

Madison East-West Bus Rapid Transit (BRT) Planning Study

Update to Joint Campus Area Committee (JCAC) – October 30, 2019

MADISON DEPARTMENT



OF TRANSPORTATION



Bus Rapid Transit (BRT)

Madison East-West Corridor Project Development



What is Bus Rapid Transit?

BRT has:

- Very **high level** service, similar to but one step down from light rail
- Typically over 50 percent of the route will have **dedicated bus lanes**, giving buses an advantage in congestion
- Special **intersection treatments** to help speed up buses in traffic
- **10-15 minute** service levels - 6 am to 12 midnight



Cleveland's Health Line BRT



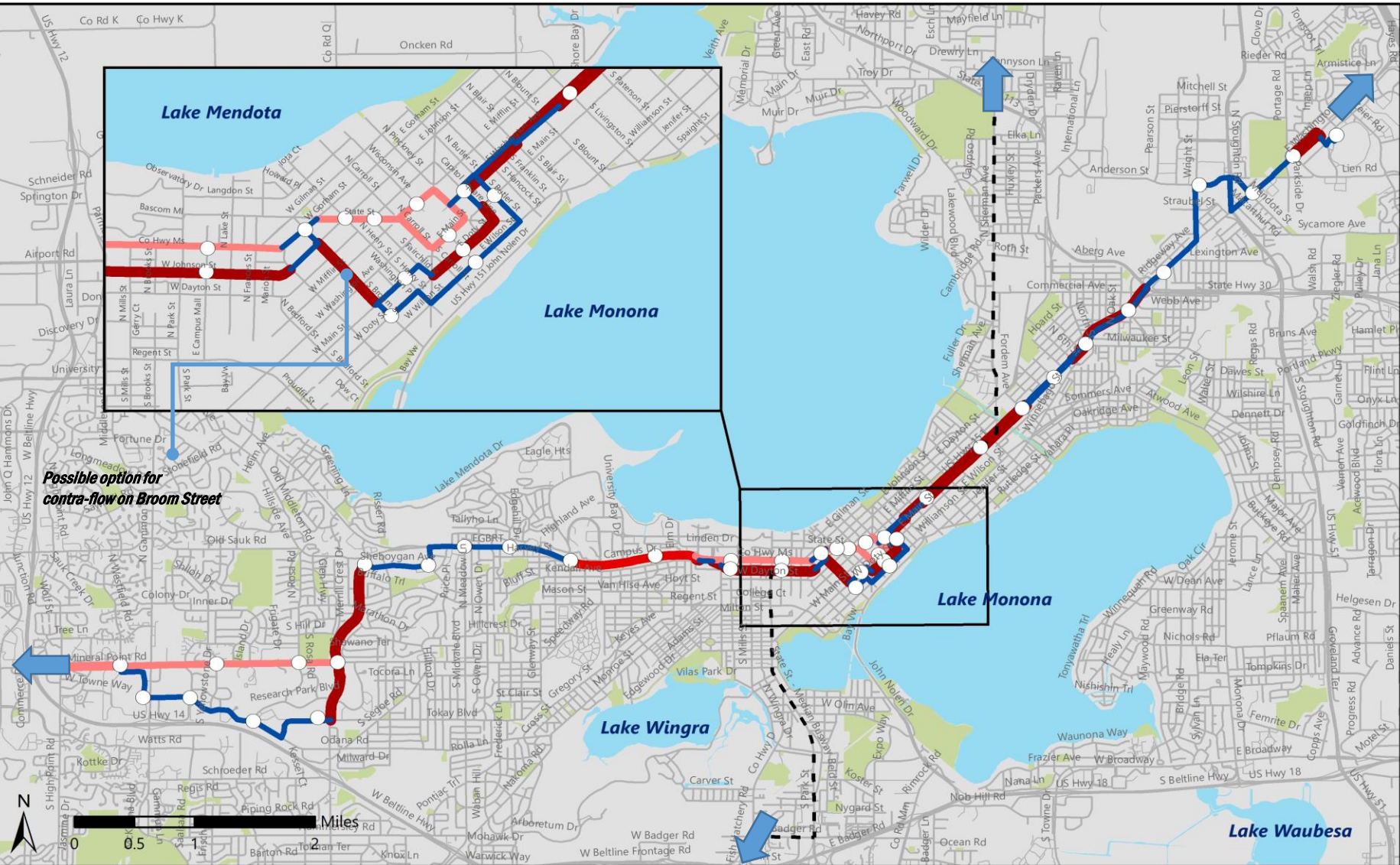
Example of dedicated bus lanes

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Location of Dedicated Lanes for Working LPA



