



J Line



RapidRide J Line

Community Design Conversation

September 14, 2022



Agenda

- Welcome and introductions
- Why RapidRide J Line?
- Project design update
- Activity: Share your input on design elements
- Q&A
- Next steps
- End

Zoom tools

All attendees are muted.

Use the **Q&A window** to submit a question.



Why RapidRide J Line?



Provide transit service to support housing and employment growth



Improve transit travel time and reliability throughout the corridor



Reduce overcrowding of existing bus capacity



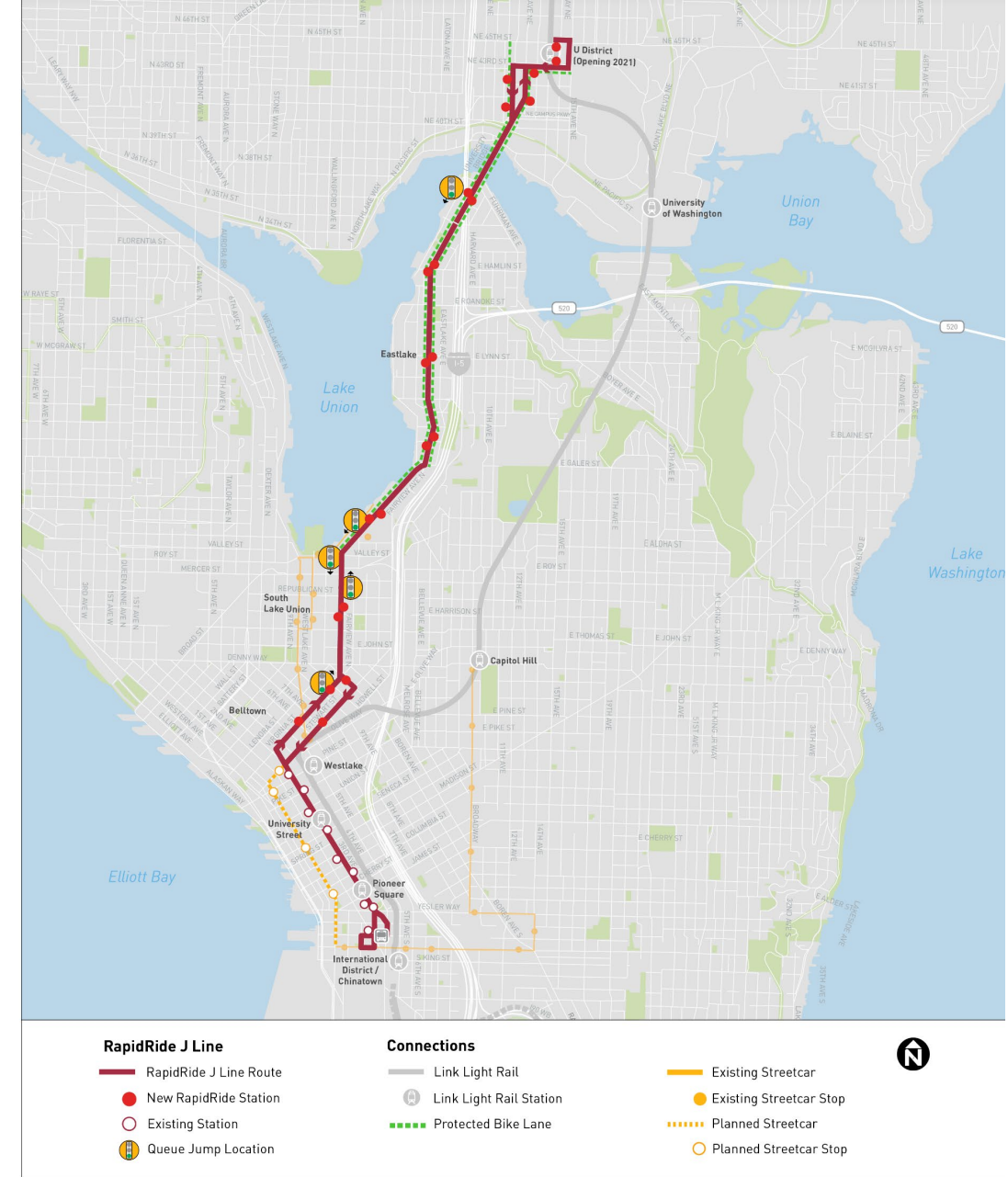
Provide neighborhood connections to future Link light rail, RapidRide Lines, and Seattle Streetcar



Improve pedestrian and bicycle safety and connections to transit with protected bike lanes



Reduce greenhouse gas emissions



King County Metro RapidRide key features

Convenient and easy to use

- Service starts early and runs late, every day
- Buses come at least every 10 minutes during busiest hours
- All-door boarding is available on all coaches
- Riders with mobility aids can secure themselves easily

Safe and smart

- Stations have real-time arrival signs
- Transit signal priority synchronizes traffic lights with buses
- Shelters are well lit, and all buses have security cameras

Move more, stop less

- Bus stop spacing helps speed up your ride
- Street and traffic improvements make it easier to get to/from the bus



Project history & key decisions

- **2014-2016** Project development including preparation of Transit Master Plan and [Bike Master Plan](#)
- **2016** RapidRide Roosevelt bus rapid transit project partially funded by voter-approved Levy to Move Seattle
- **2017** Locally Preferred Alternative adopted with route ending at Roosevelt Link station
- **2018** Community-requested [evaluation](#) of 9 bicycle routes determined the protected bike lanes on Eastlake Ave E are the option that best meet evaluation criteria
- **2018** Full paving of Eastlake Ave E confirmed and included in project
- **2020** Submitted draft Environmental Assessment (EA) to Federal Transit Administration (FTA)
- **2021** Submitted supplemental environmental assessment for U District option.
- **2022** \$60.1M funding recommendation (FTA Small Starts) included in FY 2023 USDOT budget
- **2022** Finding of No Significant Impact (FONSI) by FTA
- **2022** Continue community engagement through final design phase

