



West Seattle and Ballard Link Extensions

Seattle Freight Advisory Board | February 19, 2019

Agenda

- *Project overview*
- *Level 3 screening process*
- *Level 3 alternatives*
- *Level 3 evaluation results*
- *Key considerations*
- *Next steps*



System expansion

Sound Transit's system expansion means every few years new light rail, bus rapid transit and commuter rail stations open throughout the region, providing fast, reliable alternatives to congested roads.



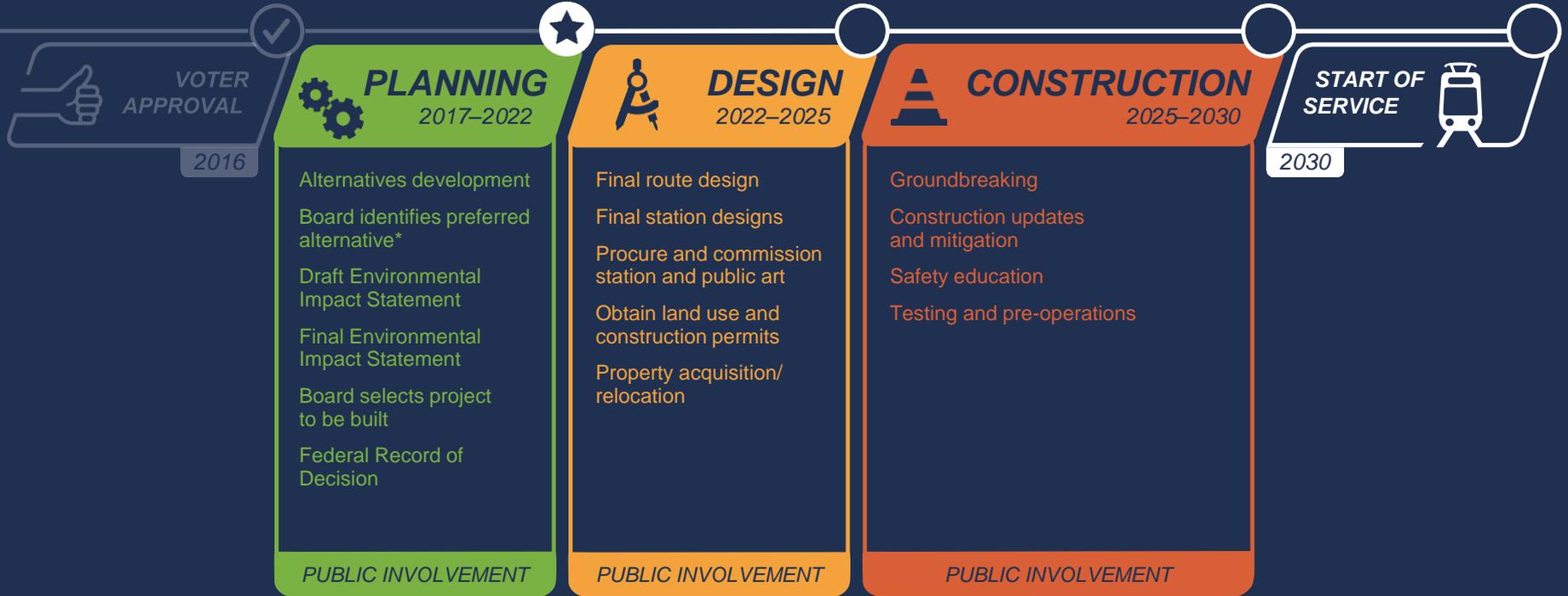
[soundtransit.org/system](https://www.soundtransit.org/system)



ST3 Representative project

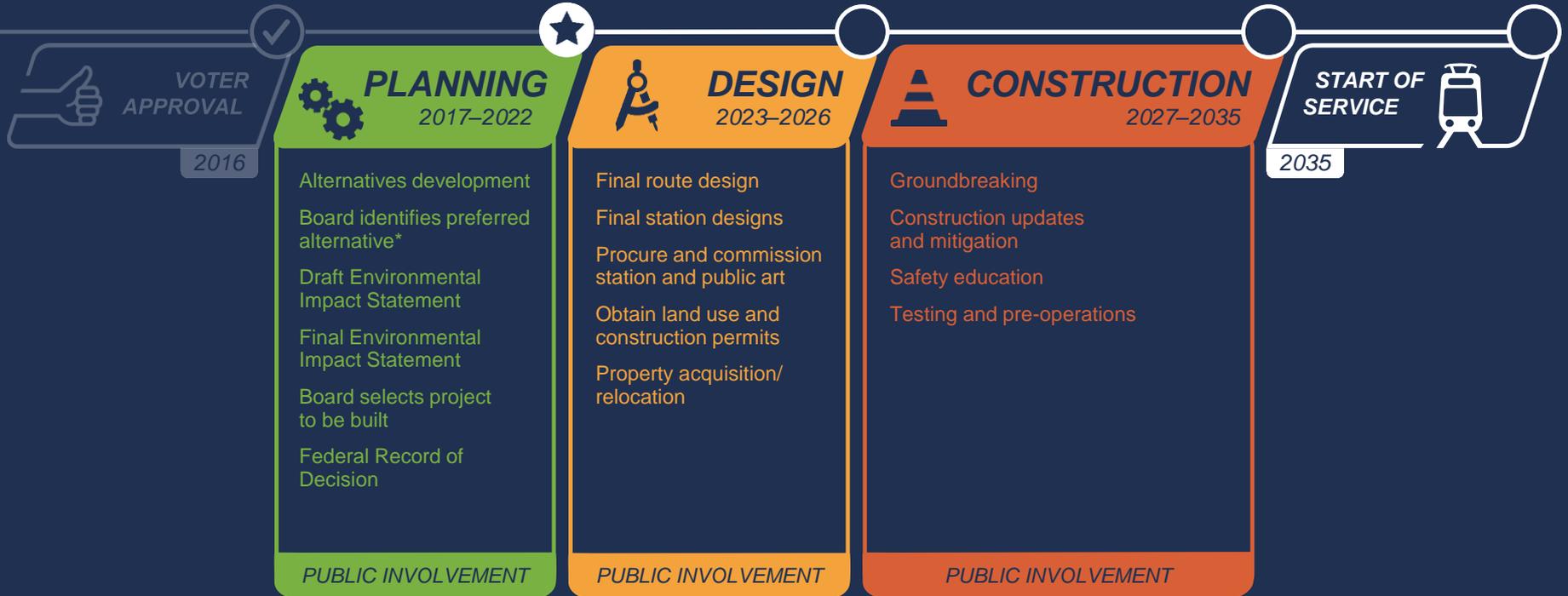
- Identifies mode, corridor, number of stations, general station locations
- Informs cost, schedule, operating needs

West Seattle project timeline



*The Sound Transit Board identifies preferred alternatives and other alternatives to study.

Ballard project timeline



*The Sound Transit Board identifies preferred alternatives and other alternatives to study.



PLANNING



DESIGN

2017–2019

Alternatives
development

Board identifies
preferred alternative*

2019–2022

Draft Environmental
Impact Statement

Final Environmental
Impact Statement

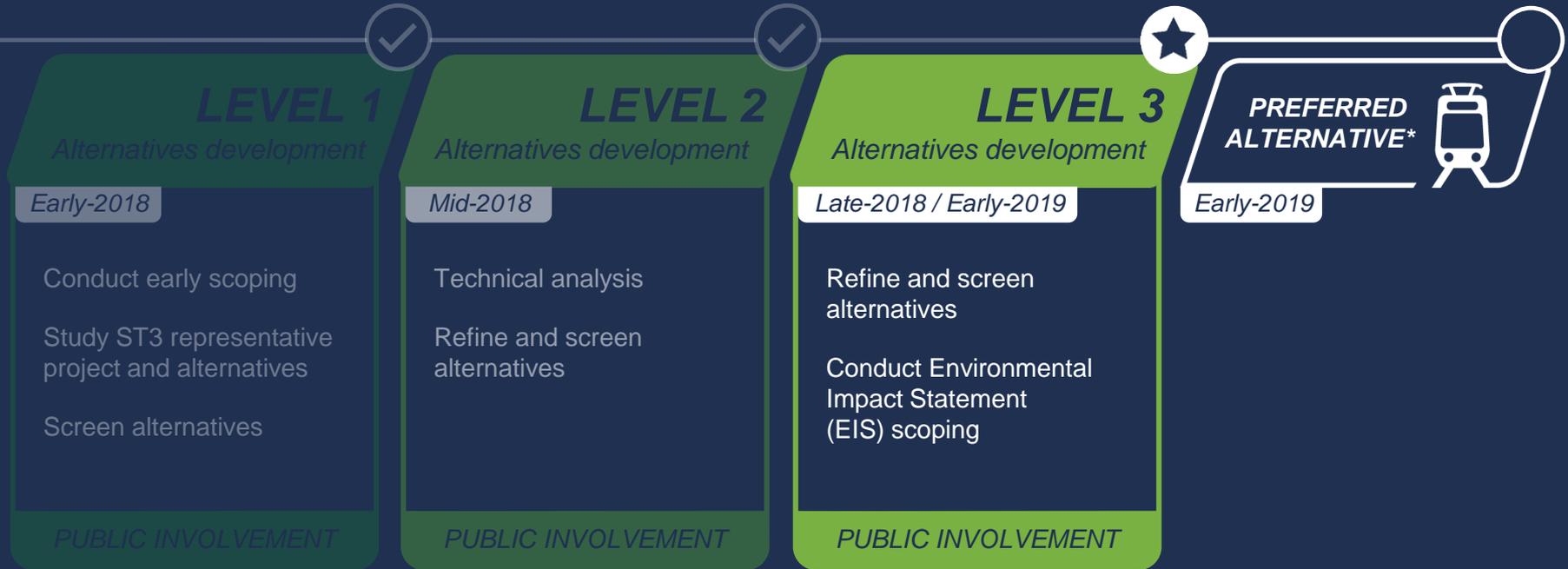
Board selects project
to be built

Federal Record of
Decision

PUBLIC INVOLVEMENT

*The Sound Transit Board identifies a preferred alternative and other alternatives to study in the Environmental Impact Statement.

Alternatives development process



*The Sound Transit Board identifies preferred alternatives and other alternatives to study.

Community engagement and collaboration



Meeting dates subject to change.

