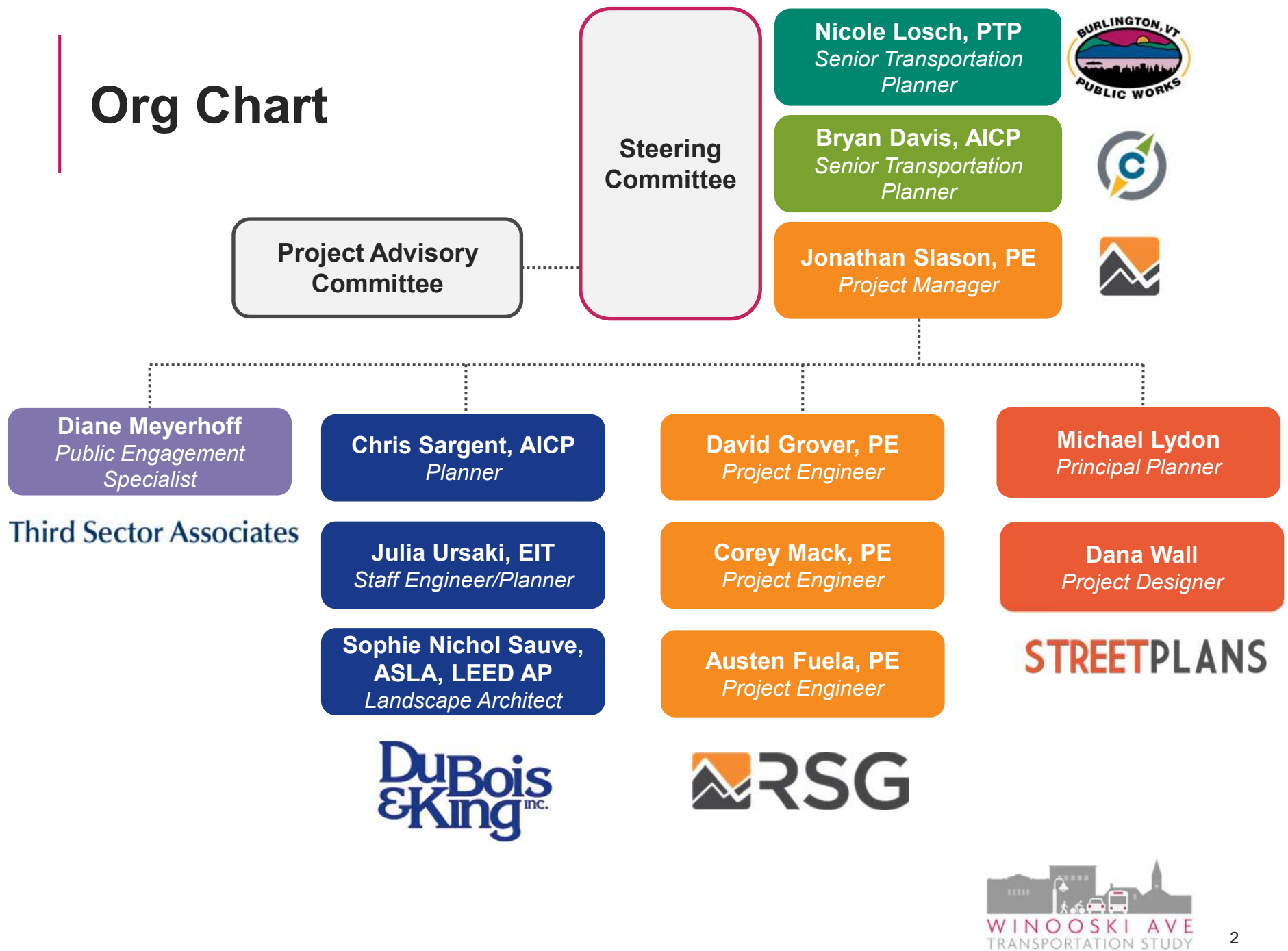


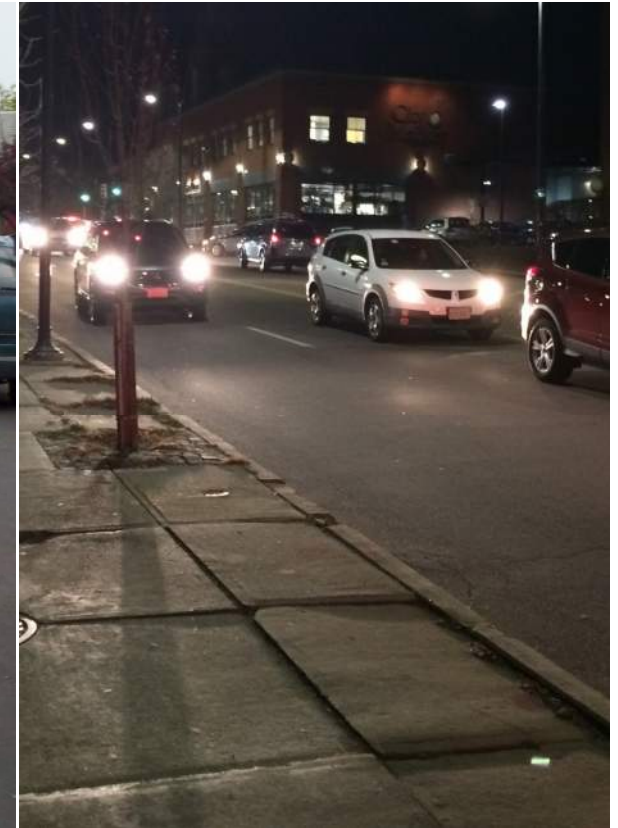


WINOOSKI AVE

TRANSPORTATION STUDY

Org Chart





Winooski Ave Transportation Study

Project Advisory Committee Meeting #7 | Preferred Alternative

January 28, 2020

Project Advisory Committee Meeting #7: Agenda

- 1) Welcome, Introductions, Changes to the Agenda**
- 2) Study: Purpose, Goals, and Schedule**
- 3) Public Meeting Summary**
- 4) Public Comment Period**
- 5) PAC Actions**
 - a) PAC Role in the Project**
 - b) Review the Recommended Project Alternative**
 - c) Select a Preferred Alternative**
- 6) Public Comment Period**
- 7) Next Steps for the Project**

What is this study?

