

MADISON EAST-WEST BUS RAPID TRANSIT (BRT) PLANNING STUDY

Public Meeting 5 Downtown Routing

Madison Senior Center | October 29, 2019 | 6:30 PM


MADISON DEPARTMENT



OF TRANSPORTATION



THE NEED

- 
- In the last 5 years, Madison has approved **14,000 dwelling units** creating 120,000 daily trips

- In the last 3 years, Madison has approved **3.3 million square feet** of office, commercial, industrial, and institutional space – creating 60,000 daily trips.

Employment

200,000 jobs in 2010

+85,000 projected for Dane Co 2050

+45,000 projected for Madison 2050

+10,000 in Isthmus

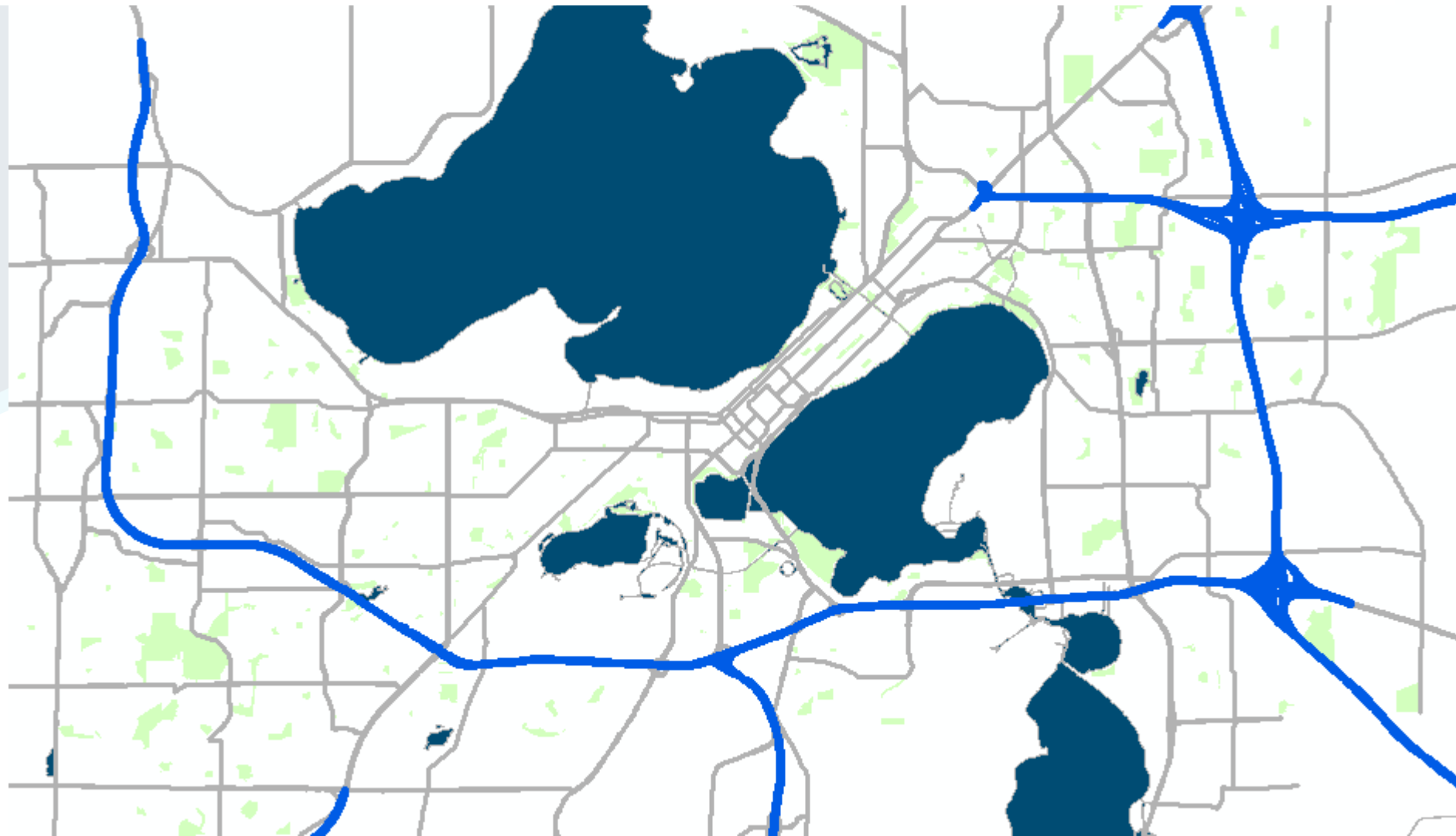


800,000 more daily trips
are projected for the Madison Metro
Region **by 2050**

An aerial photograph of a multi-lane highway during peak traffic hours. The road is filled with a dense line of cars and trucks, mostly stopped or moving very slowly. The vehicles are packed closely together, with red brake lights visible on many cars. The highway is flanked by green trees and some commercial buildings. A large white text overlay is centered in the upper half of the image.

**We can't continue relying
on the automobile**

Traffic Moves Mostly on Surface Streets



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Key Factors for BRT Success

- It needs to be fast
- It needs to be going where people are going
- It needs to be intuitive and easy to use



???

We need to get downtown routing right if we want BRT to work.
If people don't want to use it, it won't work.

