

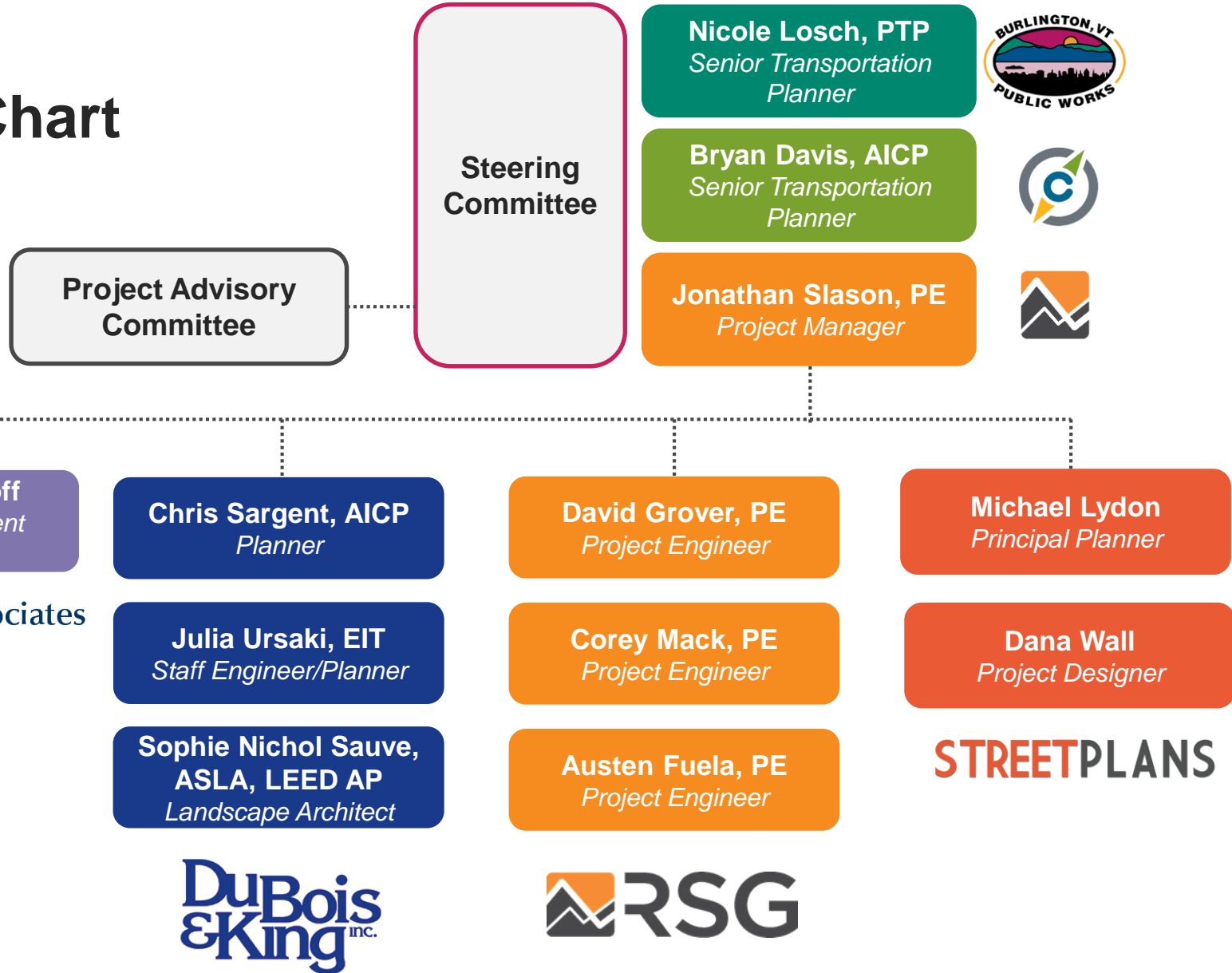


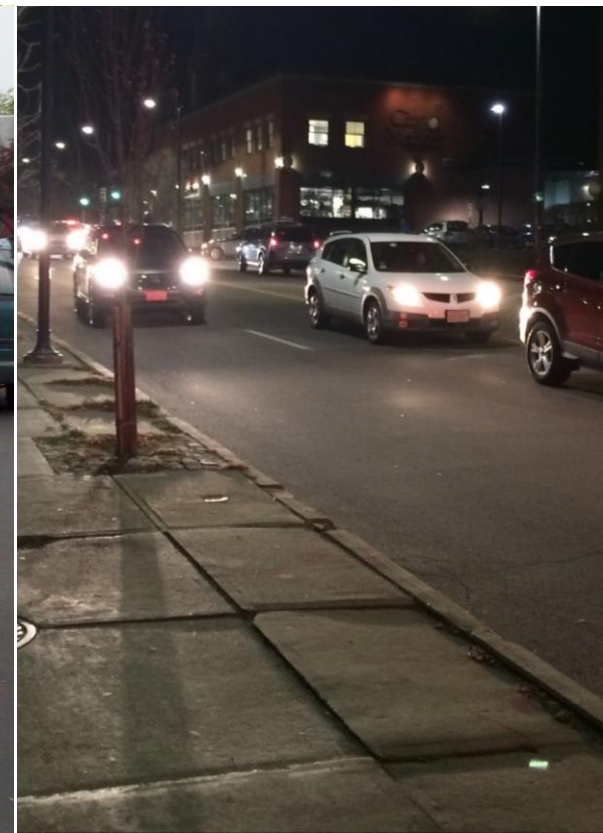
# WINOOSKI AVE

## TRANSPORTATION STUDY

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# Org Chart





# Winooski Ave Transportation Study

Project Advisory Committee Meeting #6 | Evaluation

October 22, 2019

# **Project Advisory Committee Meeting #6: Agenda**

- 1) Welcome, Introductions, Changes to the Agenda**
- 2) Study: Purpose and Goals**
- 3) Public Comment Period**
- 4) Public Meeting Summary**
- 5) PAC Actions**
  - a) Evaluation Process**
  - b) Concept Corridor and Intersection Options**
  - c) Next Steps**
    - Public Meeting**
    - Implementation Plan**
    - Final Report**