Possible option for contra-flow on Broom Street

Madison East-West BRT Planning Study



- East-West BRT Proposed Station
- Future North-South BRT
- ← Future BRT Extensions
- Dedicated Lanes**
- █ Dedicated Bus Lane (BRT vehicle in new bus lane)
- █ Bus-only Shoulder (Bus uses during congestion)
- █ Existing Bus Lane (BRT vehicle utilizes existing bus lanes)
- █ Mixed Traffic (BRT vehicle shares lane with other vehicles)

BRT Runningway Options

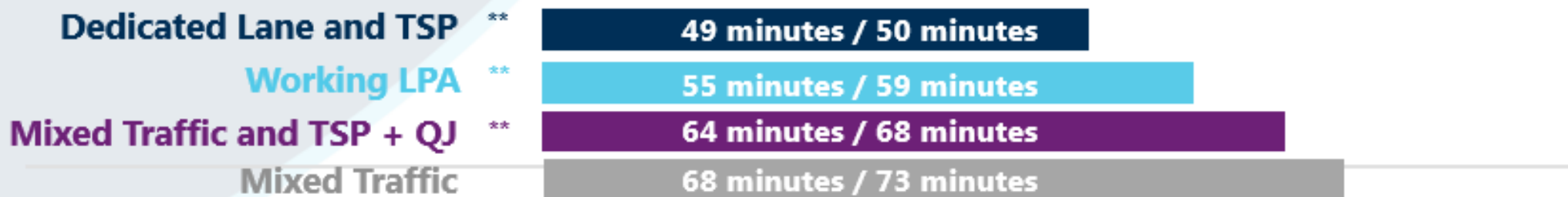


Curbside dedicated BRT lanes: remove one lane of traffic or parking

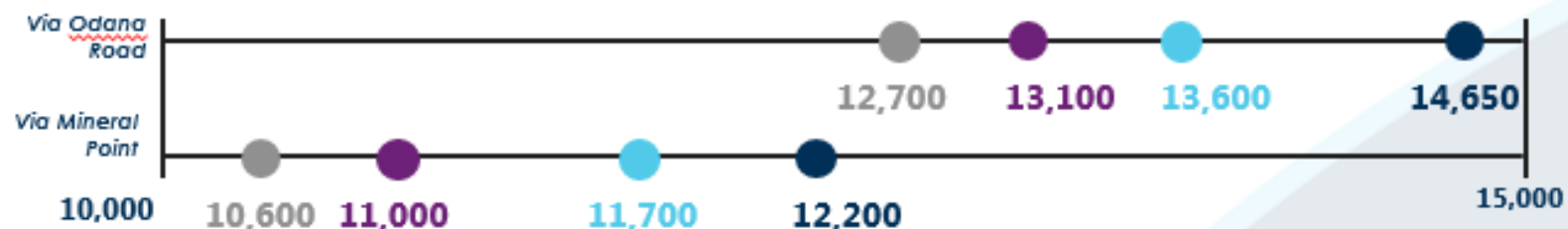
MADISON EAST-WEST BRT PLANNING STUDY

BRT Travel Time, Ridership, Capital Costs*

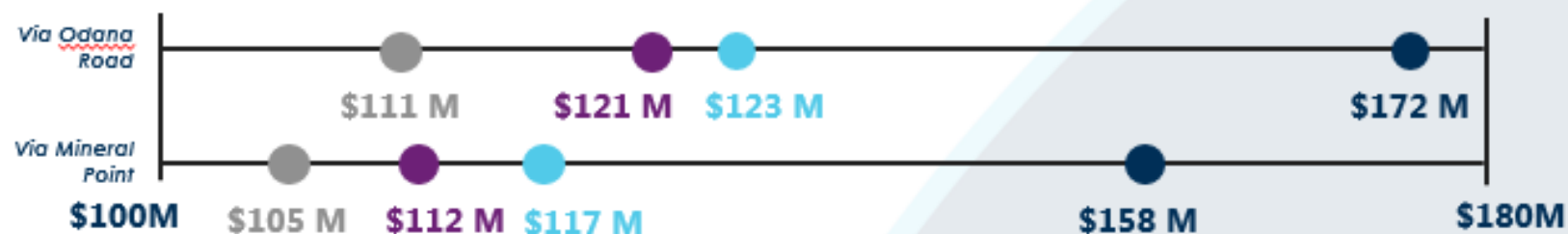
Travel Times (End-to-End)