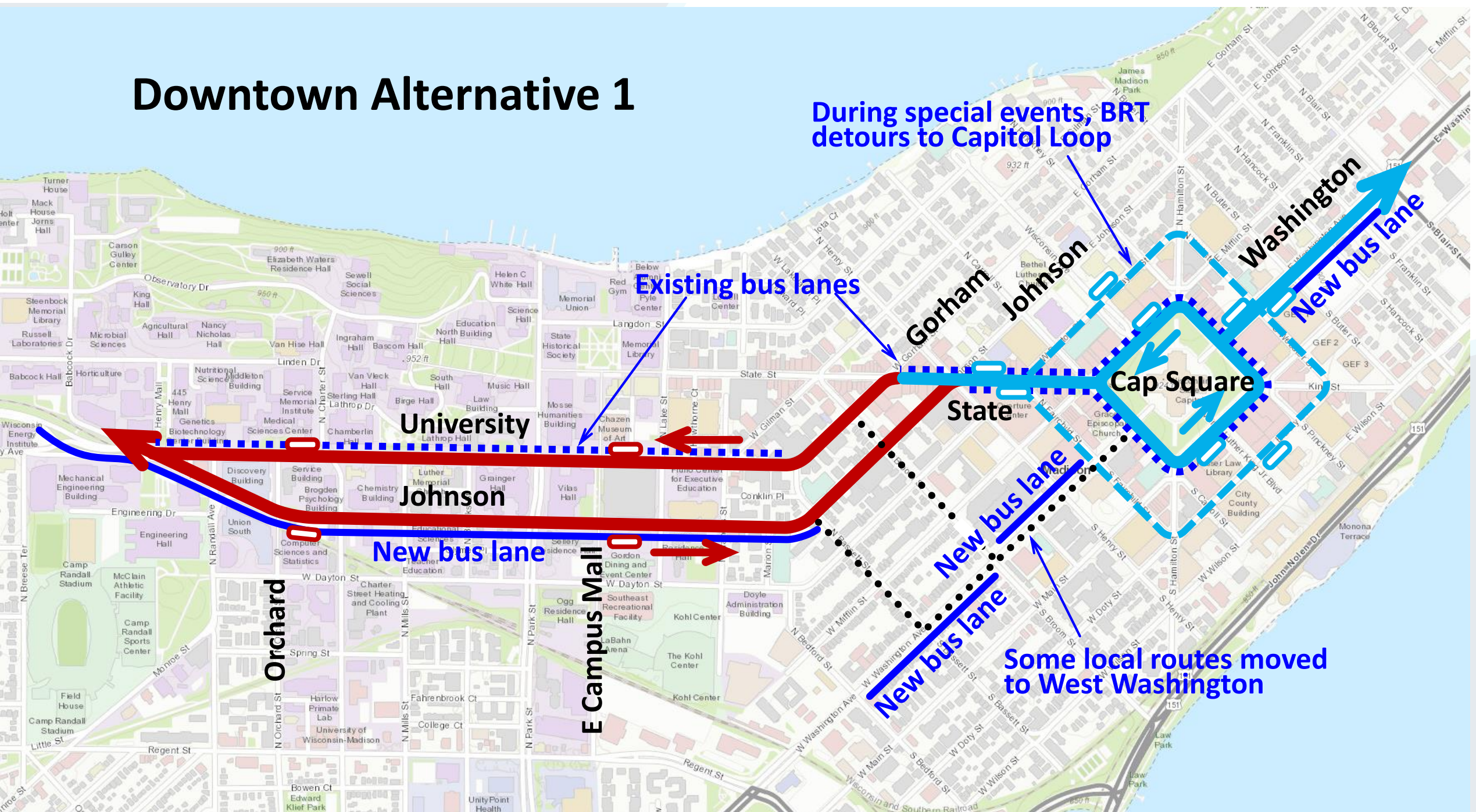


Downtown Goals and Objectives

- Ability to serve important regional destinations
- Ability to provide dedicated running way (bus lanes)
- Provide BRT stations that are:
 - Logically spaced and located
 - Amply sized to serve riders
 - Located in visible, trafficked areas
 - Allow for convenient transfers to local Metro routes
- Fast, reliable BRT travel times
- Acceptable bike routing and facilities
- Minimal impacts to on-street parking and parking revenue

[illegible]

Downtown Alternative 1

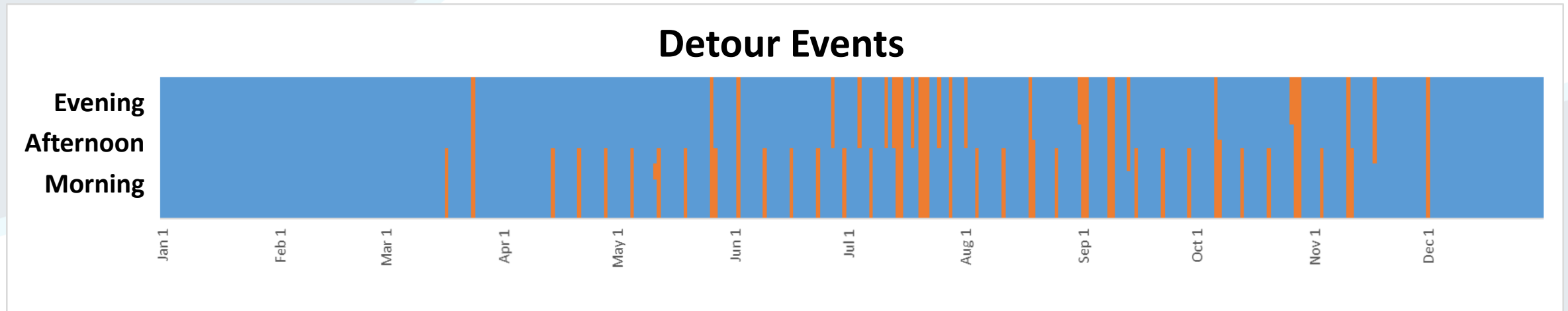


Detours



Dane County Farmer's Market

Detours – Alternative 1



Overall, Metro is detoured from Capitol Square about 10% of the time.

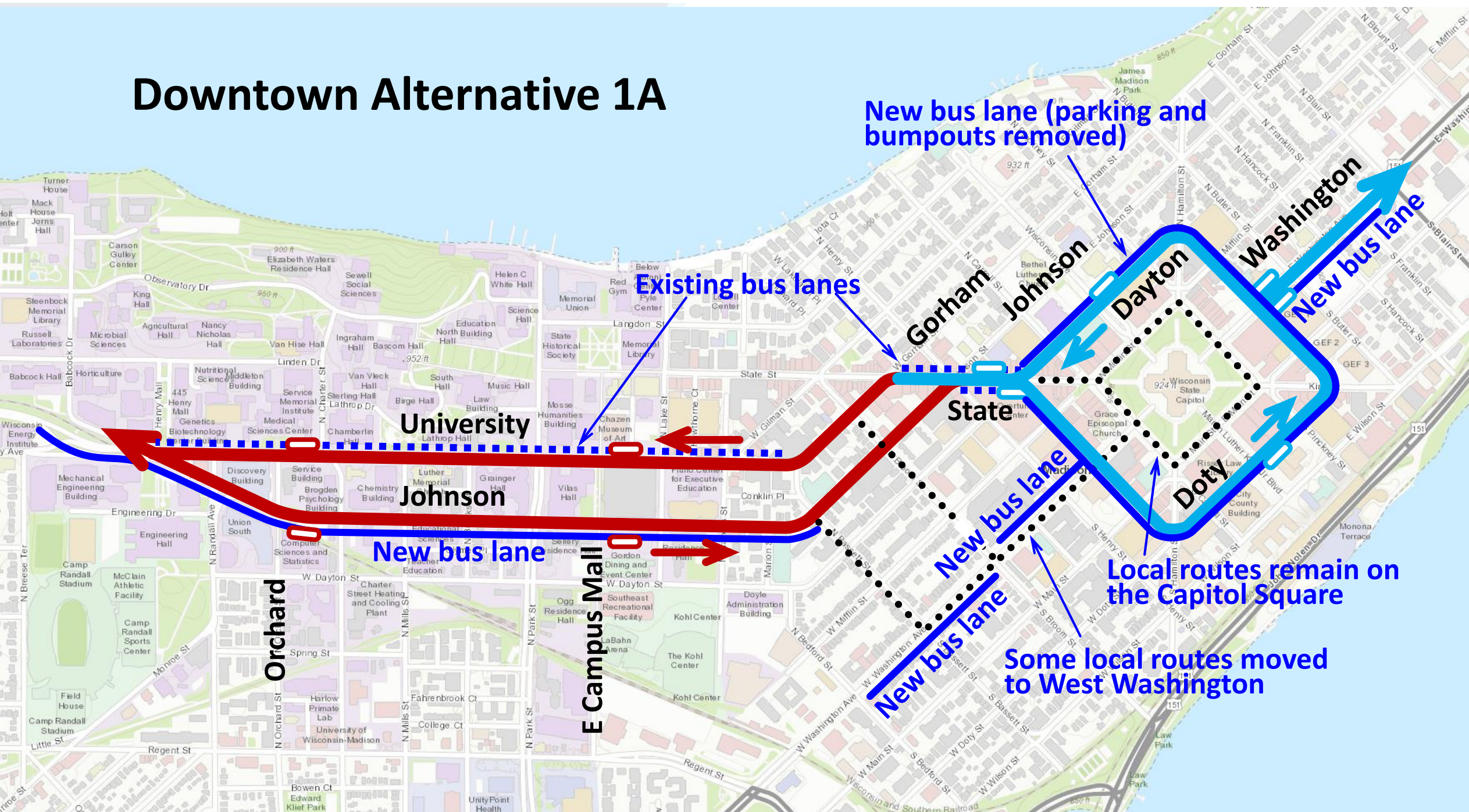
Most of that time is weekends in the summer.