Stakeholder Advisory Group

- **Andres Arjona**, Community Representative - Ballard
- **Becky Asencio**, Seattle Public Schools
- **Brian King**, Community Representative – West Seattle
- **Bryce Yadon**, Futurewise
- **Colleen Echohawk**, Chief Seattle Club
- **Dave Gering**, Manufacturing Industrial Council
- **Deb Barker**, Community Representative –West Seattle
- **Erin Goodman**, SODO Business Improvement Area
- **Ginny Gilder**, Force 10 Hoops/Seattle Storm
- **Greg Nickels**, Former Mayor of Seattle
- **Hamilton Gardiner**, West Seattle Chamber of Commerce
- **Jon Scholes**, Downtown Seattle Association
- **Katie Garrow**, Martin Luther King Labor Council
- **Kelsey Mesher**, Transportation Choices Coalition
- **Larry Yok**, Community Representative – Chinatown/ID



Stakeholder Advisory Group

- **Maiko Winkler-Chin**, SCIDpda
- **Mark Nagle**, Expedia
- **Mike Stewart**, Ballard Alliance
- **Peter Schrappen**, Northwest Marine Trade Association
- **Robert Cardona**, Community Representative - Uptown
- **Ron Severt**, Space Needle
- **Savitha Reddy Pathi**, Wing Luke Museum
- **Scott Rusch**, Fred Hutchinson Cancer Research Center
- **Steve Lewis**, Alliance for People with disabilities
- **Walter Reese**, Nucor Steel
- **Warren Aakervik**, Community Representative - Freight
- **Willard Brown**, Delridge Neighborhood Development Association



Elected Leadership Group

Executive Dave Somers
Sound Transit Board Chair

Mayor Jenny Durkan
Sound Transit Board Member

Executive Dow Constantine
Sound Transit Board Member

Councilmember Rob Johnson
Sound Transit Board Member

Councilmember Joe McDermott
Sound Transit Board Member

Councilmember Lisa Herbold
Seattle City Council

Councilmember Bruce Harrell
Seattle City Council

Councilmember Sally Bagshaw
Seattle City Council

Councilmember Mike O'Brien
Seattle City Council

**Councilmember Lorena
González**
Seattle City Council

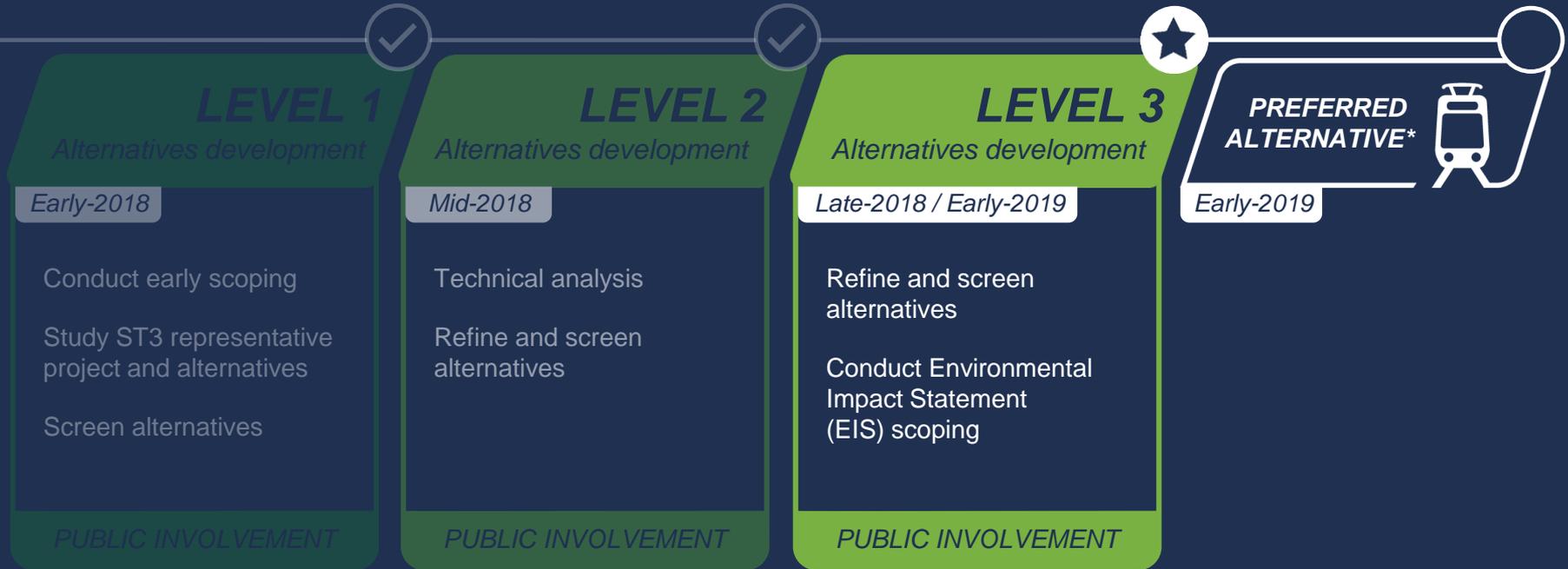
**Commissioner Stephanie
Bowman**
Port of Seattle



A photograph of a Sound Transit train at a station platform. The train is white with blue accents and has the number '139B' on its side. The text 'SOUND TRANSIT' is visible on the front and side of the train. The train is stopped at a platform with a yellow tactile strip. A metal railing is in the foreground. The background shows the station structure and a clear sky. The text 'Level 3 screening process' is overlaid in a large, white, italicized font.

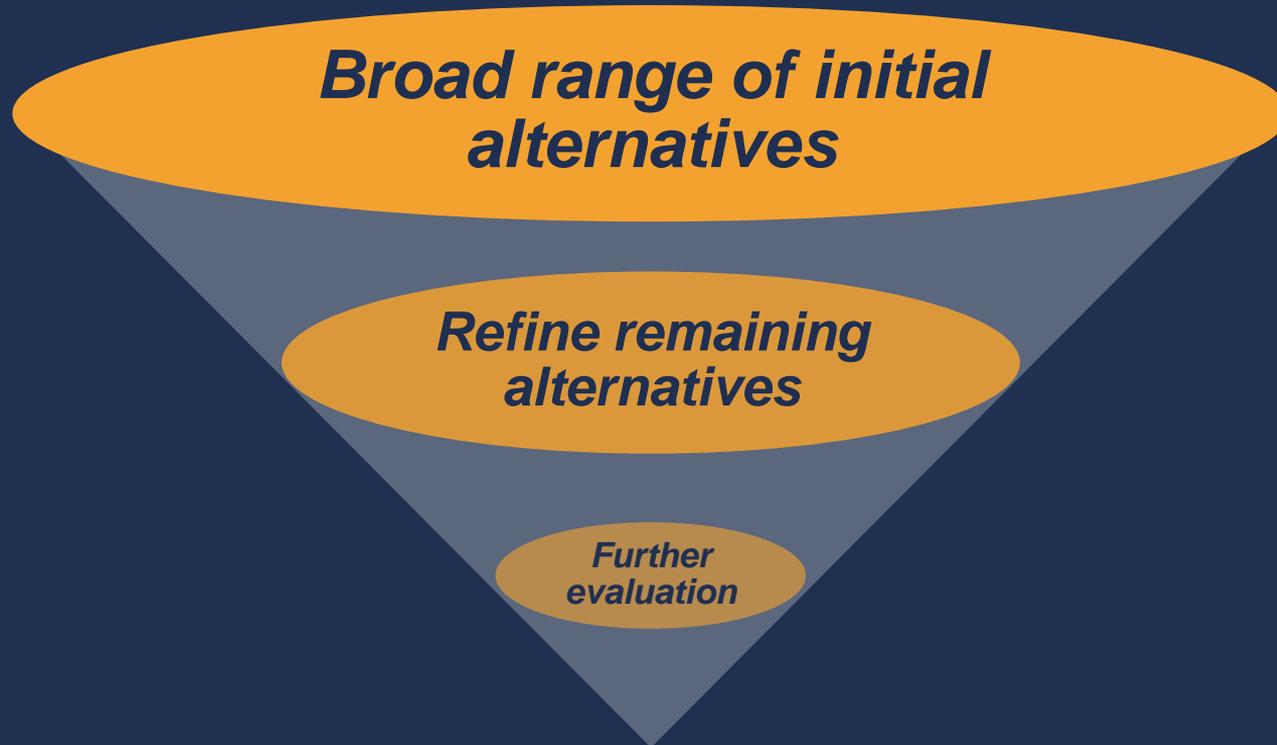
***Level 3 screening
process***

Alternatives development process



*The Sound Transit Board identifies preferred alternatives and other alternatives to study.

Screening process



Preferred Alternative and other EIS alternatives

Level 3 alternatives screening

SAG Meeting #12	Jan 30	Level 3 evaluation results
ELG Meeting #6	Feb 1	Level 3 evaluation results
EIS Scoping Open Houses / Neighborhood Forums	Feb 27, 28 & March 7	Level 3 evaluation results
ELG Meeting #7	March 29	CID station focus
SAG Meeting #13	April 17 or 18	Level 3 recommendations
ELG Meeting #8	April 26	Level 3 recommendations
Sound Transit Board System Expansion Committee	May 9	Identify preferred alternative (and other EIS alternatives)
Sound Transit Board Full Board	May 23	Identify preferred alternative (and other EIS alternatives)

What is EIS Scoping?

- Start of federal environmental review process
- 30-day **public comment period** begins **February 15**
- Seeking public **feedback on scope of EIS**
 - Range of alternatives
 - Topics to study
 - Purpose and need
- **Informs Board decision** on what to study in EIS*

* Scope of EIS also subject to Federal Transit Administration (FTA) oversight

How to provide scoping comments

- **Attend an open house:**
 - West Seattle on Wednesday, Feb. 27, 6 – 8:30 p.m. at [Alki Masonic Center](#)
 - Ballard/Interbay on Thursday, Feb. 28, 6 – 8:30 p.m. at [Ballard High School](#)
 - Downtown on Thursday, March 7, 5 – 7:30 p.m. at [Union Station](#)
- **Comment online:** wsblink.participate.online
- **Email us:** wsbscopingcomments@soundtransit.org
- **Leave a voicemail:** 833-972-2666
- **Mail us:**
 - West Seattle and Ballard Link Extensions, c/o Lauren Swift, Sound Transit, 401 S. Jackson St., Seattle, WA 98104

Level 3 recommendations

- Interest in **additional scope** items
- Additional scope items **require 3rd party funding***
- Potential **recommendations**:
 - Preferred Alternative #1: If 3rd party funding **not** secured
 - Preferred Alternative #2: If 3rd party funding **is** secured

A photograph of a modern light rail train station. A white and blue train is stopped at the platform. Several passengers are waiting, including a woman in a yellow hijab and a woman in a blue shirt. The station has a blue metal railing and a blue circular sign. The background shows trees and a clear sky.