A comprehensive **transportation study** of the **entire Winooski Avenue corridor**, developing **multimodal improvement strategies** that address **safety, capacity, and connectivity**.

Final deliverable: An actionable implementation plan with near-term and longer-term recommendations.

Corridor Vision

- Traveling along and across Winooski Avenue will be **safe, inviting, and convenient** for people of all ages and abilities using any mode of transportation.
- **Walking and bicycling will be viable and enjoyable** ways to travel this corridor. Improvements will encourage active travel and alternatives to personal vehicle use.
- **Businesses will flourish** with an activated streetscape and convenient access along and near Winooski Avenue.
- The **mobility and parking needs will be balanced** for property owners, residents, businesses and the greater transportation system.
- The street can **adapt** to changes to the transportation system and land use

Study Process

1. Existing Conditions and Corridor Vision

- Public Meeting #1 September 5, 2018

2. Alternatives Development

- Public Meeting #2 June 4, 2019

3. Alternatives Refinement and Evaluation

- PAC Meeting #6 Oct 22, 2019

- Public Meeting #3 Nov 13, 2019

4. Implementation Plan

- PAC Meeting #7 Today

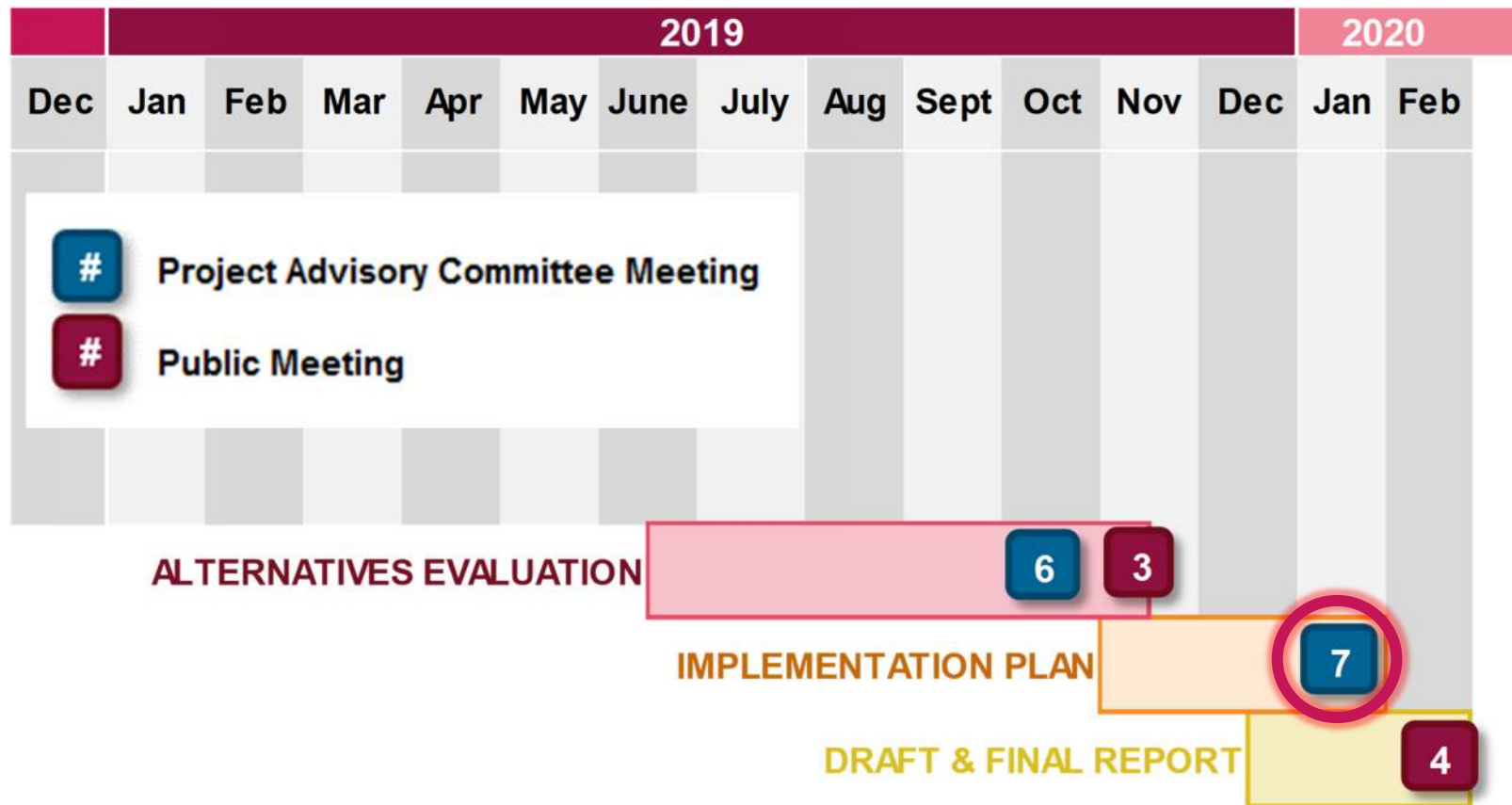
5. Draft Report

- TEUC Meeting Feb 4, 2020

- Public Meeting #4 (with City Council) Feb 2020

6. Final Report

Schedule



Public Meeting - Themes

- **Loss of Parking. Critical as it will affect businesses and residents.**
- **Parking Management Plan will be prioritized and should guide the next steps in the Northern Segment**
- **Bike lanes are needed – preferably protected**
- **Vehicle parking should be maintained over two-way vehicle travel**
- **Downtown Segment has general agreement that changes are necessary**



Public Comment



Project Alternative:
Recommended → Preferred

Timeline Overview

- Interim Actions: 2020
- Shorter-Term Actions: 2020-2021
- Longer-Term Actions : Beyond 2021

Interim Actions

1. A comprehensive **Parking Management Plan (PMP)** is recommended to identify strategies for managing parking in the Pearl Street to Riverside Avenue study area. No changes to on-street parking will be made until agreement on the outcomes of the PMP.
2. Improve **bicycle wayfinding** between the southbound Winooski Avenue bike lane and the northbound Union Street bike lane.
3. **Advance pilot projects** or demonstrations to test mini-roundabouts on North Winooski Avenue.
4. Address **commercial loading and driveway queueing** on Winooski Avenue in the downtown.
5. Evaluate public safety impacts, traffic operations, driveway access, Marketplace garage circulation, roadway dimensions, and Vermont Agency of Transportation approvals for a **potential median in the downtown**.