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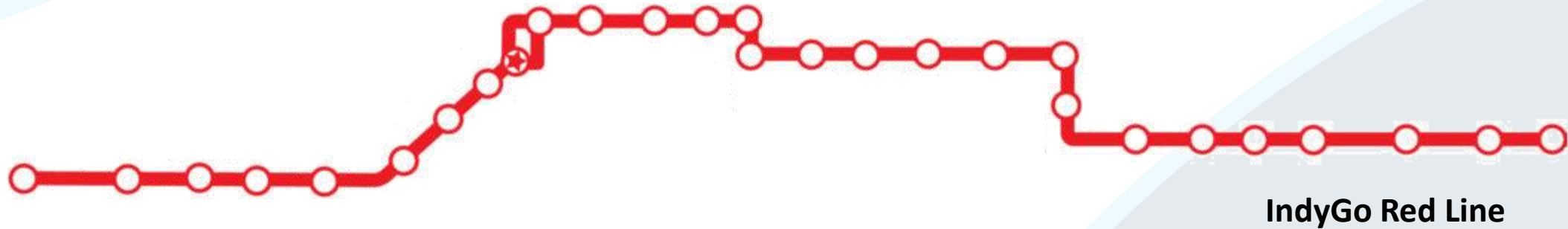
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Downtown Alternative 1A



Eastbound and westbound stations are far apart

- Almost all bus and rail lines are designed so that stops and stations are across from each other so that the system is easier to use.
- New riders can find riding the bus complicated and risky



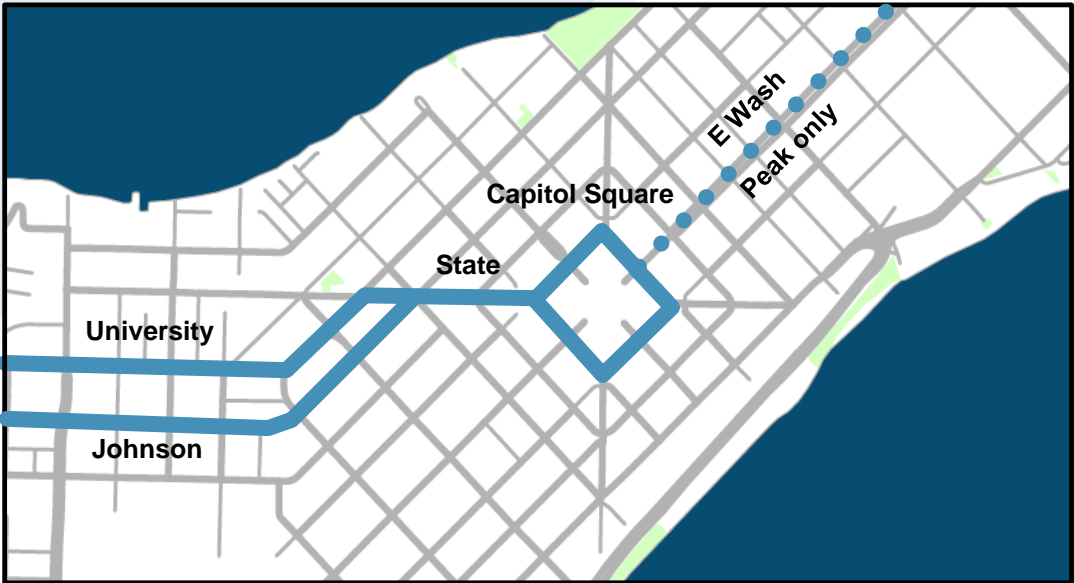
I don't know the area well. I need to get on the bus going the other way. How do I get there?



State Street Rerouting (Alternatives 1 and 1A)

Example Routes 14 and 15

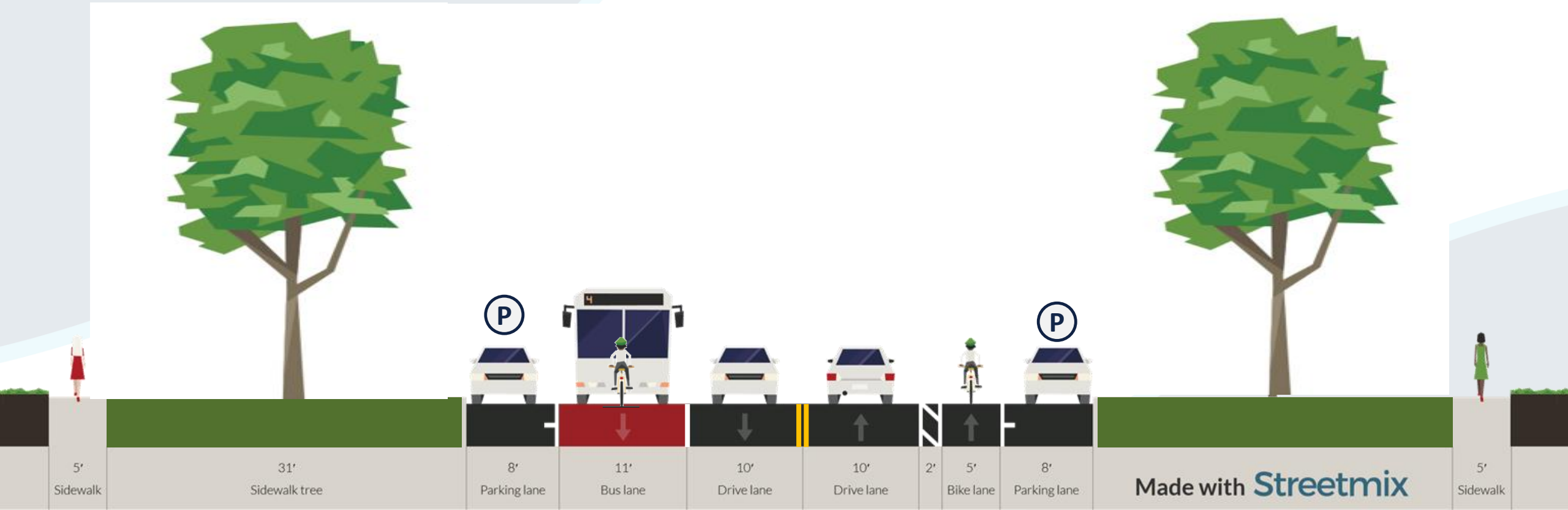
EXISTING



PROPOSED



West Washington Changes with Alts 1 and 1A



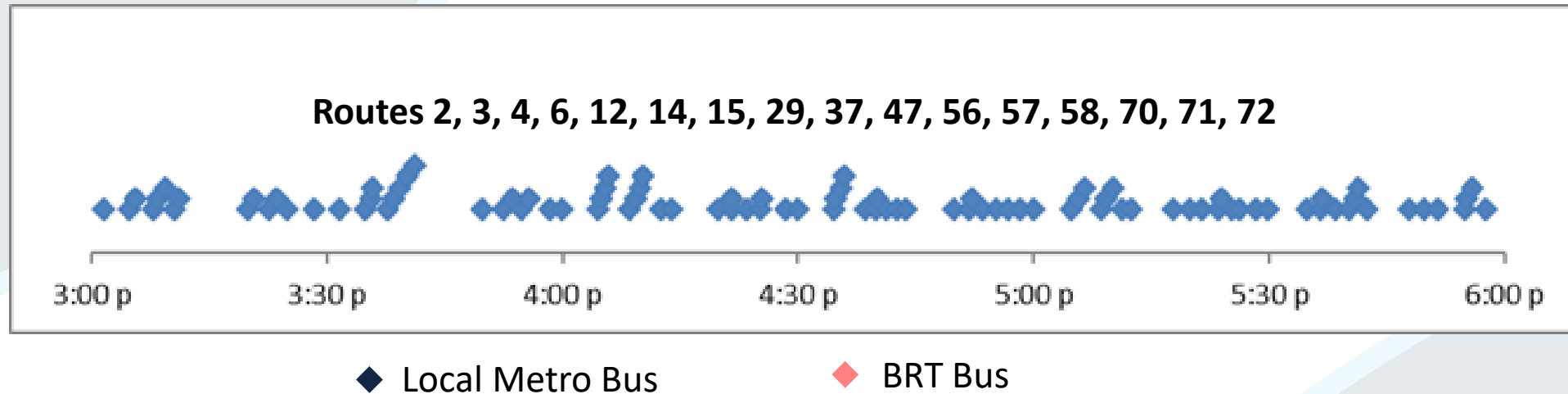
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State Street

Existing Westbound Bus Service on State Street, Afternoon Peak



In the afternoon peak period, many buses try to use State Street at the same time.

