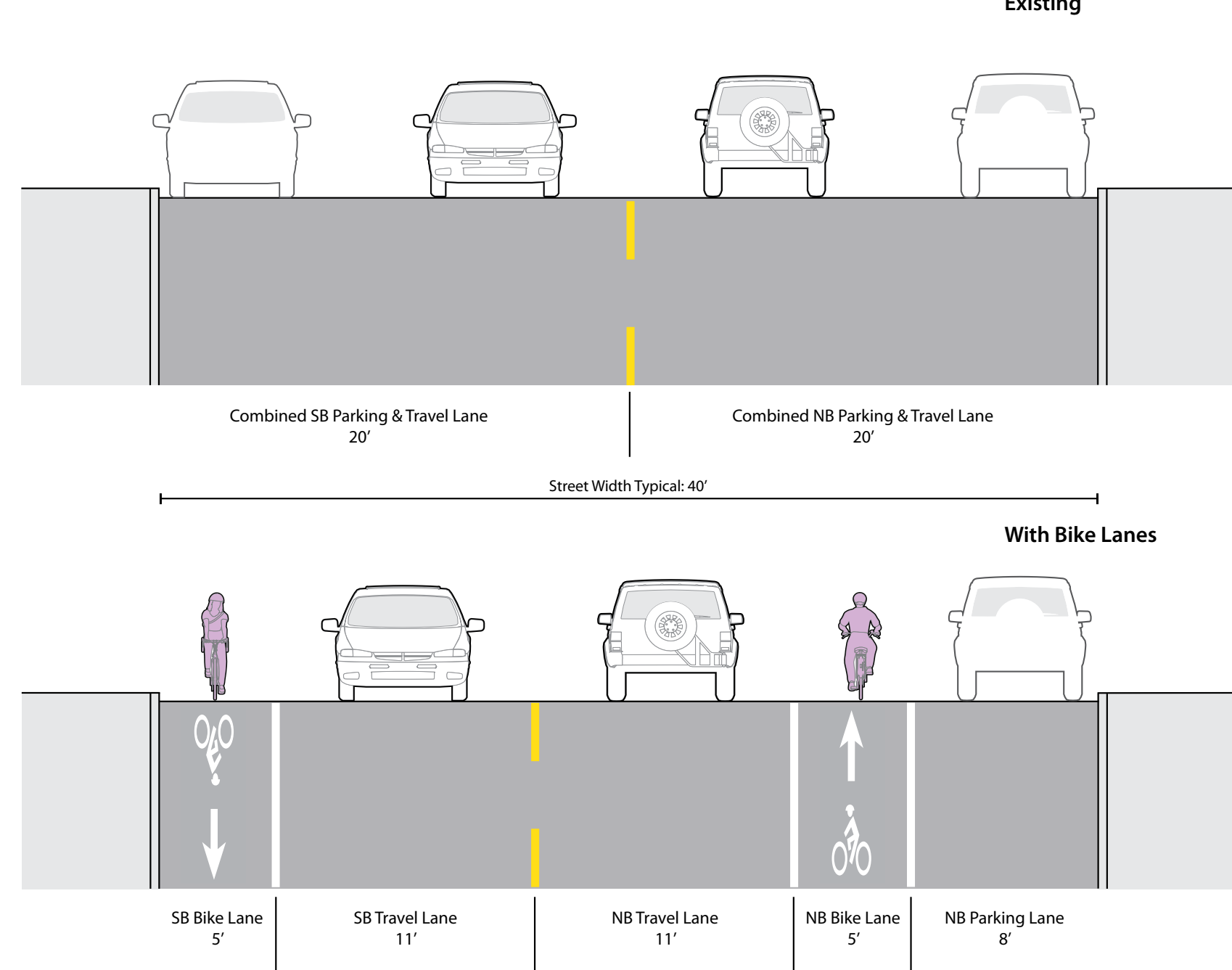
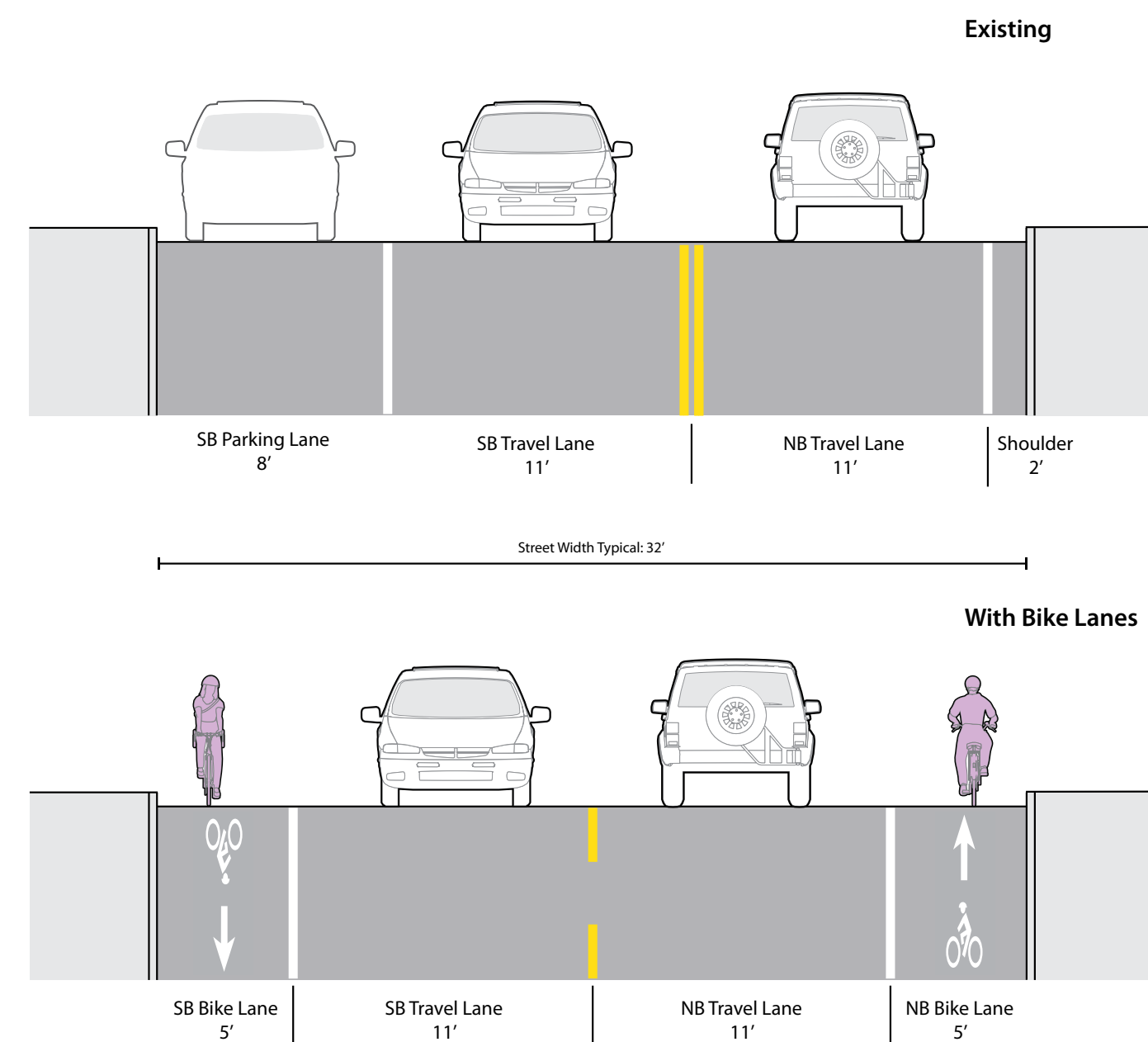


SAFETY: CLEVELAND ALIGNMENT

Cleveland Ave: St. Anthony to Summit



Cleveland Ave: Summit to Randolph



Components of Bicycle Lanes:

- Designate exclusive space for bicyclists through the use of lines and symbols on the roadway surface.
- Provide separation between motorists and bicyclists
- Enhance safety by allowing motorists to more easily pass bicyclists
- Bike lanes should be used on corridors where traffic volumes and speeds are such that the majority of bicyclists do not feel safe or comfortable riding in a shared lane.
- Bike lanes are typically installed on streets where there is a striped centerline or lane lines (for example, arterial or collector)
- Bike lanes may be placed adjacent to a parking lane, or against the curb gutter pan if there is no parking.

WHAT WE KNOW:

- Average daily traffic is between 4,150 and 10,500 vehicles (updated figure)
- A dedicated bike lane would make Cleveland safer for people bicycling
- Cleveland is a busier street than Prior for much of the route
- Travel lanes and bicycle lanes would meet FWHA (Federal Highway Administration), County, and City standards

QUESTIONS TO CONSIDER:

- What safety concerns do you notice along the Cleveland route?
- How could a Cleveland route be made to feel safer?
- How do all modes (automobiles, bicyclers, joggers, walkers) best stay safe along the Cleveland route?



Recent bike lane implementation on Western Avenue with parking maintained on one side of the street

