

Madison Corridor Bus Rapid Transit

Concept Design Study



Madison Corridor BRT Concept Design Study

Open House #3

May 6, 2015

Mission, vision, & core values

Mission: deliver a high-quality transportation system for Seattle

Vision: connected people, places, and products

Committed to **5 core values** to create a city that is:

- Safe
- Interconnected
- Affordable
- Vibrant
- Innovative

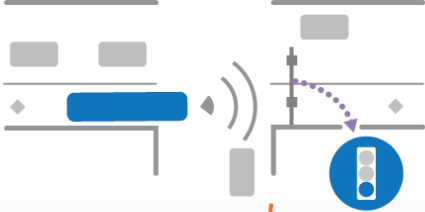
Presentation overview

- What is Bus Rapid Transit (BRT)
- Why BRT for the Madison Corridor?
- Participant Exercise

What is Bus Rapid Transit?

A flexible, high performing
rapid transit mode that
combines a variety of physical,
operating, and system
elements with a quality image
and unique identity.

TRANSIT SIGNAL PRIORITY



BRT BRANDING



ENHANCED FARE COLLECTION SYSTEMS



3 min CITY CENTER: due



SPECIALIZED VEHICLES



DEDICATED RUNNING WAYS



ENHANCED STATIONS



The results?

FASTER SERVICE

INCREASE RELIABILITY

IMPROVE PASSENGER EXPERIENCE

NEW RIDERS

AFFORDABLE MOBILITY

Why BRT for Madison?



