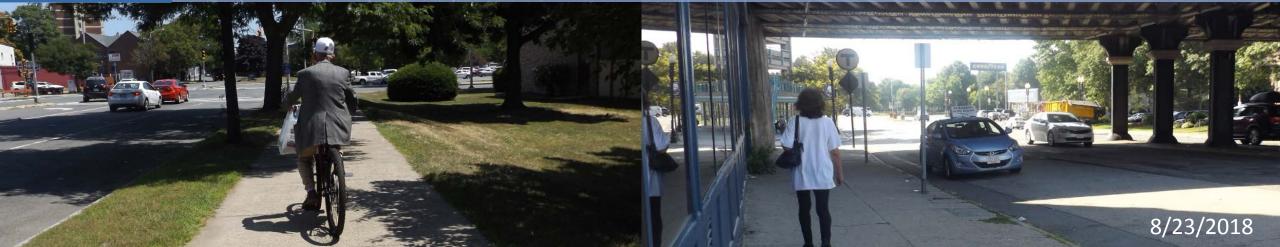
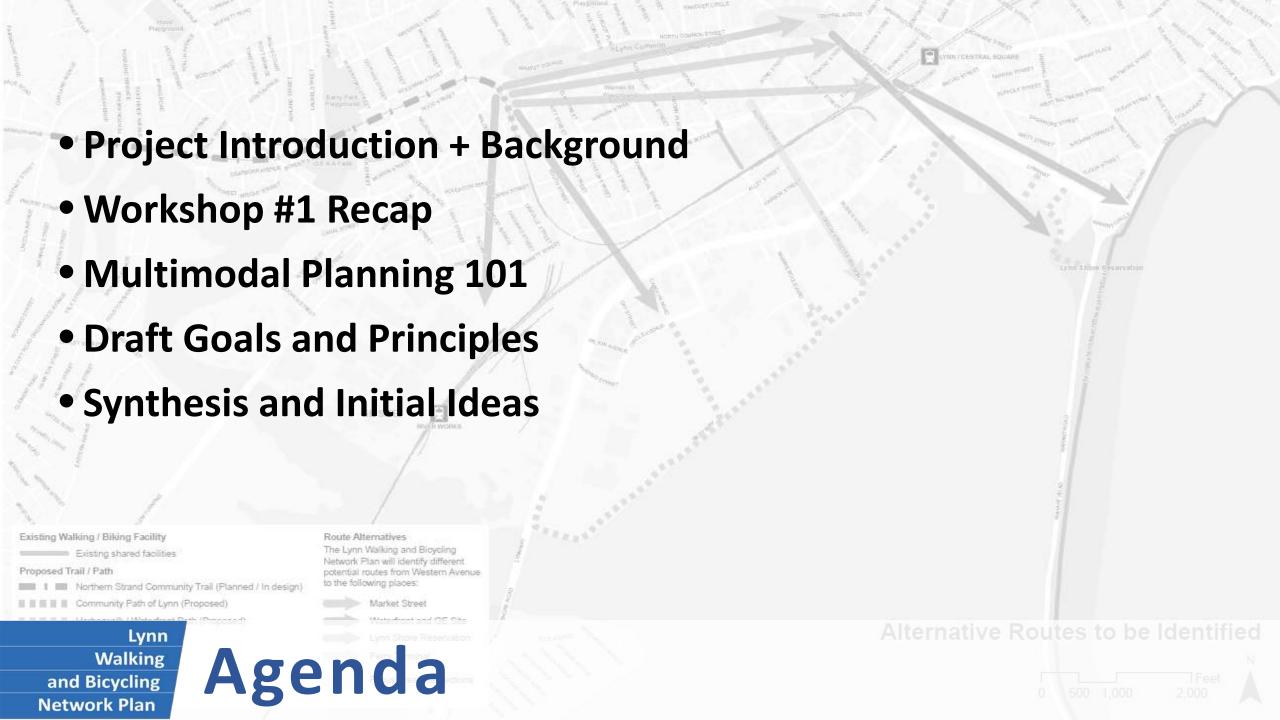


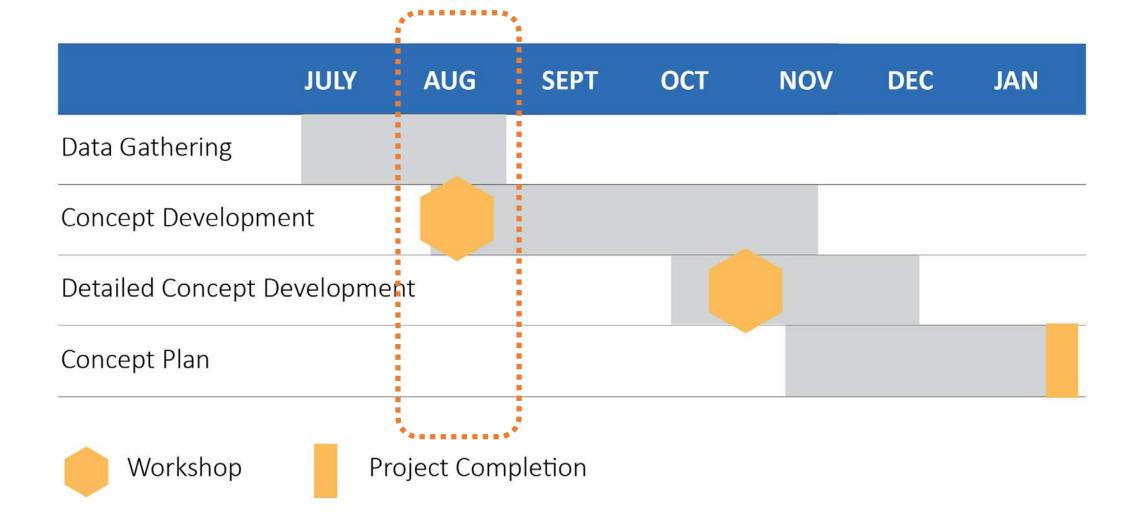
City of Lynn Walking and Bicycling Network Plan