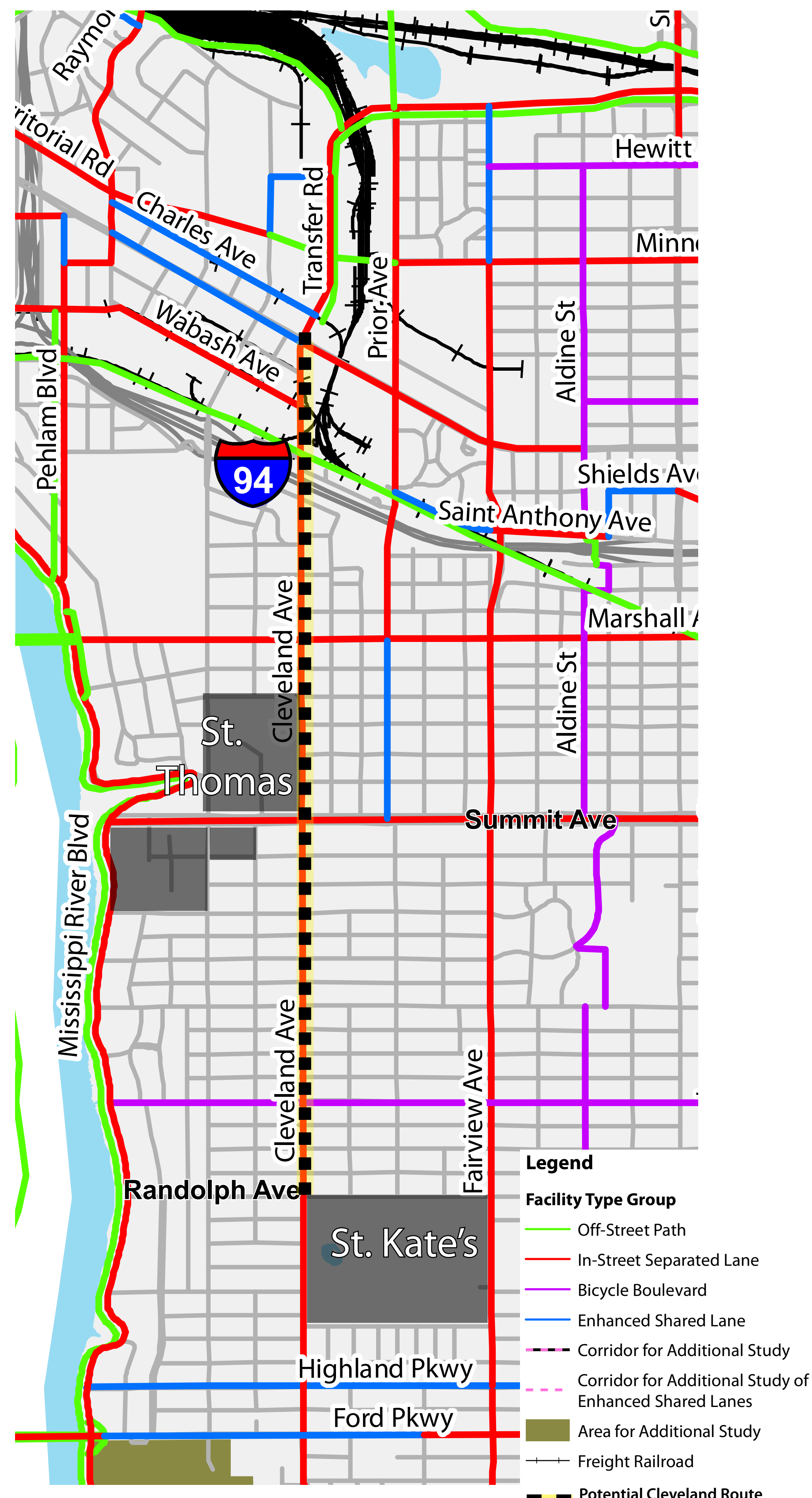


Bike lanes on Summit Avenue directly abutting the curb (no gutter pan)

CONNECTIVITY: CLEVELAND ALIGNMENT

Saint Paul Bicycle Plan Planned Bicycle Network

(Figure 4)



WHAT WE KNOW:

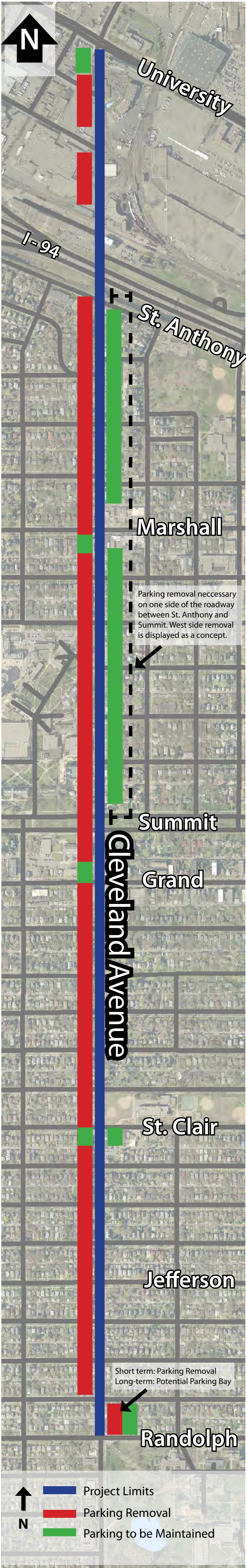
- Cleveland is the most direct North-South route from Highland Parkway to University Avenue
- Provides direct connections to businesses on Cleveland
- Connects with existing bicycle routes along Jefferson Avenue, Summit Avenue and Marshall Avenue
- Direct connections to bus routes #s 134, 87, 74, 70, 63, 53, 21, 16.
- Connections with St. Catherine University, University of St. Thomas, Groveland Elementary/playground

QUESTIONS TO CONSIDER:

- What connectivity concerns do you notice along the Cleveland route?
- How could a Cleveland route be more connected/efficient?

PARKING: CLEVELAND ALIGNMENT

Route Map:



WHAT WE KNOW:

- Parking would be removed on one side of the roadway from Summit to University and from the west side of the roadway from James to Grand, and on the east side between James and Randolph. (There is no parking on the east side of Cleveland between James and Grand.)
- Existing parking bays would be retained at Grand and St. Clair

QUESTIONS TO CONSIDER:

- What parking concerns do you notice along the Cleveland route?
- What solutions/new ideas do you have to address the lost parking along the Cleveland route?
- What specific areas are most impacted by the potential changes to street parking?

Potential Parking Mitigation Strategies:

Bicycle facilities on Cleveland Avenue will impact parking availability between Randolph Avenue and Grand Avenue. The following parking strategies are proposed to help mitigate the impact of on-street parking removal on Cleveland Avenue:

1. Allow time-limited parking, in addition to existing permit parking, along the south side of Grand Avenue between Finn Street and Cleveland Avenue.



• Allowing time-limited parking on the south side of Grand Avenue between Finn and Cleveland will allow for increased parking options for patrons of businesses near Cleveland and Grand Avenues.

2. Amend Permit Parking Area 22 to include the following Cleveland Avenue addresses:

- 57 Cleveland Avenue S
- 67 Cleveland Avenue S
- 71 Cleveland Avenue S
- 75 Cleveland Avenue S
- 89 Cleveland Avenue S
- 93 Cleveland Avenue S
- 97 Cleveland Avenue S
- 103 Cleveland Avenue S
- 109 Cleveland Avenue S
- 115 Cleveland Avenue S

• Parking counts performed on Cleveland Avenue recorded high parking utilization near the University of Saint Thomas. The addresses listed above front Cleveland Avenue but are not included in the neighboring permit parking areas. To facilitate improved on-street parking accessibility for these addresses, amending Permit Parking Area 22 to include these addresses is proposed.



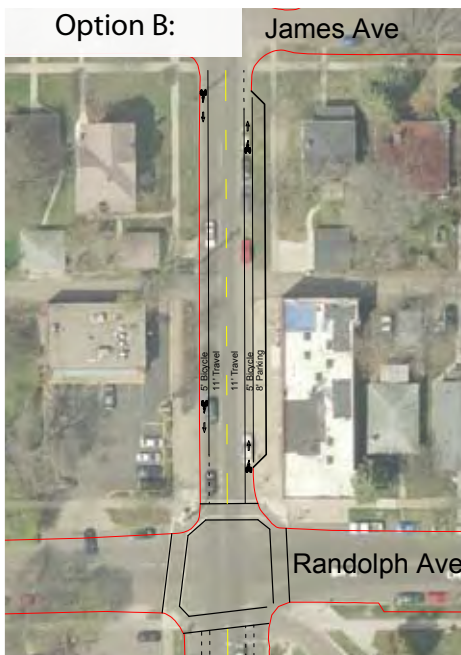
3. Employ one of the following parking mitigation options between James Avenue and Randolph Avenue:

Option A (Saint Paul Public Works Recommended Option): Implement bicycle lanes between James Avenue and Randolph Avenue and expand time-limited parking capacity on the north and south sides of Randolph Avenue east of Cleveland Avenue.

• Existing 30-minute parking capacity on Cleveland between James and Randolph is estimated at 5 spaces. Option A proposes to expand time-limited parking capacity along the north and south sides Randolph Avenue near Cleveland, replacing the 30-minute parking proposed for removal on Cleveland one-to-one. The proposed time-limited parking on Randolph is proximate to the businesses located at 474 Cleveland Avenue S, and could be expanded to include capacity beyond 5 spaces. Option A also allows for the installation of dedicated bicycle lanes; the preferred implementation at this location.

Option B: Implement bicycle lanes and install a parking bay on the east side of Cleveland Avenue between James Avenue and Randolph Avenue.

• Option C proposes to implement bicycle lanes and maintain parking capacity with the installation of a parking bay on the east side of Cleveland between James and Randolph. While this presents an optimal scenario, the construction of a parking bay is a long-term implementation, and funding has not been identified for its construction. Additionally, implementation of a parking bay along the full length of the block would require the removal of boulevard and trees on the east side of Cleveland, and it is not known if the subterranean conditions along the east side of Cleveland can support its construction. Were a parking bay to be implemented, subsequent street reconstruction of Cleveland Avenue would require its removal and full reconstruction.



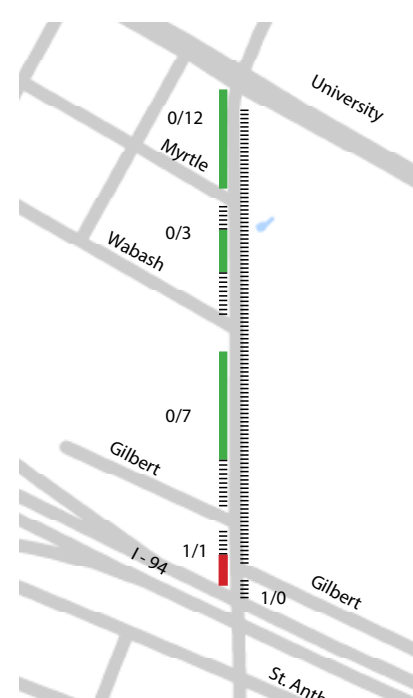
• Parking mitigation strategies are not intended to be limited only to the options presented; additional strategies should be considered as appropriate.