They stack up at the traffic signals causing delay and pollution.

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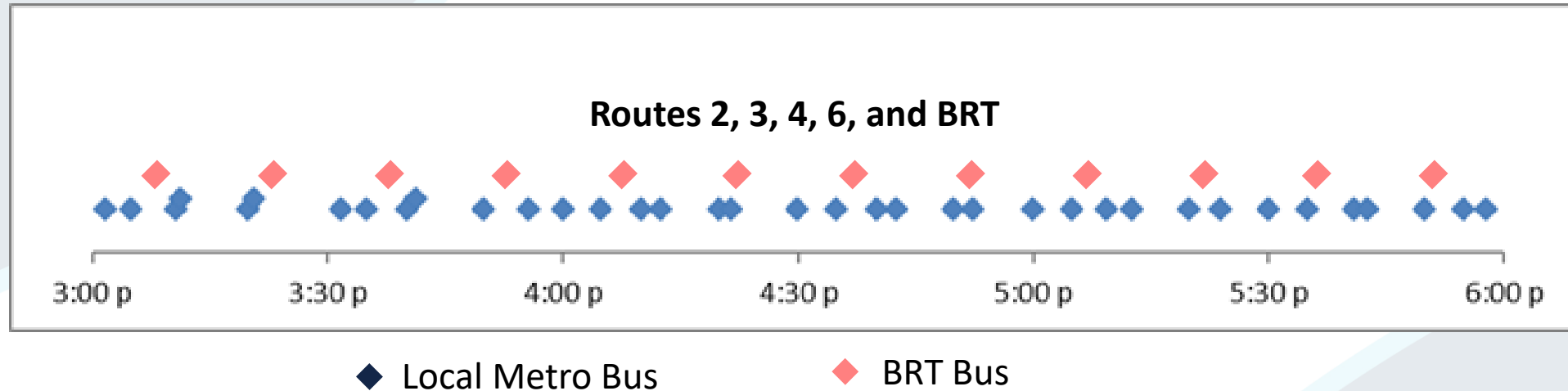


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State Street – Alternatives 1 and 1A

50% Reduction in Bus Volume

Alternative 1 and 1A Westbound Bus Service on State Street, Afternoon Peak



With Alternatives 1 and 1A, regional and commuter routes are moved to West Washington Avenue.

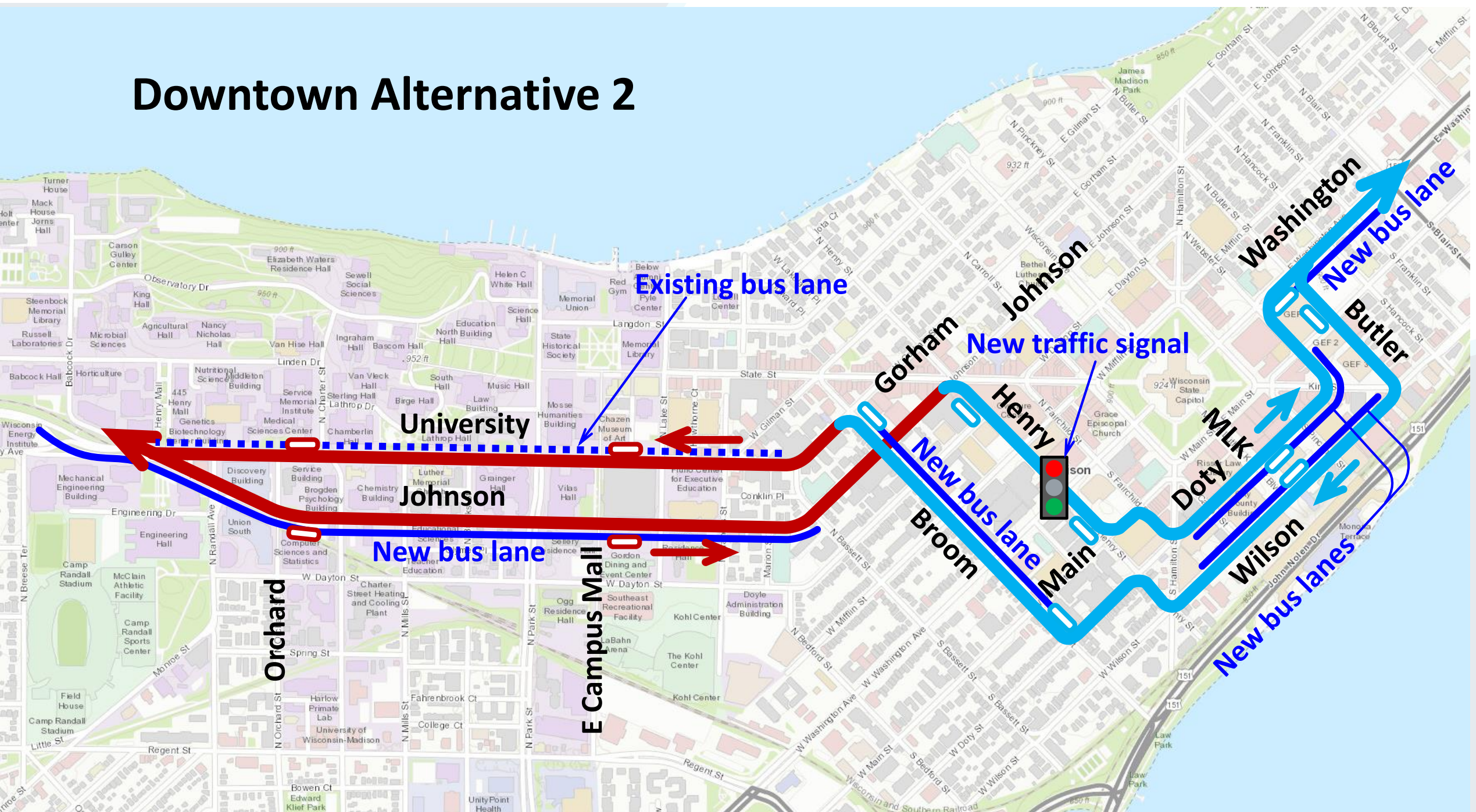
The result is fewer buses on State Street. Service is more consistent throughout the day with less bunching at traffic signals, and some of the buses are electric.