What Makes Madison Street ... **MADISON?**

Lake Washington

Both a
Diagonal
and a
Grid Street

Education &
Medical
Facilities

Hilly,
Narrow
Terrain

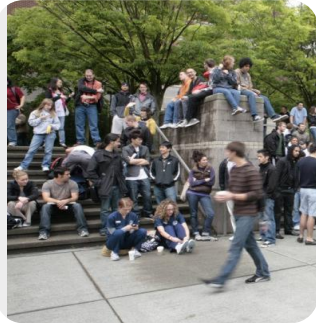
Elliott Bay

Shortcut to
Home

Diverse,
Car-free
People

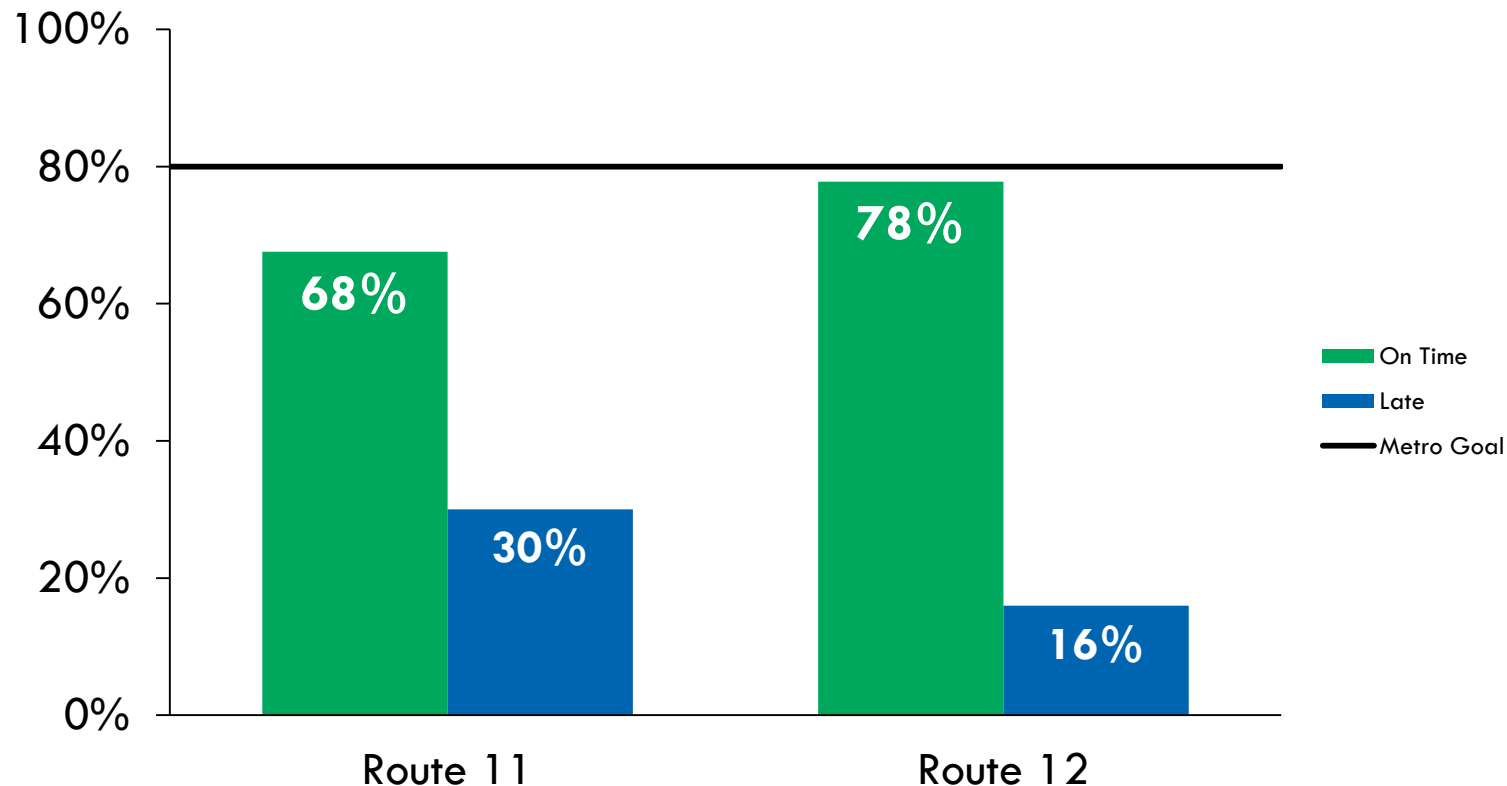
10% of Seattle Jobs,
30% of Population

Kitsap
Connection,
Central
Waterfront
Linkage



Current bus service can be slow and unreliable

On time performance



On-time means: <1 minute early and no more than 5 minutes Late

Current bus service can be slow and unreliable

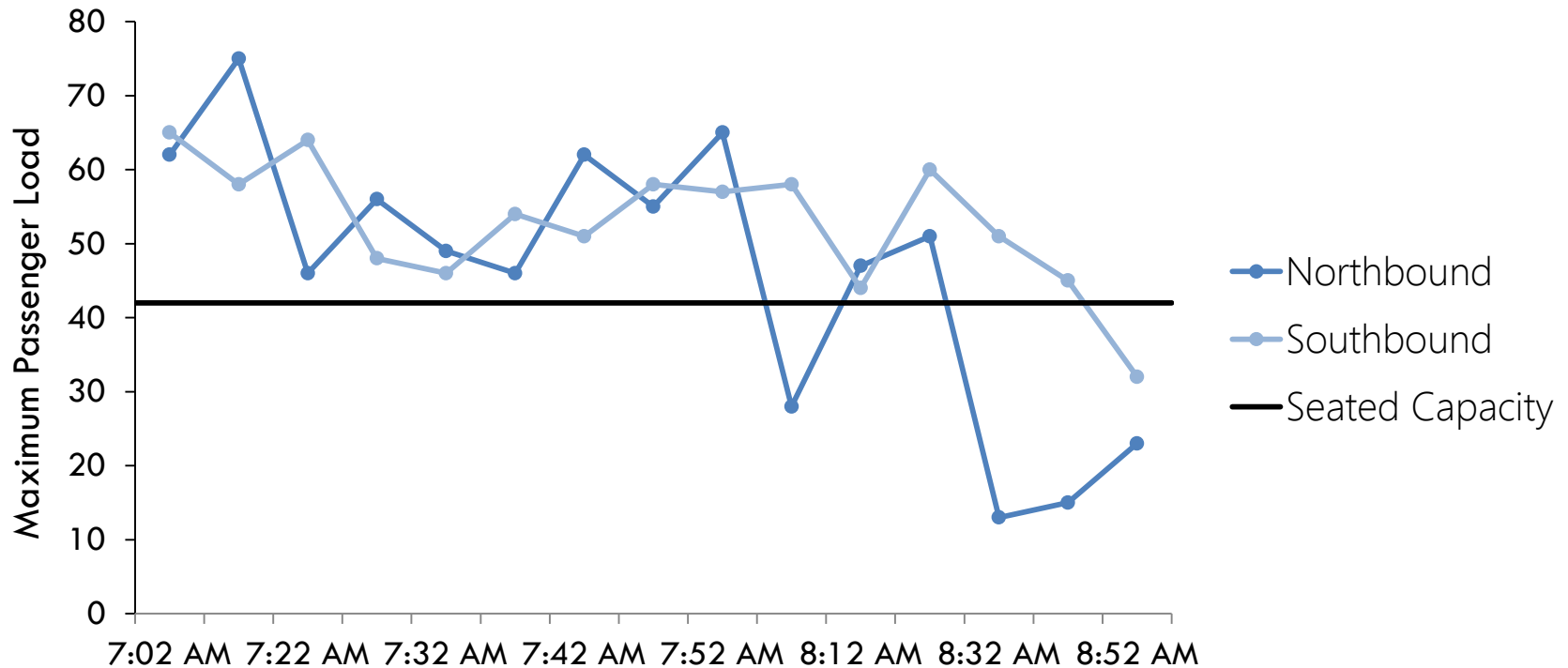
Travel time reliability

7.0 min.
variability between
shortest and longest run



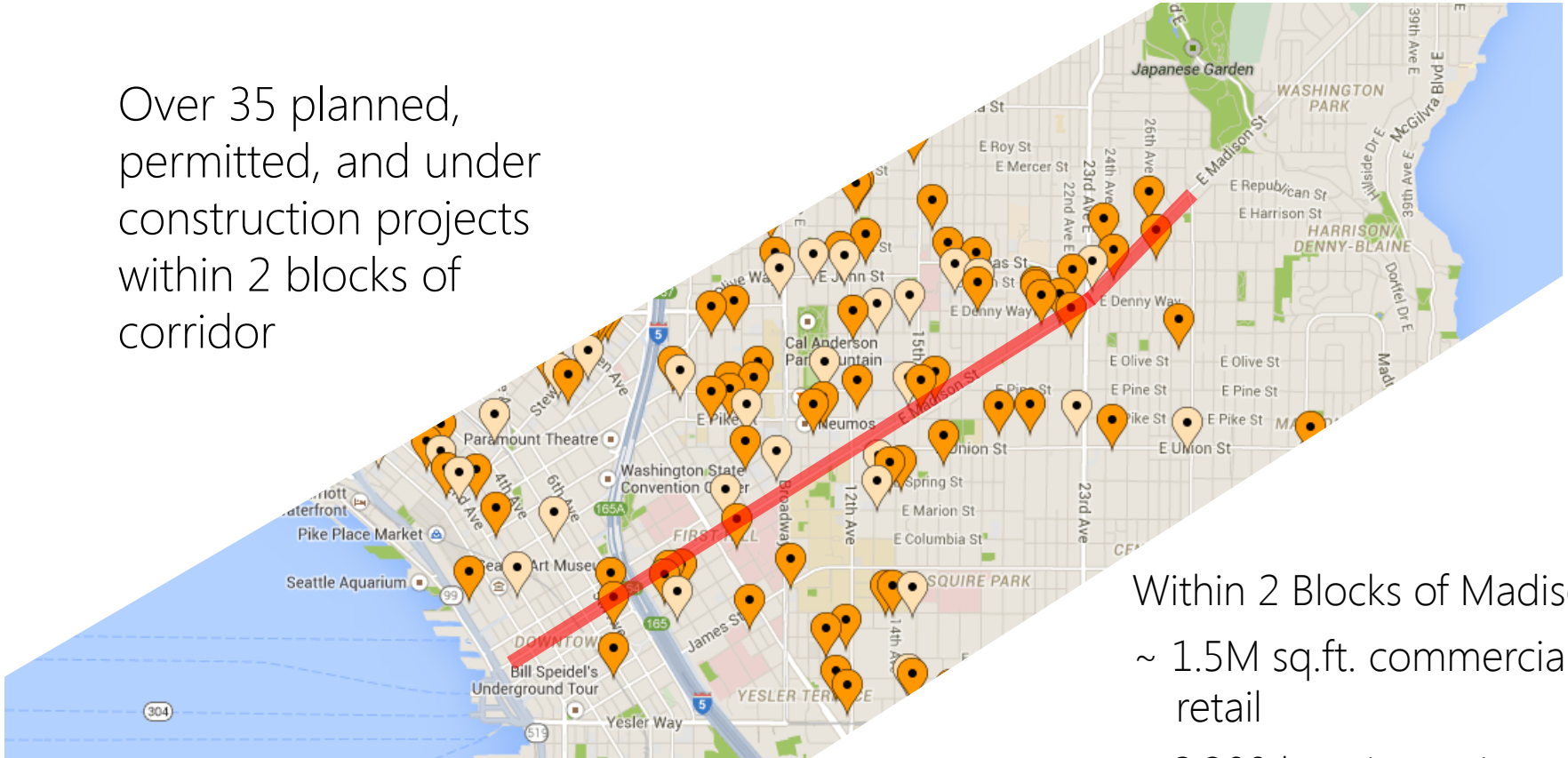
Madison corridor buses are crowded

Passenger loads



Dense and developing corridor

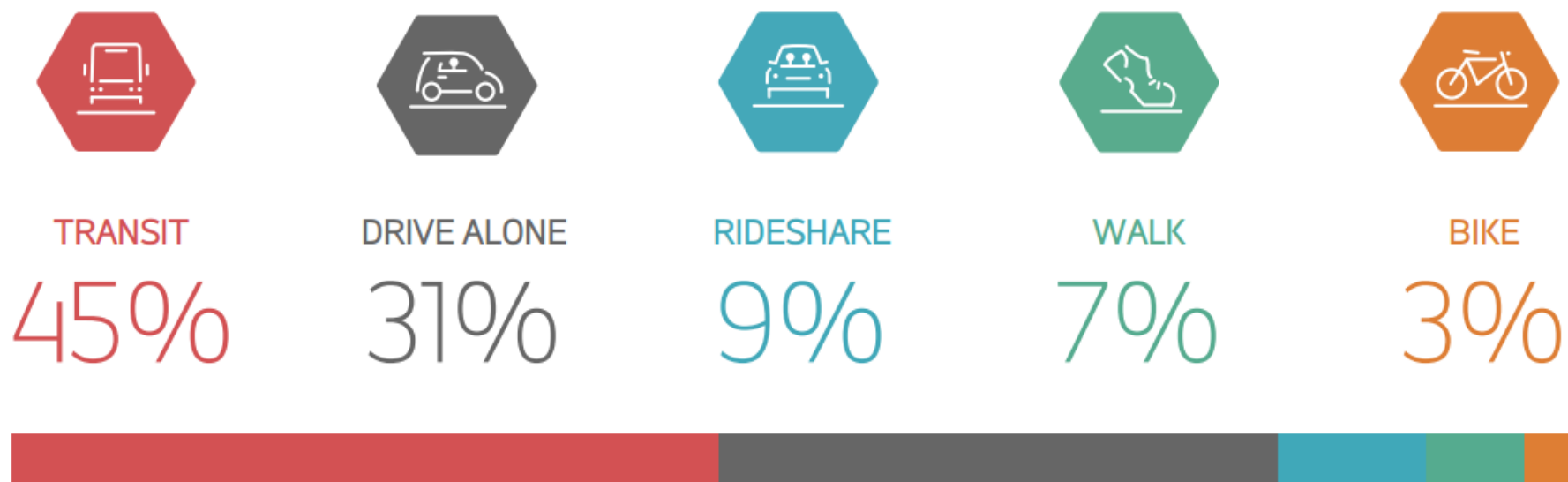
Over 35 planned,
permitted, and under
construction projects
within 2 blocks of
corridor



Within 2 Blocks of Madison:

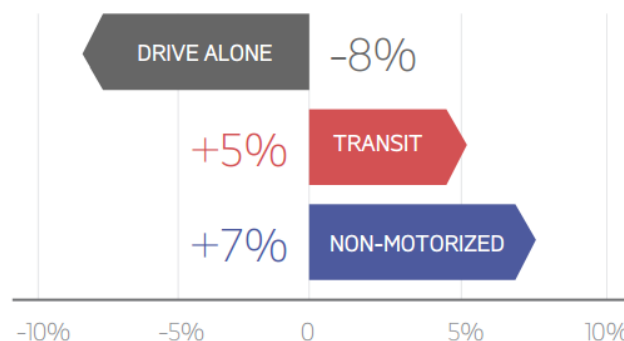
- ~ 1.5M sq.ft. commercial/retail
- ~ 2,300 housing units

Downtown Seattle mode share



Fastest Growing Commute Modes 2012-2014

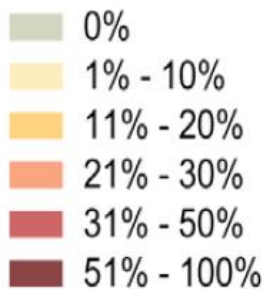
More Downtown workers are discovering that the best commutes are short commutes. Downtown Seattle added 6,000 new residential units between 2012-2014, so it's no surprise that transit and non-motorized commutes (walking, bicycling, teleworking) were the fastest growing modes.



