



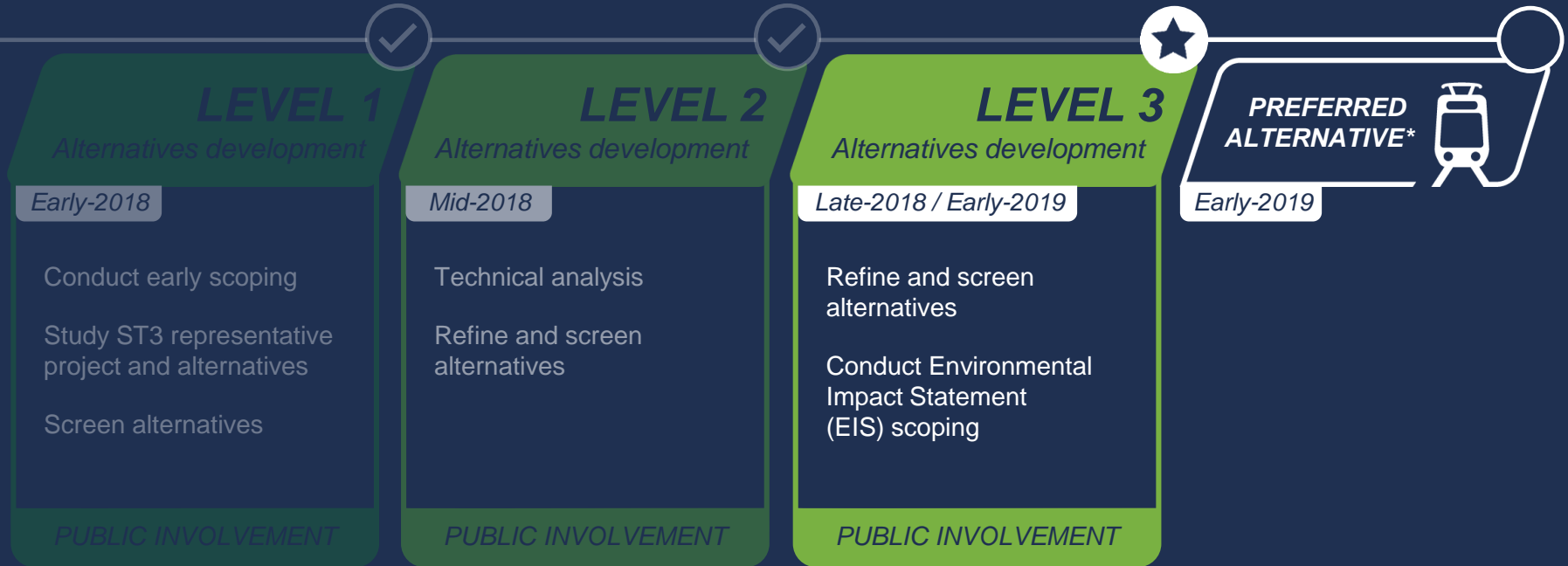
West Seattle and Ballard Link Extensions

Sound Transit Board | February 28, 2019

Agenda

- Alternatives development process
- Level 3 alternatives
- Level 3 evaluation results
- Potential mix-and-match opportunities

Alternatives development process



*The Sound Transit Board identifies preferred alternatives and other alternatives to study in the Environmental Impact Statement (EIS).

Community engagement and collaboration



Community Updates



Neighborhood Forums



Stakeholder Advisory Group



Elected Leadership Group



Sound Transit Board



Meeting dates subject to change.

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/ Delridge station focus
SAG Meeting #13	April 17	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)

SAG = Stakeholder Advisory Group; ELG = Elected Leadership Group

What is EIS Scoping?

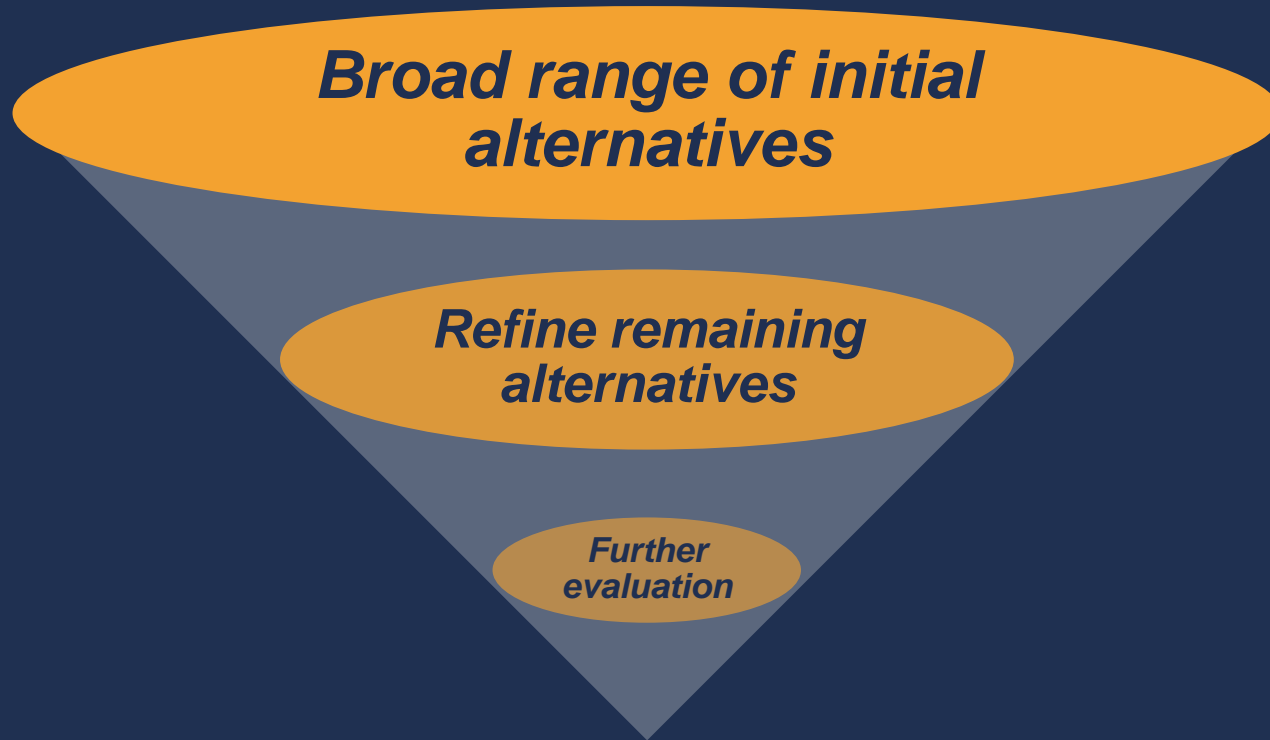
- 30-day **public comment period** until **March 18**
- Seeking public **feedback on scope of EIS**
 - Range of alternatives
 - Topics to study
 - Purpose and need
- Helps **inform Board decision** on what to study in EIS*