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Downtown Alternative 2



Downtown Alternative 3

Existing bus lane

New bus lane

New contra-flow southbound bus lane

University

Johnson

Orchard

E Campus Mall

Gorham

Johnson

Broom

Main

Doty

Washington

Butler

Wilson

New bus lanes

MLK

OF TRANSPORTATION

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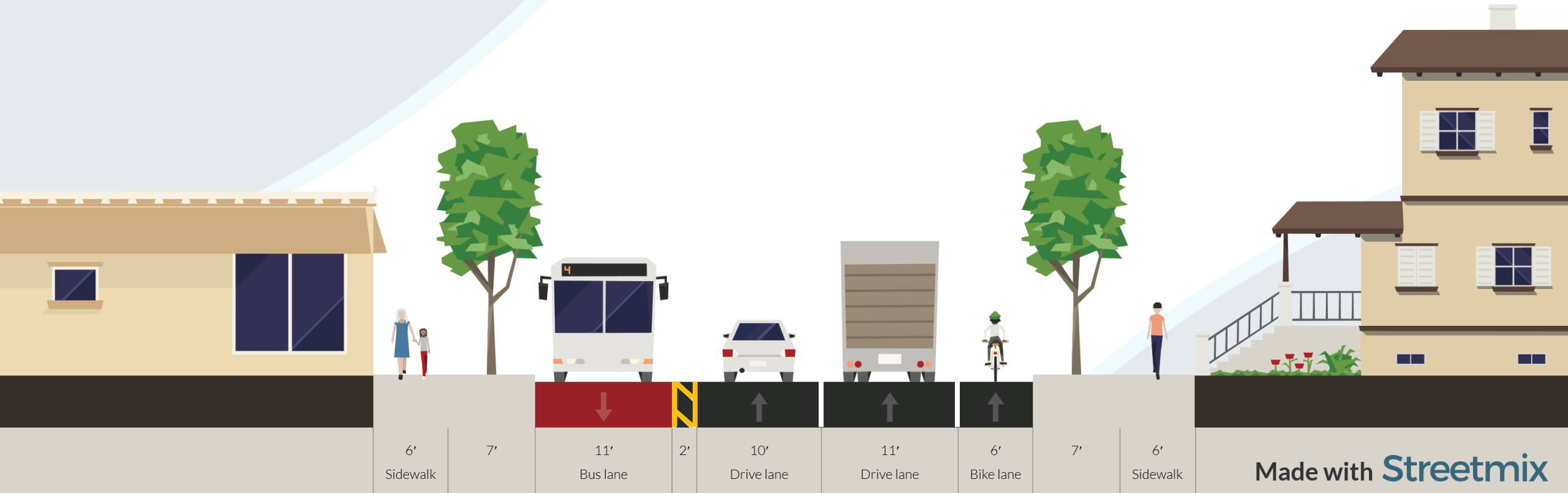
Wilson

New bus lanes

MLK

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Broom Street Contra-flow Lane



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Downtown Stations



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Downtown Stations



- Narrow stations are acceptable in lower use areas
- Typically larger station areas are used in downtown areas for pedestrian circulation

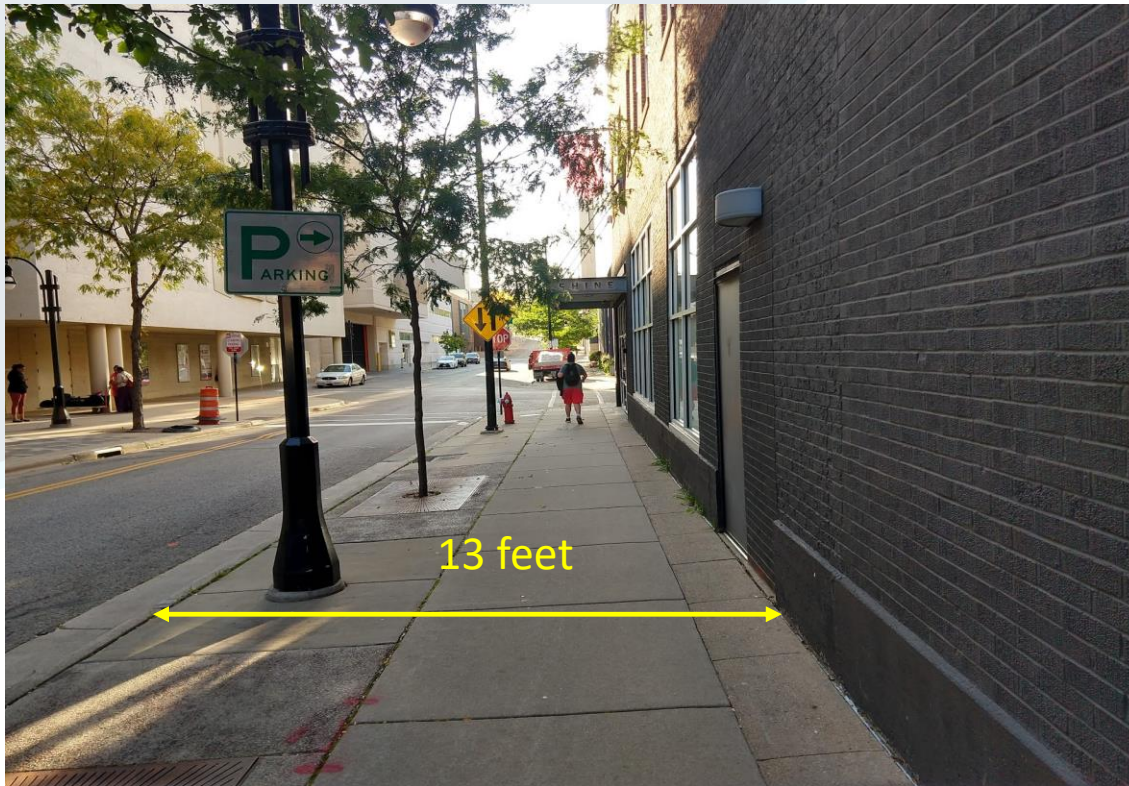
Grand Rapids, MI

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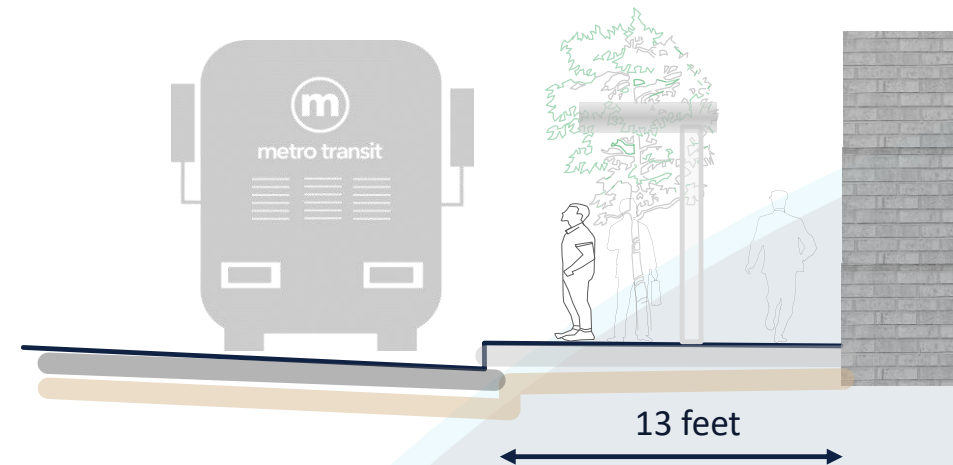


