



ARUP

*massDOT*  
Massachusetts Department of Transportation

# Framingham & Natick – Route 9 and Speen Street Bicycle and Pedestrian Access Planning Study

MassDOT Office of Transportation Planning

**Recommendations Report**

December 2023

## **Acknowledgments**

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# RECOMMENDATIONS





# Introduction

Bordering Framingham and Natick, the Golden Triangle is a local and regional destination, within an extensive collection of retail complexes and large-scale campuses. As development patterns continue to change in this region and uses transition from retail to residential, it is important to understand how non-motorists access, live, work, and play in this car-dominated space. This study helps the Town of Natick and City of Framingham understand key multimodal obstacles and implementable improvements that can significantly improve the experience for those who walk, bike, or take transit within the study area.

The study proposes recommendations that prioritize accessible and safe pedestrian and bicycle facilities and infrastructure, with the ultimate goal of creating a connected and cohesive multimodal network within the Golden Triangle.

# Developing the Recommendations

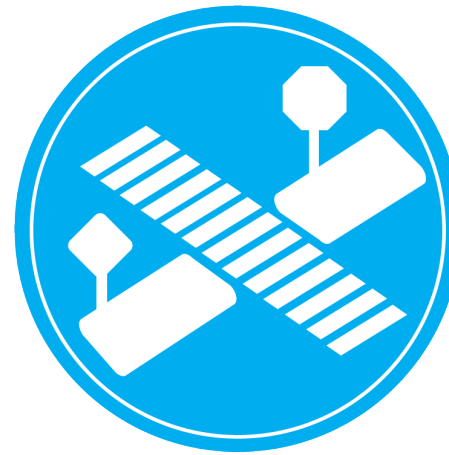
To develop a comprehensive list of varying improvements in strategic locations and incorporate the study goals into the fabric of the recommendations, the study team identified four types of recommendations, including Intersection Accessibility and Safety, Multimodal Roadway Safety, Roadway Transformation, and User Experience. The following section provides a summary of all recommendations organized by the improvement type categories.



**Intersection  
Accessibility and  
Safety**



**Multimodal  
Roadway Safety**



**Roadway  
Transformation**



**User Experience**

# The Recommendations: Intersection Accessibility and Safety



The study proposes recommendations across the Golden Triangle that address critical infrastructural gaps at key intersections, including Route 30 and Speen Street, Speen Street and Hartford Street, and Shoppers World Drive and Flutie Pass. These recommendations propose new accessibility infrastructure that prioritize pedestrian safety and connectivity.

| Recommendation ID | Name   | Cost                | Implementation Timeline |
|-------------------|--|---------------------|-------------------------|
| B.3               | Speen Street & Hartford Street Intersection Improvements                       | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| B.4               | Speen Street & Route 9 Formal Intersection                                     | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| B.6               | Superior Drive & Speen Street Southbound Pedestrian Accessibility Improvements | \$<br>(<\$1M)       | Short<br>(<1 year)      |
| G.2               | Golden Triangle Pedestrian Signal Assessment                                   | \$<br>(<\$1M)       | Short<br>(<1 year)      |
| SP.7              | Route 9, Dean Road, & Natick Mall Road Intersection Improvements               | \$\$\$<br>(>\$5M)   | Medium<br>(1-3 years)   |
| SS.1              | Nouvelle Way, Speen Street, & Wonderbread Spur Connectivity Improvements       | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| SS.2              | Route 30 & Speen Street Intersection Realignment                               | \$\$\$<br>(>\$5M)   | Medium<br>(1-3 years)   |

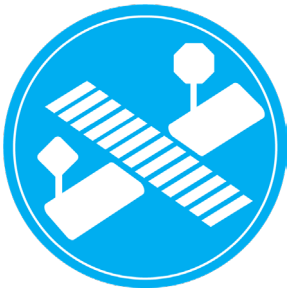
# The Recommendations: Multimodal Roadway Safety



A key goal of the study includes identifying opportunities to leverage existing multimodal infrastructure and assets, such as the Cochituate Rail Trail and Natick Mall shared use path. In tandem with this, it was important to recognize the existing gaps in the multimodal network, including creating north-south connections between Natick and Framingham's neighborhoods to the Natick Mall and other commercial destinations.

| Recommendation ID | Name   | Cost                | Implementation Timeline |
|-------------------|--|---------------------|-------------------------|
| B.2               | Speen Street Bridge Multimodal Improvements  | \$\$\$<br>(>\$5M)   | Long<br>(> 3 years)     |
| B.5               | Superior Drive & Cochituate Rail Trail Connection                                  | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| R.1               | Sidewalk & Crosswalk Connections between Route 126 and Speen Street                | \$\$\$<br>(>\$5M)   | Long<br>(> 3 years)     |
| R.2               | Corridor Wide Protected Multimodal Facilities between Route 126 and Burr Street    | \$\$\$<br>(>\$5M)   | Long<br>(> 3 years)     |
| SP.1              | Corridor Wide Protected Multimodal Facilities from Caldor Road to Natick Mall Road | \$\$\$<br>(>\$5M)   | Long<br>(> 3 years)     |
| SP.4              | Natick Mall Road Sidewalk Connections  | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| SP.5              | Power Line Shared Use Path   | \$\$\$<br>(>\$5M)   | Long<br>(> 3 years)     |

# The Recommendations: Roadway Transformation



Most roadways in the study area prioritize vehicular travel, leaving little space for those who walk, bike, and take transit. Through the “Roadway Transformation” recommendations, key roadways including Speen Street and Superior Drive will have the opportunity to reallocate portions of the road to non-motorists, creating a safe, dedicated, and protected path to connect Golden Triangle neighborhoods to the commercial hubs.

| Recommendation ID | Name   | Cost             | Implementation Timeline |
|-------------------|--|------------------|-------------------------|
| B.1               | Speen Street Two-Way Conversion                                | \$ (<\$1M)       | Short (<1 year)         |
| B.7               | Superior Drive Multimodal Shared Street Conversion             | \$\$\$ (>\$5M)   | Medium (1-3 years)      |
| SP.2              | Travis Road Walking Path                                       | \$\$\$ (>\$5M)   | Long (> 3 years)        |
| SP.3              | Hardwick Road/Essex Road Walking Path                          | \$\$\$ (>\$5M)   | Long (> 3 years)        |
| SS.3              | Speen Street Shared Use Path (between Route 30 & Nouvelle Way) | \$\$\$ (>\$5M)   | Medium (1-3 years)      |
| SS.4              | Speen Street & Cochituate Rail Trail Connectivity              | \$\$ (\$1M-\$5M) | Medium (1-3 years)      |



# The Recommendations: User Experience



The study proposes a set of recommendations that will create a vision for a welcoming and inclusive environment for those who walk, bike, and take transit within and around the Golden Triangle. This improvement category encompasses a range of solutions, including establishing a wayfinding system across the Golden Triangle, developing a north-south multimodal corridor on Shoppers World Drive, and creating a calm street network at Sherwood Plaza.

| Recommendation ID | Name   | Cost             | Implementation Timeline |
|-------------------|--|------------------|-------------------------|
| G.3               | Golden Triangle Wayfinding Assessment  | \$ (<\$1M)       | Short (<1 year)         |
| SP.6              | Mercer Road, Strathmore Road, & Dean Road Multimodal Connectivity Improvements | \$\$ (\$1M-\$5M) | Medium (1-3 years)      |
| SW.1              | Shopper's World Multimodal Network & Amenities                                 | \$\$\$ (>\$5M)   | Long (> 3 years)        |
| SW.2              | Flutie Pass Park & Ride, Mid-Block Crossing, & Sidewalk/Improvements           | \$\$ (\$1M-\$5M) | Medium (1-3 years)      |
| SW.3              | Ring Road Shared Use Path  | \$\$\$ (>\$5M)   | Long (> 3 years)        |

# Defining the Recommendations

Each recommendation was developed with the intention of providing municipal, state, and private entities with the necessary resources and details to understand key responsibilities and successfully implement. The study provides detailed information on key implementation considerations, such as levels of effort, jurisdictional details, and implementation timelines.



**What existing challenges do non-motorists face in this area?**



**What is the implementation timeline?**

Short (<1 yr), Medium (1-3 yrs), Long (>3 yrs)



**What does this look like and what does it consist of?**



**What does this cost?\***

\$ (<\$1M), \$\$ (<\$1M-\$5M), \$\$\$ (>\$5M)



**Who will benefit from this recommendation?**



**What level of effort is required to implement this and who would be involved?**



**What implementation & contextual challenges exist?**



*The study team developed a combination of improvements that enhance the experience for all non-motorists, through a series of phased recommendations ranging from short-term, tactical urbanism-style pavement markings to long-term protected shared-use paths.*

\*The cost ranges reflected in this report reflect Rough Orders of Magnitude cost estimates for the large-scale, long-term recommendations as documented in the Recommendation Matrix.

# The Recommendations: Intersection Accessibility and Safety



The study proposes recommendations across the Golden Triangle that address critical infrastructural gaps at key intersections, including Route 30 and Speen Street, Speen Street and Hartford Street, and Shoppers World Drive and Flutie Pass. These recommendations propose new accessibility infrastructure that prioritize pedestrian safety and connectivity.

| Recommendation ID | Name   | Cost                | Implementation Timeline |
|-------------------|--|---------------------|-------------------------|
| B.3               | Speen Street & Hartford Street Intersection Improvements                       | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| B.4               | Speen Street & Route 9 Formal Intersection                                     | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| B.6               | Superior Drive & Speen Street Southbound Pedestrian Accessibility Improvements | \$<br>(<\$1M)       | Short<br>(<1 year)      |
| G.2               | Golden Triangle Pedestrian Signal Assessment                                   | \$<br>(<\$1M)       | Short<br>(<1 year)      |
| SP.7              | Route 9, Dean Road, & Natick Mall Road Intersection Improvements               | \$\$\$<br>(>\$5M)   | Medium<br>(1-3 years)   |
| SS.1              | Nouvelle Way, Speen Street, & Wonderbread Spur Connectivity Improvements       | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| SS.2              | Route 30 & Speen Street Intersection Realignment                               | \$\$\$<br>(>\$5M)   | Medium<br>(1-3 years)   |

# B.3 Speen Street & Hartford St Intersection Improvements



## What existing challenges do non-motorists face in this area?

There are currently 3 crosswalks and 8 vehicle lanes at the Hartford St/Speen St intersection. This creates an unwelcoming and unsafe environment for pedestrians. There are too many vehicle-pedestrian conflict points and traffic lanes.



## What does this look like and what does it consist of?

Improve the Hartford St/Speen St/Route 9 intersection by repainting crosswalks, adding pedestrian refuge islands to, and implementing pedestrian signalization at all crossings. Consider adding a new east-west crossing on the northern side of the intersection crossing Speen St to the existing eastern sidewalk on Speen St NB. Consider closing off the Speen St SB slip lane/right turn lane (RT) at the intersection, making one of the Speen St SB travel lanes a Thru/RT lane. Use the closed slip lane to add a large, permanent curb extension with appropriate pedestrian signalization, curb ramps, warning panels, and potential landscaping.



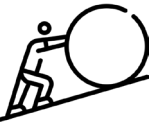
## Who will benefit from this recommendation?

This intersection sits adjacent to a large neighborhood south of Sherwood Plaza. Improving this intersection, will create a safer and more welcoming environment for those residents and all other pedestrians traveling in the Golden Triangle.



## What implementation & contextual challenges exist?

No jurisdictional, historical, or environmental challenges known. Potential challenge if bridge must be closed due to construction.



## What level of effort is required to implement this and who would be involved?

This portion of Speen Street falls under the jurisdiction of MassDOT, however the Town of Natick should be involved in conversations given the recent sidewalk improvements at the Fire Department.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$ (\$1M-\$5M)

Medium (1-3 yrs)

# B.3 Speen Street & Hartford St Intersection Improvements

## ! The Existing Challenges



The Current Hartford St/Speen St Intersection Configuration (crossings highlighted in red)



The Current Conditions of the Hartford St/Speen St intersection

## 🏆 The Opportunities



Complete Streets Intersection



Complete Streets Intersection  
City of Sacramento, CA

# B.4 Speen St & Route 9 Formal Intersection



## What existing challenges do non-motorists face in this area?

The current pedestrian infrastructure along Speen St going SB is discontinuous and deteriorating. There is a guardrail that currently blocks the shared use path from connecting over the Speen Street bridge to the existing sidewalk. This route experiences heavy vehicle traffic and the sidewalk is not protected to keep pedestrians safe.



## What does this look like and what does it consist of?

Create a perpendicular intersection on Speen St SB at the on-ramp to Route 9 access road and create a formal pedestrian crossing, connecting the Natick Mall shared use path to the Speen St bridge sidewalk. Consider removing the existing guardrail from the shared use path and create a sidewalk connection from Speen St to Superior Dr with a protective barrier.



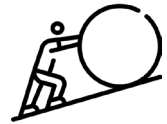
## Who will benefit from this recommendation?

This recommendation will improve the pedestrian network in the Golden Triangle, benefitting all residents, shoppers, employees, and visitors in the area.



## What implementation & contextual challenges exist?

No jurisdiction, historical, or environmental challenges known. Potential challenge if bridge must be closed due to construction.



## What level of effort is required to implement this and who would be involved?

This portion of Speen Street falls under the jurisdiction of MassDOT, however the Town of Natick and Natick Mall should be involved in conversations to connect to the Natick Mall Shared Use Path.

