



# Bridge Street (Route 107) Reconstruction Salem, MA

*Thank you for joining us.*

*This meeting will begin shortly.*







# Bridge Street (Route 107) Reconstruction Salem, MA

## *Public Informational Meeting*

November 7, 2024 | 6:30 PM

Project No. 612990





# Zoom Meeting Controls

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- Listen in Spanish or Portuguese



- Go to Reactions and click “Raise your hand” to be unmuted to speak, or \*9 for calling in



- Ask a question (Alt+H) and share comments



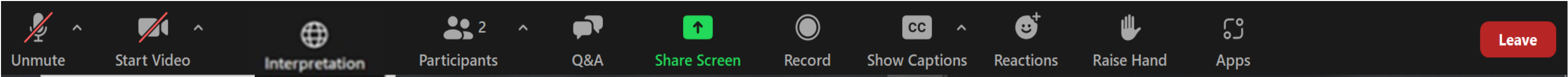
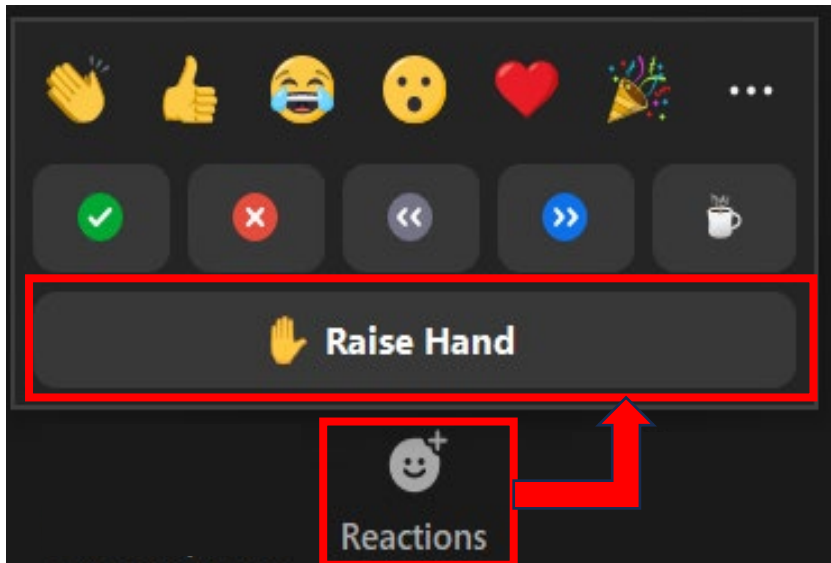
- To show video - Alt + V toggles video off/on



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- Closed captioning automatically generated by Zoom





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- The meeting will be open to questions and answers at the end of the presentation.
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- We welcome the diversity from across our entire service area. If you have any questions or concerns, please visit <https://www.mass.gov/nondiscrimination-in-transportation-program> to reach the Office of Diversity and Civil Rights.

**All questions and comments are welcome and appreciated, however we do request that you refrain from any disrespectful comments.**



# Introductions

- **MassDOT**

- Shahpar Negah, PE, MBA – Project Manager
- Brian Fallon, PE – District 4 Project Development
- Nancy Knight – Right-of-Way Staff
- Billy Woolford – Producer
- Makaela Niles – Producer
- Daniel Fielding – Legislative Affairs

- **Design Consultant - GPI**

- Steven Babalis, PE, PTOE

- **Language Translation Speakers**

- Spanish

- Camila
- Robbie

- Portuguese

- Max
- Maira



# Notifications

## Newspaper Public Notice

- Salem News
  - 10/24/24 and 10/31/24
- Daily Item
  - 10/24/24 and 10/31/24

## MassDOT Event Calendar

- [www.mass.gov/orgs/highway-division/events](http://www.mass.gov/orgs/highway-division/events)

## MassDOT Social Media

- MassDOT Facebook
- MassDOT X (Formally Twitter)

## City of Salem

- Website
- Social Media

Nov  
07

### Salem - Bridge Street (Route 107) reconstruction →

Thursday, November 7, 2024 at 6:30 p.m.

A Virtual Public Informational Meeting will be hosted to present the design for the proposed Bridge Street (Route 107) Reconstruction project in Salem, MA.



# Agenda

- 01 Project Area
- 02 Project History
- 03 Existing Conditions
- 04 Project Goals
- 05 Design Alternatives
- 06 Preferred Alternative
- 07 Next Steps
- 08 Contact Information
- 09 Questions









# How did we get here?







**Why was this  
project  
initiated?**



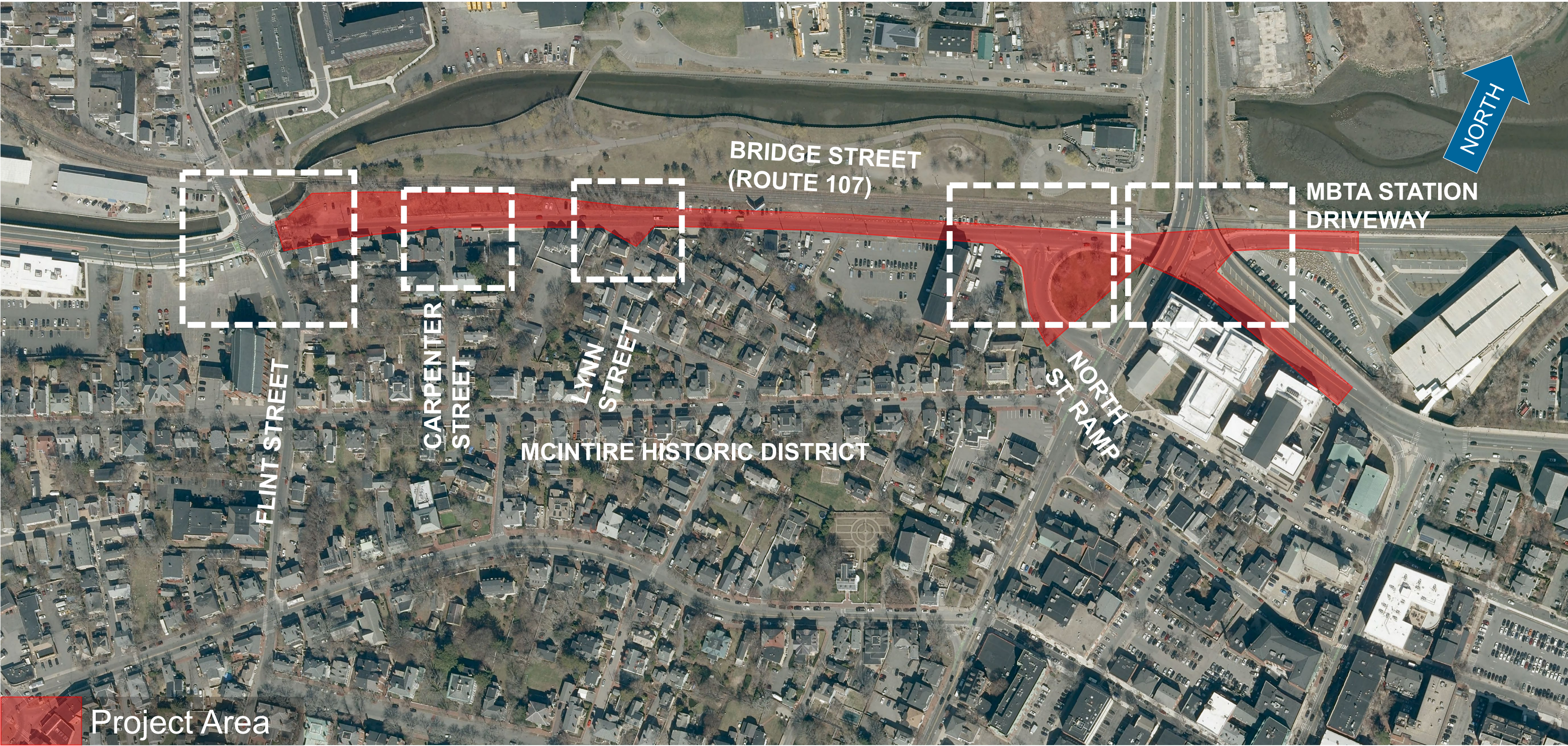
## Existing Conditions

- The last remaining segment of Bridge Street to be reconstructed
- Consists of a **single travel lane** running in each direction
- City-owned and maintained
- Average Daily Traffic
  - 20,500 vehicles per day (vpd) west of Washington Street
  - 16,100 vpd east of Flint Street
- **No bicycle facilities** and **pedestrian connections are incomplete** and in poor condition