# 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 Today

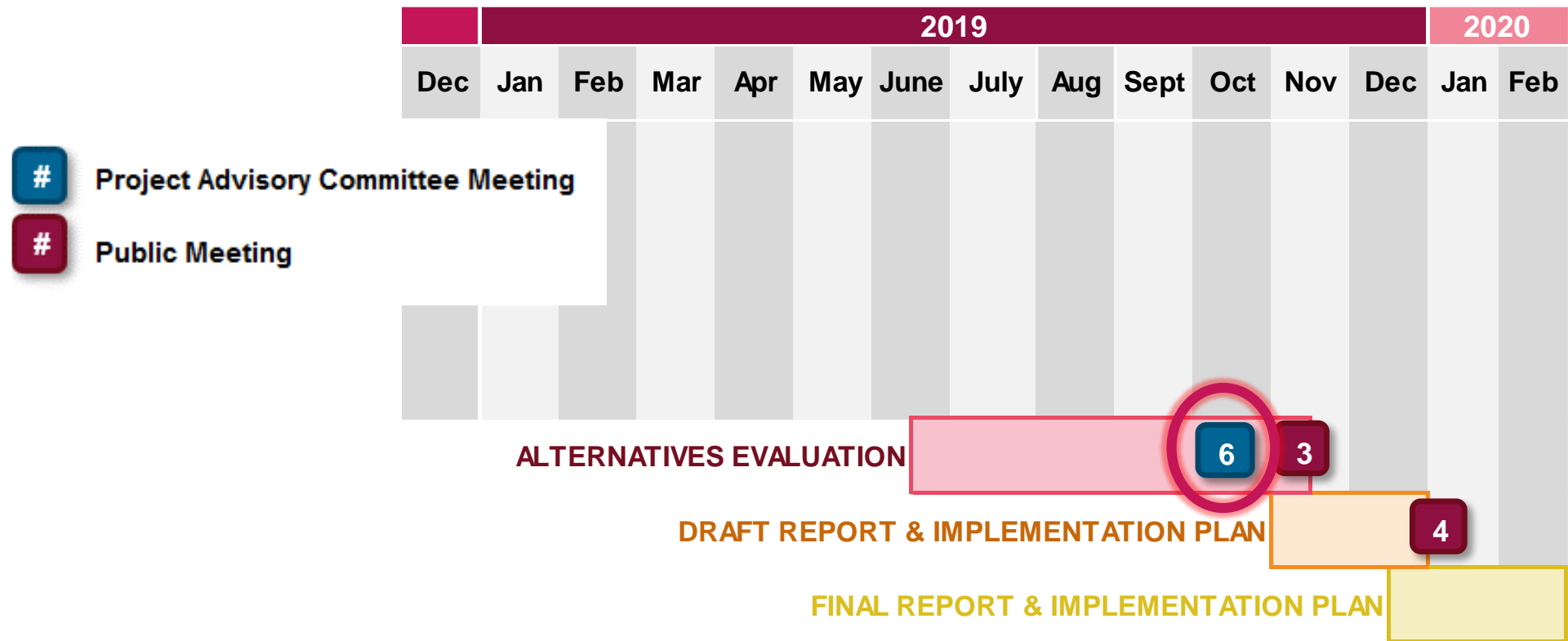
- Public Meeting #3 Mid-Nov

## 4. Draft Report and Implementation Plan

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

## 5. Final Report and Implementation Plan

# Schedule





# Goals for Tonight – PAC Actions

**The PAC would agree on the options to be presented to the public at an upcoming meeting**

**The Public Meeting would be held to:**

- Summarize project to date (needs, input, variations)
- Communicate the prioritization metrics and results
- Discuss implementation of options and opportunities for future enhancements
- Obtain feedback