Parking Management Plan (PMP)

A PMP identifies the current supply of parking in the study area (public lots, private lots, and on-street), evaluates the current demand for vehicle parking, and identifies ways to utilize the existing supply more efficiently.

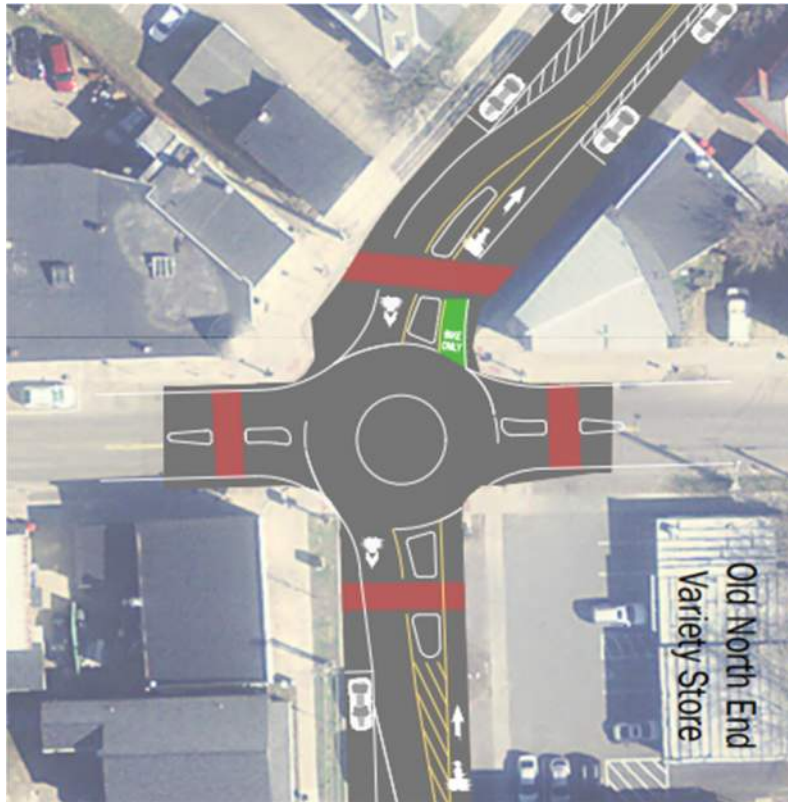
This PMP will cover the linear study area from Riverside Avenue to Pearl Street, with the potential to address North Street to Pearl Street and Riverside Avenue to North Street as two study areas. The PMP will extend one block either side of Winooski Avenue and will include interviews and intercept surveys with people visiting, living, and working in the study area.

The PMP will identify what type of parking management strategies are needed in the study area. It will also identify whether management alone (e.g. time-restricted parking to encourage turnover for neighborhood businesses, new loading zones, shared parking arrangements off-street, etc.) may be sufficient to offset the loss of on-street parking suggested by the alternatives.

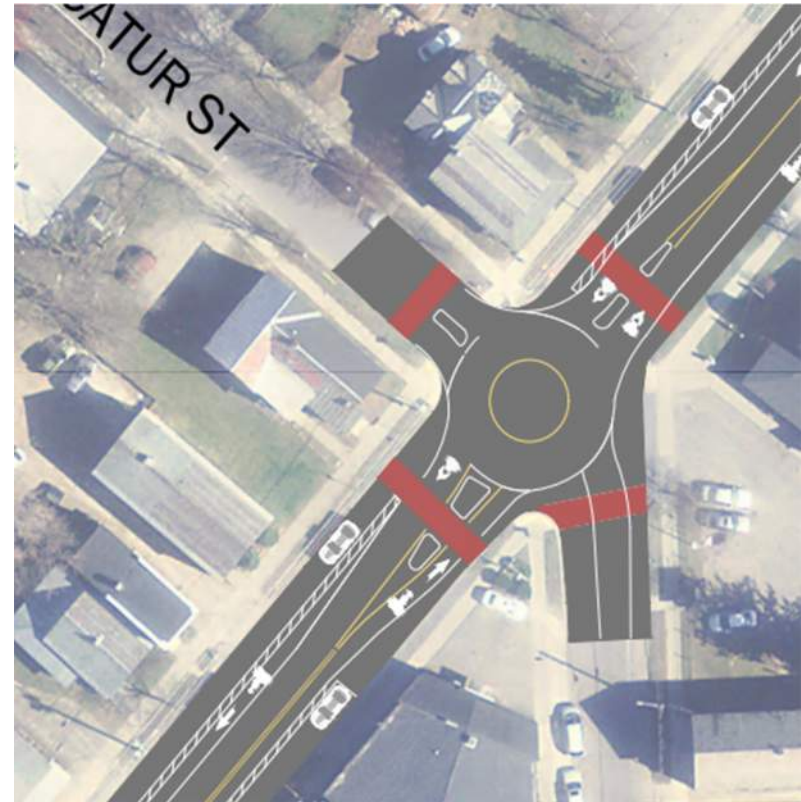
A goal of the PMP is to preserve as much existing vehicle parking as possible through proactive corridor management.