Cleveland Avenue Parking Surveys

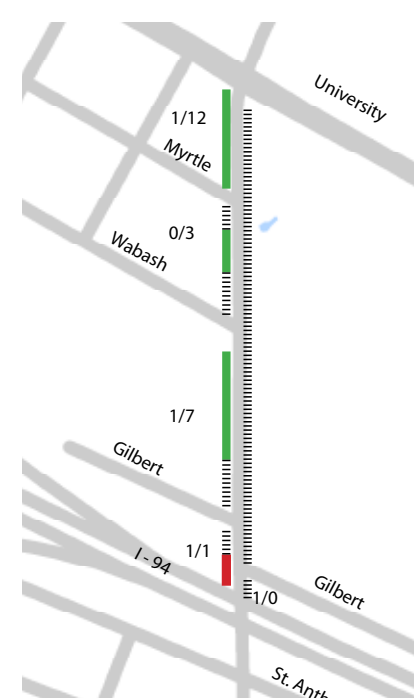
(Cleveland: University to St. Anthony)

Weekday Early Morning (4 AM - 6 AM)

Date: Tuesday, September 29
Time Period: 4AM - 6 AM

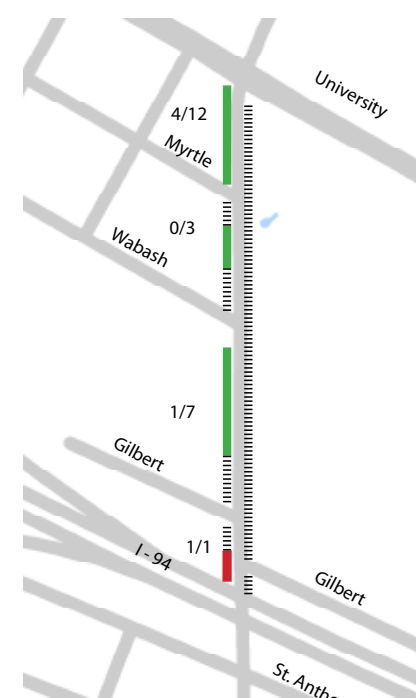


Date: Tuesday, October 13
Time Period: 4AM - 6 AM

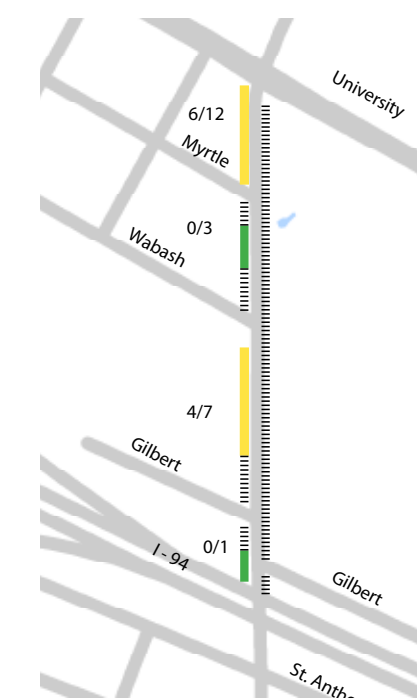


Weekday Midday (11 AM - 1 PM)

Date: Tuesday, September 29
Time Period: 11 AM - 1 PM

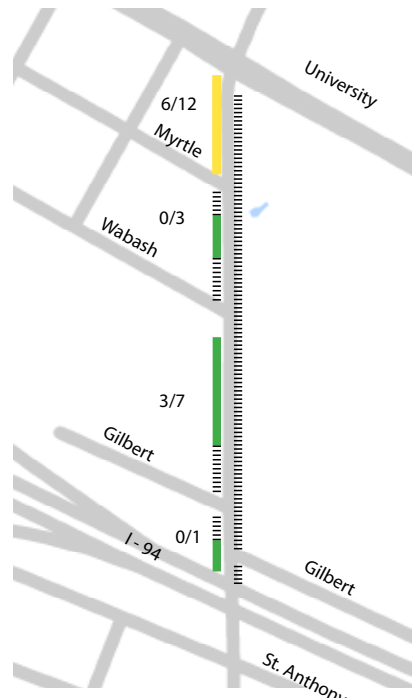


Date: Tuesday, October 13
Time Period: 11 AM - 1 PM

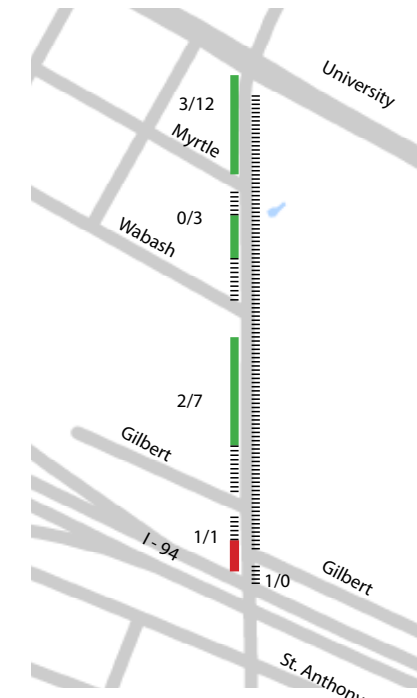


Weekday Evening (6 PM - 8 PM)

Date: Wednesday, September 16
Time Period: 6 PM - 8 PM

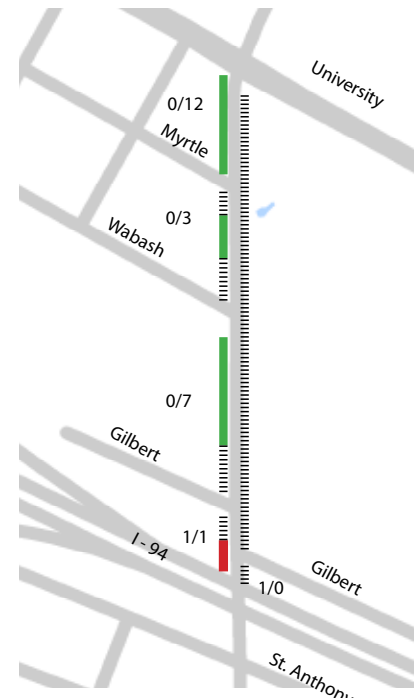


Date: Wednesday, September 23
Time Period: 6 PM - 8 PM

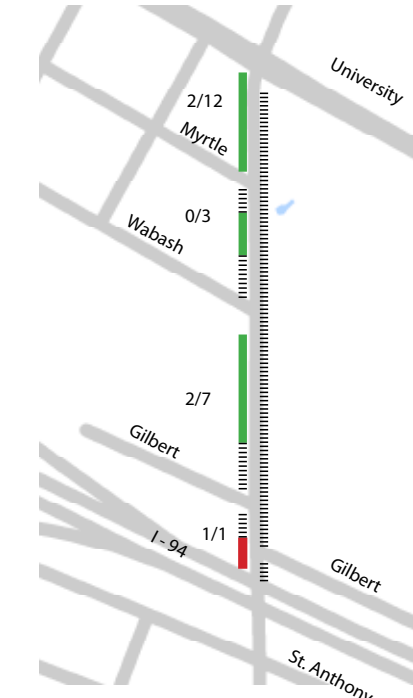


Saturday Midday (11 AM - 1 PM)

Date: Saturday, September 26
Time Period: 11 AM - 1 PM



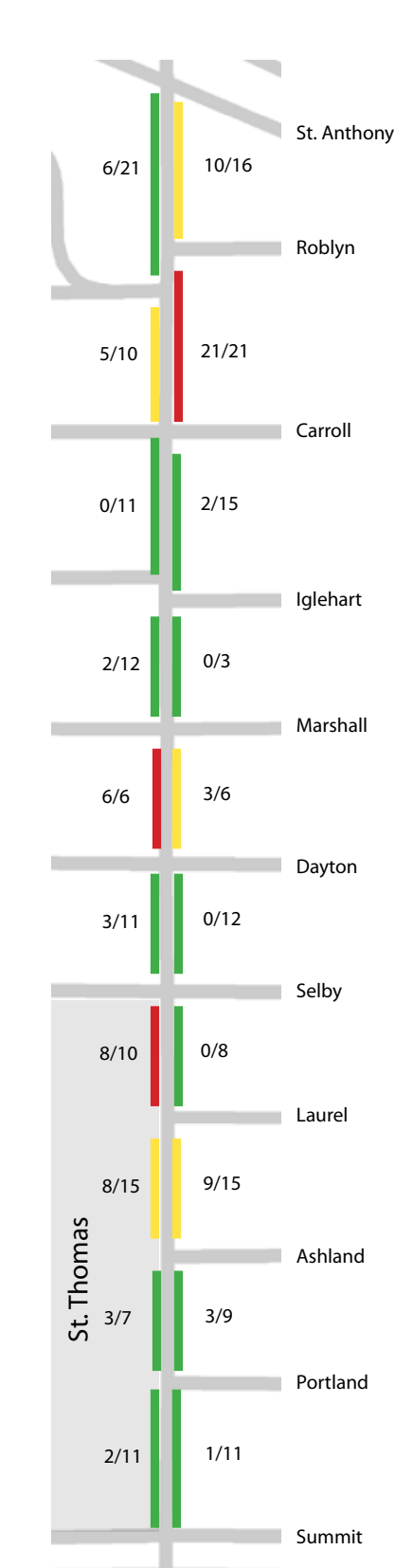
Date: Saturday, October 10
Time Period: 11 AM - 1 PM



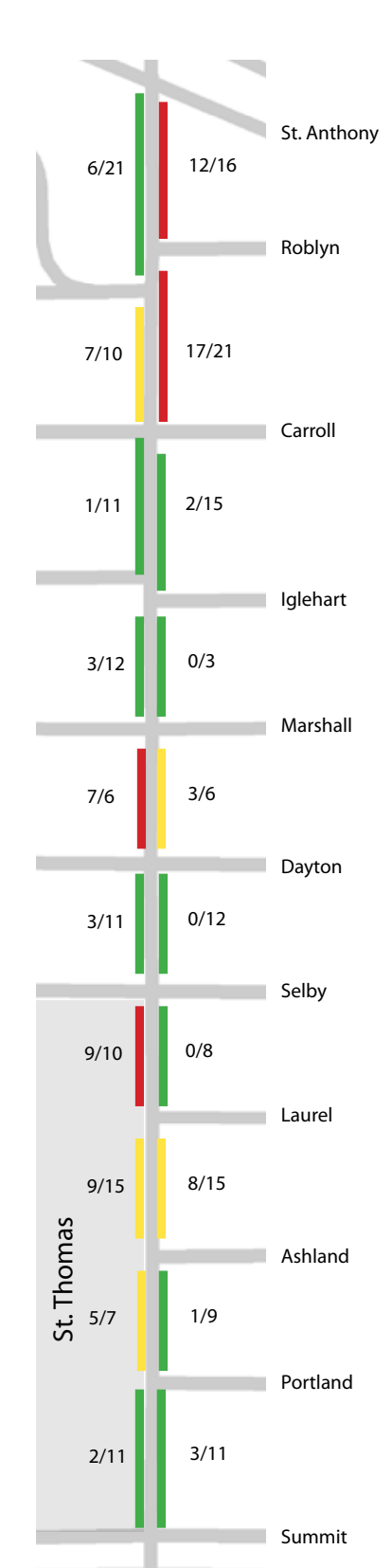
(Cleveland: St. Anthony to Summit)

Weekday Early Morning (4 AM - 6 AM)