Daily Ridership



Capital Costs



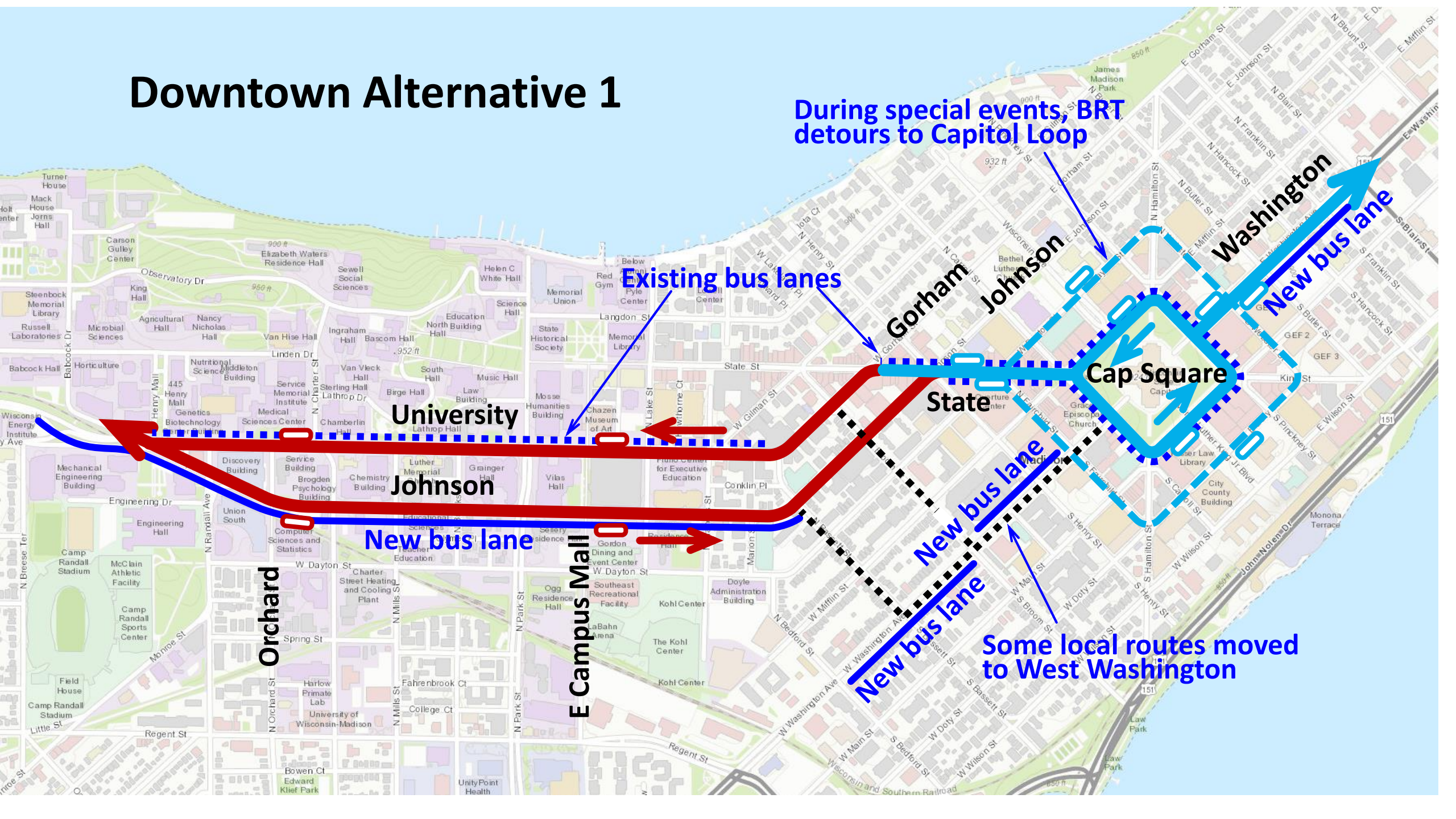
*All data reflects the Broom/Wilson downtown option