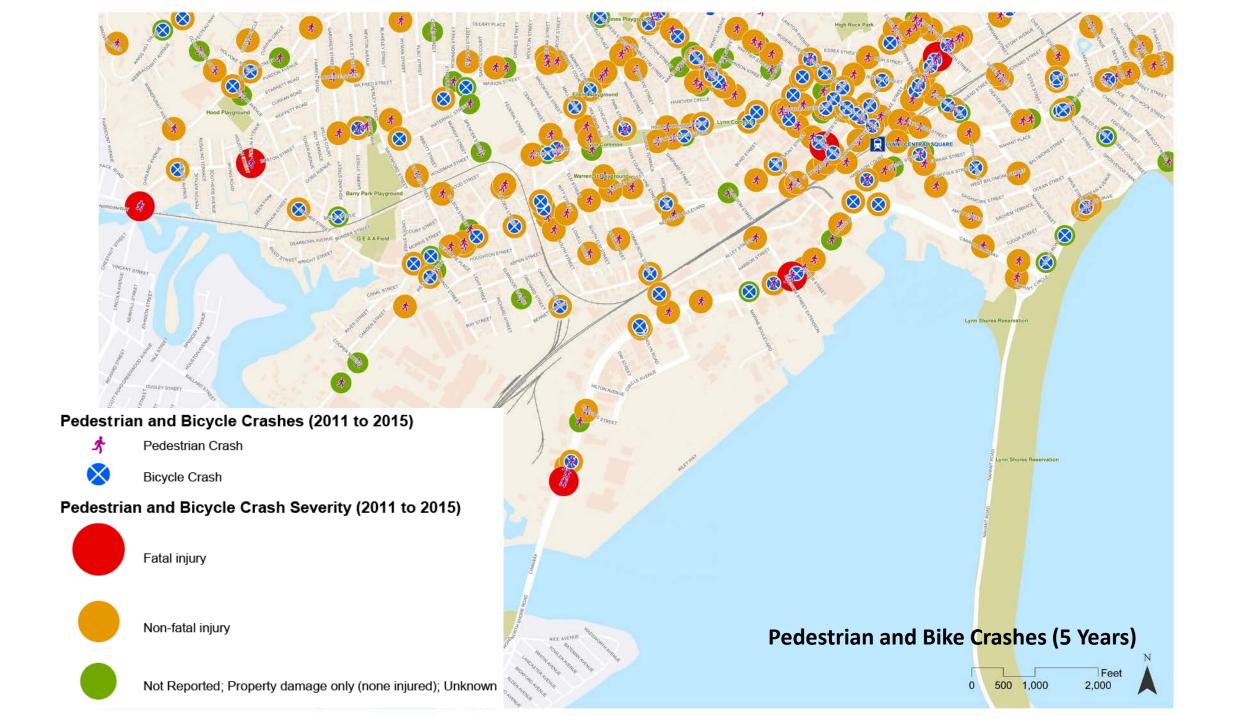
## Project Schedule

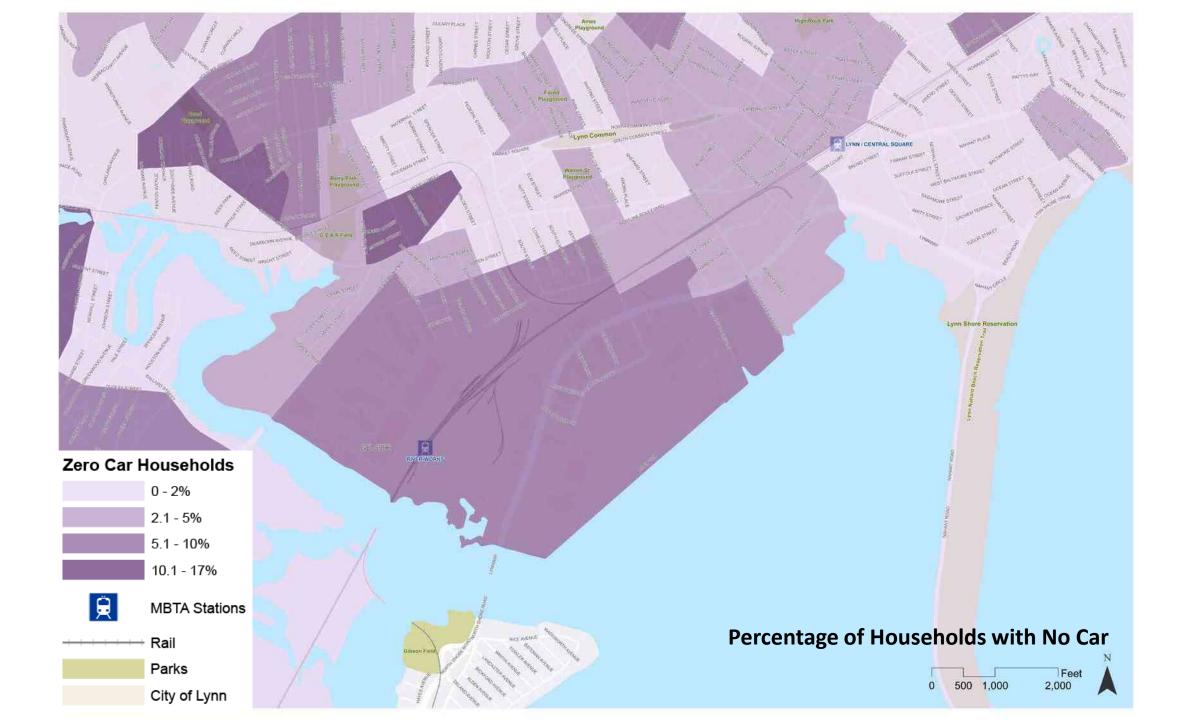
- Walking
- Bicycling
- Citywide network
- Off-street routes
- On-street facilities

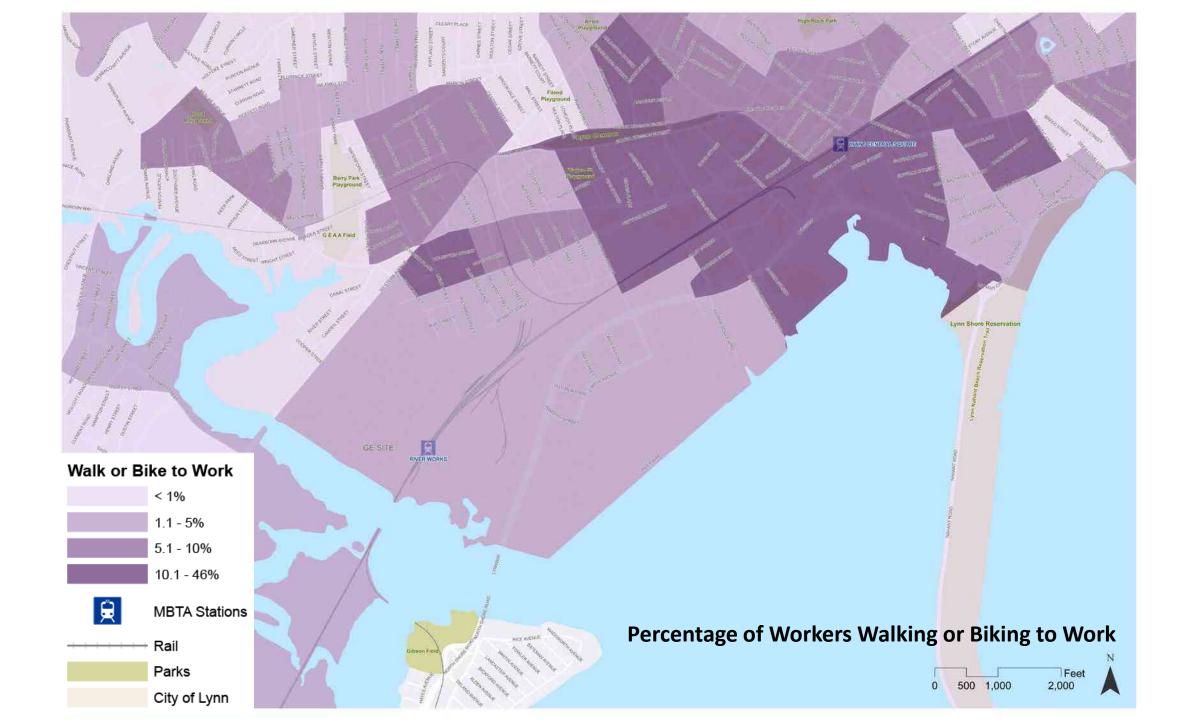




Project Scope







"Fact-Finding" mission

 Begin building an "informed consensus" on issues and opportunities





Workshop Goals



# Workshop 1





# Workshop 1





# Workshop 1

## **Pedestrian Facility Types**

#### INCREASING LEVEL OF COMFORT, SAFETY, AND INTEREST IN WALKING

No sidewalks or narrow sidewalks on high speed roads



Sidewalks on moderate speed roads or on only one side of the road



Sidewalks on low-to-moderate speed roads or landscaped/offset sidewalk on one side



Residential streets with sidewalks or landscaped/offset sidewalks on both sides of the road











Source: <a href="https://www.wyofile.com/task-force-spend-10-m-annually-cyclists-pedestrians/">https://www.wyofile.com/task-force-spend-10-m-annually-cyclists-pedestrians/</a> (Wyoming Bicycle and Pedestrian Task Force)