## Public Comment



## **Where have we been? Schematics – 13 Variations!**

EXISTING

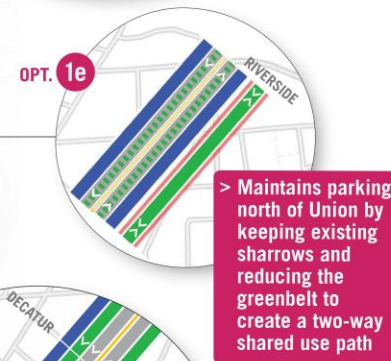
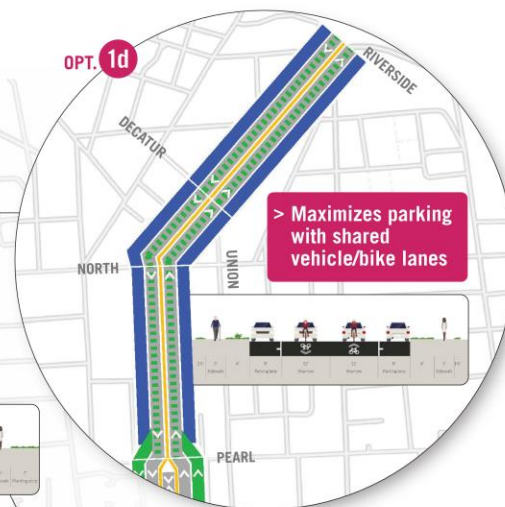
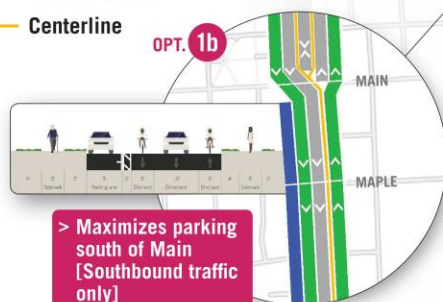


# ALTERNATIVE 1



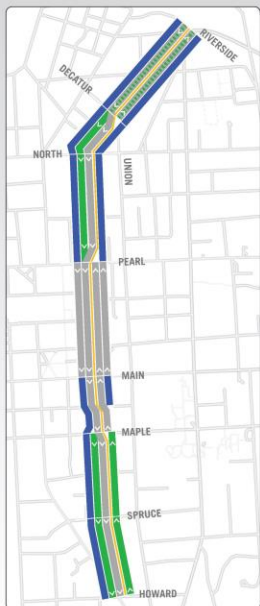
LEGEND

- Widening
- Parking
- Bike Lanes
- Shared Lanes
- Vehicle Lanes
- Centerline



## ALTERNATIVE 2

### EXISTING



### LEGEND

- Widening
- Parking
- Bike Lanes
- Shared Lanes
- Vehicle Lanes
- Centerline

### OPT. 2c

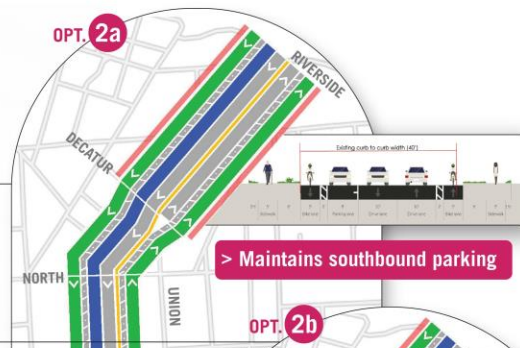


> Creates a curbed median between intersections that will allow left turns onto College, Bank, and Cherry Streets