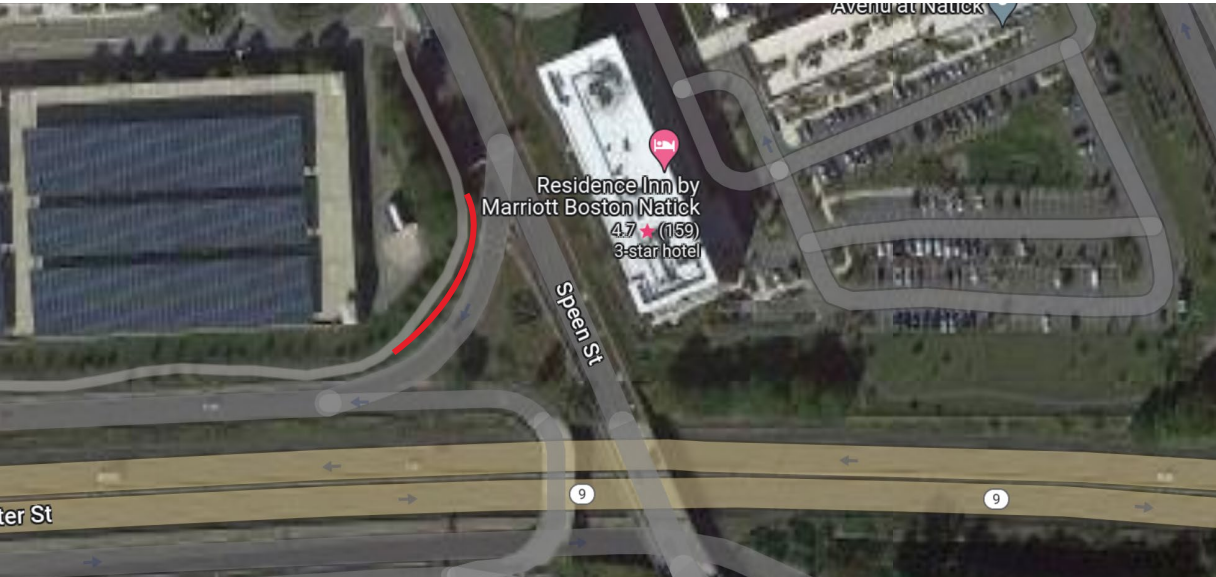
## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$ (\$1M-\$5M)

Medium (1-3 yrs)

# B.4 Speen St & Route 9 Formal Intersection

## ! The Existing Challenges

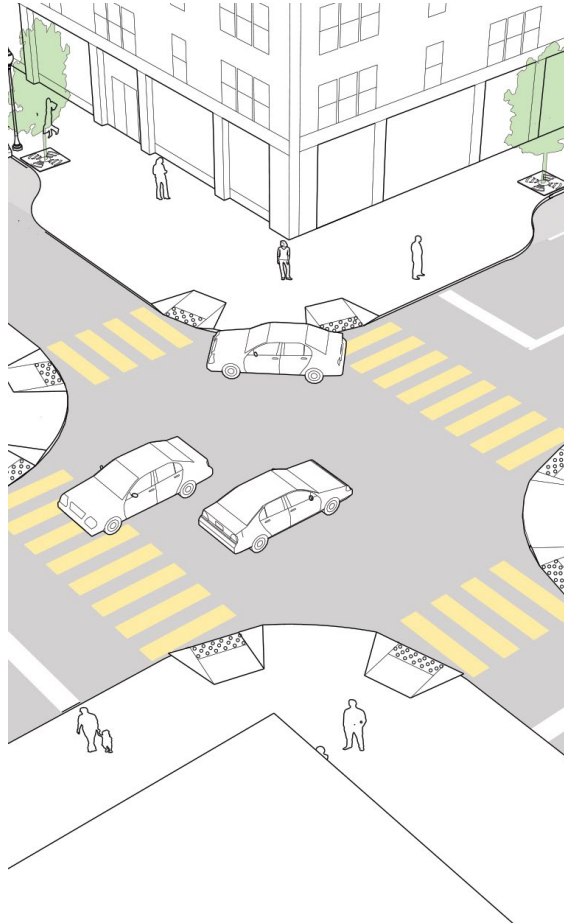


The Current Route 9/Speen St Intersection- Guardrail (highlighted in red)



The Current Route 9/Speen St Intersection- guardrail blocking sidewalk connection to shared use path

## 🏆 The Opportunities



Complete Streets Intersection  
National Association of City Transportation



Complete Streets Intersection  
San Luis Obispo, CA

# B.6

## Superior Drive & Speen Street Southbound Pedestrian Accessibility Improvements



### What existing challenges do non-motorists face in this area?

The pedestrian infrastructure is lacking along Superior Dr and Speen St in the Beetleback, creating an unsafe and unwelcoming environment for pedestrians.



### What does this look like and what does it consist of?

Implement a new east-west crossing at the Superior Dr and Speen St intersection. Add in HAWK signals, new ADA-compliant curb ramps, curb extensions, and repaint existing crosswalks.



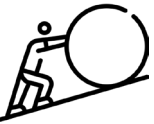
### Who will benefit from this recommendation?

This recommendation will improve the pedestrian and bicycle network in the Golden Triangle, benefitting Cochituate Rail Trail travelers, all active transportation travelers in the area, and all shoppers in the Golden Triangle.



### What implementation & contextual challenges exist?

No jurisdiction, historical, or environmental challenges known. Potential challenge if bridge must be closed due to construction.



### What level of effort is required to implement this and who would be involved?

This portion of Speen Street falls under the jurisdiction of MassDOT, however the Town of Natick should be involved in conversations to connect to the Natick Mall Shared Use Path.

### What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$ (<\$1M)

Short (<1 yr)



# B.6

## Superior Drive & Speen Street Southbound Pedestrian Accessibility Improvements

### The Existing Challenges



The Current Conditions along Speen Street and Superior Drive – sidewalks abruptly end and no dedicated bicycle facility exists.

### The Opportunities



HAWK Signals  
Arizona Department of Transportation



HAWK Signalization & Protected Sidewalk  
Kirkwood, MO

# G.2 Golden Triangle Pedestrian Signal Assessment



## What existing challenges do non-motorists face in this area?

There are currently pedestrian signals missing at various pedestrian crossings in the Golden Triangle.



## What does this look like and what does it consist of?

Conduct a detailed survey/assessment of all existing traffic and pedestrian signals within the study area/Golden Triangle, to understand functionality, infrastructure condition, and replacement needs.



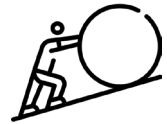
## Who will benefit from this recommendation?

This recommendation will improve the safety and experience for all pedestrian travelers in the Golden Triangle.



## What implementation & contextual challenges exist?

There is opportunity to prioritize this assessment and implement improved pedestrian signals within the Golden Triangle to create a safe and accessible walking experience for non-motorists.



## What level of effort is required to implement this and who would be involved?

Low effort - planning-level study based on jurisdiction

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$ (<\$1M)

Short (<1 yr)

# G.2 Golden Triangle Pedestrian Signal Assessment

## The Existing Challenges



*Missing Pedestrian Signal at the Route and Dean Road Intersection*

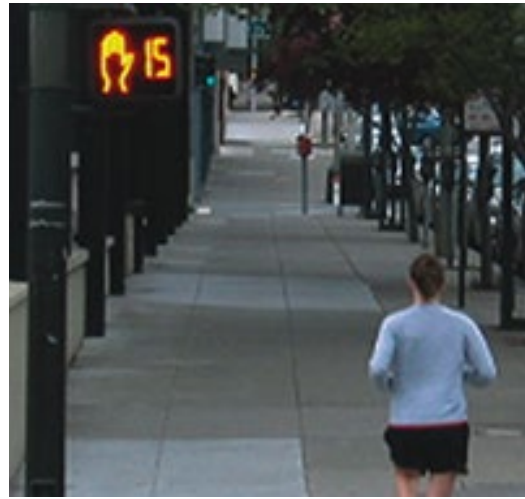


*Missing Pedestrian Signals at the Route 9 and Sherwood Plaza Entrance*

## The Opportunities



*Pedestrian Signal  
Federal Highway Administration*



*Pedestrian Signaling at Intersection*

# SP.7

## Route 9 & Dean Road & Natick Mall Road Intersections Improvements



### What existing challenges do non-motorists face in this area?

The current intersection has limited pedestrian infrastructure and no bicycle infrastructure. The crossings are extremely long and there are no pedestrian refuge islands. There are missing pedestrian crossing signals and crosswalks are faded.



### What does this look like and what does it consist of?

Convert this intersection into a pedestrian and bicyclist haven by repainting all crosswalks, adding a new north-south crossing along the western side of the intersection, ensure all signals have a pedestrian cycle, and add a pedestrian island at both north-south crossings. Consider removing the right turn lanes on Natick Mall Road (going westbound on Route 9) and Dean Road (going eastbound on Route 9) and implement permanent curb extensions at all intersection crossings with ADA-compliant curb ramps. Create a pedestrian and bicycle connection between Dean Rd and Mercer Rd by building a shared use path on the western side of Dean Rd. Add directional signage and pavement markings for cyclists.



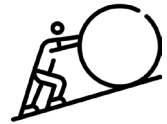
### Who will benefit from this recommendation?

This recommendation will improve the pedestrian and bicycle network in the Golden Triangle, creating a stronger and safer pedestrian connection between Shoppers World Plaza and Natick Mall.



### What implementation & contextual challenges exist?

No historical or environmental concerns in this area.



### What level of effort is required to implement this and who would be involved?

Route 9 is owned by MassDOT. Certain segments of Natick Mall Rd are privately owned, and Dean Road falls under public jurisdiction.

### What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

High Cost (\$\$\$)

Medium (1-3 yrs)

# SP.7 Route 9 & Dean Road & Natick Mall Road Intersections Improvements



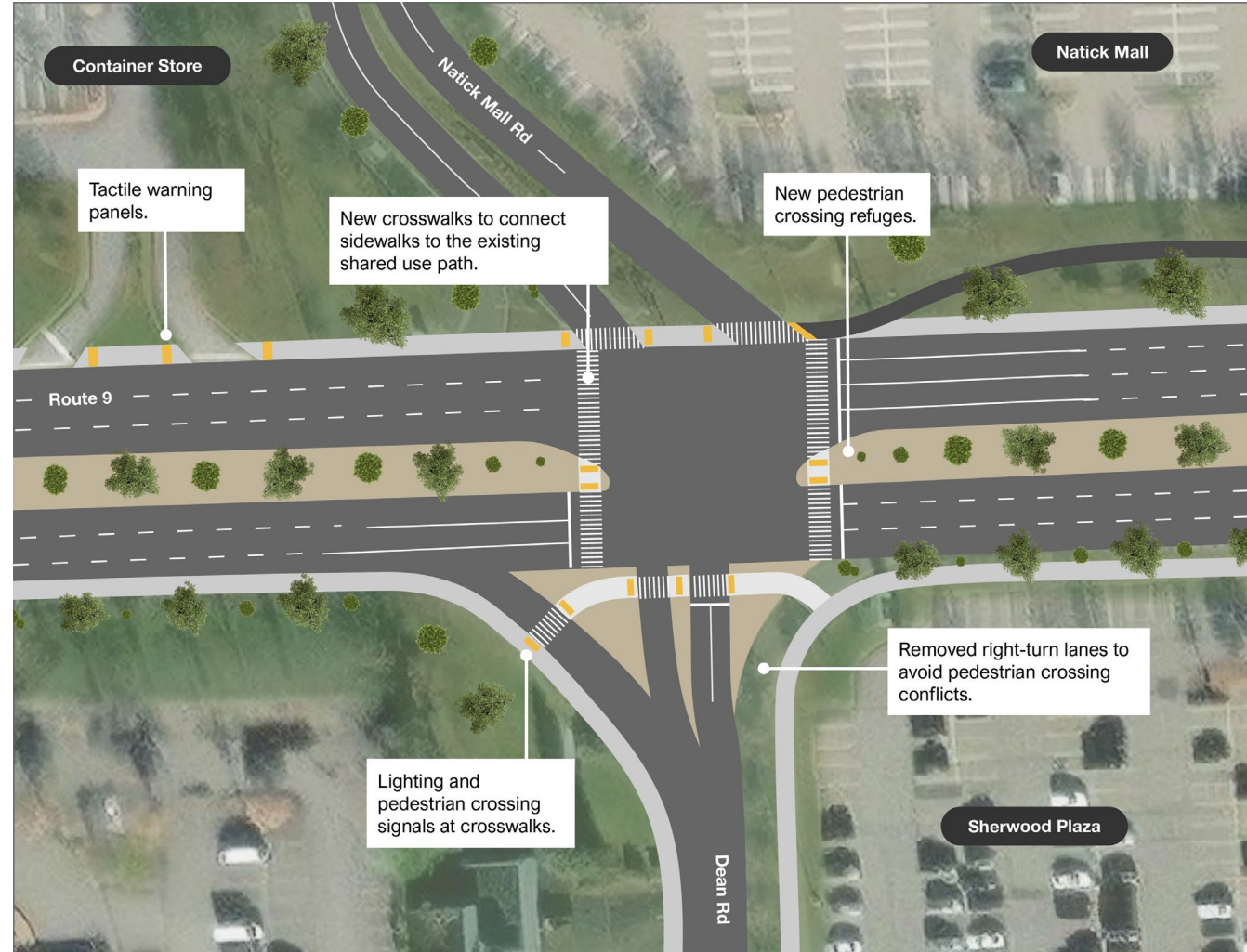
## The Existing Challenges



*The Existing Conditions at the Route 9/Dean Road/Natick Mall Road Intersection- long crosswalks and missing pedestrian signal*



## The Opportunities



*The Proposed Improvements to create a safe and pedestrian/cyclist-oriented intersection at Route 9/Dean Road/Natick Mall Road.*

# SS.1 Nouvelle Way, Speen Street & Wonderbread Spur Connectivity Improvements



## What existing challenges do non-motorists face in this area?

The Cochituate Rail Trail currently ends at the Speen St/Nouvelle Way intersection and does not connect to the shared use path across the street, along Speen St and down Nouvelle Way.



## What does this look like and what does it consist of?

Consider realigning the intersection of Speen Street/Nouvelle Way/CRT Wonderbread Spur to create more pedestrian and bike friendly crossings. Repaint all crosswalks, add curb extensions, consider adding a new crosswalk at the northern point of the intersection going east-west, consider adding pedestrian islands, and improve pedestrian signaling at all crossings. Implement a wayfinding system for the CRT/Wonderbread Spur to create a smoother transition from the Wonderbread Spur to the Natick Mall/Nouvelle Way shared use path. Improve the bicycle network by adding a NACTO- compliant diagonal bicycle lane from the Rail Trail to the Nouvelle Way trail.



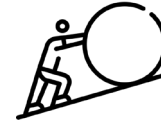
## Who will benefit from this recommendation?