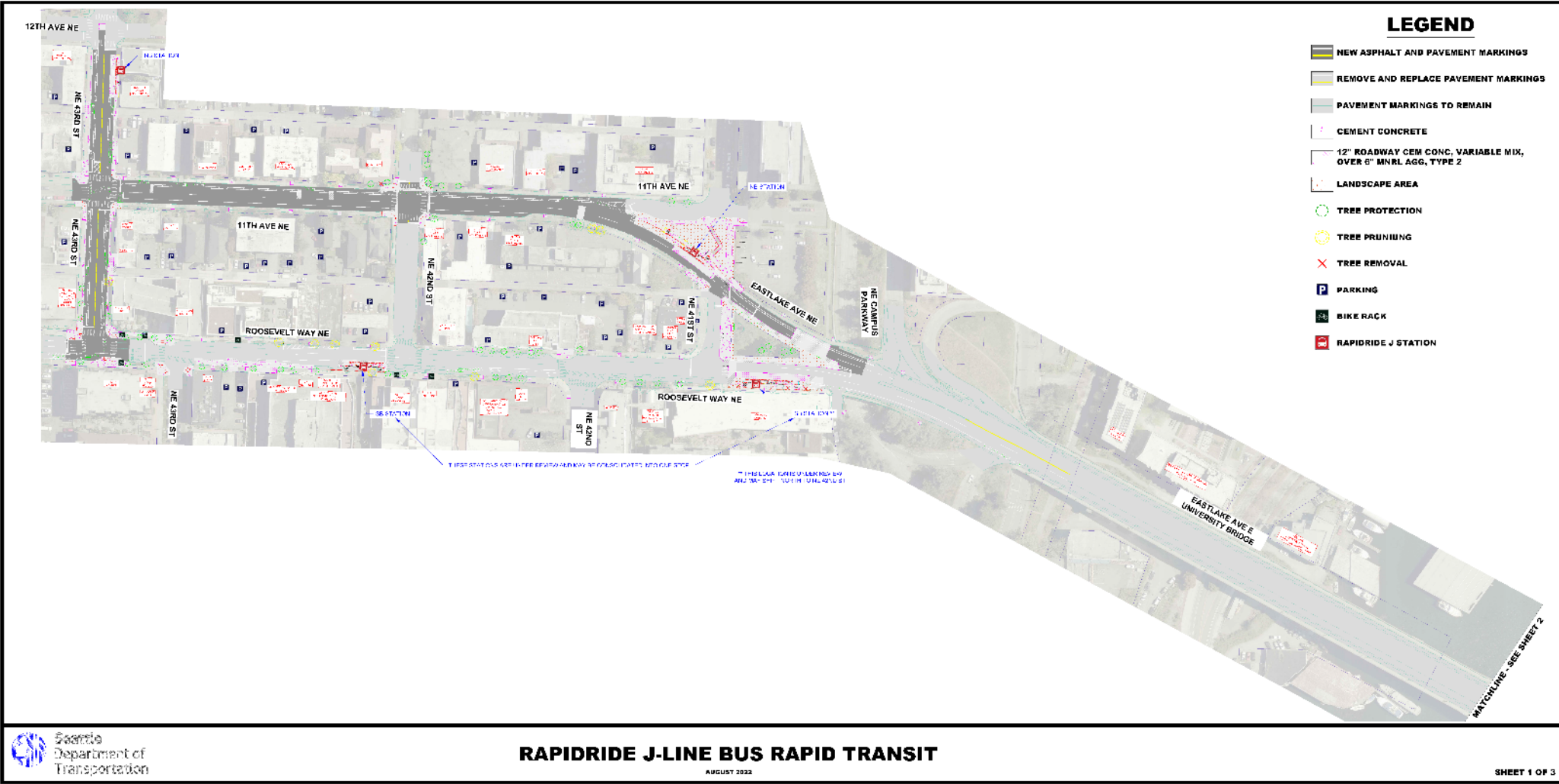


J Line

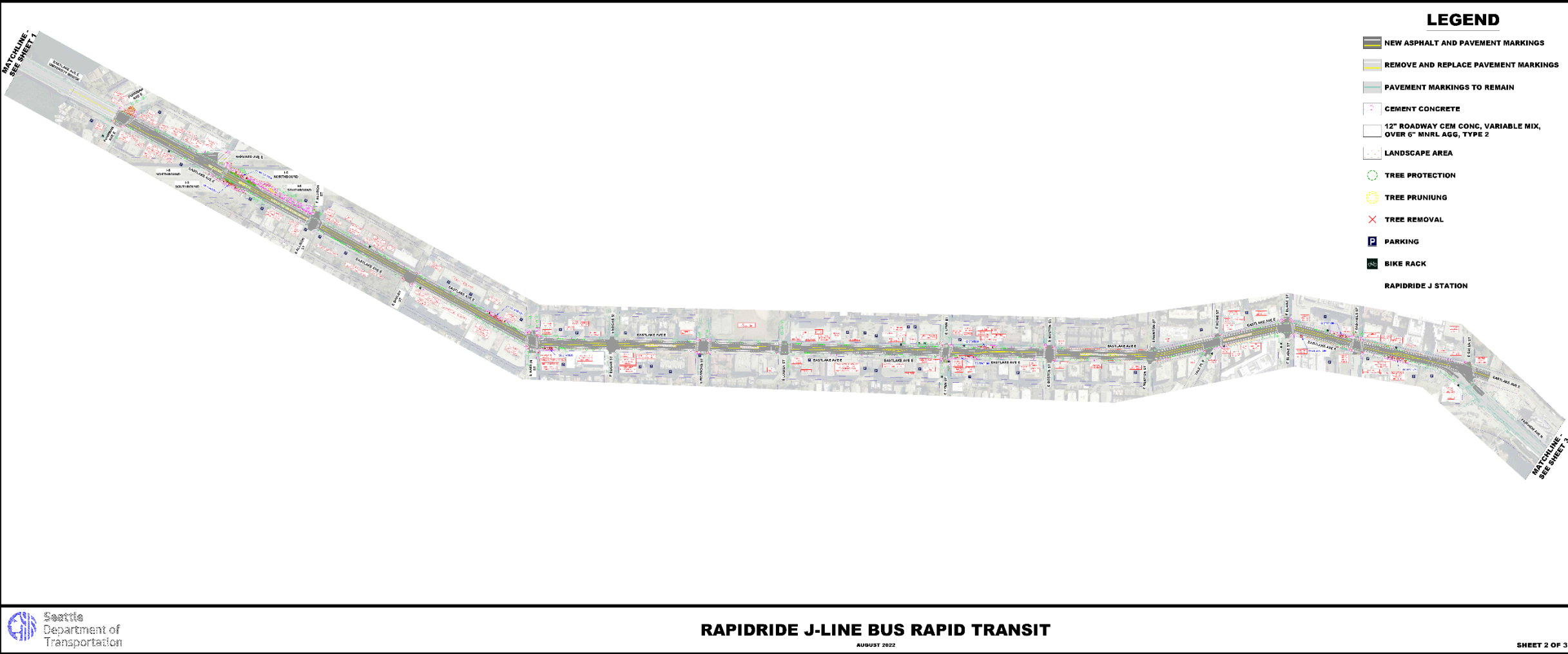


Project design update

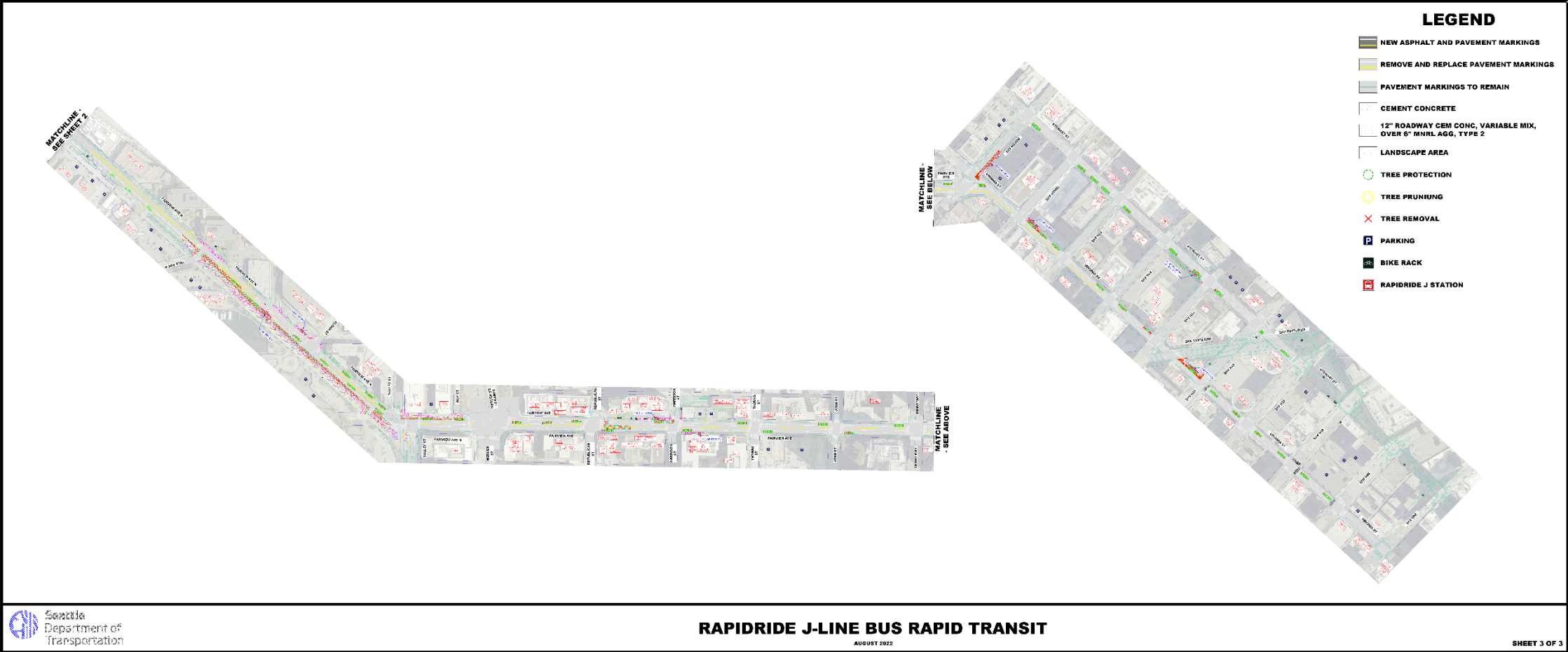
Roll plot – North of University Bridge



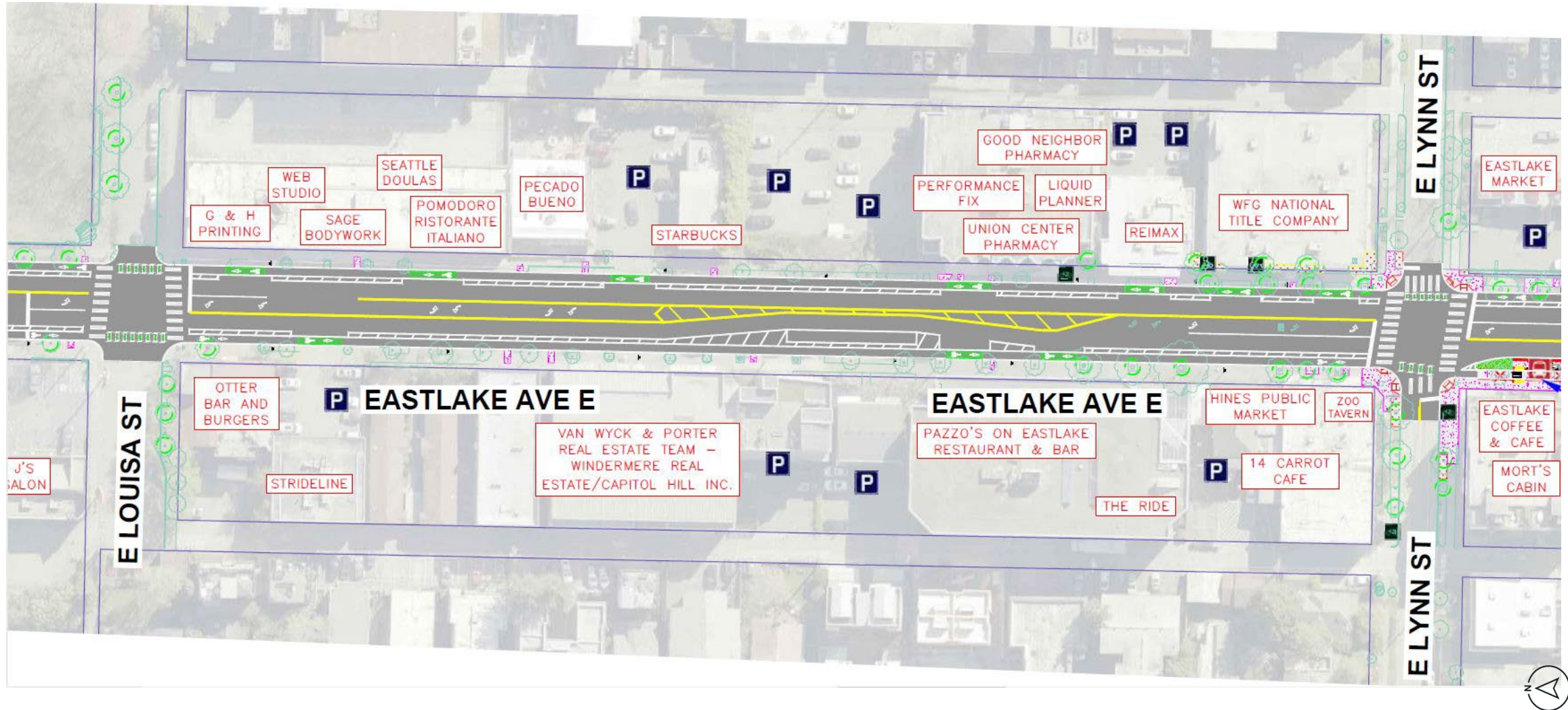
Roll plot - Eastlake



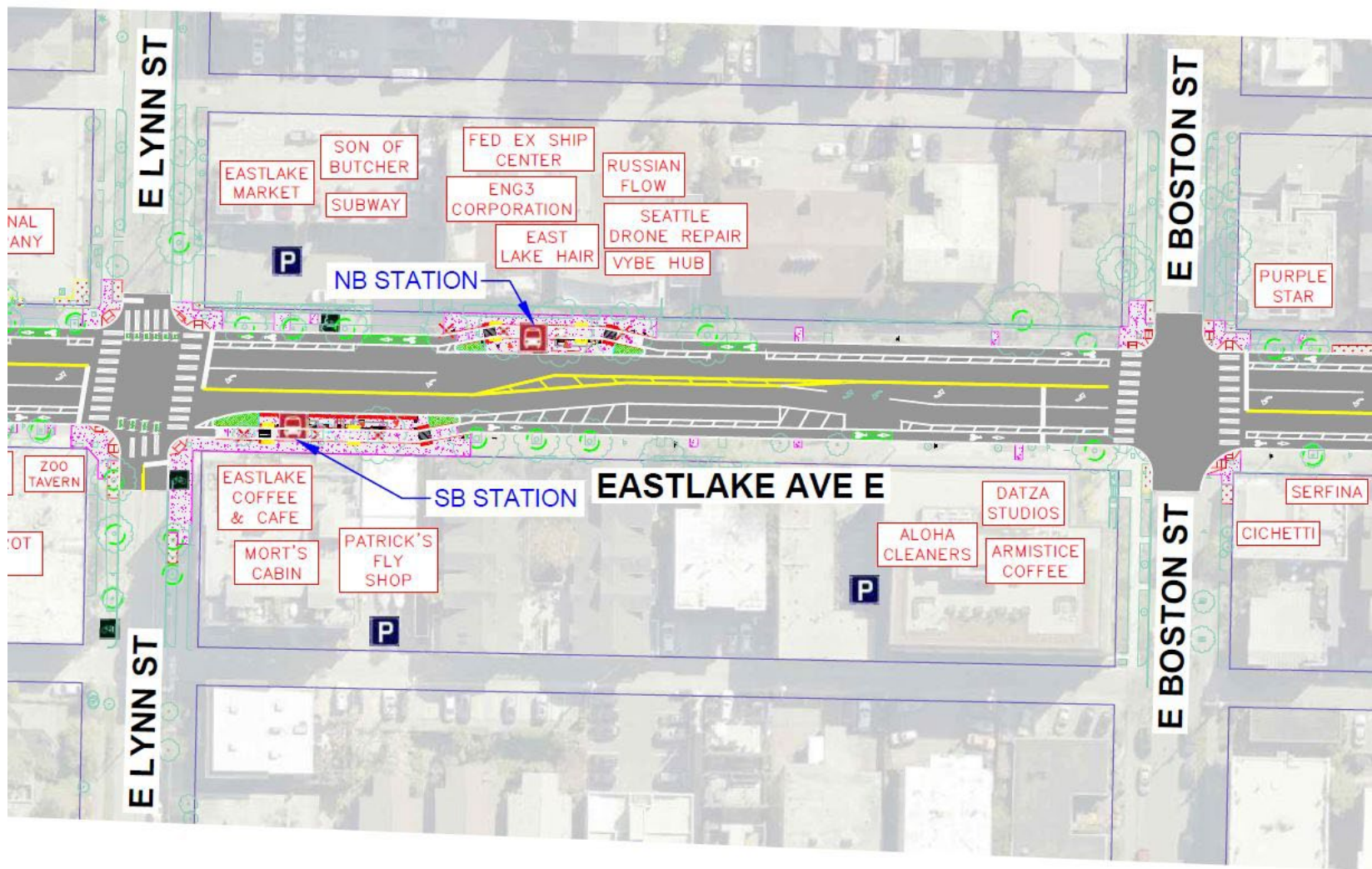
Roll plot – Eastlake and Belltown



E Lynn St to E Louisa St



E Lynn St to E Boston St





J Line



Activity: Share Your Input on Design Elements

Your input matters

- Your input will inform final design decisions
- Construction begins as soon as 2023
- Your feedback provides us with helpful information as we continue to refine the project design
- This session is not a “voting” exercise but a great opportunity to see your feedback in real time
- You may also share your feedback in a survey available from our project website

How to participate

- We'll walk through several key intersections and outstanding design decisions
- You can participate at menti.com and enter the code shown on the screen during the participation moments
- Options may display in a random order, so please confirm your entries before submitting
- You may also participate via the online survey

Your turn

- Q1: Which portion of the RapidRide J Line project area do you live, work or visit most often?

Pedestrian lighting at RapidRide stations



Option 1



Option 2



Option 3



Option 4



Option 5



Option 6

Your turn

- Q1: Which lighting option do you prefer?

Protected Bike Lane Buffer Types

Base design for J Line: Paint and Post

Project concepts:

- Concept #1: Concrete Guard
- Concept #2: Concrete Parking Stop
- Concept #3: Raised Curb

Protected Bike Lane Buffer Types

Base design for J Line: Paint and Post

Benefits

- + Already included in project design
- + Quick installation that can be done by SDOT crews
- + Provides flexibility for emergency services
- + Very low purchase cost and widely available
- + Good for special uses such as pilot projects to evaluate a permanent design, on bridge decks with limited capacity for additional weight or holes

Trade-offs:

- Post don't provide as much physical protection as other barriers
- Requires replacement much more frequently than other materials, incurring costs and adding to maintenance workloads
- Despite low installation costs, may have the highest overall lifecycle cost



Protected Bike Lane Buffer Types

Concept #1: Concrete Guard

Benefits:

- + Concrete is a long-lasting material
- + The size and height of the concrete guard provides robust protection
- + Manufactured with built-in drainage feature
- + Easier to install than full-size concrete dividers
- + The surface area provides opportunities for public art and placemaking

Trade-offs:

- Due to the weight and the precast nature of the concrete guard, it requires being forklifted into place
- Logistically difficult to build on a large scale due to the current lack of local suppliers, which may result in a slower project delivery
- The surface area, especially if left bare, is a tempting target for graffiti



Protected Bike Lane Buffer Types

Concept #2: Concrete Parking Stop

Benefits:

- + The wide availability of parking stops makes them easier to build quickly
- + Ease of implementation helps contribute to timely project-delivery
- + The concrete material is long lasting and provides substantial protection

Trade-offs:

- Less vertical height and therefore, less visible to drivers (This can be supplemented with the addition of plastic posts on top of the parking stops)
- Larger sized parking stop requires forklifts to install



Protected Bike Lane Buffer Types

Concept #3: Raised Curb

Benefits:

- + Concrete is a long-lasting material
- + Can be molded in a variety of forms, curves, and heights accommodating turns, bump-outs, and other street features

Trade-offs:

- Can be expensive for longer segments
- May be less durable at locations like curves
- Less vertical height and therefore, less visible to drivers (This can be supplemented with the addition of plastic posts at intersections)

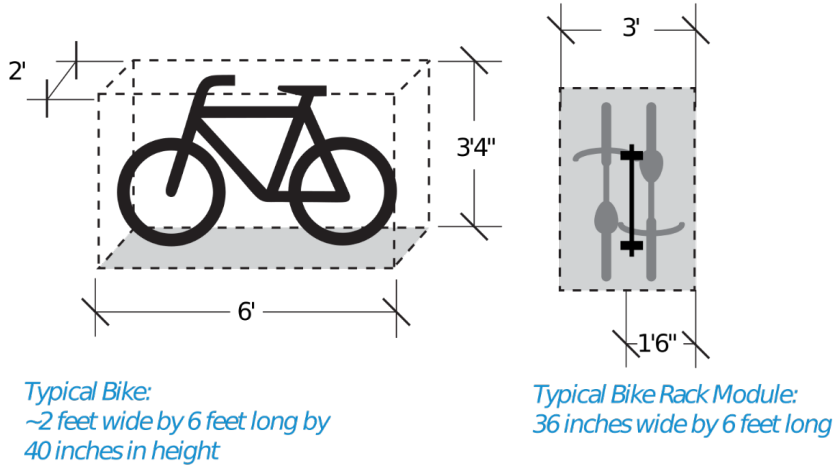


Your turn

- Q1: Which protected bicycle buffer option do you prefer?