### ALT. 2

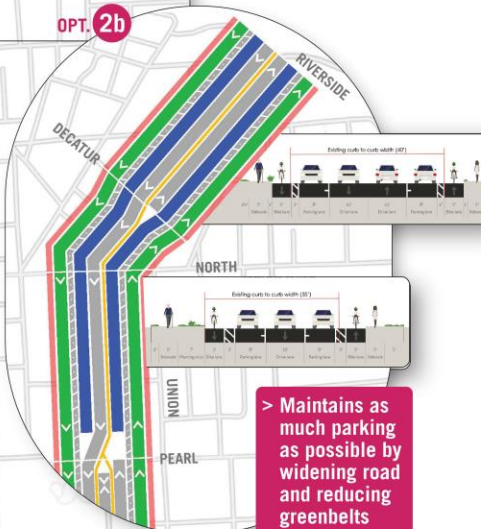


### OPT. 2a



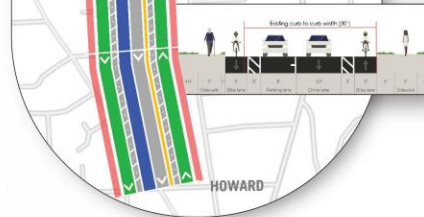
> Maintains southbound parking

### OPT. 2b



> Maintains as much parking as possible by widening road and reducing greenbelts

### 2a-2b





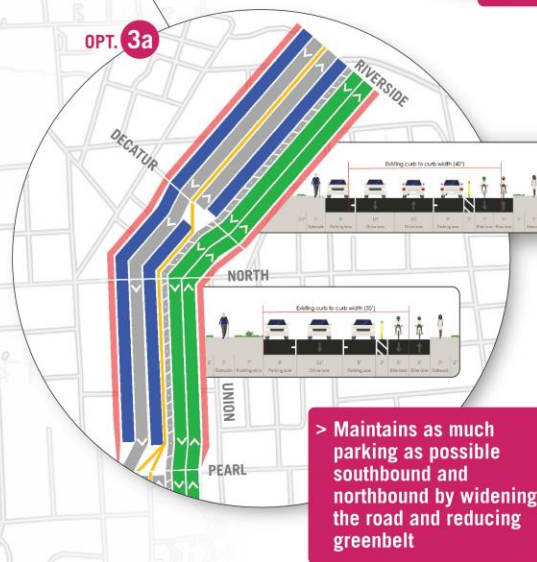
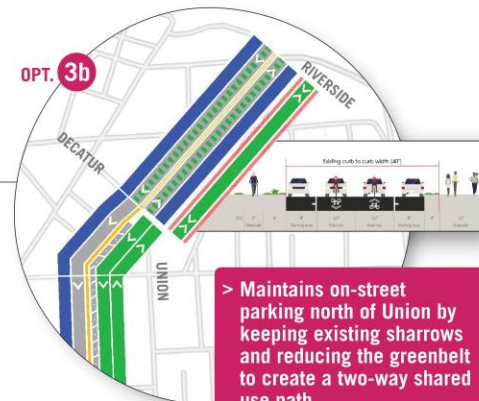
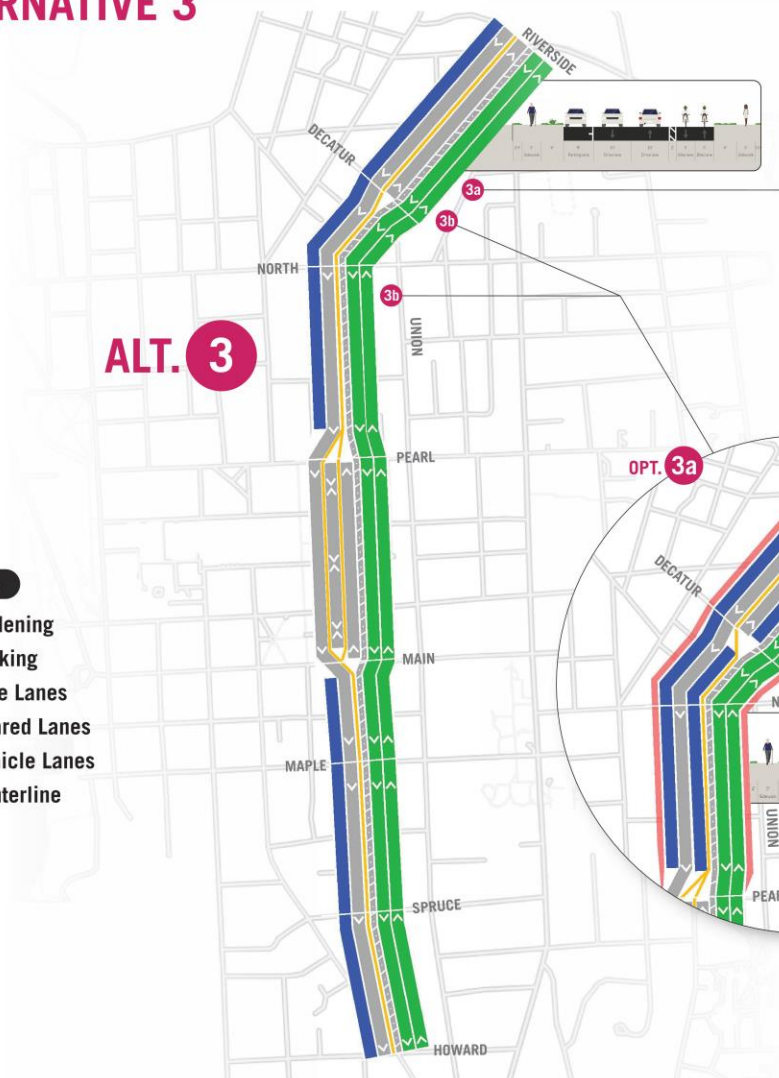
## ALTERNATIVE 3



