagine their bicycling infrastructure, while at the same time helping propel communities nationwide into a better future for biking. During the coming years, the Big Jump effort will continue to assist the City with additional technical assistance, professional development, and implementation of the Great Streets Initiative.

#### **Bike Share**

Launched in 2018, JUMP bikes, in partnership with the City of Providence and private sponsors, is a membership-based dockless bike share program. The bikes have a pedal-assist motor. Although the bikes can be locked to any public bike rack, street sign, or parking meter (as long as it does not block accessibility on sidewalks), the system also includes 40 JUMP-branded bike racks. JUMP redistributes bikes throughout the day to balance supply with demand.

#### **E-Scooter Share**

Providence's E-Scooter Share Program launched in October 2018. Two companies, Spin and VeoRide, received permits to operate 300 e-scooters each during the 2019-20 second year of the program. Operators are responsible for meeting requirements specific to safety, distribution, equity, maintenance, operations, parking, and data sharing as outlined in updated regulations DPW issued in December 2018.

#### Shared Mobility: Insights from data

- In the first year of the scooter pilot, 169,000 trips were taken on scooters and 282,500 on JUMP bikes. 50,000 people rode JUMP bikes and 25,000 rode scooters.
- JUMP trips averaged 2 miles, 10-15 minutes, and 8-12 miles per hour. Scooter trips averaged half a mile, 6 minutes, and 4 miles per hour.
- The biggest factor correlating to high ridership in 2017-8 was temperature. The second biggest factor was whether colleges were in session.

<sup>2</sup> Bike Providence: A Bicycling Master Plan for Providence, November 2013

## **City Commissions Directly or Indirectly Involved with the Public Realm**

### **Bicycle and Pedestrian Advisory Commission**

This Providence Bicycle and Pedestrian Advisory Commission (BPAC) is charged with serving as the advisory body to the Mayor, City Plan Commission, Department of Public Works, Department of Planning and Development, and Office of Sustainability on matters pertaining to bicycling and walking in the City. The BPAC is comprised of seven public members appointed by the Mayor. Staff of the Department of Planning and Development, Department of Public Works, and Office of Sustainability serve as non-voting Ex-Officio members. The BPAC may also: examine the need for transportation related to people walking or riding bicycles; promote programs and facilities for people walking and riding bicycles; educate and inform the public and local officials on issues related to people walking or riding bicycles; perform special studies and projects as requested by the City, including reviewing development plans and site plans which may have a significant impact on people walking or riding bicycles; facilitate citizen participation; study changes in laws, regulations, and best practices and advise the City with respect to such changes; promote intergovernmental and public/private cooperation and coordination; and advise the public and City on matters affecting the relationship between public realm improvements and parks, schools, transit stops, and other major facilities.

Enacted in 2012, Executive Order 2012-1 (Creating the Bicycle and Pedestrian Advisory Commission) established the Providence Bicycle and Pedestrian Advisory Commission (BPAC). Enacted in 2016, Executive Order 2016-1 (Creation of a Review Process for Road and Sidewalk Projects and Complying with the City's Complete Streets Resolution) requires DPW and DPD to present all significant street, sidewalk, or trail repair or construction projects to the BPAC for review during both the project's initial scoping phase and preliminary design phase. Significant projects include those identified in Bike Providence, any street categorized as an arterial or collector road, or any project within 300 feet of a school or City recreation center. BPAC also reviews projects under RIDOT jurisdiction. (See RIDOT discussion in External Agencies section of this chapter.)

The establishment of BPAC and subsequent expansion of its role has increased project coordination and implementation of new facilities. The requirement for two BPAC reviews ensures sufficient community input on final plans. However, for non-controversial projects, a second review may be unnecessary. The Department of Planning and Development currently assists and staffs the BPAC.

### **City Plan Commission**

The City Plan Commission (CPC) is a citizen board charged with developing the City's plans for preservation, revitalization and growth. With the assistance of DPD staff and general public, the City Plan Commission develops the City's Comprehensive Plan and ensures that all planning documents are consistent with the goals and policies of the Plan. The commission reviews all land development projects, applications for changes, requests for street abandonment, and the City's Capital Improvement Program. The Department of Planning and Development currently assists and staffs the CPC.

### Downtown Design Review Committee

The Downtown Design Review Committee (DDRC) conducts development plan review in the D-1 zoning district. The D-1 zone encourages and directs development in Downtown to ensure that new development complements the existing historic building fabric and character, historic buildings are preserved and maintained in keeping with the historic nature of Downtown, development encourages active street life, and that greenways and open spaces are incorporated into Downtown. The Department of Planning and Development currently assists and staffs the DDRC.

### **Capital Center Commission**

The Capital Center Commission (CCC) is charged with adopting, implementing, and administering a plan of development for the Capital Center Special Development District, a 79-acre redevelopment in the heart of downtown Providence. The CCC reviews public realm improvements within the Capital Center District. The Department of Planning and Development currently assists and staffs the CCC.

### **Historic District Commission**

The Historic District Commission (HDC), established in 1960, is charged with protecting the unique physical character, historic fabric, and visual identity of the city. The HDC reviews and regulates development and exterior renovations in Providence's designated Local Historic Districts. The Department of Planning and Development currently assists and staffs the HDC.

### **Board of Parks Commissioners**

The Board of Parks Commissioners has jurisdiction over all green spaces of the City, all parks including Roger Williams Park Zoo and Roger Williams Park Museum, North Burial Ground, and other city-owned or controlled cemeteries, public recreational areas of all types-- including those on or adjacent to school property--, and all forestry functions including the setting out, care, and removal of trees, shrubs, and other plants on city streets as well as on properties for which it is responsible.

## **City Departments Directly Involved** with the Public Realm

A number of City departments have regulatory and/or permitting roles that directly or indirectly involve the City's right-of-way. Two of these departments -- the Department of Planning and Development (DPD) and Department of Public Works (DPW) -- have the most substantial roles, and as such, this chapter reviews specific charter and ordinance language for these two departments.

### Department of Planning and Development (DPD)

DPD develops and administers standards for land use, design, construction, and housing that are consistent with the Providence Tomorrow Comprehensive Plan. The Department provides staff support to the City Plan Commission, Downtown Design Review Committee, Capital Center Commission, Historic District Commission, and Bicycle and Pedestrian Advisory Commission (BPAC). (Some right-of-way improvements require review by one or more of these commissions as discussed in the Commissions Chapter.) Importantly, DPD is leading the Great Streets Initiative. Among other responsibilities, DPD's Special Projects Division plans and develops public realm projects in conjunction with the Department of Public Works (DPW) and other external agencies such as the Rhode Island Department of Environmental Management (RIDEM) and Rhode Island Department of Transportation (RIDOT). See Appendix A for relevant charter and ordinance language.

Based on the City Charter, DPD's role with respect to the public right-of-way is advisory. As discussed in the next section, the Department of Public Works is charged with approving all plans and granting permits. While DPD's responsibilities include developing and periodically reviewing the Capital Improvement Plan (CIP), the Director of the Department of Public Properties currently oversees the CIP.

### Department of Public Works (DPW)

DPW is responsible for issuing permits for all work involving modifications to the right-of-way and public utilities. DPW's Engineering Division currently oversees inspection and construction management of streets, sewers, storm drains, traffic signals, traffic signs, pavement markings, construction projects, maintenance projects; planning, design and project management of components of the CIP. The City Traffic Engineer is charged with reviewing all traffic and public right-of-way modifications. See Appendix A for relevant charter and ordinance language.

With the exception of 2006 changes to the charter governing DPW, ordinances covering public works and traffic engineering date to either 1946 or 1948. Importantly, Sec. 2-113 assigns the DPW Director superintendent responsibility for all streets, highways, and sidewalks. Sec. 2-135 assigns the city engineer responsibility for preparing plans for construction projects.

While per Sec. 2-153, the Mayor appoints the traffic engineer, Sec. 2-152 establishes a traffic engineering advisory committee that has "no administrative or regulatory powers." Per Sec. 2-156, "the traffic engineer shall have authority to make all needful rules and regulations for the regulation and control of traffic in the city not inconsistent with the laws of the state..." Per Sec. 2-158, "All design drawings prepared by other departments of the city government for the construction of proposed highways, bridges, parking terminals and other traffic handling facilities, shall be submitted to the traffic engineer for a review and recommendation..." These rules assign all control and review responsibility to the traffic engineer. While the traffic engineer serves at the pleasure of the Mayor, at the same time because the advisory committee has no powers, the traffic engineer has no approval board with which to work.