Date: Tuesday, September 29
Time Period: 4AM - 6 AM

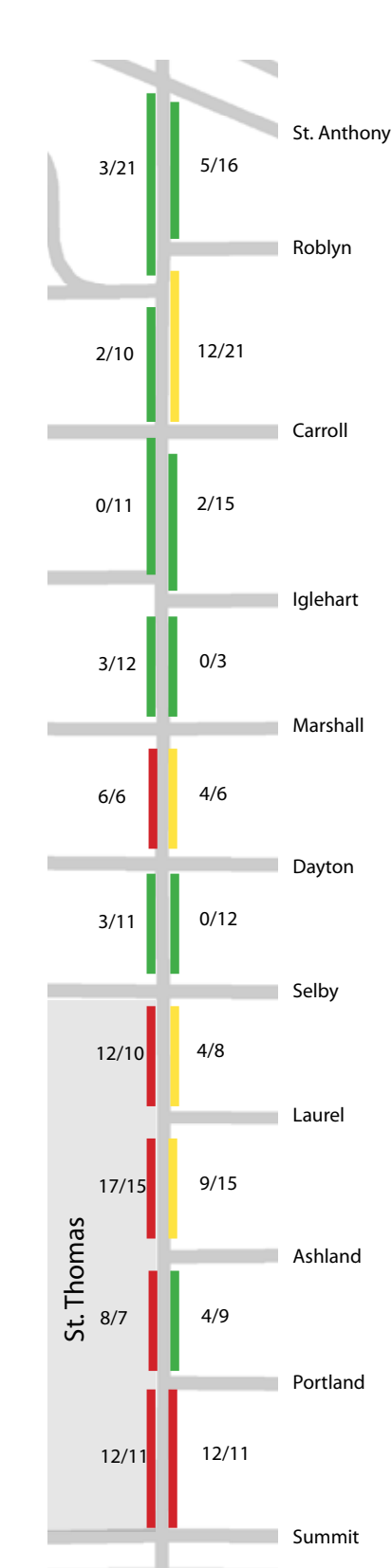


Date: Tuesday, October 13
Time Period: 4AM - 6 AM

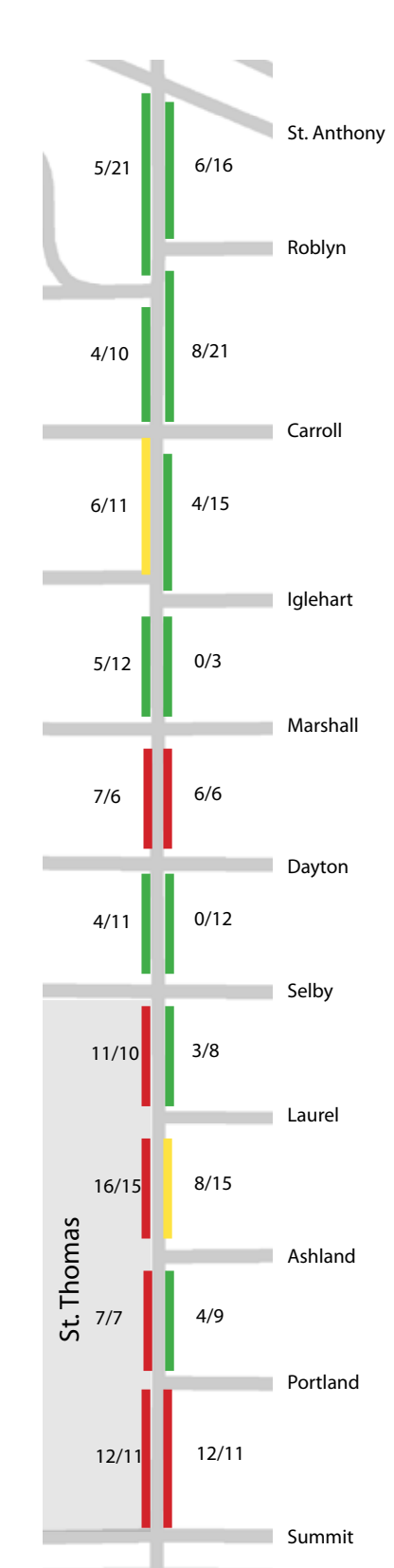


Weekday Midday (11 AM - 1 PM)

Date: Tuesday, September 29
Time Period: 11 AM - 1 PM

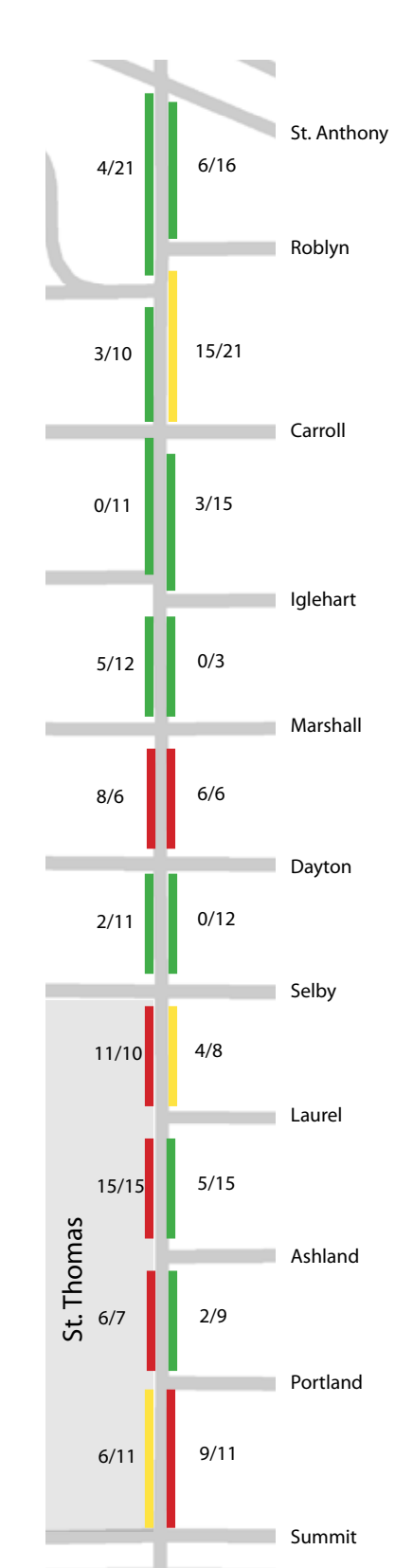


Date: Tuesday, October 13
Time Period: 11 AM - 1 PM

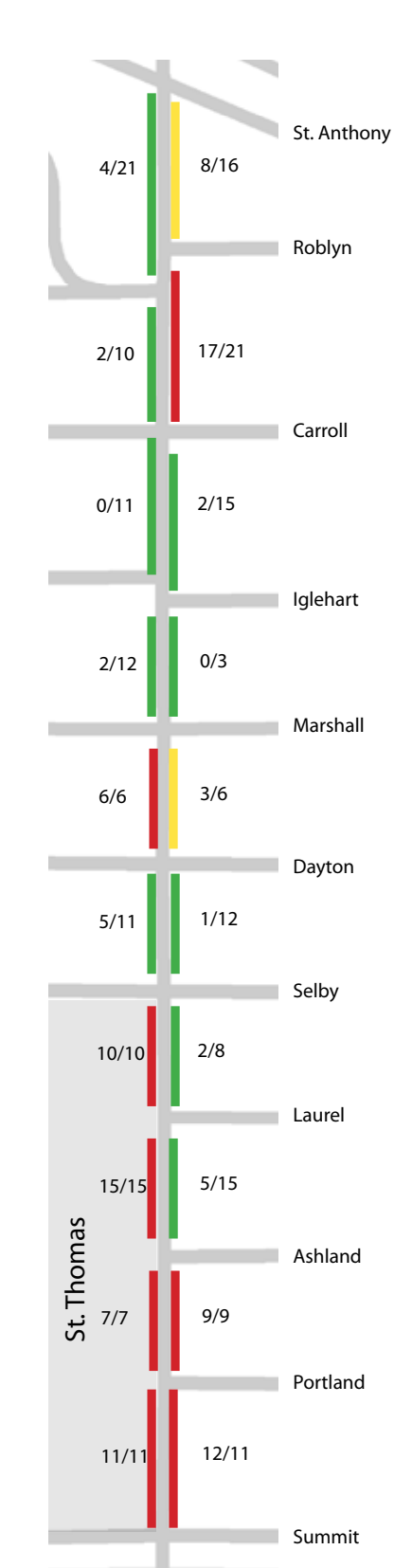


Weekday Evening (6 PM - 8 PM)

Date: Wednesday, September 16
Time Period: 6 PM - 8 PM

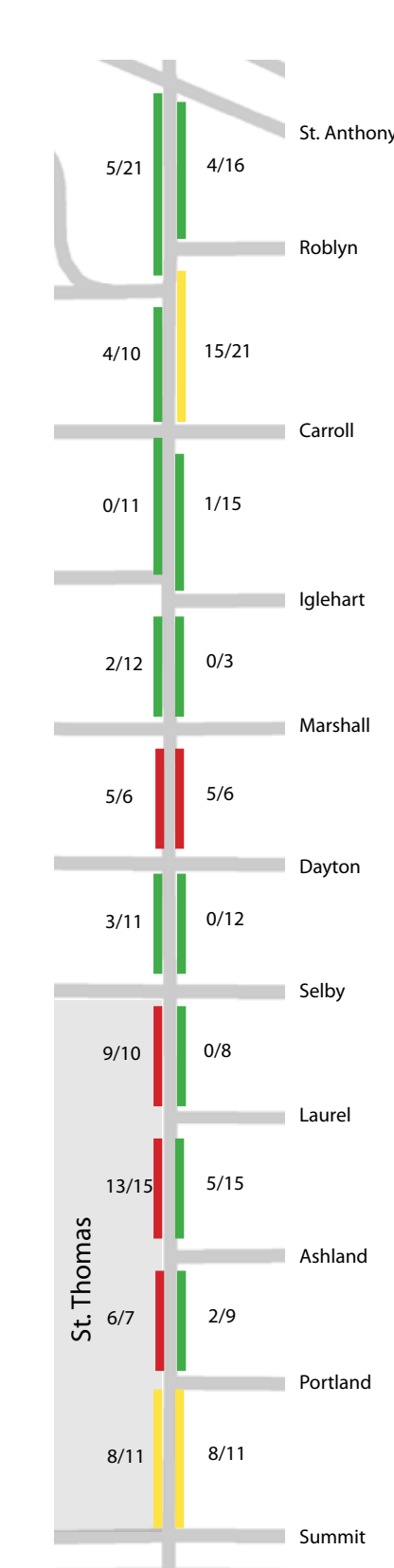


Date: Wednesday, September 23
Time Period: 6 PM - 8 PM

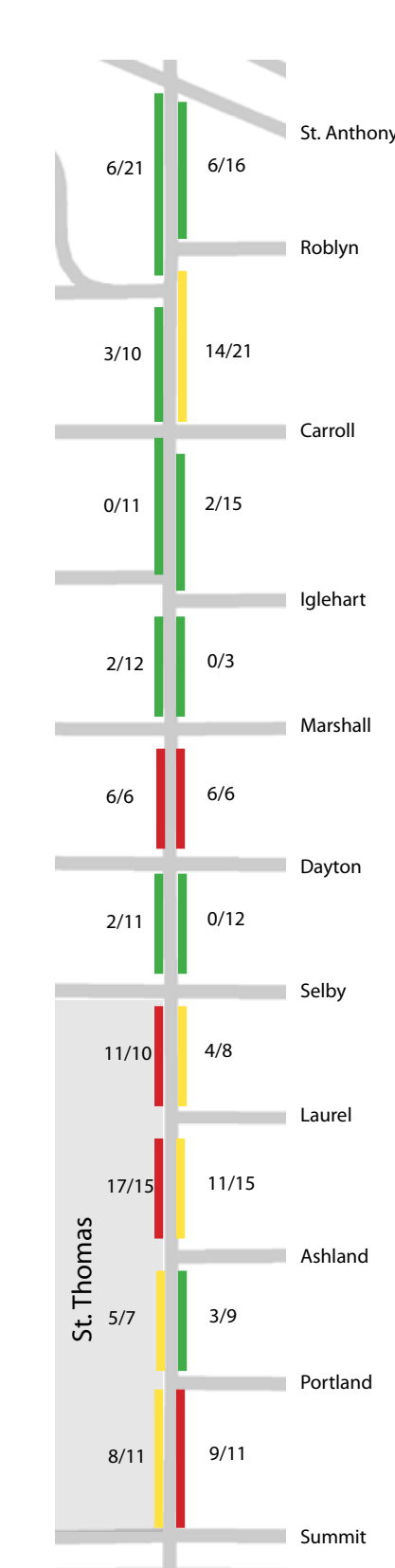


Saturday Midday (11 AM - 1 PM)