**LPA = Locally Preferred Alternative, TSP = Transit Signal Priority, QJ = Queue Jump

MADISON EAST-WEST BRT PLANNING STUDY
 Capital Costs for Working LPA

Cost Categories	Working LPA Cost (\$2019 in millions)
Dedicated Lane Marker (Paint)	\$2
Stations and Shelters	\$24
Maintenance Facility	\$7
Roadway Improvements	\$19
Transit Signals and Intersection Improvements	\$22
Right-of-Way Acquisition	\$1
Electric Buses	\$30
Engineering, Environmental, and Construction Design	\$17
Contingencies	\$4
Total	\$120-\$130 million
Federal Contribution	(up to) \$100 million
Local (Non-Federal) Contribution	\$20-\$30 million

Downtown Alternative 1



During special events, BRT detours to Capitol Loop

Existing bus lanes

Gorham
Johnson
Washington
New bus lane

Cap Square

University

State

Johnson

New bus lane

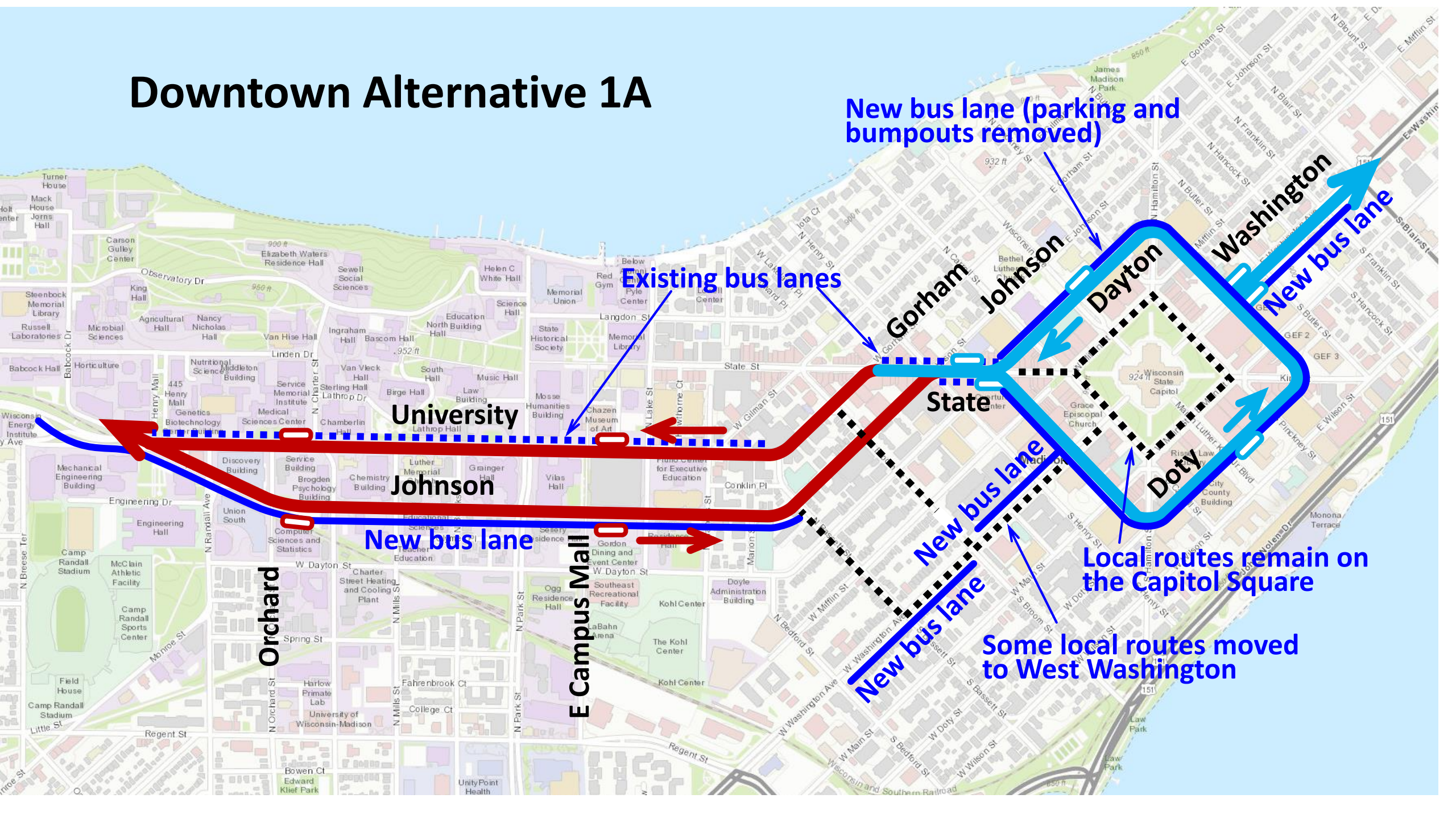
Orchard

E Campus Mall

New bus lane
New bus lane

Some local routes moved to West Washington

Downtown Alternative 1A



New bus lane (parking and bumpouts removed)