This recommendation will improve the pedestrian and bicycle network in the Golden Triangle, benefitting Cochituate Rail Trail travelers, all active transportation travelers in the area, and all shoppers in the Golden Triangle



## What implementation & contextual challenges exist?

Coordination will be required to understand the impacts and changes that will occur with incoming development at the Natick Mall.



## What level of effort is required to implement this and who would be involved?

Coordination with private parcel owners, MassDOT District 3, and the Town of Natick will be required, given jurisdictional considerations of each intersecting roadway.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$  
(\$1M-\$5M)



Medium  
(1-3 yrs)

# SS.1 Nouvelle Way, Speen Street & Wonderbread Spur Connectivity Improvements

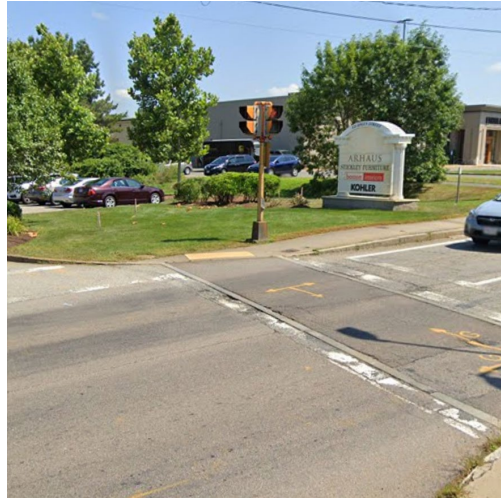
## The Existing Challenges



*The Current End of the Cochituate Rail Trail at the Speen Street and Nouvelle Way Intersection*



*The Current Start of the Shared Use Path at Nouvelle Way*



*The Current Start Conditions at the Speen St & Nouvelle Way Intersection*

## The Opportunities



*The Proposed Improvements to create a safe and pedestrian/cyclist-oriented intersection at Speen Street and Nouvelle Way.*



### What existing challenges do non-motorists face in this area?

This intersection experiences heavy vehicle and pedestrian traffic with minimal pedestrian safety infrastructure, which creates an unsafe and unwelcoming environment for active transportation travelers.



### What does this look like and what does it consist of?

Alongside the R.1 recommendations, which improve pedestrian infrastructure, create permanent "multimodal idle zones" at each intersection corner with a combination of pavement markings, planters, or curb bump outs, ADA-compliant curb ramps, and detectable warning panels. Consider exclusive pedestrian signalization for certain pedestrian movements, protect right hand turns, repaint all crosswalks, and add curb bump outs.



### Who will benefit from this recommendation?

This recommendation will improve the pedestrian network in the Golden Triangle, benefitting Cochituate Rail Trail travelers, all active transportation travelers in the area, and all shoppers in the Golden Triangle. The proposed multimodal idle zones should be dedicated and protected spaces for vulnerable users to safely wait to cross the road as well as provide a clear line of sight for users to be visible to fast-moving vehicles.



### What implementation & contextual challenges exist?


This improvement may coincide with multiple state registered hazardous waste sites and will need coordination between both communities and potentially MassDOT District 3.




### What level of effort is required to implement this and who would be involved?

Route 30 is municipally owned and managed by the City of Framingham and Town of Natick (respectively)

### What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

 High Cost (\$\$\$)

 Medium (1-3 yrs)





## The Existing Challenges



*The Current Route 30/Speen St Intersection*



## The Opportunities



*Complete Streets, City of Sacramento*



*Curb Bump Out Design, Sustainable Technologies Evaluation Program*

# The Recommendations: Multimodal Roadway Safety



A key goal of the study includes identifying opportunities to leverage existing multimodal infrastructure and assets, such as the Cochituate Rail Trail and Natick Mall shared use path. In tandem with this, it was important to recognize the existing gaps in the multimodal network, including creating north-south connections between Natick and Framingham’s neighborhoods to the Natick Mall and other commercial destinations.

| Recommendation ID | Name   | Cost                | Implementation Timeline |
|-------------------|--|---------------------|-------------------------|
| B.2               | Speen Street Bridge Multimodal Improvements  | \$\$\$<br>(>\$5M)   | Long<br>(> 3 years)     |
| B.5               | Superior Drive & Cochituate Rail Trail Connection                                  | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| R.1               | Sidewalk & Crosswalk Connections between Route 126 and Speen Street                | \$\$\$<br>(>\$5M)   | Long<br>(> 3 years)     |
| R.2               | Corridor Wide Protected Multimodal Facilities between Route 126 and Burr Street    | \$\$\$<br>(>\$5M)   | Long<br>(> 3 years)     |
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| SP.4              | Natick Mall Road Sidewalk Connections  | \$\$<br>(\$1M-\$5M) | Medium<br>(1-3 years)   |
| SP.5              | Power Line Shared Use Path   | \$\$\$<br>(>\$5M)   | Long<br>(> 3 years)     |

# B.2 Speen Street Bridge Multimodal Improvements



## What existing challenges do non-motorists face in this area?

There are limited pedestrian facilities, which are narrow and in deteriorating conditions. Cyclists on this portion of Speen Street are not protected from vehicular traffic and must ride within the ROW.



## What does this look like and what does it consist of?

Widen Speen St bridge to include a shared use path on the western side of the bridge that connects to the existing shared-used path along the Natick Mall perimeter/paralleling Speen Street and existing sidewalks on Hartford St. This will create a pedestrian/bicycle connection from Golden Triangle area to the residences south of Route 9.



## Who will benefit from this recommendation?

This recommendation will improve the pedestrian and bicycle network in the Golden Triangle, benefitting the residents living behind Sherwood Plaza, all Cochituate Rail Trail travelers, all pedestrians and cyclists in the area, and all shoppers in the Golden Triangle.



## What implementation & contextual challenges exist?

No jurisdiction, historical, or environmental challenges known. Potential challenge if bridge must be closed due to construction.



## What level of effort is required to implement this and who would be involved?

This portion of Speen Street falls under MassDOT's jurisdiction, and will therefore require coordination between District 3 and the Town of Natick.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$  
(>\$5M)



Long  
(3-5 yrs)

# B.2 Speen Street Bridge Multimodal Improvements



## The Existing Challenges



*The current sidewalk and walking conditions along the Speen St Bridge*



## The Opportunities



*Protected Shared Use Path along Whittier Bridge in Amesbury, MA (Source: MassDOT)*



*Dedicated Bicycle Lane and Protected Sidewalk along Longfellow Bridge in Boston, MA*

# B.5 Superior Drive & Cochituate Rail Trail Connection



## What existing challenges do non-motorists face in this area?

There is currently limited pedestrian infrastructure and no bicycle infrastructure along Superior Drive. There is an opportunity to connect Superior Drive to the Cochituate Rail Trail, which will improve the accessibility for active transportation travelers in the Golden Triangle.



## What does this look like and what does it consist of?

Implement sidewalks along Superior Drive and directional wayfinding signage to create a clear pedestrian connection between the Cochituate Rail Trail and the Natick Mall.



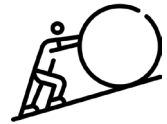
## Who will benefit from this recommendation?

This recommendation will improve the pedestrian and bicycle network in the Golden Triangle, benefitting Cochituate Rail Trail travelers, all active transportation travelers in the area, and all shoppers in the Golden Triangle.



## What implementation & contextual challenges exist?

No historical or environmental challenges known. Potential challenge if bridge must be closed due to construction.



## What level of effort is required to implement this and who would be involved?

Superior Drive within the Beetleback falls under the jurisdiction of the Town of Natick, however Superior Drive east of Speen Street northbound falls under private jurisdiction. Coordination will need to be required with the MathWorks campus to implement.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$ (\$1M-\$5M)

Medium (>1 yrs)

# B.5 Superior Drive & Cochituate Rail Trail Connection



## The Existing Challenges



## The Opportunities



*The Current Conditions along Superior Drive to the Cochituate Rail Trail*

*Pedestrian and Cyclist connection, pavement markings, and wayfinding signage*

# R.1

## Sidewalk & Crosswalk Connections between Route 126 and Speen Street



### What existing challenges do non-motorists face in this area?

The sidewalk along Route 30 is deteriorating, it disconnects at certain locations, and there are dozens of driveways, which create vehicle-pedestrian conflict points. The lack of pedestrian safety along this route creates an unwelcoming and unsafe environment for active transportation travelers.



### What does this look like and what does it consist of?

Create a strong pedestrian connection along Route 30 by repainting all crosswalks, adding pedestrian phasing at all traffic signals, upgrading all existing curb ramps, adding pedestrian crossing signage, and adding curb extensions where needed. Consider removing select driveways along Route 30 to create a more continuous sidewalk network and adding pedestrian refuge islands at all intersections.



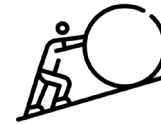
### Who will benefit from this recommendation?

This improvement benefits all pedestrian travelers along Route 30, creating a better pedestrian connection between the Natick Mall, Shoppers World Plaza, and Sherwood Plaza.



### What implementation & contextual challenges exist?

This improvement may coincide with multiple state registered hazardous waste sites.




### What level of effort is required to implement this and who would be involved?

Route 30 falls under the jurisdiction of City of Framingham in this region (until the Town Boundary of Natick at the Speen Street intersection).

### What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$  
(>\$5M)

 Long  
(>3 yrs)

# R.1

## Sidewalk & Crosswalk Connections between Route 126 and Speen Street



### The Existing Challenges



*Sidewalk along Route 30, which reflects the lack of protective barriers for vulnerable users and deteriorating conditions*



### The Opportunities



*Protected Sidewalk - Rural Design Guide/Small Town & Rural Multimodal Networks (FHWA)*



*Protected Sidewalk along Major Roadway (NYC DOT)*





### What existing challenges do non-motorists face in this area?

Route 30 currently prioritizes high-speed vehicular traffic, leaving little room for safe and accessible infrastructure for those who walk, bike, or take transit.



### What does this look like and what does it consist of?

Implement a dedicated and protected bicycle lane along the southern side of Route 30. Do this by adding attenuation barriers or flexible delineator posts to the roadway and consider adding a tree-lined street buffer. Consider making the bicycle lane a two-way shared use path.



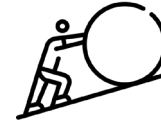
### Who will benefit from this recommendation?

This improvement benefits all pedestrians and cyclists, creating protected and dedicated multimodal facilities along this portion of Route 30.



### What implementation & contextual challenges exist?

This improvement may coincide with multiple state registered hazardous waste sites.



### What level of effort is required to implement this and who would be involved?

Route 30 falls under the jurisdiction of City of Framingham in this region.

### What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$  
(>\$5M)

 Long  
(>3 yrs)



### The Existing Challenges



*The Current Conditions of Route 30, which reflects the lack of protected and dedicated bicycle facilities*



### The Opportunities



*Two-Way Separated Bicycle Lane along Major Roadway, Street Design Manual*



*Two-Way Separated Bicycle Lane  
Boston, MA*



*Two-Way Separated Bicycle Lane  
San Francisco, CA*

# SP.1

## Corridor Wide Protected Multimodal Facilities from Caldor Road to Natick Mall Road



### What existing challenges do non-motorists face in this area?

Route 9 currently prioritizes high-speed vehicular traffic, leaving little room for safe and accessible infrastructure for those who walk, bike, or take transit. This portion of Route 9 would benefit from a connected pedestrian and bicycle network to create safe connections.



### What does this look like and what does it consist of?

Create a safer pedestrian and bicycle network along Route 9 from Caldor Rd to Natick Mall Rd by removing potholes, evening surfaces, adding directional wayfinding signage, adding curb extensions, and adding protective jersey barriers or guardrails along the sidewalk. Consider removing the existing roadway median to improve sidewalk infrastructure and to create room for a two-way separated bicycle lane with a protective buffer.



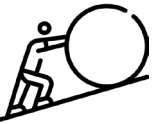
### Who will benefit from this recommendation?

This improvement will benefit all pedestrians and bicyclists in the Golden Triangle. This improvement will also benefit the new developments along Route 9, creating a more welcoming and connected network for vulnerable users.



### What implementation & contextual challenges exist?

This improvement is near a DEP Wooded Swamp and FEMA flood zone, which may require an NOI filing with local conservation commissions, depending on its limits of work.



### What level of effort is required to implement this and who would be involved?

Route 9 falls under MassDOT's jurisdiction in this area. Coordinate with DDR MDT Shopper's Works LLC, owner of parcels 1391 Worcester Street and 1459 Worcester Street to discuss opportunities to reconstruct sidewalks along this portion of Route 9.

### What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$ (>\$5M)

Calendar icon Long (>3 yrs)

# SP.1

## Corridor Wide Protected Multimodal Facilities from Caldor Road to Natick Mall Road

### The Existing Challenges



The Current Conditions Along Route 9 between Caldor Rd and Natick Mall Rd



FEMA 100-year Floodplain and Wetland Zone-1% Annual Chance Flood region (highlighted in blue) and Wetland (highlight in striped green) in Natick, MA.

### The Opportunities



Separated Bicycle Lanes for Fall River (Source:MassDOT)



Dedicated Bicycle Lane with Bicycle-crossing Intersection Treatments Albuquerque, NM

# SP.4 Natick Mall Road Sidewalk Connections



## What existing challenges do non-motorists face in this area?

The current sidewalk along Natick Mall Road between Nouvelle Way and Route 9 is deteriorating, disconnects at certain locations, and is not up to ADA standards.



## What does this look like and what does it consist of?

Build a sidewalk along the western side of Natick Mall Rd between Route 9 and the Natick Mall rotary, by implementing attenuation barriers, flexible delineator posts, and/or cones/stripping. Alongside the sidewalk, reallocate space for a shared use path with two bidirectional travel lanes from the Natick Mall Rd rotary to Natick Mall/1361 Worcester St entrance. Consider adding raised crossings at the two entries/exits from 1361 Worcester Street and removing the existing median between 1361 Worcester Street/Natick Mall entrance and Route 9 to widen the pedestrian and bicycle paths.



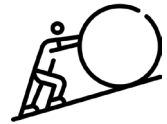
## Who will benefit from this recommendation?

This recommendation will improve the pedestrian and bicycle network in the Golden Triangle, specifically benefiting all visitors, residents, shoppers, employees, and businesses along Route 9 and Natick Mall Rd.