Level 3 alternatives

Summary of Level 3 alternatives

- › **ST3 Representative Project**
- › **West Seattle Elevated/ C-ID 5th Ave/
Downtown 6th Ave/ Ballard Elevated**
 - C-ID station options: 5th Ave Cut-and-Cover and 5th Ave Mined
- › **West Seattle Tunnel/ C-ID 4th Ave/
Downtown 5th Ave/ Ballard Tunnel**
 - Junction station options: 41st Ave, 42nd Ave and 44th Ave
 - C-ID station options: 4th Ave Cut-and-Cover and 4th Ave Mined
 - Ballard station options: 14th Ave and 15th Ave

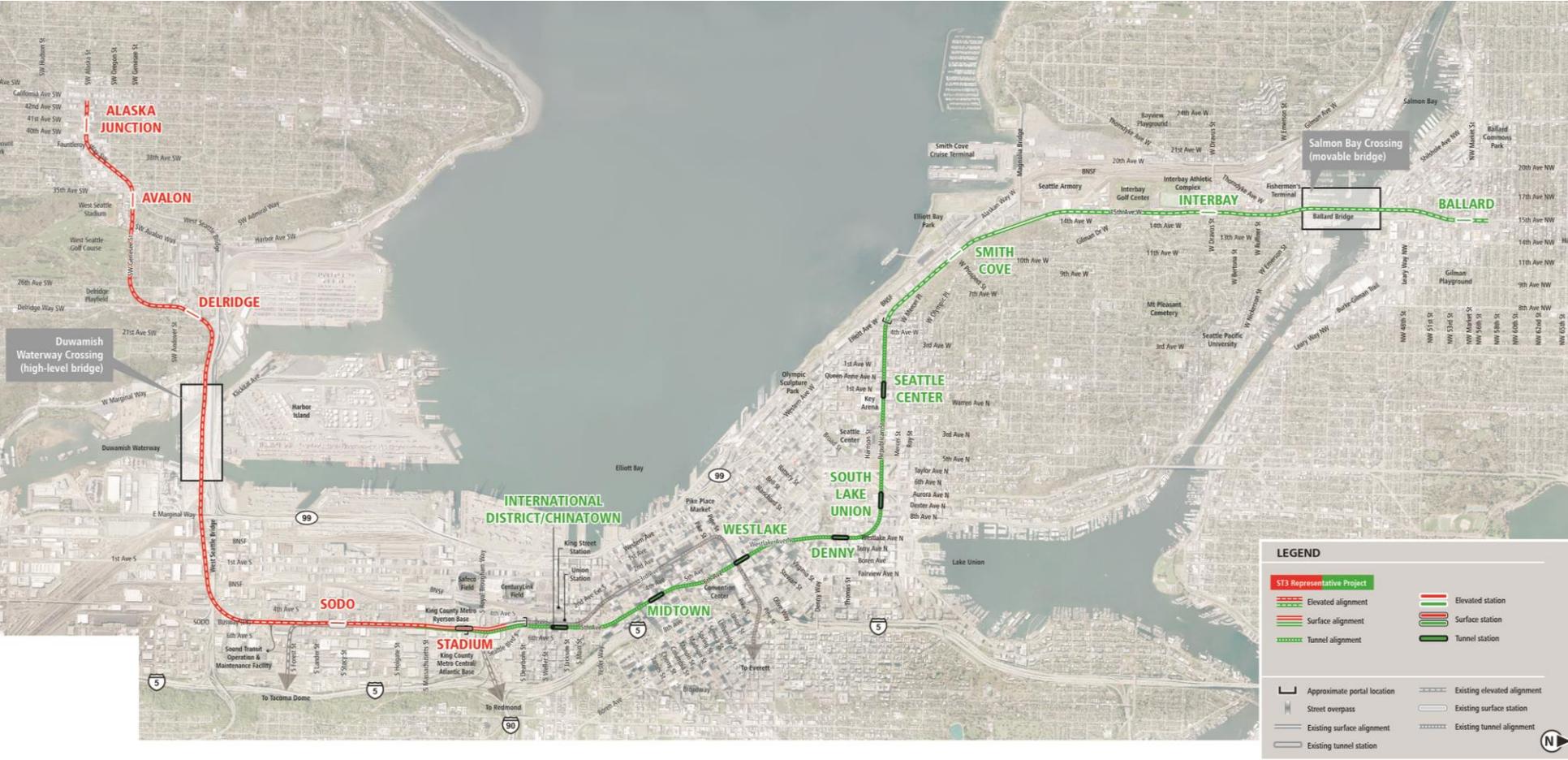


Level 3 alternatives

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LEGEND

ST3 Representative Project	Elevated station
Elevated alignment	Surface station
Surface alignment	Existing surface alignment
Tunnel alignment	Existing tunnel alignment
Approximate portal location	Existing elevated alignment
Street overpass	Existing surface station
Existing surface alignment	Existing tunnel alignment
Existing tunnel station	

ST3 Representative Project

Summary of Level 3 alternatives

› ST3 Representative Project

West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated

- C-ID station options: 5th Ave Cut-and-Cover and 5th Ave Mined

› West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel

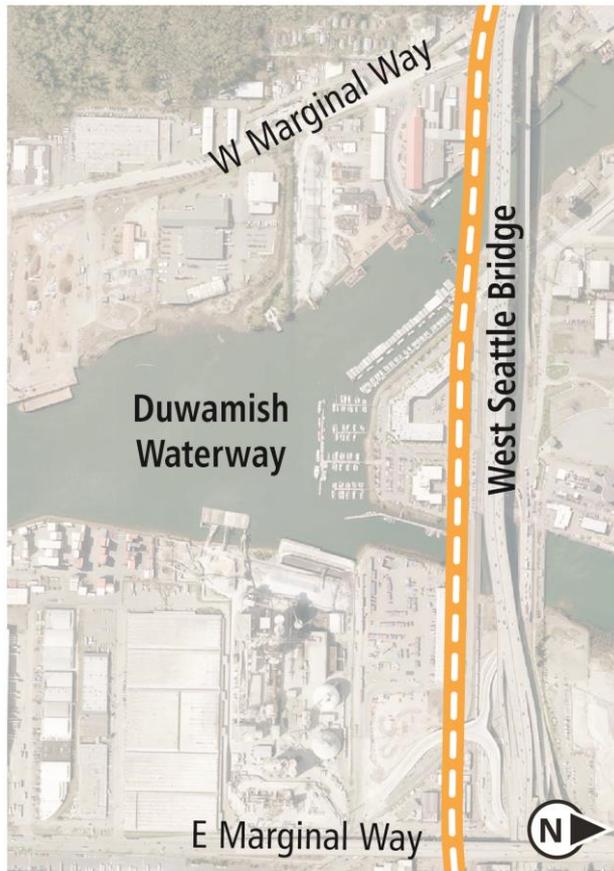
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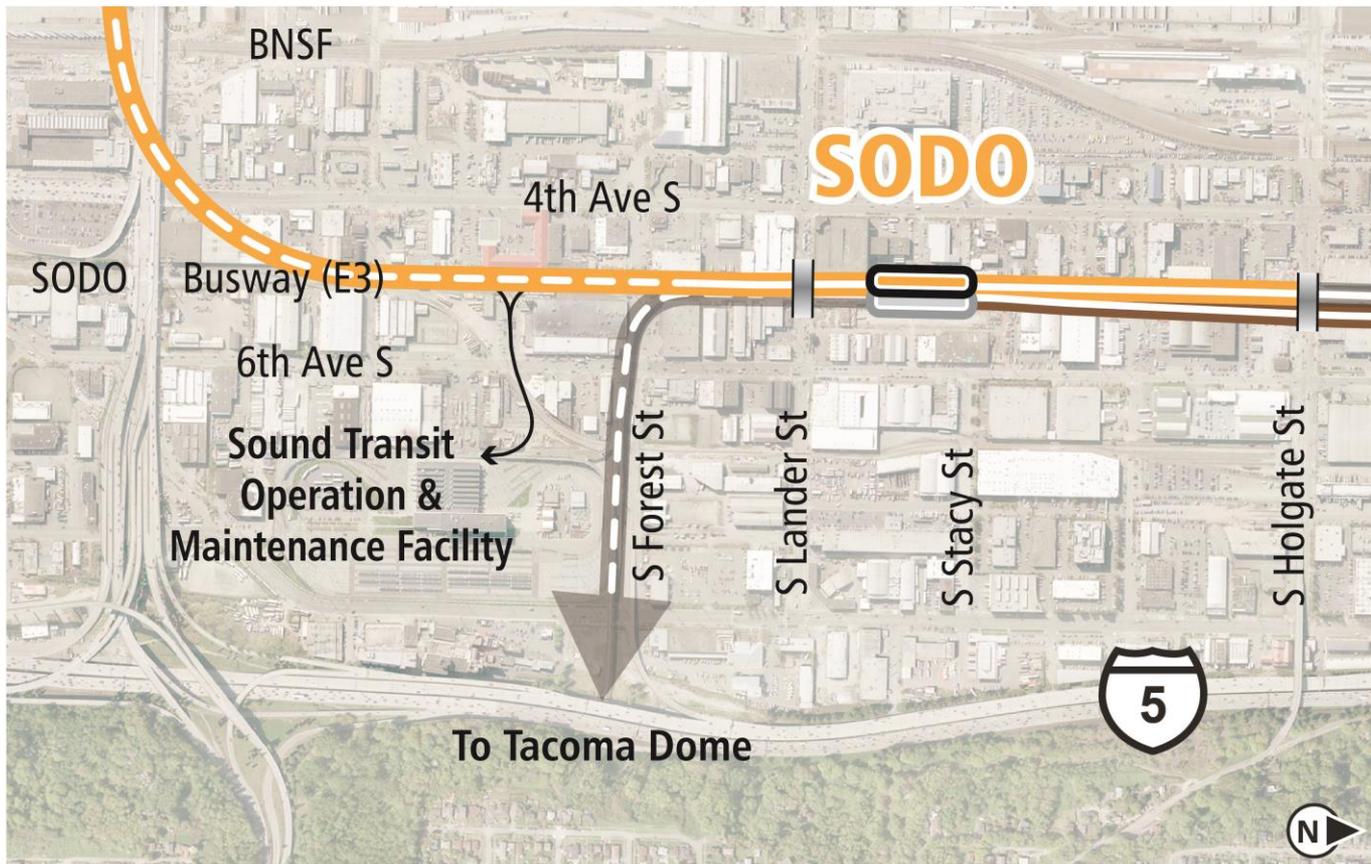
West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated



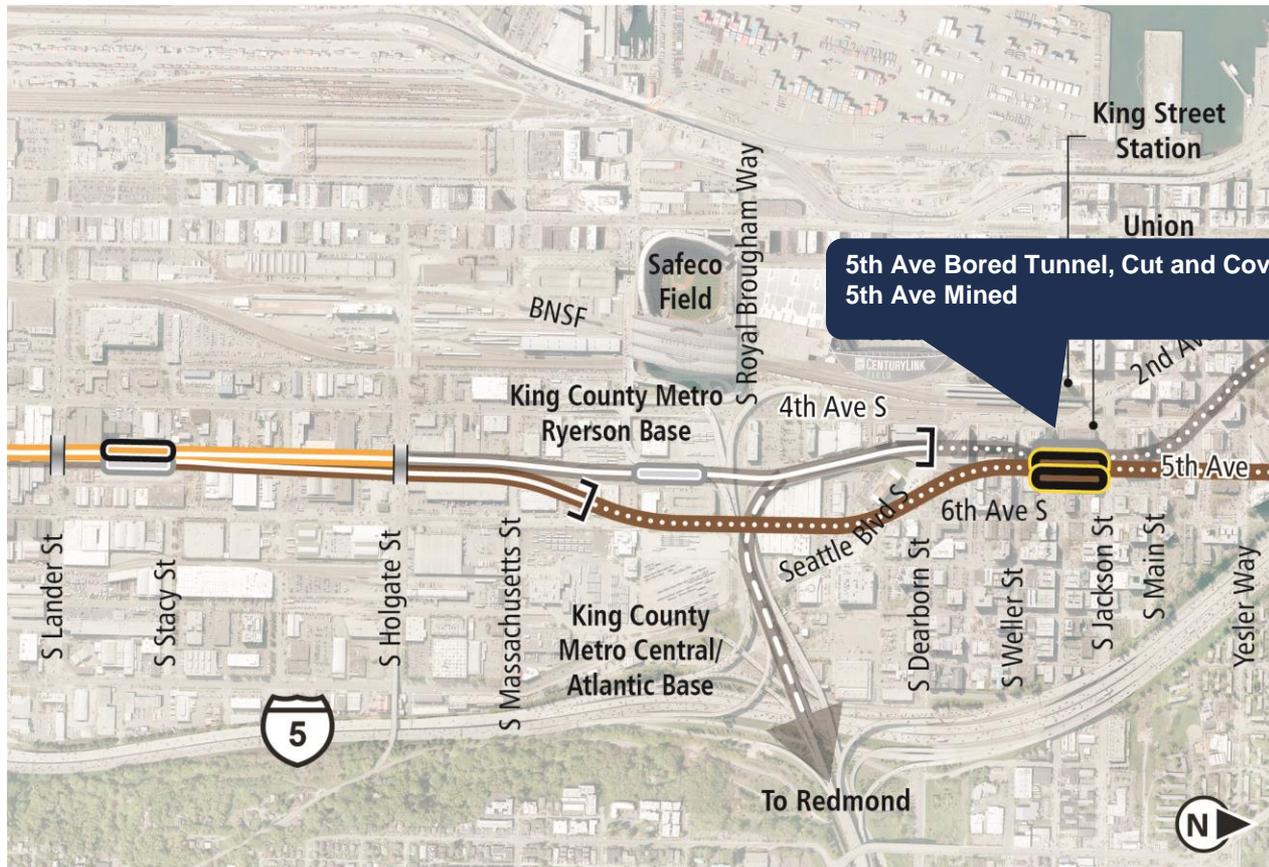
*West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/
Ballard Elevated **Delridge Station further south***



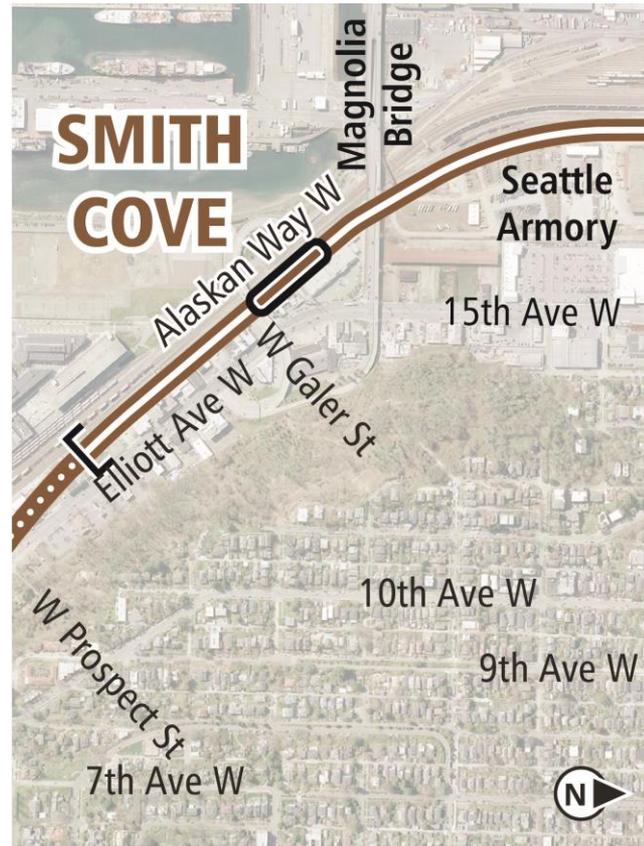
**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/
Ballard Elevated Crossing to south of existing bridge**



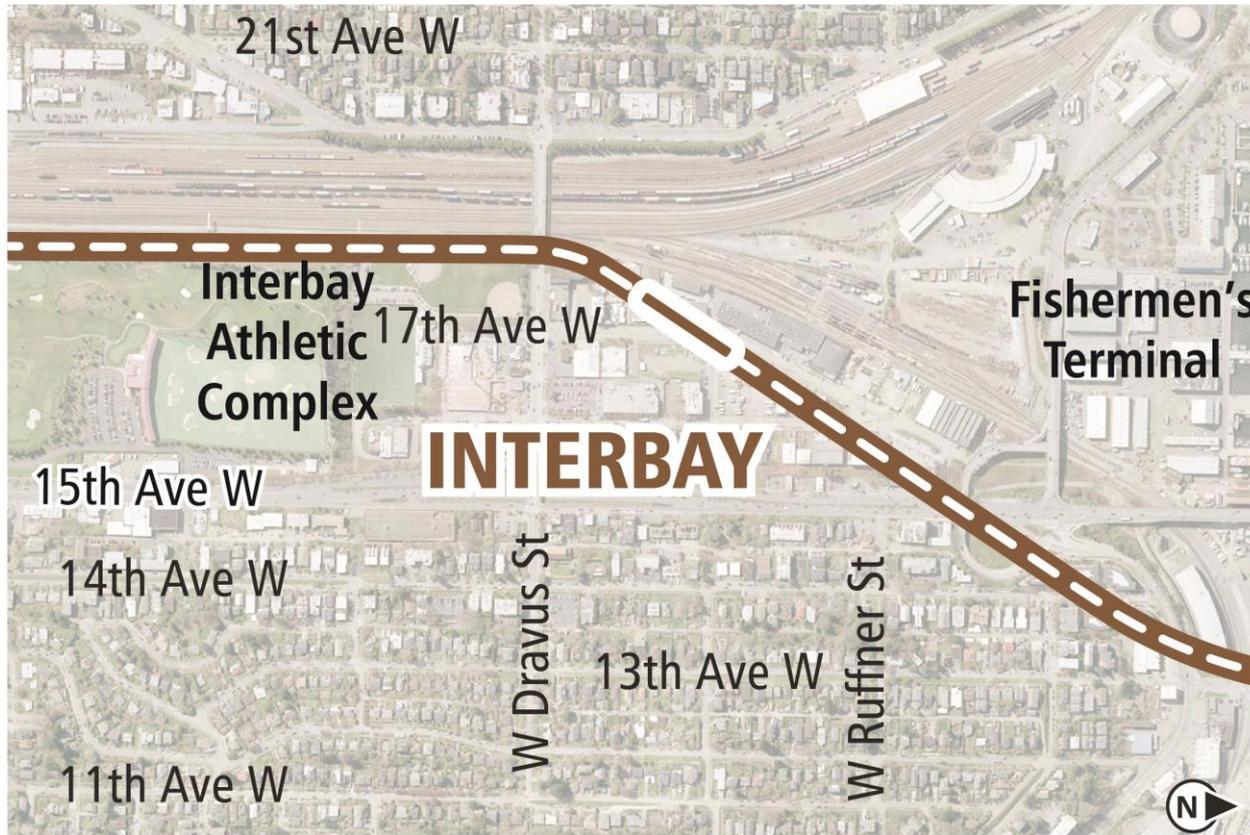
West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated **SODO Station and OMF connection**



West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated C-ID Station options (shallow and deep)



**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/
Ballard Elevated *Smith Cove Station near Galer St***



West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated **Interbay Station on 17th Ave/Thorndyke**



**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/
Ballard Elevated High level fixed bridge at 14th Ave**

Summary of Level 3 alternatives

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Downtown 6th Ave/ Ballard Elevated**
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West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel

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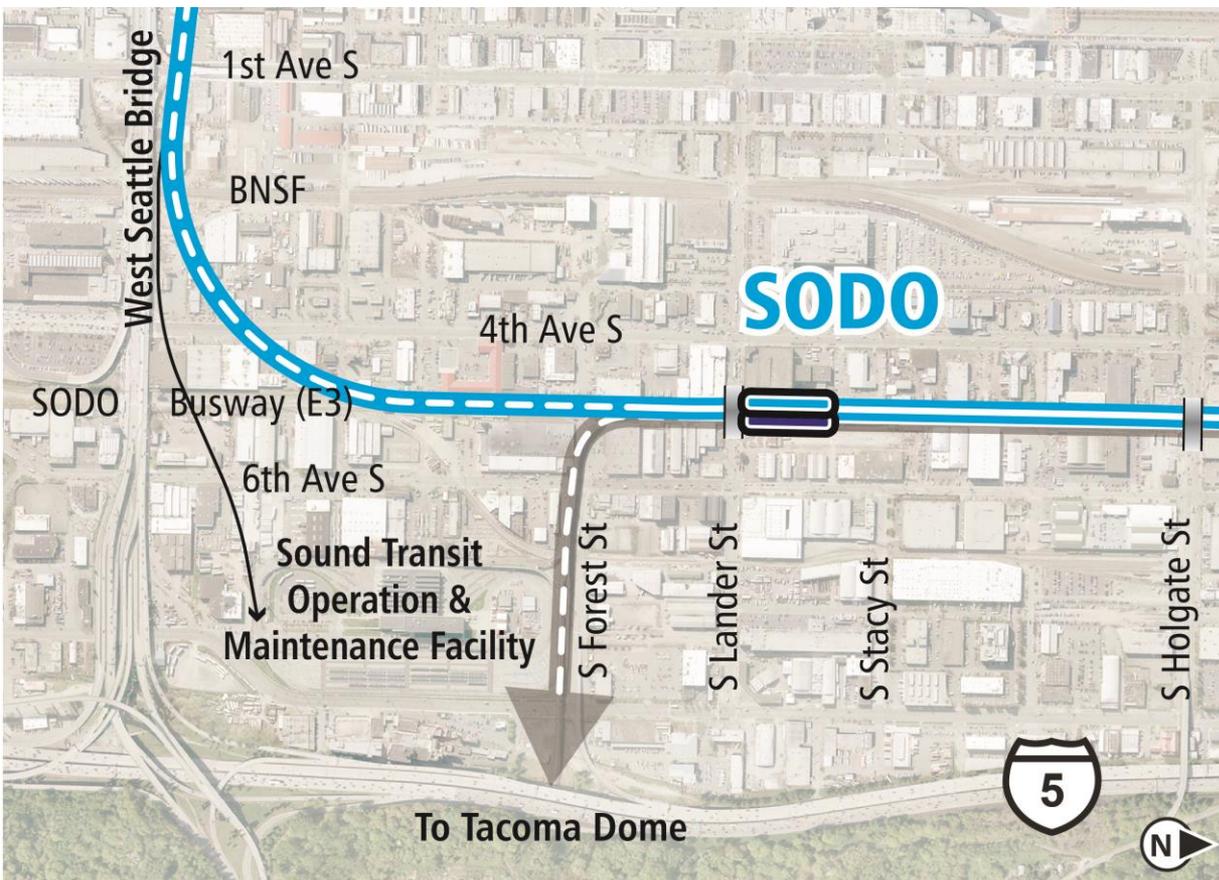
West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel



*West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/
Ballard Tunnel **Delridge Station further south and west***



**West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/
Ballard Tunnel Crossing to north of existing bridge**



West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel **SODO Station and OMF connection**



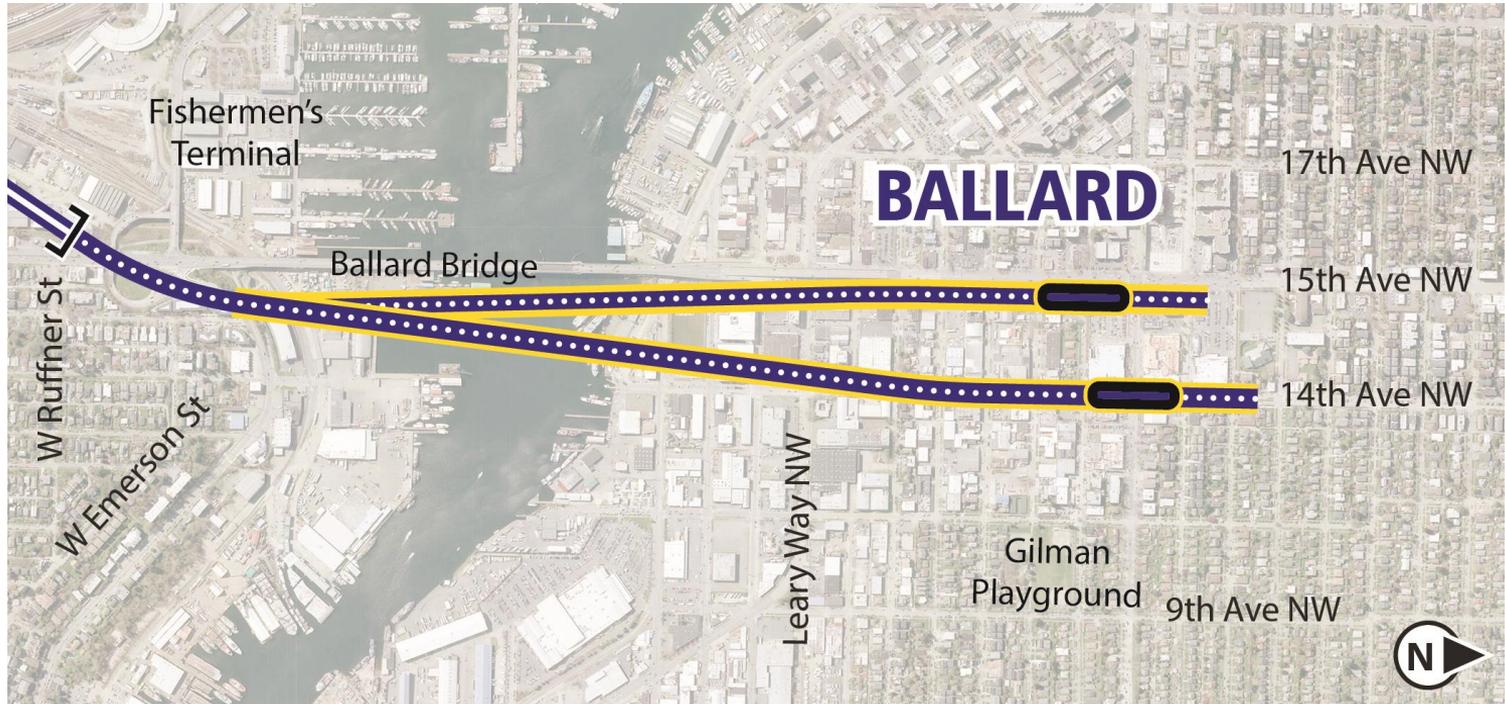
West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel C-ID Station options (shallow and deep)



*West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/
Ballard Tunnel **Smith Cove Station near Prospect St***



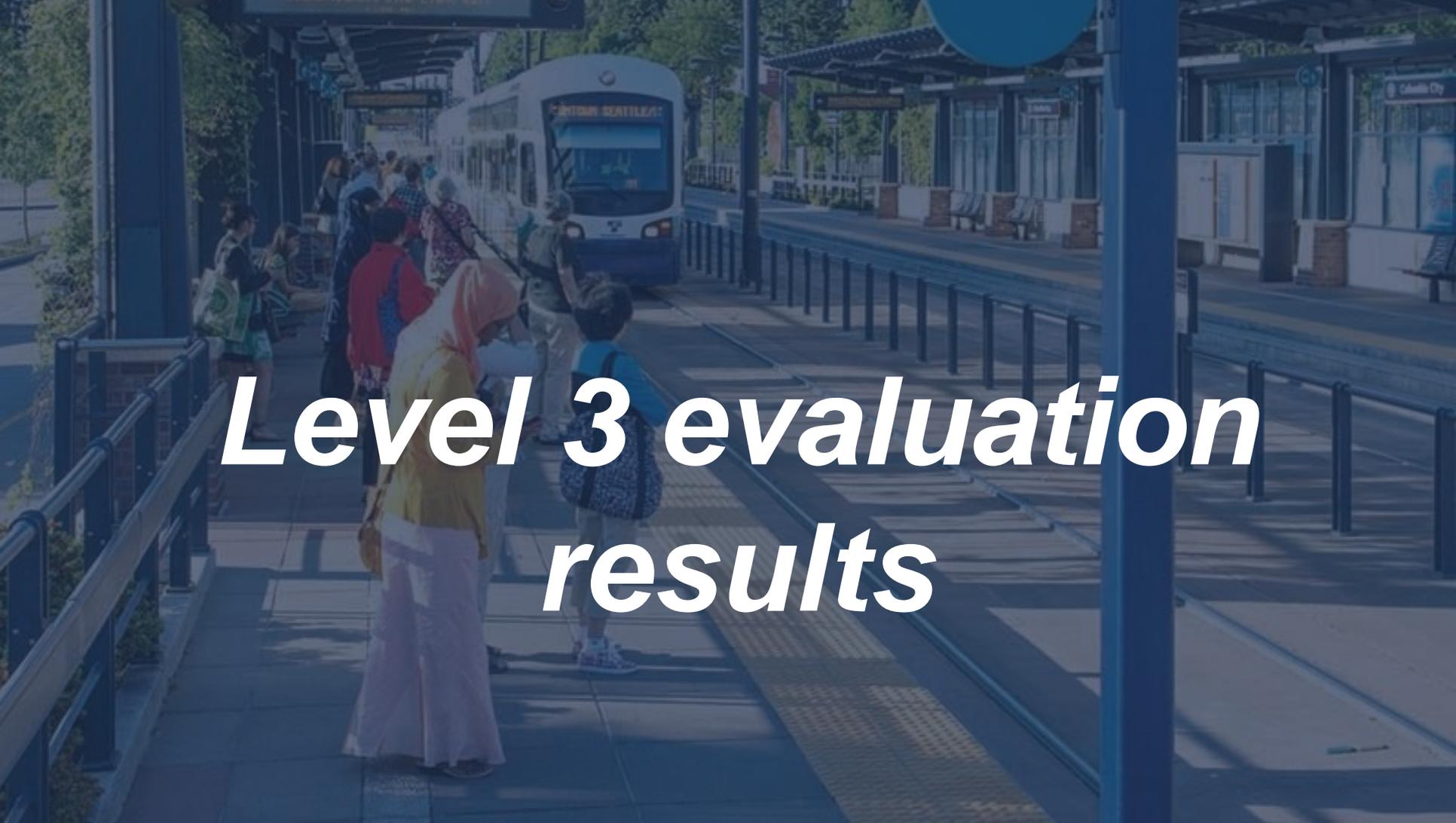
*West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/
Ballard Tunnel **Interbay Station on 17th Ave/Thorndyke***



**West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/
Ballard Tunnel *Ballard tunnel station options***



Level 3 Alternatives

A photograph of a train station platform. A white train with "CANTON SEATTLE" on its front is stopped at the platform. Several passengers are waiting, including a woman in a yellow hijab and white pants in the foreground. The platform has blue railings and a blue circular sign. The text "Level 3 evaluation results" is overlaid in white, italicized font.

***Level 3 evaluation
results***

Purpose and need

Purpose Statement	Symbol
Provide high quality rapid, reliable, and efficient peak and off-peak LRT service to communities in the project corridors as defined in ST3.	
Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet the projected transit demand.	
Connect regional centers as described in adopted regional and local land use, transportation, and economic development plans and Sound Transit's <i>Regional Transit Long-Range Plan</i> .	
Implement a system that is consistent with the <i>ST3 Plan</i> that established transit mode, corridor, and station locations and that is technically feasible and financially sustainable to build, operate, and maintain.	
Expand mobility for the corridor and region's residents, which include transit dependent, low income, and minority populations.	
Encourage equitable and sustainable urban growth in station areas through support of transit-oriented development, station access, and modal integration in a manner that is consistent with local land use plans and policies.	
Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built and social environments through sustainable practices.	