### **Parks Department**

The Parks Department oversees the selection, planting, and maintenance of all street trees in Providence as well as improvements within the City's public parks. Assets include neighborhood parks, downtown parks, Roger Williams Park, recreational facilities, a community sailing facility, conservation areas, playgrounds, boat launches, and community gardens. See Appendix A for relevant charter language.

### **School Department**

Among other responsibilities, the Providence School Department oversees all school properties within the city. Some properties include playgrounds and other recreational facilities. Safe walking and bicycling access to city schools is a key consideration for Great Streets and many other project prioritization considerations, including traffic calming. City Ordinance Chapter 22 covers City Schools.

### **Department of Public Properties**

Among other responsibilities, the Department of Public Properties is responsible for management, maintenance, upkeep, and expansion of the City's 17,000 street lights. The Director also manages the City's Capital Improvement Program (CIP). Per the City Ordinance, this function is not explicitly assigned to Public Properties but is under the purview of DPD. See Appendix A for relevant charter language.

### **Department of Public Safety**

The Providence Department of Public Safety (DPS) includes the police, fire, communications, and homeland protection departments and an emergency management agency. The police department supports the traffic calming program by conducting speed studies, serving on the Traffic Calming Advisory Group (TCAG), and enforcing traffic and parking regulations. The fire department also serves on the TCAG.

See Appendix A for relevant charter language.

## **External Agencies**

This section outlines the public agencies the City of Providence most often works with, including the Rhode Island Department of Transportation (RIDOT) Rhode Island Public Transportation Authority (RIPTA), and Rhode Island Department of Environmental Management (RIDEM).

### Rhode Island Department of Transportation (RIDOT)

RIDOT operates and maintains much of Rhode Island's transportation infrastructure. In addition to the freeway network, roads designated as state routes fall under RIDOT jurisdiction. RIDOT reviews and issues permits (generally through the Physical Alteration Permit Process) for work done on these routes or projects that impact RIDOT-owned or maintained traffic signals. Utility companies doing work within RIDOT right-of-way must coordinate with RIDOT for utility permits.

Streets in Providence under RIDOT jurisdiction include:

- Most bridges over state and federal highways
- Broad Street (West Franklin to Elmwood)
- Elmwood Avenue (Broad to Park/City Line)
- Smith Street (North Main to Mount Pleasant/City Line)
- Charles Street (Smith to Randall)
- Randall Street (Charles to North Main)

- North Main Street (Randall to Hillside/City Line)
- Killingly Street (Hartford to Maria/City Line)
- Hartford Avenue (Route 6 to Killingly/City Line)
- Allens Avenue (Eddy to Montgomery/City Line)

Division 9 of RIDOT's Highway Design Manual has basic provisions covering the design of facilities for people walking and riding bicycles. Section 910.01 notes, "Providing for safe and efficient travel for both bicycles and pedestrians should be an integral part of the design process." However, the Highway Design Manual dates to 2008, before many new design concepts for bicycling, walking, and micromobility were well established. New and updated design resources for these modes have since been published. The State completed a Bicycle Mobility Plan (BMP) in 2019 that is scheduled for release in 2020.

### Rhode Island Public Transit Authority (RIPTA)

The Rhode Island Public Transit Authority (RIPTA) is a quasi-public, independent authority. Established in 1966, RIPTA operate public transit services throughout the state. RIPTA's principal bus hub is at Kennedy Plaza in Downtown Providence. RIPTA, in close coordination with the City of Providence, is currently implementing a significant change to bus service and facilities in Downtown. The Downtown Transit Connector will provide high-frequency transit service (every 5 minutes in each direction) between the Providence Amtrak/MBTA Station in Capital Center and Hospital District in Upper South Providence. There will be six paired stops along the corridor, each designed with a unique and highly-visible identity. Stops will include shelters, real-time bus arrival signage, and other passenger amenities. The Downtown Transit Connector (DTC) will be an "enhanced bus corridor" that provides riders with improved service frequency and reliability through the inclusion of Transit Signal Prioritization (TSP) which extends the duration of green traffic signals for buses (and emergency vehicles) along the corridor, special signal phases allowing buses to "jump" the traffic queue and move ahead of regular traffic, and dedicated bus lanes.

A consideration for future Great Streets planning is the need to have accessible, properly-sized, properly-spaced, and welcoming bus stops. The 2017 RIPTA Bus Stop Design Guide establishes design principles applicable to future projects. This includes concepts for potential floating bus stops made necessary by parking-protected bike lanes or curb-adjacent separated bike lanes where buses must load and unload passengers by deploying a ramp. ADA does not permit deployment of bus ramps to the street, as the ramp slope is excessive. The RIPTA system map presents the Rapid Bus route, Key Corridor routes, and local bus routes within Providence.<sup>3</sup> Most of these streets are arterial roadways and a number are also RIDOT-owned.

RIPTA is releasing a statewide Transit Master Plan in 2020 and has coordinated with the City to ensure the plan complements the City's Great Streets Master Plan.

### Rhode Island Department of Environmental Management (RIDEM)

The Rhode Island Department of Environmental Management (RIDEM) is charged with protecting, restoring, promoting, and managing Rhode Island's environment and natural resources to preserve and improve quality of life. Through funding and other assistance and support RIDEM helps communities support the clean up and reuse of contaminated industrial properties, improve stormwater management and water quality, protect open space, sustain and restore sustainable wildlife habitats, promote and increase outdoor recreation, develop a network of recreational facilities (including bicycle paths and trails), reduce greenhouse gas emissions, and improve resiliency.

San Souci Greenway, Gano Gateway, and several small projects especially around the Woonasquatucket Greenway were funded by the 2016 Green Economy Bond.

## **Existing Project Development** and Delivery Processes

With the goal of developing policy and process recommendations to improve delivery of the Providence Great Streets Initiative, this section describes the existing project development and delivery process for public realm projects in Providence and identifies gaps in the process. The findings derive from staff interviews and discussions, consultant team analysis, and best practices research. Two projects selected by City staff provide examples of challenges and opportunities. This section also references important matters covered elsewhere in the report.

### **Existing Challenges and Gaps**

The National Complete Streets Coalition's "Ideal Complete Streets Policy Framework" suggests applying Complete Streets policies to both new and retrofit projects, including design, planning, maintenance, and operations for the entire right-of-way. Under this policy framework, all transportation improvements are seen as opportunities to create safer, more accessible streets for all users, including people walking, riding bicycles, and using transit, regardless of scale. Other elements of effective Complete Streets project development and delivery programs are:

<sup>3</sup> https://www.ripta.com/statewide-system-map

- Strong collaboration and communication among departments and staff
- Few areas of confusion or lack of clarity, leading to more results with less effort
- Accepted design standards
- Established and clear procedures for addressing exceptions and for measuring performance
- Clear and streamlined process with agreed-upon timelines and expected contributions
- Offers workshops and other training opportunities to planners and engineers

Because Providence's planning, design, and construction resources are finite, it is essential that the City create a framework for implementation each time a project opportunity arises, regardless of its source. At present, while efforts are underway to improve efficiencies throughout City government, there are numerous barriers to coordination that may lead to lost opportunities. Some barriers are due to competing interests or lack of resources, which may lead to reactive work and lack of time available to properly plan. Substantial maintenance and repair backlogs require additional staff capacity and funds to properly address. Coordinated projects take longer to develop due to lack of standard procedures. Projects that require interdepartmental or interagency coordination lead to further delays.

Additionally, staff training and professional development resources are inadequate to educate staff on new approaches, and project management and construction management staffing do not exist within DPD or DPW leading to over-reliance on consultants.

### **Existing Origins and Sources of Potential Public Realm Projects**

In a resource-constrained environment, it is critical to capitalize upon every potential project opportunity. This means identifying and tracking all potential projects that alter the public realm, whether planned or unplanned. In Providence, street alteration projects derive from a number of places and sources, including:

#### **Capital Improvement Program**

The Capital Improvement Program (CIP) is a five-year program that includes street, sidewalk, sewer, and Complete Streets projects. Street and sidewalk projects are typically paving or maintenance. The City's pavement management program is currently part of the CIP. Sewer projects include proactive and reactive repairs and some of these can include associated restoration work in the road and sidewalk. According to the 2017-19 CIP:

[DPW] requests for fiscal years 2018-22 include roadway repair, maintenance, and reconstruction; bridge and dam repair; Complete Streets work including curb extensions, striping, traffic calming, and bicycle and pedestrian amenities; and sewer and stormwater management system maintenance, repair, and construction, including the installation of green infrastructure.