Date: Saturday, September 26
Time Period: 11 AM - 1 PM

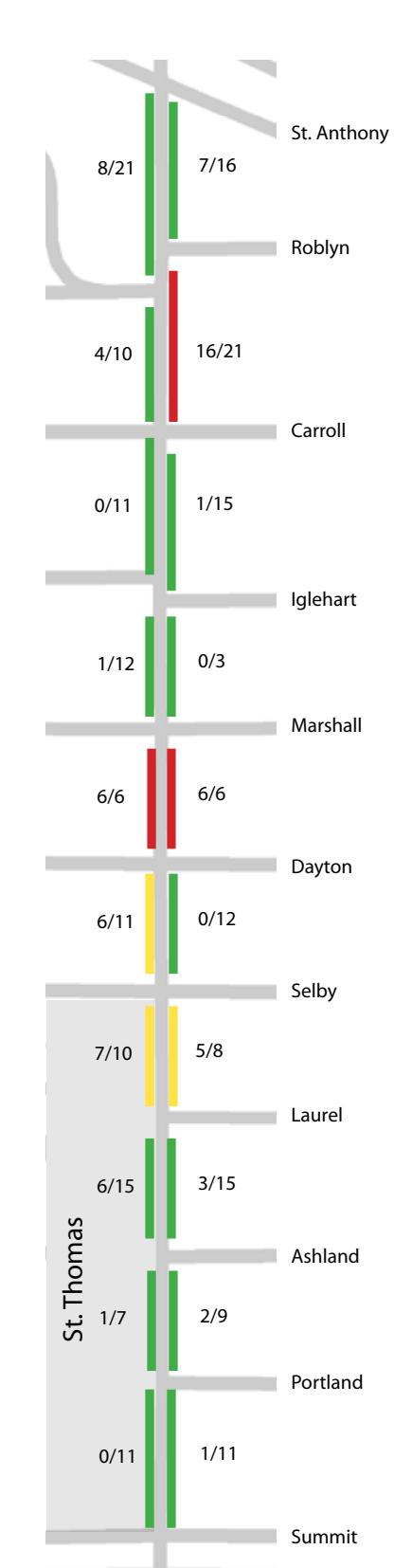


Date: Saturday, October 10
Time Period: 11 AM - 1 PM

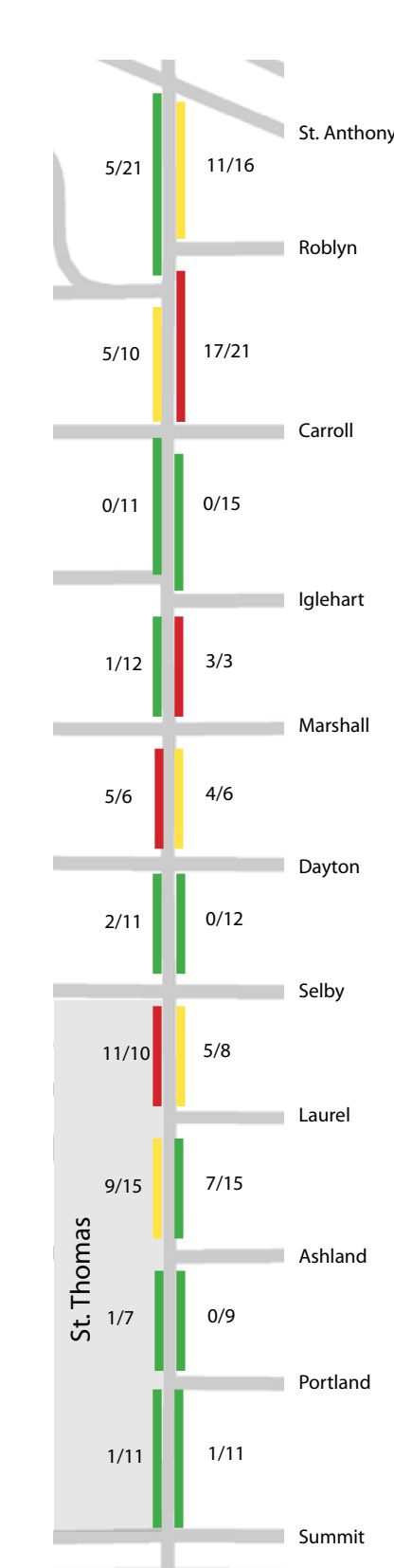


Saturday Evening (6 PM - 8 PM)

Date: Saturday, September 26
Time Period: 6 PM - 8 PM



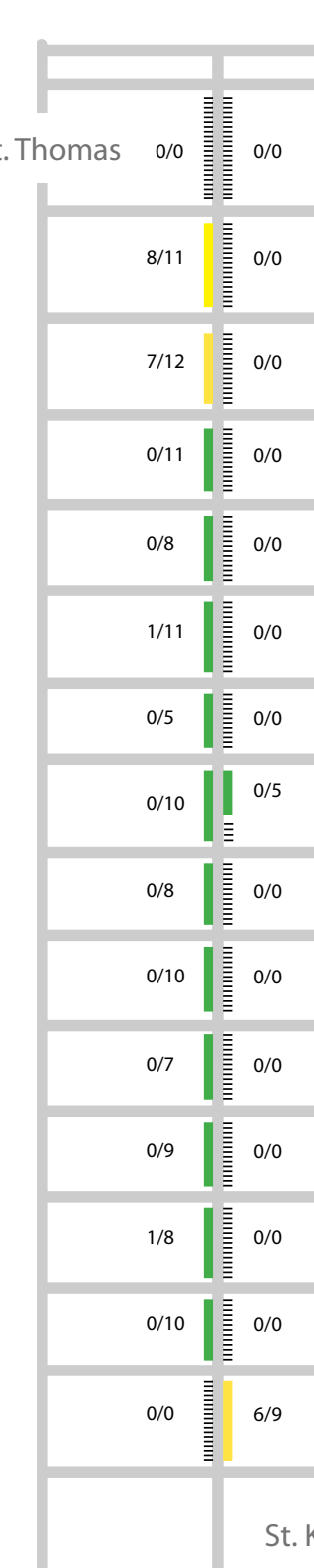
Date: Saturday, October 10
Time Period: 6 PM - 8 PM



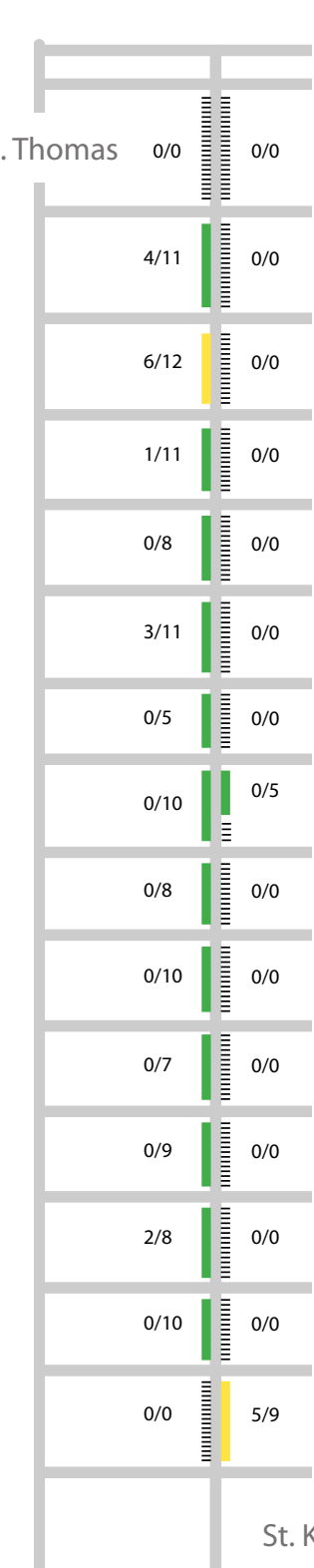
(Cleveland: Summit to Randolph)

Weekday early morning (4 AM - 6 AM)

Date: Tuesday, March 24th
Time Period: 4AM - 6 AM

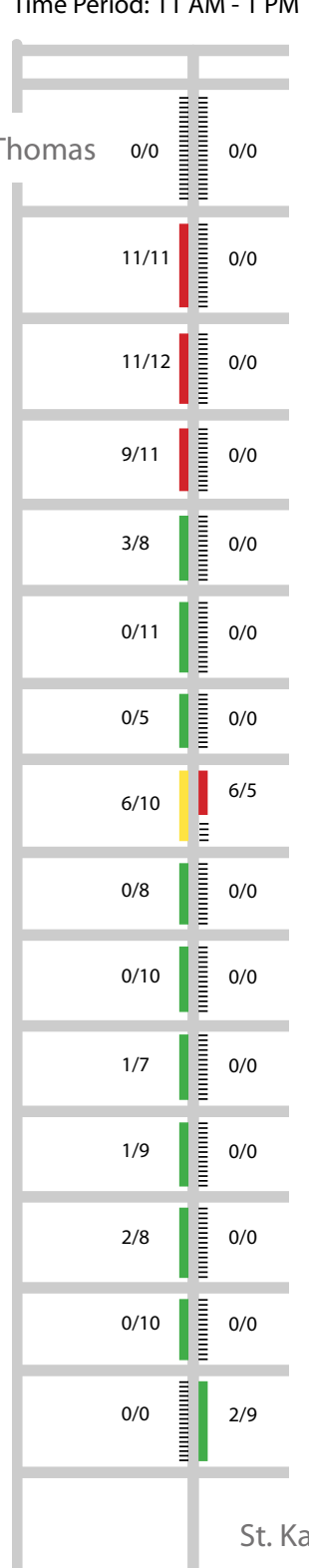


Date: Thursday, March 26th
Time Period: 4AM - 6 AM

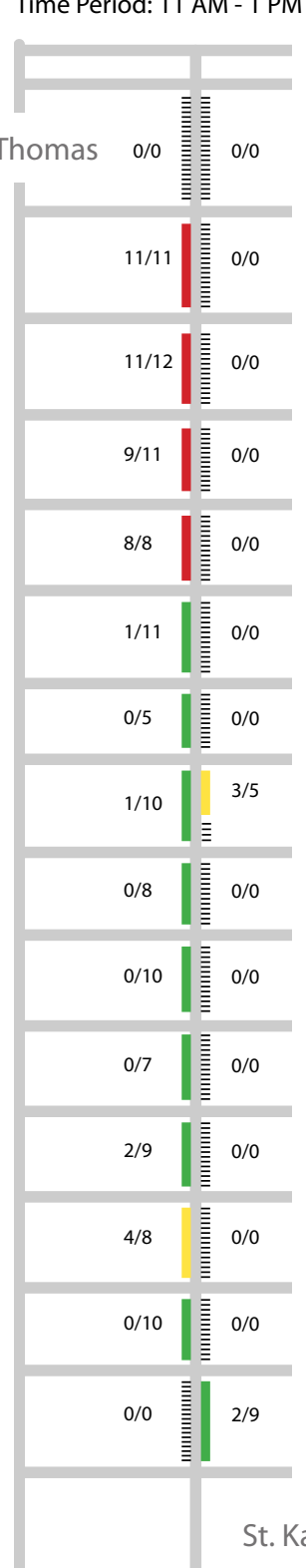


Weekday Midday (11 AM - 1 PM)