**Level of Comfort & Safety** 

## **Bicycle Facility Types**

#### INCREASING LEVEL OF COMFORT, SAFETY, AND INTEREST IN BICYCLING

No bike lanes on a busy street

Narrow bike lane or shoulders on a busy street

Buffered bike lane on a calm street

Separated bike lane, bicycle boulevard, or shared use path

















Source: <a href="https://www.wyofile.com/task-force-spend-10-m-annually-cyclists-pedestrians/">https://www.wyofile.com/task-force-spend-10-m-annually-cyclists-pedestrians/</a> (Wyoming Bicycle and Pedestrian Task Force)

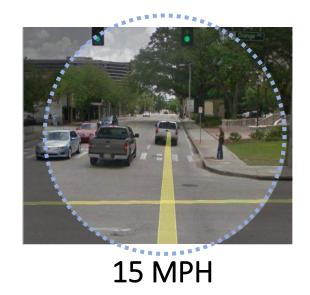
# **Level of Comfort & Safety**

## Influence of Speed









40 MPH 30 MPH

**20 MPH** 

**Driver's Perceptual Cone of Vision** 

#### **Sharrow / Shared Lane**



#### **Conventional Bike Lane**



#### **Buffered/ Separated Bike Lane**



#### **Shared Use Path**



- No separation from vehicles
- Encourages bicyclists to take full lane
- Applicable to low speed streets (25 MPH or lower)

- Lane marking
- Increases predictability of user positioning and interaction
  - Not comfortable for bicyclist on roadways with high speeds or multiple vehicle lanes

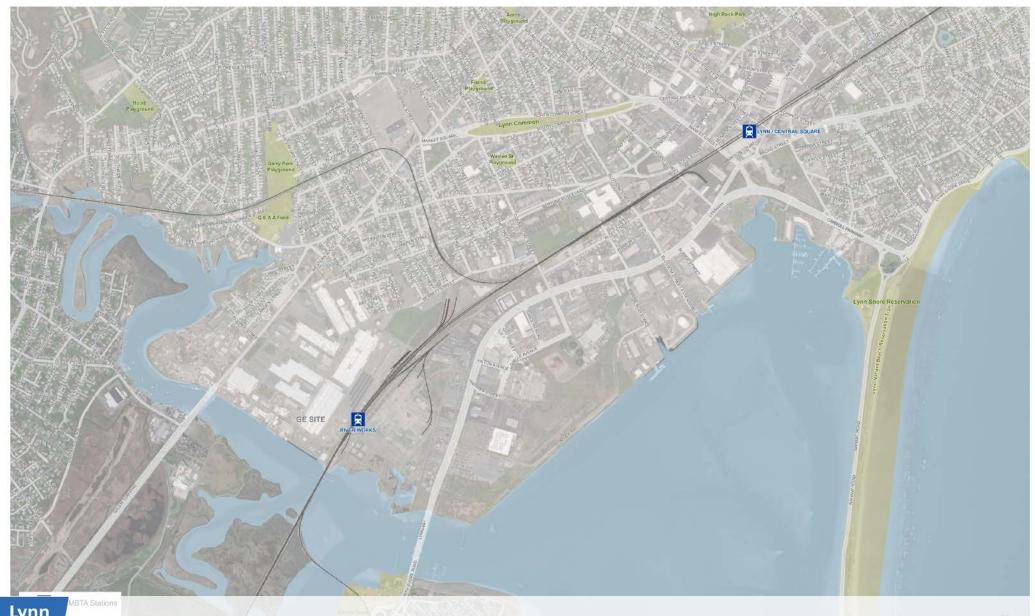
- Greater shy distance between vehicles and bicyclists
- Buffer provides more comfort and perceived safety
- Appeals to a wider cross-section of bicycle users

- Used by both pedestrians and bicyclists
- Increased comfort and safety for bicyclists
- Narrow width can hinder pedestrians

Source: NACTO, Urban Bikeway Design Guide

Lynn Walking and Bicycling Network Plan

# Bicycle Facility Design Types



Draft Project Goals and Principles



Connect the Community Path



Connect to the Water





**Bring People Downtown** 



**Focus on Multimodal Safety** 





**Balance User Needs with Context** 



Prioritize the Network





### **Bicycle + Pedestrian Network Hierarchy**



### **Dequindre Cut, Detroit**



http://detroitriverfront.org/our-story/dequindre-cut-north



Source: https://knowdetroit.com/a-scenic-stretch/





Source: https://detroit.curbed.com/2018/5/16/17360160/dequindre-cut-freight-yard-opens-this-weekend

### The QueensWay, Queens, NY



https://thequeensway.org/



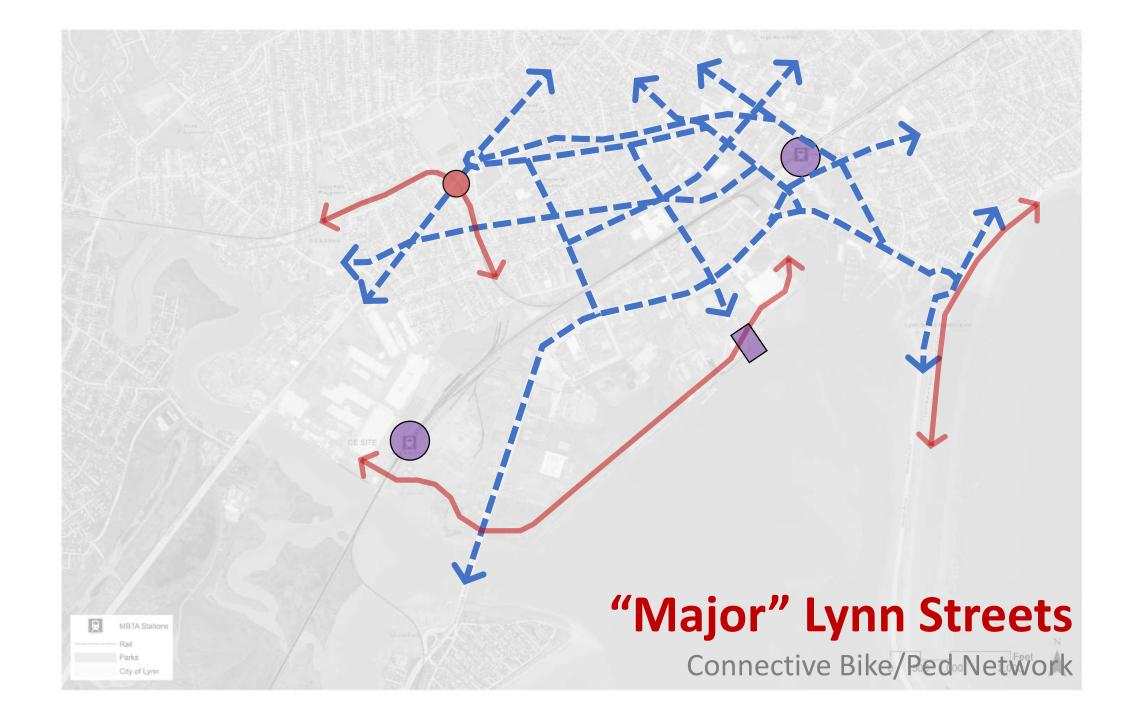


https://thequeensway.org/



https://thequeensway.org/

https://thequeensway.org/



### Side Path / Shared Use Path

Full separation from vehicular traffic.

Appropriate for streets with speeds above 30 MPH and with medium to high traffic volume.