Evaluation criteria

➤ *17 criteria consistent in all levels of evaluation*

- Reliable service
- Travel times
- Regional connectivity
- Transit capacity
- Projected transit demand
- Regional centers served
- ST Long-Range Plan consistency
- ST3 consistency
- Technical feasibility
- Financial sustainability
- Historically underserved populations
- Station area land use plan consistency
- Modal integration
- Station area development opportunities
- Environmental effects
- Traffic operations
- Economic effects

Measures and methods

- › *50+ quantitative and/or qualitative measures*
- › *Ratings for Lower, Medium and Higher performing*
- › *Key differentiators and considerations among alternatives*
- › *Findings focus on key decisions along corridor*

**Lower
Performing**

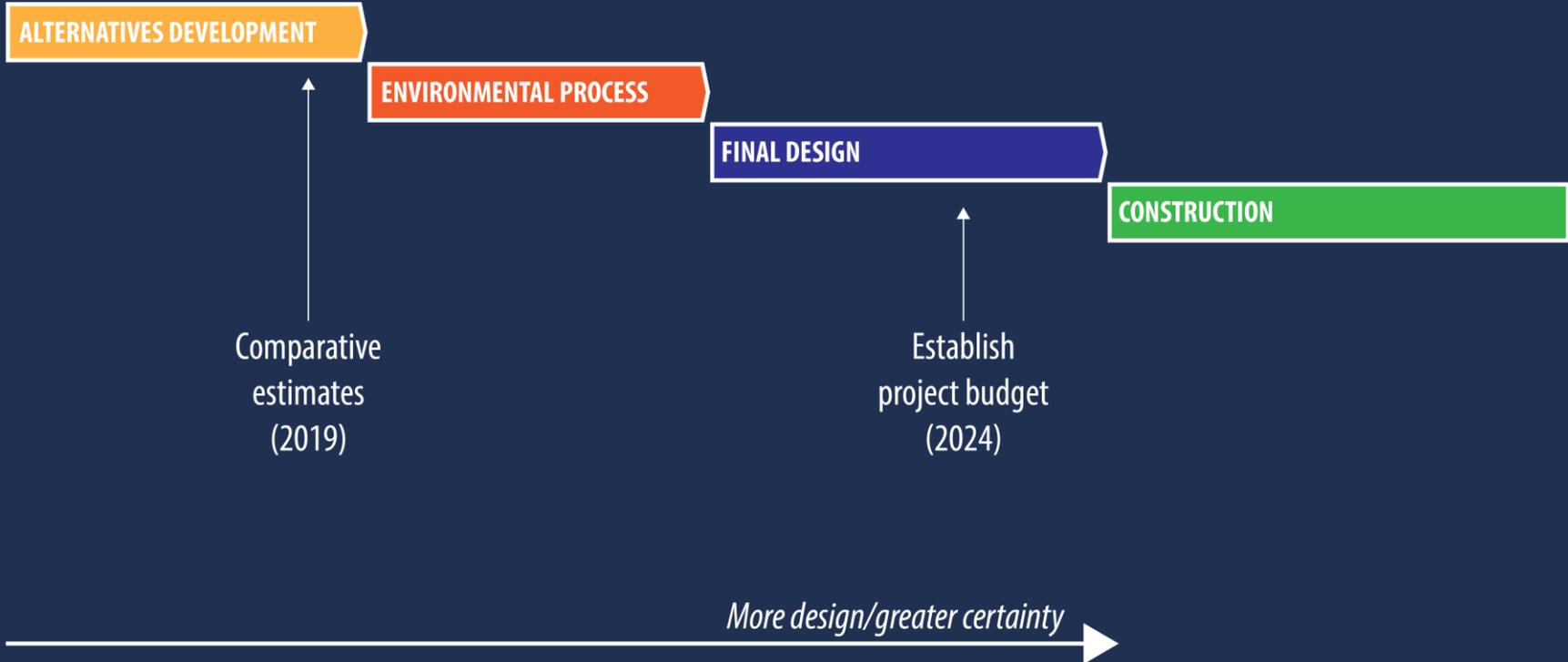
**Medium
Performing**

**Higher
Performing**

Comparative estimates

- Purpose: To **inform comparison** of Level 3 alternatives
- **Comparative estimates** for end-to-end alternatives
 - Consistent methodology (2018\$; construction, real estate, etc.)
 - Based on **limited conceptual design** (less than 5% design)
 - Does not establish project budget
- **Project budget** established during final design (~ 2024)

Project budget



Evaluation Measures	ST3 Representative	West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated		West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel				
	Project	5th Ave Cut-and-Cover International District/Chinatown Station	5th Ave Mined International District/Chinatown Station	41st Ave Alaska Junction/4th Ave Cut-and-Cover/14th Ave Ballard	42nd Ave Alaska Junction Station	44th Ave Alaska Junction Station	4th Ave Mined International District/Chinatown Station	15th Ave Ballard Station
<i>Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.</i>								
At-grade crossings	3	1		1				
Potential service interruptions/recoverability	Lower	Medium		Medium			Lower	Medium
LRT travel times (minutes)	6 to 7 / 13 to 14	6 to 7 / 13 to 14		6 to 7 / 13 to 14				
Transit travel time savings (minutes)	12 to 20	12 to 20		12 to 20				
<i>Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet projected transit demand.</i>								
Network integration	Lower	Medium		Higher			Medium	Higher
Passenger carrying capacity	Medium	Medium		Medium				
Average weekday trips on West Seattle/Ballard extensions (2042)	35,000 to 40,000 / 123,000 to 163,000	35,000 to 39,000 / 120,000 to 158,000		35,000 to 41,000 / 125,000 to 165,000				
<i>Connect regional centers as described in adopted regional and local land use, transportation, and economic development plans and Sound Transit's Regional Transit Long-Range Plan.</i>								
PSRC growth centers served	5	5		5				
Pop/job densities served (2040)	38 / 39	39 / 39		37 / 38 to 39				
Accommodates future LRT extension	Lower	Medium		Higher		Medium	Higher	
<i>Implement a system that is consistent with the ST3 Plan that established transit mode, corridor, and station locations and that is technically feasible and financially sustainable to build, operate, and maintain.</i>								
Mode, route and stations per ST3	Higher	Higher		Higher				
Potential ST3 schedule effects	Higher	Higher	Medium	Lower				
Potential ST3 operating plan effects	Lower	Higher		Higher			Medium	Higher
Engineering constraints	Lower	Medium		Lower				
Constructability issues	Lower	Medium		Lower				
Operational constraints	Lower	Medium	Lower	Higher			Lower	Higher
Capital costs (2018\$)	-	+\$400M	+\$500M	+\$1,900M			+\$2,100M	+\$1,900M
Annual O&M costs on West Seattle/Ballard extensions (2018\$ in millions)	\$25 to \$30 / \$55 to \$60	\$25 to \$30 / \$55 to \$60		\$25 to \$30 / \$55 to \$60				
<i>Expand mobility for the corridor and region's residents, which include transit dependent, low income, and minority populations.</i>								
Low-income/minority opportunities (activity nodes/rental units) ⁽¹⁾	Medium	Medium		Medium				
	23%	22%		23%				
Low-income population ^(1/2)	32% / 32%	32% / 32%		32% / 31%				
Minority population ^(1/2)	34% / 34%	34% / 35%		34% / 34 to 35%				
Youth population ^(1/2)	7% / 10%	7% / 9%		7% / 9 to 10%				
Elderly population ^(1/2)	14% / 11%	14% / 12%		14% / 11 to 12%				
Limited English Proficiency population ^(1/2)	7% / 8%	7% / 8%		7% / 7 to 8%				
Disabled population ^(1/2)	12% / 11%	12% / 11%		12% / 11%				

(1) Within station walksheds; (2) Within 15 minute ride on connecting high frequency transit

Level 3 evaluation – Part 1 of 2

Overview of Key Differentiators

Lower Performing
Medium Performing
Higher Performing

Evaluation Measures	ST3 Representative	West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated		West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel				
	Project	5th Ave Cut-and-Cover International District/Chinatown Station	5th Ave Mined International District/Chinatown Station	41st Ave Alaska Junction/4th Ave Cut-and-Cover/14th Ave Ballard	42nd Ave Alaska Junction Station	44th Ave Alaska Junction Station	4th Ave Mined International District/Chinatown Station	15th Ave Ballard Station
<i>Encourage equitable and sustainable urban growth in station areas through support of transit-oriented development, station access, and modal integration in a manner that is consistent with local land use plans and policies.</i>								
Compatibility with Urban Centers/Villages ⁽¹⁾	58%		56%				55 to 58%	
Station land use plan consistency	Higher		Higher				Higher	
Activity nodes served ⁽¹⁾	302		298				300 to 303	
Passenger transfers	Higher	Higher	Medium		Higher		Medium	Higher
Bus/rail and rail/rail integration ⁽¹⁾	Medium		Medium				Medium	
Bicycle infrastructure and accessibility ⁽¹⁾	19%		19%				18 to 19%	
Pedestrian/limited mobility accessibility	Higher		Higher				Higher	
Development potential ⁽¹⁾	14%		14%				13 to 14%	
Equitable development opportunities	Lower		Medium				Higher	
<i>Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built and social environments through sustainable practices.</i>								
Historic properties/Landmarks ⁽²⁾	40		20				40	
Potential archaeological resource effects ⁽¹⁾	Lower		Lower				Lower	
Parks/recreational resource effects (acres)	1.4		5.3				5.7	
Water resource effects (acres)	0.8		0.5				<0.1	
Fish and wildlife habitat effects (acres)	15.0		6.0				15.0	
Hazardous materials sites ⁽²⁾	50		60				40	
Visual effects to sensitive viewers (miles)	2.5		1.7				1.2	
Noise/vibration sensitive receivers ⁽¹⁾	Medium		Medium				Medium	
Potentially affected properties	Medium		Lower				Higher	
Residential unit displacements	Medium		Lower				Higher	
Business displacements (square feet)	Higher		Lower				Higher	
Construction impacts	Lower	Lower	Medium		Medium		Lower	Medium
Burden on minority/low-income	Lower		Medium				Lower	
Traffic circulation and access effects	Lower		Medium				Higher	
Effects on transportation facilities	Lower		Medium				Medium	
Effects on freight movement	Lower		Medium				Medium	
Business and commerce effects	Medium		Medium				Medium	

(1) Within station walksheds and/or defined buffer of alignment; (2) On properties that overlap with the project footprint