Date: Thursday, March 19th
Time Period: 11 AM - 1 PM

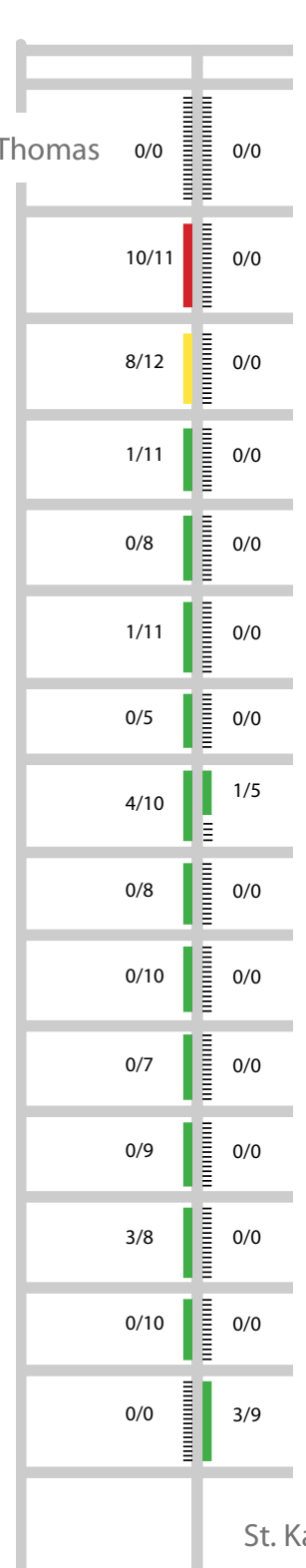


Date: Tuesday, April 7th
Time Period: 11 AM - 1 PM

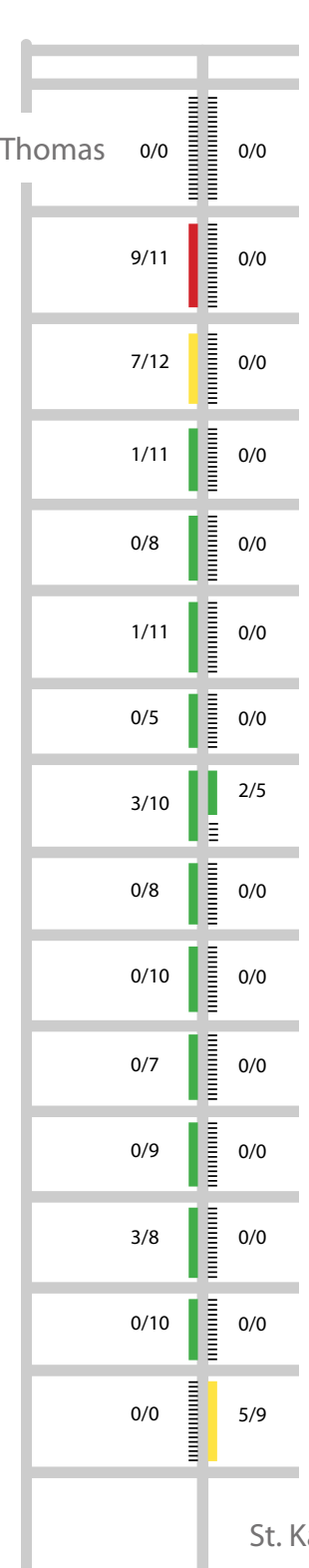


Weekday Evening (6 PM - 8 PM)

Date: Tuesday, March 24th
Time Period: 6 PM - 8 PM

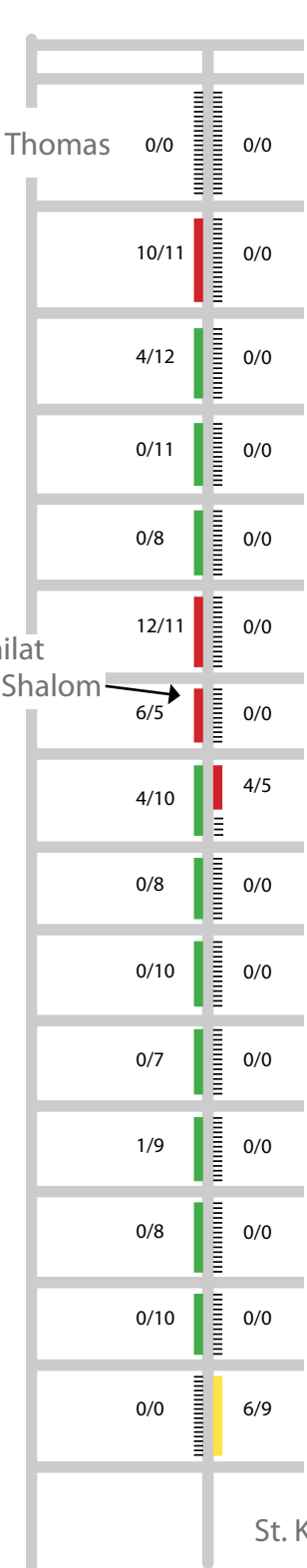


Date: Thursday, March 26th
Time Period: 6 PM - 8 PM

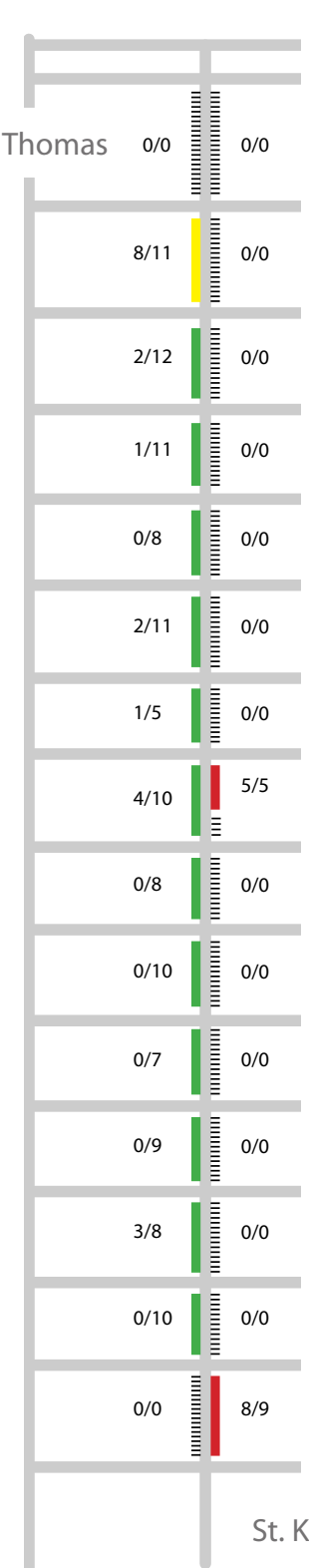


Saturday Midday (11 AM - 1 PM) & Evening (6 PM - 8 PM)

Date: Saturday, March 28th
Time Period: 11 AM - 1 PM

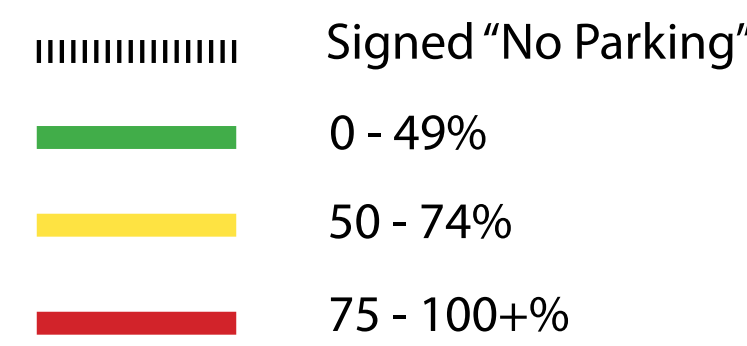


Date: Saturday, March 28th
Time Period: 6 PM - 8 PM



Legend

Observed Parking Utilization



Example: 8/11 =

Observed Parked Cars /
Estimated Legal Parking Capacity

(Observed parking utilization may exceed estimated legal capacity)

NEIGHBORHOOD IMPACT: CLEVELAND ALIGNMENT

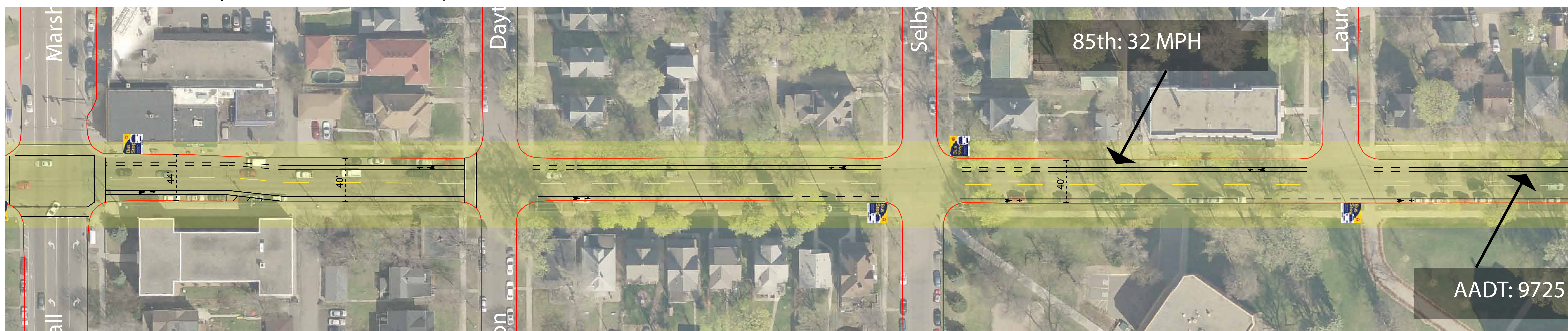
WHAT WE KNOW:

- A dedicated bike lane will encourage more people to bicycle in the neighborhood

QUESTIONS TO CONSIDER:

- What neighborhood impact concerns do you notice along the Cleveland route?
- How would a bike lane along Cleveland enhance the neighborhood?
- What fears do you have regarding the impact on the neighborhood of a Cleveland bike lane?