Mini-roundabout Pilots

North Street / Winooski Avenue



Union St/ Decatur St/ Winooski Ave



Northern Segment – Alternative

Shorter-term A

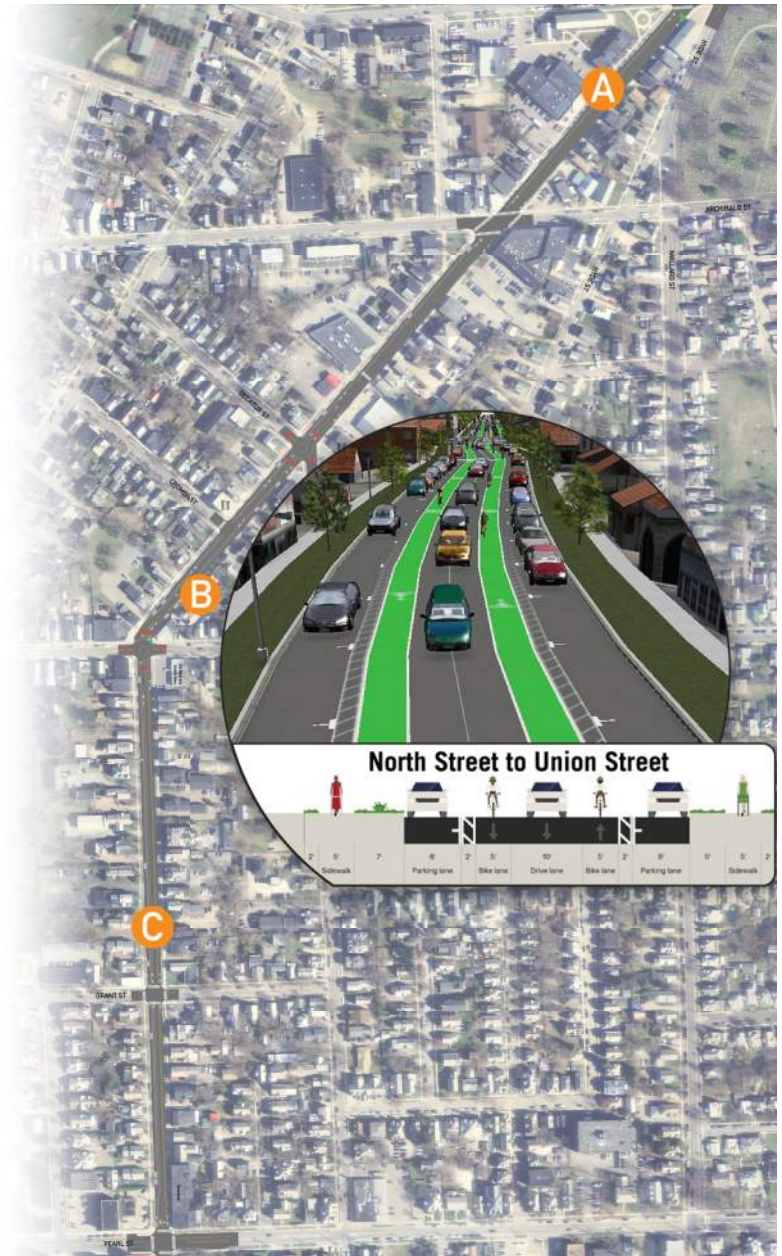
- **Use the PMP** to identify and create new loading zones, accessible spaces, time-restricted parking, opportunities for parking in place of greenbelts, and other parking strategies to mitigate impacts of on-street parking loss.
- Remove the east side on-street parking (39 spaces), providing space to shift the centerline and **accommodate on-road bike lanes on both sides.**
- **Bus stop improvements** for Riverside Avenue bus stop (Green Line) outside the community health center. This stop has high ridership demand and minimal amenities. Other northbound stops for the Gold Line should be evaluated based on amenity guidelines set by GMT.
- The **mid-block crossing north of Union Street** should be reevaluated given pedestrian demands, lighting, visibility, and other considerations.
- Signal improvements to **improve bicycle detection** should be considered at Riverside Avenue to improve bicycle mobility between Winooski Avenue and the shared use path along Riverside Avenue.



Northern Segment – Alternative

Shorter-term **B**

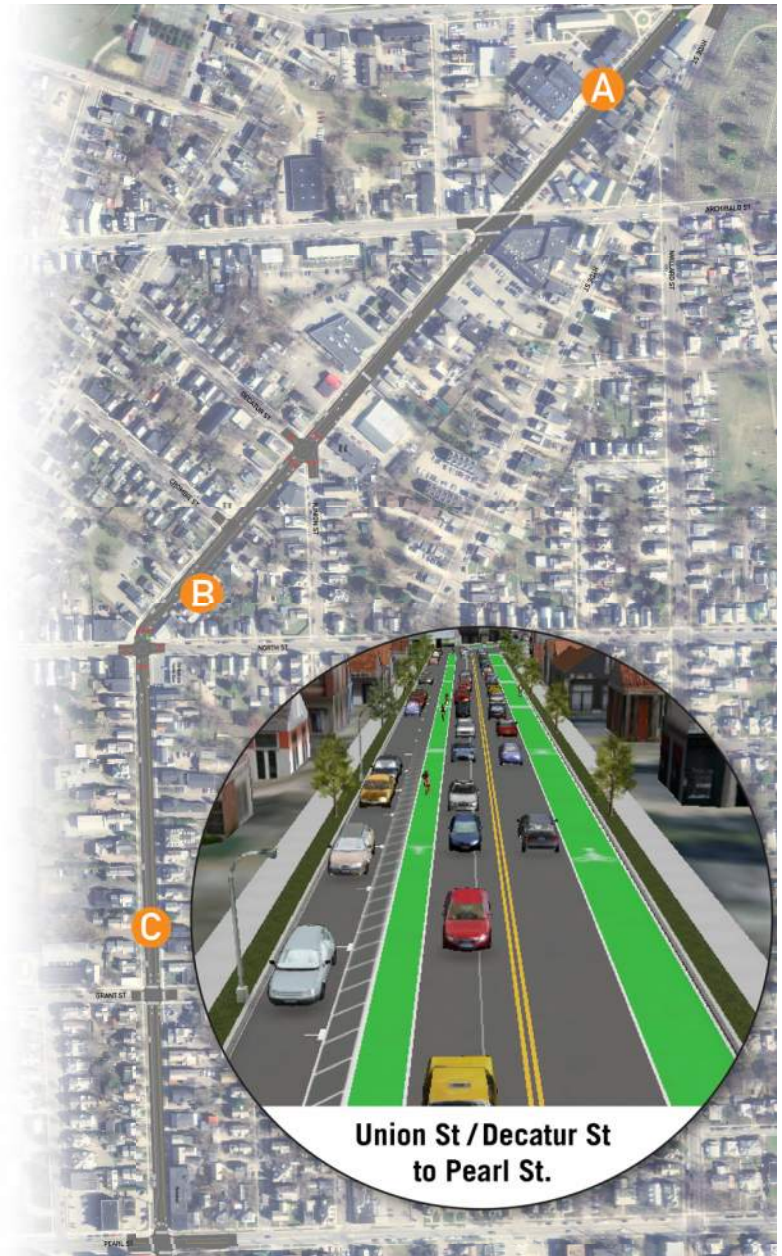
- Before any changes to parking, wayfinding can be improved from Winooski Avenue onto Union Street to **improve the user experience for northbound bicycle travel via Union Street.**
- **Use the PMP** to preserve parking and mitigate the loss of parking, create new loading zones, accessible spaces, time-restricted parking, and other management solutions.
- Maintain southbound-only motor vehicle travel and **remove east side on-street parking** (46 spaces) between North Street and Pearl Street to **accommodate the additional on-road bicycle capacity.**
- Retain parking between North Street and Union Street