Bike Rack Locations

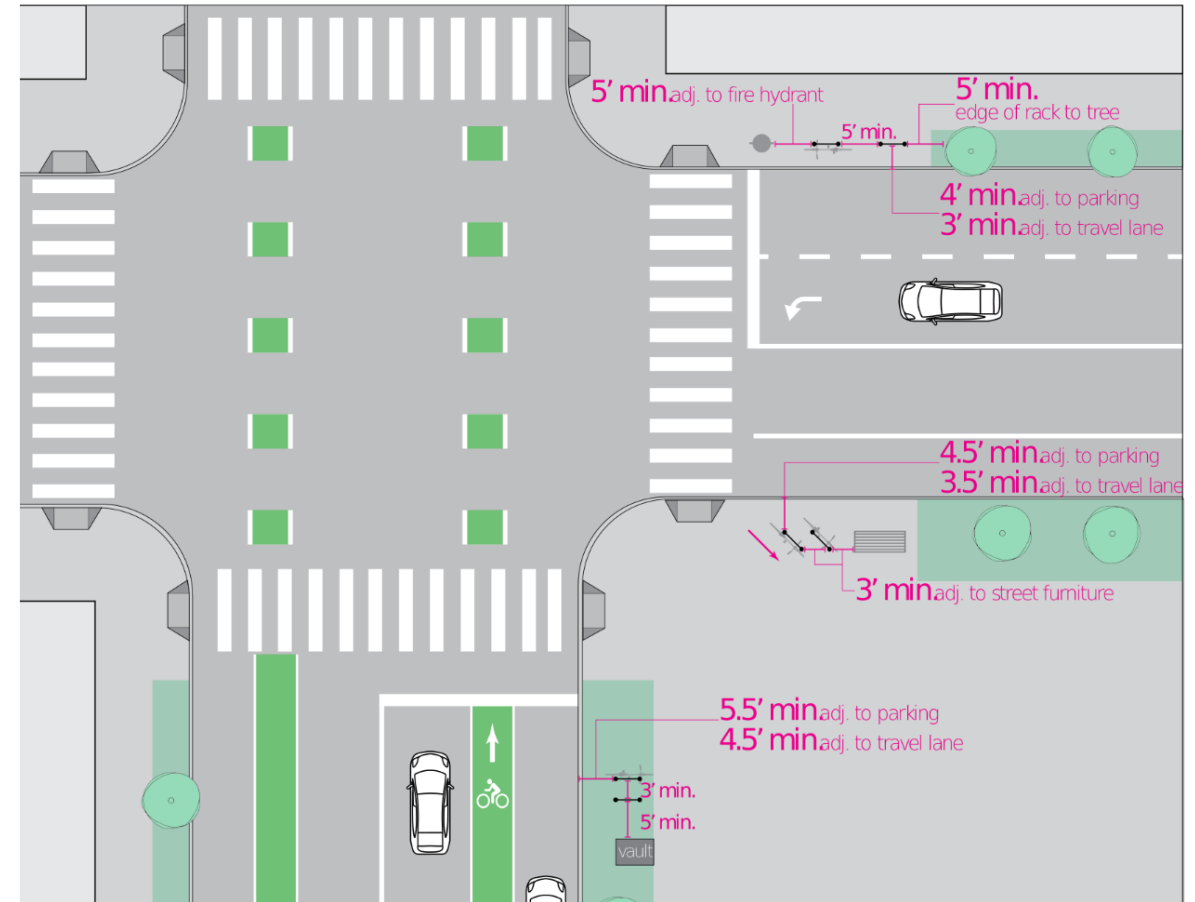
Typical bike rack dimensions



Typical Bike Rack

Bike racks are
planned for
RapidRide stations

Bike rack siting considerations



Typical Sidewalk Zone Layout Considerations

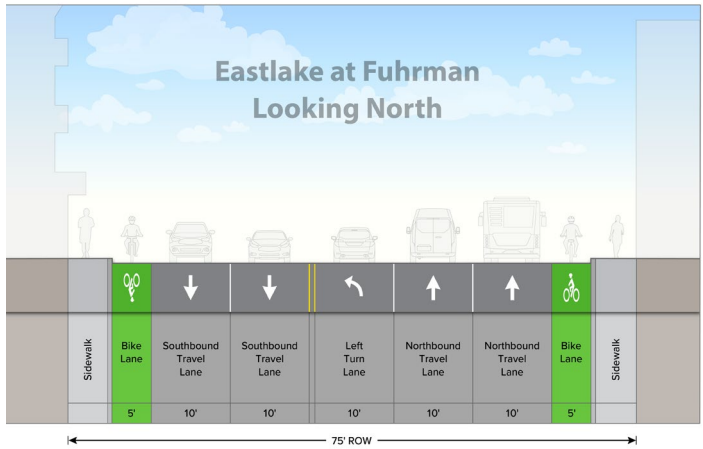
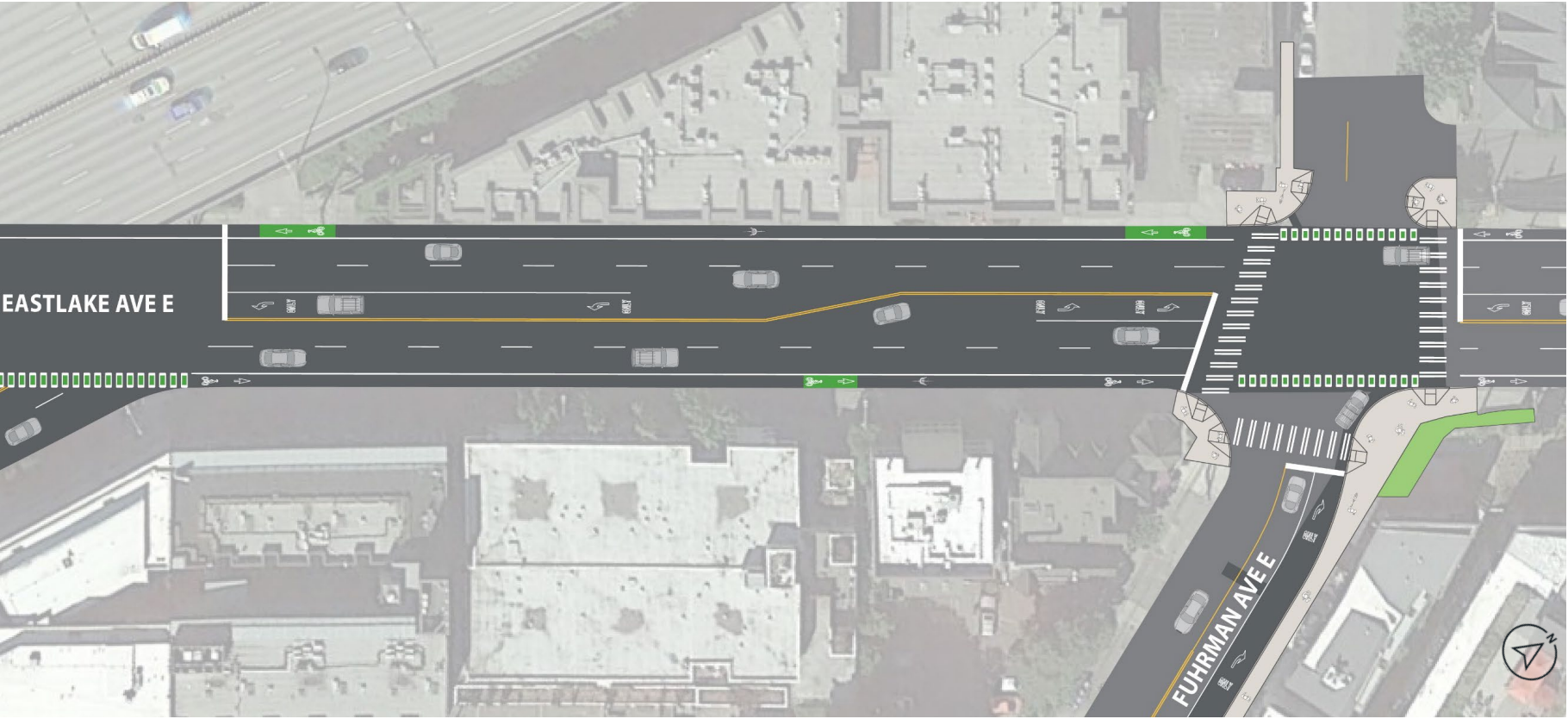
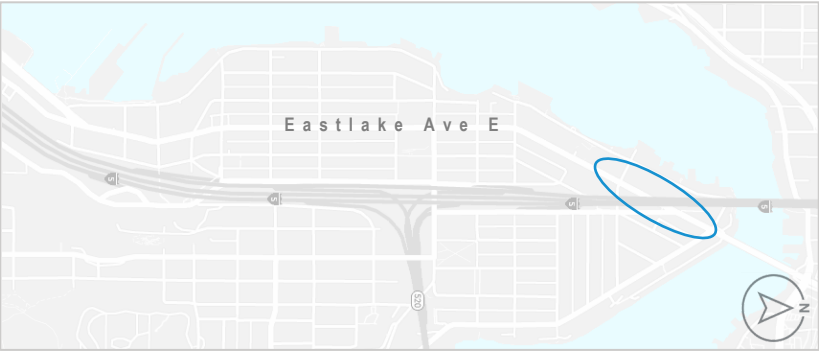
Your turn

- Q1: Where in the corridor would you recommend SDOT install additional bike racks?

Think about listing intersections, key businesses, key points of interest, etc.