Madison corridor has high rate of no car households

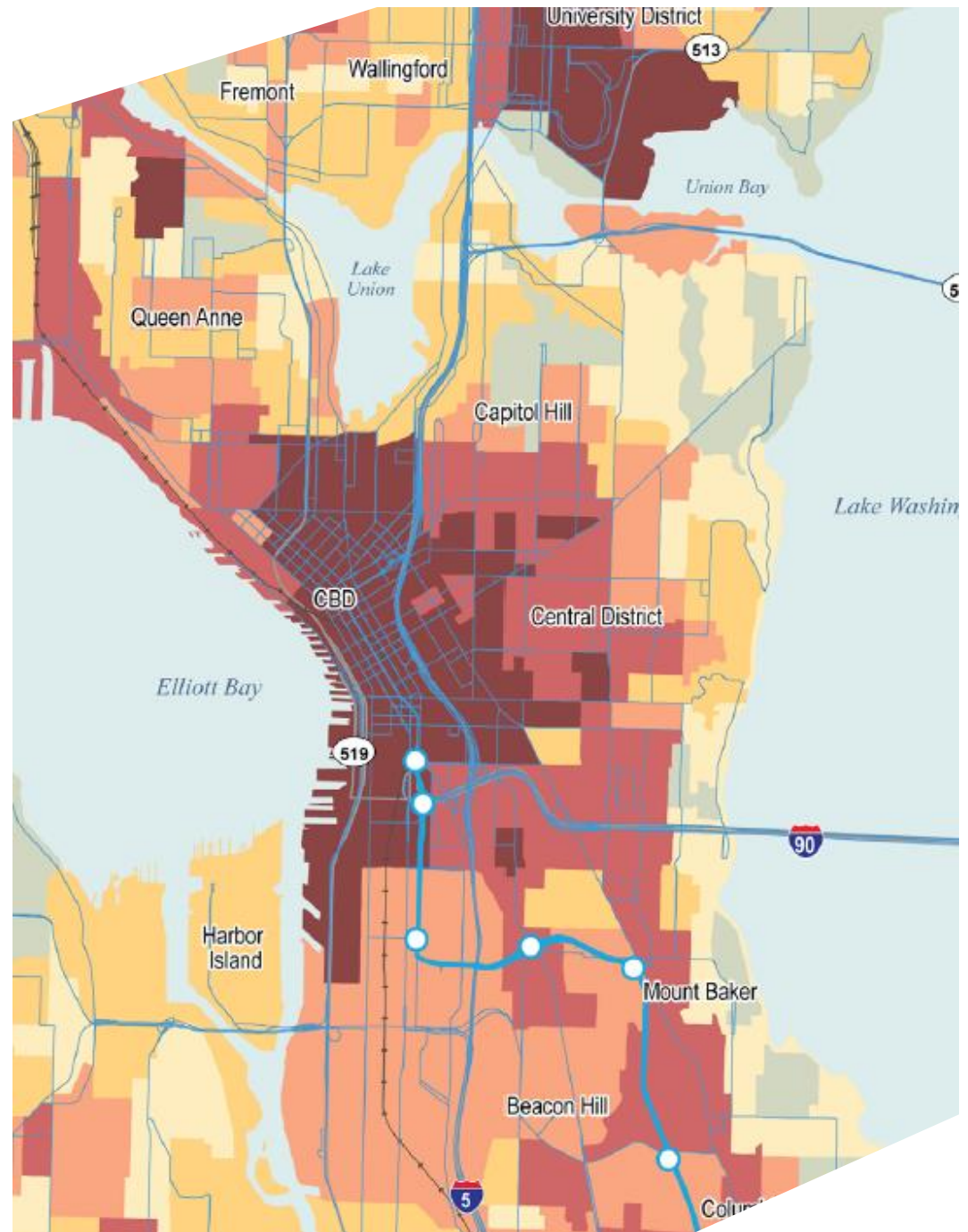
Lack of Access to a Private Vehicle Ratio*

(by Census Block Group)



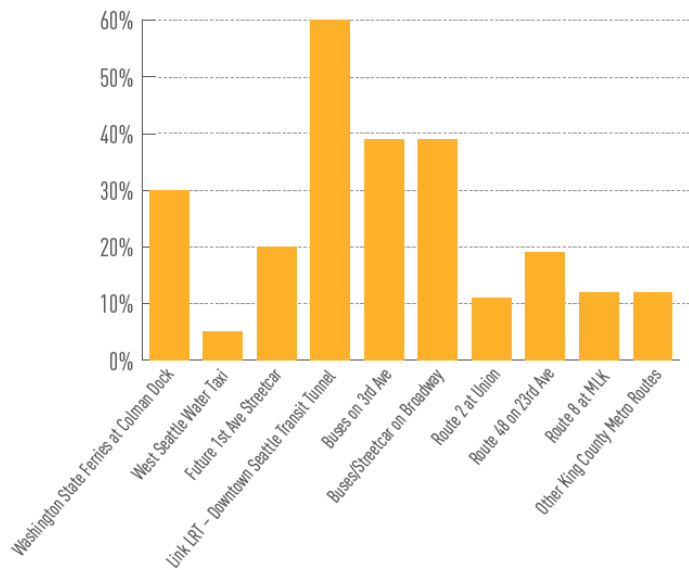
*Persons able to drive (population between 16 – 85 years old) versus total number of vehicles available by blockgroup

Source: US Census 2000



Connection to regional transit services

Participant responses in the web survey indicated the following high priority transfer points with the BRT line



Priority improvements in the Madison corridor



ANSWER OPTION

Transit Service reliability (how likely the bus will be on time)

Pedestrian crossing and safety

Sidewalk conditions along Madison

Transit passenger comfort and waiting environment

Maintaining or improving current driving speeds through the corridor

Maintaining or increasing turn opportunities for cars

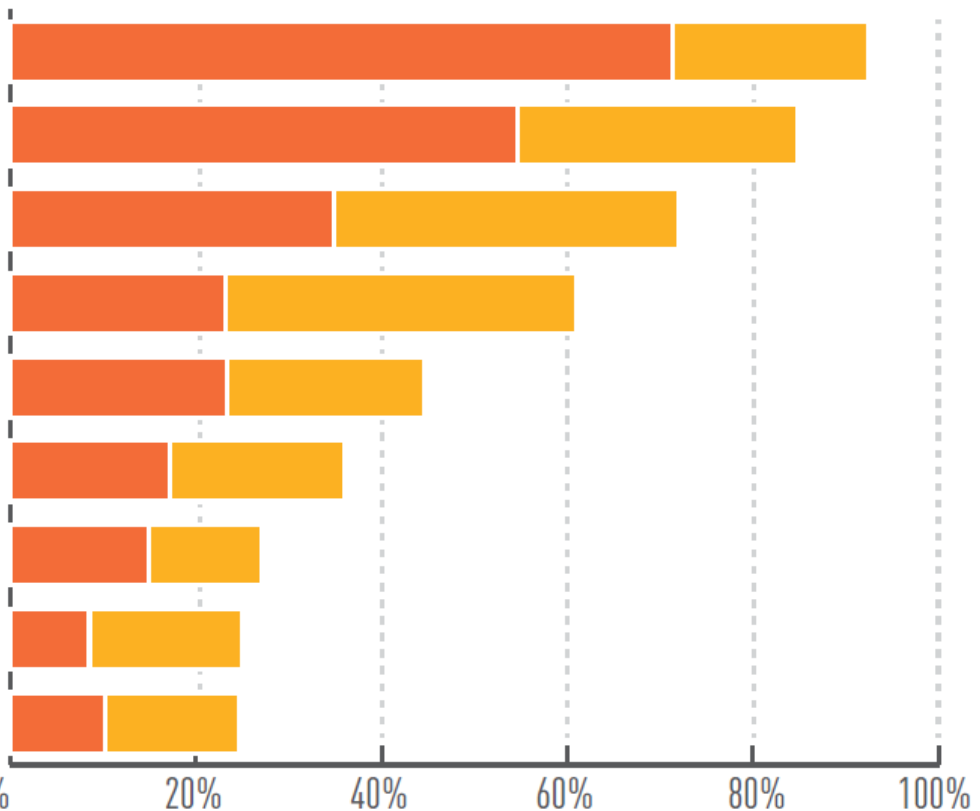
Maintaining on-street parking

Maintaining commercial load zones

Maintaining car passenger load zones

0% 20% 40% 60% 80% 100%

PERCENTAGE OF RESPONDENTS



Project timeline

| | | |
|---|-------------|---|
| ✓ | Sept 2014 | Early outreach; Purpose and Need |
| ✓ | Nov 2014 | Neighborhood design workshops |
| ✓ | Jan. 2015 | Web survey |
| | | Alternatives developed |
| ✓ | Feb - April | Technical analysis |
| | May | Public and stakeholder outreach |
| | June | Develop draft Preferred Alternative |
| | July | Public presentation of draft Preferred Alt. |
| | Fall | Preferred Alternative |

Participant Exercise

Purpose & process

- Share information
- Gain feedback on key trade-offs and decisions for the project
- Will be used to shape preferred alternative
- Same survey is online through May 24

Who is in the audience?

Where do you live?

- A. In Seattle, within 10 blocks of Madison Street
- B. In Seattle, but over 10 blocks from Madison Street
- C. Outside Seattle, but in the Puget Sound area
- D. Outside the Puget Sound area

What is your age?

- A. 17 or younger
- B. 18 – 24
- C. 25 – 44
- D. 45 – 64
- E. 65 or older

How many immediate family members live in your household (including you)?