Pictured: Cleveland Bicycle Lanes Visual Concept



SAFETY: PRIOR ALIGNMENT

WHAT WE KNOW:

- Average daily traffic ranges from 7,457 vehicles (north of Marshall) to 1,800 vehicles (south of Marshall)

- The prior alignment would be a 'bike boulevard' with sharrows and signage instead of a dedicated bike lane

- Prior is less busy than Cleveland, but stop signs and the indirect route may mean many bicycles continue to use Cleveland as their primary North-South choice

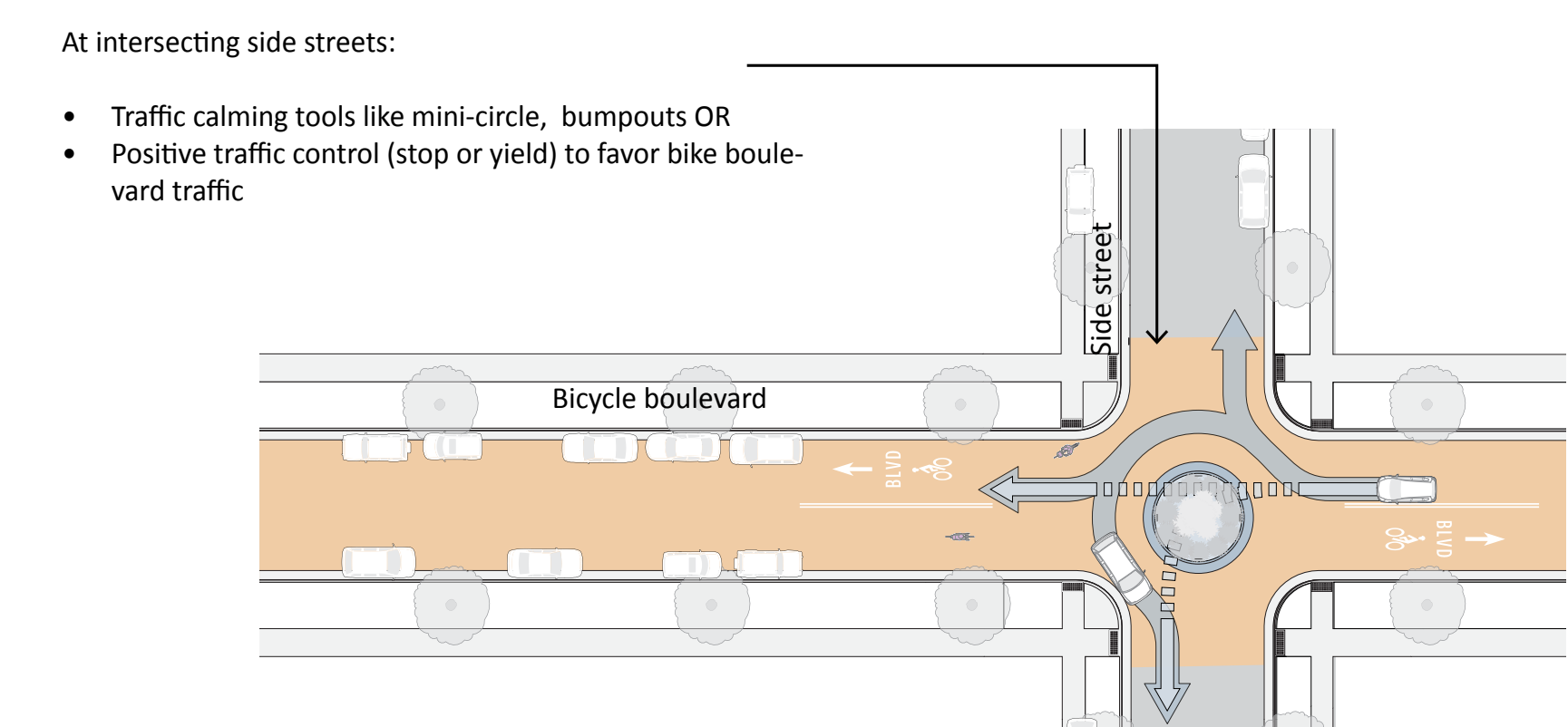
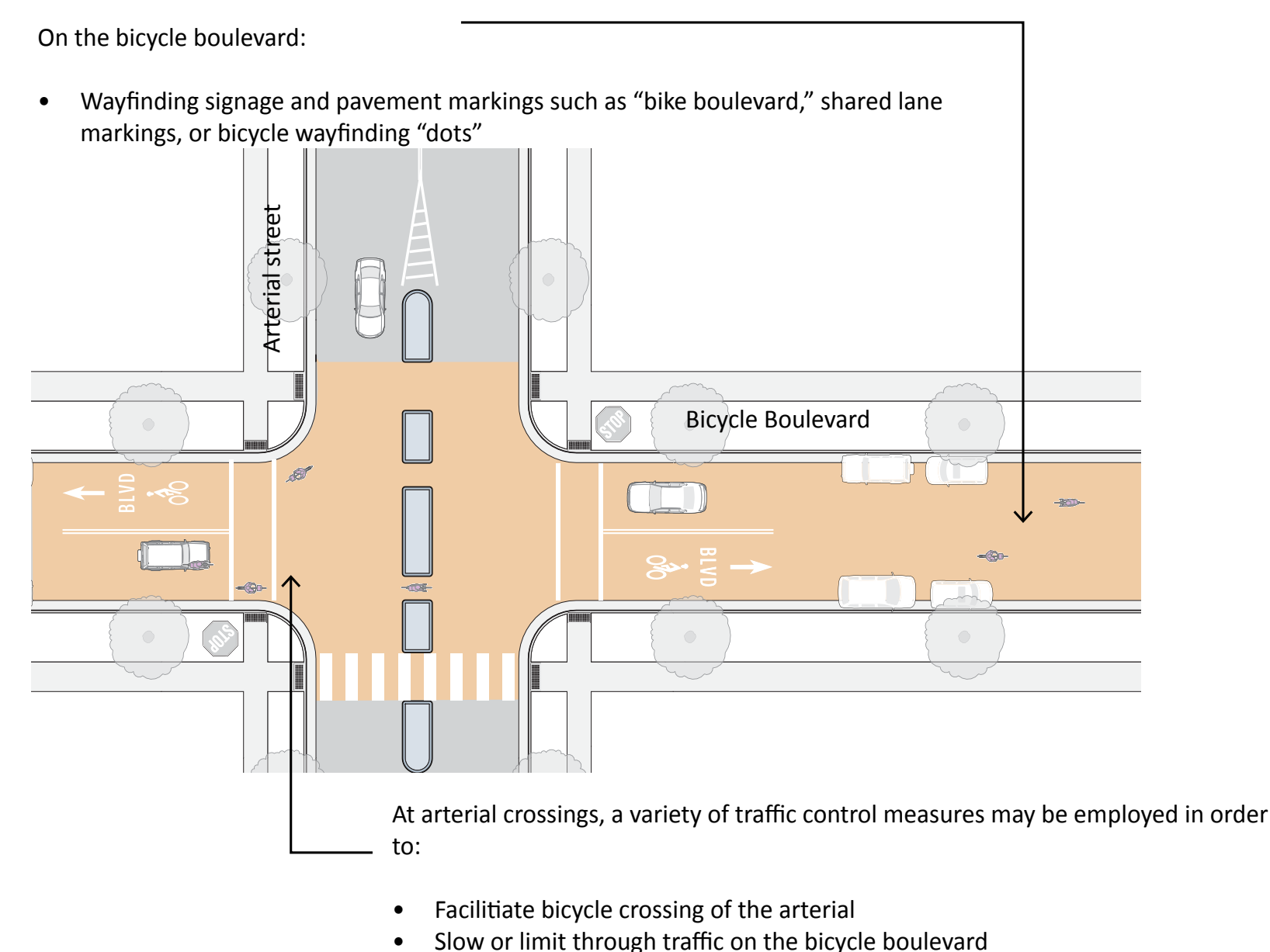
- Prior is misaligned north and south of Summit Avenue, and transitioning from Prior to Randolph Avenue on a bicycle is difficult under existing conditions

QUESTIONS TO CONSIDER:

- What safety concerns do you notice along the Prior route?
- How could a Prior route be made to feel safer?
- How do all modes (automobiles, bicyclers, joggers, walkers) best stay safe along the Prior route?

Bicycle Boulevards

Bicycle Boulevard



Components of a Bicycle Boulevard

- Bicycle boulevards take advantage of low volume, low-speed neighborhood streets that are already relatively friendly for bicyclists.
- No impact to on-street parking.
- Discourages long-distance automobile trips and cut-through traffic in neighborhoods.
- Increases the safety of all users of the road through traffic-calming features
- Includes crossing treatments to help bicyclists and pedestrians cross busy streets
- May be developed as a parallel, alternative bicycle route to a busier street within the same corridor



Example of a bicycle boulevard at mid-block



Example of a bicycle boulevard at mid-block



Prior at Summit Avenue is misaligned and presents a design and implementation challenge