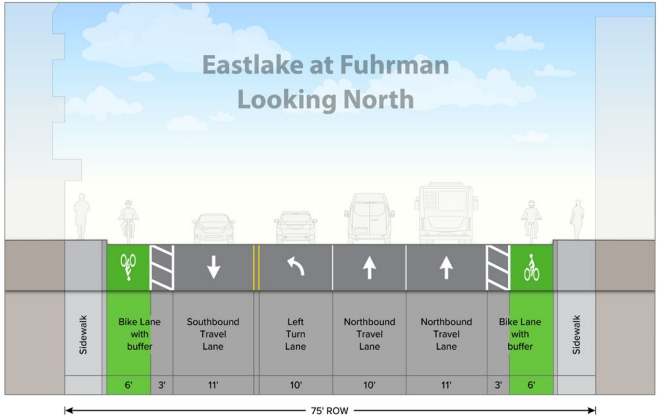
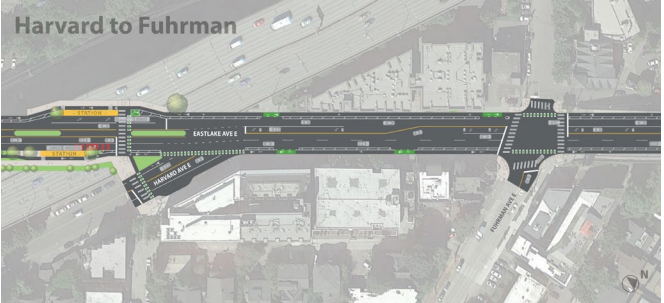
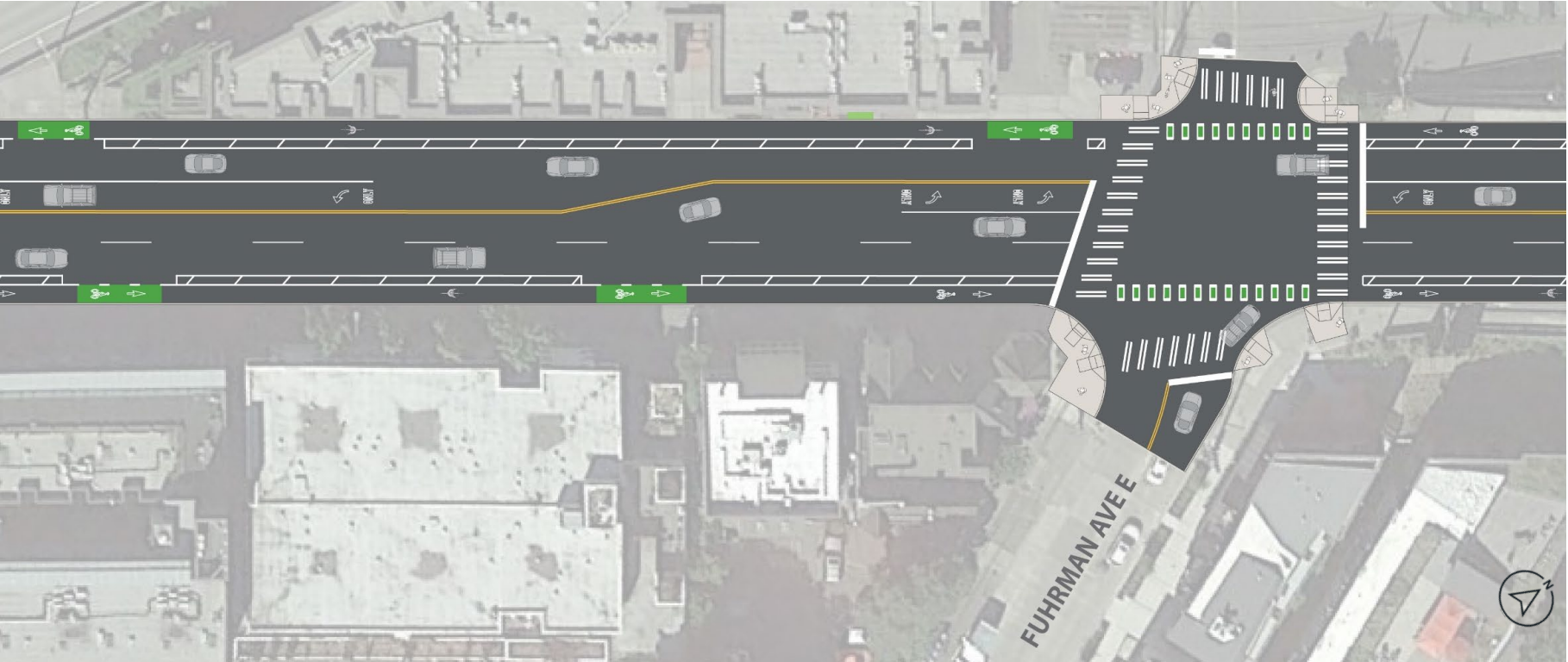
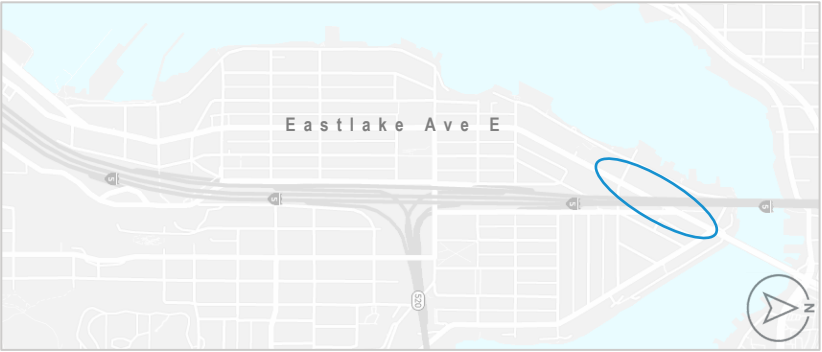
Channelization on Eastlake at Fuhrman

Option 1 – Standard bicycle lane



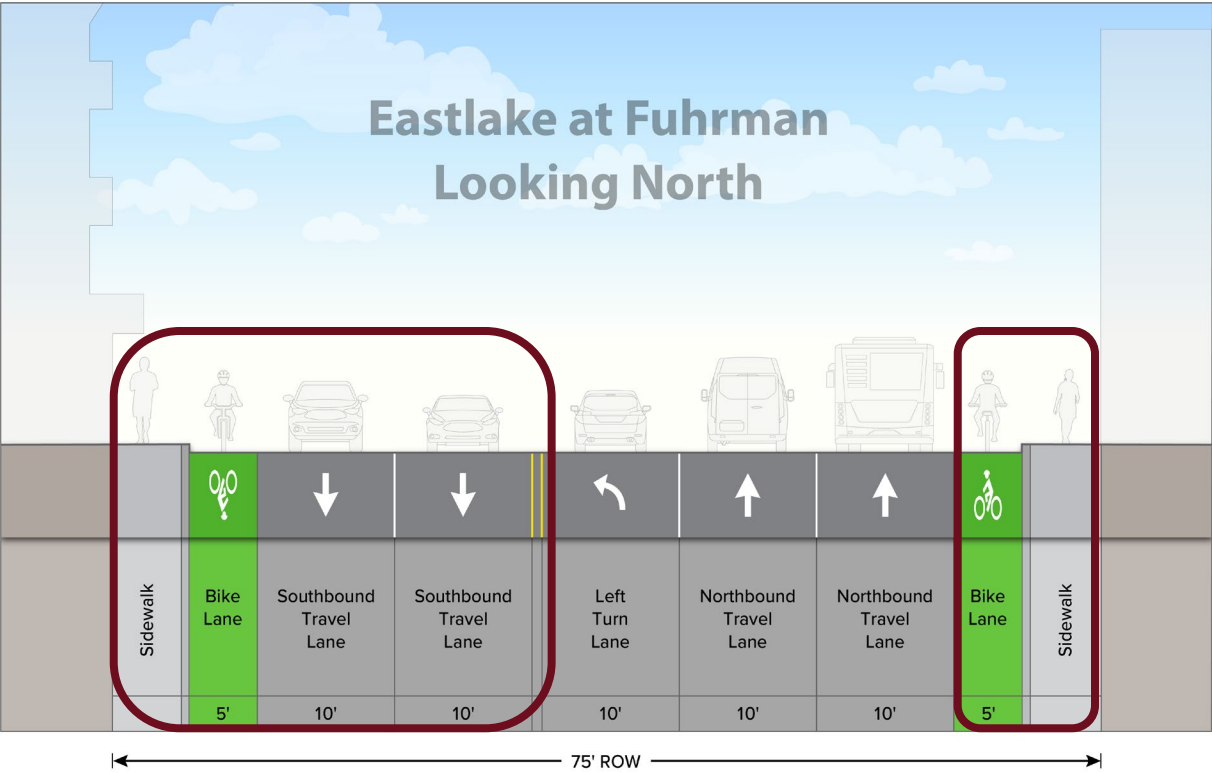
Channelization on Eastlake at Fuhrman

Option 2 – Buffered bicycle lane

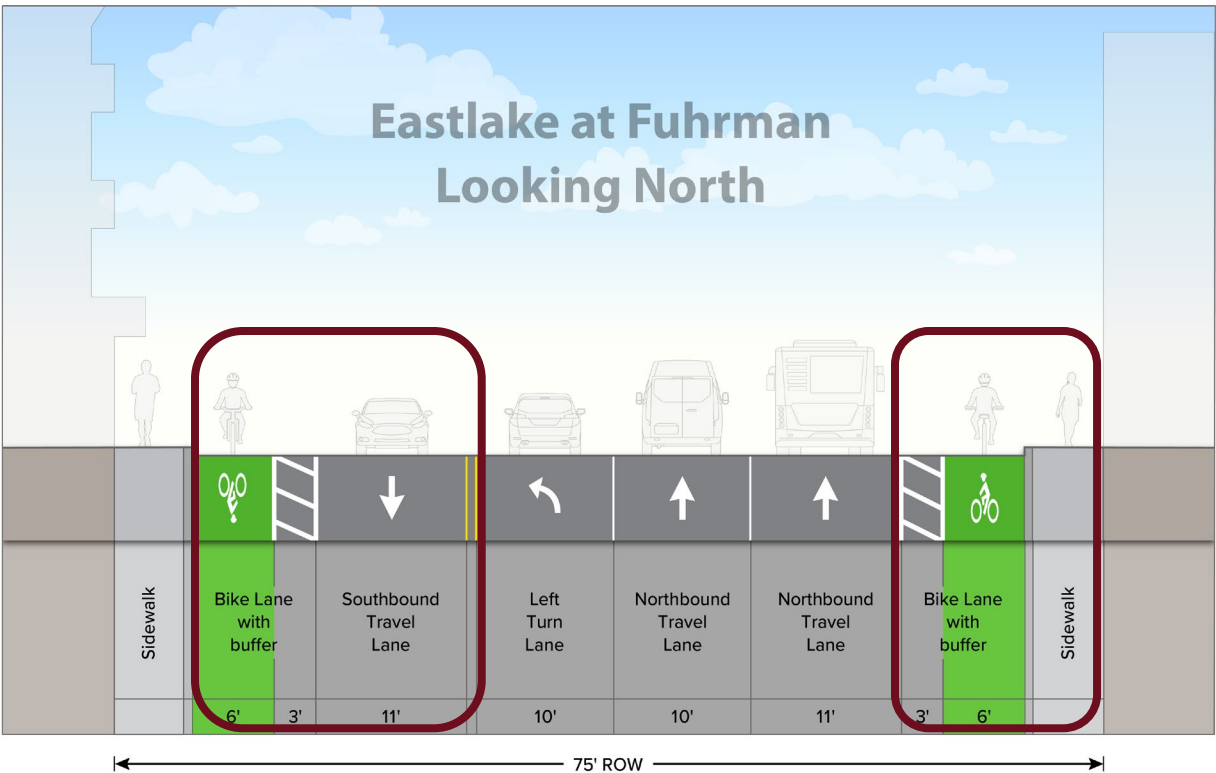


Channelization on Eastlake at Fuhrman

Option 1 – Standard bicycle lane



Option 2 – Buffered bicycle lane



Your turn

- Q1: Which option do you prefer?

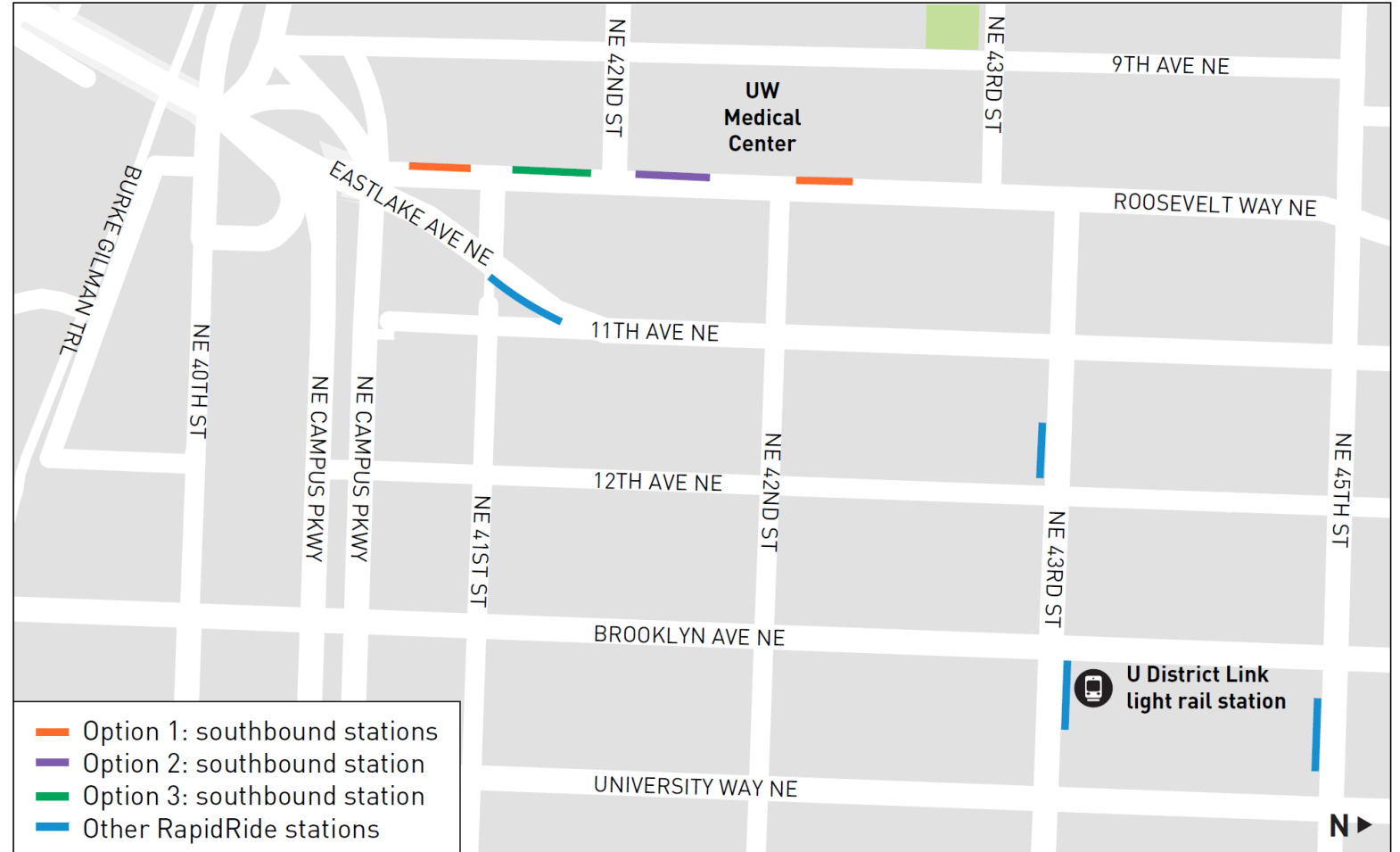
Southbound Station on Roosevelt Way NE - J Line RapidRide Station Options

Options shown reflect potential locations for the southbound RapidRide J Line station(s) on Roosevelt Way NE