# Project Area Intersections





## Flint Street Intersection

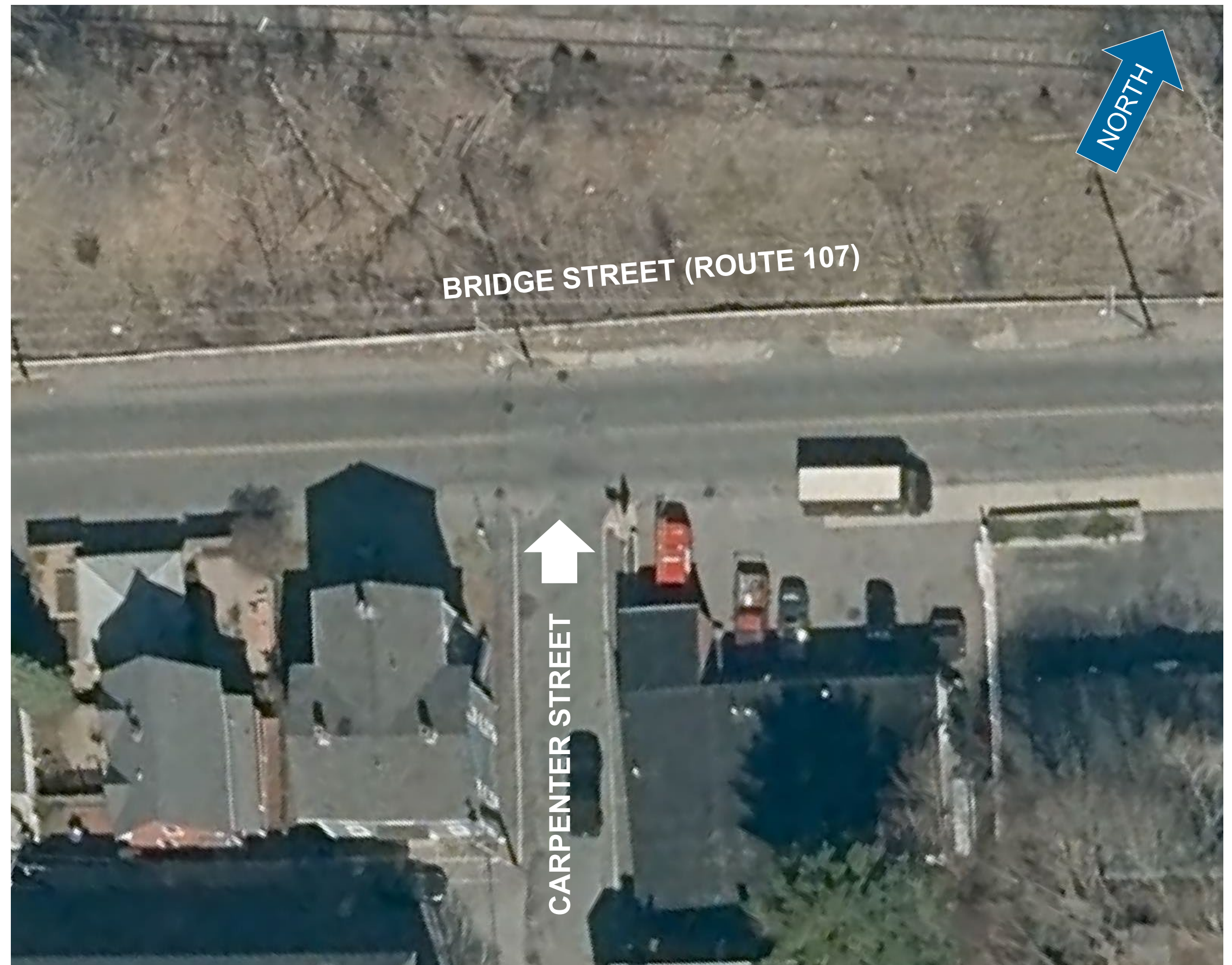
- Recently reconstructed by the City
- **Signal** Intersection Control
- **Shared use path**, bike box, and sidewalk
- **Bridge** over the **North River Canal** to the **north**
- **McIntire Historic District** to the **south**





## Carpenter Street Intersection

- **Stop-sign** Control
- **One-way** Road
- **Steep grade**
- Significant **change of grade** at Bridge Street causes **vehicles to bottom out**
- **Driveways** immediately **adjacent to the intersection**





## Lynn Street/River Street Intersection

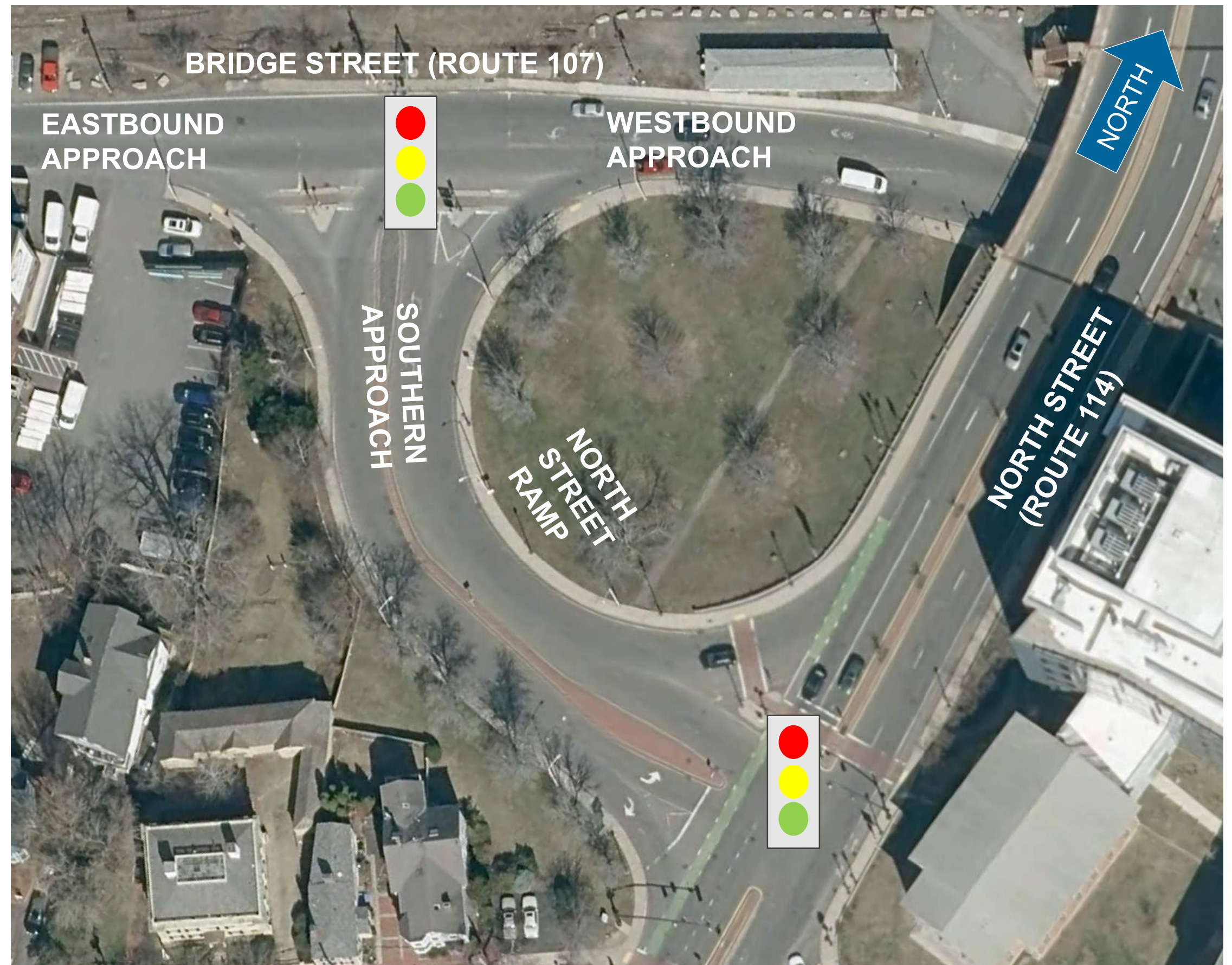
- **No formal intersection control**
- Lynn Street and River Street are **one-way roads**
- Has a **wide undefined entry**
- **Sidewalk** on the southeasterly edge of Bridge Street **terminates at the intersection**





## North Street Ramp Intersection

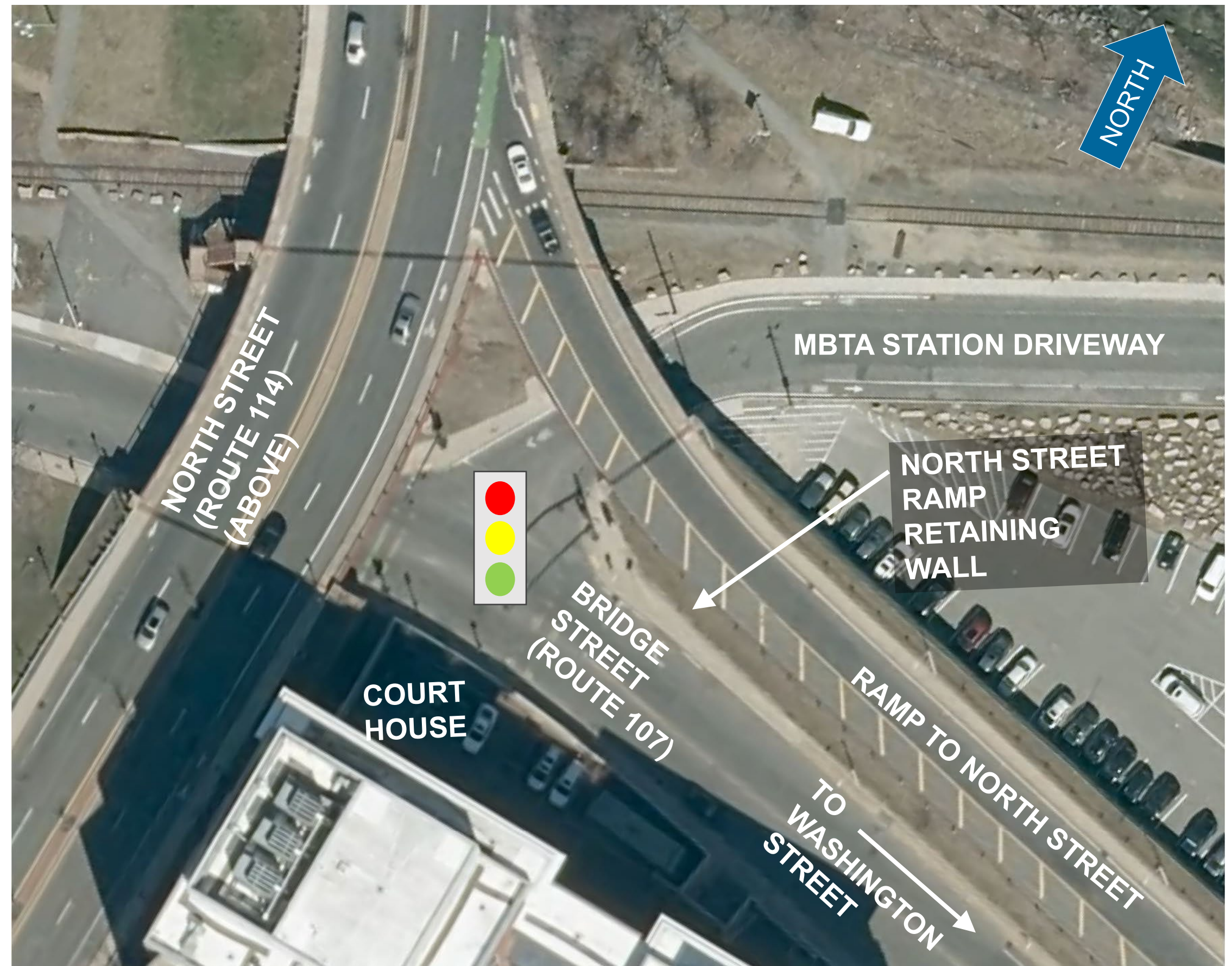
- **Signal Intersection Control**
- **Wide** intersection design **with multiple slip lanes**
- **Long crosswalk** crossing multiple lanes
- **No crosswalks on Bridge Street**
- **Traffic operations impacted** by both the **MBTA entrance** and **North Street** intersections