Level 3 evaluation – Part 2 of 2

Overview of Key Differentiators

Lower Performing

Medium Performing

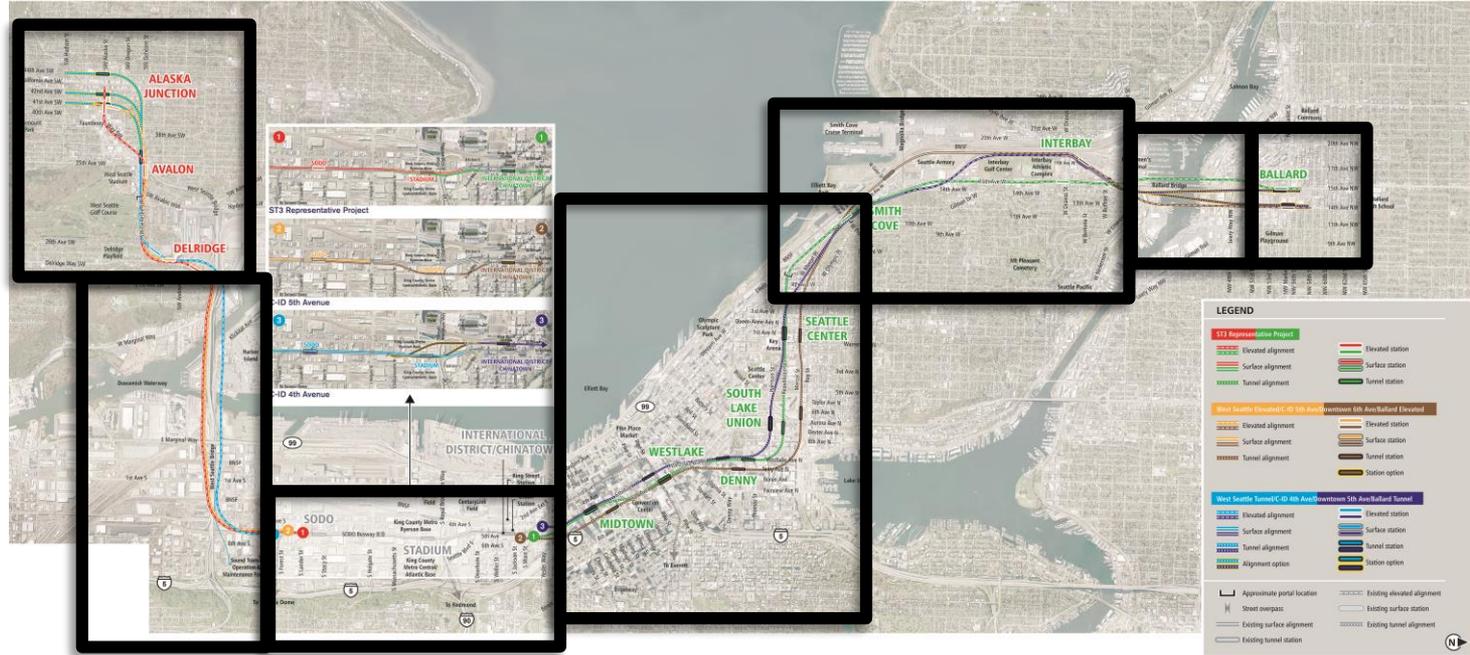
Higher Performing



Key considerations

Key considerations

- › West Seattle stations and guideway
- › Duwamish Waterway crossing
- › SODO and Chinatown/Int'l District
- › Downtown tunnel route
- › Smith Cove-Interbay
- › Salmon Bay crossing
- › Ballard terminus station



Key considerations

Key considerations

- › West Seattle stations and guideway
- › Duwamish Waterway crossing
- › SODO and Chinatown/Int'l District
- › Downtown tunnel route
- › Smith Cove-Interbay
- › Salmon Bay crossing
- › Ballard terminus station



Key considerations

ST3 Representative Project

- Engineering constraints with Pigeon Point steep slopes
- Some effects to Duwamish Greenbelt

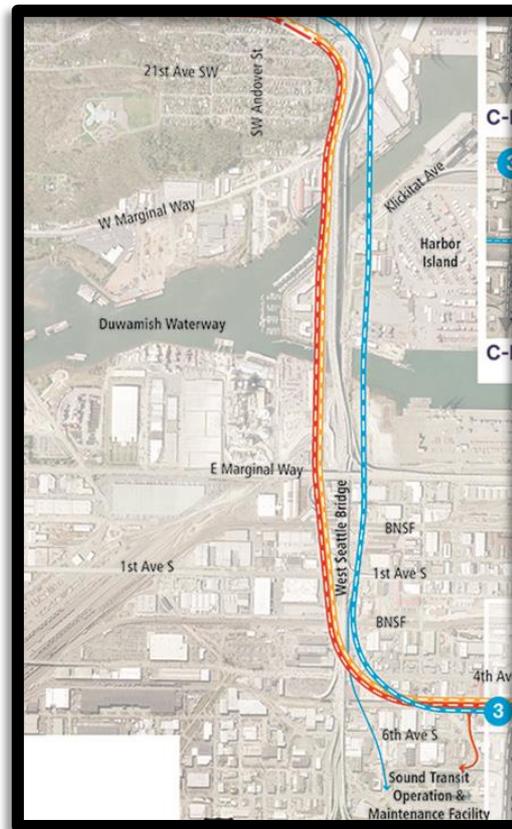
West Seattle Elevated

- Engineering constraints with Pigeon Point steep slopes
- Some effects to Duwamish Greenbelt

West Seattle Tunnel

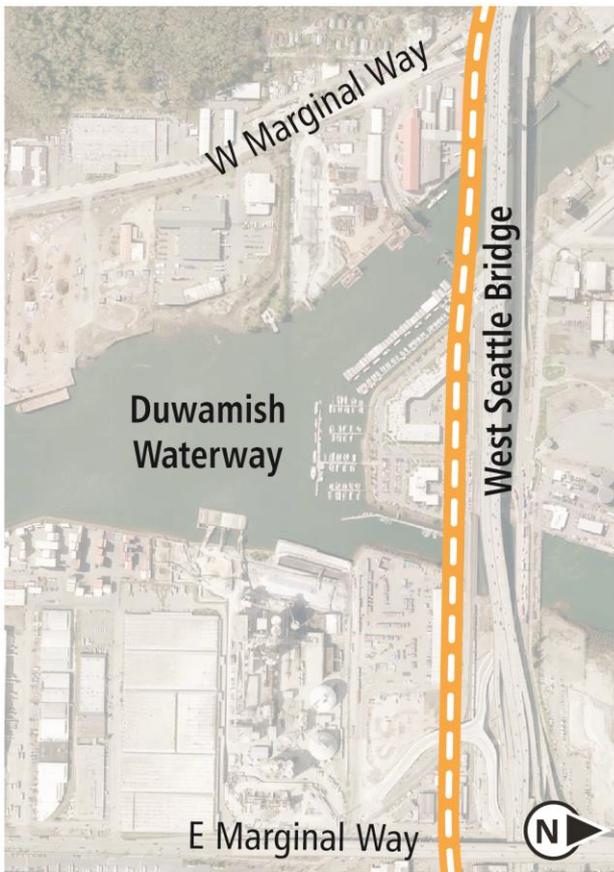
- North bridge crossing avoids Pigeon Point steep slope and effects to Duwamish Greenbelt
- Affects freight, port terminal facilities especially during construction

Duwamish Waterway Crossing



Key considerations

Duwamish Waterway Crossing



Duwamish Crossing:

Key differentiators

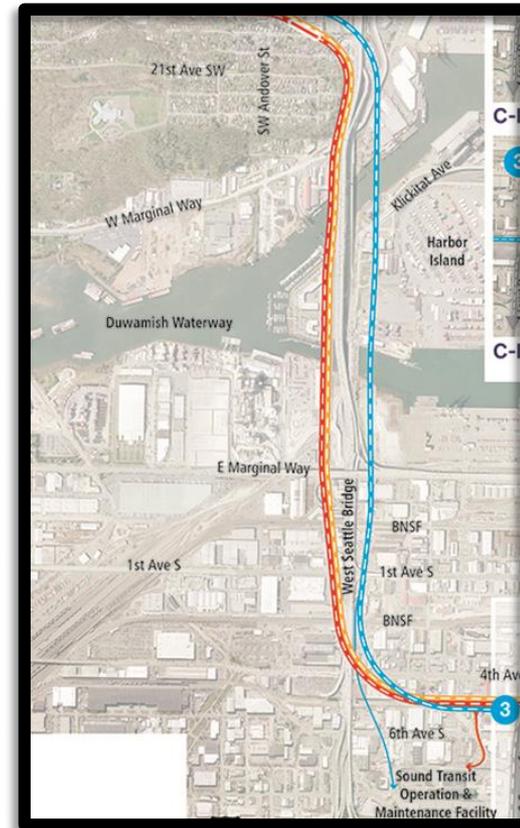
- Engineering constraints
- Fish and wildlife effects
- Property effects
- Freight movement effects
- Business and commerce effects
- Cost



Duwamish Crossing
Key differentiators

Duwamish Crossing

Key Differentiators	South	North
Engineering constraints	Pigeon Point steep slope	Avoids Pigeon Point steep slope
Fish and wildlife effects	Affects West Duwamish Greenbelt	Avoids West Duwamish Greenbelt
Property effects	Similar	Similar
Freight movement	Lessens freight, port terminal effects	Affects freight, port terminal especially during construction
Business and commerce effects	Could displace businesses that support trade	Could displace businesses that support trade; May displace some water-dependent business
Cost (2018\$)*	-	+ \$300M



*Compared to ST3 Representative Project

Duwamish Crossing Comparison Summary

ST3 Representative Project

- More complex and costly elevated track
- Does not facilitate track interconnections
- Does not grade separate Lander and Holgate roadway crossings
- Infrastructure conflicts with WSDOT ramps

C-ID 5th Avenue

- At-grade track alignment reduces cost and complexity
- Grade separations of Lander and Holgate improve existing LRT/traffic operations

C-ID 4th Avenue

- At-grade track alignment reduces cost and complexity
- Grade separations of Lander and Holgate improve existing LRT/traffic operations

SODO



Key considerations

SODO and Chinatown/ International District – West Seattle extension

ST3 Representative Project

- Cut-and-cover tunnel and station on 5th Ave S results in construction effects in C-ID
- Affects WSDOT ramps/foundations
- Impacts Ryerson bus base

C-ID 5th Avenue

- Cut-and-cover station on 5th Ave S results in construction effects in C-ID but bored tunnel limits effects
- Mined station has less convenient access, transfers, potential to extend schedule
- Affects future Central base expansion
- Mined station limits train acceleration and track crossovers

C-ID 4th Avenue

- Viaduct rebuild results in more construction complexity, traffic diversions, schedule delays; requires 3rd Party funding
- Mined station option increases traffic effects and has less convenient access, transfers and impacts Ryerson bus base
- Deep mined station does not allow for a pocket track so reduces operability



Key considerations

SODO and Chinatown/ International District – Ballard extension



SODO and Chinatown-ID:

Key differentiators

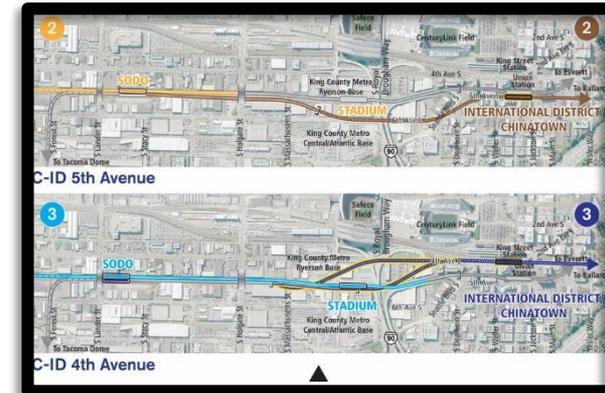
- Ease of station access/passenger transfers
- Construction effects in C-ID

- Property effects
- Construction schedule
- Cost

SODO and Chinatown-ID
Key differentiators

SODO and Chinatown-ID

Key Differentiators	5th Bored/ Cut-and-Cover	5th Bored/ Mined	4th Cut-and-Cover	4th Bored/ Mined
Ease of station access/transfers	Higher performing	Lower performing	Higher performing	Lower performing
Construction effects in C-ID	More construction effects	Least construction effects	More construction traffic effects	Most construction traffic effects
Property effects	Property effects in SODO at tunnel portal and 5 th Ave in C-ID; affects future Central Base expansion	Property effects in SODO at tunnel portal and 5 th Ave in C-ID; affects future Central Base expansion	Property effects on 4 th Ave; affects Ryerson Base	Property effects on 4 th Ave; displaces Ryerson Base
Construction schedule	Meets ST3 schedule	Higher schedule risk	Potential schedule delay	Potential schedule delay
Cost (2018\$)*	- \$200M	-	+ \$300M	+ \$500M**