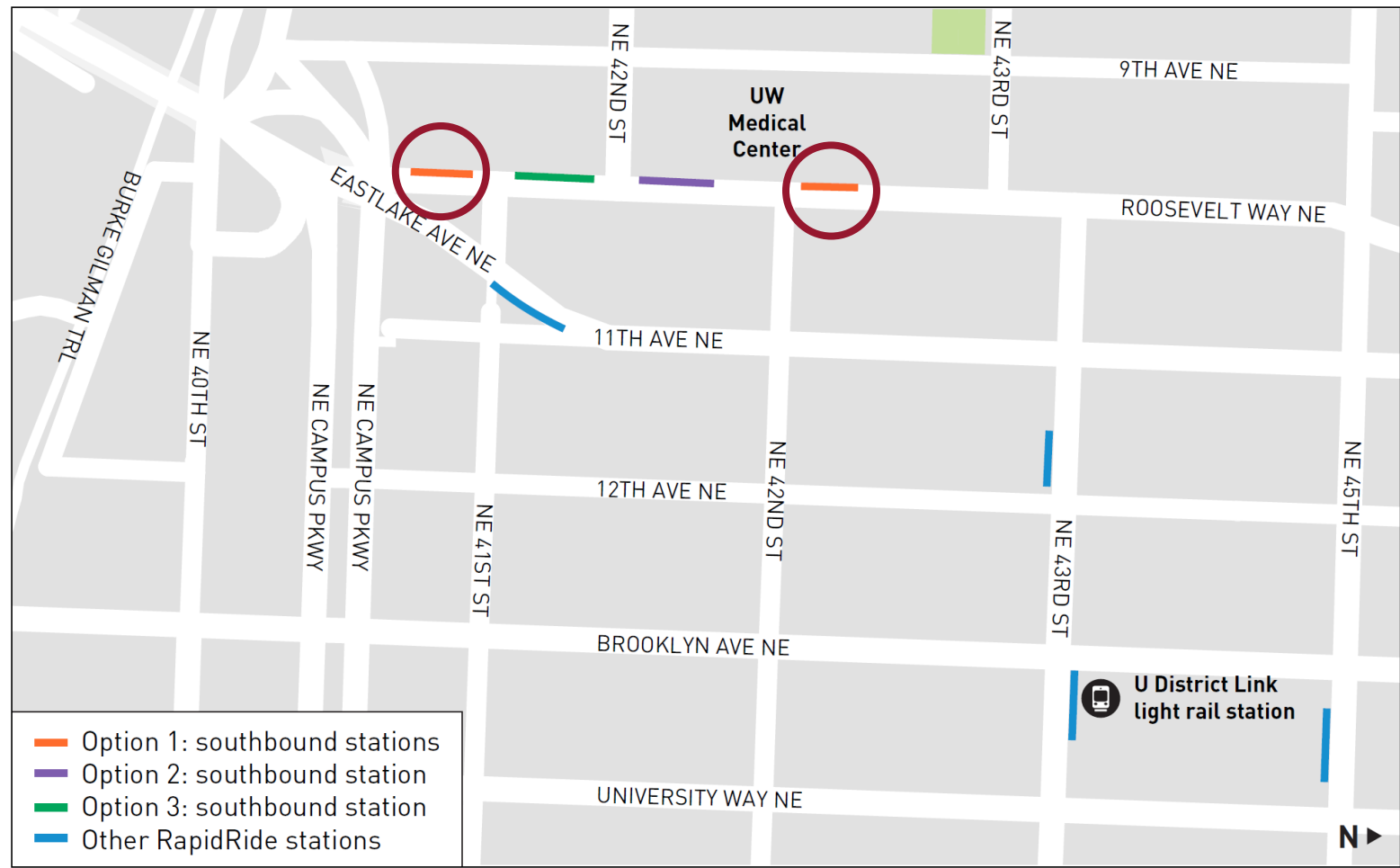
Option 1: Two southbound Stations on Roosevelt Way NE, one at NE Campus Parkway and one at NE 42nd St

Option 2: Station at northwest corner of NE 42nd St

Option 3: Station at southwest corner of NE 42nd St



Southbound Station on Roosevelt Way NE - J Line RapidRide Station Options



Option 1: Stations at Roosevelt Way NE and NE Campus Parkway and NE 42nd St

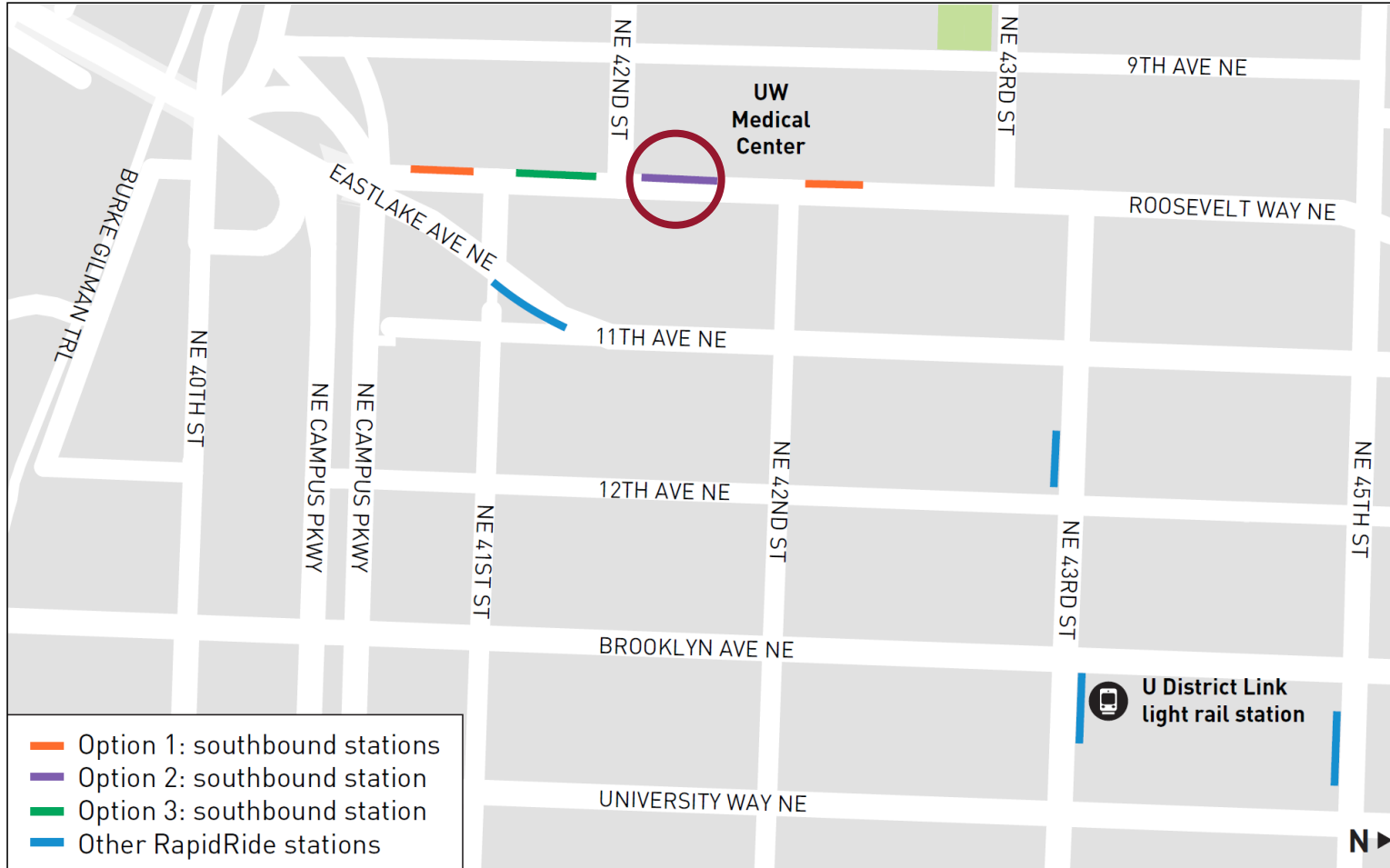
Benefits

- Provides adjacent access to UW Medical Center
- Campus Parkway Station provides access to Burke-Gilman Trail
- Visibility to northbound station

Trade-offs

- Congested with buses
- Proximity of 2 stations reduces speed and reliability

Southbound Station on Roosevelt Way NE - J Line RapidRide Station Options



Option 2: Station at northwest corner of NE 42nd St

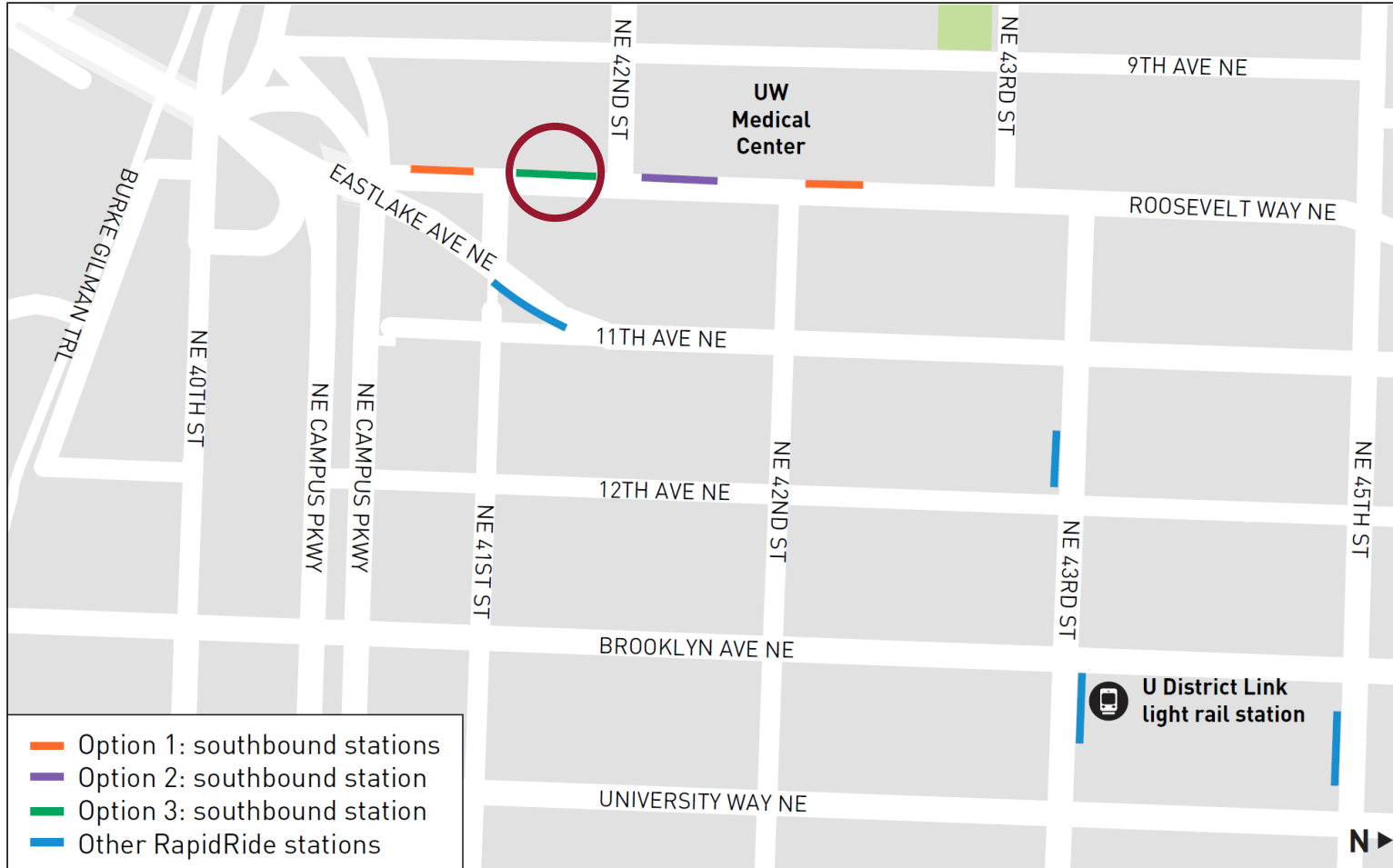
Benefits

- Decreases congestion at UW Medical Center stop
- Cost effective to only build one station
- Better speed and reliability for J Line with only one stop on Roosevelt

Trade-offs

- Conflicts with southbound to westbound right-turning vehicles
- 1-block walk to UW Medical Center & Burke-Gilman Trail
- Lacks visibility to northbound station pair on 11th Ave NE
- Removes existing curb bulb on NE corner, increasing pedestrian crossing times.

Southbound Station on Roosevelt Way NE - J Line RapidRide Station Options



Option 3: Station at southwest corner of NE 42nd St

Benefits

- Decreases congestion at UW Medical Center stop
- Cost effective to only build one station
- Best speed & reliability of J Line with one stop on Roosevelt and placed far side of the intersection
- Provides visibility to northbound station pair on 11th Ave NE
- Adjacent to proposed pedestrian crossing signals at 41st

Trade-offs

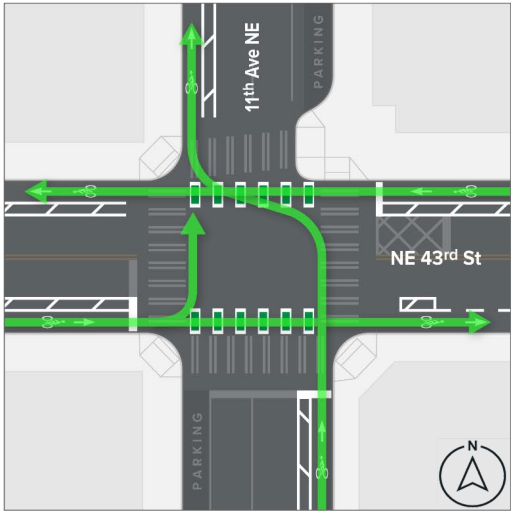
- 1½-block walk to UW Medical Center; ½-block walk to Burke-Gilman Trail

Your turn

- Q1: Which RapidRide station location option do you prefer?