A. 1

B. 2

C. 3

D. 4

E. 5 or more

Do you own a vehicle (car, pickup, or motorcycle)?

- A. Yes, 2 or more
- B. Yes, 1
- C. No, but I drive using car sharing and/or rental cars
- D. No, I rarely or never drive

How often do you travel on public transit (one-way trips)?

- A. 5 or more times per week
- B. 2 – 4 times per week
- C. 2 - 4 times per month
- D. Once a month or less
- E. I don't ride public transit

Bus Rapid Transit Features

How important would each of the following BRT features be in influencing your decision to use transit or use transit more frequently?

- A. Very important
- B. Important
- C. Not important
- D. No opinion

More spacious
platforms with
high-quality
shelters,
amenities, and
lighting.

- A. Very important
- B. Important
- C. Not important
- D. No opinion



Rail-style platforms and near level boarding, which reduces time to load passengers by up to 50%.

- A. Very important
- B. Important
- C. Not important
- D. No opinion



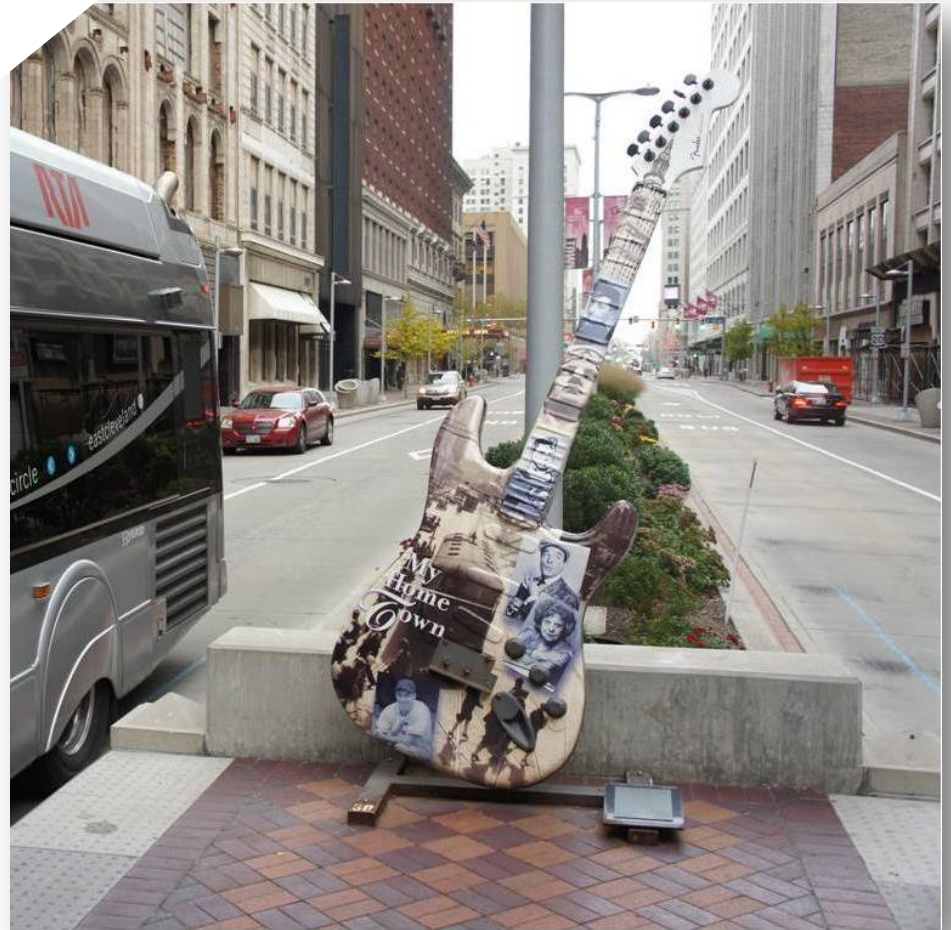
Real-time arrival information and better transit system signage at each station.

- A. Very important
- B. Important
- C. Not important
- D. No opinion



Public realm
enhancements
such as public art
features,
landscaping, and
street trees.

- A. Very important
- B. Important
- C. Not important
- D. No opinion



Special BRT
vehicles with
higher capacity,
wider doors, and
a distinct look.

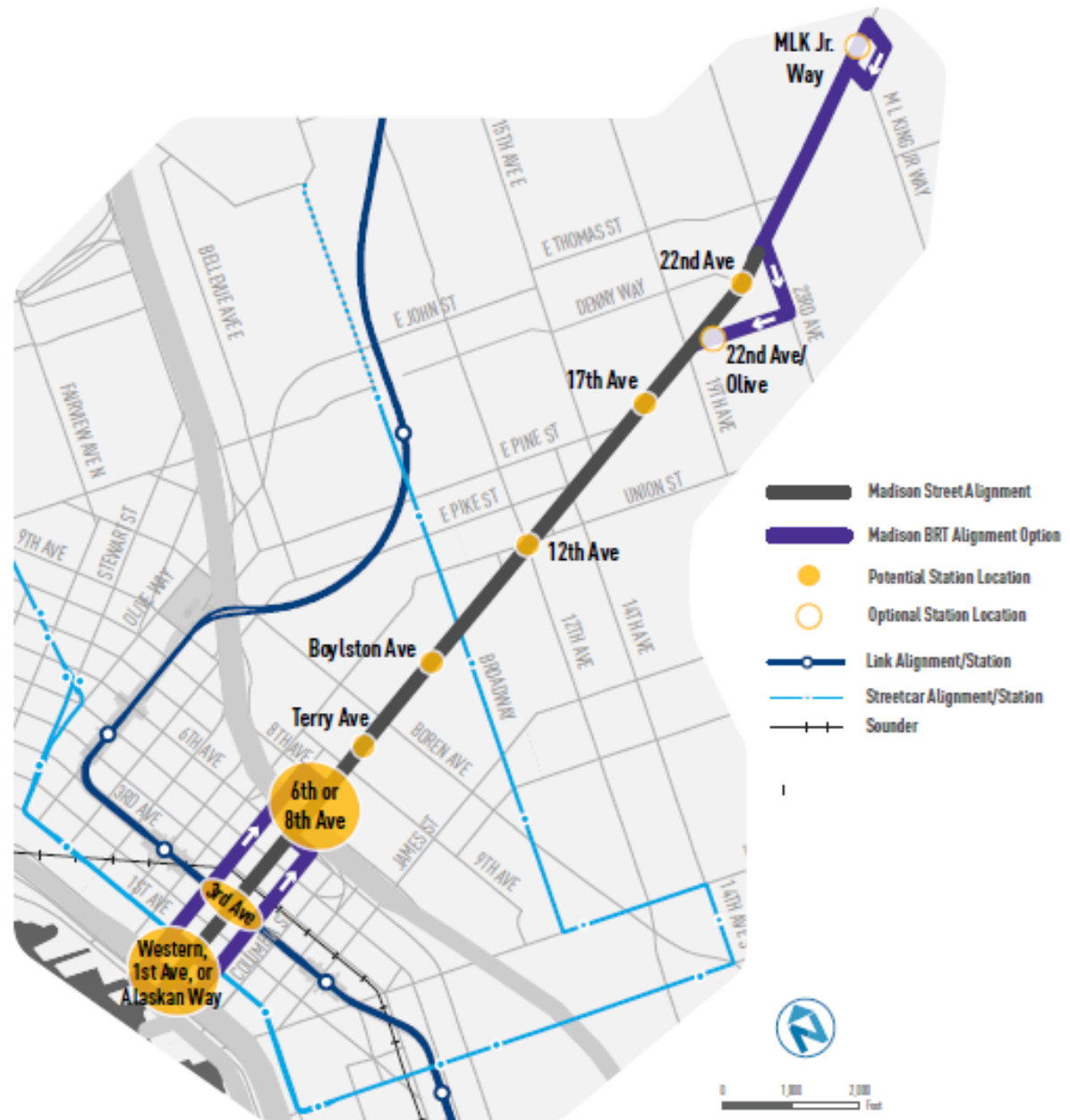


- A. Very important
- B. Important
- C. Not important
- D. No opinion

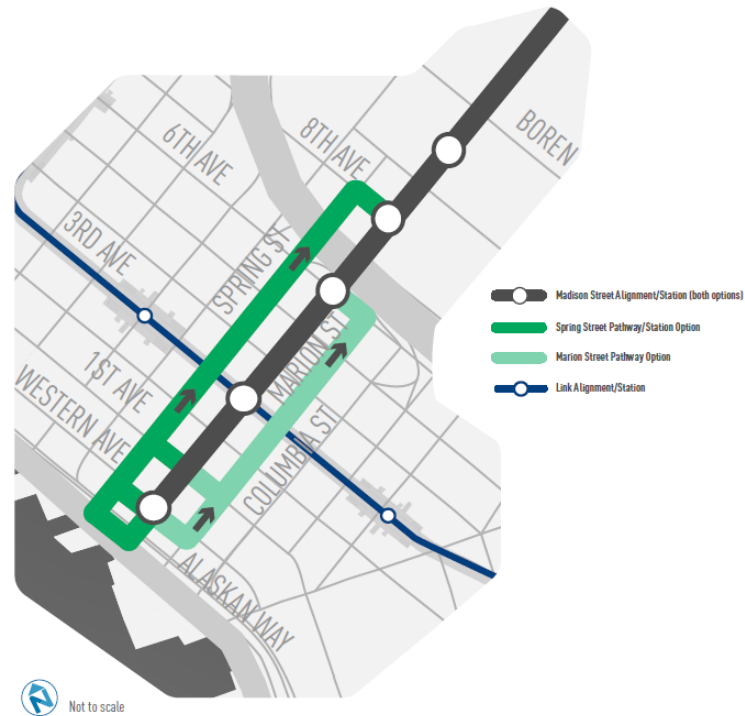


Project Extent and Station Locations

Proposed Corridor Extent and Station Locations



Two options for eastbound BRT pathway in downtown.