DPP requests for 2018-22 includes upgrades and repairs to City Hall, fire department upgrades and repairs, recreation center repairs and fire alarm upgrades, police training alarm upgrades, and playing field improvements.

#### **Traffic Calming**

The City's current traffic calming program focuses on residential street improvements to slow traffic based on project priorities screened and advanced through an established process. See "Modify the City's traffic calming procedures and guidelines" within the recommendations section of this chapter and "Traffic Calming Guidelines and Program" within the Existing Regulations, Policies, Programs, Plans, and Initiatives section of this chapter for more detailed information on the City's current traffic calming program.

#### **Projects Advanced by State Agencies**

Examples include RIPTA's Downtown Transit Connector project, RIDOT repaving or major construction projects that impact or take place on streets within Providence, and RIDEM-funded projects.

#### **Neighborhood Improvement Funds (NIF)**

NIF are neighborhood infrastructure dollars available through the City's general fund and allocated by the City Council. These funds can be used for a variety of infrastructure needs in their respective wards, including community centers, playgrounds, schools, road paving, traffic calming, and sidewalk repairs.

#### **CDBG** Allocation

Through this federal allocation from the U.S. Department of Housing and Urban Development (HUD), the City funds projects to address housing affordability, parks and open space, transportation infrastructure (particularly sidewalks and traffic calming), quality of life issues, economic development, and workforce development.

#### **311 Requests**

In most instances, the city addresses 311 requests by making repairs to streets and sidewalks.

#### **Specific Plans**

This includes recommended improvements identified in Bike Providence, the Comprehensive Plan, special area plans such as the Woonasquatucket Vision Plan or 2014 City Walk Study, neighborhood plans, corridor plans, or other infrastructure projects which may have associated restoration work in the street or sidewalk.

#### Private, Community, and Non-Profit

#### **Developments**

Projects that others propose and come before the City may identify needed improvements to street and sidewalk infrastructure. These projects sometimes include mitigation funds to pay for these or other improvements.

#### **Utility Work**

Utility companies often must open city streets to gain access to infrastructure below ground. The City Ordinance (Sec. 23-35) governs requirements for properly restoring streets and sidewalks.

## Recommendations

#### **Competitive Grant Funded Projects**

The City often receives competitive grant funds to advance, implement, or maintain projects from state and federal agencies and national or local foundations. Sources of state grants include the State Transportation Improvement Program (STIP), Highway Safety Improvement Program (HSIP), and RIDEM Green Economy Bond. Other grants are funded by USDOT, EPA, local organizations like the Rhode Island Foundation, or national organizations like PeopleForBikes. Grant-funded projects typically require approval from and extensive coordination with the funding organization.

Recommendations included in this section are based on a combination of best practices research from other US cities and a thorough analysis of Providence's existing policies, procedures, and regulations.

Research and findings of best practices are based off of cities within different geographic regions of the country, with characteristics similar to Providence and Complete Streets programs which offer valuable lessons for Providence. The purpose of this research is to identify practices that may assist development and implementation of the City of Providence's Great Streets Initiative. Interviews with the following cities were conducted in the spring of 2019:

- Missoula, Montana: located in the upper Midwest with a population of 73,340
- New Orleans, Louisiana: located in the southeast with a population of 393,292
- Portland, Maine: located in the upper northeast with a population of 66,882
- Seattle, Washington: located in the upper northwest with a population of 724,745
- Worcester, Massachusetts: located in the northeast with a population of 185,677

This report also discusses best practices of several other cities that were not interviewed but were researched for this report.

Although this chapter includes many recommendations related to a variety of needed improvements to policies, processes, and regulations, the recommendations generally align with five key areas of focus:

- Revise outdated and enact new City ordinances related to mobility
- Align City policies and procedures to invest in and preserve great streets

- Prioritize safety and comfort for people who walk, ride bicycles, and use public transit
- Advocate for friendlier state laws and policies related to mobility
- Expand opportunities for engagement, education, and encouragement

### Revise Outdated and Enact New City Ordinances Related to Mobility

#### Create a New Great Streets Ordinance that Replaces and Strengthens the Existing Complete Streets Resolution and Formally Integrates the Great Streets Initiative into City Procedures

The City of Providence's existing Complete Streets resolution, adopted in 2012, is supportive and encouraging but not as strong as it should be.

The form of enabling legislation used by other cities to enact Complete Streets varies. Seattle's and New Orleans' programs were enacted through ordinance, while Missoula's program was authorized through resolution, Worcester's program by department policy, and Portland's program by council order. By definition, municipal resolutions are generally for temporary actions. Ordinances are for government actions that are intended to be permanent.<sup>4</sup> Given that the City of Providence's Complete

<sup>4</sup> An ordinance is a municipal law that prescribes general, uniform and permanent rules of conduct relating to the corporate powers of the municipality. An ordinary ordinance, as opposed to a charter ordinance, is intended to be reasonably permanent. A resolution is generally less permanent and address-

Streets policy was originally enacted by resolution and its Great Streets Initiative is intended to replace the program as a permanent function and service, an ordinance is warranted.

The National Complete Streets Coalition (NCSC) is the leading authority in Complete Streets policy and program implementation. Its Complete Streets template offers substantive policy and program parameters that are often considered when crafting a Complete Streets law or policy. (See Inset 1.) All but one of the surveyed cities use the NCSC template.

Based on a review of NCSC guidance and Complete Streets ordinances, resolutions, and policies, it is recommended that the City of Providence's Complete Streets Ordinance include the following in order to align with NCSC policy parameters:

- A clear description of the **Vision**, **Users**, and **Modes** intended to be covered by the ordinance
- Inclusions and Exceptions: Inclusions should be listed and representative of all activity in the public realm. Exceptions should also be clearly laid out and may include projects where there is a documented absence of need or there is an equivalent project within or along the same corridor with the same service. In some cities, exceptions must be approved by City Council.
- **Connectivity**: Potential opportunities to coordinate with other projects should be called out.
- Context Factors and Prioritization: Establish and include "context factors" that prioritize investments, and provide explanation of why these factors are important. "Context factors" should be drawn from the Providence Great Streets Master Plan and Implementation Guide. An example from Portland's Complete Streets Council Order is determining "whether the corridor provides primary access to one or more significant destinations" and prioritizing its value in the context of the community's immediate needs, history, and available resources. The City of Providence should develop a clear prioritization methodology to help decide which projects to implement first. Below is suggested language to include in the Ordinance:
  - » Connectivity: A project's prioritization score shall be elevated if it connects to an existing or funded project. An exception may be made where a project that is a distance away from an existing or funded project can be reasonably connected in the short or mid term, and has its own connectivity benefits (e.g. to destinations such as schools or parks).
  - » Safety: A project's prioritization score shall be elevated based on the pedestrian and bicycle crash history (number of crashes per linear mile for crashes occurring within a quarter mile of the project).

- » Demand: A project's prioritization score shall be elevated based on the anticipated demand of people walking and riding bicycles in accordance with population density, nearby destinations, employment centers, and other related factors.
- » Environmental Justice and Equity: A project's prioritization score shall be elevated based on proximity to populations corresponding with Environmental Justice indicators, such as households in poverty and households without access to vehicles.
- **Design Guidance**: Missoula's resolution mandates use of the "best and latest design guidance, standards, and recommendations."
- Performance Measures: Insert measures that will quantify performance of the program, similar to performance measures listed in the City of Missoula Complete Streets resolution, including miles of connected Urban Trails:
  - » Total miles of connected Urban Trails built
  - » Number of new curb ramps installed along city streets
  - » Number and type of traffic calming devices installed
  - » Number of new street trees planned
  - » Crosswalk and intersection improvements
  - » Percentage of transit stops accessible via sidewalks and curb ramps
  - » Bicycle and pedestrian count data
  - » Transit ridership data, including automated passenger counter (APC) data
- Urban Design Factors: The ordinance should reference urban design factors such as streetscape improvements, landscaping and street trees, human-scaled lighting, public art, street furniture, wayfinding signage, and active ground floor uses.
- Implementation: Missoula's City departments and their responsibilities for program implementation and "everyday program decision making" are listed in their Complete Streets policy. Identification of program funding sources and methods for inter-departmental coordination is mandated. Portland, Maine uses CDBG funds for Complete Streets improvements within Environmental Justice communities.
- Construction Mitigation: Cleveland Heights' (Ohio) policy includes a provision requiring safe accommodations for people walking and riding bicycles during construction. According to NCSC, this is often overlooked.
- Training and Professional Development: The City of Missoula's transportation planners and engineers are regularly provided access to training in ADA, mobility and access, and Complete Streets within departmental budgets.

es municipal matters of a special or temporary nature.