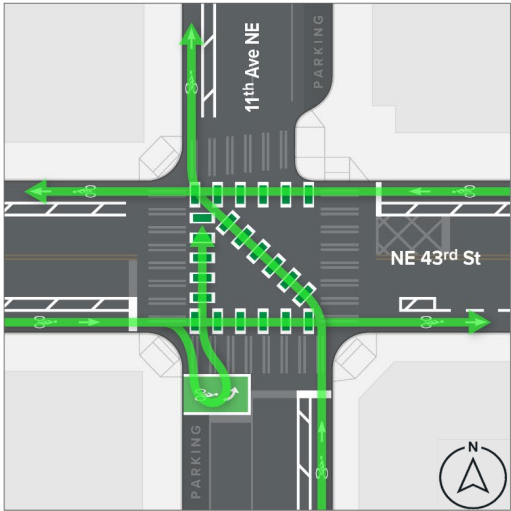
Protected Bike Lane Crossing at 11th/43rd

Option 1



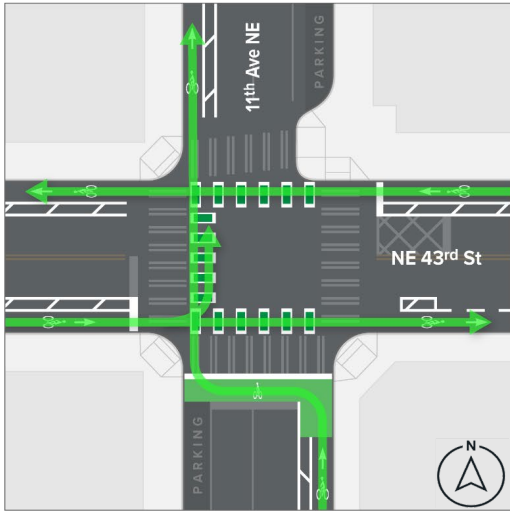
NO SPECIAL TREATMENT

Option 2



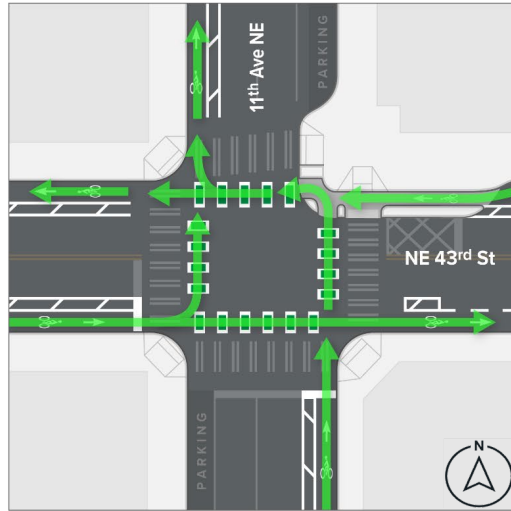
DIAGONAL BIKE CROSSING

Option 3



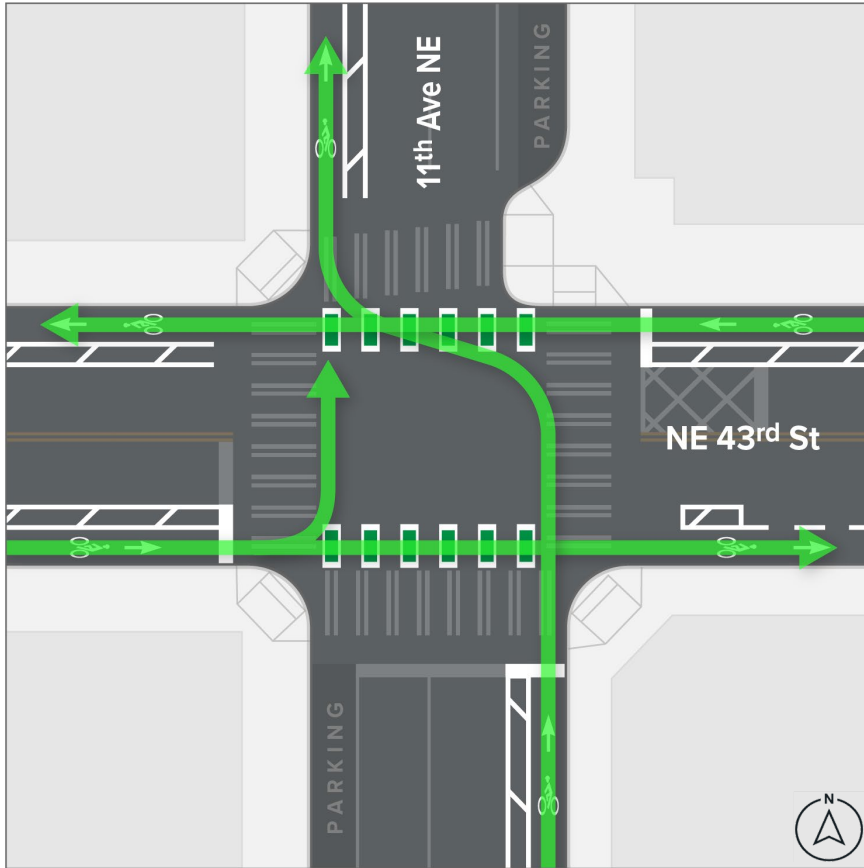
BIKE BOX ON EASTBOUND NE 43RD ST
AND NORTHBOUND 11TH AVE NE

Option 4



CURB BULB EXTENSION

Protected Bike Lane Crossing at 11th/43rd



NO SPECIAL TREATMENT

Option 1: No Special Treatment

Details

- Bike crossing treatments are provided for eastbound and westbound cyclists
- Northbound cyclists use crosswalks and pedestrian sidewalk areas to continue through the intersection

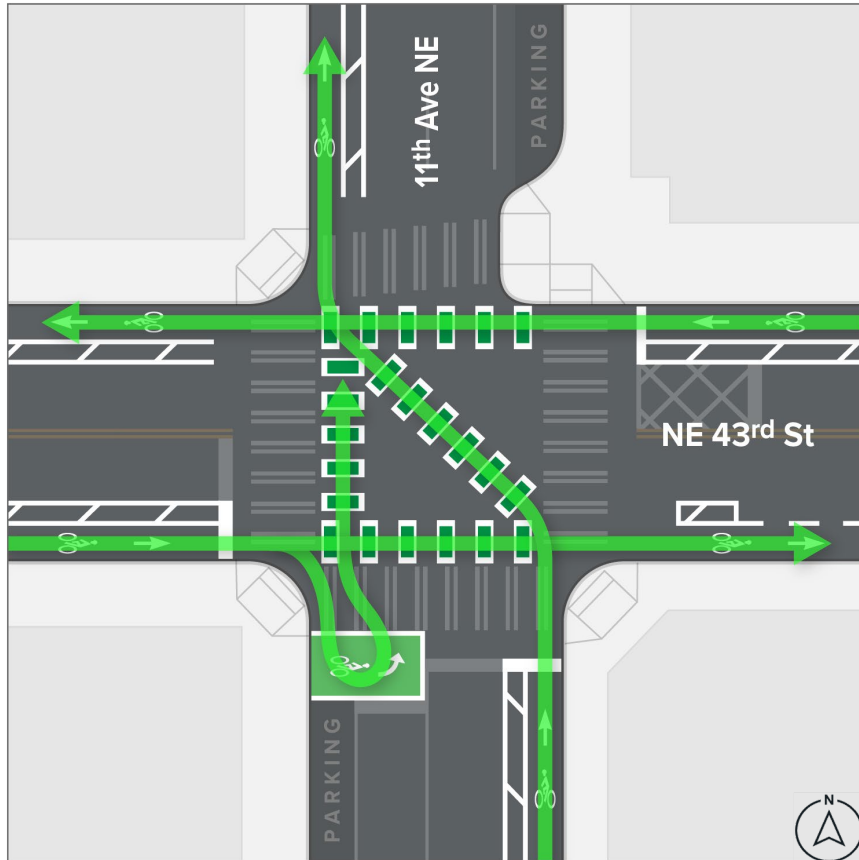
Benefits

- Provides basic marking treatment so that east/west movements are clearly covered

Trade-offs

- Northbound cyclists may have difficulty navigating intersection
- Cyclists making turns do not have space clear of the waiting area

Protected Bike Lane Crossing at 11th/43rd



DIAGONAL BIKE CROSSING

Option 2: Diagonal Bike Crossing

Details

- Adds diagonal bike crossing treatment through the intersection to transition northbound cyclists from right to left side of the road
- Eastbound cyclists are provided a bike box to queue prior to a left turn

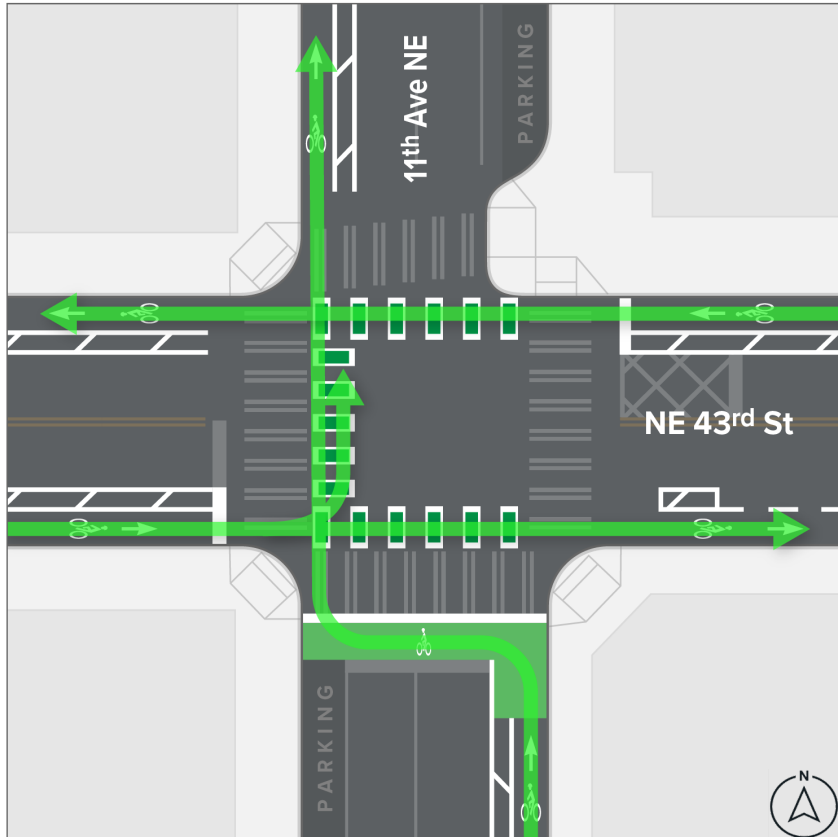
Benefits

- Provides basic marking treatment for east/west movements
- Provides markings for cyclists turning/traveling northbound
- Provides northbound cyclist crossing transition in single state
- Provides clear waiting area for eastbound cyclists turning northbound

Trade-offs

- Including both the diagonal bike crossing treatment and bike box behind the south crosswalk may lead to unexpected cyclist presence for drivers
- Some eastbound cyclists turning northbound may have difficulties accessing the bike box if high pedestrian volumes present
- Additional northbound bike-only signal phase may cause vehicle delays

Protected Bike Lane Crossing at 11th/43rd



BIKE BOX ON EASTBOUND NE 43RD ST
AND NORTHBOUND 11TH AVE NE

Option 3: Bike Boxes

Details

- Northbound cyclists are provided a bike box behind the crosswalk on south leg to allow for transition from right to left side of the road

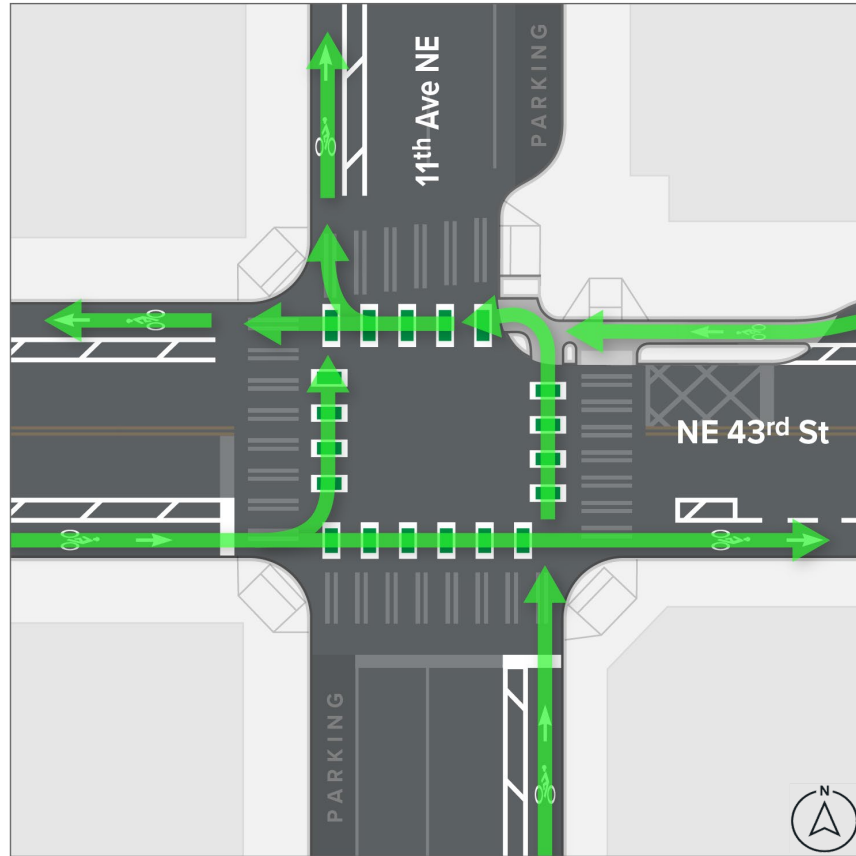
Benefits

- Provides basic marking treatment for east/west movements
- Allows northbound vehicles and cyclist to continue through the intersection at the same time
- Allows northbound cyclists to safely use bike box to cross to west side of 11th Ave NE