May not be appropriate in downtown urban core areas with high pedestrian activity/volume





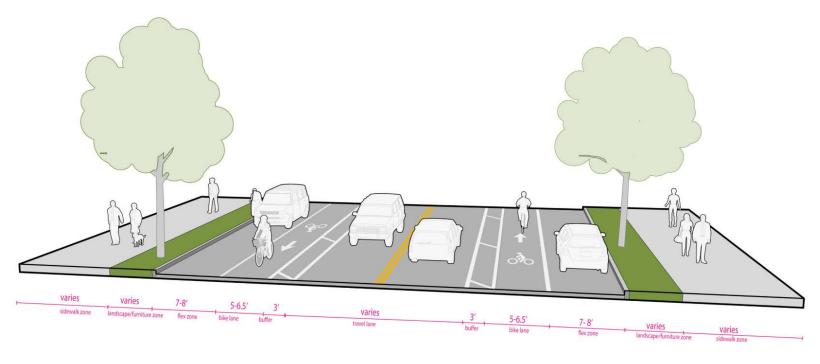
Source: MassDOT Separated Bike Lane Planning & Design Guide

Source: http://www.walkindianapolis.org/trail.html

### **Buffered Bike Lane**

Necessary for streets with speeds above 30 MPH and with medium traffic volume.

Safety issues with parked car door opening zone.



Source: Seattle Right-Of-Way Improvements Manual http://streetsillustrated.seattle.gov/design-standards/bicycle



Source: https://transportationalternatives.wordpress.com/

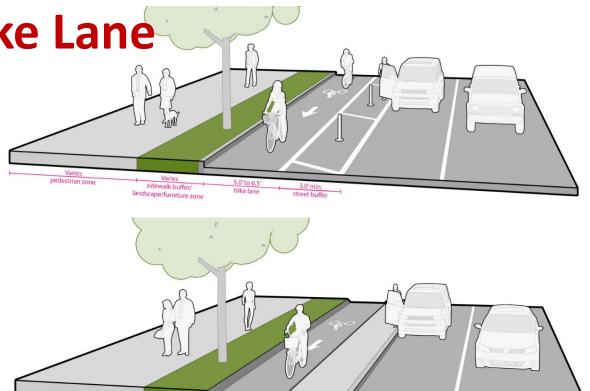
Separated/Protected Bike Lane

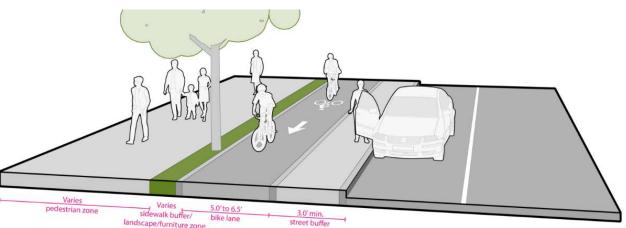
Necessary for streets with speeds above 30 MPH and with medium to high traffic volume.

Separation/Protection can take various forms like bollards, raised curb, landscape median, etc.

Bike Lanes can be raised to sidewalk level.







landscape/furniture zone

Separated/Protected Bike Lane

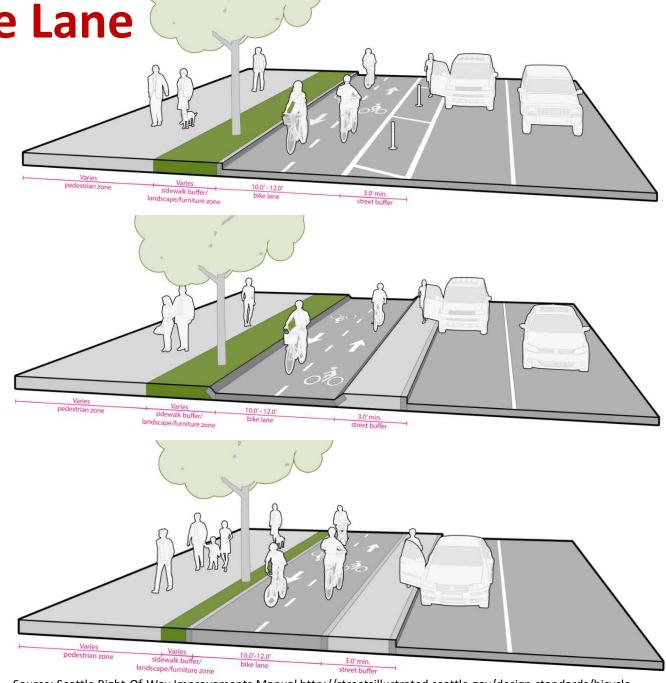
Two-Way Version

Necessary for streets with speeds above 30 MPH and with medium to high traffic volume.

Separation/Protection can take various forms like bollards, raised curb, landscape median, etc.

Bike Lanes can be raised to sidewalk level



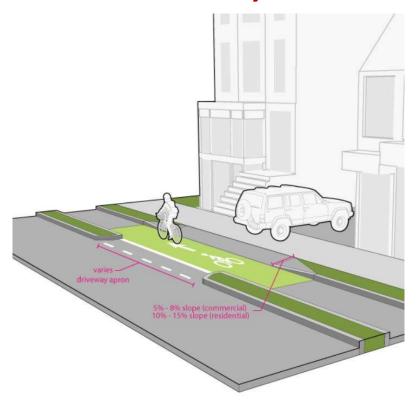


Source: https://peopleforbikes.org/blog/americas-10-best-new-bike-lanes-of-2015/Rock Miller

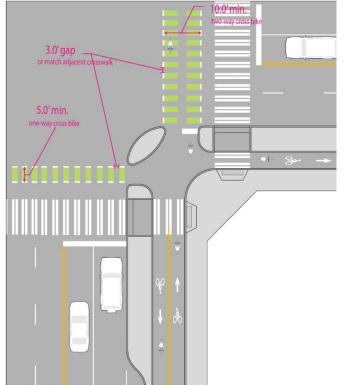
Source: Seattle Right-Of-Way Improvements Manual http://streetsillustrated.seattle.gov/design-standards/bicycle

