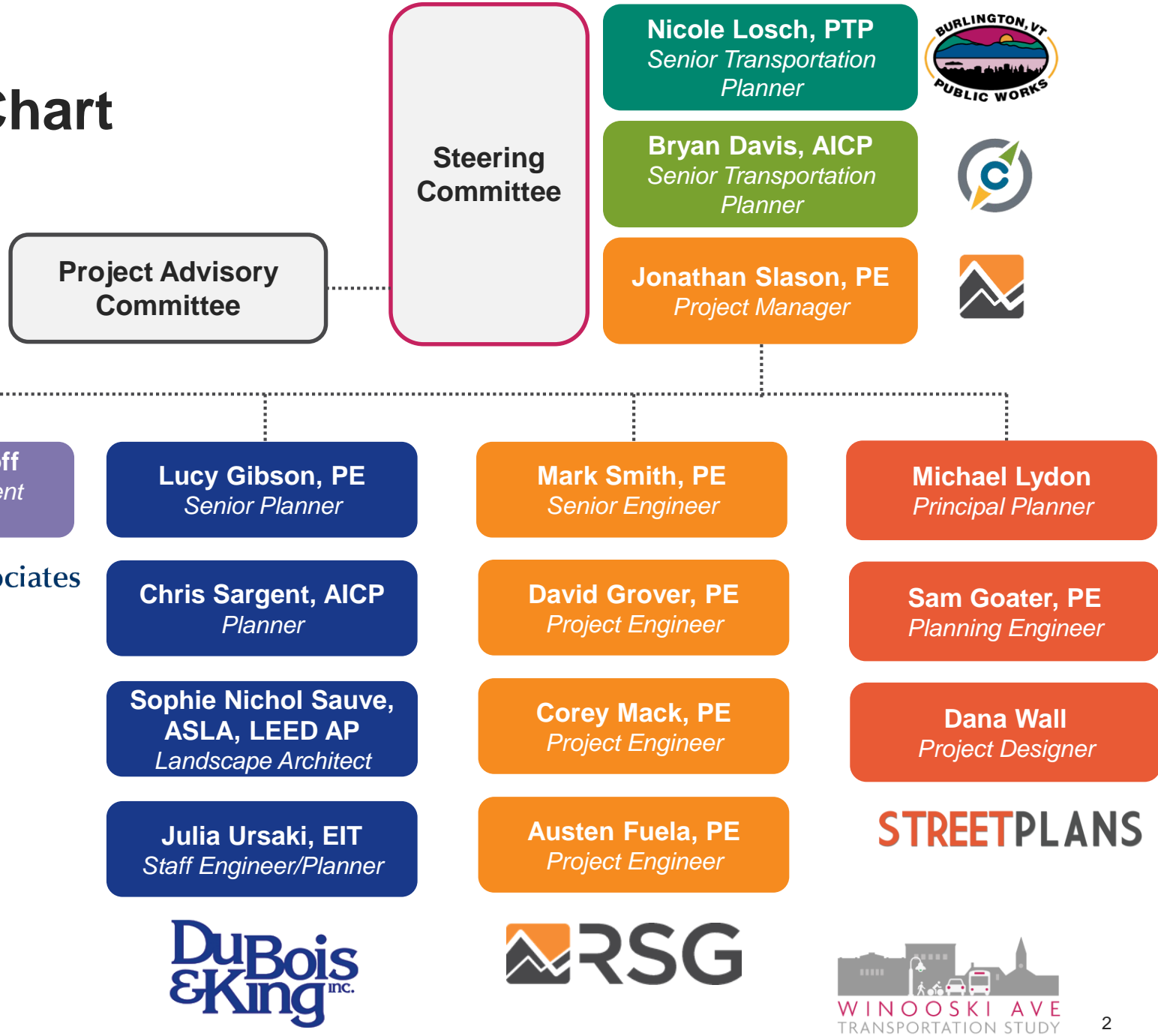


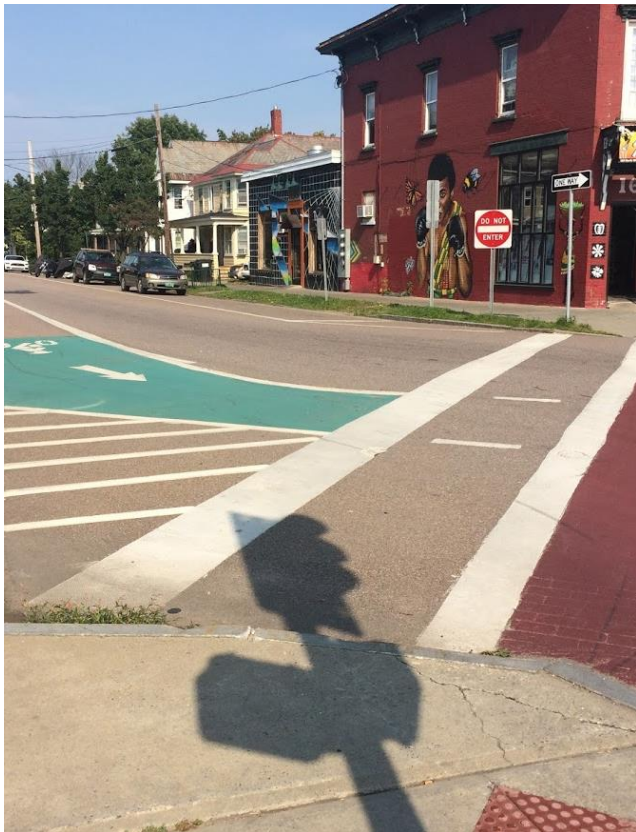


WINOOSKI AVE

TRANSPORTATION STUDY

Org Chart





Winooski Ave Transportation Study

Project Advisory Committee Meeting #3 | Vision & 6 Facilities

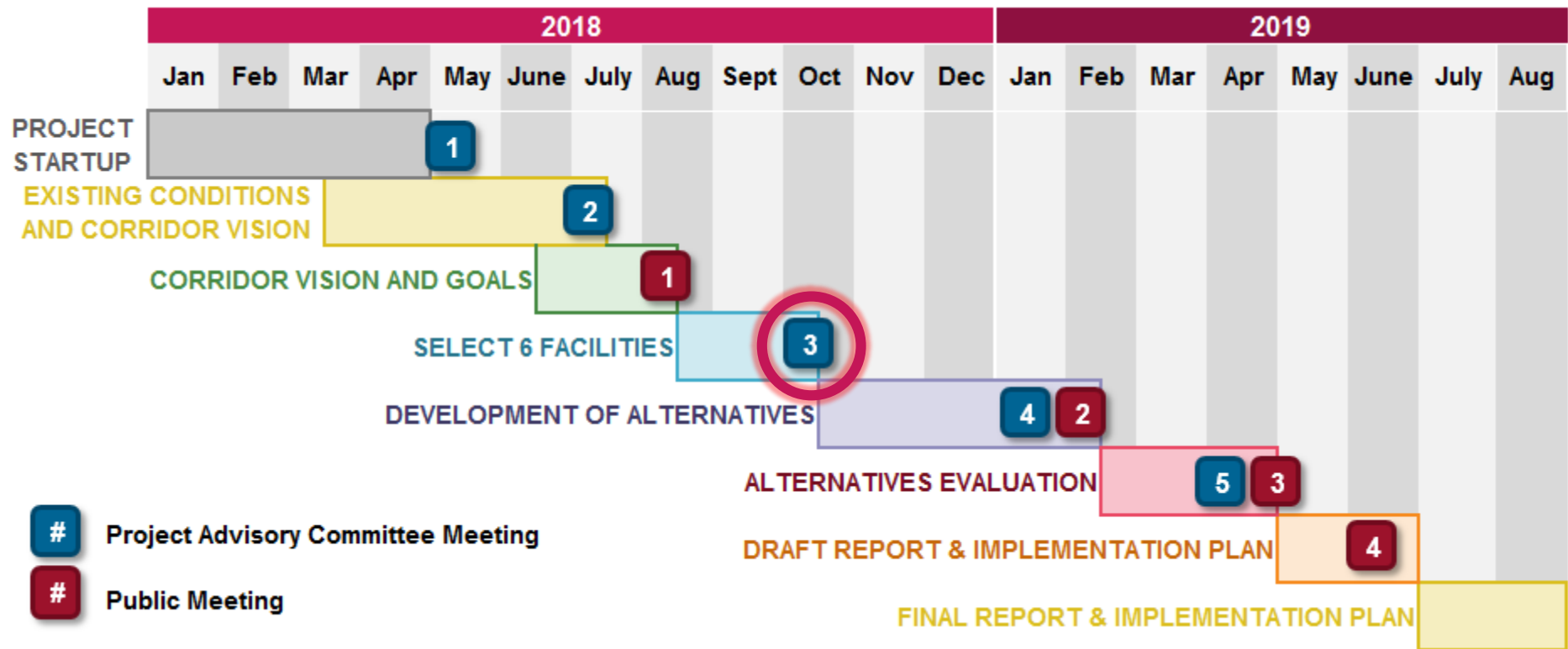
October 23, 2018

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.

Scope/Schedule





Agenda

Project Advisory Committee Meeting #3

- 1) Welcome, Introductions, Changes to the Agenda (*Nicole Losch, DPW*)**
- 2) Public Comment Period**
- 3) Review of Stakeholder Interviews (*Bryan Davis, CCRPC*)**
- 4) Discussion of 6 Segments for Alternatives Development (*RSG*)**
- 5) Discussion of Corridor Vision and Objectives (*RSG*)**
- 6) Next Steps**



Public Comment



Stakeholder Interviews

Interviews with:

- University of Vermont
- Howard Center
- Champlain College
- Chittenden Area Transportation Management Association (CATMA)
- City Market
- Burlington Fire Department
- Burlington School District Transportation
- Parents from Integrated Arts Academy
- Green Mountain Transit
- Association of Africans Living in Vermont (AALV)
- North End Studios
- Vermont Department of Health
- Radio Bean/ ¡Duino! (*Duende*)
- Old Spokes Home
- Local Motion
- African Market
- Shinjuku Station
- East West Cafe

Summary

- Main to Pearl downtown: challenging for everyone, lacks "sense of place"
- Lack of bike connectivity throughout corridor
- One-way segments could be confusing for visitors
- Potential for North Winooski to become two-way
- Desire for better access to Old North End
- Need short-term parking for businesses
- More landscaping, benches, wayfinding, pedestrian safety at intersections
- No strong sentiments for residential southern section