Trade-offs

- Some eastbound cyclists turning northbound may have difficulties accessing the bike box if high pedestrian volumes present

Protected Bike Lane Crossing at 11th/43rd



CURB BULB EXTENSION

Option 4: Curb bulb extension on NE Corner

Details

- Provision for protected intersection at NE corner

Benefits

- Provides basic marking treatment for east/west movements
- Clear routing of northbound cyclists via curb bulb provides protected space behind curb for two-stage crossing

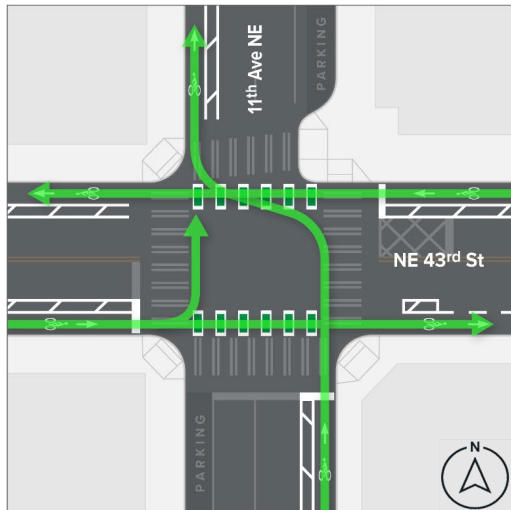
Trade-offs

- May require additional reconstruction at NE corner and modifications of crosswalk alignments

Your turn

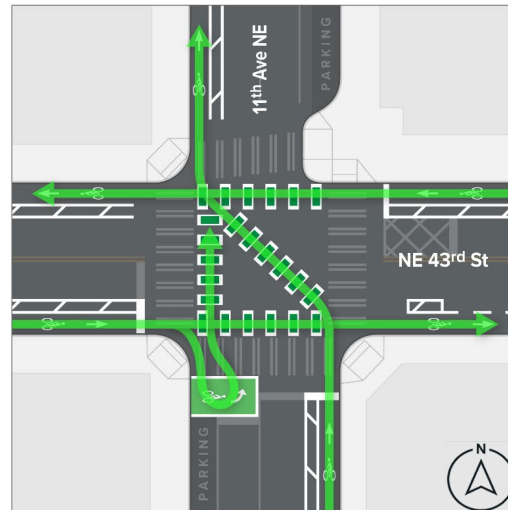
- Q1: Which option do you prefer?

Option 1



NO SPECIAL TREATMENT

Option 2



DIAGONAL BIKE CROSSING

Option 3



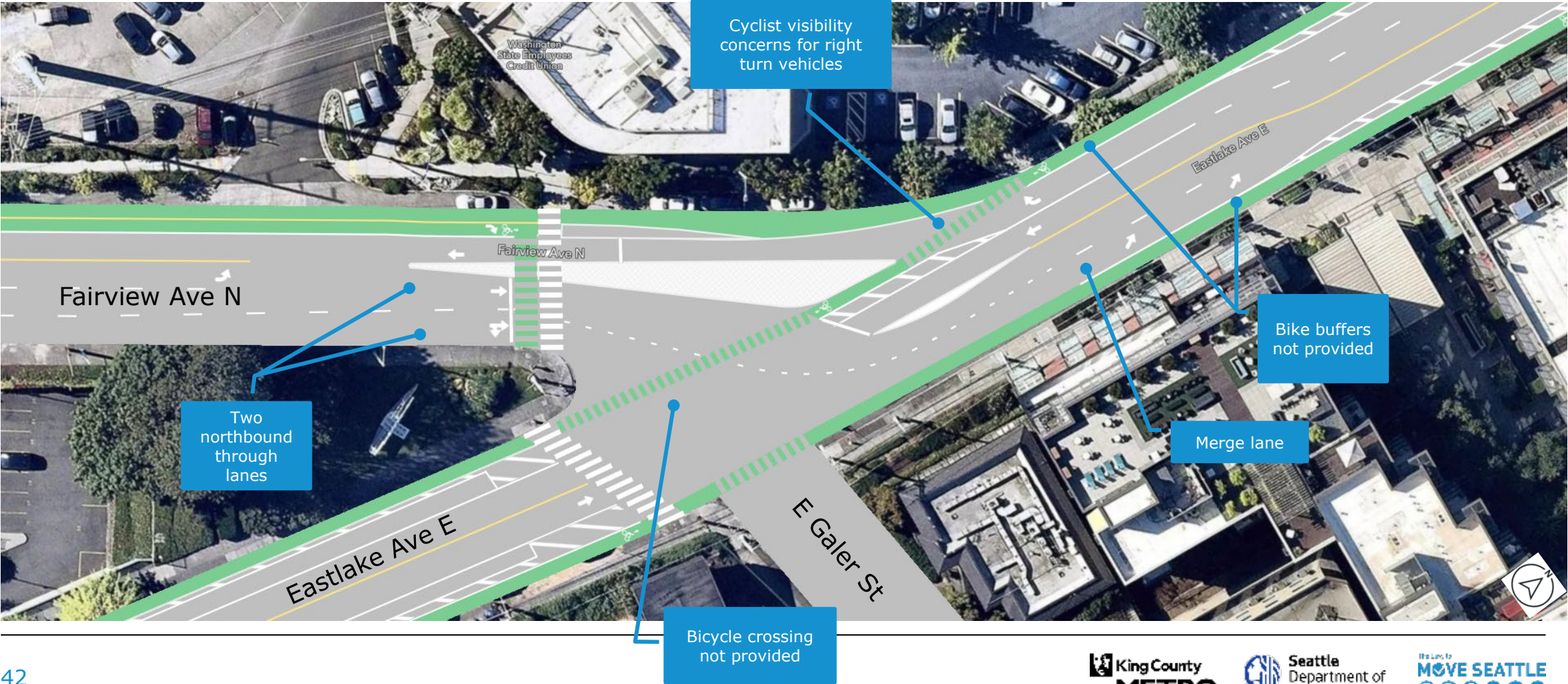
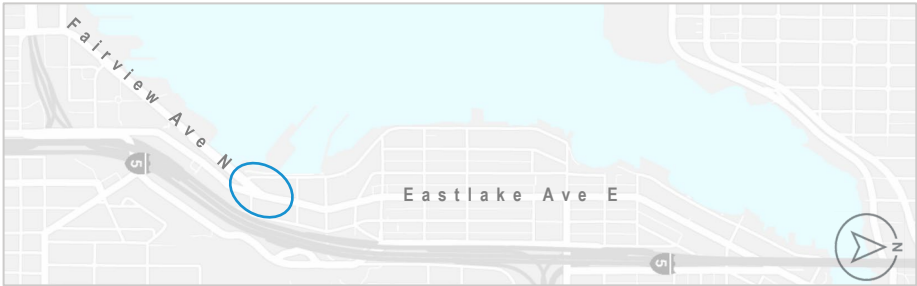
BIKE BOX ON EASTBOUND NE 43RD ST
AND NORTHBOUND 11TH AVE NE