#### Inset 1

### 2019 NCSC Complete Streets Best Practices Policy Text Excerpts – Environmental Justice

#### Des Moines, Iowa

"In creating Complete Streets/ the City recognizes equity as a motivation and will prioritize vulnerable users and those residing in the environmental justice (EJ) areas identified by the Des Moines Area Metropolitan Planning Organization (MPO)."

Des Moines Area MPO, Environmental Justice Report, August 2016

"To ensure fair treatment, the MPO studies seven Degrees of Disadvantage to identify EJ areas, or those areas with large populations of traditionally underserved individuals...The Degrees of Disadvantage methodology looks at U.S. Census Bureau data at the tract level to determine where EJ areas are located in the region. Data is obtained for seven population groups including nonwhite population, car-less households, persons in poverty, single heads of households with children, persons over 65, limited English proficiency (LEP), and persons with a disability. A Degree of Disadvantage is identified for a population group if the census tract exceeds the regional average for the population group. Census tracts considered EJ are disadvantaged for at least six of the seven population groups"

#### Baltimore, Maryland

#### **Equity Lens.**

A. Separate reporting by geographic subunit. In preparing the annual report, the department must separately report data by geographic subunit (e.g., census tract, traffic analysis zone, or the like).

B. Separate reporting by race, income, and vehicle access. The annual report must separately report data into the following categories:

- a. Populations that are above and below the median number of persons of color for Baltimore city.
- b. Populations above and below 50 percent no vehicle access.

c. Populations with a median income above and below the median household income for Baltimore city.

Accountability to Communities. The transportation department, in consultation with the complete streets coordinating council advisory committee, shall conduct public meetings and other community engagement and outreach activities to present the complete streets annual report to the public and solicit public input.

#### Milwaukee, Wisconsin

"5. When considering the various elements of street design, the City shall give priority as follows:

- a. Above all, safety is imperative, with pedestrian safety having the highest priority followed by the next most vulnerable types of users.
- b. Street design elements that encourage and support walking, biking, and transit trips in a manner that considers the context of the surrounding community as well as the broader urban design needs of the city.
- c. The City recognizes that not all modes can receive the same degree of accommodations on every street, but the goal is for users of all ages and abilities to safely, comfortably and conveniently travel across and through the network.

6. The Department of Public Works shall prioritize universal and equitable investment in underserved communities throughout the City which lack existing infrastructure that encourages walking, biking, and transit trips, as well as areas where data indicate crash risk and health disparities."  Environmental Justice: In addition to including equity as a consideration in project prioritization, Providence should take steps to ensure that these investments are meaningful to front-line communities: establish working relationships with community stakeholders; create with them investment strategies to address specific needs; and define a reporting mechanism to assess productivity.

Milwaukee's policy acknowledges that there are disparities in communities, with some neighborhoods disinvested in. Street design can alleviate some of those disparities. The policy emphasizes health equity disparities such as crashes happening in predominantly low-income communities of color. The policy establishes a framework for navigating those conversations.

## Update Ordinance Language for Operating a Bicycle

Sections 15-70—15-75 of the Code of Ordinances date from 1946 and are significantly out of date. For example, Section 15-73 prohibits carrying a passenger on a bike. However, cargo bikes and bikes with trailers and child seats often carry passengers.

#### **Repeal Ordinance Prohibiting Skateboarding**

Section 23-31 of the City's Code of Ordinances prohibits riding a skateboard on any street, highway, sidewalk or pedestrian mall, passed in 1965, is antiquated and should be repealed.

#### Consider Zoning Ordinance Revisions that Further Lower Parking Requirements in New Developments

The demand for parking is expected to continue to change as more people avail themselves of new mobility options such as bike share e-scooter share, Transportation Network Companies (TNCs) such as Uber/Lyft, improved public transit, and autonomous vehicles. Parking requirements should reflect these trends. Many cities encourage developers to incorporate features into their projects that encourage travel and lower the need for parking. This includes providing incentives that lower the requirements if certain amenities are included in project proposals.

#### Amend the Code of Ordinances to Include Fines for Parking in or Blocking Bicycle Facilities and Increase Associated Enforcement

The Clty should study fines and ordinance language used by other cities to establish an appropriate dollar value. In Atlanta, drivers are fined \$100 for parking automobiles in bike lanes or on multi-use trails, while fines for tractor trailers are more significant at \$1,000. Atlanta's police department also runs an education campaign to discourage parking in bike lanes. Washington, DC recently increased the fine for parking in a bike lane from \$65 to \$150, and New Orleans fines drivers \$300 for parking in bike lanes.

### Align City Policies and Procedures to Invest in and Preserve Great Streets

#### Establish Transportation Impact Study Requirements and Guidelines for Specific Street Types

An important goal of the Providence Great Streets Initiative is to identify and implement ways to more efficiently construct public realm improvements. At present, when projects such as on-street bike lanes are considered, the internal review process can take longer than may be needed, particularly for certain streets. When a proposed project may eliminate or narrow a vehicular travel lane or eliminate parking, concerns about impacts often trigger the need for studies. Such studies are often costly to undertake and time-consuming. Furthermore, to the extent that transportation impact studies focus only on a narrow range of impacts, such as vehicle level of service (LOS or VLOS, see discussion below on LOS), they may not adequately address impacts to other modes or accurately represent the benefits a project is likely to bring about.

To address these challenges, the City should consider adopting a policy that:

- Limits requirements to conduct transportation impact studies to certain street types;
- Permits projects to advance without such studies on other street types;
- Requires transportation impact studies to consider a range of impacts and benefits to all modes of transportation, considering the context of the proposed project; and
- Is consistent with the goals and policies of the City's Great Streets Master Plan. For example, the study should give deference to the goals of creating a connected network of Urban Trails and Great Streets, making transportation more affordable, improving quality of life, and becoming carbon neutral. Studies should also be consistent with a measurement or LOS policy if adopted by the City (discussed below). This policy foundation should inform how the study evaluates likely impacts and benefits.

#### Develop Protocols for Regularly Updating Infrastructure Projects in the Great Streets Master Plan

Regular updates to the projects listed in the Great Streets Master Plan will be important to maintain the Plan's relevance, address new needs and issues as they emerge, and mark projects as complete once they are constructed.

## Modify the City's Traffic Calming Procedures and Guidelines

Providence's traffic calming program is reactive by design, does not establish clear prioritization of projects, and does not adequately explain the process or make information about it available to community members. Traffic calming programs have been in place for more than 20 years in a number of U.S. cities with some dating back even longer. Because the need for traffic calming is great and resources are limited, a number of cities have changed their programs in important ways, including establishing prioritization methodologies to determine proactively how the many important projects can be phased. While the City should not restrict constituent input about where traffic calming should occur, a clear prioritization methodology should be publicized and proactive projects should be undertaken.

One pitfall traffic calming programs face relates to their usual focus on individual streets. When one street is traffic-calmed in a neighborhood or small area, there is a potential that adjacent streets that have not received similar treatments may see diverted traffic at speeds similar to those experienced on the traffic-calmed street prior to installation.

The City should modify its traffic calming procedures to be more transparent and predictable, include new thresholds, criteria, and solutions, and be proactive rather than reactive by:

- Preparing and publishing user friendly public information to a webpage that describes the policy and process and includes documents for download, digital applications, and contact information.
- Conducting TCAG meetings at times when and locations where members of the public are able to attend;
- Reevaluate quantitative thresholds for traffic calming suitability in light of the proposed zone-based approach and pedestrian safety.
- Applying flexibility and context-sensitivity to the review of traffic calming applications. All traffic calming requests made by the community represent a safety need, either real or perceived. Traffic calming features should be applied in accordance with the Providence Great Streets
   Implementation Guide, which identifies which types of traffic calming are appropriate based on street type.
- Adopting use of new traffic calming solutions or interventions such as chicanes, diverters, neighborhood traffic circles, and raised crosswalks/intersections. Traffic calming projects should lead by considering ways to support multiple goals of the Providence Great Streets Initiative. Specifically, many traffic calming features are well-suited to provide stormwater management, habitat, and aesthetic benefits, in addition to serving a traffic calming function. All traffic calming interventions must consider maintenance capabilities to ensure adequate resources are available to maintain new features.