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Downtown Stations



Typical Space Available – Henry– Alt 2

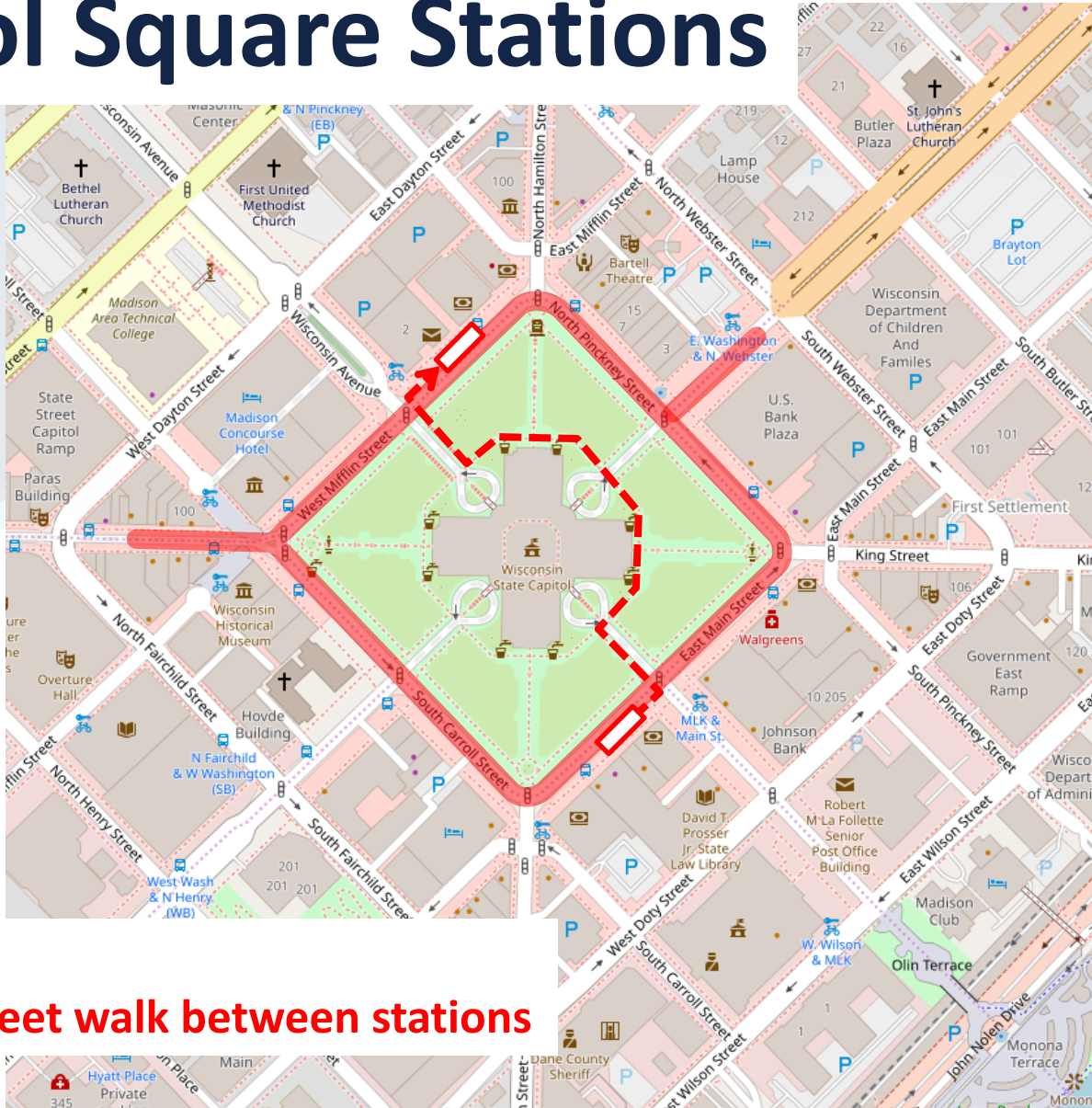


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Capitol Square Stations



Alternative 1
2 block, 1,300 feet walk between stations

A map showing the area around St. John's Lutheran Church. The church is located at the intersection of Butler Plaza and a street running diagonally from the top right to the bottom left. Butler Plaza is a large open area to the left of the church. The map includes street names and numbers: 22, 16, 21, 27, and 28. A red dashed line outlines the church property. A blue 'P' symbol indicates a parking area. A yellow arrow points towards the church entrance.



Wisconsin
Department
of Children,
Youth & Families

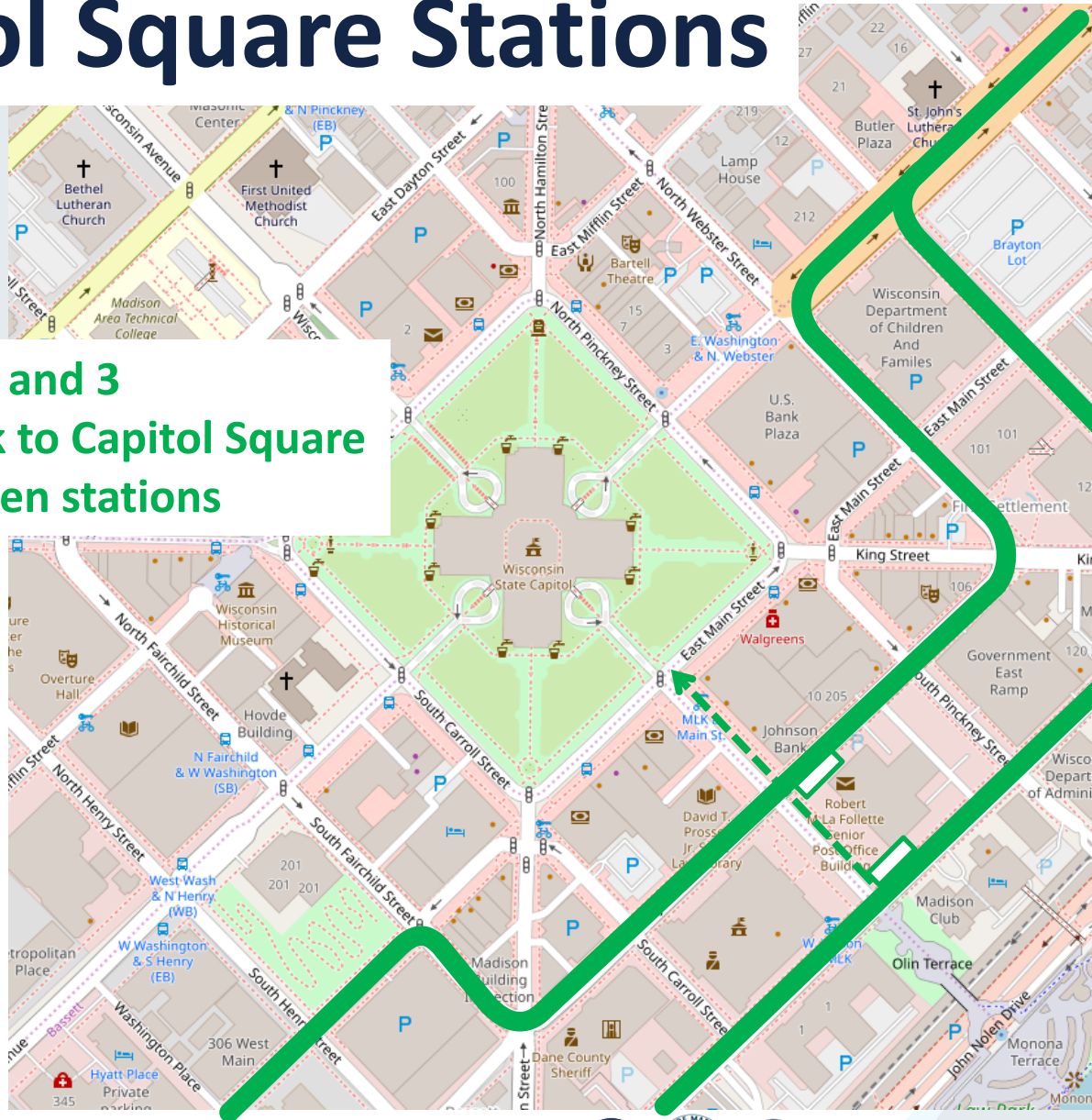
The map illustrates the proposed bus rapid transit alignment in downtown Madison, WI. The alignment is shown as a blue line with arrows indicating the direction of travel. Key features include:

- Streets:** Wisconsin Avenue, West Dayton Street, North Fairchild Street, North Henry Street, West Wash & N Henry (WB), West Mifflin Street, and West Washington (SB).
- Landmarks and Buildings:** Bethel Lutheran Church, First United Methodist Church, Madison Area Technical College, State Street Capitol Ramp, Paras Building, Overture Hall, Wisconsin Historical Museum, and the Wisconsin Center.
- Transportation:** The alignment is shown with a blue line and arrows, indicating the direction of travel. It also shows existing bus routes and stops.