Northern Segment – Alternative

Longer-term **C**

- **Widen the roadway** to accommodate two-way travel for all modes, including transit, and/or protected bicycle lanes, underground utilities, and additional street trees.
- Remove the east side parking (26 spaces) between Union Street/ Decatur Street to North Street to **accommodate two-way travel for all modes**, including transit, and buffered bicycle lanes.
- In the longer-term, two-way vehicle travel will be possible from Riverside Avenue to Main Street. GMT could initiate new northbound service which would require identifying and improving bus stops.

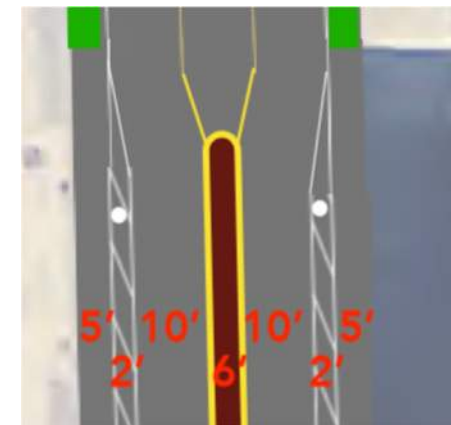


Downtown Segment – Proposal from Community

Similar to Alt 2C, which was not the recommended alternative due to emergency response concerns for gridlock and limited u-turn options without downtown roundabouts.

There are clear benefits, however, further evaluation is necessary to design a median option that can work in this corridor. Before piloting a median, evaluate:

- **Emergency Response:** bike lane protection, raised elements, bump outs and turn prohibitions may hinder emergency responses.
- **Operational:** Evaluate implications of left-turn restrictions at Bank Street.
- **Driveway:** access impacts and authority.
- **Marketplace garage:** impacts on changing the way most users access the garage
- **Dimensions:** meet minimum standards and fit all elements fit within existing road width
- State review given it is a **Class 1 Highway**



Downtown Segment – Alternative

Shorter-term

- Re-stripe the roadway to remove the 4-lane configuration and create the **5-lane cross-section**.
- Enhance the significant southbound **transit stop near Bank Street** with a shelter and other amenities as appropriate.
- **Evaluate the operations and safety of a median** and other streetscape enhancements.
- Adding street trees where possible and **improve the pedestrian experience** with benches, trees, and other amenities within the right of way.