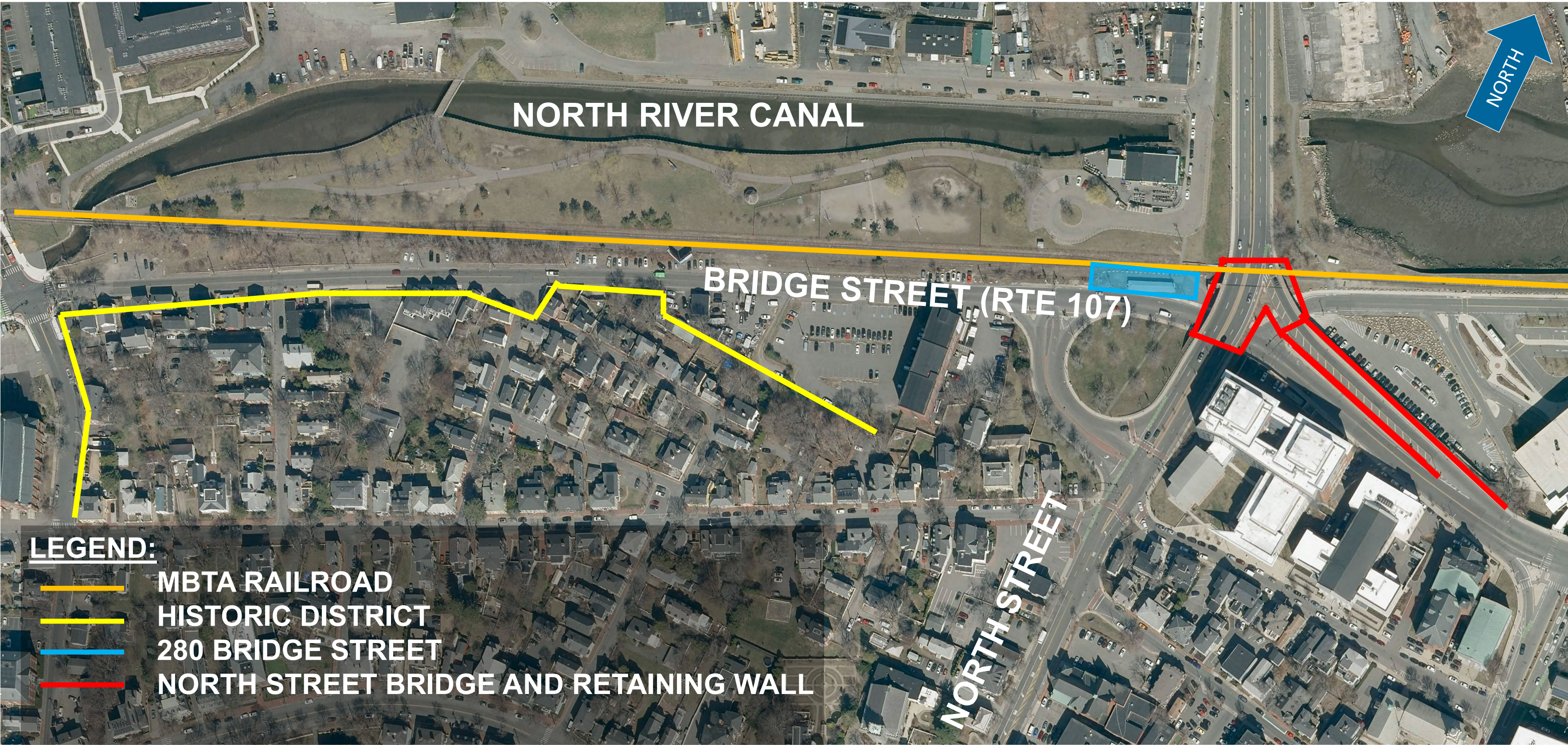
## MBTA Station Driveway

- **Signal Intersection Control**
- **Tight footprint**
- **Limited sight distance** by surrounding structures
- High **pedestrian activity**
- Impacted by Washington Street intersection **Congestion during peak periods**





# Key Project Constraints





## Known Issues

### Incomplete and antiquated sidewalks and pedestrian facilities

- The **sidewalks** are in **poor condition** throughout the project limits
- **Pedestrian** network is **disconnected**
- Many of the sidewalks and pedestrian curb ramps are **not ADA-compliant**
- **Lack of crosswalks** on Bridge Street





# Known Issues

## Lack of Bicycle Facilities

- **No separated facilities** along Bridge Street
- **Existing bicycle connections at both ends of the project** that are bisected by the project area
- **High vehicle volumes** result in an uncomfortable environment for sharing the road





# Known Issues

## Roadway Flooding

- Bridge Street **floods during significant rain** events which can be exacerbated during high tide
  - **Poor drainage**
  - **Flat roadway** grades on Bridge Street
- Past flooding has resulted in **safety and access concerns**





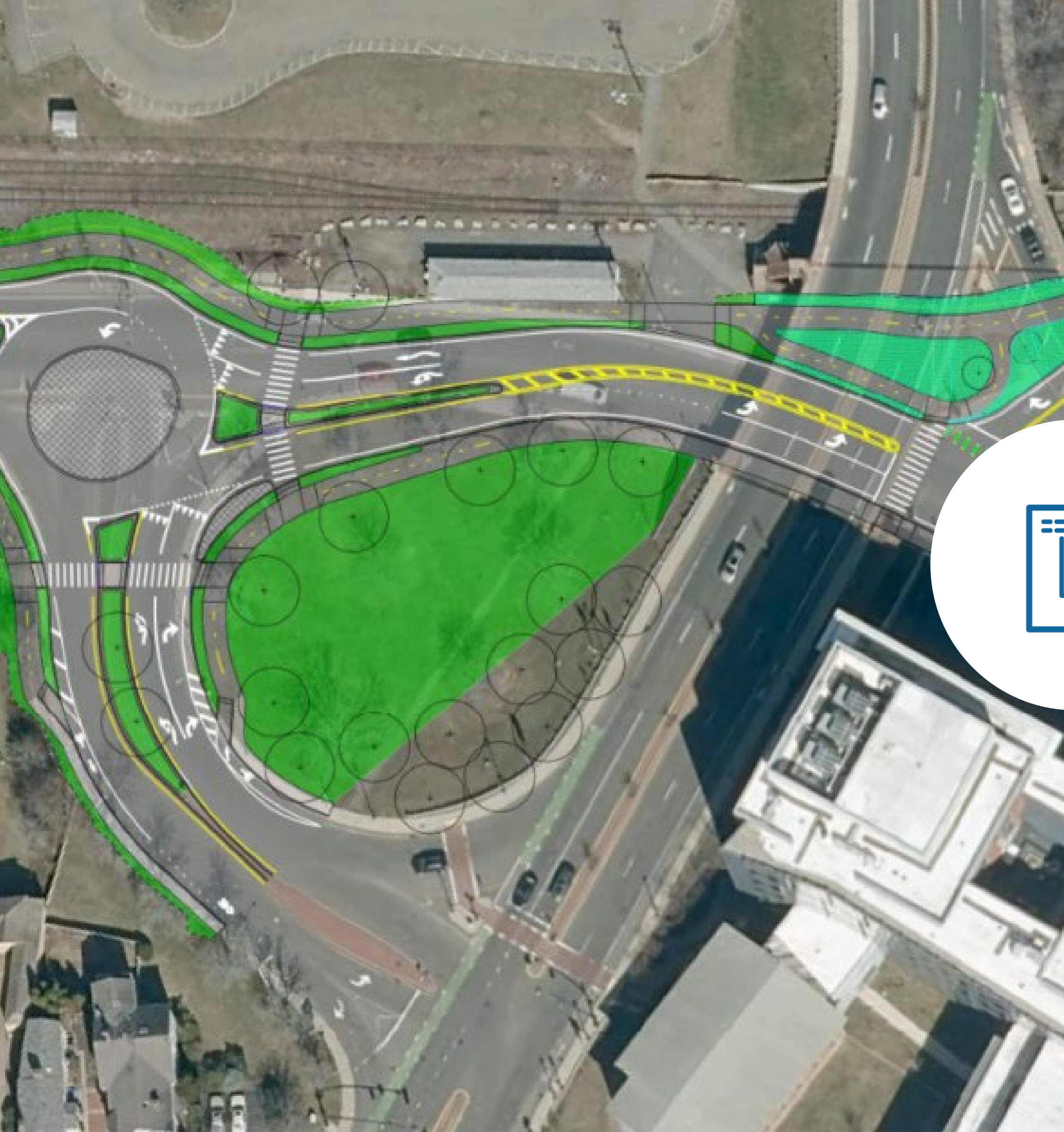
# Known Issues

## Informal Parking Areas

- Multiple gravel areas along the northerly side of Bridge Street are used as **informal parking spaces**
- Create **safety concerns with vehicles backing** onto Bridge Street or **stopping** on Bridge Street and **backing into spaces**