Capitol Square Stations

Alternatives 2 and 3
1-2 block walk to Capitol Square
1 block between stations



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Alternative 1



Mifflin and Pinckney

Alternative 1A

Dayton and Wisconsin



Alternatives 2 and 3



Wilson and MLK

© 2019 Google

State Street Stations

Westbound Alts 2 and 3

Alts 1 and 1A

Eastbound Alt 2

Eastbound Alt 3



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Alternatives 1 and 1A



State and Fairchild

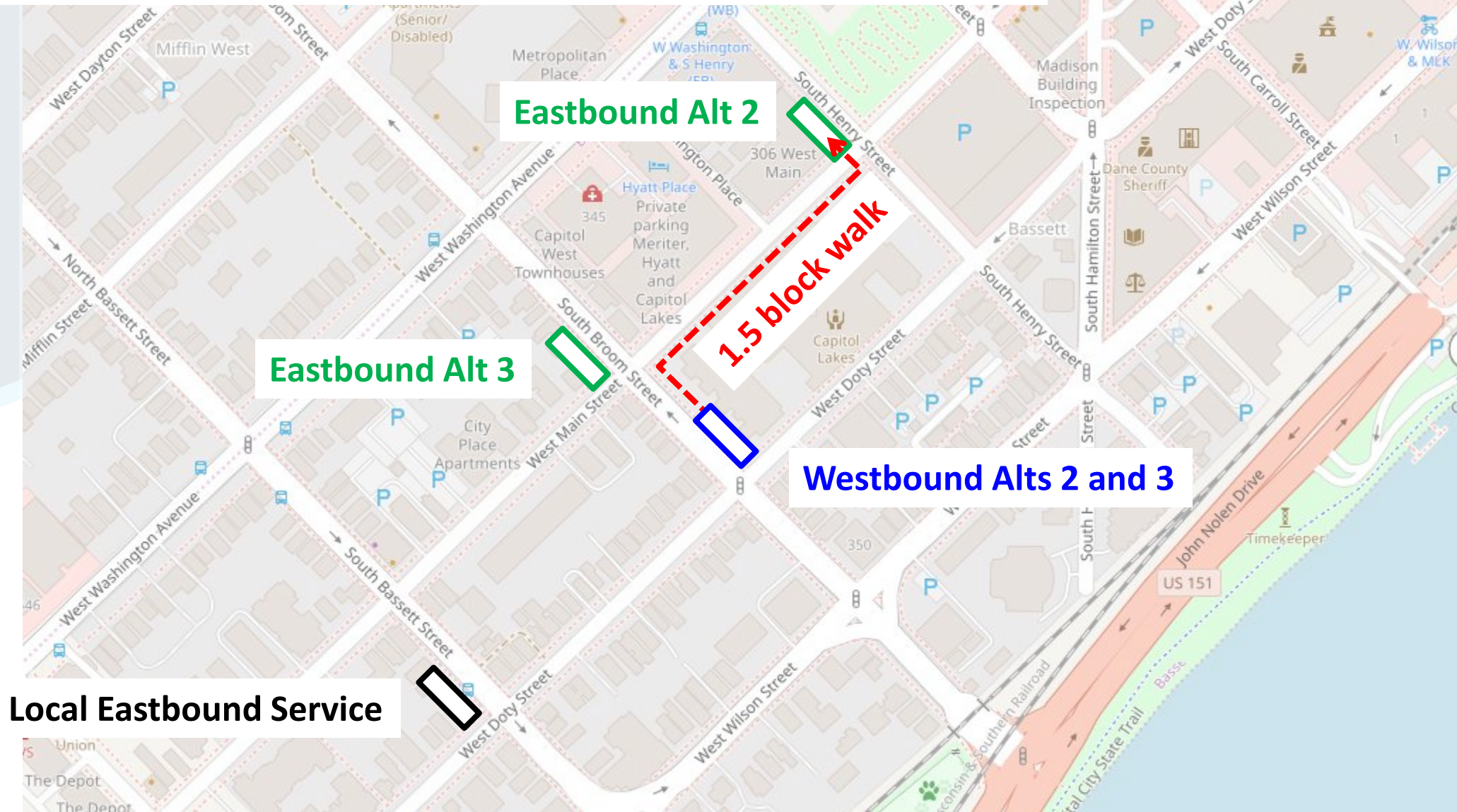
Alternative 2



Henry and Dayton

© 2019 Google

Bassett Neighborhood Stations



Eastbound Alternative 2



Henry and Main

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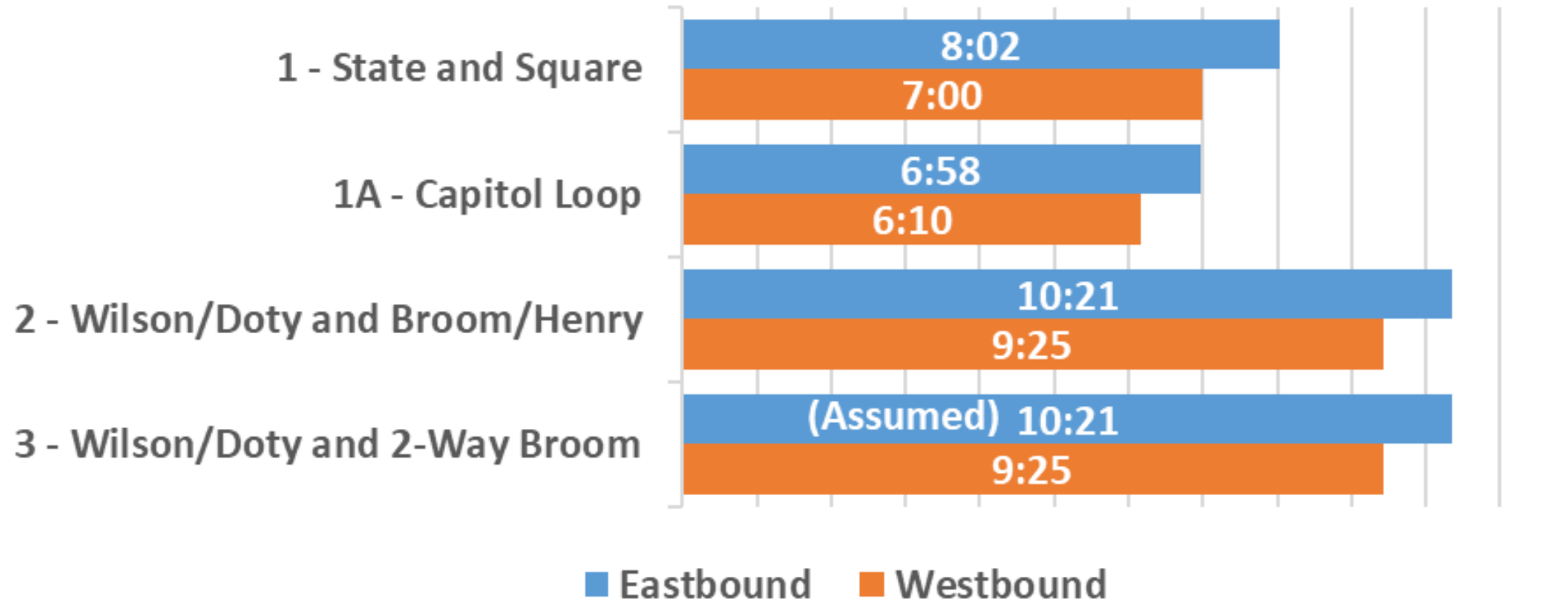
Alternative 3