## What implementation & contextual challenges exist?

This improvement is near a Department of Environmental Protection (DEP) Wooded Swamp and Federal Emergency Management Agency (FEMA) flood zone, which may require an NOI filing with local conservation commissions, depending on its limits of work.



## What level of effort is required to implement this and who would be involved?

Coordinate with Federated Department Stores owner of parcel 1235 Worcester Street, to discuss opportunities for a formal sidewalk on Natick Mall Road between the Natick Mall Rotary and Route 9.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$ (\$1M-\$5M)

Medium (>1 yrs)



## The Existing Challenges



*The Current Conditions along Natick Mall Road illustrating the lack of pedestrian-oriented infrastructure, signage, lighting, and facilities.*



## The Opportunities



*Dedicated Bike Lane and Sidewalk along Roadway:  
Small Town and Rural Design Guide*



*Shared Use Path  
West Chester, Ohio*

# SP.5

## Power Line Shared Use Path



### What existing challenges do non-motorists face in this area?

Other than major roadways that prioritize vehicular modes, no formalized connection exists between Natick’s neighborhoods south of Sherwood Plaza that provides a safe, accessible, and welcoming experience for those who walk or bike.



### What does this look like and what does it consist of?

Consider implementing a formal, paved, shared-use path behind Strathmore Road where the existing powerline runs. This path would connect Mercer Rd to Hardwick Rd, Travis Rd, and Hartford St, and would be a paved path and/or boardwalk for pedestrians and bikers with adequate lighting, benches, shaded area, bike racks, and any other street furniture necessary.



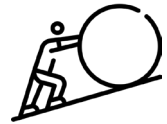
### Who will benefit from this recommendation?

This recommendation will improve the pedestrian and bicycle network in the Golden Triangle and all residents in neighborhood south of Sherwood Plaza.



### What implementation & contextual challenges exist?

This improvement is near a DEP Wooded Swamp and FEMA flood zone, which may require an NOI filing with local conservation commissions, depending on its limits of work.



### What level of effort is required to implement this and who would be involved?

Coordinate with Boston Edison Company (Doing Business As Eversource Energy), the owner of parcels at 0 Essex Road End, 111 Hartford Street, and 108 Hartford Street to discuss opportunities for utilizing open space under the existing power lines for future shared-use paths or multimodal facilities.

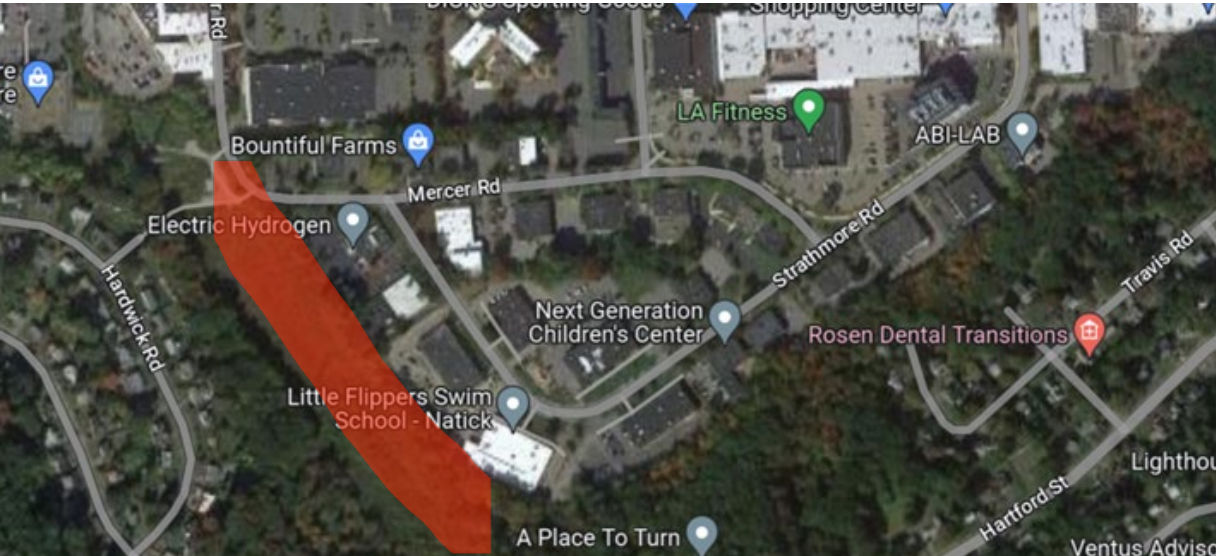
### What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$ (>\$5M)

Calendar icon Long (>3 yrs)

# SP.5 Power Line Shared Use Path

## The Existing Challenges



Current Power Line Easement between Sherwood Plaza (highlighted in red) & neighborhoods south of Sherwood Plaza



FEMA 100-year Floodplain and Wetland Zone-1% Annual Chance Flood region (highlighted in blue) and Wetland (highlight in striped green) in Natick, MA.

## The Opportunities



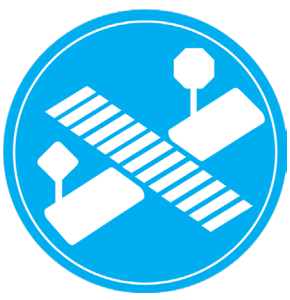
Shared Use Path/Boardwalk in Salisbury, MA



Shared Use Path/Boardwalk in Charlottesville, VA



# The Recommendations: Roadway Transformation



Most roadways in the study area prioritize vehicular travel, leaving little space for those who walk, bike, and take transit. Through the “Roadway Transformation” recommendations, key roadways including Speen Street and Superior Drive will allow for reallocation of the road to non-motorists, creating a safe, dedicated, and protected path to connect Golden Triangle neighborhoods to the commercial hubs.

| Recommendation ID | Name   | Cost             | Implementation Timeline |
|-------------------|--|------------------|-------------------------|
| B.1               | Speen Street Two-Way Conversion                                | \$ (<\$1M)       | Short (<1 year)         |
| B.7               | Superior Drive Multimodal Shared Street Conversion             | \$\$\$ (>\$5M)   | Medium (1-3 years)      |
| SP.2              | Travis Road Walking Path                                       | \$\$\$ (>\$5M)   | Long (> 3 years)        |
| SP.3              | Hardwick Road/Essex Road Walking Path                          | \$\$\$ (>\$5M)   | Long (> 3 years)        |
| SS.3              | Speen Street Shared Use Path (between Route 30 & Nouvelle Way) | \$\$\$ (>\$5M)   | Medium (1-3 years)      |
| SS.4              | Speen Street & Cochituate Rail Trail Connectivity              | \$\$ (\$1M-\$5M) | Medium (1-3 years)      |

# B.1 Speen Street Two-Way Conversion Assessment



## What existing challenges do non-motorists face in this area?

There is currently heavy traffic congestion on Speen St and Superior Dr (the Beetleback region), especially during weekday and weekend peak hours.



## What does this look like and what does it consist of?

Perform a traffic impact study to evaluate transforming Speen Street into a two-way street between Nouvelle Way and Hartford St, and the impacts it would have to vehicular circulation and traffic. If Speen Street became a two-way roadway, this would eliminate the need for the Beetleback, which could open space up for pedestrians/bicyclists. Given the impacts to vehicular circulation, potential queuing, and delay, this recommendation favors multimodal users. The preferred approach is to transition the northbound side of Speen Street to two-way, which will need to be studied in greater detail to understand the impacts to realignment with Route 9.



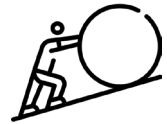
## Who will benefit from this recommendation?

This recommendation will improve the vehicular network in the Golden Triangle, creating a less circuitous vehicular experience for those driving through the area, and those wishing to reach Natick Mall or the various shopping complexes along Speen Street.



## What implementation & contextual challenges exist?

There are no environmental, historic, or jurisdictional challenges known.



## What level of effort is required to implement this and who would be involved?

Coordination with the Town of Natick, City of Framingham, and MassDOT will be required given Speen Street falls under the jurisdiction of each entity.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ (<\$1M)

Short (>1 yrs)

# B.1 Speen Street Two-Way Conversion Assessment



## The Existing Challenges



*The Current Conditions of Speen Street (One-Way Pair Network)*



## The Opportunities



*East Spring Street Two-Way Restoration, New Albany, IN*



*Greenough Boulevard in Watertown, MA*

# B.7 Superior Drive Multimodal Shared Street Conversion



## What existing challenges do non-motorists face in this area?

This area has limited to no pedestrian or bicycle infrastructure, which creates an unsafe environment for active transportation travelers.



## What does this look like and what does it consist of?

Resurface sidewalks where needed between Speen St NB and Speen St SB and repaint current crosswalk. Consider making Speen St a two-way roadway, close Superior Dr between ingress/egress on Superior Dr to 313 Speen St and the Residence Inn/Avenu to the east and Speen St NB to the west. Consider making this new roadway a raised shared street and add more street furniture like lights, benches, bicycle parking, and landscaping.



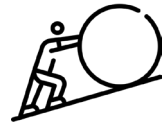
## Who will benefit from this recommendation?

This recommendation will improve the multimodal network in the Golden Triangle, benefitting Cochituate Rail Trail travelers, all active transportation travelers in the area, and all shoppers in the Golden Triangle. This “calm” street will provide a safe walking and recreational space for Avenu residents and hotel-goers.



## What implementation & contextual challenges exist?

This improvement may coincide with URAM Area 76, as a State Listed Hazardous Waste Release Site.



## What level of effort is required to implement this and who would be involved?

This segment of Superior Drive falls under the jurisdiction of the Town of Natick. Coordination with MassDOT should be considered as these portions of Speen Street northbound and southbound fall under MassDOT's jurisdiction.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$ (>\$5M)

Medium (>1 yrs)

# B.7 Superior Drive Multimodal Shared Street Conversion

## ! The Existing Challenges



The Current Conditions of Superior Drive

## 🏆 The Opportunities



Shared Street on Washington Street, Boston, MA



Shared Street – The CityFix Learn



### What existing challenges do non-motorists face in this area?

Although this is a clear, desired walking path for residents, no formal pedestrian/bicycle connection exists between the neighborhood behind Travis Road and Sherwood Plaza.



### What does this look like and what does it consist of?

Create a shared use path connecting Travis Road to Strathmore Road. Build a wooden or concrete boardwalk connecting the end of Travis Rd to the back of Sherwood Plaza on Strathmore Rd. Add adequate lighting and directional wayfinding signage to indicate the connection to Sherwood Plaza and the rest of the Golden Triangle along the shared used path.



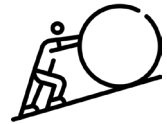
### Who will benefit from this recommendation?

This improvement benefits the families and residents living behind Sherwood Plaza and all other active transportation travelers in the Golden Triangle.



### What implementation & contextual challenges exist?

As a portion of this improvement is within a FEMA 100-year floodplain, implementing a wooden boardwalk/concrete/asphalt shared use path from the end of Travis Road to Strathmore Road would require an NOI with local conservation commissions.



### What level of effort is required to implement this and who would be involved?

This will require coordination with United Reis Home INC, owner of parcel 0 Travis Road, Sunshine Technologies Holding Corp, owner of 21 Strathmore Road, and H&S Partners LLC, owner of parcel 19 Strathmore Road.

### What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$ (>\$5M)

Calendar icon Long (>3 yrs)



### The Existing Challenges



*The Existing Connection between Travis Road and Sherwood Plaza*



*FEMA 100-year Floodplain and Wetland Zone—1% Annual Chance Flood region (highlighted in blue) and Wetland (highlight in striped green) in Natick, MA.*



### The Opportunities



*Boardwalk- Marshfield, MA*



*Shared Use Path - West Chester, Ohio*



*Shared Used Path - Redding, CT*

# SP.3

## Hardwick Road/Essex Road Walking Path



### What existing challenges do non-motorists face in this area?

Although this is a clear, desired walking path for residents, no formal pedestrian/bicycle connection exists between the neighborhood behind Hardwick/Essex Road and Sherwood Plaza.



### What does this look like and what does it consist of?

Create a shared use path connecting Hardwick Road to Mercer Road. Build a wooden or concrete boardwalk connecting Hardwick Rd to Mercer Rd. Add adequate lighting and directional wayfinding to indicate the connection to Sherwood Plaza and the rest of the Golden Triangle along the shared used path.



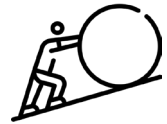
### Who will benefit from this recommendation?

This improvement benefits neighborhood residents adjacent to Sherwood Plaza and all other active transportation travelers in the Golden Triangle wishing to access Sherwood Plaza from the south of Natick.



### What implementation & contextual challenges exist?

As this improvement is within a FEMA 100-year floodplain, implementing a wooden boardwalk/concrete/asphalt shared use path from the end of Hardwick/Essex Road to Mercer Road would require an NOI filing with local conservation commissions.



### What level of effort is required to implement this and who would be involved?

Coordinate with Boston Edison Company (Doing Business As Eversource Energy), owner of parcel 0 Essex Road, Sun Life Assurance Company of Canada, owner of parcel 1394 Worcester Street, and Richard M Wyman, owner of 0 Worcester Street, to discuss opportunities for formal connection between Hardwick Road, Essex Road, and Mercer Road.

### What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$ (>\$5M)

Calendar icon Long (>3 yrs)



# SP.3

## Hardwick Road/Essex Road Walking Path



### The Existing Challenges



*The Existing Connection between Hardwick/Essex Road and Sherwood Plaza*



### The Opportunities



*Shared Use Boardwalk*



*Shared Use Boardwalk/Path in wooded area*



*FEMA 100-year Floodplain and Wetland Zone—1% Annual Chance Flood region (highlighted in blue) and Wetland (highlighted in striped green) in Natick, MA.*

# SS.3 Speen Street Shared Use Path (Between Route 30 & Nouvelle Way)



## What existing challenges do non-motorists face in this area?

There is currently no dedicated bicycle lane along Speen Street between Route 30 and Nouvelle Way. The current sidewalk in this area is disconnected and lacks safe barriers between vulnerable users and high-speed vehicles traveling on Speen Street.



## What does this look like and what does it consist of?

Reallocate right-of-way (ROW) on the western side of Speen Street between Route 30 and Nouvelle Way to create a pedestrian and bike path. Remove the existing green space median (or shift further to the east, removing one to two travel/left turn lanes) and allocate 10' for the shared-use path and up to 3' for an adequate buffer.