**LEGEND**

- Widening
- Parking
- Bike Lanes
- Shared Lanes
- Vehicle Lanes
- Centerline

### ALT. 3



# What We've Heard

Continuous, dedicated bike lanes are critical, and protected is preferred.

There is a high demand for parking on North Winooski.

Main to Pearl is aggressive / stressful / dangerous / unattractive.

Street trees and green strips are crucial for an inviting corridor.

## 13 Variations & Intersection Concepts



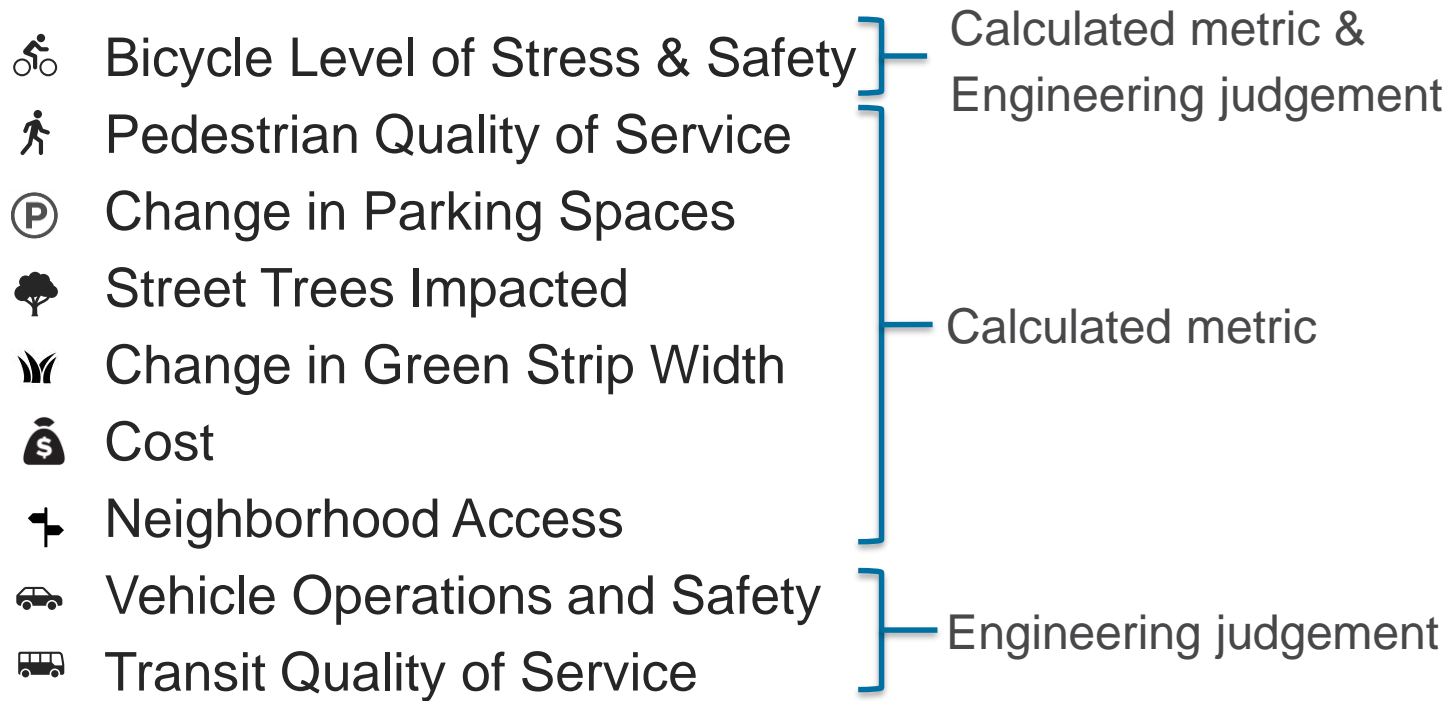
## Evaluation Criteria



**Corridor & Intersection Options:  
Near-term and Long-term**



# Final Corridor Evaluation Criteria



Near-Term &  
Long-Term  
Options

Functional, practical, balanced  
and consistent

# Final Corridor Evaluation Criteria

	Bike LTS with Driveway Density Factor	Ped quality of service	Parking change	Street trees impacted	Change in green strip width (LF)	Cost	Neighborhood Access	Vehicle Operations & Safety	Transit	Evaluation Ranking	
Avg Value per Segment	1.91	1.17	-8.34	2.82	-0.51	\$ 157,203	0.93	0.99	-0.06		
1										1	1
1A										8	1A
1B										2	1B
1C										5	1C
1D										4	1D
1E										3	1E
2										7	2
2A										11	2A
2B										13	2B
2C										6	2C
3										9	3
3A										10	3A
3B										12	3B

Color scale indicates how far **Good** or **Poor** the Variation performs relative to the Average Value per Segment.

# Intersection Evaluation Criteria

- Right of Way Impact
- Vehicle operations (delay & capacity)
- Vehicle safety
- Non-vehicular operations (delay & capacity)
- Non-vehicular safety
- Reduces intersection complexity  
(number of lanes, conflict points)
- Reduces ped/bike exposure  
(shortens crossing distance, fewer conflicts through intersection)
- Bike infrastructure (maintained through intersection / drops at intersection)
- Vehicle speed reduction
- Parking impact