**What do we  
want to  
accomplish?**



# Project Goals

- **Transform Bridge Street** into a complete street with modern bicycle and pedestrian facilities
- **Improve multimodal access to the MBTA Station**
- Improve Bridge Street's **resiliency to flooding**
- **Improve safety and traffic operations** along the corridor
- Support and **enhance** the corridor's **historical character**







**What  
alternatives  
were  
considered?**



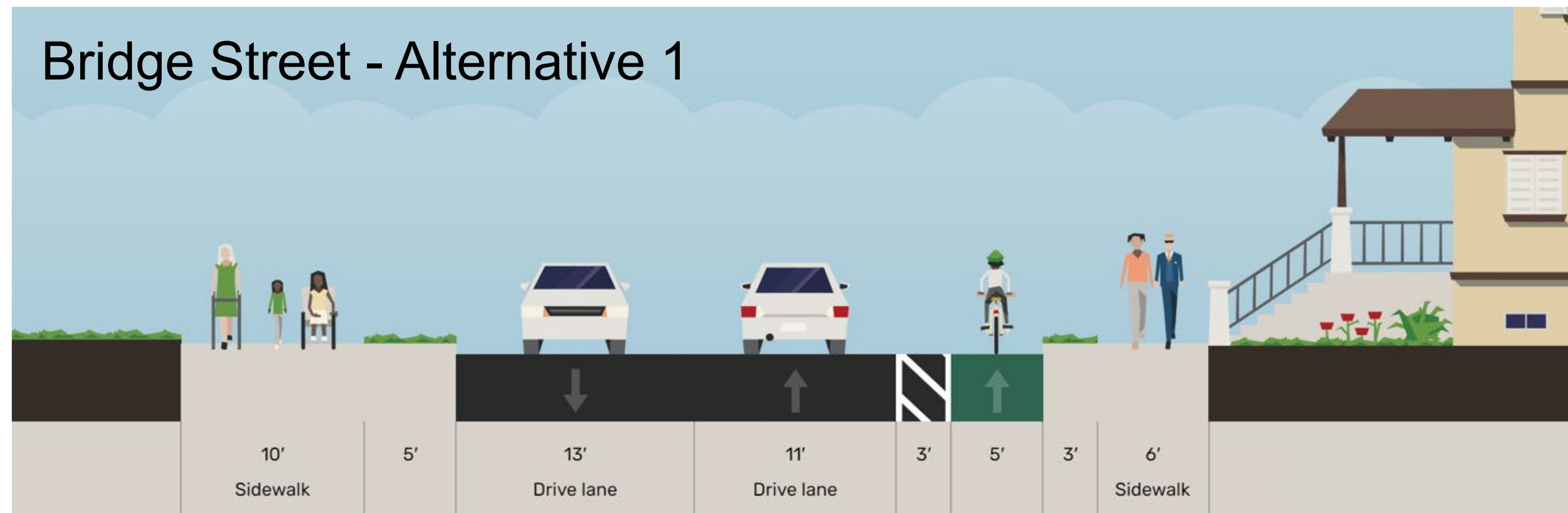
## Bridge Street Cross Section

What should the road look like?

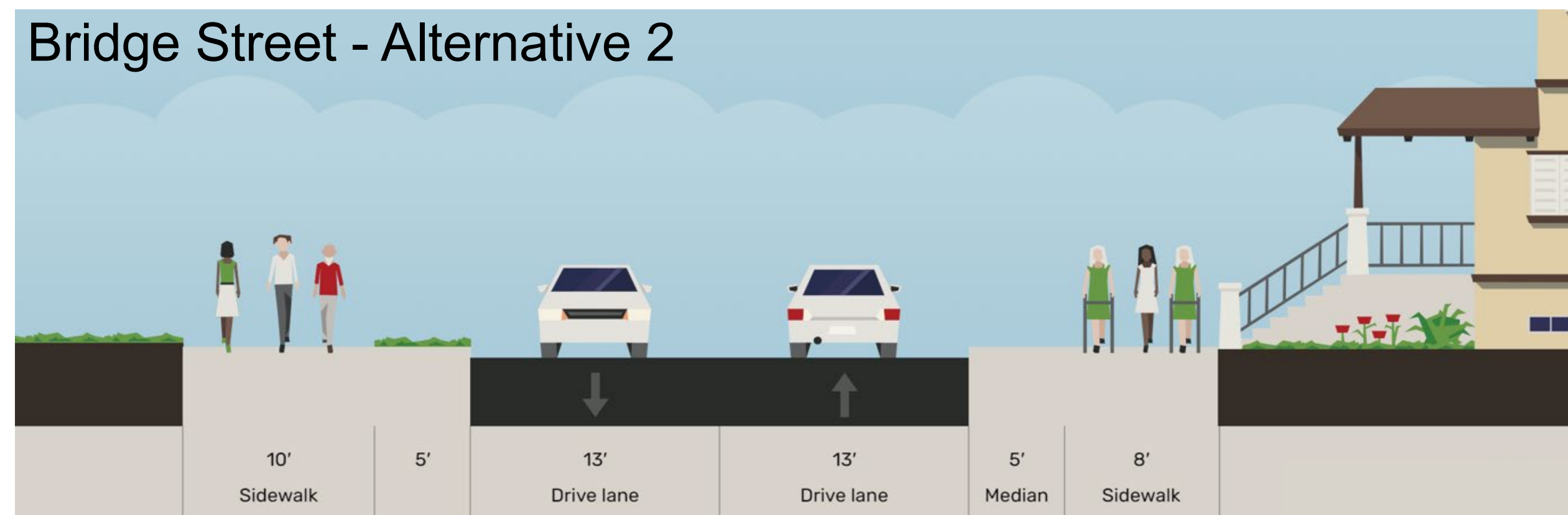
What was evaluated:

- Where and what type of **pedestrian and bicycle facilities**
- **Lane and shoulder widths**
- **Bridge Street's alignment** in relation to existing roadway. Should it be **moved further north and away from the Historic District?**
- **Roadway cross-section** in **constrained areas**; e.g., under North Street Bridge or around MBTA Entrance

Bridge Street - Alternative 1



Bridge Street - Alternative 2





# Intersection Control Evaluation (ICE)

## Q. What is ICE?

A. Data-driven, performance-based framework to screen intersection alternatives and identify an optimal solution

## Q. How was ICE used in this project?

A. **Step 1** – Assess which intersections warrant evaluation

**Step 2** –Navigate through the ICE's three stages. Once only **one viable control strategy remains**, the **evaluation stops**.

- Screening
- Initial Assessment
- Detailed Assessment




# ICE in this Project

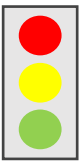
What was evaluated in ICE for this project?

- System analysis was conducted, given the intersections' proximity.
- Optimal Solution was identified in ICE Stage 2
- Evaluated intersection control pairs: Alternatives A, B & C