### **Intersection Design**

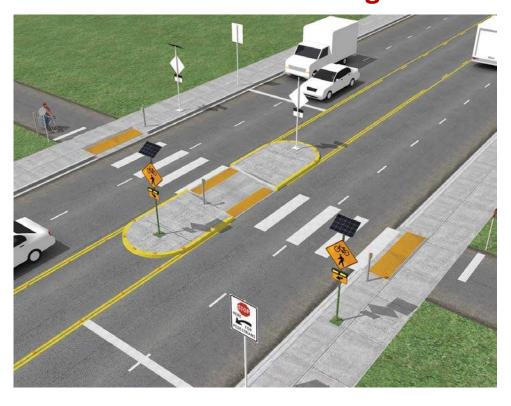
#### **Driveways**

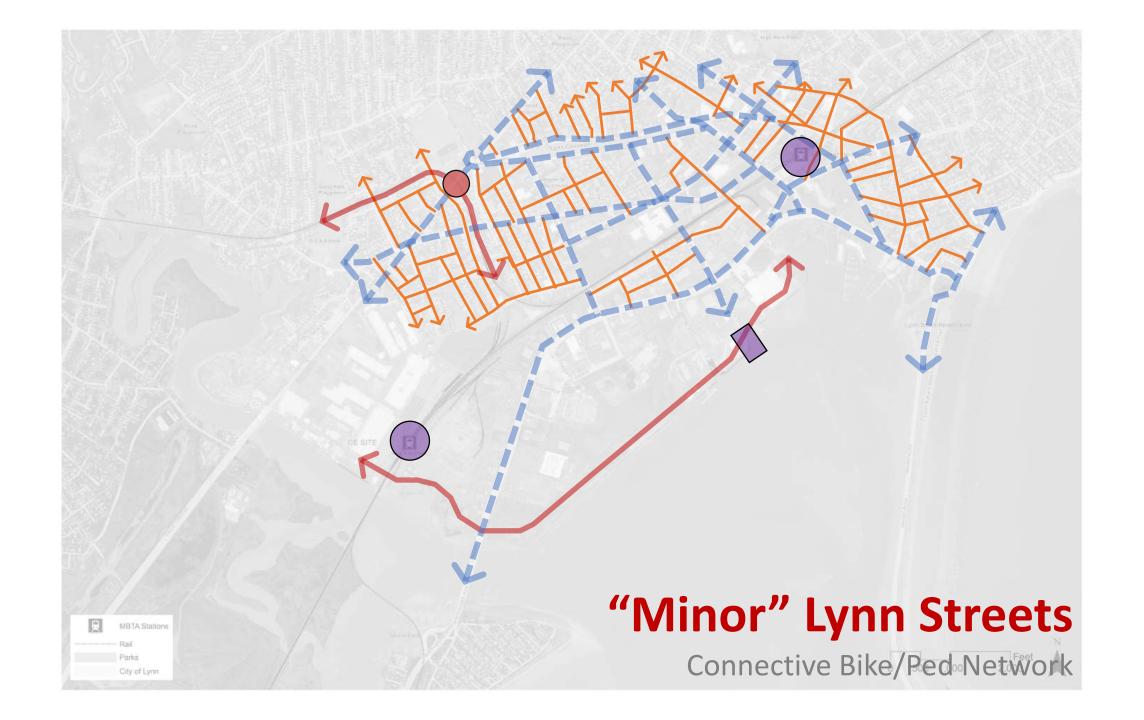


## Protected Intersection (Bump Outs)



#### **Mid Block Crossing**



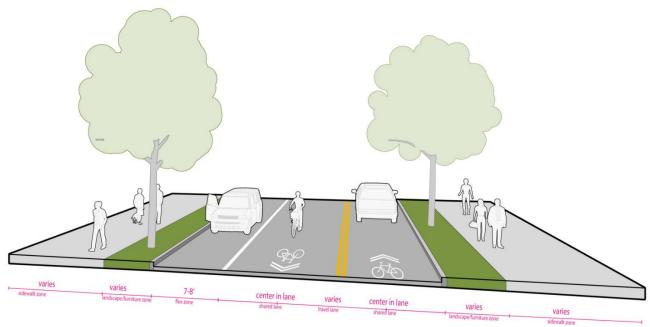


#### **Shared Lane**

Appropriate for streets with speeds below 25 MPH and with very low traffic volume.

Should be combined with traffic calming.

Additional signage and wayfinding maybe necessary to create a bicycle boulevard.



Source: Seattle Right-Of-Way Improvements Manual http://streetsillustrated.seattle.gov/design-standards/bicycle

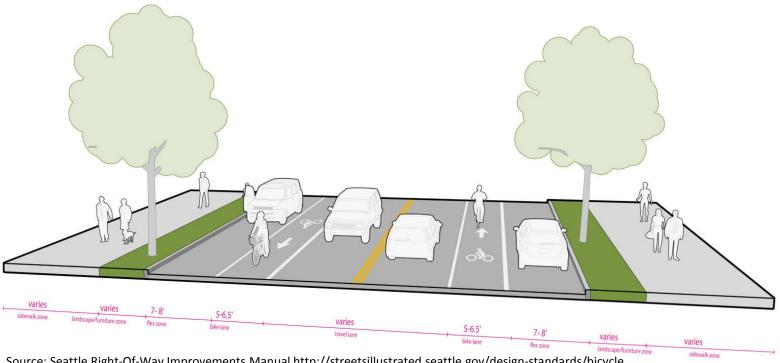


Source: http://tompkinsweekly.com/news/2016/04/04/balancing-bikes-parking-city/

#### **Standard Bike Lane**

Appropriate for streets with speeds below 30 MPH and with low to medium traffic volume.

Safety issues with parked car door opening zone.

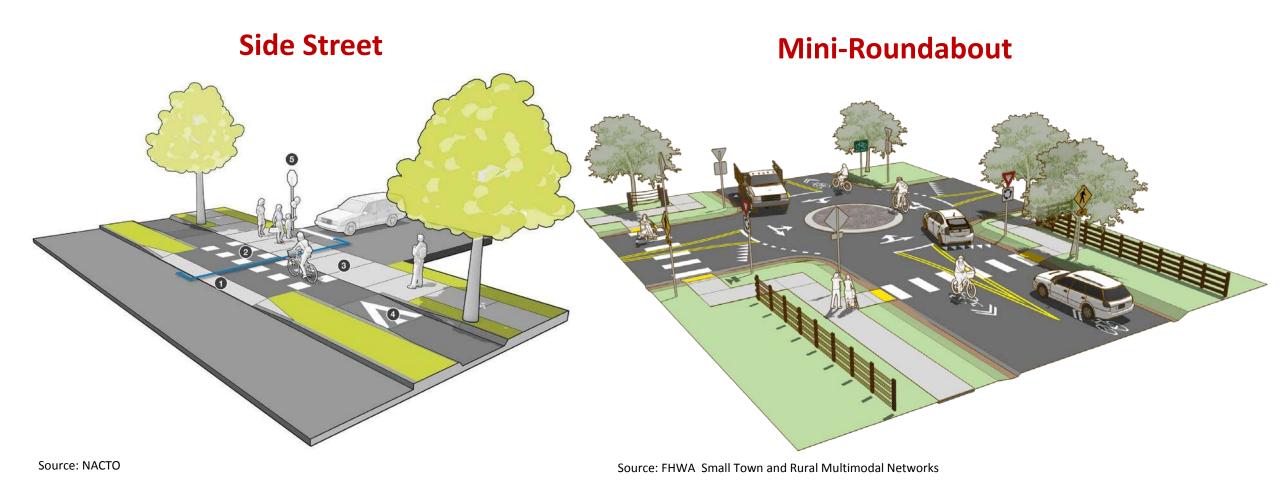


Source: Seattle Right-Of-Way Improvements Manual http://streetsillustrated.seattle.gov/design-standards/bicycle



Source: http://www.northeastern.edu/peter.furth/criteria-for-level-of-traffic-stress/