- Transit and Freight access
- Utility impact (overhead, underground)
- Right of Way Impact

# Intersection Evaluation Criteria

Criteria	Main Street		College/Bank/Cherry		Pearl Street	
	Signal	Roundabout	Signal	Mini-Roundabout	Signal	Single Lane Roundabout
<b>Overall</b>						
Right of Way Impact						
Vehicle operations (delay & capacity)						
Vehicle safety						
Non-vehicular operations (delay & capacity)						
Non-vehicular safety						
Reduces intersection complexity (number of lanes, conflict points)						
Reduces ped/bike exposure (shortens crossing distance, fewer conflicts through intersection)						
Bike infrastructure (maintained through intersection / drops at intersection)						
Vehicle speed reduction						
Parking impact						
Transit and Freight access						
Utility impact (overhead, underground)						

Color scale indicates magnitude of **positive** or **beneficial** attributes or **negative** attributes.

# Intersection Evaluation Criteria

Criteria	North Street		Union/Decatur		Archibald		Riverside	
	Signal	Mini-Roundabout	All-Way Stop	Mini-Roundabout	Signal	Mini-Roundabout	Signal	Single Lane Roundabout
<b>Overall</b>								
Right of Way Impact								
Vehicle operations (delay & capacity)								
Vehicle safety								
Non-vehicular operations (delay & capacity)								
Non-vehicular safety								
Reduces intersection complexity (number of lanes, conflict points)								
Reduces ped/bike exposure (shortens crossing distance, fewer conflicts through intersection)								
Bike infrastructure (maintained through intersection / drops at intersection)								
Vehicle speed reduction								
Parking impact								
Transit and Freight access								
Utility impact (overhead, underground)								

Color scale indicates magnitude of **positive** or **beneficial** attributes or **negative** attributes.