Existing bus lanes

Local routes remain on the Capitol Square

Some local routes moved to West Washington

University

Johnson

Orchard

E Campus Mall

State

Gorham

Johnson

Dayton

Doty

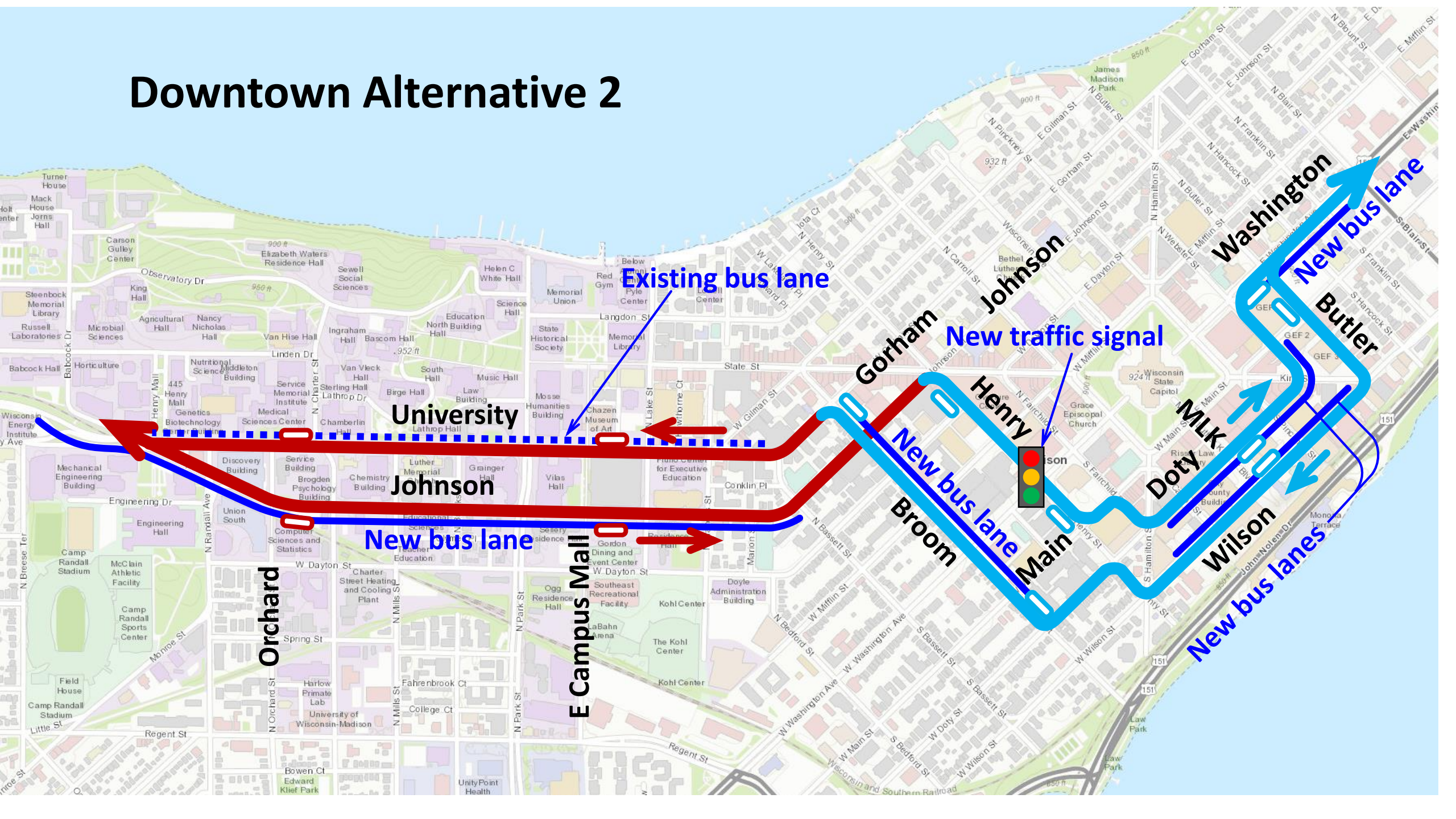
Washington

New bus lane

New bus lane

New bus lane

Downtown Alternative 2