## **Intersection Design**

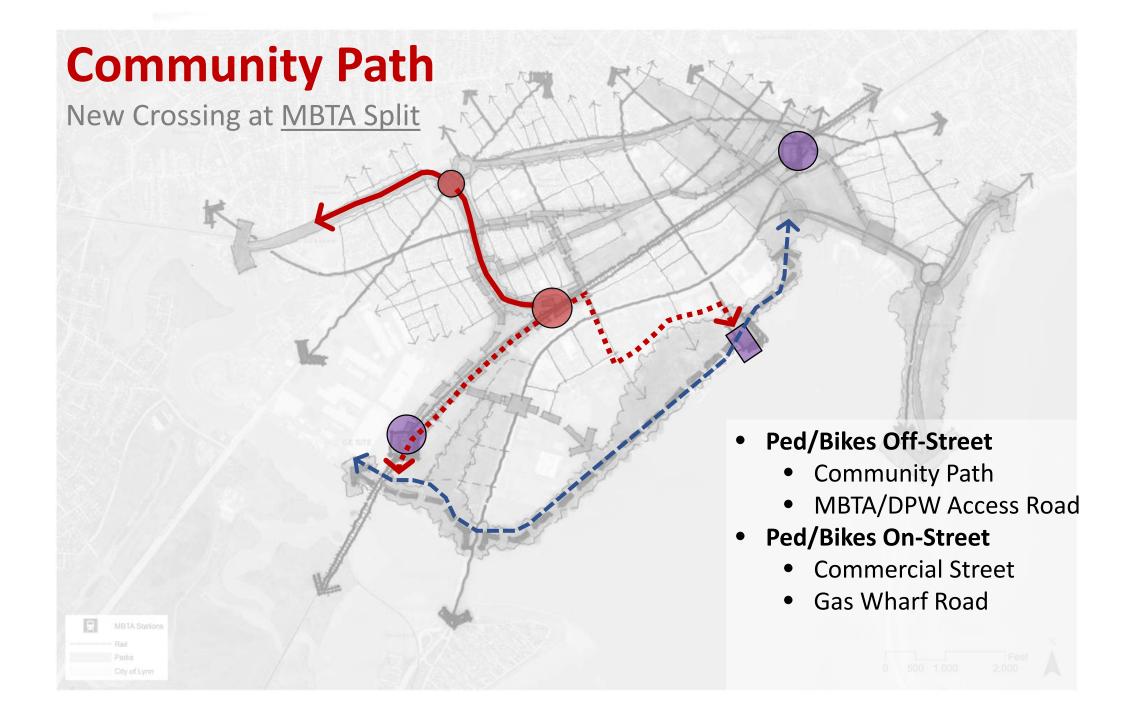


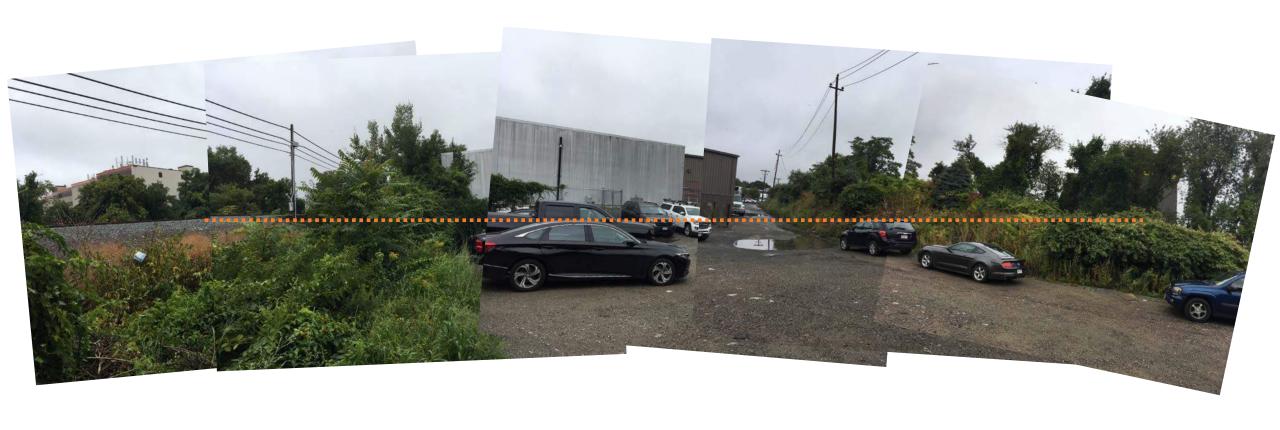


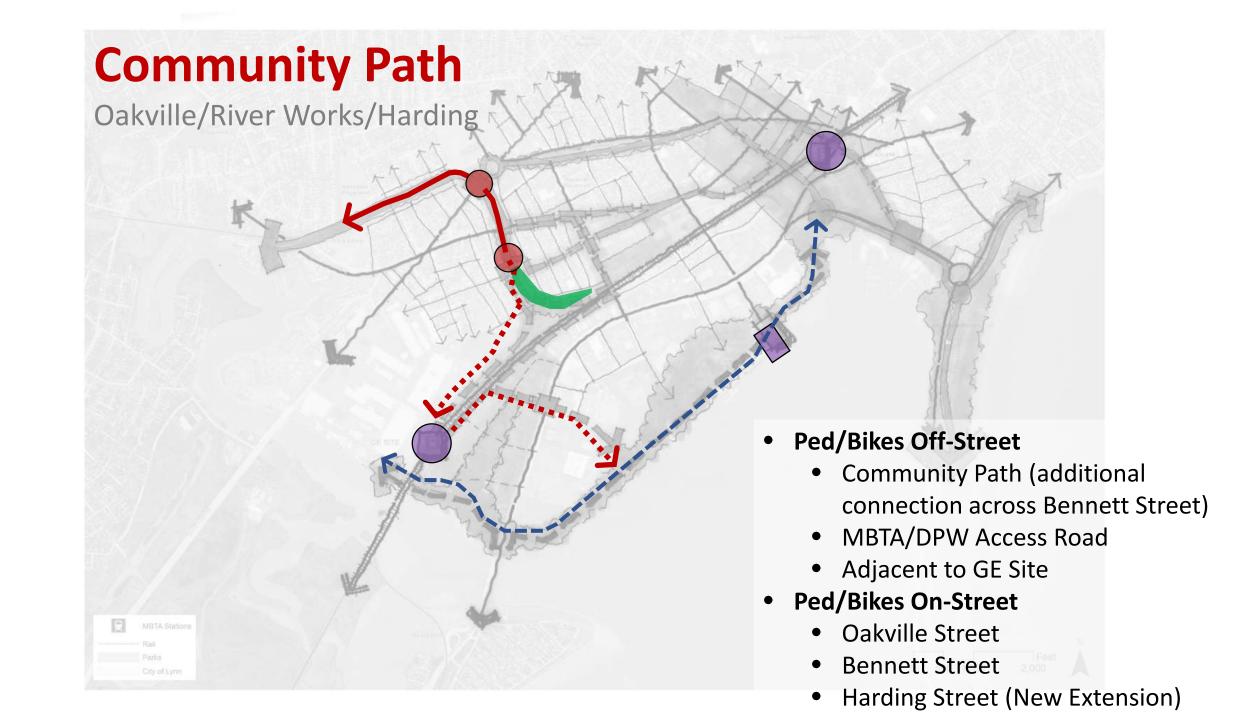
Lynn Walking and Bicycling Network Plan

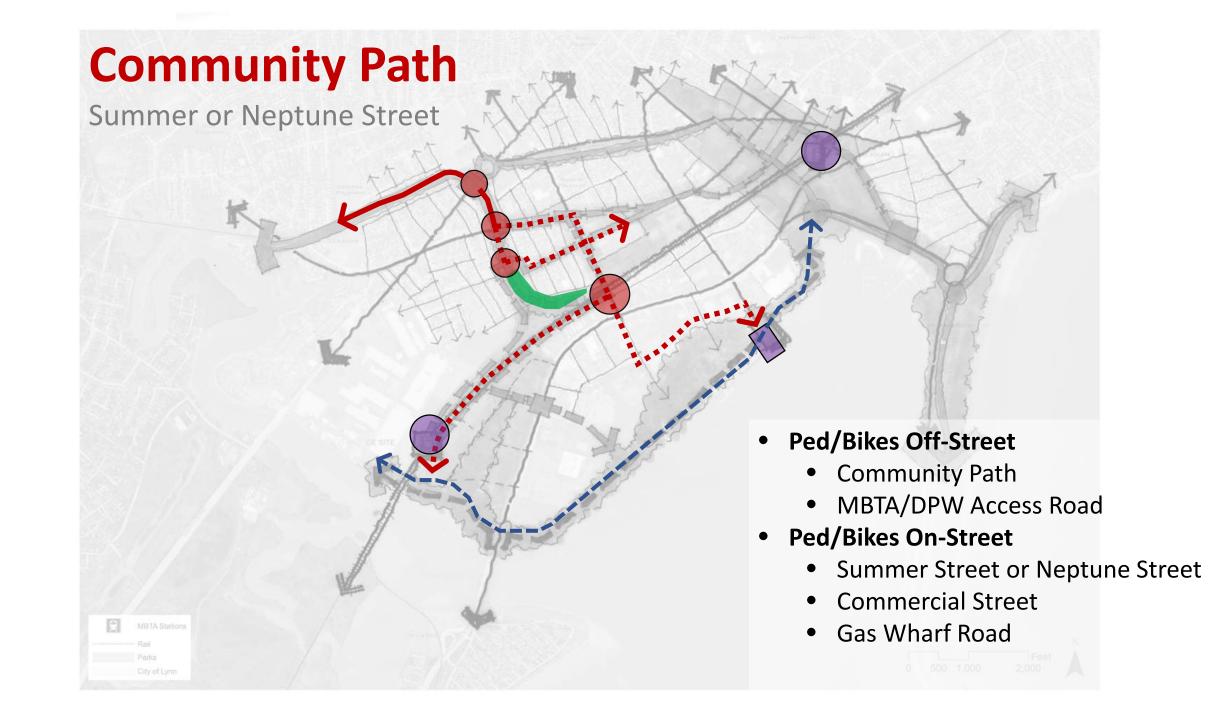
Synthesis + Route Options

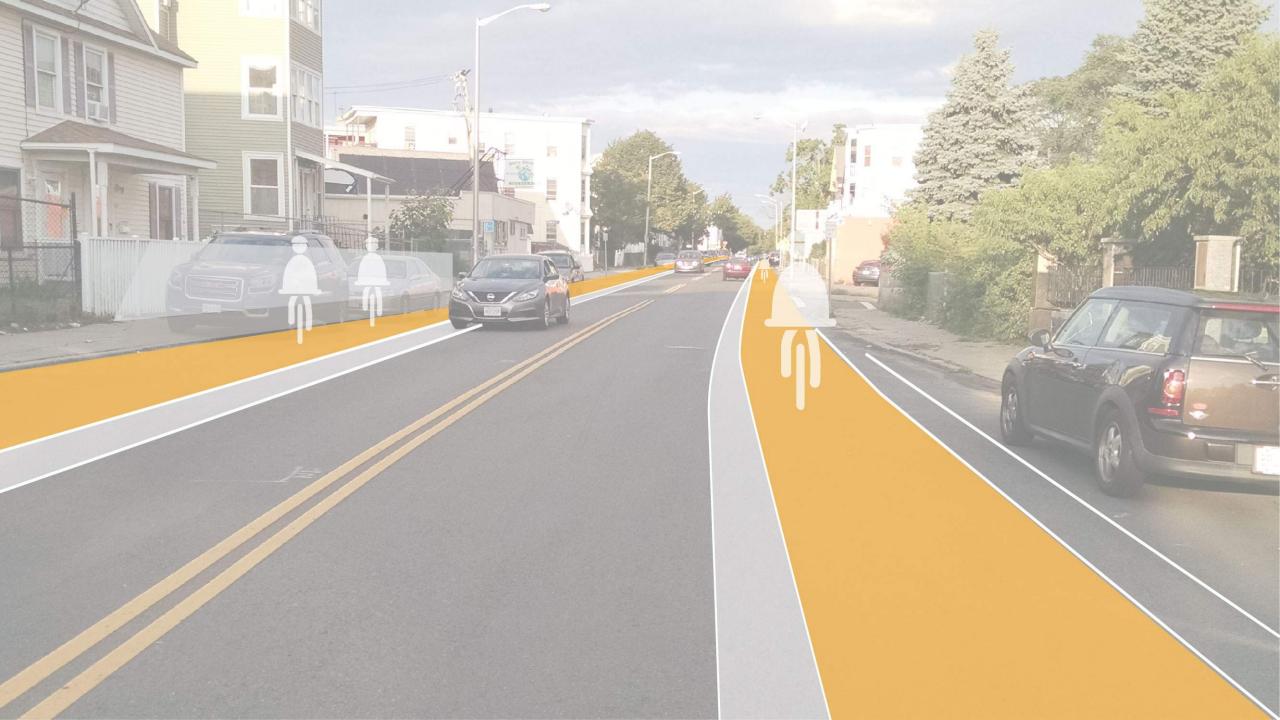




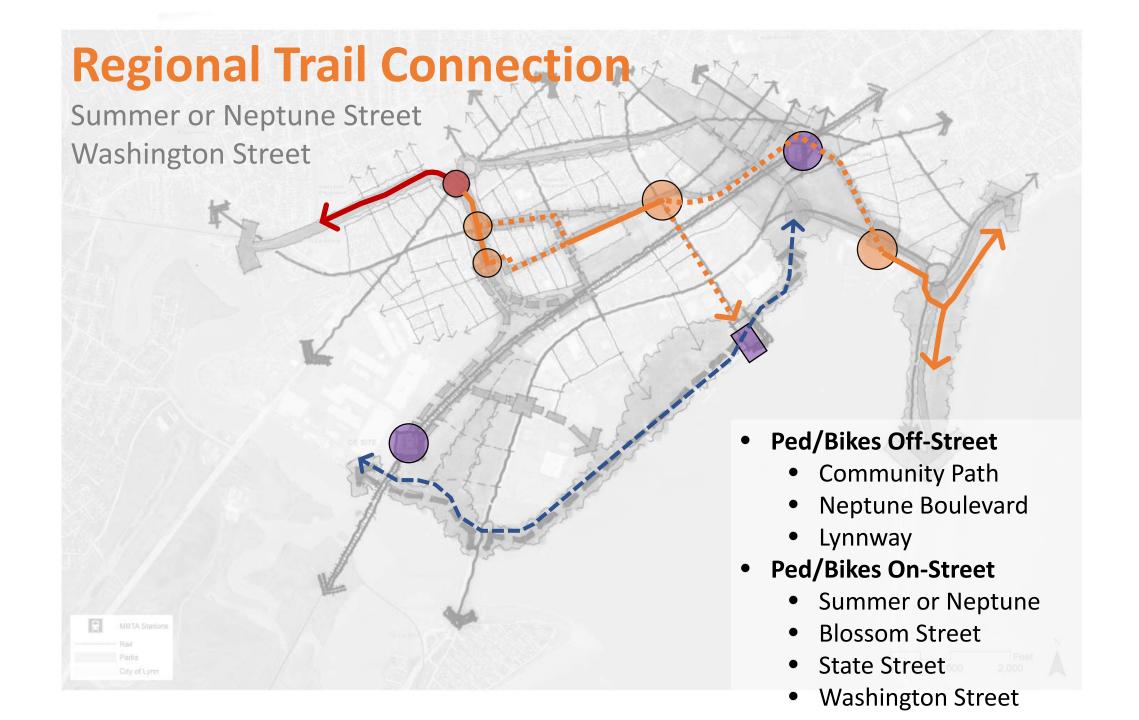






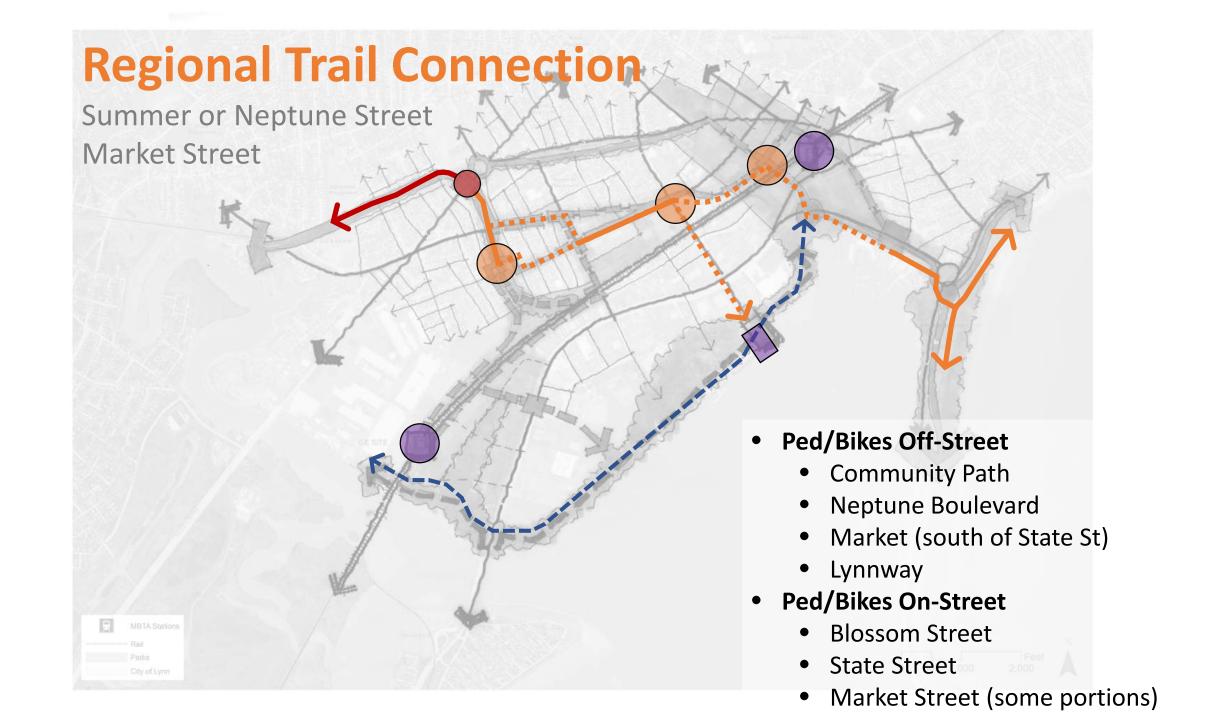




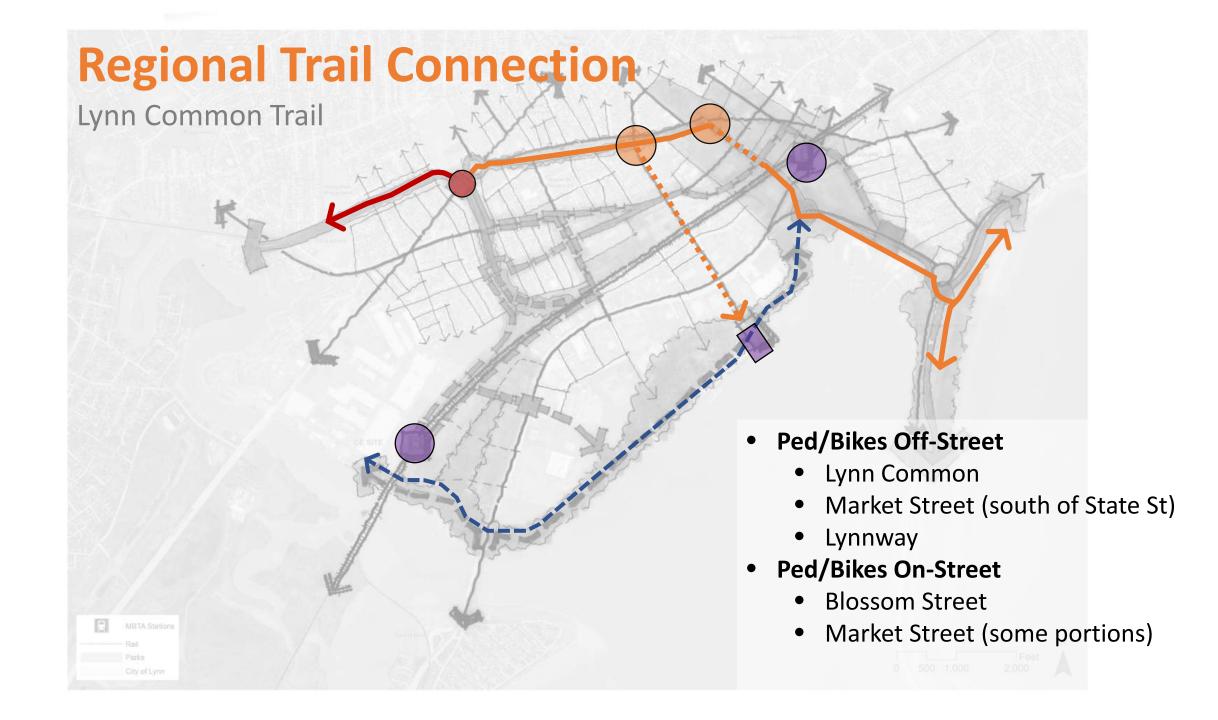