## **Discussion Time!**

### **Review the Corridor & Intersection Options**

# Applying the Corridor Vision for Near-Term Options

- Improves safety and convenience for all users
  - Re-allocates road space between Main Street and Pearl Street
  - Shortens intersection crossings and calms traffic at intersections
- Creates connected, contiguous north-south bike facilities
- Retains existing parking along west side of the corridor
- Improves business and resident access for all modes by making it two-way north of North Street

# Intersection Concepts

Intersection	Short-term Option	Other Possibilities
Main St	Tightened signal - Eliminate right-turn lanes (southbound, westbound)	1-lane traditional roundabout - Requires ROW - Adjacent redevelopment unknown
College St	Improve Signalized Intersection	Mini-roundabout considered but unlikely to function well
Bank St	Improve Signalized Intersection	Mini-roundabout considered but unlikely to function well
Cherry St	Improve Signalized Intersection	Mini-roundabout considered but unlikely to function well
Pearl St	Tighten signal	
North St	Mini-roundabout	Tightened Signal - Bump outs and improve bike lanes
Union/Decatur St	Mini-roundabout	Maintain all-way stop
Archibald St	Tightened signal - Short cycle length	All-way stop
Riverside St	Signal improvements	



# Riverside Avenue to North Street

Looking  
north toward  
Riverside  
Avenue.



## Highlights

- Retains west side parking (76 spaces)
- removes east side parking (64 spaces)

Stormwater opportunities

Pedestrian improvements at intersections

Connectivity:

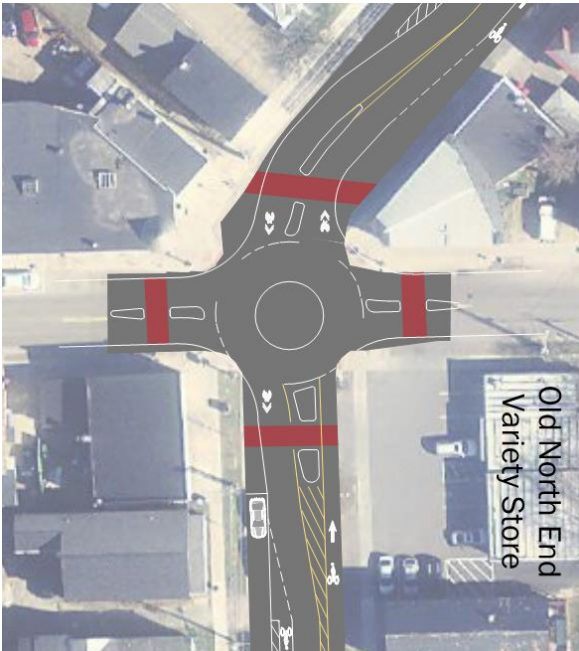
- Two-way vehicle lanes
- Northbound and southbound bike lanes



A **parking management plan** will be conducted to identify strategies on managing the Winooski Ave parking (such as time limits, loading zones, etc.).

# North Street to Pearl Street

Looking  
north toward  
North Street.



A **parking management plan** will be conducted to identify strategies on managing the Winooski parking (such as time limits, loading zones, etc.).

## Highlights

- Retains west side parking (46 spaces)
- removes east side parking (45 spaces)

Retains southbound vehicle lane

Creates northbound and southbound bike lanes

Stormwater opportunities

Pedestrian improvements at intersections



# Pearl Street to Main Street



## Highlights

Improves utilization and safety of existing road capacity, enhances quality of service for pedestrians, and reduces stress for bicyclists.

## Connectivity:

- Two-way vehicle lanes
- Two-Way-Left-Turn-Lane
- Northbound and southbound bike lanes



## PILOT TEST IMPROVEMENTS AT THE INTERSECTION OF SOUTH WINOOSKI AVENUE AND BANK STREET

Use paint or epoxy-gravel mix and planters to extend the north and south side sidewalk at the intersection of Bank Street and South Winooski; Ban right turn on red and provide a lead pedestrian interval.

# Main Street to King Street



## Highlights

- Retains west side parking (13 spaces)
- eliminates east side parking (12 spaces)

Maintains two-way vehicle traffic

Creates new northbound and southbound bike lanes

# King Street south to Howard Street



## Highlights

Retains west side parking (87 spaces)

One-lane southbound vehicle lane

Northbound and southbound bike lanes

# Opportunities for Long-term Options

- Responsive to changes in land use, parking demand and management strategies and other significant projects, such as Great Streets projects.
- Maintains the option to widen the road to increase vehicle parking supply, provide space for protected bike lanes, and/or improve the pedestrian amenities.