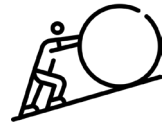
## Who will benefit from this recommendation?

This recommendation will improve the pedestrian network in the Golden Triangle, benefitting Cochituate Rail Trail travelers, all active transportation travelers in the area, and all shoppers in the Golden Triangle.



## What implementation & contextual challenges exist?

This improvement is within or near a FEMA 100-year floodplain and DEP wooded swamp (wetland), which may require an NOI filing with local conservation commissions, depending on its limits of work.



## What level of effort is required to implement this and who would be involved?

This segment of Speen Street is municipally owned by the City of Framingham and Town of Natick.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$ (>\$5M)

Medium (>1 yrs)

# SS.3 Speen Street Shared Use Path (Between Route 30 & Nouvelle Way)

## The Existing Challenges



The Current Conditions of Speen Street between Route 30 and Nouvelle Way



Speen Street North near FEMA National Flood Hazard and Wetland Region

## The Opportunities



Protected Bicycle Lanes (Protected) & Sidewalk - Marlin Engineering



Protected Shared Use Path - Street Design Manual

# SS.4 Speen Street & Cochituate Rail Trail Connectivity



## What existing challenges do non-motorists face in this area?

There is currently no connection between the Cochituate Rail Trail and Speen Street between Route 30 and the Wonderbread Spur.



## What does this look like and what does it consist of?

Create a bike and ped connection by improving the visibility of the Chrysler Rd connection to the Cochituate Rail Trail (CRT), through wayfinding signage at the Speen St/Chrysler Rd intersection, lighting, and a shared use path. Consider land acquisition to establish a formal east-west connection to the CRT between Chrysler Rd and Route 30, like the Wonderbread Spur.



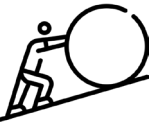
## Who will benefit from this recommendation?

Active transportation travelers will benefit from this recommendation. The pedestrian and bicycle network in the Golden Triangle will improve, creating a more welcoming and safer environment for vulnerable users.



## What implementation & contextual challenges exist?

This improvement is within or near a FEMA 100-year floodplain and DEP wooded swamp (wetland), which may require an NOI filing with local conservation commissions, depending on its limits of work.




## What level of effort is required to implement this and who would be involved?

Coordination with landowners of the Home Depot as well as the Commonwealth of Mass Department of Natural Resources will be required to extend and connect the existing CRT trail to the shared use path.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

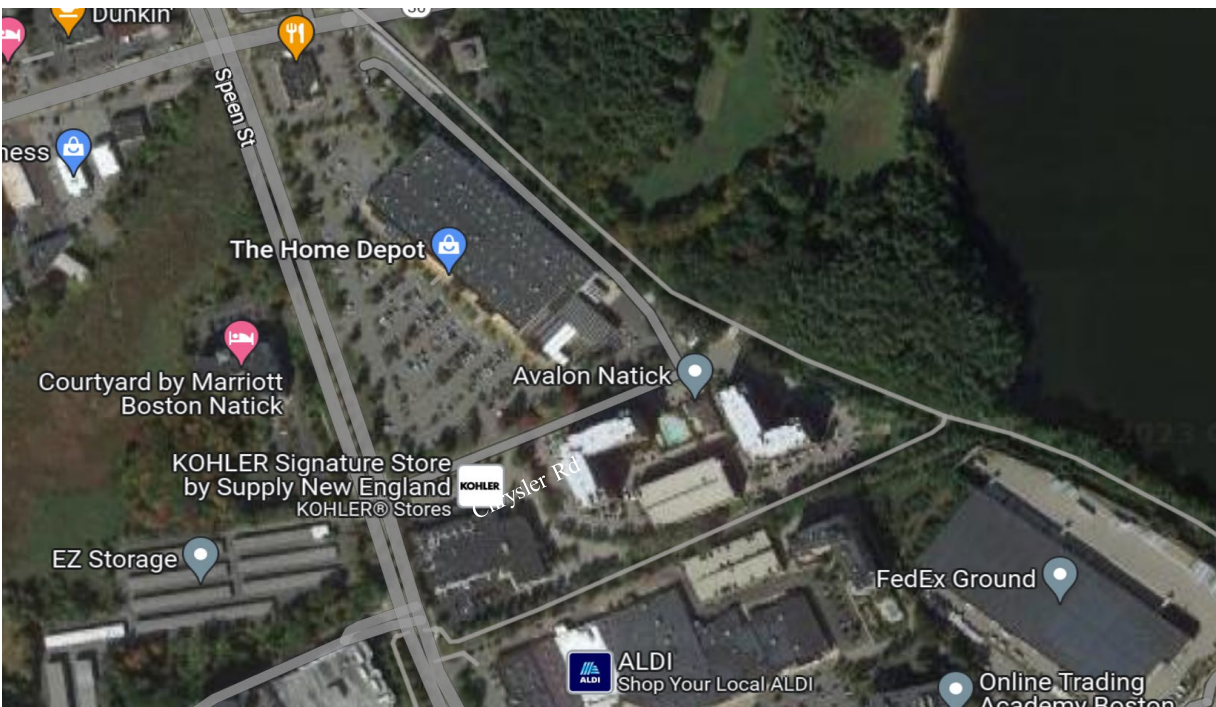
\$ \$\$ (\$1M-\$5M)

 Medium (1-3 yrs)

# SS.4

# Speen Street & Cochituate Rail Trail Connectivity

## The Existing Challenges



The Current landscape of Home Depot and the Cochituate Rail Trail (highlight in red)



FEMA 100-year Floodplain and Wetland Zone-1% Annual Chance Flood region (highlighted in blue) and Wetland (highlight in striped green) in Natick, MA.

## The Opportunities



Northern Strand Community Trail in Everett, MA



Connecticut Riverwalk and Bikeway in Chicopee, MA

# The Recommendations: User Experience



The study proposes a set of recommendations that will create a vision for a welcoming and inclusive environment for those who walk, bike, and take transit within and around the Golden Triangle. This improvement category encompasses a range of solutions, including establishing a wayfinding system across the Golden Triangle, developing a north-south multimodal corridor on Shoppers World Drive, and creating a calm street network at Sherwood Plaza.

| Recommendation ID | Name   | Cost             | Implementation Timeline |
|-------------------|--|------------------|-------------------------|
| G.3               | Golden Triangle Wayfinding Assessment  | \$ (<\$1M)       | Short (<1 year)         |
| SP.6              | Mercer Road, Strathmore Road, & Dean Road Multimodal Connectivity Improvements | \$\$ (\$1M-\$5M) | Medium (1-3 years)      |
| SW.1              | Shopper's World Multimodal Network & Amenities                                 | \$\$\$ (>\$5M)   | Long (> 3 years)        |
| SW.2              | Flutie Pass Park & Ride, Mid-Block Crossing, & Sidewalk/Improvements           | \$\$ (\$1M-\$5M) | Medium (1-3 years)      |
| SW.3              | Ring Road Shared Use Path  | \$\$\$ (>\$5M)   | Long (> 3 years)        |

# G.3 Golden Triangle Wayfinding Assessment



## What existing challenges do non-motorists face in this area?

There is currently limited to no wayfinding signage for active transportation and vehicular travelers throughout the Golden Triangle.



## What does this look like and what does it consist of?

Create a streamlined transportation (multimodal, vehicular, and parking) wayfinding system throughout the Golden Triangle to intercept vehicles and direct multimodal users to key assets and destinations. Assess all existing wayfinding signage in the study area/Golden Triangle, document responsible entities to replace/upgrade the relevant wayfinding asset (if necessary), and document relevant implementation steps.



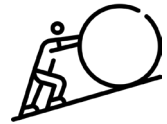
## Who will benefit from this recommendation?

This improvement benefits all active transportation and vehicular travelers in the Golden Triangle.



## What implementation & contextual challenges exist?

There is opportunity to prioritize this assessment and implement a wayfinding/directional signage network in the Golden Triangle to create a concise branding system for this area as development continues to grow.



## What level of effort is required to implement this and who would be involved?

Low effort - planning-level study based on jurisdiction

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ (<\$1M)

Short (< 1 yr)

# G.2 Golden Triangle Wayfinding Assessment

## The Existing Challenges



The Current Conditions at the Natick Mall Entrance along Speen St- Missing Wayfinding Signage



Missing Wayfinding Signage at the Entrance/Exit of Shoppers World Plaza

## The Opportunities



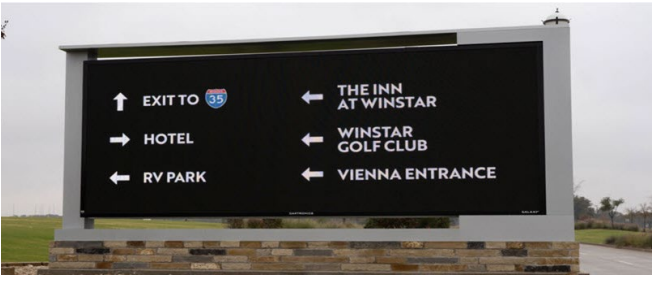
Wayfinding Signage  
City of Milwaukee



Wayfinding Signage  
RSM Design



Wayfinding Signage  
Fitzpatrick Woolmer



Wayfinding Signage  
Comet Signs



# SP.6 Mercer Road, Strathmore Rd, & Dean Rd Multimodal Accessibility Improvements



## What existing challenges do non-motorists face in this area?

The pedestrian and bicycle infrastructure behind and within Sherwood Plaza is discontinuous and inaccessible. There are no dedicated bicycle facilities and sidewalks are limited.



## What does this look like and what does it consist of?

Repaint all crosswalks at the intersection corners at Strathmore Rd and the paths between Hardwick/Essex Rd. Implement curb extensions at each crossing and add sidewalks along the southern part of Mercer Rd and Strathmore Rd. Implement pedestrian signage at all crossings. Consider making the new sidewalk into a shared use path to create a strong multimodal connection. Create a pedestrian and bicycle connection between Dean Rd and Mercer Rd by building a sidewalk on the western side of Dean Rd. Add directional signage and pavement markings for cyclists.



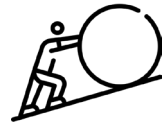
## Who will benefit from this recommendation?

This recommendation will upgrade the pedestrian and bicycle network in the Golden Triangle, greatly improving the multimodal experience moving through Sherwood Plaza and adjacent neighborhoods to reach other destinations across Route 9.



## What implementation & contextual challenges exist?

This improvement is near a DEP Wooded Swamp and FEMA flood zone, which may require an NOI filing with local conservation commissions, depending on its limits of work.



## What level of effort is required to implement this and who would be involved?

Mercer Rd, Strathmore Rd, & Dean Rd are owned by the Town of Natick. All entities along these roadways are privately owned.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$ (\$1M-\$5M)

Medium (1-3 yrs)

# SP.6 Mercer Road, Strathmore Rd, & Dean Rd Multimodal Accessibility Improvements

## The Existing Challenges



The Current Conditions along Mercer Road - No sidewalk or bikeway

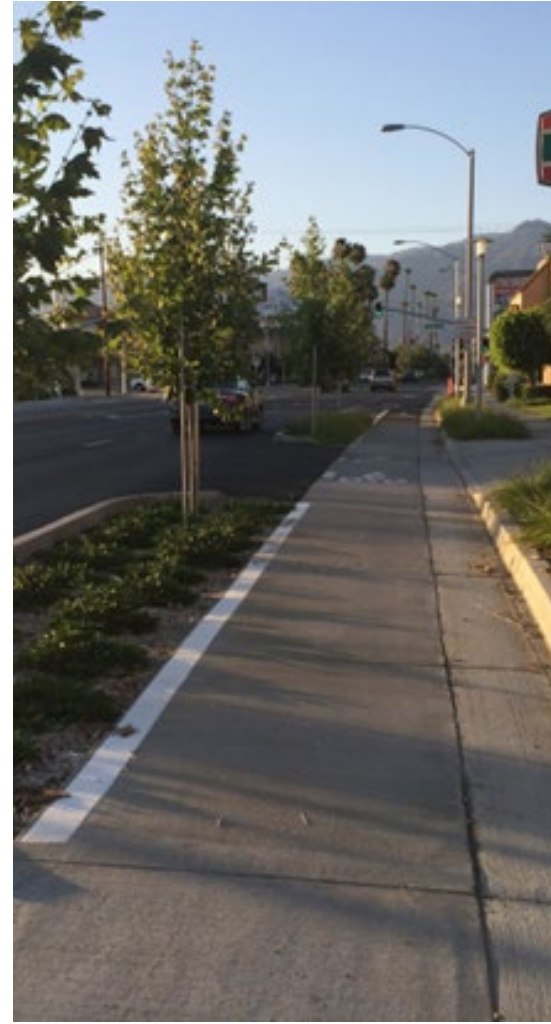


FEMA 100-year Floodplain and Wetland Zone-1% Annual Chance Flood region (highlighted in blue) and Wetland (highlight in striped green) in Natick, MA.

## The Opportunities



Protected Bike Lane and Sidewalk  
MassDOT



Protected Sidewalk along Roadway



Protected Bike Lane and Sidewalk  
Rural Design Guide

# SW.1 Shopper's World Multimodal Network & Amenities



## What existing challenges do non-motorists face in this area?

The current pedestrian infrastructure along Shopper's World Drive is discontinuous, deteriorating, and does not promote a welcoming safe environment for walkers.



## What does this look like and what does it consist of?

Add streetscape amenities at all entrances to Shopper's World. Improve the pedestrian network by building a sidewalk along Shoppers World Dr and add curb extensions at all intersections along the roadway. Repaint all crosswalks along Shopper's World Dr and add pedestrian signage. Consider adding a new north-south crossing and one east-west crossing at the Flutie Pass and Shopper's World Dr intersection. Integrate new pedestrian phasing within existing traffic signals at the new crossings and withing the existing signalized intersection. Consider raising intersections and crosswalks to increase pedestrian safety. If possible, add pedestrian refuge islands at all intersections.



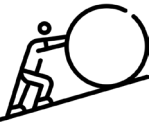
## Who will benefit from this recommendation?

This recommendation will improve the pedestrian network in the Golden Triangle, especially those traveling to Shopper's World and residents in the area.