Existing bus lane

New traffic signal

University

Johnson

New bus lane

Orchard

E Campus Mall

Gorham

Henry

Broom

Main

Doty

Wilson

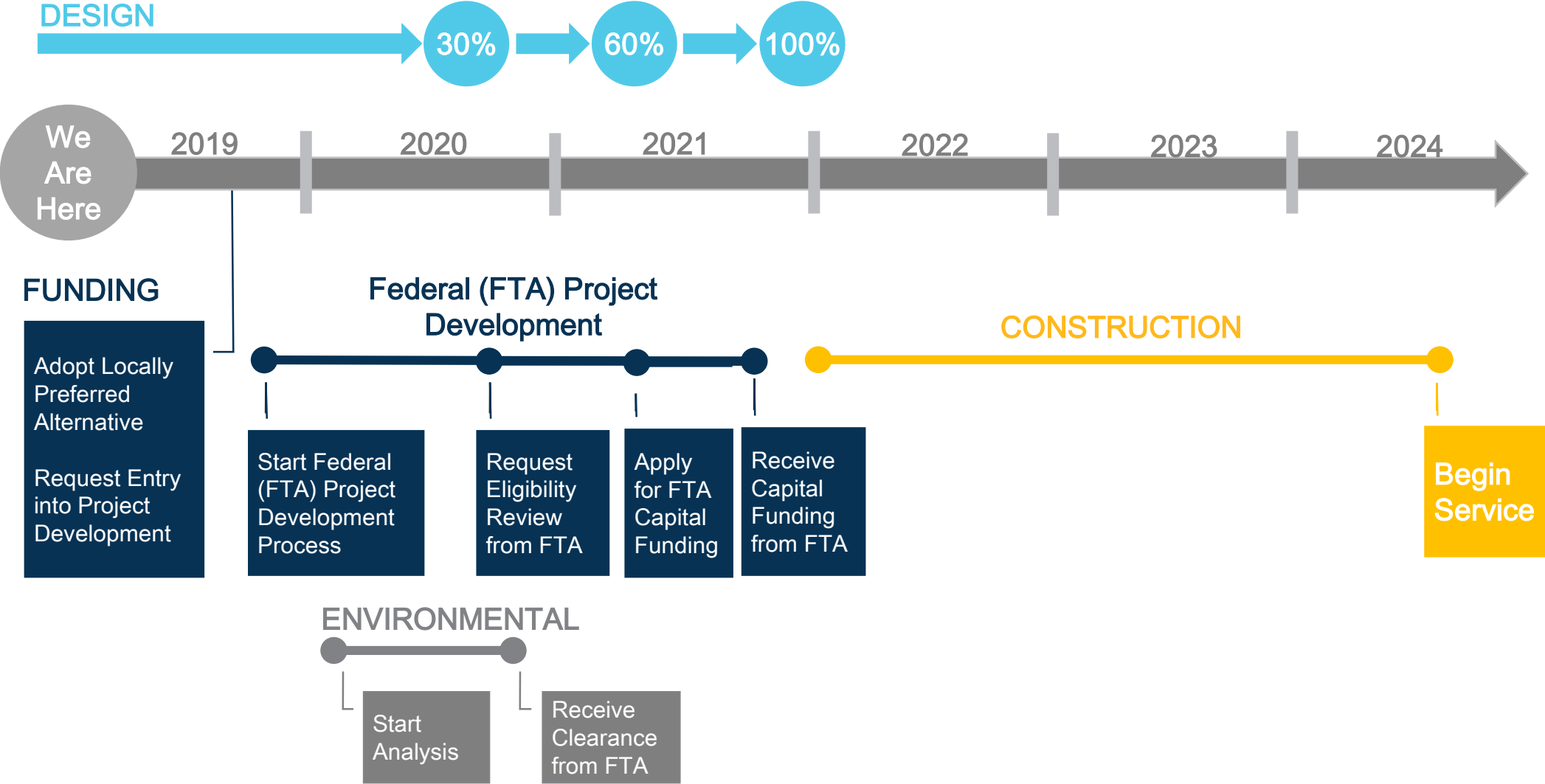
Washington

Butler

New bus lanes

MLK

Project Development Process



Questions/Comments?

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