Marion Street

- Better transfer to Colman Dock
- Slightly less on-street parking reduction and loading zone reduction
- Less expensive due to existing trolley wire

Spring Street

- Better transfer to Link light rail and Downtown Seattle Transit Tunnel
- Slightly more on-street parking and loading zone reduction
- Transit lanes benefit Route 2

Two options for
eastbound BRT
pathway in
downtown.

Which do you
prefer?

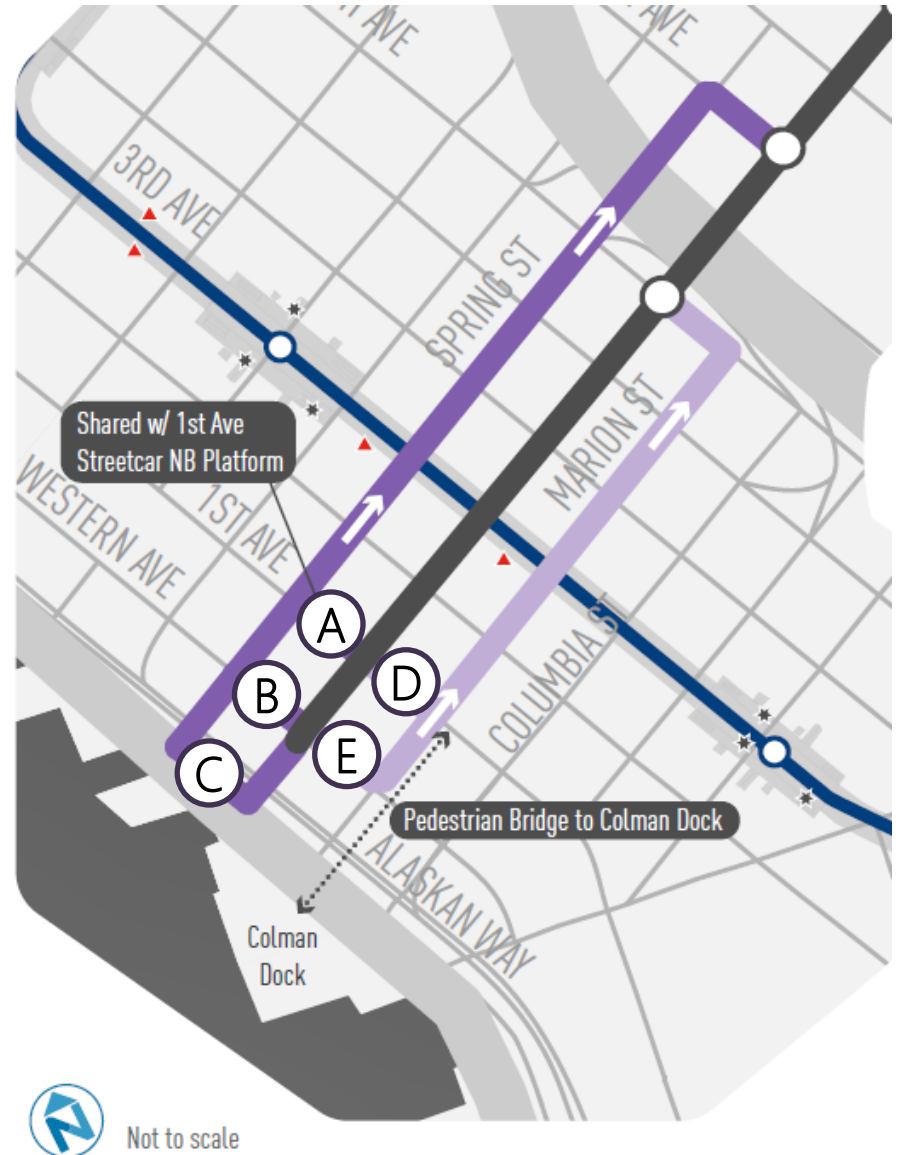
- A. Marion Street
- B. Spring Street
- C. No opinion



Five options for
downtown terminus
station.

Which do you
prefer?

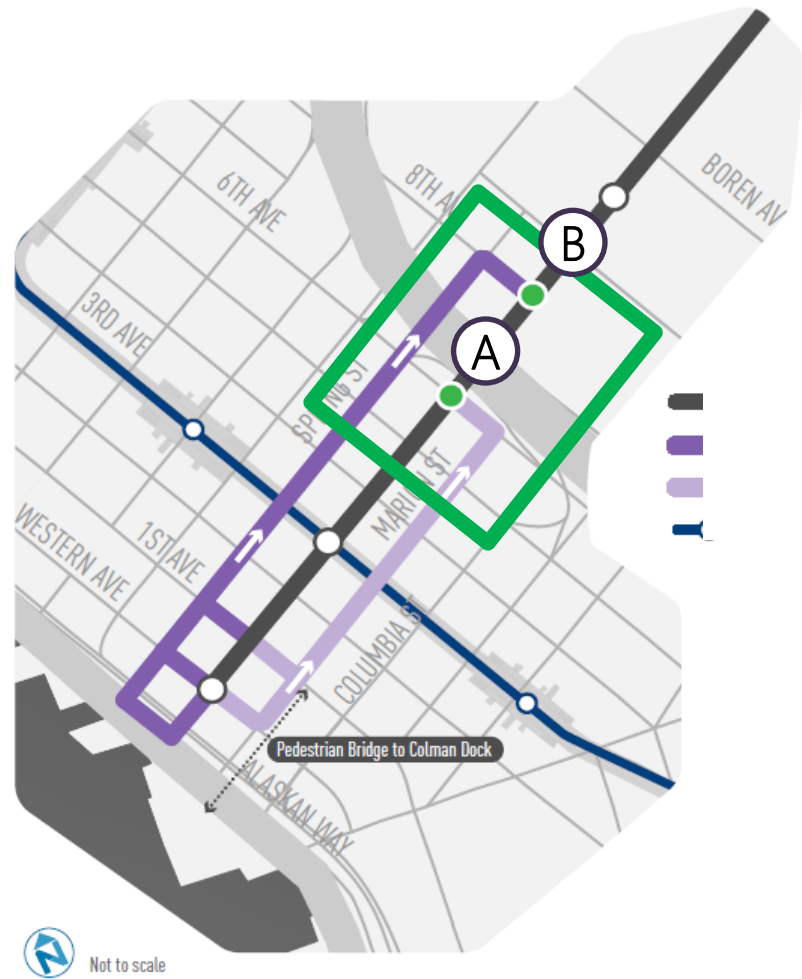
- A. Spring – 1st Ave
- B. Spring – Western
- C. Spring – Alaskan Way
- D. Marion – 1st Ave
- E. Marion – Western
- F. No opinion



Station in the vicinity of I-5 between 3rd Ave and Terry Stations.

Which do you prefer?

- A. West of I-5 near 6th Ave
- B. East of I-5 near 8th Ave
- C. No opinion



The project is considering 2 options for an eastern end to the BRT service.

Which do you prefer?