 Developing a zone-based traffic calming program that allows groups of streets within neighborhoods to be comprehensively evaluated for traffic calming. The resulting implementation would strategically occur on several streets, in part to prevent higher-speed traffic diversion to surrounding streets. Residents could submit traffic calming applications to the City, which would evaluate them based on published evaluation metrics and create a traffic calming plan for selected applications. The City of Boston's Neighborhood Slow Streets program operates in a similar manner and is a useful reference. Based on neighborhood comments as well as City input and previous traffic calming areas are included in the Neighborhood Visions chapter of this document.

The traffic calming in place in the City of San Francisco incorporates the above approaches is a good model for application in Providence. See <u>https://www.sfmta.com/getting-around/walk/</u> <u>residential-traffic-calming-program</u>.

#### Improve Internal City Processes to Implement the Great Streets Initiative and Develop a Program Management Plan

A first year Project Management Plan (PMP) should be established and should answer five key questions:

- In what department will the program be located; how will be it managed, staffed, and funded?
- What other City departments and entities will be responsible for elements of the program; what will be their roles, responsibilities and decision making authority; how will program work activities, work products and decisions be coordinated and communicated; and how will professional collaboration, information sharing and training be fostered?
- Will there be a Great Streets advisory group or oversight committee; what role will it have in shaping the design of the program?
- How will the public be engaged in the program?
- What is anticipated to be accomplished in 6 months, 8 months and 12 months?

After executing the first year PMP and informed by its outcomes, the City of Providence should consider constructing a multi-year PMP as the program evolves and grows over time. A key decision point is where the Great Streets program will be located within the City's departmental structure. The City should study potential reorganization of City staff to improve efficiencies, reduce gaps and redundancies in workflows, and position the City to become a leader in mobility and public realm investments. Lessons learned from other cities may be helpful to the City of Providence. In Missoula, the planning unit administers the program but its engineering, construction, and maintenance functions are performed by the Department of Public Works and the Department of Parks and Recreation. (See Inset 2.)

Another key part of Missoula's initiative is an integration of Complete Streets principles into the Missoula Long Range Transportation Plan. The document establishes a goal to triple bicycle and pedestrian mode share percentages and more than triple transit modal share percentages by Year 2045. In Missoula's roadway project planning process, the transportation and parks planners assist the design engineers with Complete Streets design and placement opportunities. During the project design, review and approval phases, the City Engineer inclusively circulates 30 percent, 70 percent, and final design plan sets to Transportation Planning, relevant Public Works divisions, and Parks and Recreation. "We red line them with our comments and recommendations and send back," he says and "if the project is large... or has regional implications, we have a sit down session." In the construction and maintenance phases, collaboration continues on amenities such as protected bike lane striping.

New Orleans Public Works recommends that the details of how the program will work should be fully vetted before an ordinance is enacted. The roles and responsibilities of City leadership, department heads, program staff, stakeholders, advocates, and citizens should be agreed to by them before ordinance action. Creation of an 'out years strategy' was also recommended, forecasting how program staffing, resources, and funding will be decided and addressed over time.

As for public engagement, some improvements to current practice could involve:

- For projects that include changes to a major street's striping, on-street parking, or traffic patterns, holding neighborhood meetings in addition to the currently required Bicycle and Pedestrian Advisory Commission meetings.
- Sending mailed abutter notices in more instances.
- Distributing informational flyers to doors along project routes.
- Posting informational flyers along project routes.
- Holding more informational briefings with relevant members of City Council during the project development process.

#### Establish a Great Streets Project Screening System and Checklist to Ensure Coordination

Many cities have policies requiring coordination to take advantage of every potential construction project. In other words, if the City or any other entity is going to alter the street for any reason, if the street is identified as needing improvements within the Great Streets Master Plan, the proposed improvement should be

#### Inset 2

### City of Missoula -Complete Streets Program Shared Responsibilities

#### Department of Development Services – Transportation Planning Services Division (Lead):

- Complete Streets Transportation Planning and Policy
- Bike and Pedestrian Office: bike and walk promotion, traffic calming, pedestrian and ADA compliance strategies; Bicycle Facilities Master Plan.

#### **Department of Public Works**

- Street Maintenance Division: street cleaning, snow and ice removal, alley grading, leaf collection, storm water drain maintenance, street construction projects, chip sealing, maintenance of State routes in city, maintenance of bike lanes
- Traffic Services Division: street and traffic sign fabrication, installation, and maintenance; roadway striping application and maintenance; crosswalk, road messages, and curb marking applications and maintenance; sidewalk concrete grinding program; traffic and pedestrian studies; and snow removal on city bridge sidewalks.

#### **Department of Parks and Recreation**

- Maintenance and planning of parks, primary commuter network of trails, regional trails, and open space
- Maintenance of medians, sidewalks adjacent to parks and on bridges
- Urban forestry; tree planting and maintenance

implemented as part of the alteration. Whatever the source, each project should be viewed as an opportunity to implement the Great Streets Master Plan. In order to do so efficiently, staff must know exactly what is planned for streets and there must be a defined a process in place to efficiently advance the plan.

Except for emergencies, no construction activity should occur without prior consultation. The consultation should determine:

- What is the proposed plan for the street?
- Is another project programmed within the same section of street or an adjacent part of the public realm and for when?
- Is there an opportunity to implement the Great Streets Master Plan with the other project?
- If not, why not?

The following language should be considered as part of the City of Providence's screening policy:

It is the City of Providence's policy to implement any approved Great Streets Initiative project at the first available opportunity. Any construction activity on the street or sidewalk identified as needing improvement as part of the Great Streets Master Plan, shall be coordinated through [insert position name]. If the Great Streets concept cannot be advanced, the reasons shall be documented and distributed accordingly and included in a record system for Great Streets implementation. Except for emergencies, no construction activity shall occur without prior consultation.

The City of Seattle created a Complete Streets Project Checklist, which is a digital tool available to SDOT project managers responsible for the initial planning and 30 percent design of new transportation improvement projects. It is meant to empower managers with information that broadens their understanding of Complete Streets application possibilities.

Providence's checklist could initially contain simple coordination tools and GIS data. In the out years, the functionality and use of the tool should be increased. The ultimate goal should be to have one data source for all City public realm engineering, planning, maintenance and construction specifications and standards; all mode-specific master plans; all relevant regulatory and zoning provisions; and all relevant GIS mappings.

#### Update Road and Sidewalk Opening Standards to Capitalize on Project Opportunities for Great Streets Implementation

The permit process and standards should be updated to ensure patches do not create hazards for people riding bicycles and that temporary road closures and detours accommodate bicyclists. It should also be mandated that Urban Trail of bicycle-related pavement markings that are covered over or damaged by road work be replaced in a timely manner.

#### Provide Additional Resources to the Providence Parks Department

The Providence Parks Department needs additional staff and equipment to maintain the City's Urban Trails, roadways and pathways within City parks and green spaces.

The maintenance experiences, challenges, and practices of comparable cities are discussed in this section. The City of Seattle has interesting, successful methods but its geographic location, size, weather, transportation footprint, and the magnitude of its resources are not comparable. If interested, visit <a href="https://streetsillustrated.seattle.gov/">https://streetsillustrated.seattle.gov/</a> to view the City's Right-of-Way Improvements Manual - Seattle Streets Illustrated 2017.

The cities of Missoula, New Orleans, Portland, and Seattle have fully functional Parks Departments that maintain parks, urban forestry, greenway trails, and public spaces such as boulevard planting strips, medians, and sidewalks adjacent to parks.

In Missoula, sidewalk upkeep and snow clearance are the responsibility of abutting property owners. This is enforced through Code. If property owners are non-responsive, Public Works clears sidewalks and the City bills them. In Missoula's downtown, the Downtown Business Improvement District offers some maintenance and snow removal assistance for protected facilities such as bike lanes and sidewalks. For the rest of the network, the Department of Public Works is responsible for sidewalk and roadway clearance, maintenance, replacement, and repair. It is responsible for street sweeping and keeping bike lanes free of debris. Every fall, it examines infrastructure assets and schedules improvements. The City of Missoula's Snow Plowing Priority Plan, which summarizes snow procedures, may be accessed at https://www.ci.missoula.mt.us/558/Snow-Removal. Their Parks and Recreation Department maintains boulevard planting strips, medians, and sidewalks adjacent to parks and on bridges. The department has its own equipment and schedule for the care of public trails such as the City portion of the Bitterroot Trail, the Milwaukee Trail, and what is known as the "primary commuter network" of trails.