Broom and Main

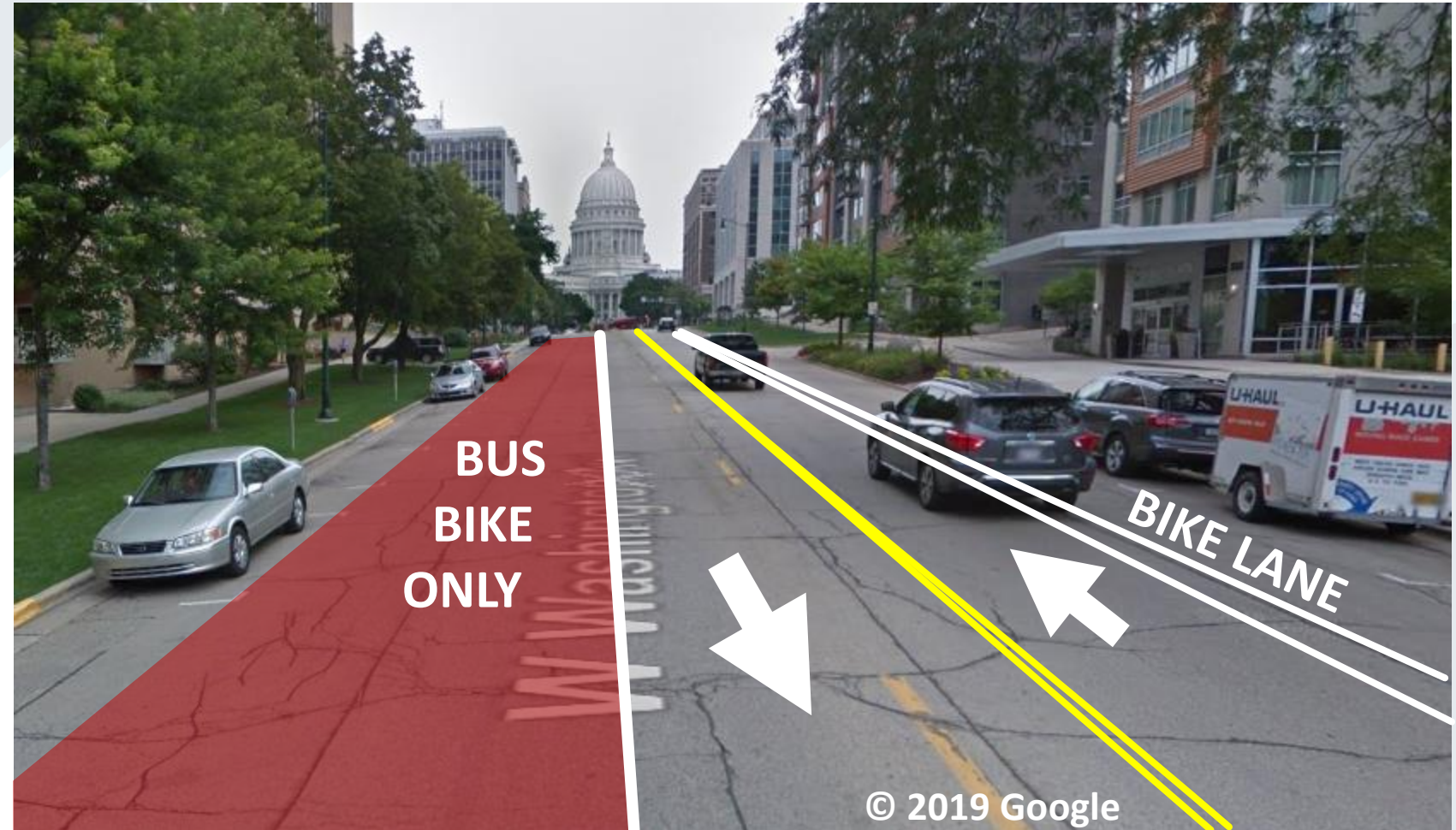
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Travel Times Between Frances and Blair



Bikes – Alternative 1 (Capitol Square)

- No significant changes along BRT alignment
- West Washington Avenue restriped to include a bus lane in one direction



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Bikes – Alternative 1A (Capitol Loop)

- Capitol loop parking and bike lane converted to bus, bike, and right turns only



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Bikes – Alternative 2 (Broom/Henry)

- Broom Street parking and bike lane converted to bus, bike, and right turns only



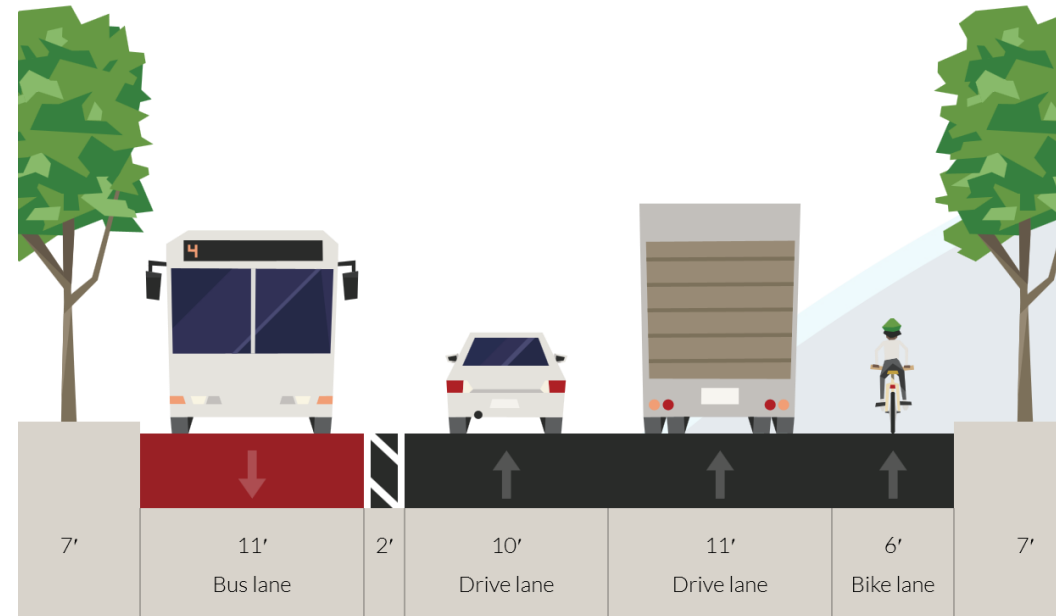
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Bikes – Alternative 3 (Two-Way Broom)

- Northbound bike lane accommodated on Broom Street, bikes cannot use southbound lane



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Parking

	Alt 1	Alt 1A	Alt 2	Alt 3
Total Parking Spaces Removed	4	85	110	107
Total Metered Parking Spaces Removed	4	85	100	97
Total Parking Revenue Lost yearly	\$8,000	\$170,000	\$200,000	\$195,000

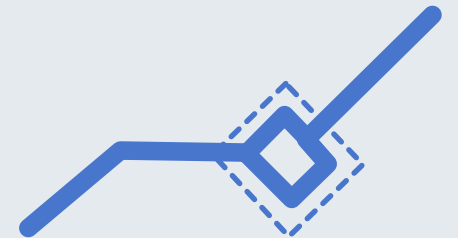
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Observations

- Alternative 1 appears to provide the greatest number of advantages
 - Most direct access to key destinations
 - Eastbound and westbound stations are within a block or two
 - Generous space for stations
 - Does not compete with local service
 - Good transfers to and from local routes
 - Does not reduce parking revenue
 - Reduces the number of buses on State Street, replaces with electric



Observations

- Alternative 3 has the next greatest number of advantages
 - Complementing stations are relatively close together
 - Very few detours
 - Smaller station sizes
 - Travel times are slower
 - Significant loss of parking and parking revenue



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