- A. 23rd Avenue
- B. Martin Luther King Jr. Way
- C. No opinion

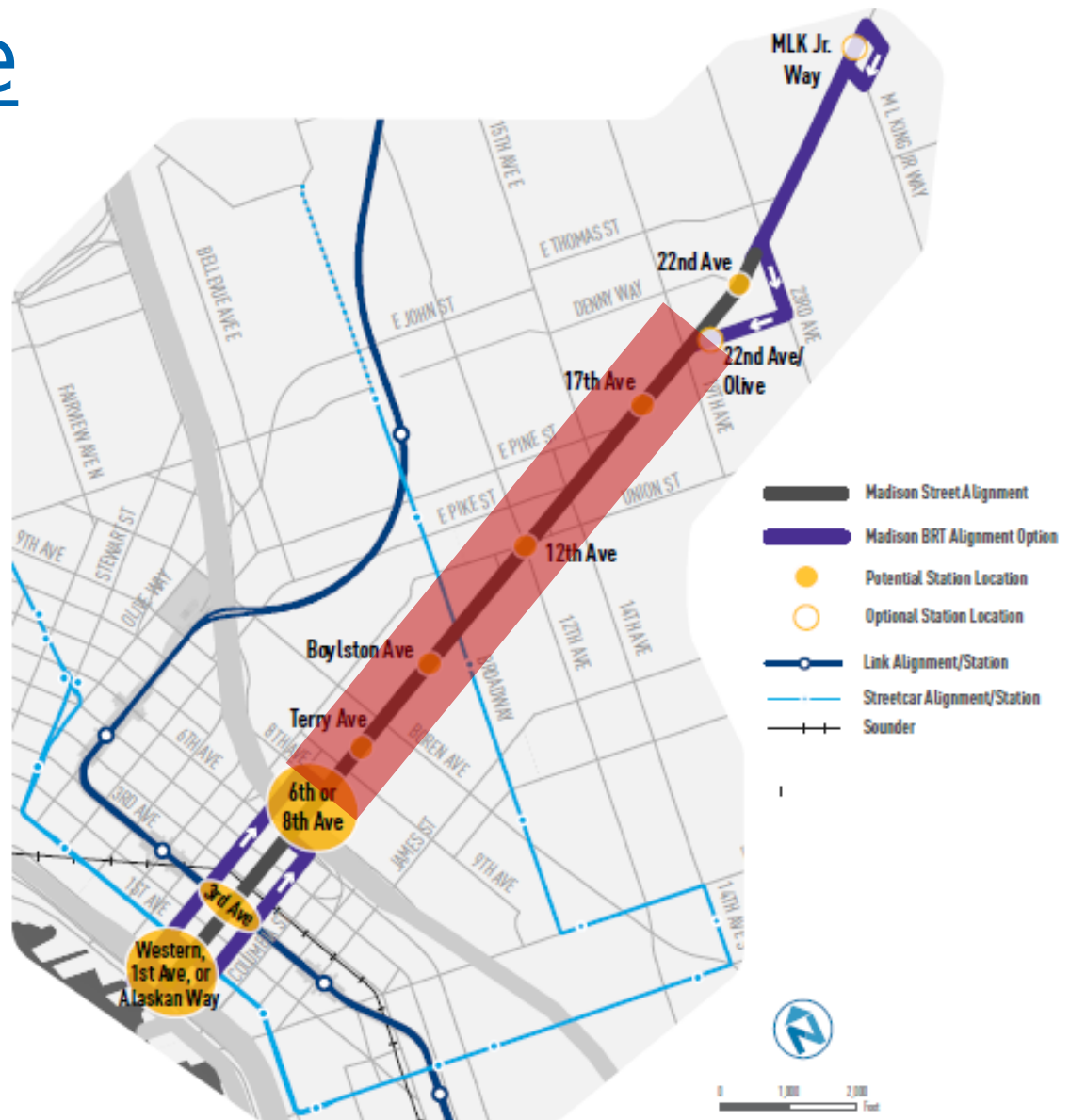


Changes to the Madison corridor

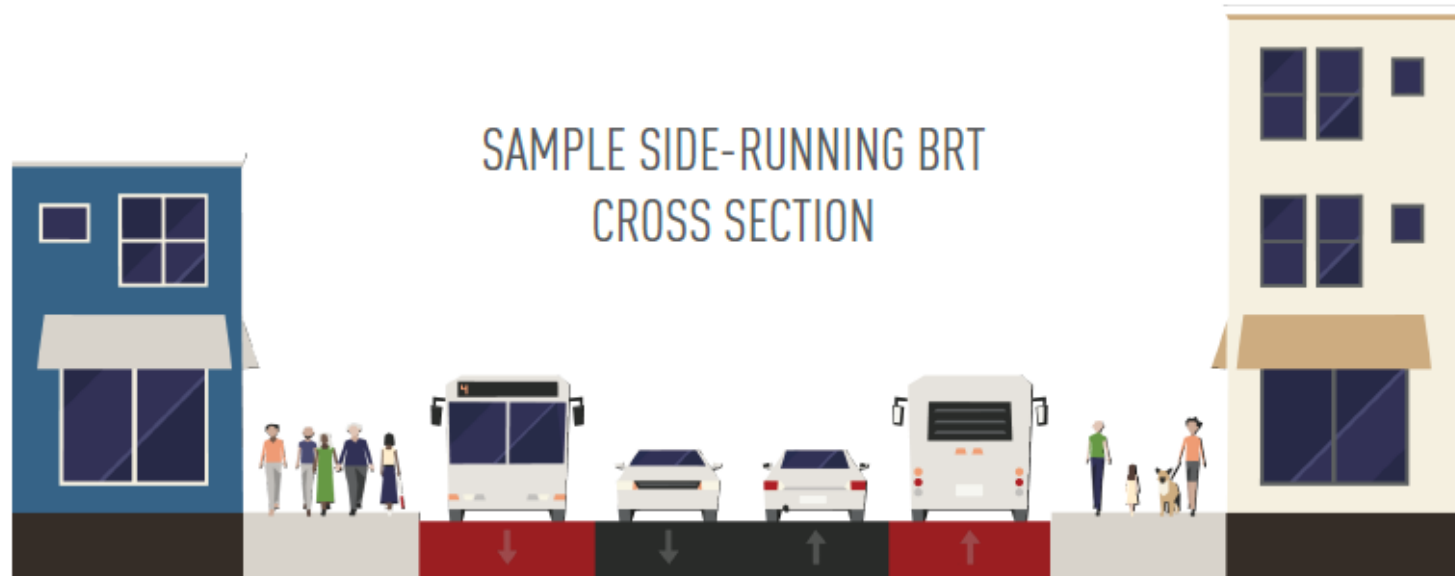
Transit only lanes make BRT reliable and improve travel time.



Between 8th
and 20th side
or center
transit lanes
could be
employed.



Side running transit lanes



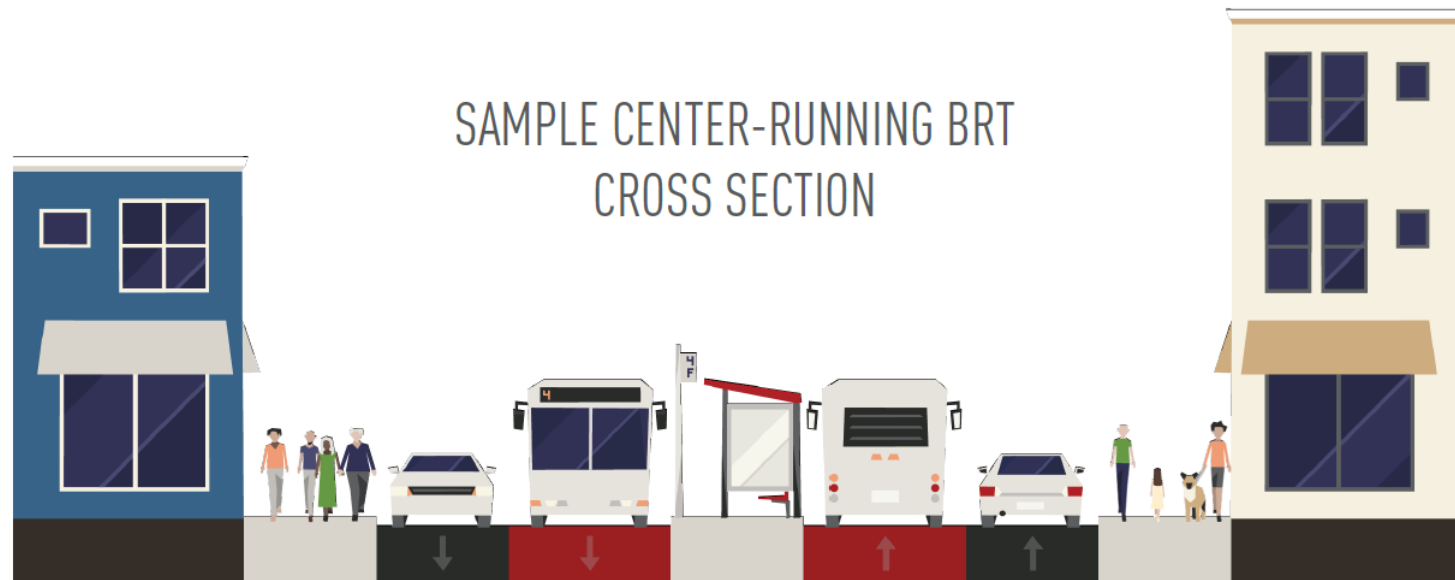
PROS

- Stations can be in the sidewalk, furniture zone which offers more space for waiting passengers
- Fewer left turn restrictions may be necessary
- Right-turning traffic can share the transit lane

CONS

- Speed and reliability may be poorer as buses share lanes with right turning vehicles
- Sidewalk stations are less visible and unique
- Sidewalk stations may result in crowding and conflicts with other pedestrians

Center running transit lanes



PROS

- Most reliable because no traffic allowed in bus lane
- Center stations are highly visible and create a unique feel to the street
- Stations can double as a safe refuge for pedestrians crossing the street