# North Street to Pearl Street – Opportunity in the Future



## Highlights

Widens roadway

## Continuity

- Two-way vehicle lanes from Main to Riverside.
- Northbound and southbound bike lanes

West side parking – same as near-term concept (45 spaces removed on east side)



# Main Street to King Street – Opportunity in the Future



**Opportunity** to revise parking regulations to improve turnover or benefit to local land uses.

## Highlights

Protected bicycle facilities

Reduces vehicle lanes to southbound only.

Likely to improve operational efficiency of Main Street signal.

Retains west side parking (13 spaces)  
- eliminates east side parking (12 spaces)





## Next Steps

# Next Steps

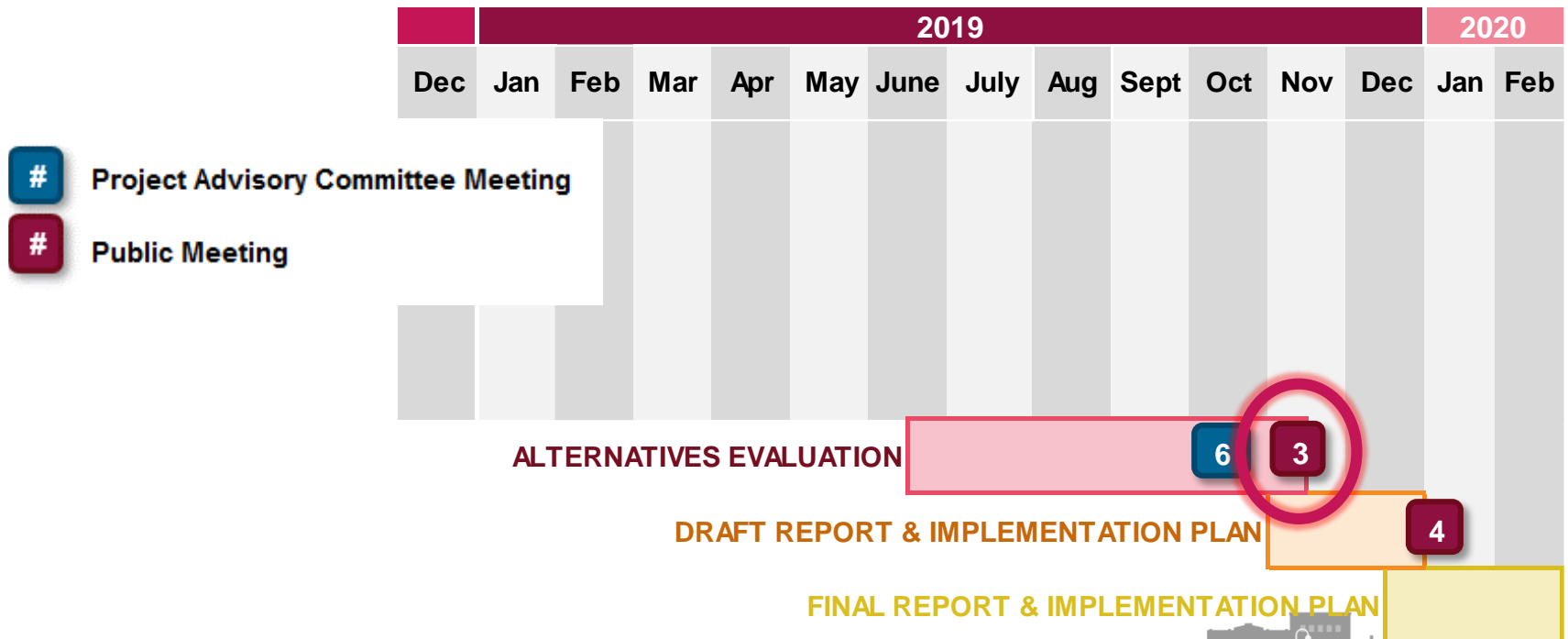
Public Meeting – Gauge public interest and areas of **Yea!** and areas of **No Way!** to inform the implementation plan

Your role tonight - agree on the options to be presented to the public at an upcoming meeting

What can you tell us tonight?

- **Feedback:** the **good**, the **bad**, the **ugly**
- **What do we need to do to make this a reality?**
- **What would the community like to see as part of the near-term and long-term options?**

# Next Steps





# CONTACTS

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### *Steering Committee*



CHITTENDEN COUNTY RPC  
Communities Planning Together



the science of insight



STREETPLANS  
MIAMI SAN FRANCISCO NEW YORK

Third Sector Associates

### *Consultant Team*



**Thank You!**