Option 4

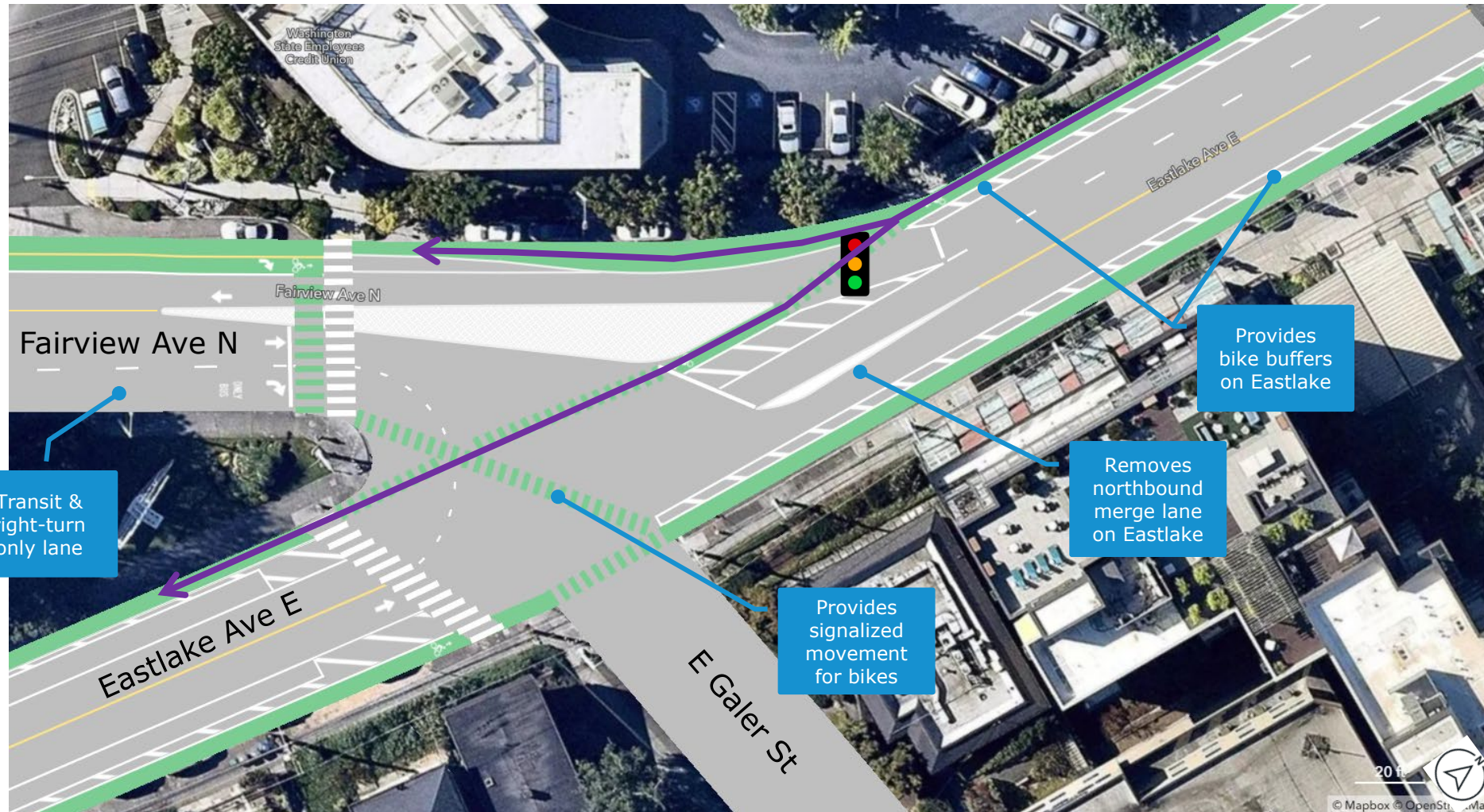


CURB BULB EXTENSION

Fairview/Eastlake – Current Design



Fairview/Eastlake – Option 1



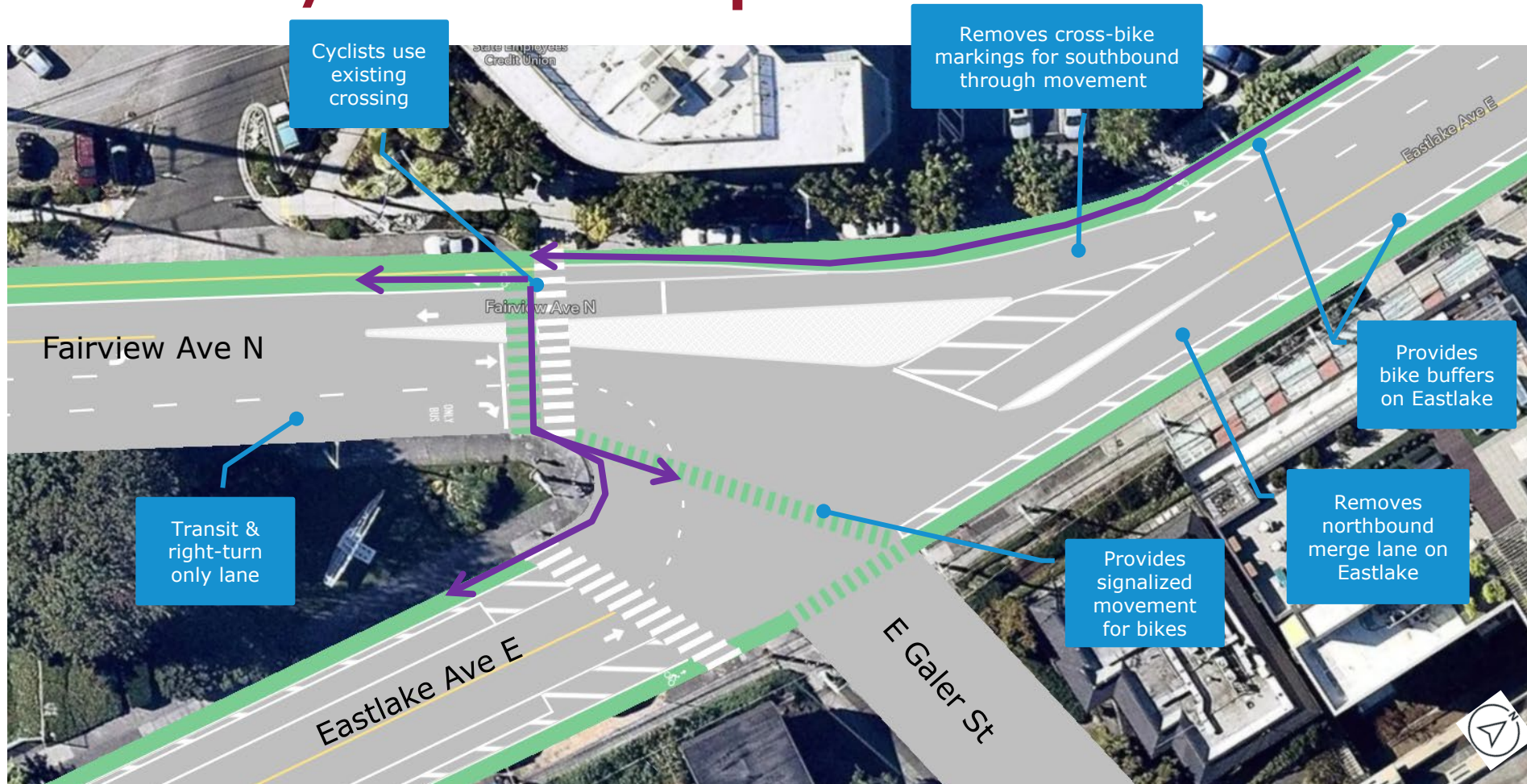
Benefits

- Mitigates southbound right turn vs southbound bike conflict
- Provides standard channelization widths

Trade-offs

- Need new signal infrastructure and coordination for southbound bikes vs. southbound right turns
- Potential trolley wire adjustments
- Impact to delay at intersection
- Bus operators may need to merge with northbound traffic on Fairview through intersection

Fairview/Eastlake – Option 2



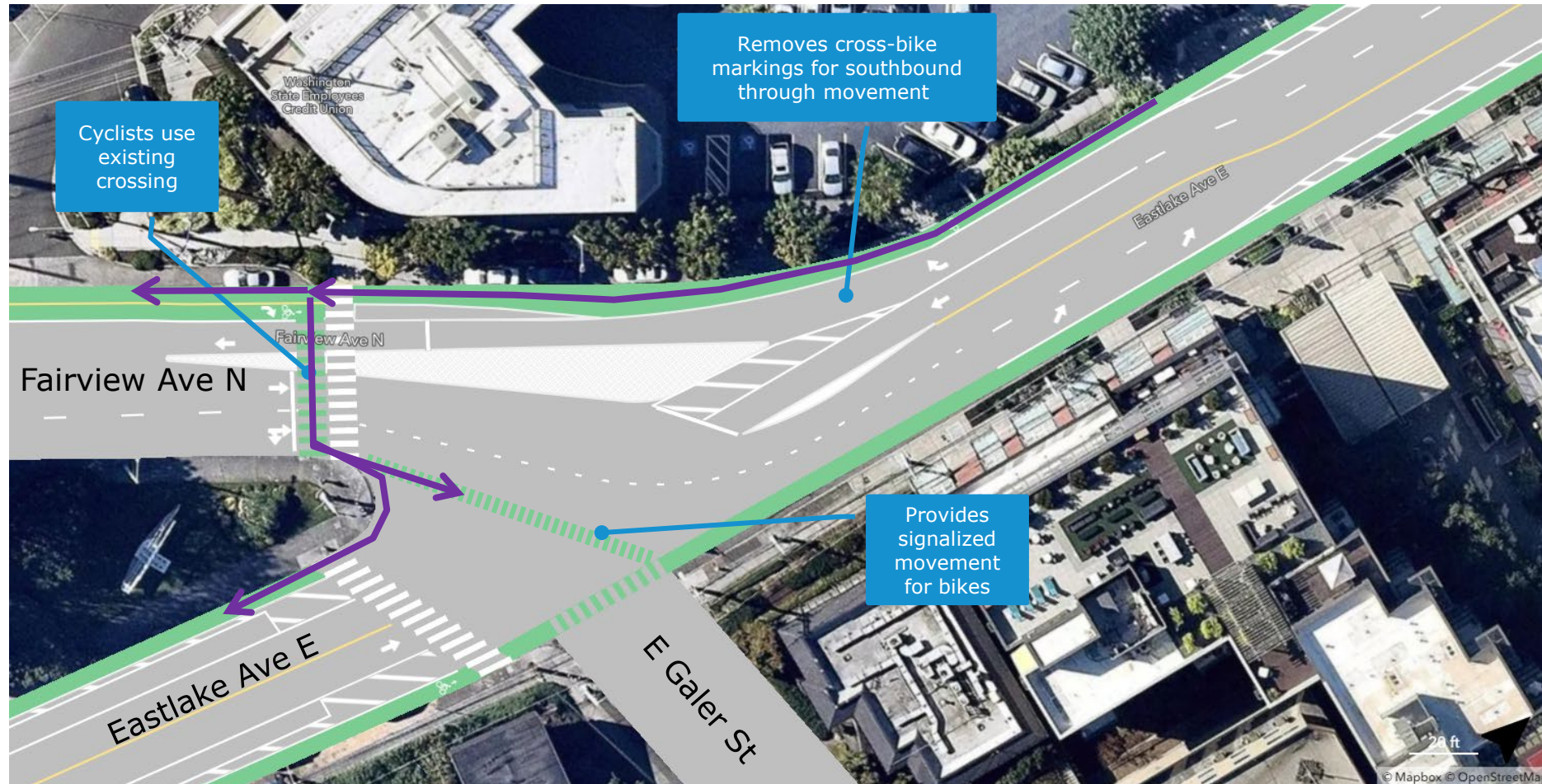
Benefits

- Removes southbound right turn vs southbound bike conflict
- Provides standard channelization widths

Trade-offs

- Circuitous route for cyclists may result in low compliance
- Impact to delay
- Bus operators may need to merge with northbound traffic on Fairview through intersection

Fairview/Eastlake – Option 3



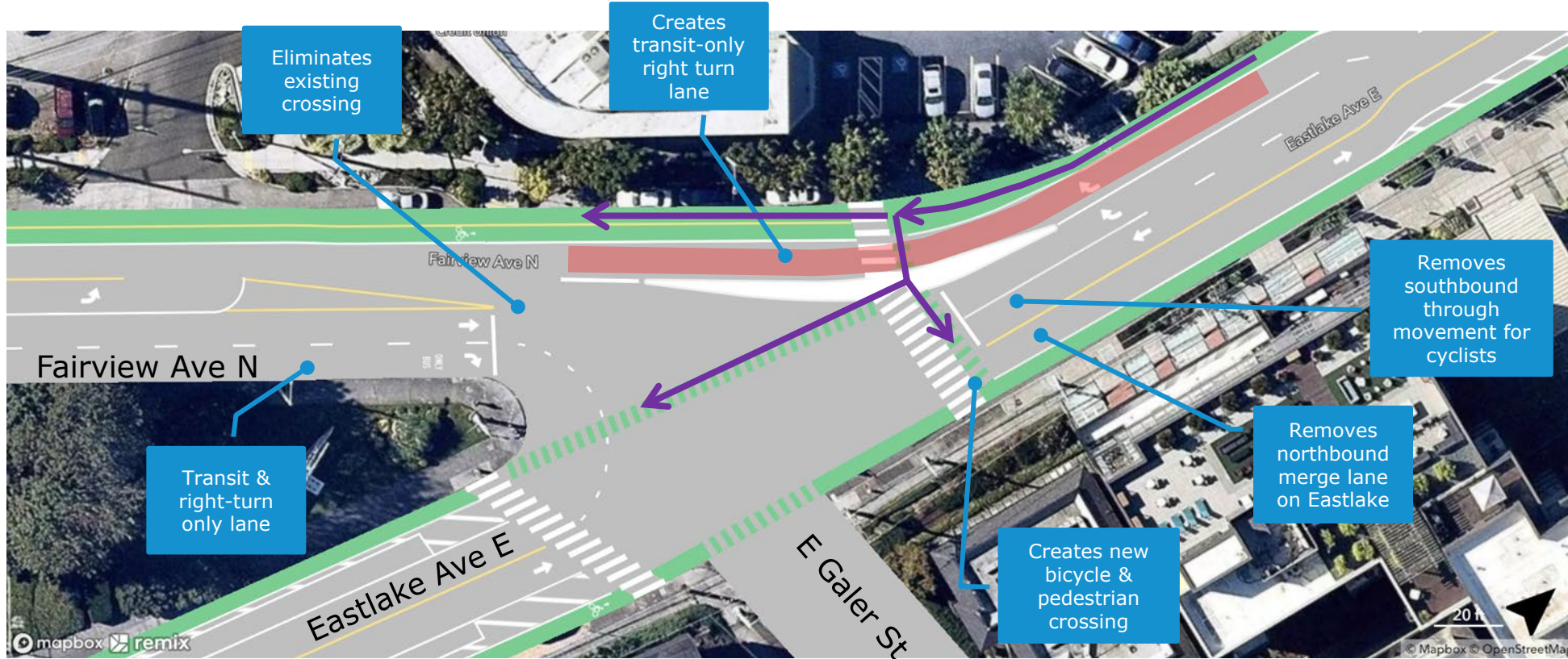
Benefits

- Removes southbound right turn vs southbound bike conflict
- Low impact to project scope

Trade-offs

- Circuitous route for cyclists may result in low compliance
- Non-standard lane widths

Fairview/Eastlake – Option 4



Benefits

- Provides signal for southbound vehicle and bicycle movements
- Expected to reduce southbound transit delay

Trade-offs

- Northbound impact to delay at intersection
- Bus operators may need to merge with northbound traffic on Fairview through intersection
- Additional infrastructure and cost
- Southbound right turn queue lengths may block southbound bus lane

Fairview/Eastlake Intersection Configuration

Option 1 adds a transit and right-turn only lane on Fairview Ave N, removes a merge lane on Eastlake Ave E, provides a signal for bikes, and adds bicycle buffers on Eastlake Ave E.

Option 2 also adds a transit and right-turn only lane on Fairview Ave N, removes cross-bike markings for southbound bicycle movements on Eastlake Ave E, removes a merge lane on Eastlake Ave E, and adds bicycle buffers on Eastlake Ave E.

Option 3 removes cross-bike markings for southbound bicycle movements, adds bicycle buffers on Eastlake Ave E, and moves cyclists to use an existing crossing on Fairview Ave N.

Option 4 creates a transit-only and right-turn lane from Eastlake Ave E to Fairview Ave N, removes a southbound through movement for cyclists on Eastlake Ave E, creates a new bicycle and pedestrian crossing across Eastlake Ave E, and eliminates an existing crossing on Fairview Ave N.

Your turn

- Q1: Which option do you prefer?



J Line



Q & A



J Line

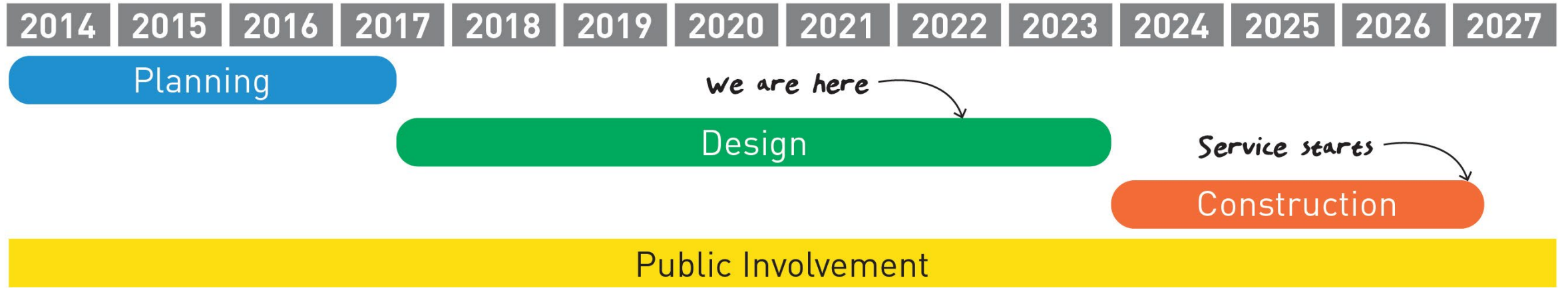


Next steps

Ongoing engagement opportunities

- Share the survey with your friends, neighbors and colleagues: www.surveymonkey.com/r/jlinedesign
- Sign up for project email updates to be kept in the loop for next steps
- Stay tuned for information on future engagement opportunities

Project timeline



- **Design:** 2017 – 2023
- **Construction starts:** 2023/2024
- **Service starts:** As soon as 2026

Keep in touch

Have Questions or Ideas?

- Email RapidRide@seattle.gov

Want to Stay Informed?

- Check out the latest project information
- Sign up for email updates

www.seattle.gov/Transportation/RapidRideJLine

Garth Merrill (SDOT)

Project Manager

(206) 684-5184

RapidRide@seattle.gov





J Line



Thank you!