CONS

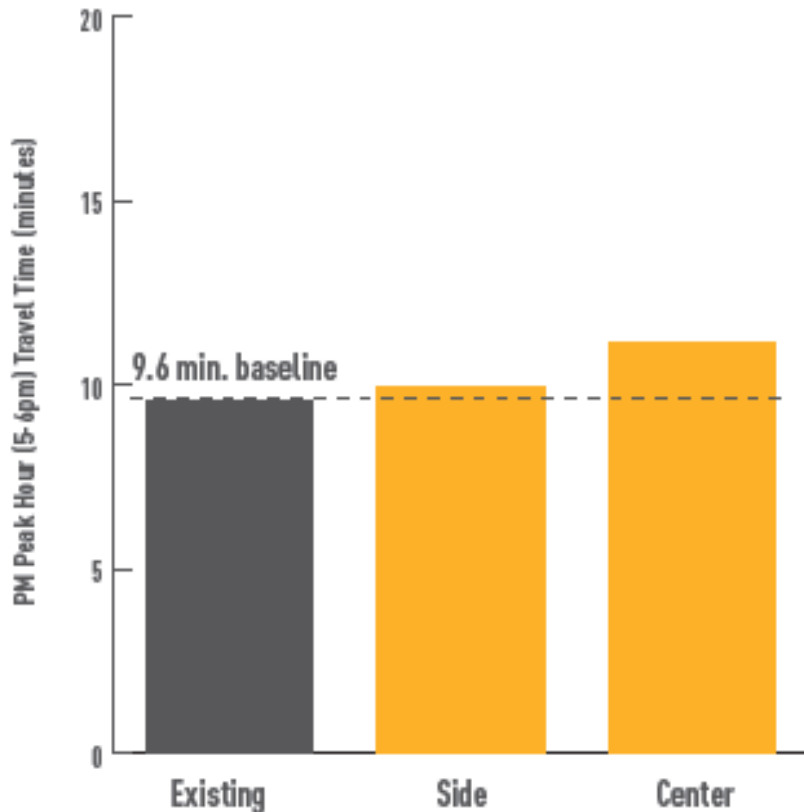
- Center island platforms can take more space, which might reduce space for other right of way uses
- Some left turns movements are restricted (at minor intersections)

Where would you prefer transit lanes
between 8th and 20th Aves?

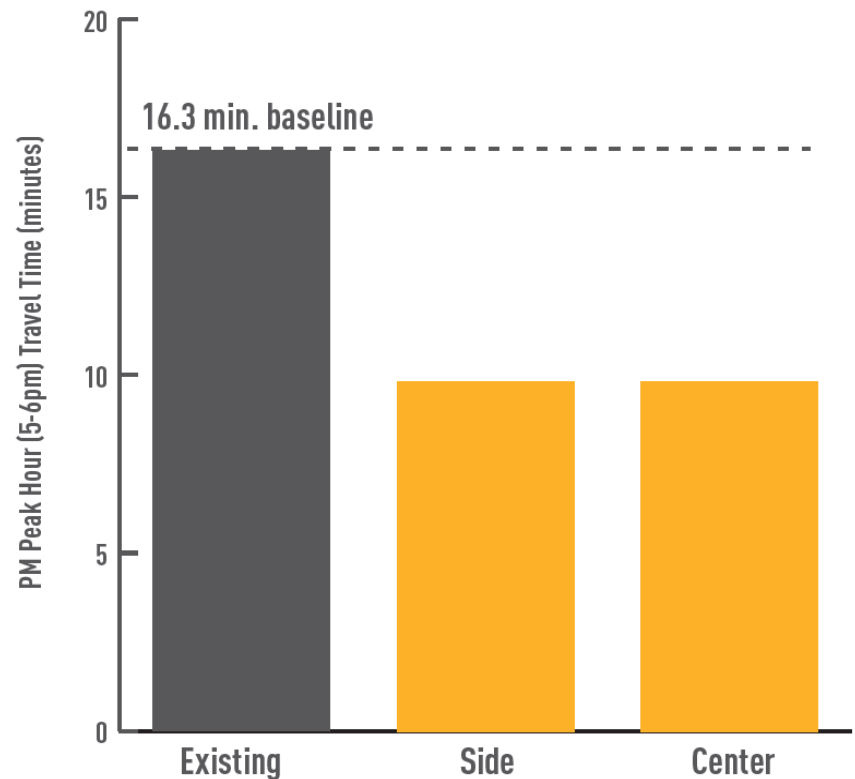
- A. Side of the street
- B. Center of the street
- C. No opinion

The project will change eastbound corridor travel times.

Eastbound auto

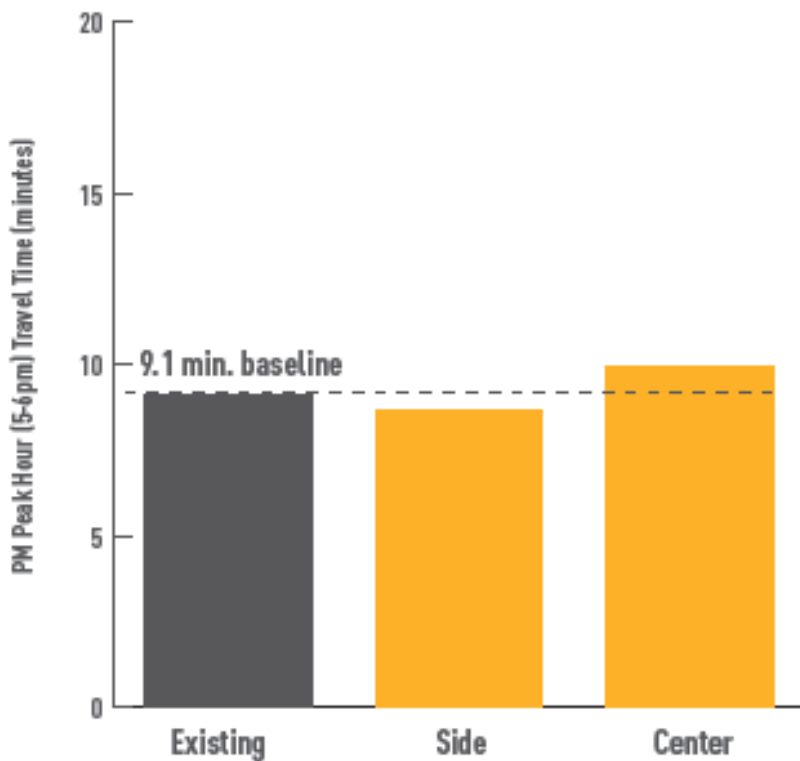


Eastbound transit

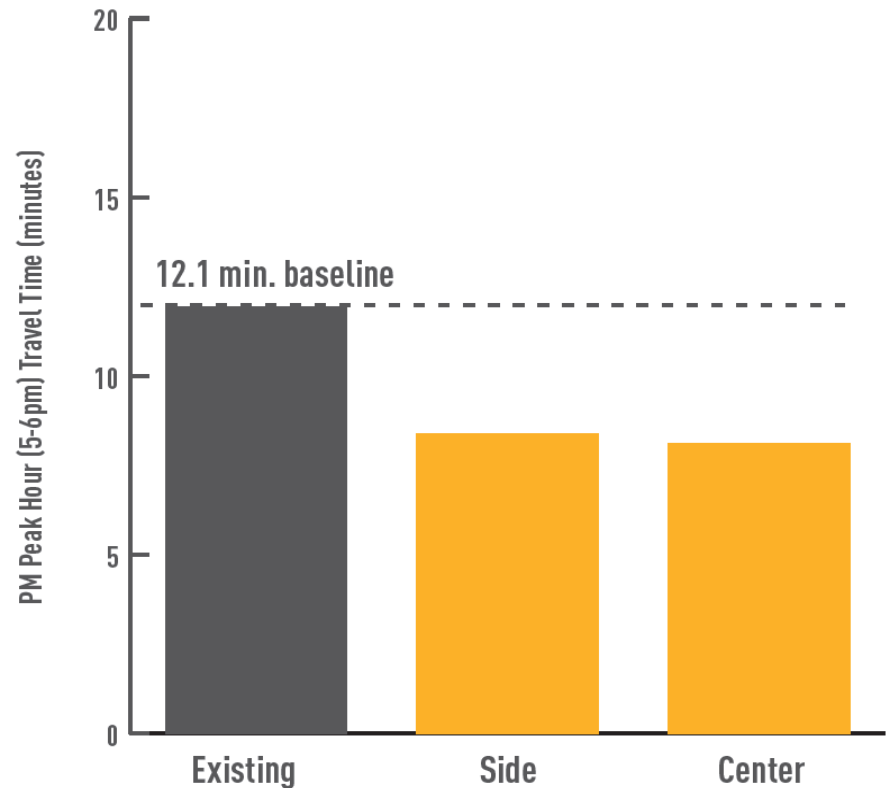


The project will change westbound corridor travel times.

Westbound auto



Westbound transit



The project will improve transit reliability.