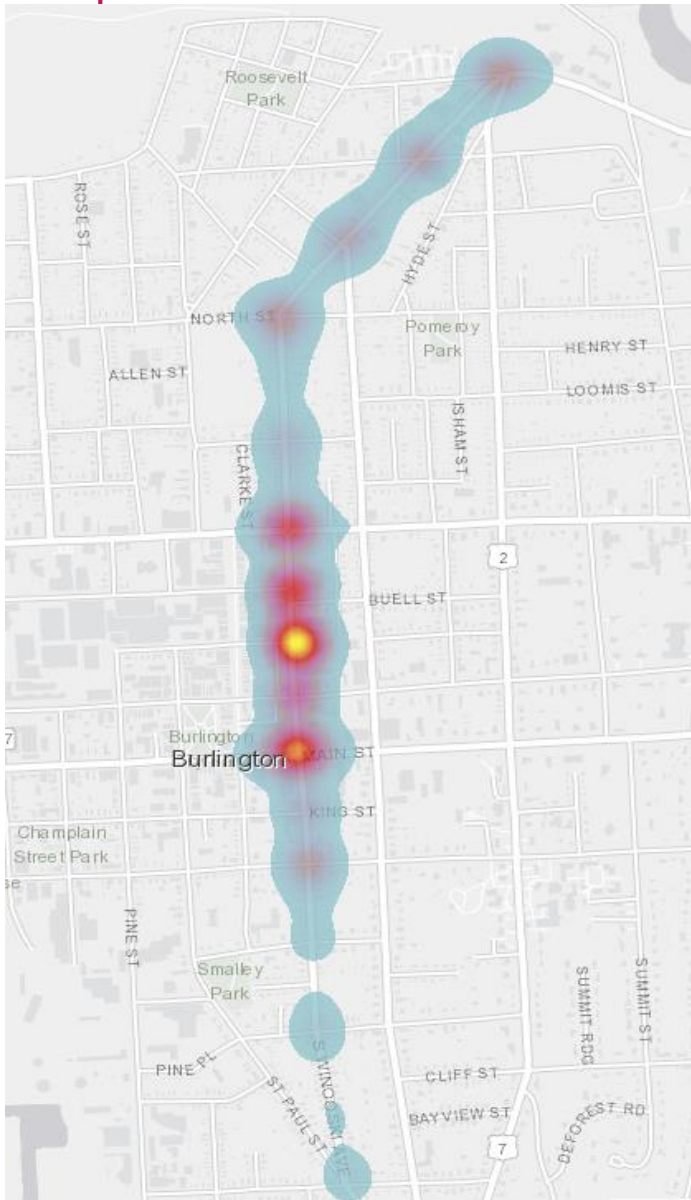
6 Facilities

6 Facilities

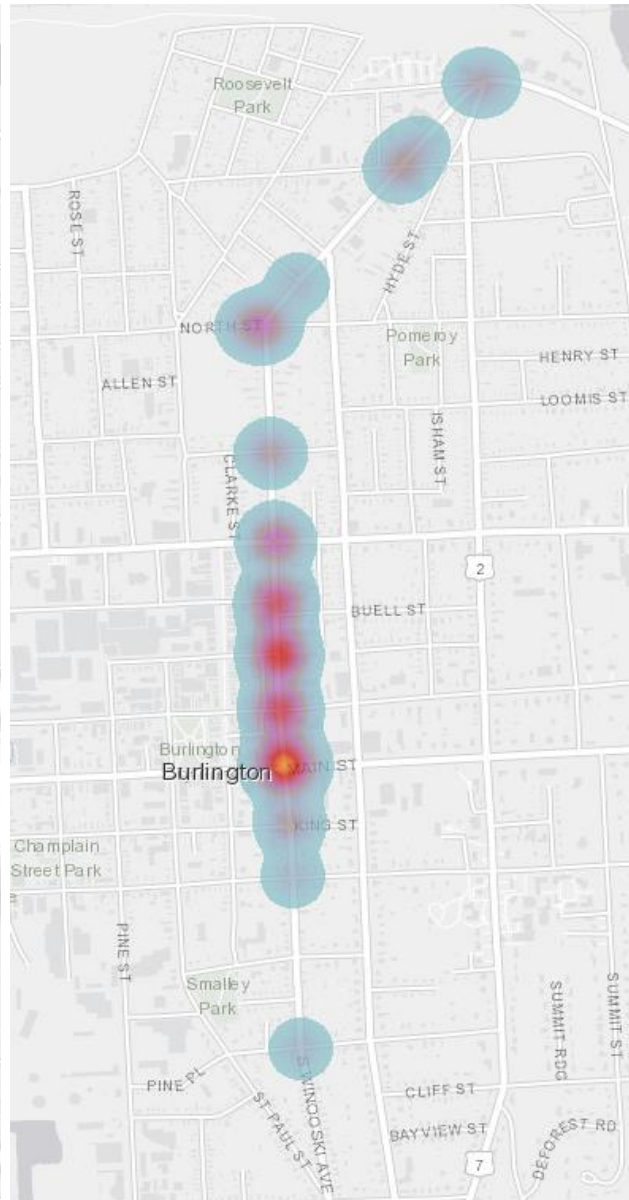
- Shift from a corridor-level focus down to segment and intersection-level scoping.
- 6 distinct facilities (intersections and/or corridor segments) to develop and evaluate alternatives.

Alternatives will be created that align with the corridor vision but also attempt to address the specific challenges and issues identified for each distinct facility.