## What implementation & contextual challenges exist?

This improvement is near a DEP Wooded Swamp, FEMA flood zone, and registered Vernal Pool, which may require an NOI filing with local conservation commissions, depending on its limits of work.



## What level of effort is required to implement this and who would be involved?

Communication with DDR MDT Shopper's World LLC, owner of parcel 1 Worcester Road and 19 Flutie Pass will be required.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$  
(>\$5M)

Calendar icon Long  
(>3 yrs)

# SW.1 Shoppers World Multimodal Network & Amenities



## The Existing Challenges



Existing Conditions along Shoppers World Drive



## The Opportunities



The Proposed Shared Use along Shoppers World Drive connecting Route 30 to Route 9, and creating a protected and dedicated bicycle and pedestrian facility which does not exist today.

# SW.2 Flutie Pass Park & Ride, Mid-Block Crossing, & Sidewalk Improvements



## What existing challenges do non-motorists face in this area?

The current pedestrian and bicycle infrastructure along Flutie Pass is discontinuous and uninviting for those connecting to Shoppers World from Natick Mall, and does not promote a welcoming and safe environment for walkers.



## What does this look like and what does it consist of?

Create a strong pedestrian connection by adding sidewalks along the northern side of Flutie Pass between Shopper's World Dr and the Natick Mall Rotary. Consider adding new sidewalks along the southern side of Flutie Pass. Also consider raising the at-grade shared use path to a two-way raised shared use path between Shopper's World Dr and Natick Mall rotary. Improve the Flutie Pass Park & Ride by adding new benches and signage, repainting crosswalks, installing pedestrian exclusive signal phasing at the intersection, adding a blue light emergency button, and improving the transit stop shelter and seating.



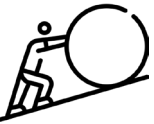
## Who will benefit from this recommendation?

This recommendation will create a safe and accessible connection for vulnerable users who desire to travel from the Natick Mall to Shoppers World, as well as those would like to utilize the Flutie Pass Park and Ride and safely access the Logan Express depot.



## What implementation & contextual challenges exist?

This improvement FEMA flood zone and registered Vernal Pool (located near the northern side of Flutie Pass at the Shoppers World Drive intersection), which may require an NOI filing with local conservation commissions, depending on its limits of work.



## What level of effort is required to implement this and who would be involved?

Communication and coordination with DDR MDT Shopper's World LLC, owner of 19 Flutie Pass will be required.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$ (\$1M-\$5M)

Medium (1-3 yrs)

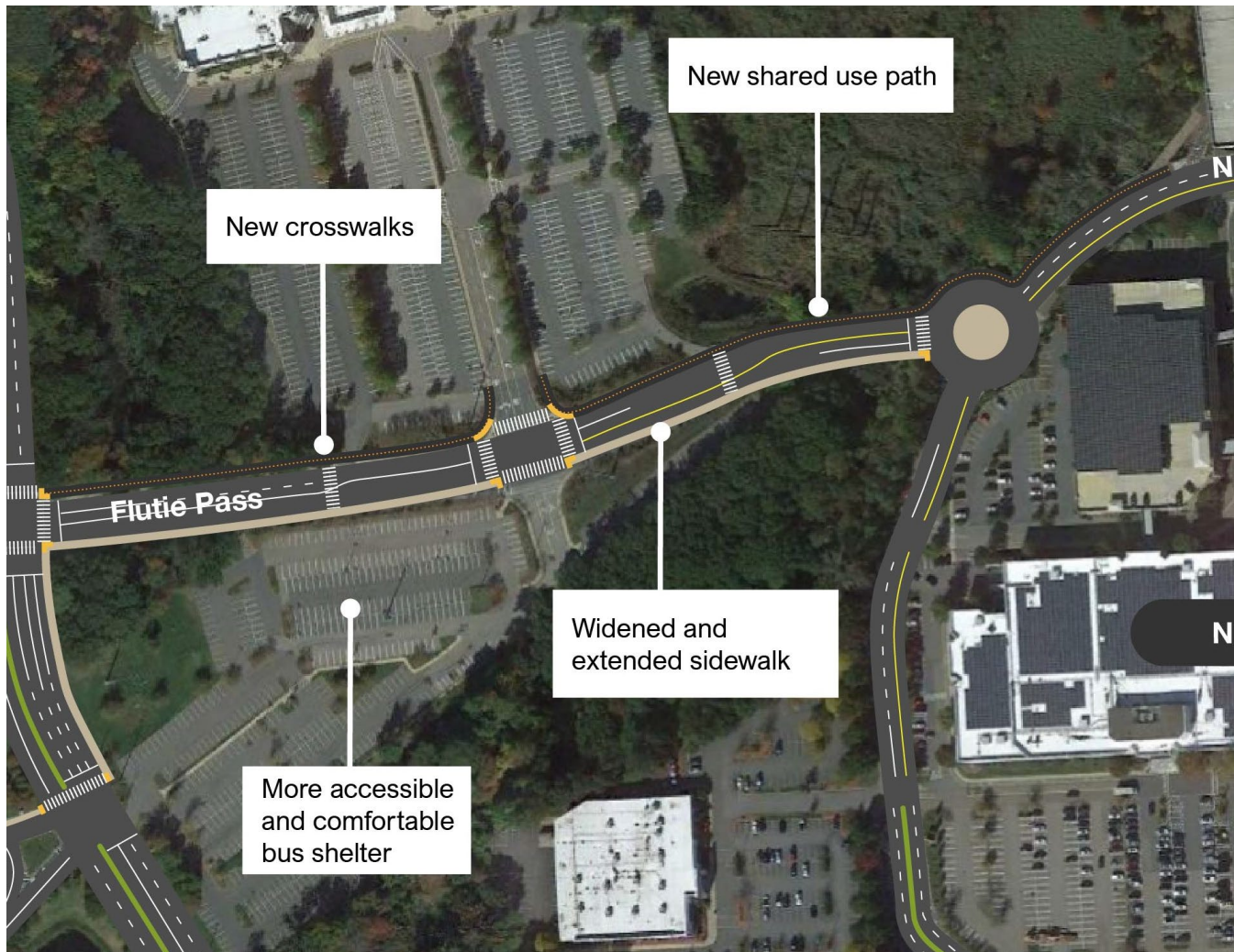
# SW.2 Flutie Pass Park & Ride, Mid-Block Crossing, & Sidewalk Improvements

## The Existing Challenges



Existing Conditions At the Shoppers World Dr and Flutie Pass Intersection

## The Opportunities



The Proposed multimodal improvements to Flutie Pass include a new sidewalk, crosswalks, and a shared use path

# SW.3 Ring Road Shared Use Path



## What existing challenges do non-motorists face in this area?

There are currently no strong bicycle and pedestrian connections or sufficient multimodal infrastructure between Shoppers World Drive, The Chesterfield Apartments, and Natick Mall.



## What does this look like and what does it consist of?

Create a strong east-west connection for cyclists and pedestrians by building a shared use path on Ring Rd between both Shoppers World Drives. Consider connecting this path to Caldor Rd and terminating it at the Chesterfield Apartments.



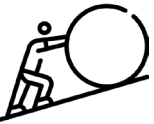
## Who will benefit from this recommendation?

This recommendation will improve the multimodal network in the Golden Triangle, benefitting all residents and shoppers visiting Shoppers World and the rest of the Golden Triangle.



## What implementation & contextual challenges exist?

This improvement is near a DEP Wooded Swamp and FEMA flood zone, which may require an NOI filing with local conservation commissions, depending on its limits of work.



## What level of effort is required to implement this and who would be involved?

Coordination with DDR MDT Shoppers World LLC (parcel owner) will be required.

## What is the cost of the large-scale/long-term recommendation and what is the implementation timeline?

\$ \$\$\$ (>\$5M)

Calendar icon Long (>3 yrs)

# SW.3 Ring Road Shared Use Path



## The Existing Challenges



*The Current Sidewalk Infrastructure around Shoppers World Plaza (highlighted in red)*



*Shoppers World Plaza near FEMA floodplain (blue/green hatching)*



## The Opportunities



*The Proposed Shared Use Path connecting the Chesterfield Apartments to Shoppers World Drive and Flutie Pass*