**LEGEND:**




ROUNDBABOUT



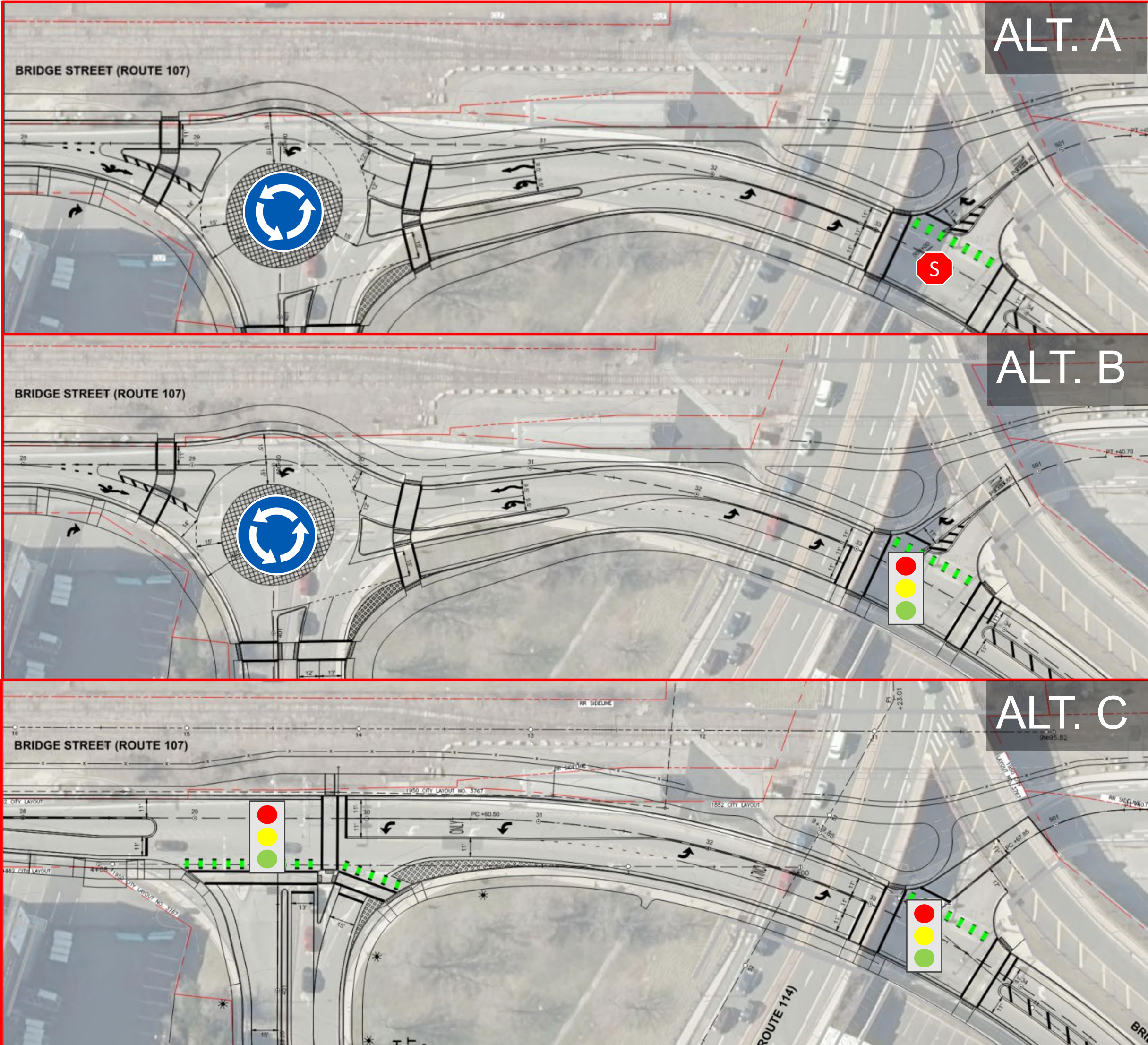
SIGNAL



STOP SIGN




CROSSWALK





# ICE Assessment Findings

Alternative	Construction Cost	Maintenance Cost	Mobility Cost	Safety Cost	Recommendation
Alternative A	\$\$	\$\$	\$\$	\$\$	
Alternative B	\$\$	\$\$	\$\$	\$	
Alternative C	\$\$	\$\$\$	\$\$\$	\$\$\$	

Alternative B – Compact Roundabout at North Street Ramps & Traffic Signal at MBTA Entrance