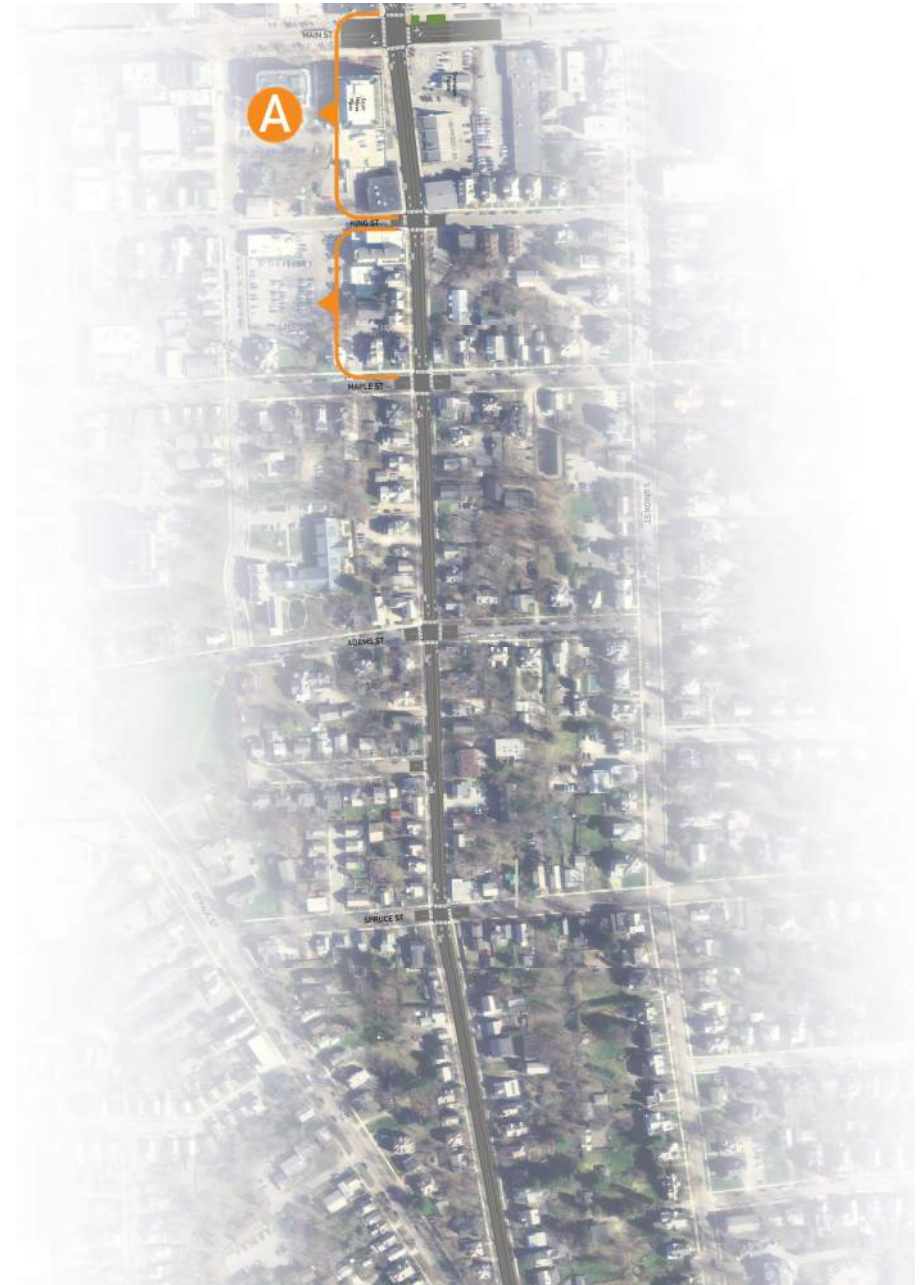
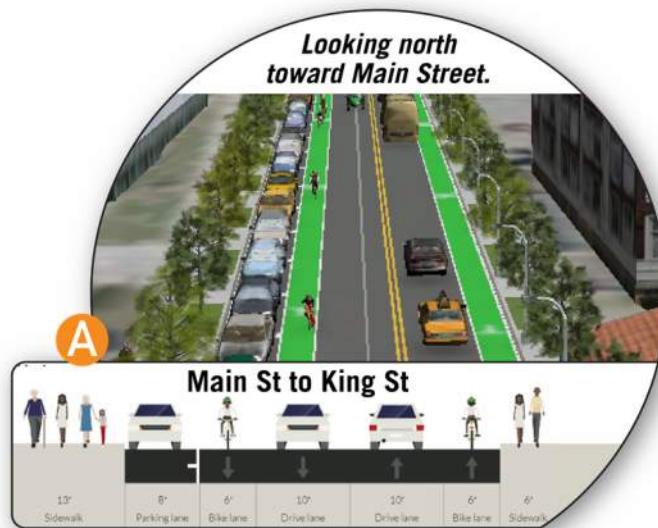
This alternative remains flexible to create additional changes in the future



Southern Segment – Alternative

Main to King Shorter-term

- Shift the center line of the street and incorporate **northbound and southbound bike lanes**.
- Maintain both **southbound and northbound travel lanes**.
- **Remove the 12 metered curb side parking spaces** on the east side.