In New Orleans, the Department of Public Works is responsible for maintaining the City streets. Maintenance of the parks and green spaces is split between the New Orleans Recreation Development Commission (NORDC) and the Department of Parks and Parkways. NORDC maintains local parks and playgrounds. Parks and Parkways maintains regional parks, mows medians, and maintains street trees. The Department of Sanitation is responsible for removing trash, sweeping, and garbage collection on City and state routes.

In Portland, Maine, public realm maintenance is divided between Public Works (DPW) and Parks and Recreation. DPW is responsible for areas within the roadway right-of-way such as sidewalk maintenance, roadway paving, and cleaning, signage, snow plowing, and street sweeping. It has an Asset Management Plan and conducts roadway pavement condition ratings every 2 to 3 years. In the downtown, a tax (less than 1 percent) is levied in the Business Improvement District. This funds the cleaning of sidewalks by DPW crews. For the remaining sidewalks, the responsibility is with the commercial and residential abutters.

The City of Missoula Parks and Recreation Department is responsible for the maintenance of street trees, parks, plazas, shared use paths, sidewalks, and snow plowing in areas outside of the roadway right of way.

In Worcester, the DPW is responsible for maintenance. In some areas, business or community groups sponsor landscaped areas and contribute to their upkeep (e.g. – Shrewsbury Street). Residents are responsible for clearing abutting sidewalks except those adjacent to public property such as parks and conservation lands.

#### Update Sidewalk Repair Standard Operating Procedures To Incorporate Great Streets and Urban Trail Projects

The development of the Urban Trail Network will provide a boost to the City as it works to address the backlog of sidewalk repair needs given available resources. Therefore, the following framework is recommended for Urban Trail and Great Street implementation in relation to the Sidewalk Repair Policy:

- Where the Sidewalk Priority Heat Map in the Sidewalk Repair Standard Operating Procedure indicates a medium or high priority, on-street Urban Trail or Great Streets projects shall include basic repairs to the adjacent sidewalk or sidewalks along the same street in accordance with Section 5 of the Sidewalk Repair Policy.
- Where the Sidewalk Priority Heat Map in the Sidewalk Repair Standard Operating Procedure indicates a low priority, on-street Urban Trail or Great Streets projects may include basic repairs to the adjacent sidewalk or sidewalks along the same street in accordance with Section 5 of the Sidewalk Repair Policy.
- An on-street Urban Trail project may be implemented without sidewalk repairs if a separate project that includes repair of the sidewalk (to a level of quality consistent with the Sidewalk Repair Standard Operating Procedure) for the same street is already funded, programmed in the Capital Improvement Program, a condition of a private development, or otherwise obligated to be completed through a separate process.
- All projects shall meet regulatory requirements, e.g. ADA compliance.

This framework assumes adoption of the draft Standard Operating Procedure without substantial changes to the referenced sections and graphics.

#### Adopt Policies Regarding Transportation Impact Assessments

While the City of Providence has no formal Level of Service (LOS) policy, concerns about LOS degradation in the near-term and for longer planning horizons have led to a lack of clarity about what is acceptable in an urban environment, and have potentially impeded implementation of projects that would greatly benefit Providence residents. Vehicular level of service (LOS or VLOS) is a method of describing traffic delay using a range from A to F. VLOS A represents free flowing traffic and F represents significant congestion. Many agencies, including RIDOT, have long-standing policies to maintain a minimum VLOS on certain roadways and intersections. However, as traffic volumes continue to increase, maintaining VLOS requires agencies to add capacity by widening these roads and intersections. Such an approach is increasingly inappropriate for urban streets and can negatively impact other road users.

In some instances, Great Streets projects that make an area safer for people walking, taking transit, or riding bicycles may lower VLOS. When analyzing the potential impacts of Great Streets projects, the City of Providence should rely on context-sensitive factors such as crash frequency, crash severity, safety, mobility, vehicle speeds, access, land use, and throughput and not on VLOS.

This is consistent with national practice. Recent developments in engineering analysis methods now account for multimodal LOS measures, which address some of the shortcomings of relying solely on VLOS. Further, the use of LOS may not be appropriate altogether. According to a November 30, 2017 Federal Highway Administration (FHWA) webinar on "LOS in the New World of Performance Measurement," LOS's use may limit the range of potential design solutions considered and lead to capacity expansion. Other findings included:

- The AASHTO Green Book makes clear that designers and engineers should use context and make judgments.
- LOS is an indirect recommendation, not a Federal requirement.
- The requirement for 20-year traffic forecasts applies to changes to the Interstate highway system but not for other roadway classes.
- The FAST Act repealed the provision for specifically improving LOS at intersections.

Florida DOT has undertaken significant research in the area of context-sensitive solutions by emphasizing all modes of travel and flexibility. They have replaced the term "Standards" with "Targets." Targets are responsive to all users for context, roadway function, network design, and safety.

In 2014, the State of California enacted SB 743, which states that "traffic congestion shall not be considered a significant impact on the environment" within California Environmental Quality Act (CEQA) transportation analysis.<sup>5</sup> Several California municipalities (e.g. Livermore, Redwood City, San Jose, and San Francisco), have adopted policies that either replaced LOS altogether or limited its application in downtown or transit-oriented districts. Closer to Providence, the City of Cambridge requires developers to analyze LOS for vehicles and pedestrians. City policy allows a projectinduced VLOS reduction depending on the existing LOS but prohibits degradation of LOS for people walking.

Moving away from LOS as a critical measure for Great Streets implementation means other measures may be more appropriate to consider. For example, for streets with closely spaced intersections, vehicle queue lengths are important to ensure motor vehicle traffic does not block upstream intersections. Many tools are available for analysts to evaluate and then mitigate such scenarios.

The following language is adapted from the Chicago DOT Complete Streets Design Guide LOS Policy and should be considered as part of the City of Providence's LOS Policy:

In a typical project, people walking shall enjoy the highest LOS, while drivers shall have the lowest. All LOS shall be relative by mode.

There shall be no minimum vehicle LOS for any project. Within [insert boundaries] the default maximum VLOS for City-initiated projects shall be E. This is not to say that the MVLOS must purposely be lowered, but efforts should not be made to increase it above E. Developer-initiated projects may not negatively impact the MVLOS, unless corresponding increases are made in level of service for people walking, people riding bicycles, or transit.

LOS evaluations shall consider cross flows (especially people walking ) as well as corridor flows.

Delay for people walking at signals shall not exceed 60 seconds.

City staff shall utilize multi-hour evaluations instead of peakhour only calculations.

LOS evaluation shall only be required for projects [exceeding a certain threshold]. It should be calculated when required by funding sources, but shall always be balanced with other factors.

## Use and Price Curb Space More Efficiently and Flexibly

Create a working group comprised of various City staff who plan, maintain, use, and enforce curbside space in the City of Providence and other stakeholders such as business improvement districts, residents, business owners, and rideshare companies, to establish a vision and goals for geofencing zones, flexible curb, and dynamic pricing policies. Geofencing uses GPS satellite navigation systems to determine the ground position of cars, curbs, and streets and establishes specific boundaries or zones that delivery drivers and rideshare drivers and users and are routed to through technology in their phones or vehicles. Dynamic use and pricing of curbside spaces allows for rules to change depending on time, demand, and revenue considerations. Dynamic uses, pricing structures, and geofencing reflects anticipated growth in use of ride-hailing and delivery services by Providence residents.

The City should work with stakeholders to identify streets with the most traffic congestion and implement dedicated zones to create safer conditions for rider drop-offs, pick-ups, and deliveries and reduce congestion in key areas. It is important to work with stakeholders to identify the best locations for these activities.

The City should also increase capacity to manage curb space dynamically by building and using a central GIS-based repository of all curbside spaces citywide. Other key issues the City should address include how curb usage will be monitored and enforced, and how potential fees might be collected. New policies should be clearly communicated through signage, paint, and public notices. New regulations and policies must be seen and easily understood by all users in order to be effective.