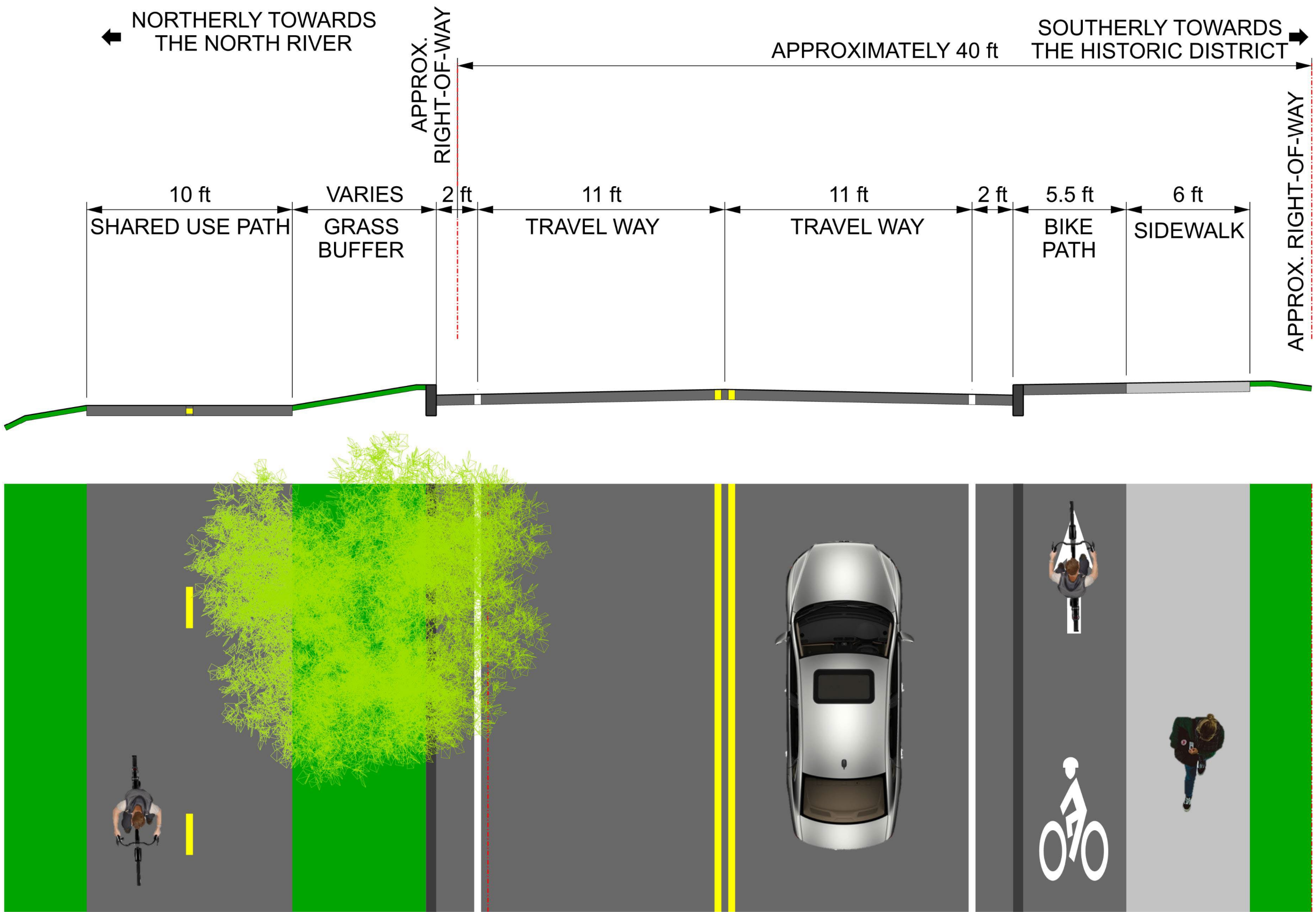




**What is the  
preferred  
alternative?**



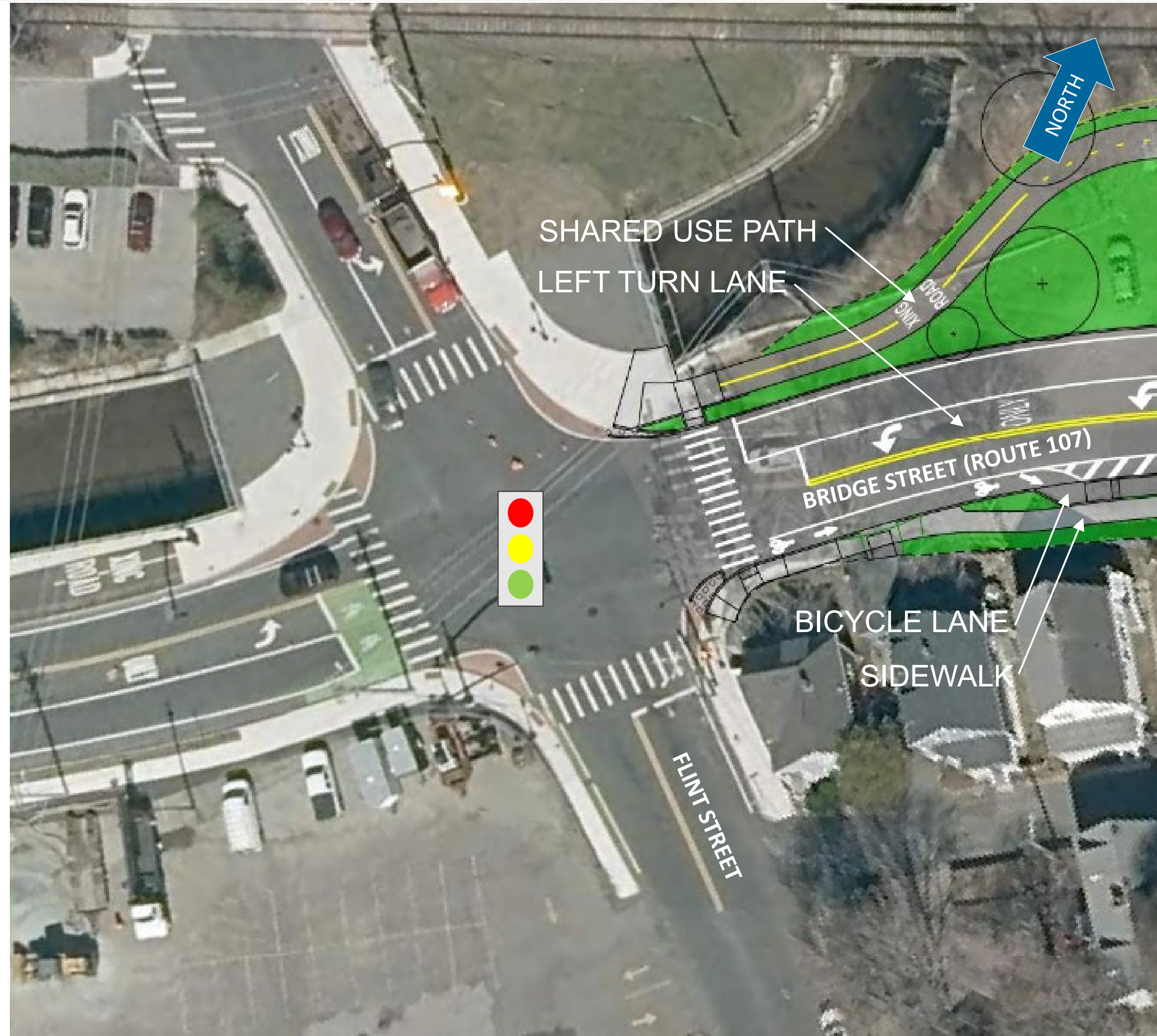
# Bridge Street Typical





## Flint Street Intersection

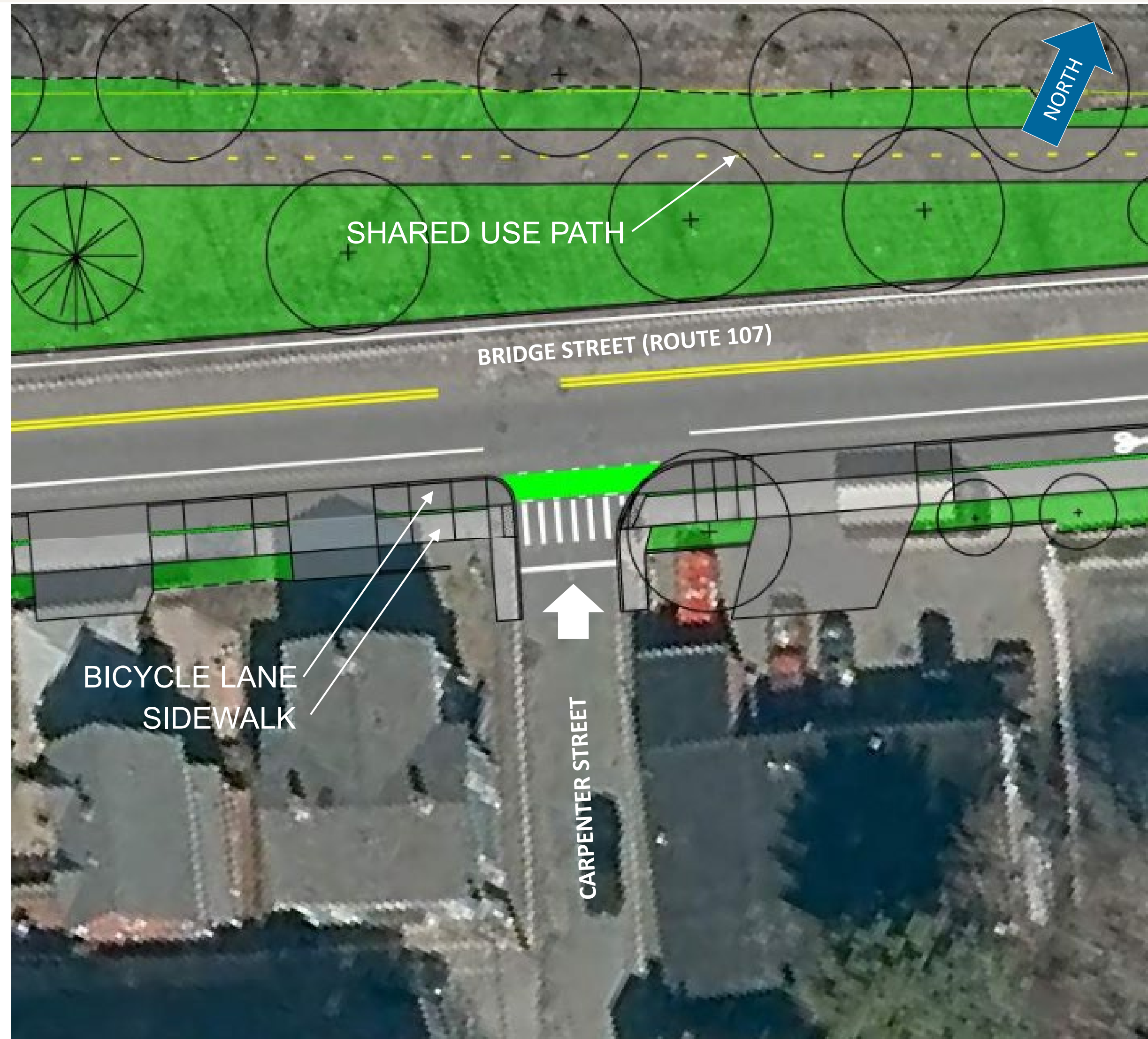
- Integrate work with the newly constructed Intersection
- Bridge Street **WB left turn lane** onto Flint Street that includes:
  - **Shared use path** on the **northerly** side of Bridge Street
  - **Bicycle lane** on the **southerly** side of Bridge Street
  - Cement concrete **sidewalk** with ADA compliant ramps





## Carpenter Street Intersection

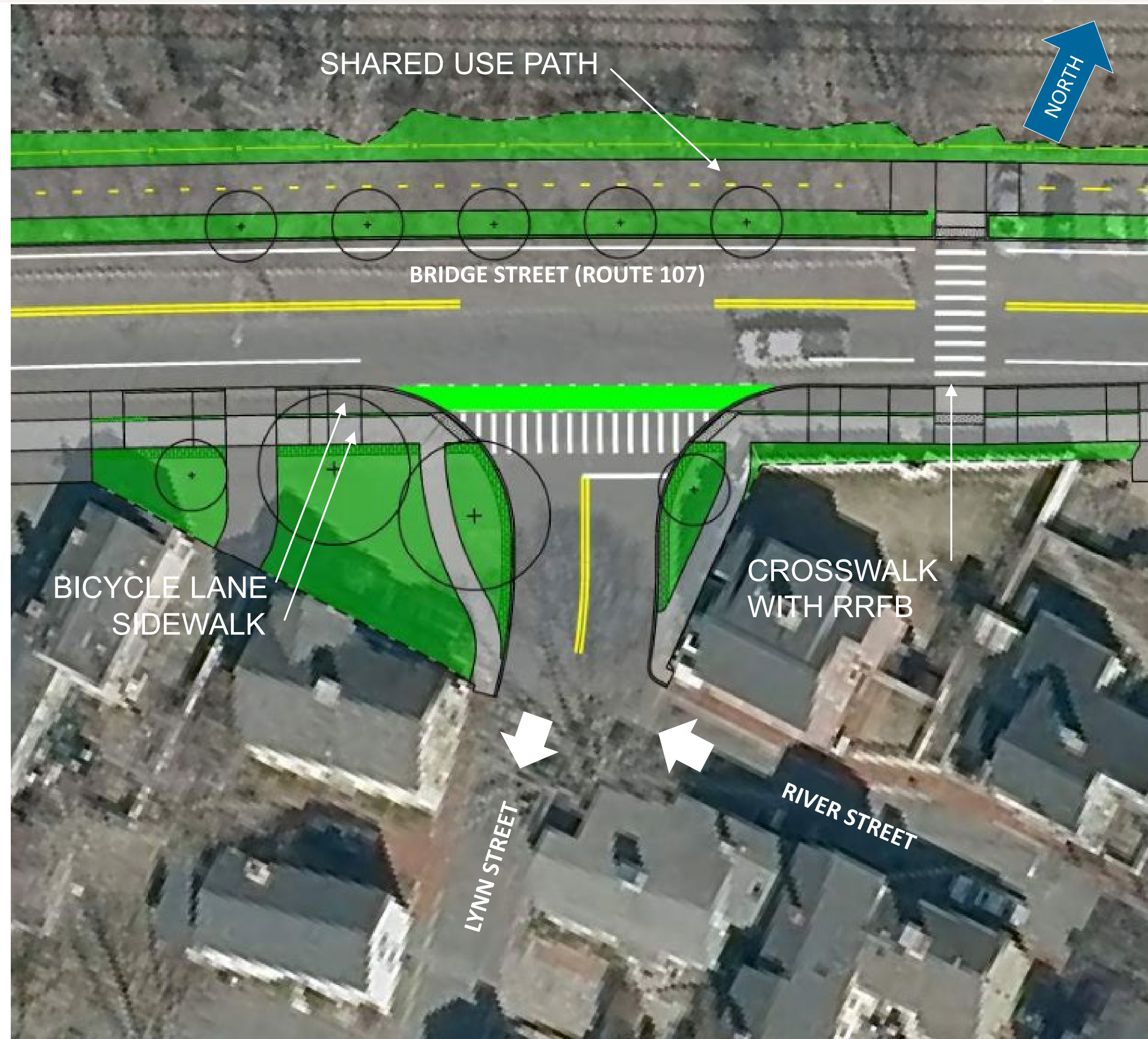
- **Grade-separated bicycle lane** on the **southerly** side of Bridge Street
- Cement concrete **sidewalk** with ADA-compliant ramps
- **Gradually transition** the roadway grade from **Carpenter Street** to Bridge Street
- Maintain **one-way** traffic operations
- Install modern pavement markings