All Crashes



Bicycle and Pedestrian Crashes

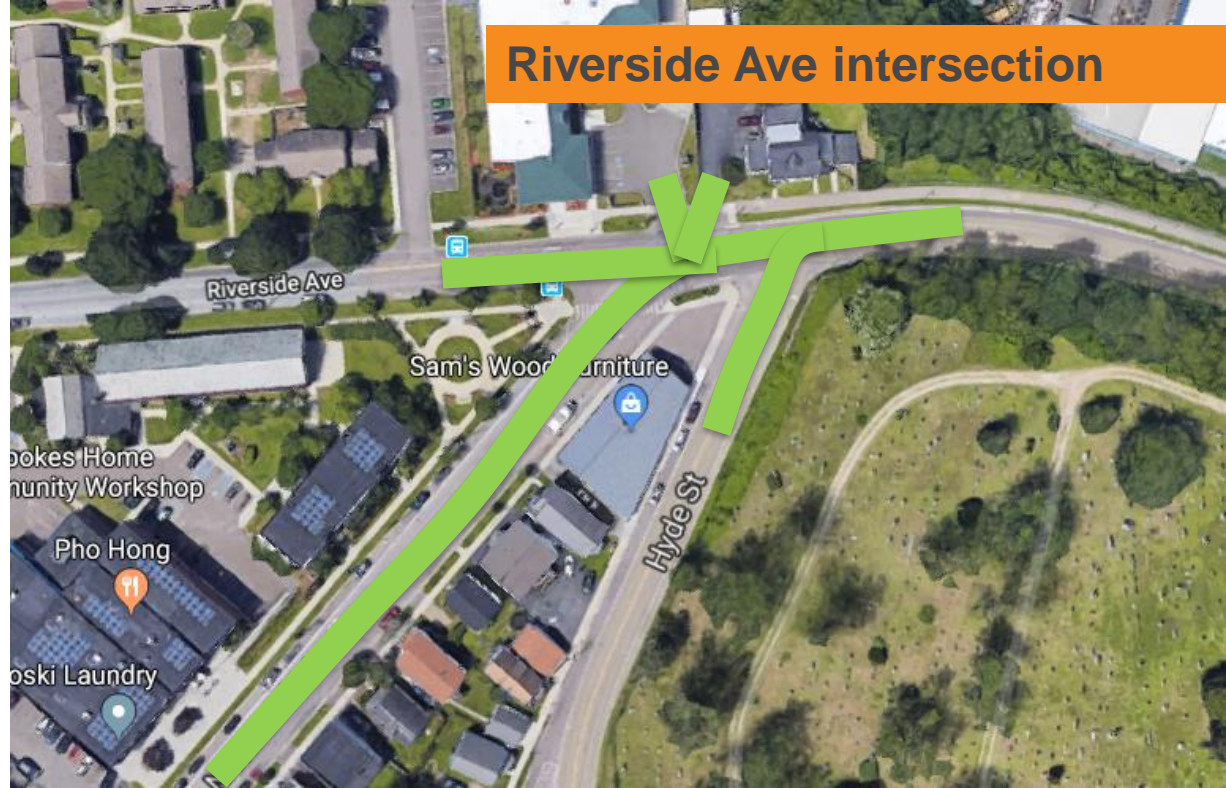


Public Comment Heatmap



Facility 1

- **Includes:** Hyde St, Health Center driveway, approaches



- **Issues:** This HCL intersection is complicated with driveways, streets at acute angles, the shared use path ending abruptly, transit stops along Riverside (safety, amenities), lack of control at Hyde St/No. Willard corridor.
- **Need:** This complicated signalized intersection is a high crash location and a predominant gateway to the City. The Riverside Avenue shared use path ends abruptly, and the transition to the shared lanes on North Winooski needs to be clarified. Address the gaps in the bicycle infrastructure network

Facility 2

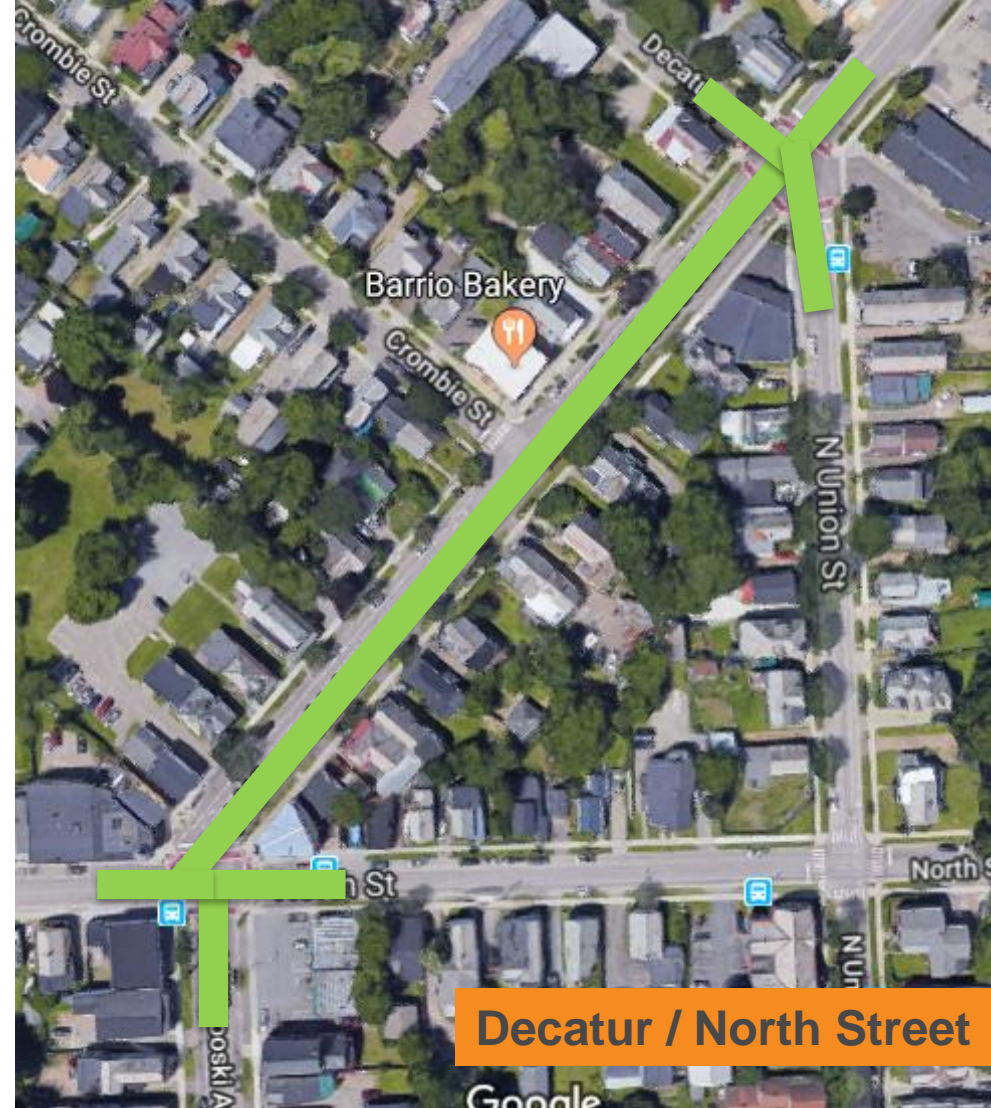
Includes: North Union St and North St intersections and all approaches.

Issues:

- This segment is critical for evaluation of the two-way. On-street parking and southbound bike lane serves adjacent businesses. Two-way riding on southbound bike lane common.
- One-way vehicular traffic circulation reduces access to new/growing businesses. North St intersection was hot spot for safety concerns. Lack of streetscape amenities was noted.

Need:

- The needs include poor accessibility for vehicles and bicycles due to the one-way circulation pattern, address the gaps in the bicycle infrastructure network, to improve the streetscape for all modes of transportation, and improve safety at the key intersections of North St and North Union St.