# TECHNICAL APPENDICES





# Technical Appendices

## A.1 Recommendation Matrix

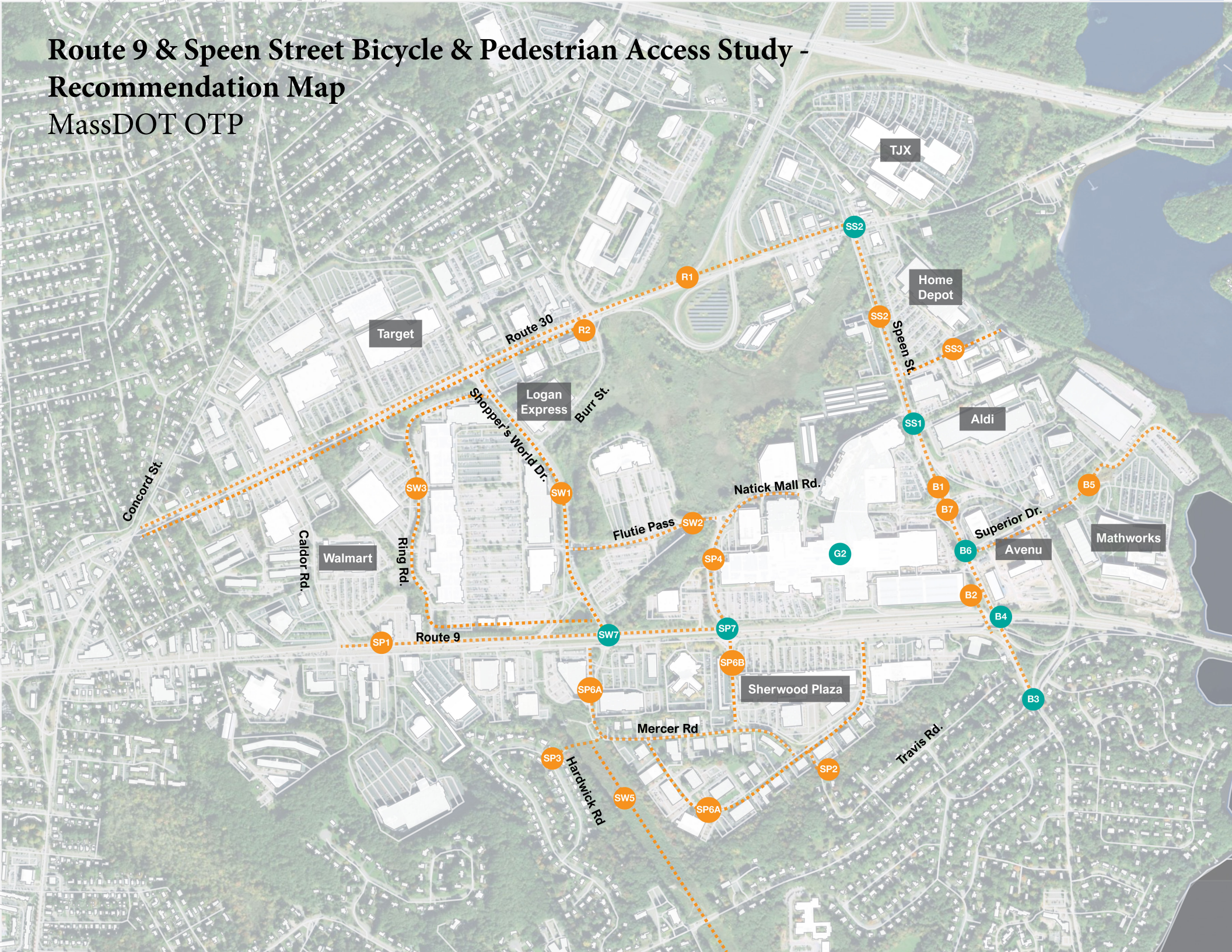
| Recommendation Type                 | Recommendation Name  | Recommendation ID | Short-Term Implementation Plan  | Medium-Term Implementation Plan  | Long-Term Implementation Plan  | Environmental and Permitting Considerations  |
|-------------------------------------|--|-------------------|---|--|--|--|
| Intersection Accessibility & Safety | Golden Triangle Pedestrian Signal Assessment                                       | G.2               | Short-Term Implementation Plan  | Medium-Term Implementation Plan  | Long-Term Implementation Plan  | Environmental and Permitting Considerations  |
| Intersection Accessibility & Safety | Routes 9 & Dean Road & Natick Mill Road Intersection Improvements                  | SP.7              | Repair all existing crosswalks (preferably with 10' wide painted continental crosswalk striping) and add new north-south crossing at the western side of the intersection of Route 9/Natick Mill Road/Dean Road. Ensure all signals have included a pedestrian cycle, and consider exclusive pedestrian signalization. Add pedestrian lighting at all crosswalks as well as blue light emergency buttons for pedestrians and bicyclists (all blue light infrastructure would be at the responsibility of the Town/TC).  | Building upon the short-term improvements, add a pedestrian island at both north-south crossings (assuming new north-south crossing on the eastern side) with appropriate pedestrian cycle integration, curb ramp, and detectable warning panel.   | Building upon the medium-term improvements, remove the right hand turn lanes on Natick Mill Road (going westbound on Route 9) and Dean Road (going eastbound on Route 9), and implement permanent ADA-compliant crosswalks at all intersection crossings, with ADA-compliant curb ramps and detectable warning panels. Note that removing the right turn lanes would require further analysis, and if determined to be infeasible, signalizing the existing right turns and ensuring that the angle is more than 60 degrees might be a sufficient solution.  |  |
| Intersection Accessibility & Safety | Novelle Way, Speen Street, & Woodhead Spur Connectivity Improvements               | SS.1              | Engage with the Team Speen LLC, parcel owner of 329 Speen Street and Fred Roberts II, parcel owner of 40 Novelle Way (formerly Natick Mill) to discuss opportunities for realigning the intersection of Speen Street, Woodhead Spur, and the CRT. Use Woodhead Spur to create a more pedestrian and bicycle-friendly crossing. In the meantime, at this intersection, repair all three crosswalks (preferably with 10' wide painted continental crosswalk striping) and add temporary painted curb extensions (painted or striped gap) at Novelle Way portion of the intersection.  | Add a new crosswalk at the northern part of the Novelle Way/Speen Street intersection going east-west (preferably with 10' wide painted continental crosswalk striping), and add ADA-compliant curb ramps, detectable warning panels, and MUTCD pedestrian signage and grade. Add a pedestrian refuge island at the new northern crossing, with appropriate pedestrian signage, signals, and accessible detectable panels. Improve landscaping at the existing pedestrian refuge island and add detectable warning panels at this the Novelle Way/Speen Street/CRT intersection. Add directional and wayfinding signage for the CRT/Woodhead Spur, and add a NACTO-compliant diagonal bicycle lane from the Rail Trail to the Novelle Way trail.   | Consider total intersection realignment, particularly to straighten the southern crossing from the Natick Mill/Novelle Way to the Woodhead Spur. Consider making pedestrian signalization at the entire intersection exclusive to prioritize multimodal crossings, and narrow crosswalks by creating permanent curb extensions at all four crossings (assuming new crossing implemented at northern point from Novelle Way to 329 Speen Street). Assuming short-term recommendations are implemented, create a smoother transition from Woodhead Spur to the eastern sidewalk on Speen Street at 329 Speen Street by utilizing green space and widening existing path.   |  |
| Intersection Accessibility & Safety | Route 30 & Speen Street Intersection Realignment                                   | SS.2              | Engage with landowners of all four corners of the intersection to discuss opportunities to pilot a program to utilize private land for multimodal use zones.  | N/A (See recommendation R.1 for crossing/crosswalk improvements)   | Create permanent "multimodal use zones" at each intersection corner (which will require land takings) with ADA-compliant curb ramp and detectable warning panels. Consider exclusive pedestrian signalization for certain pedestrian movements.  | This improvement may coincide with URAM Areas 40, 41, 42, and 43 as shown in Figure 1 (in the appendix) and the table under State Listed Hazardous Waste Release Sites   |
| Intersection Accessibility & Safety | Speen Street & Hartford Street Intersection Improvements                           | R.3               | Repair all existing crosswalks at the Hartford Street/Speen Street Route 9 IIR on ramp intersection (preferably with 10' wide painted continental crosswalk striping) and paint curb extensions using striped gore markings-point and flexible delineator posts at the corner of 262 Speen Street. Consider exclusive pedestrian signalization at this intersection, to improve safety for all pedestrians.   | Building upon the short-term improvements and assuming the implementation of an exclusive pedestrian signalization phase, add a new east-west crossing on the northern side of the intersection crossing Speen Street and to the existing eastern sidewalk on Speen Street Northbound. Add a pedestrian refuge island with pedestrian phasing at the existing traffic signals and ADA-compliant curb ramps and detectable warning panels.  | Building upon the medium-term improvements, close off the Speen Street SH slip lane RT (heading W on Hartford Street) at the intersection, making one of the Speen Street SH travel lanes a T-bar RT lane. Add striped gore markings to transition this change, starting directly after the Speen Street Fire Department entrance. Use the closed slip lane to add a large, permanent curb extension, with appropriate pedestrian signalization, ADA-compliant curb ramps and detectable warning panels, and potential landscaping.  |  |
| Intersection Accessibility & Safety | Speen Street & Route 9 Formal Intersection   | R.4               | N/A   | Create a perpendicular intersection on Speen Street SB at the on ramp to Route 9 access road and create a formal crossing (with 10' wide painted continental crosswalk striping) connecting the Natick Mill shared-use path to the Speen Street Bridge. Remove the existing jersey barrier from the shared use path to the new crossing. Widen existing sidewalk leading to the Speen Street bridge. Add rectangular rigid railing barriers and appropriate pedestrian warning signage ("Yield Here to Pedestrians" - MUTCD R1-5R1-5A - or W11-2 signage).   | Building upon the medium-term improvements, continue the crossing to the eastern side of Speen Street (abutting the Residence Inn) and create a sidewalk connecting to Superior Drive, allocating 5' for the walking path and a 3' adequate buffer, which permits two larger travel lanes.   |  |
| Intersection Accessibility & Safety | Superior Drive & Speen Street Southbound Pedestrian Accessibility Improvement      | R.6               | N/A   | Add one new east-west crossing at Superior Drive and Speen Street SB (connecting the existing sidewalks at 313 Speen Street to 1235 Worcester Road) with 10' wide continental crosswalk markings. Add pedestrian HAWK signals and new ADA-compliant curb ramps and detectable warning panels at all intersection points new crossings. Add permanent curb extensions at the Superior Drive crossings (at the corners of the Residence Inn and 313 Speen Street and the new cross on the western side of Speen Street).   | N/A  |  |
| Multimodal Roadway Safety           | Sidewalk & Crosswalk Connections between Route 126 and Speen Street                | R.1               | Repair all existing crosswalks, preferably with 10' wide painted continental crosswalk striping, plus "Yield Here to Pedestrians" program and select driveway access along Route 30, by adding continental crosswalk striping and temporary "Yield to Pedestrian" signage. At all existing crosswalks and 4-way intersections, add temporary curb extensions using painted/striped gore and flexible delineator posts. Incomplete intersections include Route 30 and Route 126 (north-south crossing on the eastern side), Route 30 and Calder Road (north-south crossing on the eastern side), Route 30 and Ring Road/Shopper's World Way (north-south crossing on the western side), Route 30 and Whittier Street (north-south crossing on the eastern side), all crossings on Route 30 (north and south) and Speen Street (north-south crossing on the eastern side and east-west crossing on the northern side).  | Fill in the existing sidewalk gaps along Route 30 between Route 126 and Speen Street. Add pedestrian phasing at all traffic signals at all intersections if currently missing and upgrade all existing (or missing) curb ramps and detectable panels to bring up to the short-term pilot program, add raised, continental crosswalk striping and pedestrian signage "Yield Here to Pedestrians" (MUTCD R1-5R1-5A) - Make all temporary curb extensions permanent, adding ADA-compliant curb ramps and detectable warning panels. Incomplete intersections include Route 30 and Route 126 (north-south crossing on the eastern side), Route 30 and Calder Road (north-south crossing on the eastern side), Route 30 and Ring Road/Shopper's World Way (north-south crossing on the western side), Route 30 and Whittier Street (north-south crossing on the eastern side), all crossings on Route 30 and Burt Street, and Route 30 and Speen Street (north-south crossing on the eastern side and east-west crossing on the northern side). | In addition to the medium-term improvements, complete 4-way intersections by adding new crossings and sidewalks where currently missing, including 10' wide continental crosswalk striping and ADA-compliant curb ramps and detectable panels. Incomplete intersections include Route 30 and Route 126 (north-south crossing on the eastern side), Route 30 and Calder Road (north-south crossing on the eastern side), Route 30 and Whittier Street (north-south crossing on the eastern side), all crossings on Route 30 and Burt Street, and Route 30 and Speen Street (north-south crossing on the eastern side and east-west crossing on the northern side). Note that these improvements/recommendations will require land takings at certain locations.   | This improvement may coincide with URAM as shown in Figure 1 (in the appendix) and the table under State Listed Hazardous Waste Release Sites  |
| Multimodal Roadway Safety           | Corridor-wide Protected Multimodal Facilities between Route 126 and Burt Street    | R.2               | Pilot a two-way shared-use path on the southern side of Route 126 between Route 136 and Burt Street, using attention barriers or flexible delineator posts. The cycle track should accommodate a width of 12' (6' each bi-directional cycle-walking lane and 2' for an adequate buffer). All travel lanes within this segment of Route 30 should be restriped to accommodate the cycle track. Upon the decision to pilot this cycle track, a more detailed design will need to be developed to understand travel lane impacts given the changing ROW widths within this segment of Route 30.  | Create a two-way shared-use path on the southern side of Route 30 between Route 126 and Burt Street with a minimum buffer along the street edge (full width: 2' buffer + 5' for each bi-directional lane + 12' width). Upon the decision to implement this cycle track, a more detailed design will need to be developed to understand travel lane impacts given the changing ROW widths within this segment of Route 30.  | Create a two-way shared-use path on the southern side of Route 30 between Route 126 and Burt Street with a tree-lined street buffer (full width: 6' tree lawn + 5' for each bi-directional lane + 16' width). In the decision to implement this cycle track, a more detailed design will need to be developed to understand travel lane impacts given the changing ROW widths within this segment of Route 30.   | These improvements may coincide with URAM Areas 98 and 117 as shown in Figure 1 (in the appendix) and the table under State Listed Hazardous Waste Release Sites   |
| Multimodal Roadway Safety           | Corridor-wide Protected Multimodal Facilities from Calder Road to Natick Mill Road | SP.1              | Reconstruct all sidewalks along the northern side of Route 9 from Calder Road to Natick Mill Road by removing potholes, evening surfaces, adding directional wayfinding signage, and curb extensions and flexible delineator posts. Incomplete intersections include Route 30 and Route 126 (north-south crossing on the eastern side), Route 30 and Calder Road (north-south crossing on the eastern side), Route 30 and Ring Road/Shopper's World Way (north-south crossing on the western side), Route 30 and Whittier Street (north-south crossing on the eastern side), all crossings on Route 30 (north and south) and Speen Street (north-south crossing on the eastern side and east-west crossing on the northern side).   | Building upon the short-term improvements, remove the existing median to expand and improve the sidewalk facilities to create more room for pedestrian bicycles and a larger buffer zone between Route 9 and pedestrians/bicyclists, widening along Route 9.   | Assuming the removal of the median, pilot a two-way cycle track on the northern side of Route 9 between Calder Road and the Natick Mill Road (to connect the existing Natick Mill shared-use path) using attention barriers or flexible delineator posts. The cycle track should accommodate a width of 10-12' for an adequate buffer. This should leave a minimum of 28' at the northern part of the WB northern side of Route 9 for multiple travel lanes. All travel lanes within this segment of Route 9 should be restriped to accommodate the cycle track. Upon the decision to pilot this cycle track, a more detailed design will need to be developed to understand travel lane impacts given the changing ROW widths within this segment of Route 9. The implementation of these improvements will be impacted by the proposed incoming development north of Route 9. The incoming development will (and should) support the opportunity to transform the Route 9 corridor.  | Depending on the limits of work, this improvement may fall within a MA Wetland Protection Act (WPA) jurisdictional area, due to its proximity to a "Bordering Land Subject to Flooding" wetland resource area (i.e., FEMA 100-year floodplain) in the area north of the intersection of Shopper's World Drive and Route 9. In this case, a Notice of Intent (NOI) filing with the local conservation commission would be required. This statement implies that work would take place on private property. Parcel owner(s) would need to sign the NOI if a filing with the local conservation commission is required.   |
| Multimodal Roadway Safety           | Natick Mill Road Sidewalk Connection   | SP.4              | Pilot temporary sidewalks in the ROW on the western side of Natick Mill Road between the Natick Mill Rotary and Route 9 by implementing attention barriers, flexible delineator posts, cones, or striping. Realocate 7' for the walking biking area, and 3' for adequate buffer, realocating 25' for two bi-directional travel lanes from the Rotary to the Natick Mill Rd. Worcester Street entrance. Between this entrance and Route 9, transition the temporary walking/biking area into the grass median on the western side of Natick Mill Road. All travel lanes and pavement markings will need to be restriped accordingly.   | Coordinate with Falmouth Department Stores owner of parcel 1215 Worcester Street to discuss opportunities for a formal sidewalk on Natick Mill Road between the Natick Mill Rotary and Route 9.  | Building upon all short- and medium-term improvements, formalize the temporary sidewalk, adding a landscaped buffer and raised crossing at the two entries (cuts from 1361 Worcester Street, and formalize the walking/biking path in the grass median area on the western side of Natick Mill Road between the 1361 Worcester Street/Natick Mill entrance and Route 9.  | As this improvement is near a FEMA 100-year floodplain and a DEP Wooded Swamp, creating sidewalks in the ROW on the western side of Natick Mill Road between the Natick Mill Rotary and Route 9 may require an NOI filing with the local conservation commission, depending on its limits of work.   |
| Multimodal Roadway Safety           | Power Line Shared Use Path   | SP.5              | Coordinate with Boston Edison Company (Doing Business As: Everource Energy), the owner of 0 Essex Road East, 111 Hartford Street, and 108 Hartford Street to discuss opportunities for utilizing open space under the existing power lines for future shared-use paths or multimodal facilities. Although no prior coordination has been established, this idea is favored by the Town of Natick and should create a framework for opening the lines for construction between Everource and Natick/Framingham.  | Implement an informal, unpaved (gravel) or boardwalk, shared-use path behind Stratmore Road where the existing powerlines run. This path would connect Mercer Rd to Hartford Rd, Travis Rd, and Hartford St (or certain segments under the power line easement), and include certain temporary structure amenities such as benches and signage.  | Consider implementing a formal, paved, shared-use path behind Stratmore Road where the existing powerlines run. This path would connect Mercer Rd to Hartford Rd, Travis Rd, and Hartford St, and would be a paved path for pedestrians and bikers with adequate lighting, benches, shaded area, bike racks, and any other street furniture necessary.   | As this improvement is within a FEMA 100-year floodplain and a DEP Shallow Marsh Meadow, Shrub Swamp, and Wooded Swamp, it would require an NOI filing with the local conservation commission.   |