## Lynn/River Street Intersection

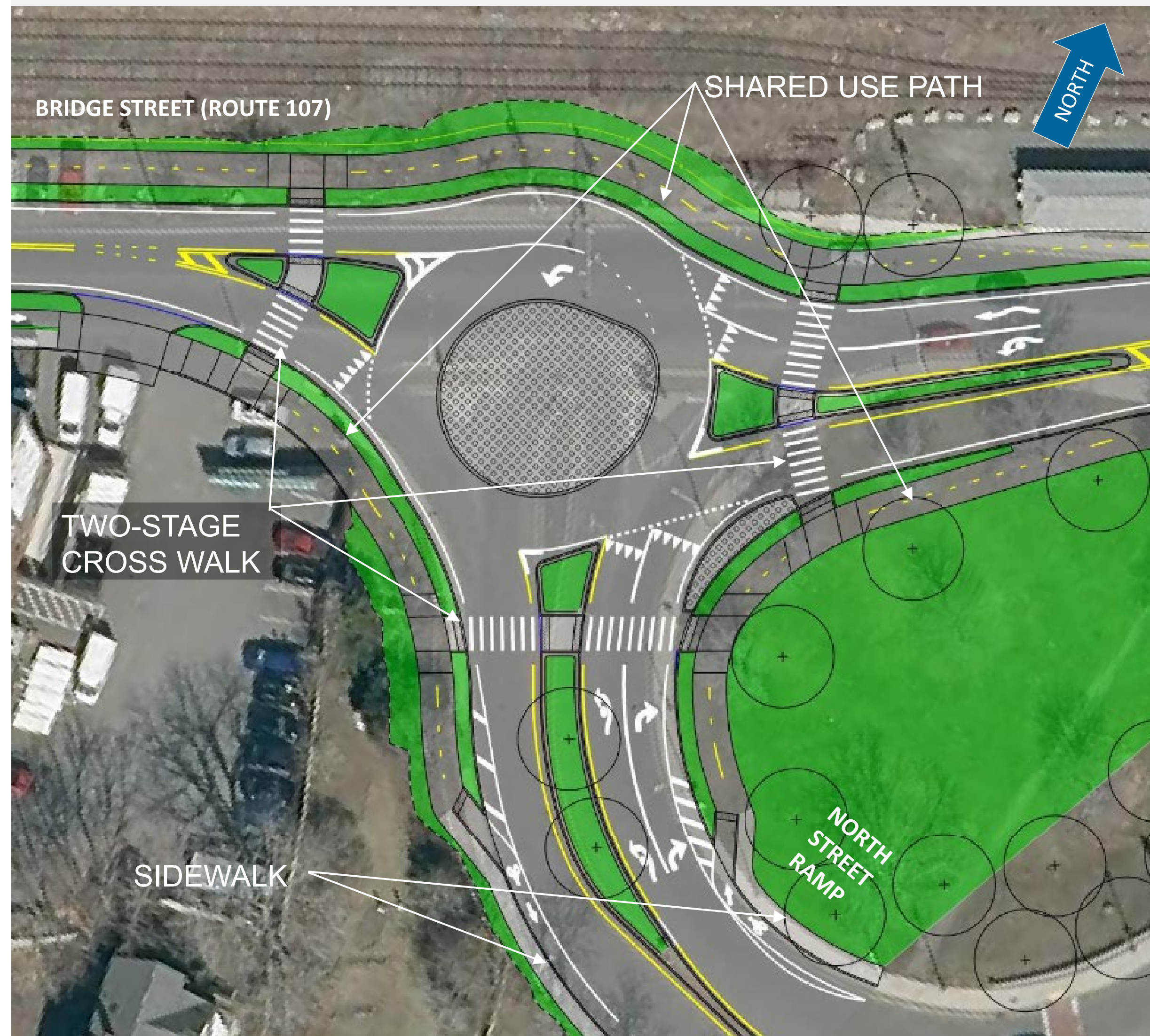
- **Redefine the Lynn/River Street** intersection by **narrowing the entrance** into a traditional intersection
- **Shared use path** along the **northerly** side of Bridge Street
- **Crosswalk across Bridge Street** with Rectangular Rapid Flashing Beacons
- **Grade-separated bicycle lane** on the **southerly** side of Bridge Street
- Cement concrete **sidewalk** with ADA-compliant ramps
- Provide new '**green space**' available for **landscaping**





## North Street Ramps Intersection

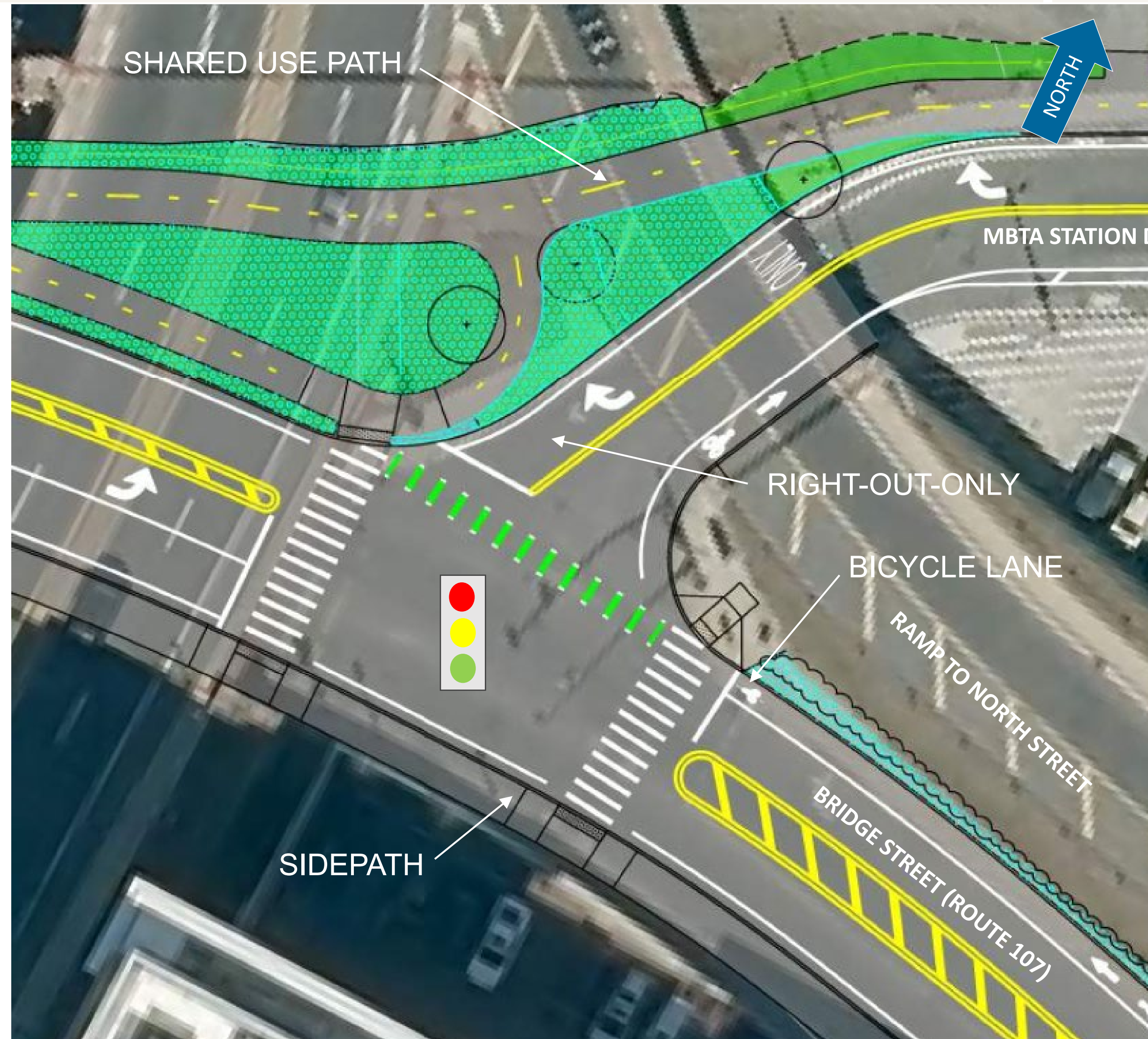
- Modern compact **roundabout**
- **Two-stage crosswalk** on each intersection approach
- **Shared-use path** around the roundabout
- Roundabout to **create a 'gateway'** to Bridge Street and also provide an opportunity for landscaping
- **Improve** intersection safety and **traffic operations**
- Provides **traffic calming** along Bridge Street





## MBTA Driveway Intersection

- Replace **traffic signal** in kind by reusing existing equipment when possible
- **Restrict exiting traffic to right-out-only**, which will require a **U-turn at the roundabout** for eastbound intended traffic
- **Side path** along the **southerly** side of Bridge Street
- **Shared use path** along the **northerly** side of Bridge Street.
- **Replace** the existing **westbound right turn lane** with a **Bicycle lane**
- Replicate the existing Bridge Street eastbound left turn lane





## Other Notable Design Features

### Shift Bridge Street slightly away from the Historic District

- Allows for '**green space**' between the back of sidewalk and existing structures along Bridge Street
- Allows for more **gradual driveway grades** along Bridge Street
- **Shifts traffic away** from residences