Facility 3

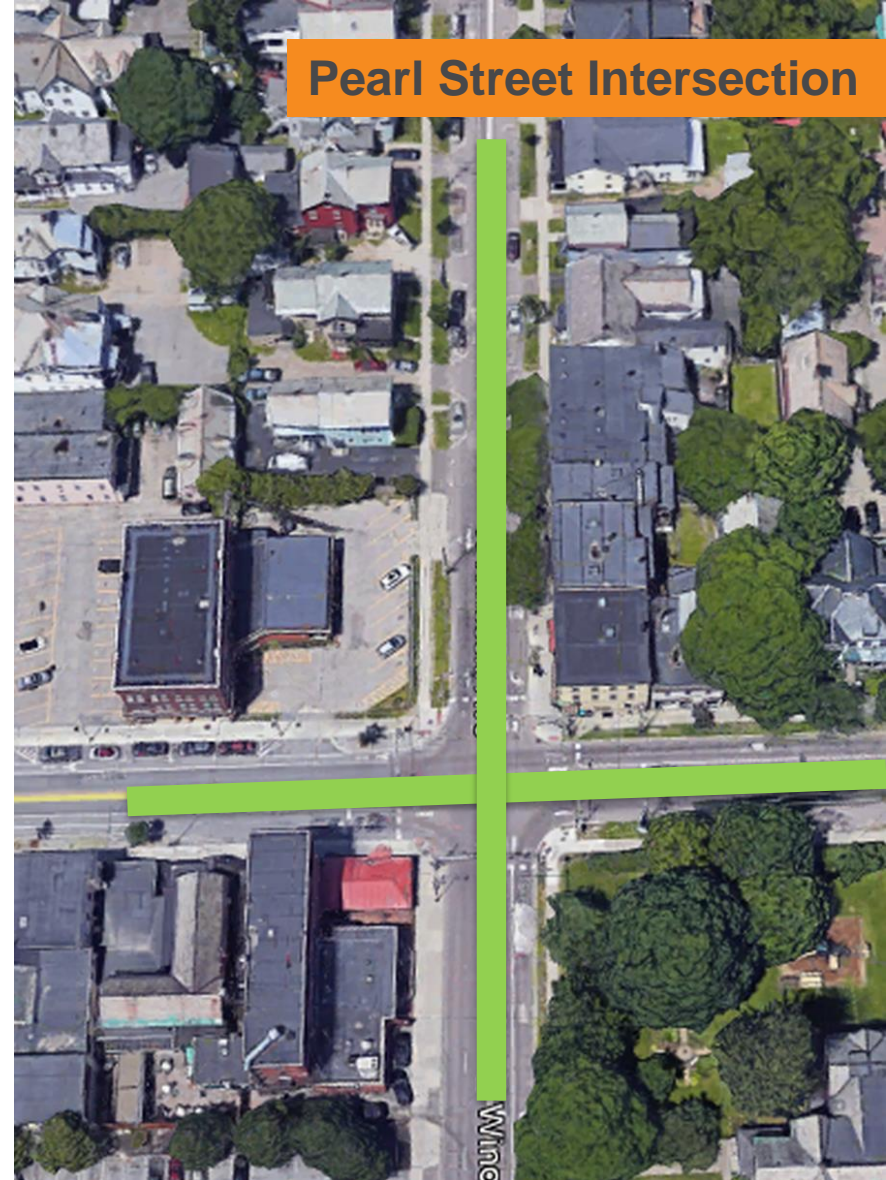
Includes: Pearl Street Intersection. Includes cross-section north of intersection.

Issues:

- Intersection is an HCL, public comment hot spot, and critical for evaluation of the two-way scenarios. There is a vibrant business block on the northeast corner that would benefit from better multimodal accessibility, an expanded pedestrian realm, and streetscape enhancements.

Need:

- The intersection functions poorly in terms of safety and multimodal accommodation as a gateway to downtown from the Old North End and Riverside corridor, and as a hub of local business activity.



Facility 4

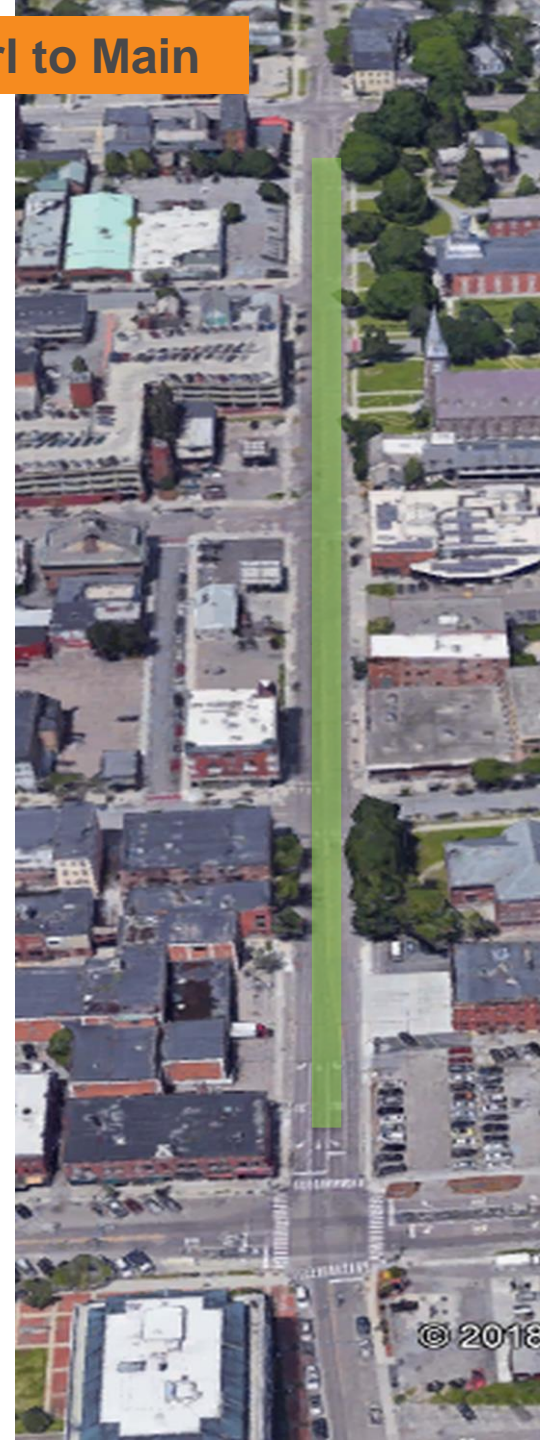
Includes: Pearl Street to Main Street. Includes City Market, Marketplace Garage, Bank St, Howard Center, and driveways.

Issues:

- Higher traffic speeds, safety concerns throughout, parking garage exit, undefined curb cuts at gas stations, turning vehicles blocking through lanes, high potential for conflicts between cars and other modes, congestion and safety concerns at City Market.
- The function of the street is both a through or service facility and a street serving local interests and destinations. With the reconnection of St Paul and Pine through City Place, the through-movement function may become less important.