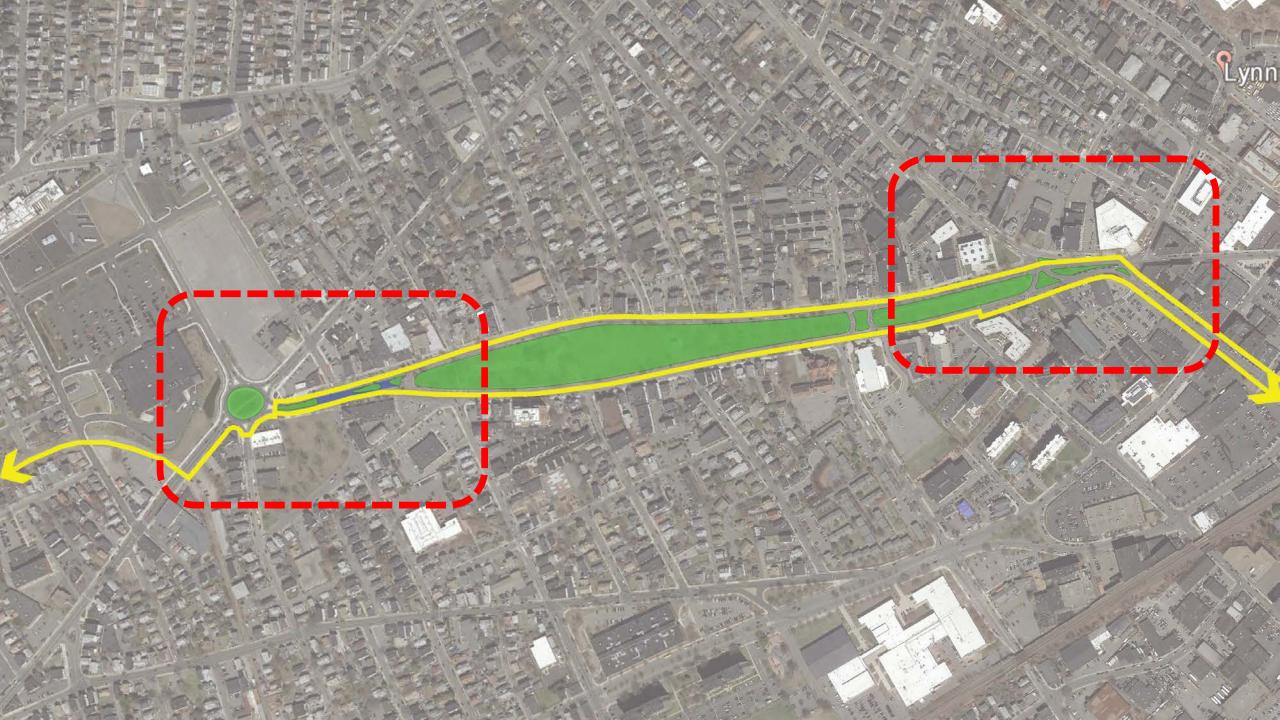














## **Market Square**

Lynn Common Trail











Lynn

Walking

and Bicycling Network Plan Mayor Thomas M. McGee City of Lynn

Dianna Chakoutis
Ward 5 Councilor

Peter Capano
Ward 6 Councilor

Jay Walsh
Ward 7 Councilor

Meaghan Hamill

Office of Mayor Thomas M. McGee

John Moberger

City of Lynn Community Development

Andy Hall

City of Lynn Department of Public Works

Jeff Weeden

Lynn Housing And Neighborhood Development

Makenzie Mackin

City of Lynn Department of Public Health

Joe Mulligan

MassDevelopment TDI Fellow

Sgt. Ned Shinnick *Lynn Police Department* 

Lisa Wallace, Emily Jodoin, and Rachel Sydney Community Path of Lynn Coalition

John Wang and Hazel Kiefer The Food Project

Gordy Hall
Hall Company

Kelly Boling
The Trust for Public Land

Herbert Nolan

Solomon Foundation