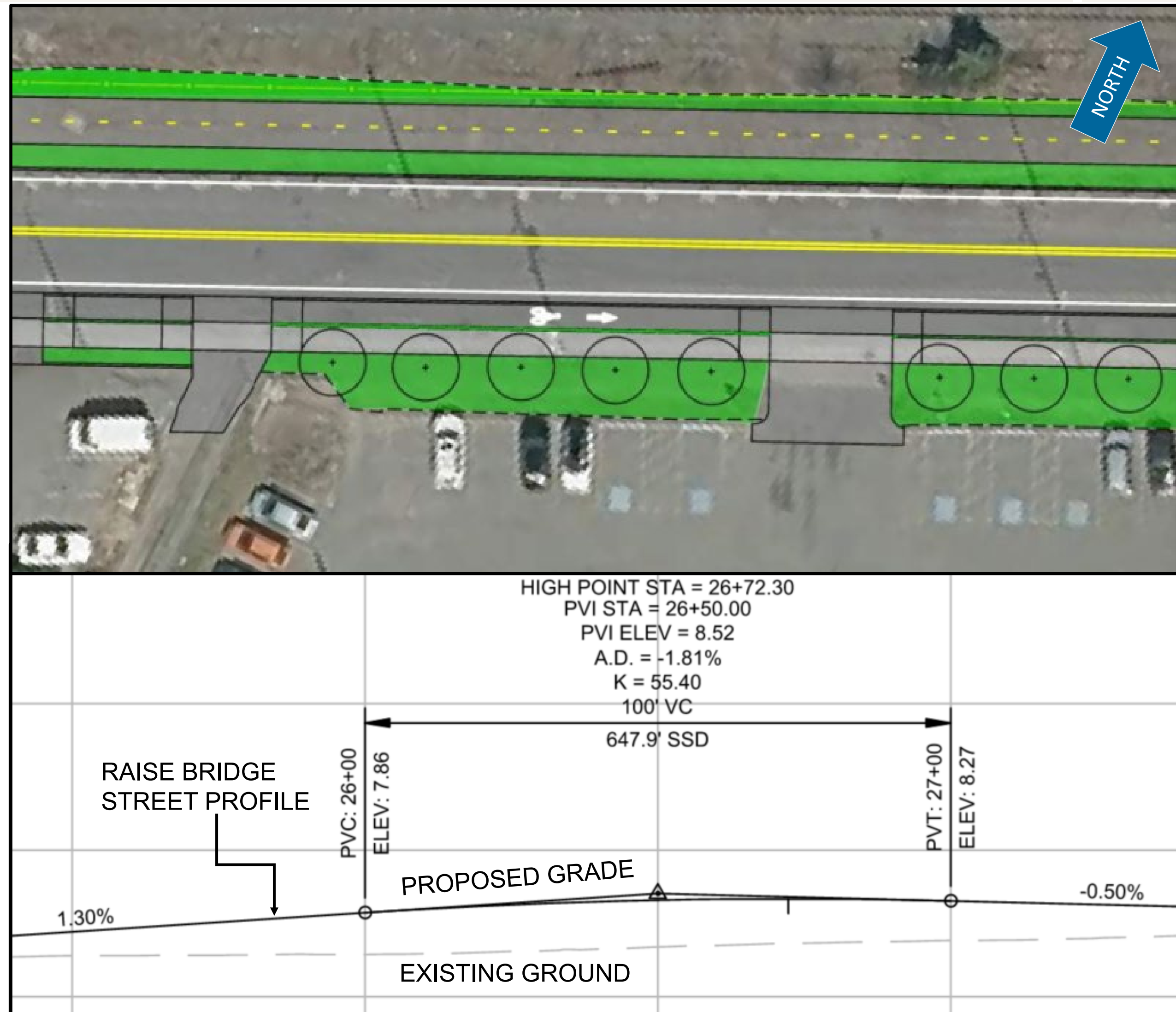




## Other Notable Design Features

**Reconstruct Bridge Street to be less susceptible to flooding**

- Slightly **raising** Bridge Street **profile** in **flooding susceptible areas**
- Reconstruct Bridge Street with **improved grades**
- **Improve storm water drainage** system where viable





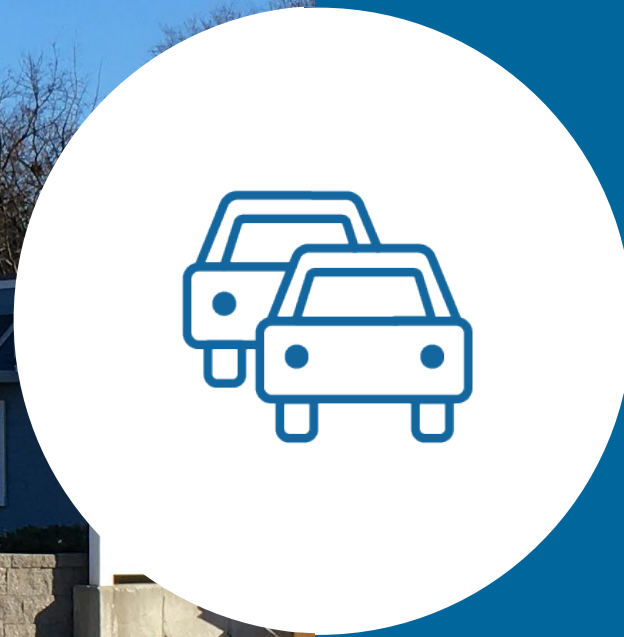
## Other Notable Design Features

Construct the shared use path north of and partially separated from Bridge Street

- Provides an opportunity for **landscaping**
- Helps **reduce impacts** on the **floodplain storage**
- Improves user experience by **creating separation** from **vehicle traffic**







**How will your  
property be  
impacted?**



## Preliminary Right of Way (ROW) discussion

- The City of Salem is responsible for acquiring all necessary rights in public land for design, construction, and implementation of this project.
  - Fee takings, permanent easements and/or temporary construction easements may be required.
- Affected property owners will be contacted by personnel from the City of Salem.
  - Property owners are protected under Massachusetts General Laws, primarily Chapter 79.

**At this stage of design, the Right of Way process has not been finalized. This meeting is an opportunity for the public to comment on any impacts to properties.**





**How will  
bicyclists and  
pedestrians  
be impacted?**



## How will pedestrians and bicyclist be impacted?

- **Separated modern facilities for multimodal users** provide a more comfortable environment
- New **crossing opportunities** on Bridge Street
- Direct **multimodal connection** to the **MBTA Station**







**What are the  
environmental,  
cultural  
resource, and  
community  
impacts?**



# Environmental, cultural resource, and community impacts

## Environmental Impacts

- **Increased overall impervious surface**
- Improved traffic operations **reduce carbon emissions**
- **Improved multimodal access** to MBTA station encourages **reduced vehicle traffic**
- **No adverse impacts to floodplain storage**
- **No work within North River**

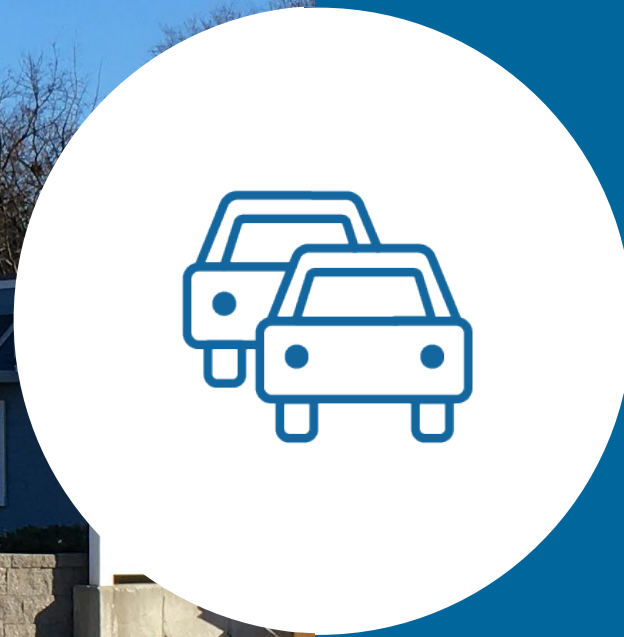
## Cultural Resource

- **No direct impacts** to the **McIntire or Chestnut Street Historic Districts**
- **Improved separation** between **Bridge Street** and the **Historic Districts** with **landscaping** opportunities

## Community Impacts

- **Improve connectivity** to alternative forms of **transportation**
- New **connections** to **existing pedestrian and bicycle networks**





**How will the  
road user be  
affected?**



## How will be the road user be affected?

- Improved safety
- Improved traffic operations
- **Reduced flooding** frequency and intensity of Bridge Street
- **Reduced** likelihood of encountering vehicles backing up into Bridge Street from roadside parking







**What is the  
construction  
approach?**

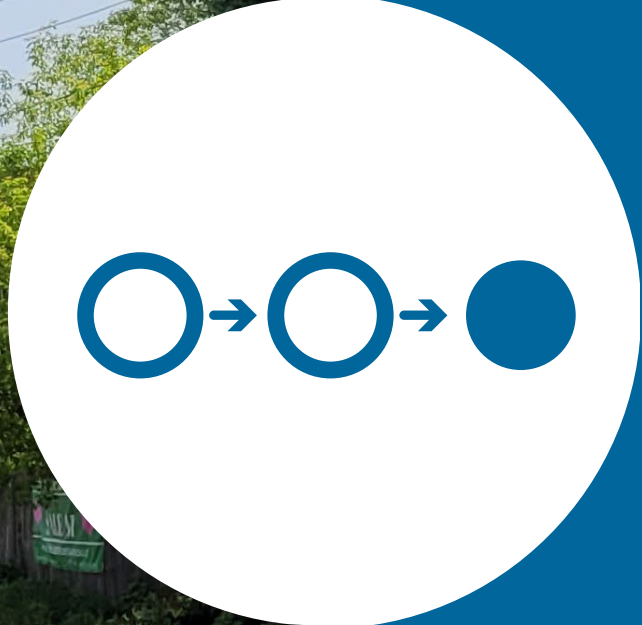


# What is the Construction Approach?

- Based on preliminary evaluation of construction approach:
  - **Two-way travel** on Bridge Street
  - Existing **pedestrian connections** will be **maintained**
  - **Access** to commercial and residential **driveways** will be **maintained**
  - Further development of construction sequences will occur as the design progresses into the final design stage







# Next Steps



# Next Steps & Tentative Schedule



**Tonight - Public Informational Meeting**

Obtain feedback to refine the 25% design



**Winter 2024/2025 – 25% Design**

Refine preliminary design based on feedback from the stakeholders and public officials



**Spring 2025 - Design Public Hearing**

Present the refined design (views and comments submitted in response to the hearing will be consider as the design is progressed)



**To be Programmed**  
Final Design & Construction



# Project Cost and Programming

- Current/Preliminary Estimated Total Construction Cost: **\$11.6 million**
- To be programmed in the Statewide Transportation Improvement Program (STIP/TIP)





**How will we  
keep you  
informed?**



## Contact Information

- **Email comments directly to MassDOT (preferred):**  
[MassDOTProjectManagement@dot.state.ma.us](mailto:MassDOTProjectManagement@dot.state.ma.us)  
Subject: Project File No. 612990 - Salem
- **Mail comments to MassDOT:**  
Carrie Lavallee, P.E.  
Chief Engineer MassDOT  
10 Park Plaza  
Suite 6340  
Boston, MA 02116  
Att. Project File No. 613320







# Questions and Answers



## Questions and Answers



- “Raise your hand” to be unmuted for verbal questions (Alt + Y if using a phone)



- Submit your questions and comments using the Q&A button



- Please state your name before your question



- Please share only 1 question or comment at a time, limited to 2 minutes, to allow others to participate



- To ask a question via phone, dial \*9 and the moderator will call out the last 4-digits of your phone number and unmute your audio when it is your turn

**All questions and comments are subject to disclosure for public records. Please use these functions for project related business only.**



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Subject: Project File No. 612990 - Salem
- **Mail comments to MassDOT:**  
Carrie Lavalley, P.E.  
Chief Engineer MassDOT  
10 Park Plaza  
Suite 6340  
Boston, MA 02116  
Att. Project File No. 613320







# ***Thank You***

## ***Bridge Street (Route 107) Reconstruction Salem, MA***

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