7.0 min.
variability between
shortest and longest run



EXISTING: MIXED TRAFFIC

0.6 min.
variability between
shortest and longest run



CENTER-RUNNING

0.8 min.
variability between
shortest and longest run



SIDE-RUNNING

How do you feel about the tradeoffs between auto and transit travel time?

- A. I support proposed changes to auto channelization to improve transit speed and reliability
- B. I do not support these changes
- C. No opinion

Parallel Bicycle Route

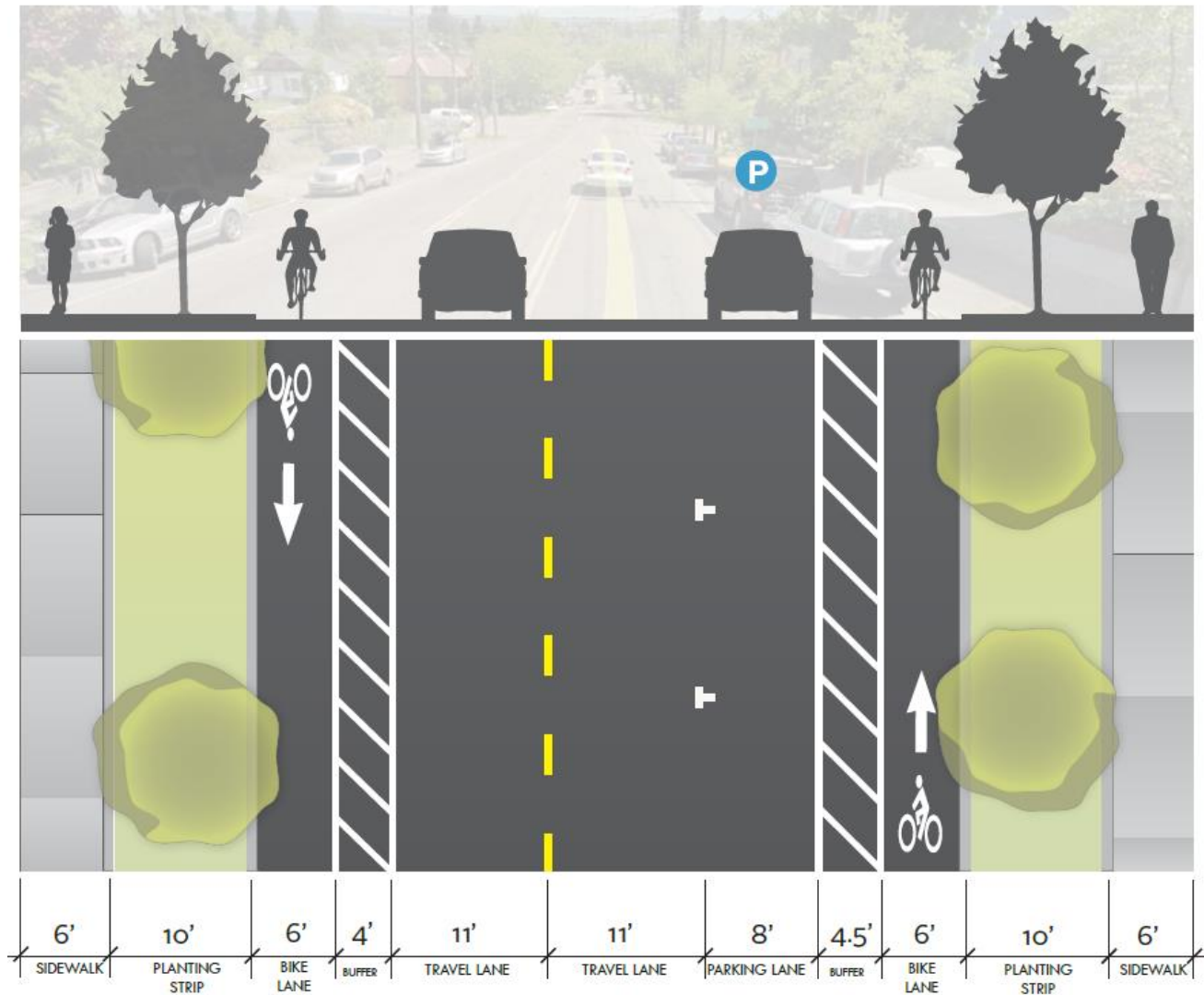
The Madison BRT project is helping to design a parallel bicycle facility.

-  Madison Street Alignment/Station (all options)
-  Madison Terminus/Pathway Option
-  Protected Bike Lane
-  Neighborhood Greenway

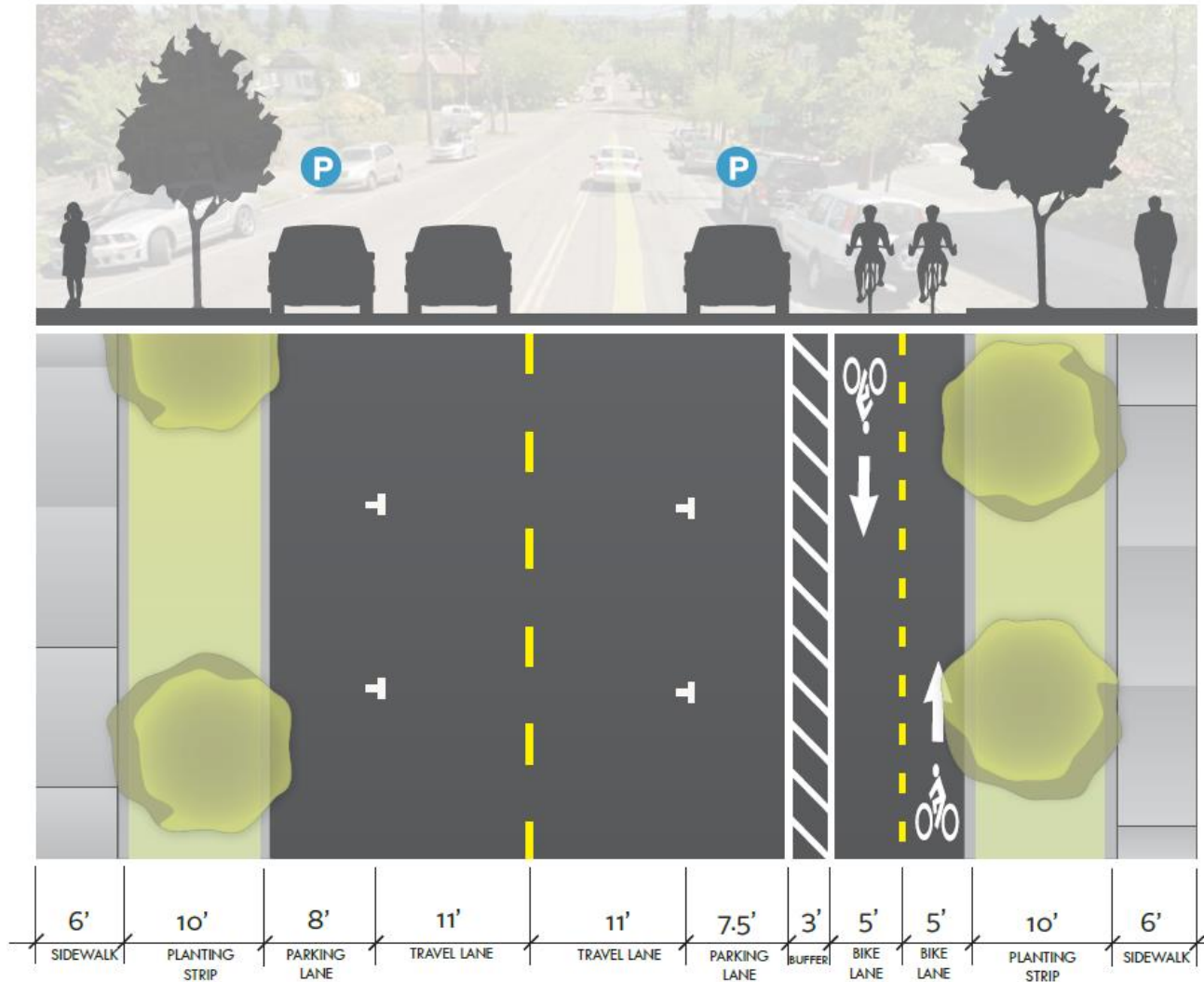
PARALLEL BIKEWAY ALIGNMENT



One-way protected bike lane



Two-way protected bike lane



Which bike facility option do you prefer for Union Street between Broadway and 27th Ave?

- A. One-way protected bike lane
- B. Two-way protected bike lane
- C. No preference

Thank you for your input!

Next steps

| | |
|-----------|---------------------------------------|
| May 2015 | Outreach Activities Continue |
| May | Web Survey Available |
| June | Draft Preferred Alternative Developed |
| July | Presentation of Draft Preferred Alt. |
| Fall | Locally Preferred Alternative |
| 2016-2017 | Project Development & Final Design |
| 2018 | Construction |
| 2019 | Service Opens |

Questions?

Maria.Koengeter@seattle.gov | (206) 733-9865

<http://www.seattle.gov/transportation/madisonbrt.htm>

<http://www.seattle.gov/transportation>