| Multimodal Roadway Safety           | Speen Street Bridge Multimodal Improvements  | R.2               | N/A   | N/A  | Widen Speen St bridge to include a shared use path on the western side of the bridge that connects to the existing shared-use path along the Natick Mill perimeter paralleling Speen Street and existing sidewalks on Hartford St. This will create a pedestrian/bicycle connection from Golden Triangle area to the residences north of Route 9.  |  |
| Multimodal Roadway Safety           | Superior Drive & Cochituate Rail Trail Connection                                  | R.5               | N/A   | Create a clear connection between Superior Drive and the Cochituate Rail Trail by adding directional and informational pedestrian wayfinding signage. Implement sidewalks that connect throughout the entirety of Superior Drive by existing where needed (particularly on the northern side of Superior Drive between Speen Street NB and the CRT).   |  |  |
| Roadway Transformation              | Travis Road Walking Path   | SP.2              | Keep the existing informal connection, but add identification and directional wayfinding signage on Travis Road and Stratmore Road for multimodal users accessing Sherwood Plaza.   | Coordinate with United Reits Home INC, owner of parcel 0 Travis Road, Sunshine Technologies Holding Corp, owner of 21 Stratmore Road, and 1465 Paterson LLC, owner of parcel 19 Stratmore Road, to discuss opportunities for formal connection between Travis Road, Stratmore Road, and Mercer Road.   | Building upon coordination efforts, implement a wooden boardwalk/concrete/slophall shared use path (most likely a raised facility) bridge from the end of Travis Road to Stratmore Road. Add lighting on the sides of the path. Include identification and directional wayfinding signage at the beginning of the path and on Travis Road, indicating there is a connection to Sherwood Plaza.   | As a portion of this improvement is within a FEMA 100-year floodplain, implementing a wooden boardwalk/concrete/slophall shared use path from the end of Travis Road to Stratmore Road would require an NOI filing with the local conservation commission.   |
| Roadway Transformation              | Hardwick Road/Essex Road Walking Path  | SP.3              | Keep the existing connection, but add identification and directional wayfinding signage on Hardwick and Mercer Road indicating the connection.  | Coordinate with Boston Edison Company (Doing Business As: Everource Energy), owner of parcel 1394 Worcester Street, and Richard M Wyman, owner of 0 Worcester Street, to discuss opportunities for formal connection between Hardwick Rd, Essex Road, and Mercer Road.   | Building upon coordination efforts, implement a wooden boardwalk/concrete/slophall shared use path (most likely a raised facility) bridge from the end of Hardwick/Essex Road to Mercer Road. Add lighting on the sides of the path. Include identification and directional wayfinding signage at the beginning of the path and on Hardwick/Essex Road, indicating there is a connection to Sherwood Plaza.  | As this improvement is within a FEMA 100-year floodplain, implementing a wooden boardwalk/concrete/slophall shared use path from the end of Hardwick/Essex Road to Mercer Road would require an NOI filing with the local conservation commission.   |
| Roadway Transformation              | Speen Street Shared Use Path (Between Route 30 & Novelle Way)                      | SS.3              | N/A   | N/A  | Reallocate ROW on the western side of Speen Street between Route 30 and Novelle Way to create a pedestrian and bike path. Remove the existing green space median (or shift further to the center, removing one to two travel LT lanes) and allocate 10' for the shared-use path and up to 3' for an adequate buffer.   | As this improvement is within or near a FEMA 100-year floodplain (which also a DEP Shallow Marsh Meadow) (western side of Speen Street near the Route 30 intersection), it may require an NOI filing with the local conservation commission, depending on its limits of work.  |
| Roadway Transformation              | Speen Street & Cochituate Rail Trail Connectivity                                  | SS.4              | Engage with parcel owner of 141 Speen Street, 339 Speen Street, and 6 Chrysler Road to discuss opportunities to create a visible and multimodal/cyclable connection from Speen Street to the Cochituate Rail Trail.   | Improve visibility at Chrysler Road connection to the Rail Trail, through more wayfinding signage at the Speen Street/Chrysler Road intersection, lighting, and a temporary shared-use path (pilot using temporary delineation such as traffic cones).   | Through land takings, establish a formal east-west connection to the Rail Trail between Chrysler Road and Route 30, similar to the Woodhead Spur.  |  |
| Roadway Transformation              | Speen Street Two-Way Conversion  | R.1               | N/A   | Perform a traffic impact study to evaluate transforming Speen Street into a two-way street between Novelle Way and Hartford St, and the impacts it would have to vehicular circulation and traffic. If Speen Street becomes a two-way roadway, this would eliminate the need for the Beebeek, which could open up space for pedestrians/bicyclists. Given the impacts to vehicular circulation, potential opening, and delay, this recommendation favors multimodal users. The preferred approach is to transition the northbound side of Speen Street to two-way, which will need to be studied in greater detail to understand the impacts to realignment with Route 9.  | N/A  |  |
| Roadway Transformation              | Superior Street Multimodal Shared Street Conversion                                | R.7               | N/A   | Reconfigure sidewalks where needed between Speen Street NB and Speen Street SB and repair current crosswalks (preferably with 10' wide painted continental crosswalk striping).  | Along with making Speen Street a two-way roadway, close Superior Drive between the ingress/egress on Superior Drive at 313 Speen Street and the Residence Inn/Avens to the east and Speen Street SB to the west. Transition into a raised shared street and add supporting streetcape amenities such as lighting, directional and informational wayfinding signage, benches, bicycle parking, and landscaping. Allow vehicles to enter and exit these parcels, and forbid any vehicular access east of these driveways.  | This improvement may coincide with URAM Area 76 as shown in Figure 1 (in the appendix) and the table under State Listed Hazardous Waste Release Sites  |
| User Experience                     | Mercer Road & Stratmore Road Sidewalk Improvements                                 | SP.AA             | Paint crosswalks (preferably with 10' wide painted continental crosswalk striping) at all intersection corners at Stratmore Road (both Stratmore Road intersections), and the informal path along Hardwick/Essex Road. At each crossing, create temporary curb extensions using painted/striped gore, and flexible delineator posts. Create temporary sidewalks on the southern side of Mercer Road and Stratmore Road, using striping, cones, or flexible delineator posts, reallocating 6-8' of Mercer Road & Stratmore Road ROW for the sidewalk and temporary buffers. Implement pedestrian signage, either "Yield Here to Pedestrians" (MUTCD R1-5R1-5A) or W11-2 signage at all new intersection corners.   | Building upon the short-term improvements, make all curb extensions permanent, adding ADA-compliant curb ramps and detectable warning panels. Make the temporary sidewalk on the northern side of Mercer Road and Stratmore Road permanent, creating an at-grade shared-use path, reallocating up to 10-12' for an at-grade shared-use path and flexible delineator post buffer. Note that Mercer Road and Stratmore Road are all under the Town of Natick jurisdiction.   | N/A  | As this improvement is within or near a FEMA 100-year floodplain, it may require an NOI filing with the local conservation commission, depending on its limits of work.  |
| User Experience                     | Flatie Pass Park & Ride, Mid-Block Crossing, & Sidewalk Improvements               | SW.2              | 1. Engage with DDM MDT Shopper's World LLC, owner of parcel 19 Flatie Pass, to pilot temporary widened sidewalks on the northern side of Flatie Pass between Shopper's World Drive and the Natick Mill Rotary, using attention barriers, striping, cones, or flexible delineator posts. Also pilot new, temporary sidewalks on the southern side of Flatie Pass between the existing sidewalk between Shopper's World Drive and the Natick Mill Rotary. Remove the center LTRT lanes and dedicate 4' for the northern sidewalk and 6' for the new southern crosswalk. Work with this parcel owner to facilitate the implementation of crosswalks and walking paths within the Flatie Pass Park & Ride Parking Lot. 2. Improve the Flatie Pass Park & Ride through the implementation of new benches and signage. Repair crosswalks (preferably with 10' wide painted continental crosswalk striping) at Flatie Pass and AMC Theatre Park & Ride intersection and consider exclusive pedestrian signalization. Add temporary curb extensions at this intersection through paint or striped gore, and add flexible delineator posts.  | When the existing sidewalk along Flatie Pass (on the northern side) between Shopper's World Drive and the Natick Mill Rotary (along the northern side of the roadway) by cutting into the landscaped buffer and removing the center LTRT lane. Dedicate all extra 10' for sidewalk extension to create an at-grade shared-use path. 2. Build a more accessible bus shelter at the Flatie Park & Ride and the Logan Express stop. Improve seating, shelter, design for handicap accessibility and safety. Add a blue light emergency button and directional wayfinding signage to the new, proposed Shopper's World Drive north-south shared-use path to Flatie Pass at Flatie Park & Ride users.   | 1. In addition to the medium-term improvements, raise the at-grade shared-use path to a raised two-way shared-use path between Shopper's World Drive and the Natick Mill Rotary. These improvements will be influenced by the incoming development in the 22 Flatie Pass parcels. 2. From the Park & Ride pick-up/drop-off location in the Parking Lot, continue 10' wide continental crosswalks and build a dedicated walking path (paved path or striped path between existing landscaped sidewalks) to connect to Flatie Pass at both entrances to the Parking Lot. Add a raised mid-block crossing at the western entrance of the Park & Ride Parking Lot to connect to the existing sidewalk on the northern side of Flatie Pass. Construct curb ramps on either side, with ADA-compliant detectable warning panels, advanced yield markings, MUTCD pedestrian warning signage, and Rectangular Rigid Railing Barriers. Create a sidewalk on the northern side of Flatie Pass from the new mid-block cross to Shopper's World Drive, providing up to 6' for an adequate sidewalk. Travel lanes will need to be reconfigured accordingly with the addition of the new segment of sidewalk. 3. Engage with MWVLA and parcel owner to understand feasibility of transitioning this lot into a MWVTA Park & Ride/Transit Hub. | As this improvement is within or near a FEMA 100-year floodplain (near the Natick Mill Rotary), it may require an NOI filing with the local conservation commission, depending on its limits of work. A certified vernal pool is located near the northern side of Flatie Pass at the Shopper's World Drive intersection; this would be a further consideration for an NOI as vernal pools are protected under the WPA regulations and protection can extend up to 125 feet beyond the vernal pool's boundary. It is also located near a DEP Shrub Swamp and/or a Wooded Swamp. Note: This improvement is not located in a mapped protected open space, per Mass GIS Mass mapper (Figure 2 Protected and Recreational Open space). |
| User Experience                     | Shopper's World Multimodal Network & Amenities                                     | SW.1              | 1. Engage with DDM MDT Shopper's World LLC, owner of parcel 1 Worcester Road and 19 Flatie Pass, to pilot temporary temporary structure amenities at all entrance entry and exit points to Shopper's World. All entrances to Shopper's World along Shopper's World Drive and Ring Road should have 10' wide continental crosswalks, temporary curb extensions, using paint, planters, or striped gore (made possible by removing or narrowing travel lanes and/or removing RT lanes). Also discuss opportunities to improve the Flatie Pass/Shopper's World Drive intersection for multimodal users. In the meantime, add temporary curb extensions at the existing northern crossing, with either paint or striped gore, and flexible delineator posts. 2. Pilot a shared use path along Shopper's World Drive for bicyclists and pedestrians, using attention barriers (preferable) or flexible delineator posts. Repair crosswalks (preferably with 10' wide painted continental crosswalk striping) and add appropriate pedestrian warning signage and advanced yield markings for vehicles. Intersections to repair include Shopper's World Drive and Route 9, Shopper's World Drive and Flatie Pass, Shopper's World Drive and Burt Street, and Shopper's World Drive and Route 30. | 1. Add two new north-south crossings and one new east-west crossing (if the southern portion) at Flatie Pass and Shopper's World Drive intersection (preferably with 10' wide painted continental crosswalk striping). Construct ADA-compliant curb ramps and detectable warning panels. Integrate new pedestrian phasing within the existing traffic signals at the new crossings and within the existing signalized intersection. Create large permanent curb extensions at the southeast corner to the intersection to create a safe pedestrian refuge area, given grading issues directly behind the corner of the intersection. 2. In addition to the short-term recommendations, make all temporary curb extensions permanent, and construct ADA-compliant curb ramps and detectable warning panels. Add speed bumps or raised crossings instead of at-grade painted crosswalks, and add stop bars (where missing), stop signs, and pedestrian warning signage.  | 1. The implementation of these improvements will be greatly influenced & impacted by the future development at 1 point) at Flatie Pass and Shopper's World Drive intersection (preferably with 10' wide painted continental crosswalk striping). 2. Create permanent curb extensions at all corners of the Flatie Pass/Shopper's World Drive intersection, and pedestrian signalization (with appropriate accessibility infrastructure) at the northern, eastern, and southern points of the intersection. Consider exclusive pedestrian signalization at this intersection.   | As this improvement is within or near a FEMA 100-year floodplain (near Route 9) and/or a certified vernal pool is located near the northern side of Flatie Pass at the Shopper's World Drive intersection, it may require an NOI filing with the local conservation commission, depending on its limits of work. Vernal pools are protected under the WPA regulations and protection can extend up to 125 feet beyond the vernal pool's boundary. It is also located near a DEP Wooded Swamp.  |
| User Experience                     | Golden Triangle Wayfinding Assessment  | G.3               | N/A   | Create a streamlined transportation (multimodal, vehicular, and parking) wayfinding system throughout the Golden Triangle to intercept vehicles and direct multimodal users to key assets and destinations. Conduct an assessment of all existing wayfinding signage in the study area (Golden Triangle, document responsible entity to replace/upgrade the relevant wayfinding asset (if necessary) and document relevant implementation steps.   | N/A  |  |
| User Experience                     | Dean Road Connectivity & Accessibility Improvements                                | SP.AB             | Engage with parcel owners of 3 Dean Road, 1296 Worcester Street, 1360 Worcester Street, and the Town of Natick (Dean Road owner) to discuss opportunities to formalize a multimodal connection on Dean Road from Mercer Road to Route 9.  | Paint crosswalks (preferably with 10' wide painted continental crosswalk striping) at the intersection of Dean Road and Mercer Road, and add directional signage to the existing path on the eastern side of Dean Road. Add pavement markings (sharrows) for bicycles.   | Create a permanent sidewalk on the western side of Dean Road, allowing for at least -5' for a dedicated walking path.  | As this improvement is within or near a FEMA 100-year floodplain, it may require an NOI filing with the local conservation commission, depending on its limits of work.  |
| User Experience                     | Ring Road Shared-Use Path  | SW.3              | Considering the northern portion of the 1 Worcester Road parcel is slated for new development, there is an opportunity to create a strong east-west connection for multimodal users on Ring Rd. Work with Framingham and the 1 Worcester Road parcel owner to discuss the opportunity to connect the Shopper's World Drive Shared Street to Calder Road.  | Pilot an east-west shared-use path on Ring Road between both Shopper's World Drives in the east and west. This should include pavement markings and temporary delineation (such as traffic cones) to allow for a 10-12' of multimodal ROW.   | Upon the implementation of new development, formalize this shared-use path, and continue it to connect to Calder Rd and terminating at the Lord Chesterfield Apartments.   |  |



# Technical Appendices

## A.2 Recommendation Map

# Route 9 & Speen Street Bicycle & Pedestrian Access Study - Recommendation Map MassDOT OTP





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## Recommendations Report

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