*Compared to ST3 Representative Project

**Includes higher Downtown cost of \$100M

SODO and Chinatown-ID Comparison Summary

Smith Cove-Interbay



ST3 Representative Project

- Affects Elliott/15th Ave W
- Engineering constraints with landslide hazard area
- Affects SW Queen Anne Greenbelt

Ballard Elevated

- Avoids Elliott/15th Ave W
- Some potential impacts to existing infrastructure
- Park effects may require 4(f) avoidance alternatives

Ballard Tunnel

- Avoids Elliott/15th Ave W
- Engineering constraints with landslide hazard area
- Most effects to SW Queen Anne Greenbelt
- Park effects may require 4(f) avoidance alternatives

Key considerations

Smith Cove-Interbay



Smith Cove:

Key differentiators

- Station location
- Engineering constraints
- Parks, fish and wildlife
- Property effects
- Cost



Smith Cove
Key differentiators

Smith Cove

Key Differentiators	Station at Galer St	Station at Prospect St
Station Location	West of Elliott Ave Access to Expedia via Galer St overpass	East of Elliott Ave Access to Expedia via Helix pedestrian bridge
Engineering Constraints	Station and guideway in poor soils Affects Interbay Pump Station and portion of existing bridge	Station and guideway in landslide hazard areas
Parks, Fish & Wildlife	Avoids SW Queen Anne Greenbelt	Affects SW Queen Anne Greenbelt
Property Effects	Similar (business displacement outside public right-of-way)	Similar (business displacement outside public right-of-way)
Cost (2018\$)*	+ \$100M	+ \$200M

*Compared to ST3 Representative Project



Smith Cove Comparison Summary

Salmon Bay Crossing



ST3 Representative Project

- Movable bridge has potential service interruptions and most in-water effects
- More effects to Fishermen's Terminal, maritime businesses and vessel navigation

Ballard Elevated

- Fixed bridge reduces in-water effects and avoids Fishermen's Terminal but has other potential maritime business effects
- Fixed bridge crossing would require high-level structure for navigational clearances

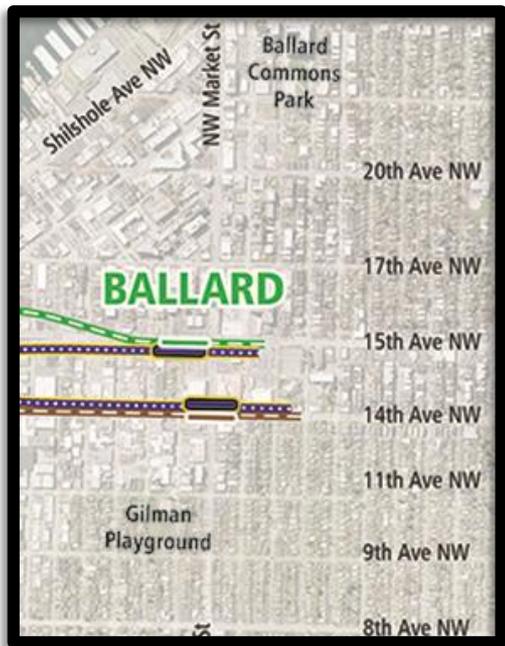
Ballard Tunnel

- Tunnel avoids columns in water and maritime/navigational effects
- Tunnel crossings add costs; require 3rd Party funding

Key considerations

Salmon Bay Crossing

Ballard Station



ST3 Representative Project

- Ballard Station on 15th Ave NW closer to Urban Village
- More acquisitions and displacements with elevated guideway, station and tail tracks on 15th Ave NW
- Movable bridge has potential service interruptions

Ballard Elevated

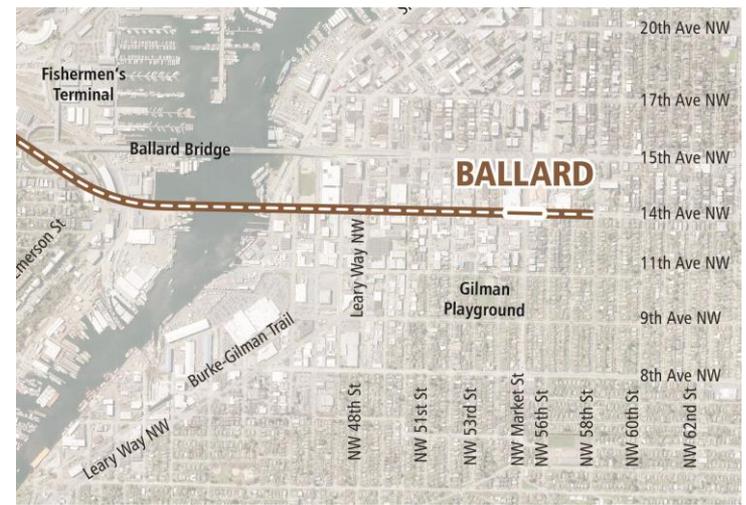
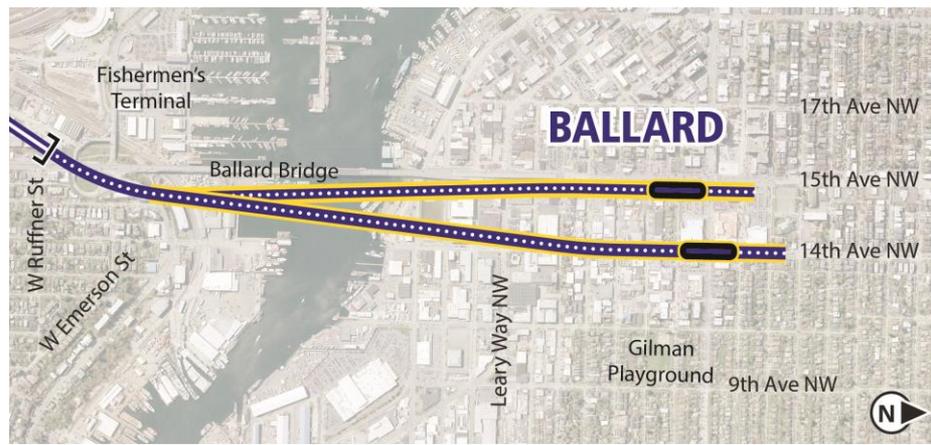
- Wider 14th Ave NW right-of-way better accommodates elevated guideway, station and tail tracks
- Ballard Station on 14th Ave NW farther from center of Urban Village than 15th Ave NW, but would have similar ridership and potentially better bus integration

Ballard Tunnel

- Wider 14th Ave NW right-of-way better accommodates station and tail tracks
- Ballard Station on 14th Ave NW farther from center of Urban Village than 15th Ave NW, but would have similar ridership and potentially better bus integration

Key considerations

Ballard Terminus Station



Salmon Bay Crossing and Ballard Station:

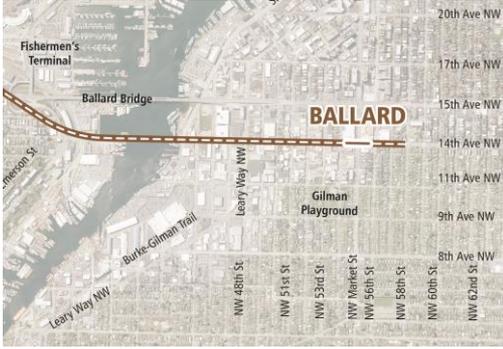
Key differentiators

- Station location
- Water resources
- Business and commerce
- Property effects
- Cost

Salmon Bay Crossing and Ballard Station *Key Differentiators*

Salmon Bay Crossing and Ballard Station

Key Differentiators	Fixed bridge crossing / Elevated station at 14th	Tunnel crossing / Tunnel station at 14th	Tunnel crossing / Tunnel station at 15th
Station Location	Straddles Market St Similar ridership, potentially better bus integration	Straddles Market St Similar ridership, potentially better bus integration	South of Market St Similar ridership, closer to center of urban village
Water Resources	Potential in-water effects	Avoids in-water effects	Avoids in-water effects
Business and Commerce	Potential maritime, freight business effects	Avoids maritime business effects	Avoids maritime business effects
Property Effects	Greater property effects south of Salmon Bay (elevated guideway outside public right-of-way)	Fewer property effects in Ballard (cut-and-cover station in 14th Ave right-of-way)	Greater property effects in Ballard (cut-and-cover station outside public right-of-way)
Cost (2018\$)	+ \$100M	+ \$350M	+ \$350M



*Compared to ST3 Representative Project

Salmon Bay Crossing and Ballard Station Comparison Summary

A light rail train is stopped at a station platform. The train is white with blue and green wavy patterns on the side. A man in a dark shirt and grey pants is standing in the open door of the train. Several people are walking on the platform. A woman in a pink top and black pants is walking towards the camera. A man in a grey t-shirt and khaki pants is walking away from the camera. A woman in a white top and light blue pants is walking away from the camera. A man in a white t-shirt and khaki pants is walking away from the camera. A blue sign with a white train icon is visible in the background. The text "Next steps" is overlaid in the center of the image.

Next steps

Next steps

SAG Meeting #12	Jan 30	Level 3 evaluation results
ELG Meeting #6	Feb 1	Level 3 evaluation results
EIS Scoping Open Houses / Neighborhood Forums	Feb 27, 28 & March 7	Level 3 evaluation results
ELG Meeting #7	March 29	CID station focus
SAG Meeting #13	April 17 or 18	Level 3 recommendations
ELG Meeting #8	April 26	Level 3 recommendations
Sound Transit Board System Expansion Committee	May 9	Identify preferred alternative (and other EIS alternatives)
Sound Transit Board Full Board	May 23	Identify preferred alternative (and other EIS alternatives)

Upcoming Scoping Open Houses & Neighborhood Forums

West Seattle

(Includes Delridge, Avalon and Alaska Junction stations)

Ballard

(Includes Smith Cove, Interbay and Ballard stations)

Downtown Seattle

(Includes Denny, South Lake Union, Seattle Center, Midtown, Westlake, Chinatown-International District, Stadium and SODO stations)

Wednesday, Feb. 27

6 – 8:30 p.m.

Alki Masonic Center
(4736 40th Ave. SW, Seattle)

Thursday, Feb. 28

6 – 8:30 p.m.

Ballard High School
(1418 NW 65th St., Seattle)

Thursday, Mar. 7

5 – 7:30 p.m.

Ruth Fisher Boardroom at
Union Station
(401 S Jackson St., Seattle)

soundtransit.org/wsblink 