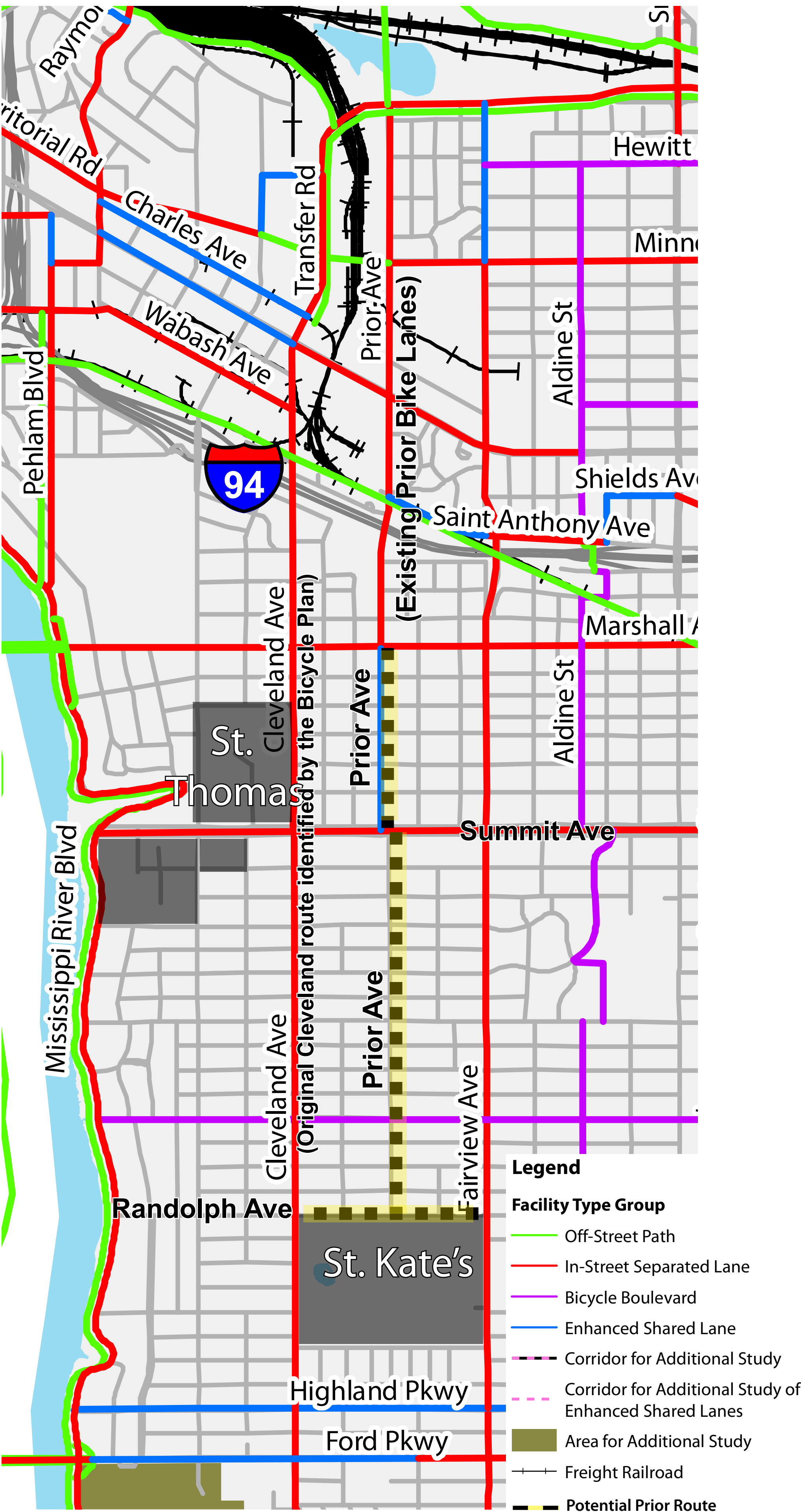


Due to traffic, left turning movements are difficult for people bicycling at the intersection of Prior and Randolph

CONNECTIVITY: PRIOR ALIGNMENT

Saint Paul Bicycle Plan Planned Bicycle Network

(Figure 4)



WHAT WE KNOW:

- Prior is a direct route from Randolph Avenue north, but does not connect to Highland Parkway to the south
- Connects with existing bicycle routes along Jefferson Avenue, Summit Avenue and Marshall Avenue
- Direct connections to bus routes #s 134, 87, 74, 70, 63, 53, 21, 16.
- Connections with St. Catherine University, Nativity of our Lord School, Groveland Elementary/Playground, St. Mark's Catholic School, Four Seasons A+ Elementary School, Merriam Park Playground, Merriam Skateboard Park

QUESTIONS TO CONSIDER:

- What connectivity concerns do you notice along the Prior route?
- How could a Prior route be more connected/efficient?

PARKING: PRIOR ALIGNMENT

WHAT WE KNOW:

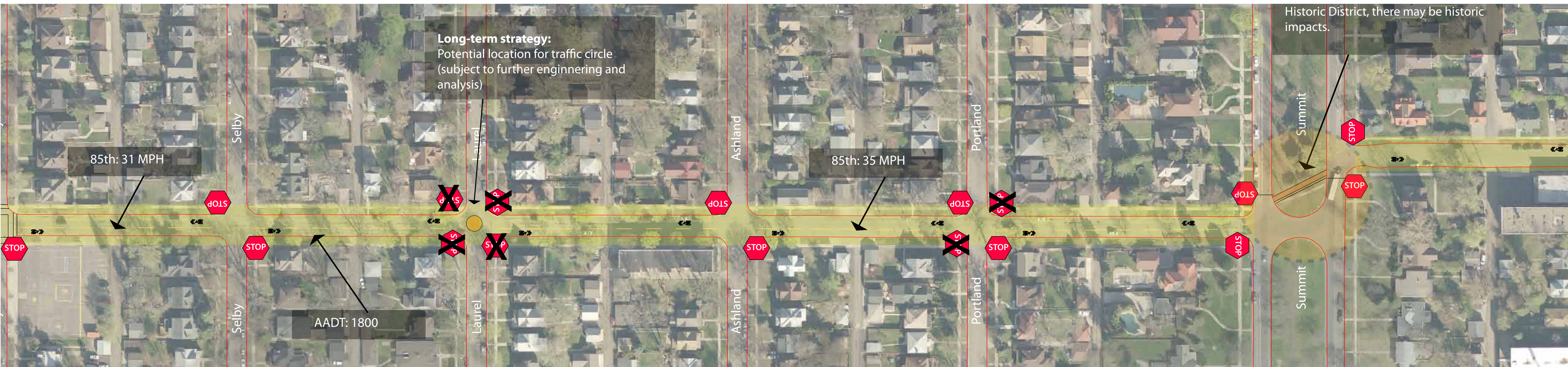
- There are no identified parking impacts using the Prior route

QUESTIONS TO CONSIDER:

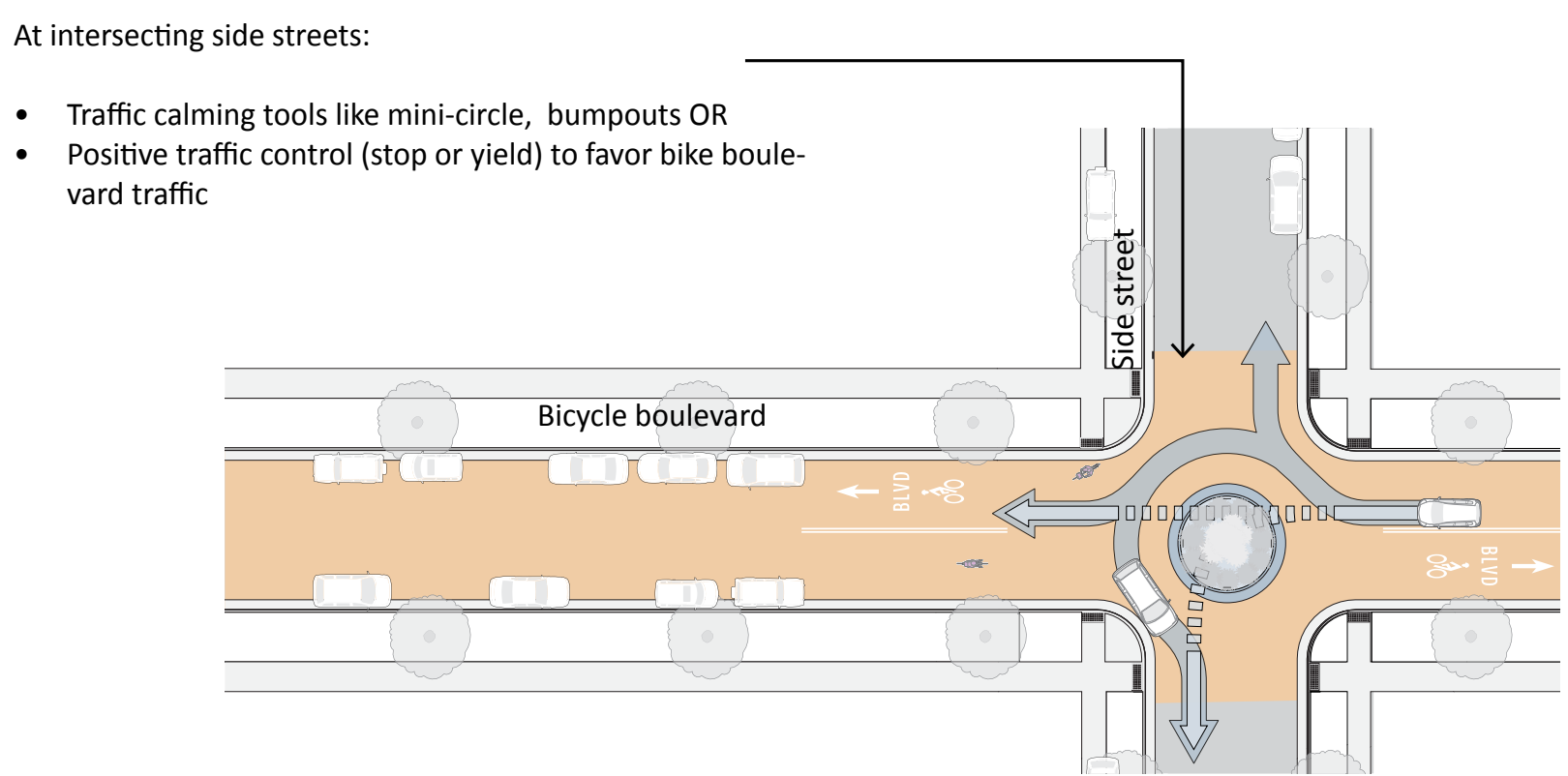
- What parking concerns do you notice along the Prior route?

Implementing a bicycle boulevard does not usually impact existing parking. Crossong treatments such as curb bump-outs or bicycle / pedestrian refuge islands may impact a small number of spaces depending on the site conditions.

Bicycle boulevard concept on Prior:



Traffic circle example:



Bicycle boulevard example:



Bicycle boulevard example:



NEIGHBORHOOD IMPACT: PRIOR ALIGNMENT

WHAT WE KNOW:

- Much of Prior between Randolph and Marshall Avenue is residential, with frequent stop signs at intersections. Keeping all the existing stop signs in place would make the route less desirable for bicycle traffic.
- Modifications to stop signs and intersection crossing treatments (such as traffic circles) would require further analysis, elongate the implementation timeline, and incur additional project cost.
- Modifications to stop signs and intersection crossing treatments could impact residents.
- Making Prior A dedicated bike route would encourage more people to bicycle in the neighborhood

QUESTIONS TO CONSIDER:

- What neighborhood impact concerns do you notice along the Prior route?
- How would a bike boulevard along Prior Avenue enhance the neighborhood?
- What fears do you have regarding the impact on the neighborhood of a Prior bike lane?



Existing "enhanced shared lanes" implementation on Prior between Summit and Marshall



An example of traffic circle on the Charles Avenue Bicycle Boulevard



An example of a bicycle / pedestrian refuge island on the Charles Avenue Bicycle Boulevard