Need:

- This segment was identified as the number one priority of planBTV Walk Bike due to serious deficiencies for safety of people walking and bicycling, and poor streetscape and community character for a downtown gateway.



Facility 5

Includes: Main Street intersection and approaches

Issues:

- Safety for all modes of travel is the greatest concern. This intersection has the highest traffic volumes of any along the corridor.
- Lane shifts, limited multimodal facilities, and high demand throughout the day.
- This highly visible gateway has poor urban design and streetscape qualities; expansive curb cuts from Free Press Media and Fire Department; addressed in Great Streets BTV design concepts.

Need:

- The existing safety issues for all modes of transportation, and gaps in the City's bicycle network, and poor appearance of the City's gateway.



Facility 6

Includes: South of Main Street through the intersection of Maple Street.

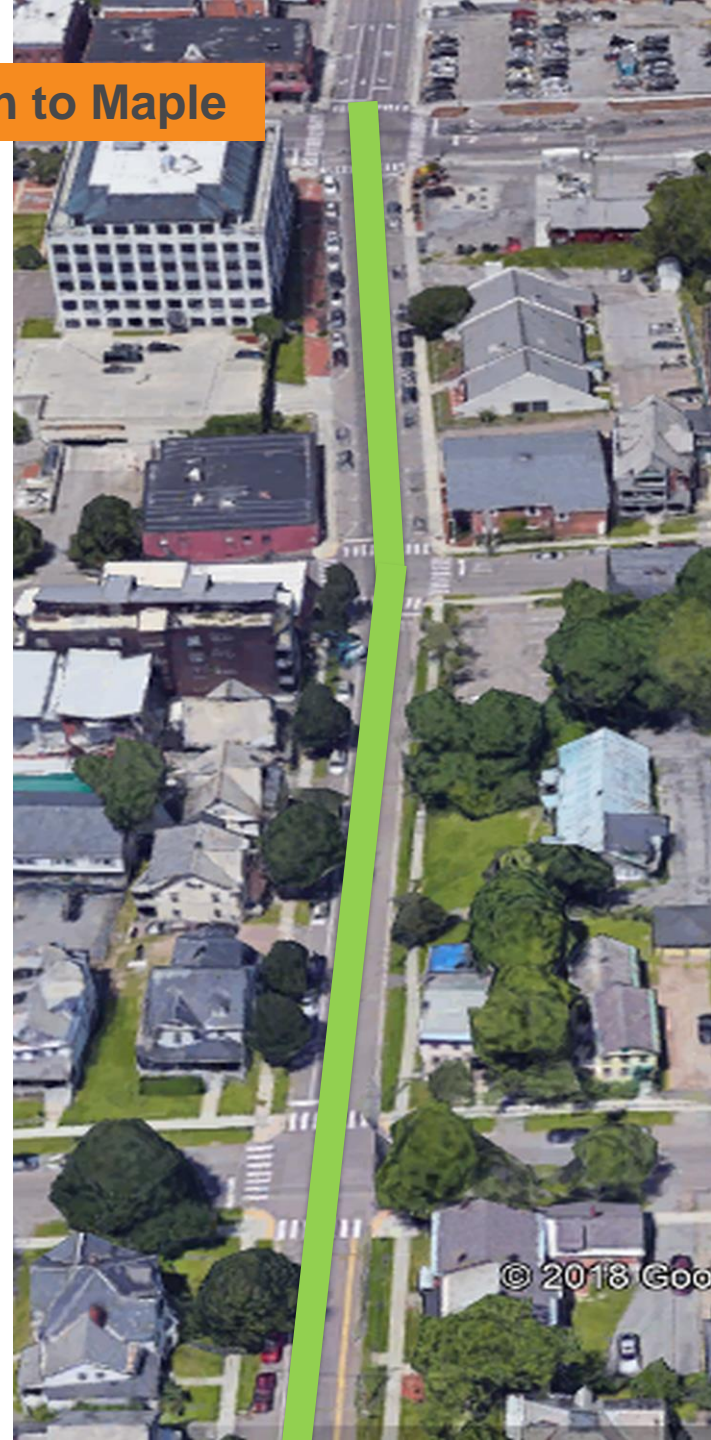
Issues:

- King to Maple is along part of an HCL segment (which extends south to Spruce).
- The cross-section changes several times in this segment, and traffic circulation changes from one-way south of Maple to 2-way north of Maple.
- There is a significant gap in the City's bikeway network north of Maple Street.

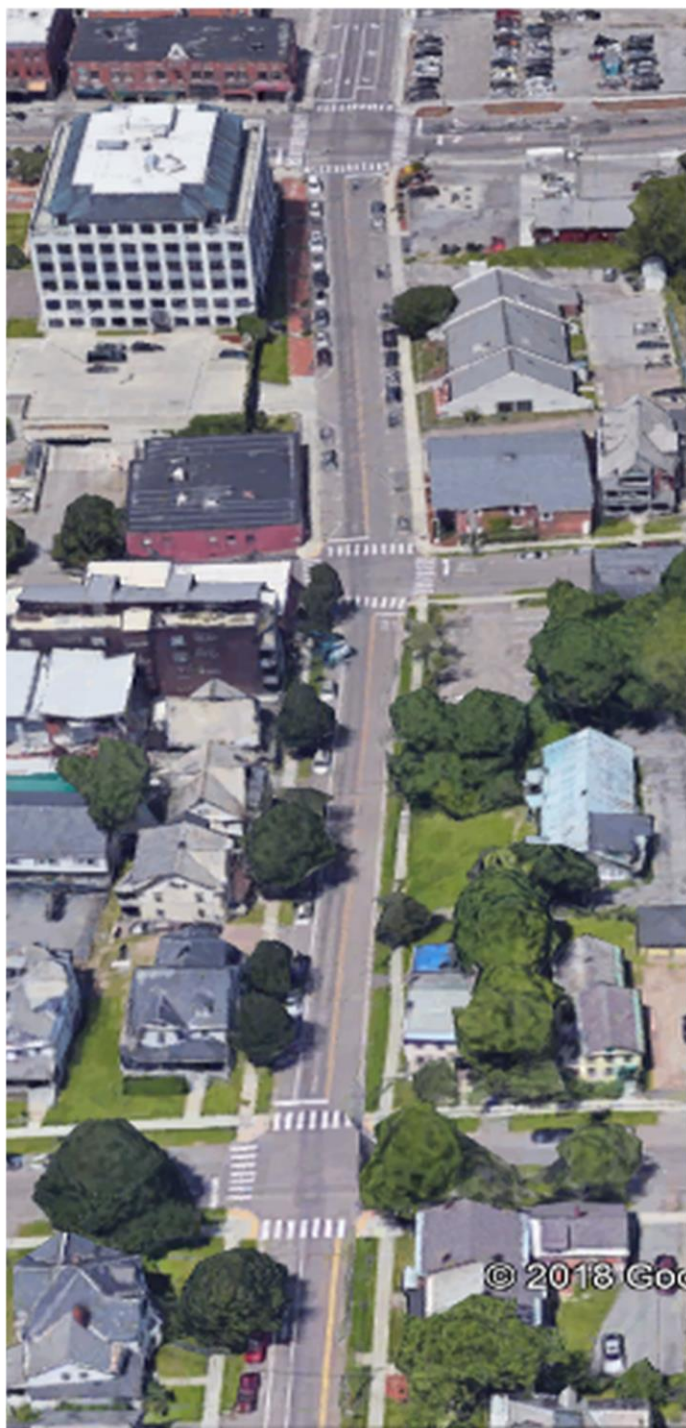
Need:

- The gap in the bicycle network, high crash frequency, and confusing traffic circulation supports the need for improvements.

Main to Maple



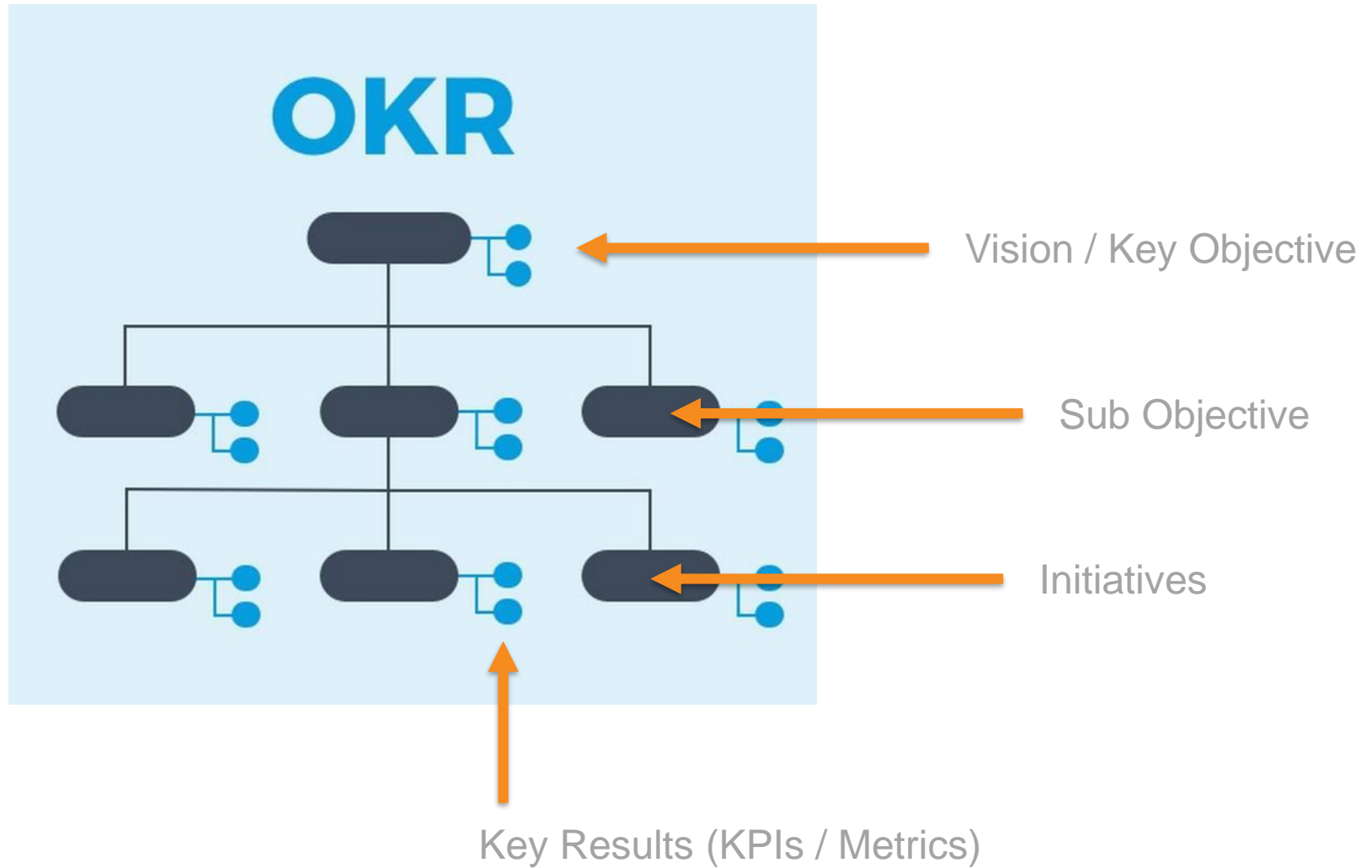
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Vision and Objectives

Objectives and Key Results (OKR)



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 along and near Winooski Avenue will flourish with an activated streetscape and convenient access.
- The mobility and parking needs of property owners, residents and businesses will be balanced with the mobility and parking needs of the greater transportation system.
- The street can adapt to changes to the transportation system and land use.