#### **Coordinate Traffic Signals Citywide**

Traffic signal coordination aligns green lights times for adjacent intersections to improve the flow of vehicles along corridors and improve the operation of turning movements for drivers. According to FHWA " Studies have proven the effectiveness of signal coordination in improving safety. The Institute of Transportation Engineers' Traffic Safety Toolbox cites two studies of coordinated signals with intersection crash frequencies that dropped an average of 32 percent... Signal coordination can also contribute to a decrease in red-light running."<sup>6</sup>

<sup>5</sup> http://www.dot.ca.gov/hq/tpp/sb743.html

<sup>6</sup> https://safety.fhwa.dot.gov/intersection/other\_topics/fhwasa08008/sa4.cfm

## Continue to Integrate Art and Cultural Planning into Mobility Investments

Living up to Providence's reputation as the "Creative Capital", the Clty continually finds ways to creatively integrate local arts and cultural organizations into infrastructure investments. During a demonstration event on Broad Street in 2018, the City hired three local artists to create temporary ground murals. Using tempera paint, artists and dozens of community members reclaimed excess pavement to create vibrant curb extensions and public plazas. Based on the overwhelmingly positive feedback received during the demonstration event, the Clty should expand the use of ground murals and other similar art integration into mobility projects.

In 2018, the City of Providence Department of Art, Culture + Tourism also convened local partners to generate a series of site-specific performances and temporary art works along the banks of the Woonasquatucket River in anticipation of the upcoming investment in the Woonasquatucket River Greenway. This project is supported by the National Endowment for the Arts and will culminate in a celebration along the river in summer 2019. Following the demonstration event, partners will convene to refine a vision for permanent art infrastructure as part of the larger Greenway project.

The Clty should find additional ways to integrate art and local cultural organizations as additional investments are made and further expand the reach of community members who become engaged in such projects.

Public art and interpretive signage that highlights significant historic or cultural elements will be important parts of the Urban Trail Network, creating interest points along the network that celebrate the diverse cultures of the Clty's neighborhoods.

#### Develop a Demonstration Project Strategy and Toolkit to Test Projects Before Full Implementation

To avoid costly and time consuming studies and to test effectiveness before deploying expensive permanent solutions, many cities experiment by using demonstration projects (sometimes referred to as tactical urbanism). Providence's City Walk project deployed such an approach in the summer of 2018 with great success. The use of demonstration projects is appropriate in locations where concerns about long-term impacts are present, but where the proposed solution is seen as highly beneficial and worth trying. In other projects, such as resurfacing, restriping, minor residential street reconstruction, or spot improvements such as intersection signal retiming and curb ramp construction, the basic Great Streets principles of safe, healthy, inclusive, and vibrant should be applied.

Demonstration projects are low-cost, temporary changes to the built environment, that test ideas to improve local neighborhoods and gathering places prior to investing in costlier permanent solutions. For examples of recent projects, see: <u>https://www.street-plans.com/</u> <u>tactical-urbanism-projects/</u>

#### Develop a Program to Incentivize Business and Property Owners to Install Bicycle Parking

An increasing number of cities incentivize their businesses to install bicycle parking, including:

- Denver, Colorado: The City's Public Works Rules and Regulations describe a streamlined year-round application process. There is no fee for the installation of the standard U Rake and permit fees for other rake types are waived if the request is in a high demand bicycle parking area. The City regulates the type and location of the installation to ensure the highest usability and safety.
- Pittsburgh, Pennsylvania: The City's Bicycle Parking Guidelines enable businesses to install a standard bike rack. After the application is approved, the business itself installs the rack in accordance with location and design specifications. It is maintained by the City. The business pays a \$25 permit fee in addition to the cost of purchasing and installing the rack.
- Portland, Oregon: Administrative Rule TRN 10.9 enables the City to install a free bicycle rack on the sidewalk in front of the requesting business as long as the location meets minimum requirements. The business may request up to two free racks. Each additional rack is \$150.
- Rockville, Maryland: The new City Bike Rack Grant Program enables businesses to request – through application – bicycle parking on their property or within public right of way at or near their location. There is no cost to the applicant. The City purchases and installs the inverted-U racks which require a parking space of 72" x 24" and if placed along a sidewalk or pedestrian path, a five-foot clear walkway.

For Providence, bicycle parking near employment, retail, and other destinations enables viable non-motorized transportation options. A mechanism for businesses to request bicycle parking at and near their establishments should be considered.

#### **Evaluate Overnight Resident Parking Permit Program Fee Structure**

The City should study and compare fees associated with overnight parking permits in Providence to other US cities to ensure this resource is properly priced. If fees are raised, a tiered fee structure should be used to reduce burdens on low-income households.

#### Update the City's Public Utilities Agreement to Incorporate Bicycle-Related Provisions

The Public Utilities Agreement should be updated to ensure utility patches do not create hazards for people riding bicycles and that temporary road closures and detours accommodate bicyclists. It should also be mandated that Urban Trail of bicycle-related pavement markings that are covered over or damaged by utility work be replaced in a timely manner.

### Prioritize Safety and Comfort for People Who Walk, Ride Bicycles, and Use Public Transit

#### Deploy Leading Pedestrian Intervals (LPIs) and Increase Pedestrian Signal Timing

LPIs begin the walk signal before the light turns green for cars. Increased pedestrian signal timing ensures people of all ages and abilities have time to walk across the street safely. Cambridge, Massachusetts combines concurrent pedestrian phasing with LPI operations. This practice is recommended in the Boston MPO 2015 Pedestrian Signal Phasing Study which further advises the best concurrent phasing conditions are when the pedestrian flow is less than 1,200 persons/daily; there are conflicting turning vehicles of less than 250 vehicle/hour; there are low concentrations of older and very young pedestrians and students; the intersections have good sight distances; and the length of crosswalks is less than 55 feet.

LPIs help address concerns about whether there is sufficient time for people to safely walk across streets. The current City of Providence practice is to follow guidance in Section 4E.06 (Pedestrian Intervals and Signal Phases) in the Manual on Uniform Traffic Control Devices (MUTCD).<sup>7</sup> The guidance provides the City with some flexibility and establishes parameters for deploying LPIs, which give people walking a 3 to 7 second head start when entering an intersection with a corresponding green signal in the same direction of travel. Studies show that LPIs reduce pedestrian-vehicle collisions as much as 60 percent. According to FHWA, LPIs increase the visibility of crossing pedestrians; reduce conflicts between pedestrians and vehicles; increase the likelihood of motorists yielding to pedestrians; and enhance safety for pedestrians who may be slower to start into the intersection. Applications have been successful in Stamford, Connecticut which operates the state's first LPI. The City plans to expand its use. In New York City, pedestrian fatalities have fallen 45 percent since 2013. This is partly attributed to the recent installation of 832 LPIs bringing the total number citywide to 2,334; a seven-fold increase since 2013. LPIs are recommended in the NACTO Urban Design Guide. Moreover, according to national research [Transportation Research Record 2198, 2010], a before-and-after comparison to evaluate the safety effectiveness of LPIs found a 58.7 percent reduction in pedestrian-vehicle crashes at the tested intersections. Because of the low cost for implementation, use of LPI is further justified.

Simultaneously, the City should study increases to pedestrian signal timing at intersections citywide to ensure adequate time is provided, especially at intersections that require people to cross multiple lanes of vehicular traffic.

#### Implement Automatic Recall of WALK signals

Automatic recall of WALK signals provides a WALK indication as part of each signal cycle without a push button. This should be implemented at signalized intersections but not at mid-block locations. Most intersections in Providence use concurrent pedestrian phasing, where people walking cross with the parallel vehicle phase and vehicles turn left or right across crosswalks after yielding to people walking in them. Automatic recall would not impact the City's use of concurrent phasing.

#### Implement No Right Turn on Red (NTOR) Signage Where Pedestrians Regularly Cross

According to America Walks, "A no-right-turn-on-red (NRTOR) policy [prohibits] RTOR unless otherwise permitted at specific locations by posted signs. NRTOR policies could ban right turns in urban or high-pedestrian-density areas at all times or only during daytime hours, which is the time most pedestrian crashes occur."<sup>8</sup> The City of New York, where pedestrian activity is very high, has such a policy.

The main benefit of a citywide policy is it eliminates the need to install and maintain NTOR signs at each signalized intersection. However, applying NTOR in less dense locations where pedestrian activity is low leads to inconsistent driver behavior and enforcement challenges.

Section 2B.54<sup>9</sup> of the MUTCD provides NTOR sign guidance:

A No Turn on Red sign should be considered when an engineering study finds that one or more of the following conditions exists:

- a. Inadequate sight distance to vehicles approaching from the left (or right, if applicable);
- b. Geometrics or operational characteristics of the intersection that might result in unexpected conflicts;
- c. An exclusive pedestrian phase;
- d. An unacceptable number of conflicts between people walking and driving with right-turn-on-red maneuvers, especially involving children, older people, or persons with disabilities;
- e. More than three right-turn-on-red accidents reported in a 12-month period for the particular approach; or
- f. The skew angle of the intersecting roadways creates difficulty for drivers to see traffic approaching from their left.