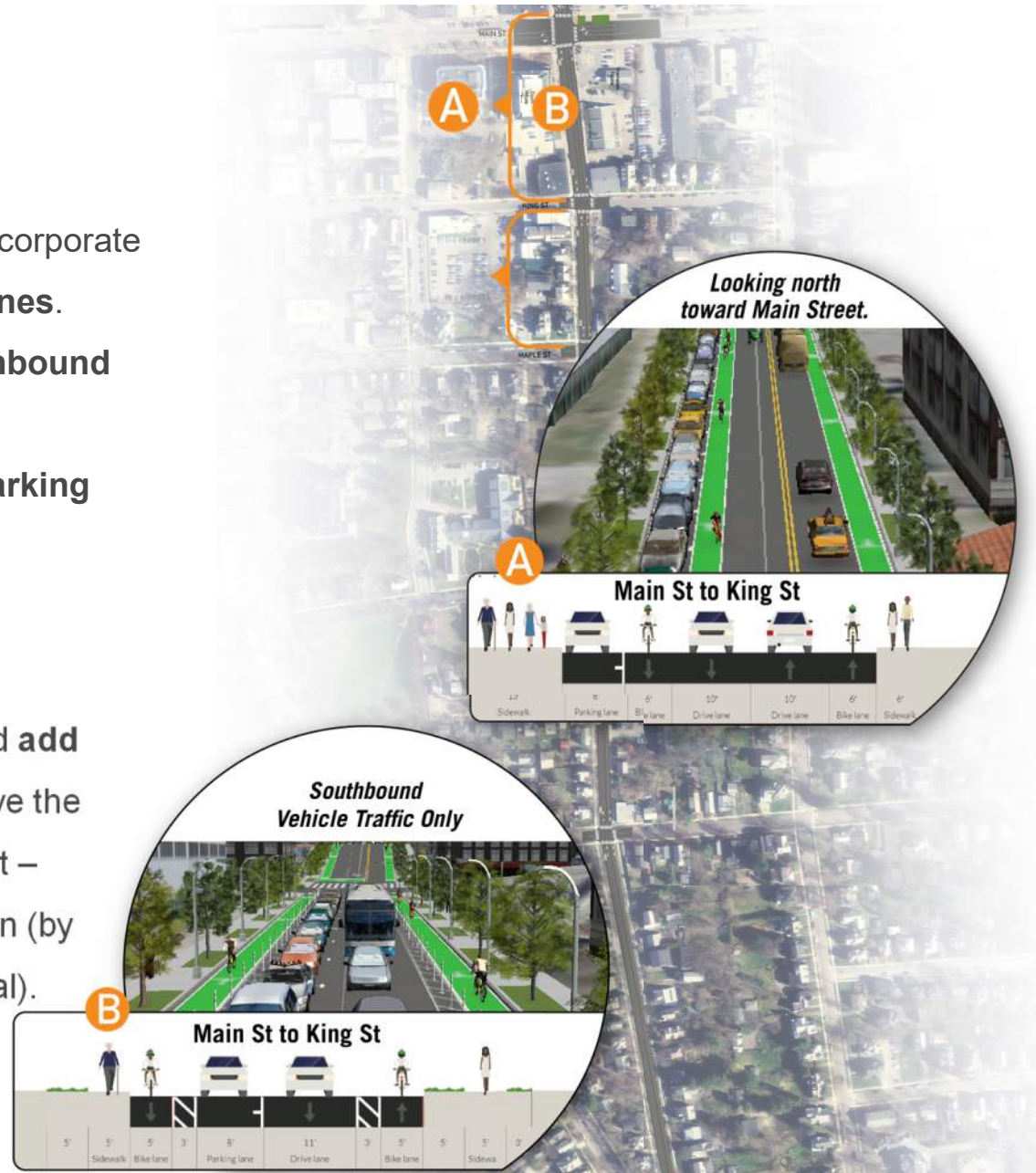
Southern Segment – Alternative

Main to King Shorter-term **A**

- Shift the center line of the street and incorporate **northbound and southbound bike lanes**.
- **Maintain both southbound and northbound travel lanes.**
- **Remove the 12 metered curb side parking spaces** on the east side.

Main to King Longer-term **B**

- Remove the northbound travel lane and **add protected bike lanes** which will improve the operational efficiency at the Main Street – Winooski Avenue signalized intersection (by removing an approach lane to the signal).



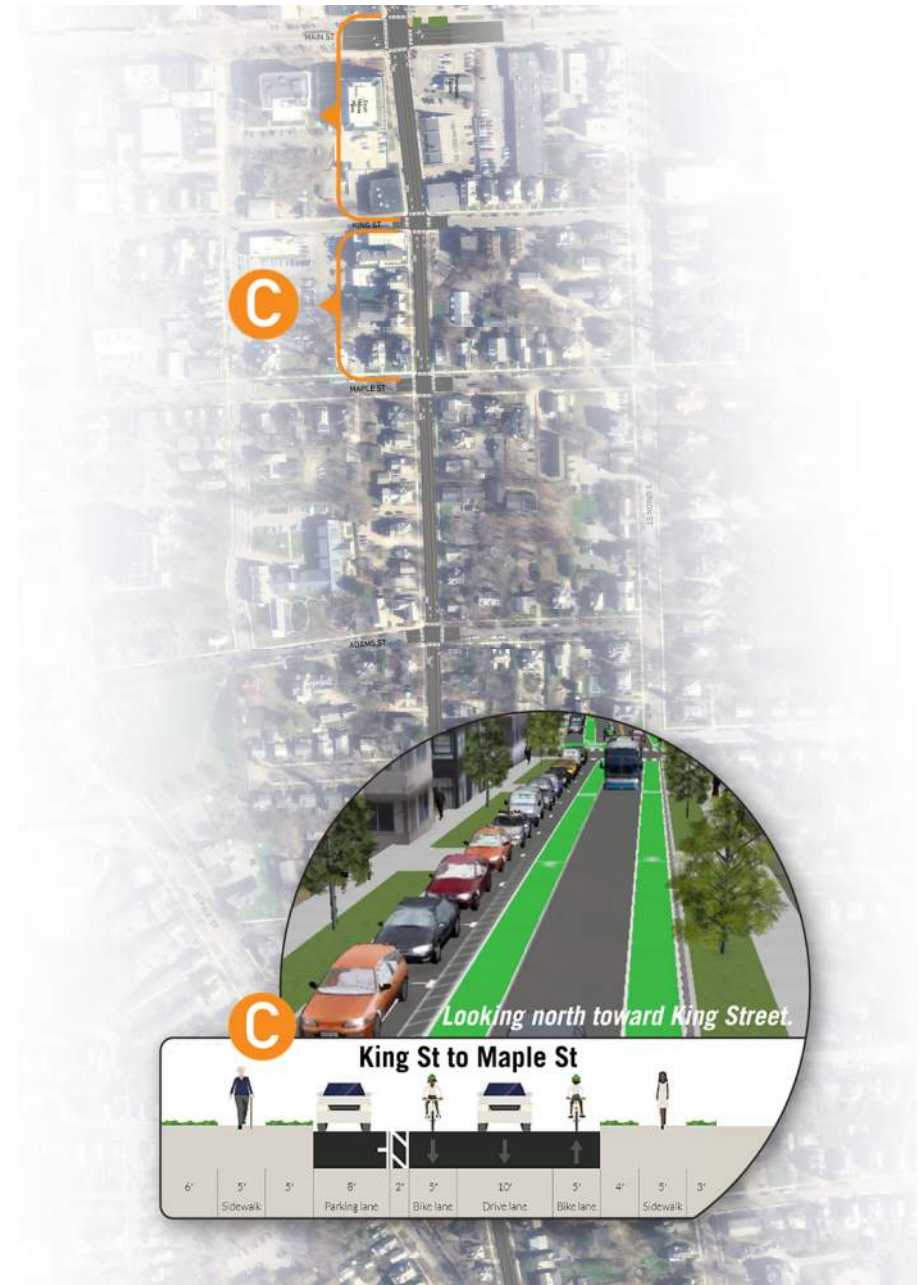
Southern Segment – Alternative

King to Maple Shorter-term

- Remove the northbound vehicle travel lane and **create southbound and northbound bike lanes**. In essence, the cross-section just south of Maple Street will be extended north through this segment of the corridor.

King to Maple Longer-term

- Explore widening** between Main Street and King Street by removing the green belt to create on-street parking spaces.





Implementation Timeline

Northern Segment – Timeline

2020

- Conduct the Parking Management Plan for the two study areas: Pearl Street to North Street and North Street to Riverside Avenue. Identify management and/or solutions to mitigate the loss of on-street vehicle parking.
- Conduct pilots for the two mini-roundabouts at North Street and Union Street.
- Initiate preliminary design and engineering. Develop plans for revising signage, striping, stormwater drains, and other infrastructure in the corridor. Identify where minor curb movement might accommodate some indented on-street vehicle parking spaces.
- Develop wayfinding signs for parking and bicycle travel to increase the use of the Union Street bike lanes in the near-term prior to any changes in on-street parking.