Vision

Safety

Injury crashes

Vehicle speeds

Number of lane crossings

Inviting

Space allocated to all users

Smart parking management

Community activities

Sustain businesses

Landscape/
Streetscape

Convenient

Walking /
Biking Mode
Share

Bike racks

Bike network

Bus stop
amenities

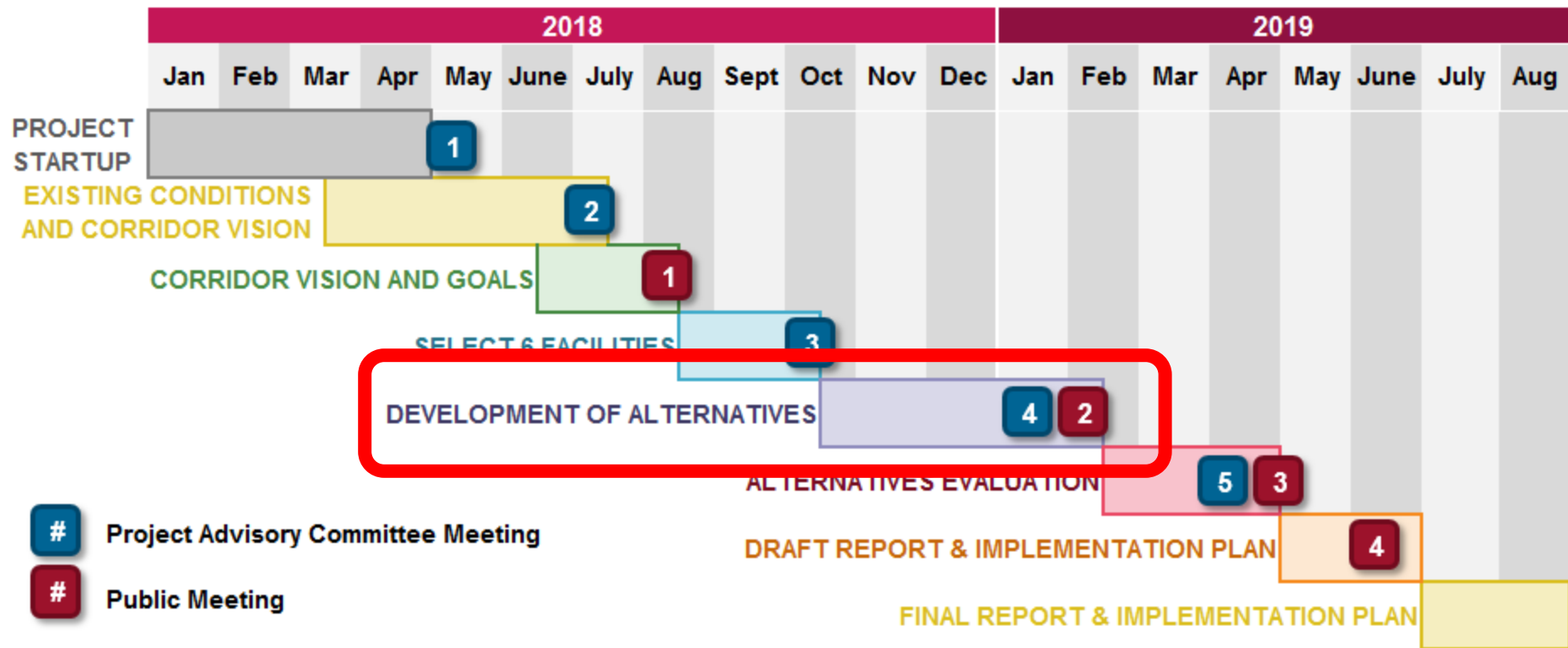
Efficient use of
Street right-of-
way

Objective	Measure	Comments
Increase walking and biking mode share	Screen line counts at key links in corridor (through downtown, north and south) every spring and fall.	Develop a common methodology for counts. Counts should be conducted on days when weather is consistent; I.e. avoid rainy or snowy days., and non-major event days
Increase number of high-quality bike racks. Including covered, secure bike parking, high capacity corrals, etc.	Annual assessment of bicycle parking infrastructure	Consider assessing the occupancy of racks and where demand may not be met (i.e. bikes locked to trees, racks are full, etc.)
Improve bicycle network continuity	Length of continuous bicycle facilities along corridor	Increase overall connected and contiguous facilities.
Reduce injury crashes in corridor	Injury crashes per million miles traveled	Using common measure of crash rates are per million miles traveled and obtain annual injury statistics.
Reduce % of vehicles traveling more than 25mph	Number of injuries by mode Speed measurements	Existing baseline established by observations at 3 locations. Average of the three locations or report on each?
Avg. number of lane crossings at intersections along corridor	Create methodology for establishing what this is today and for tracking forward progress	Should we average by segment, or intersections? Are we breaking up the corridor into segments based on context and needs?
Space allocated to specific modes	Area provided to accommodate specific modes, or to cars vs people and streetscape amenities.	Considering space requirements for each mode, aim for an efficient and equitable allocation of street space. e.g. vehicles (1.3 persons every 275ft ²), bikes (1 person every 40 ft ²), and pedestrians (1 person every 16 ft ²). Consultant team will develop methodology with the City and RPC to consider space allocation, equity and efficiency.

Objective	Measure	Comments
Provide quality bus stop amenities in-line with GMT and community standards	Number of bus stops with a minimum set of amenities	GMT is establishing guidance on amenities by route and stop. City and Corridor study will use this to establish the baseline at the end of the study.
Sustain local businesses by providing access and mobility to the corridor	Number of businesses fronting corridor	Bi-annual business survey along corridor to identify business viability, resiliency, and impacts associated with transportation. Review parking, loading, mobility, safety, and general transportation access.
Increase community and social activities on and along the corridor. (i.e. Decaturfest, Ramble, Open Streets BTV)	Number of scheduled events	Includes any events open to the public, whether sponsored by the City or a private business or organization.
Manage parking	Average peak utilization for on-street parking of 85% or higher	This is the recommended utilization for an urban setting and consistent with Smart Parking in Burlington.
Landscape/Streetscape Character	Density of healthy trees that provide shade and attenuate stormwater in corridor by segment	Select key segments that reflect typical conditions and the variety along the corridor.
Sidewalk Condition	% of Sidewalk in good or better quality and meeting ADA	Condition of sidewalk in terms of heaving or crumbling segments, and accessibility of curb ramps and transitions.

What's Next?

- Develop alternatives and facility assessments
- Present concepts for initial feedback
- Identify evaluation criteria



Discussion Time!

What have we heard and what changes need to be made?

1. Objectives

2. Facilities

Discussion Time!

1. Alternatives. Ideas?



Thank You!



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Third Sector Associates



Consultant Team