<sup>7</sup> https://mutcd.fhwa.dot.gov/htm/2009/part4/part4e.htm

<sup>8</sup> https://americawalks.org/ban-right-turns-on-red/

<sup>9</sup> https://mutcd.fhwa.dot.gov/htm/2009/part2/part2b.htm



Signal Detection and Actuation - Detection in Bike Lane and Bike Box. Souce: NACTO.

America Walks guidance adds the following to this list:

- Central business districts and dense urban areas where there are significant variation in traffic volumes and people walking
- Intersections:
  - » With high traffic speeds on the intersecting street
  - » Where there are heavy volumes of people walking
  - » Where disabled persons request it
  - » Adjacent to parks and hospitals
  - » At school crossings
  - » At railroad crossings
  - » At traffic signals with three or more phases

#### Increase Enforcement to Prevent Blocking of Intersections, Crosswalks, Bike Lanes, Bus Stops, and Sidewalks

Both police officers and parking enforcement personnel should be directed to patrol for and issue citations when encountering vehicles or other obstructions impeding people walking or riding bicycles or blocking bus stops. Special attention should be paid to valet locations.

#### Increase Enforcement of Sidewalk Snow Removal

Due to existing capacity issues, additional funding is needed to dedicate staff members to inspection and enforcement of the City's snow shoveling regulations.

#### Expand the City's Use of New Technologies

Technologies to consider include:

- A network of strategically mounted traffic and security cameras that feed into and are monitored real-time within a Public Safety information center;
- A remotely controlled LED lighting system that safely illuminates the Urban Trail Network;
- Bicycle and pedestrian detection systems tied to traffic signal operations;
- Transit signal priorities; and
- Dynamic message signing.

New Orleans, Louisiana has a Traffic Camera Safety Program to deter red light violations, reduce speed violations, increase driver awareness, and reduce collision severity. The City has found the program deters repeat offenders. Over 80 percent of those receiving a traffic camera citation and pay it, do not repeat the offense. In Worcester, information generated by security cameras on traffic signals is fed into the Worcester Police Department real-time crime center.

Transportation technologies in Seattle include traffic cameras and signal and roadway detection systems for pedestrians, bicycles, and the visually impaired. The citywide traffic camera network enables the public online access to real-time congestion information and images, and traffic advisories. There is transit signal priority (TSP) for Sound Transit buses, streetcars, and light rail trains. The City also uses dynamic message signs for en-route drivers.

#### Work with RIPTA to Evaluate All Bus Routes and Stops to Ensure they are Accessible, Properlysized, Properly-spaced, and Welcoming

As noted previously, the 2017 RIPTA Bus Stop Design Guide establishes design principles applicable to future projects. Because many stops are old, it will take some time to implement improvements to the bus stop network. As the Great Streets Initiative advances, it will be important to include bus stop redesign as part of the planning process.

### Advocate for Friendlier State Laws and Policies Related to Mobility

## Work with the State Legislature to Require RIDOT to Update Highway Design Manual

The current RIDOT Design Manual, which dates to 2008, needs updating to reflect new design concepts for bicycling, walking, and micromobility. Many state departments of transportation have revised their design manuals to incorporate context sensitive solutions that better accommodate people who walk, ride bicycles, and use other micromobility options. The Massachusetts Department of Transportation published its Project Development and Design Guide in 2006 and a Separated Bike Lane Planning & Design Guide in 2015.<sup>10</sup> Tennessee DOT's (TDOT's) 2019 updates<sup>11</sup> to its design guide includes a section on multimodal design, which states:

It is TDOT's policy to create and implement access and mobility for users of all ages and abilities through the planning, design, construction, maintenance and operation of new construction, reconstruction and retrofit transportation facilities that are federally or state funded. Users include, but are not limited to, motorists, bicyclists, pedestrians, transit-riders, and freight carriers. The intent of TDOT's policy is to promote the inclusion of multimodal accommodations in all transportation planning and project development activities at the local, regional and statewide levels, and to develop a comprehensive, integrated, and connected multimodal transportation network. These guidelines have been developed to assist TDOT, local agencies, consultants and others in providing multimodal facility design that fulfills the intent of this policy. TDOT's Multimodal Project Scoping Manual is an additional multimodal design resource.

#### Work with the State Legislature to Adopt the "Idaho Stop Law" to Improve Safety

The "Idaho Stop" law, which has been in effect in Idaho since 1982, allows a person riding a bicycle to treat a stop sign as a yield sign. Rather than stop, the person riding a bicycle is permitted to slow down, stop if required for safety, and yield the right of way to any approaching person driving or walking before proceeding through an intersection controlled by a stop sign. Until recently, Idaho was the only state that had both a stop as yield rule and a red light exception that allows people riding bicycles to proceed through red lights after yielding. In 2019, Arkansas became the second state to enact Idaho Stop. In 2017, Delaware approved a variation, Delaware Yield, which applies only to stop signs.

Idaho Stop is reported to have reduced bicycle injuries by 14 percent in the state the year after passage. Moreover, a 2010 Berkeley study found bike safety to be 30 percent better in Idaho cities than comparable peers. The law is supported by the League of American Bicyclists. Changes to state laws would be necessary to implement this measure in Rhode Island.



<sup>10</sup> See https://www.mass.gov/lists/design-guides-and-manuals

<sup>11</sup> See https://www.tn.gov/content/dam/tn/tdot/roadway-design/documents/design\_guidelines/DG-S9.pdf

### Expand Opportunities for Engagement, Education, and Encouragement

#### **Expand Youth Bicycle Education Programming** to Citywide

Bicycle education programming helps encourage youth to ride bicycles, teaches safe riding skills, and increases their long-term comfort with accessing new bicycle infrastructure.

From 2015 to 2017, Providence piloted Pedal Power bike education classes at two elementary schools and several recreation centers in partnership with local non-profit, Recycle-A-Bike. The six-week classes teach youth safe bicycle riding skills and include group on-road field trips so youth can become familiar with local bicycle infrastructure and safe routes from their neighborhoods to schools, regional trails, local parks, and other civic institutions. By providing this programming at all 11 recreation centers for just two years, the Clty could engage 260 youth ranging in age from 11 to 14 (and their families).

## Expand the City's Street Ambassador Approach to Public Engagement

New and innovative community engagement techniques, such as the City's existing Street Ambassador approach, further advocacy, coordination, and involvement from community members, especially those typically marginalised from traditional planning processes. Expanding upon the City's successful launch of a Street Team as part of the City Walk project in 2018, the City should continue to support the Street Ambassador program to hire, train, and deploy community members at community events and in everyday environments to inform community members of upcoming public realm improvements, collect input on projects being planned or considered, and spread awareness of opportunities for further engagement. In particular, this team should focus on additional areas to increase equity in the City's mobility work. Street Ambassador approaches allows cities to engage thousands of community members who otherwise would likely not be engaged in traditional planning processes. Street teams should also be used to publicize low-income memberships for the City's bike share and scooter share programs.

## Establish a "Friends of the Urban Trail Network"

A "Friends of" group would build on and strengthen existing relationships to ensure vocal, sustained community support for this work, while uniting various organizations around a common purpose, shepherding our urban trails to completion, and developing a stable maintenance plan. This group should be a coalition of existing neighborhood organizations and other groups already engaged in the Urban Trail Network and projects included in it like City Walk, the Downtown Providence Parks Network, and the Woonasquatucket River Greenway.

#### Re-launch Safe Walking, Driving and Biking Public Safety Campaign

In 2018, the City launched a #PVDTrafficSafety campaign to provide information on new changes to street markings and traffic signals (such as bike signals, bus signals, bus only lanes, twostage turn boxes, green ladder crossings) coming to Providence. The campaign was created to teach community members to navigate these new markings and signals and why such improvements are important for keeping all road users safe.

#### **Expand and Enhance Community Rides**

On the first Thursday of every quarter, Mayor Elorza leads Bike the Night, an inclusive community ride that brings community members together for a eight- to ten-mile slow ride through different neighborhoods. The City should work with community partners, neighborhood groups, institutions, and businesses to expand and further enhance these rides or similar rides such as "Providence Bike Jam" to reach more residents and community members.



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