2020-2021

- Initiate permanent installs of the mini-roundabouts upon successful trials.

2021

- Complete physical work upon agreement on Parking Management Plan outcomes.

Beyond 2021

- Identify funding for roadway widening and longer-term improvements.



Downtown Segment – Timeline

2020

- Initiate preliminary design and engineering. Evaluate and develop revised signal designs and signal timings for the corridor. Develop plans for revising signage, striping, stormwater drains, and other infrastructure in the corridor.
- Develop wayfinding signs for city parking and bicycle travel.
- Assess Marketplace Garage entrance options.
- Engage with City Market and other property owners along the corridor.
- Finalize design for the corridor changes.

2020-2021

- Complete physical works.
- Evaluate the operations and safety of a raised median and other streetscape enhancements.
- Make final adjustments to shorter-term improvements in advance of roadway paving in 2022.

Beyond 2021

- Identify funding for roadway widening and longer-term improvements such as protected bike lanes, underground utilities, stormwater management, and a raised median.
- Implement and/or pilot a raised center median if the evaluation warrants further consideration. Timing to be coordinated with the St. Paul and Pine Street grid connections.

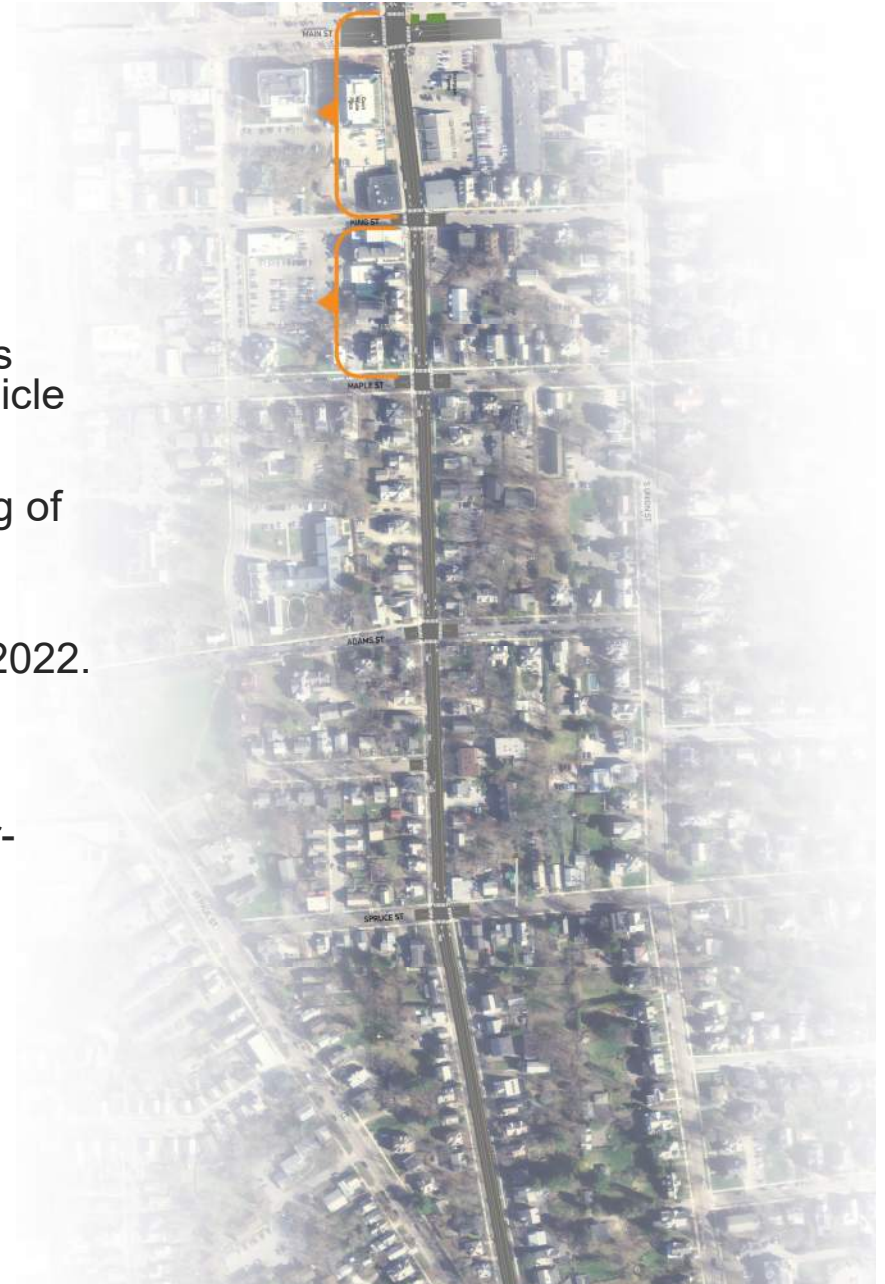
Southern Segment – Timeline

2020-2021

- Initiate preliminary design and engineering
- Engage with property owners and neighborhoods affected by change in parking and change in vehicle lanes.
- Complete the shorter-term projects and restriping of lanes
- Make final adjustments to shorter-term improvements in advance of roadway paving in 2022.

Beyond 2021

- Identify funding for roadway widening and longer-term improvements





Implementation Costs

Shorter-term Implementation Costs

Northern Segment (Riverside Avenue to Pearl Street)

- Union Street mini-roundabout: \$115,000
- North Street mini-roundabout: \$150,000
- Striping Only (remove & restripe): \$45,000

Downtown Segment (Pearl Street to Main Street)

- Striping Only (remove & restripe): \$53,000
(not including costs associated with signal retiming and detection)

Southern Segment (Main Street to Maple Street)

- Striping Only (remove & restripe): \$10,500



Project Alternative: **Recommended → Preferred**

- **Discuss the Alternative**
- **Select the Preferred Alternative**



Public Comment



Next Steps

Study Process

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