* 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

Screening process



Preferred Alternative and other EIS alternatives

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

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/ Delridge station focus
SAG Meeting #13	April 17	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)

SAG = Stakeholder Advisory Group; ELG = Elected Leadership Group

A photograph of a modern light rail train station. A blue and white train is stopped at the platform, with the destination 'CANTON SEATTLE' visible on its front. Several passengers are waiting on the platform, including a woman in a yellow hijab and white pants in the foreground. The station has a blue and white color scheme and a covered walkway. The text 'Level 3 alternatives' is overlaid in white, italicized font across the center of the image.

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



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

- 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



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

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



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



***Level 3 evaluation
results***

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

Evaluation measures

- 50+ quantitative and/or qualitative **measures**
- **Ratings** for Lower, Medium and Higher performing

Lower
Performing

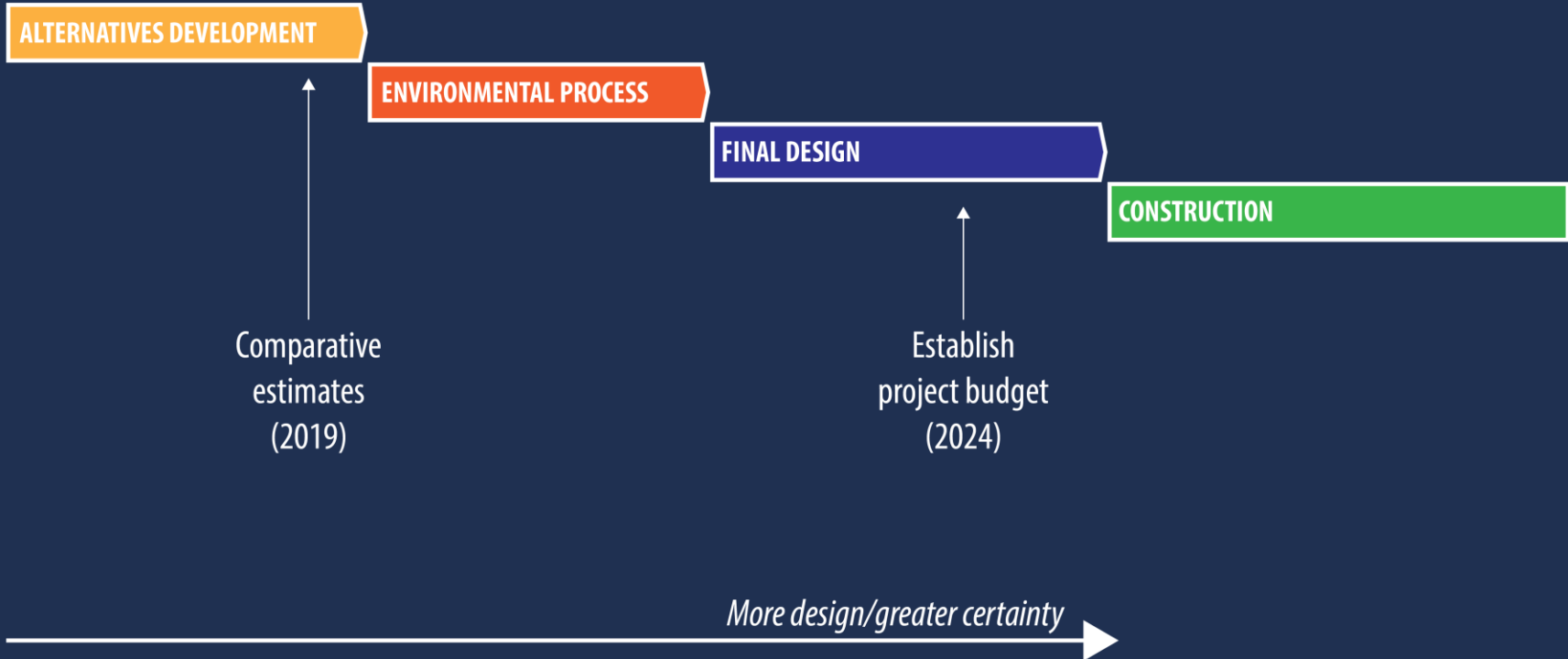
Medium
Performing

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



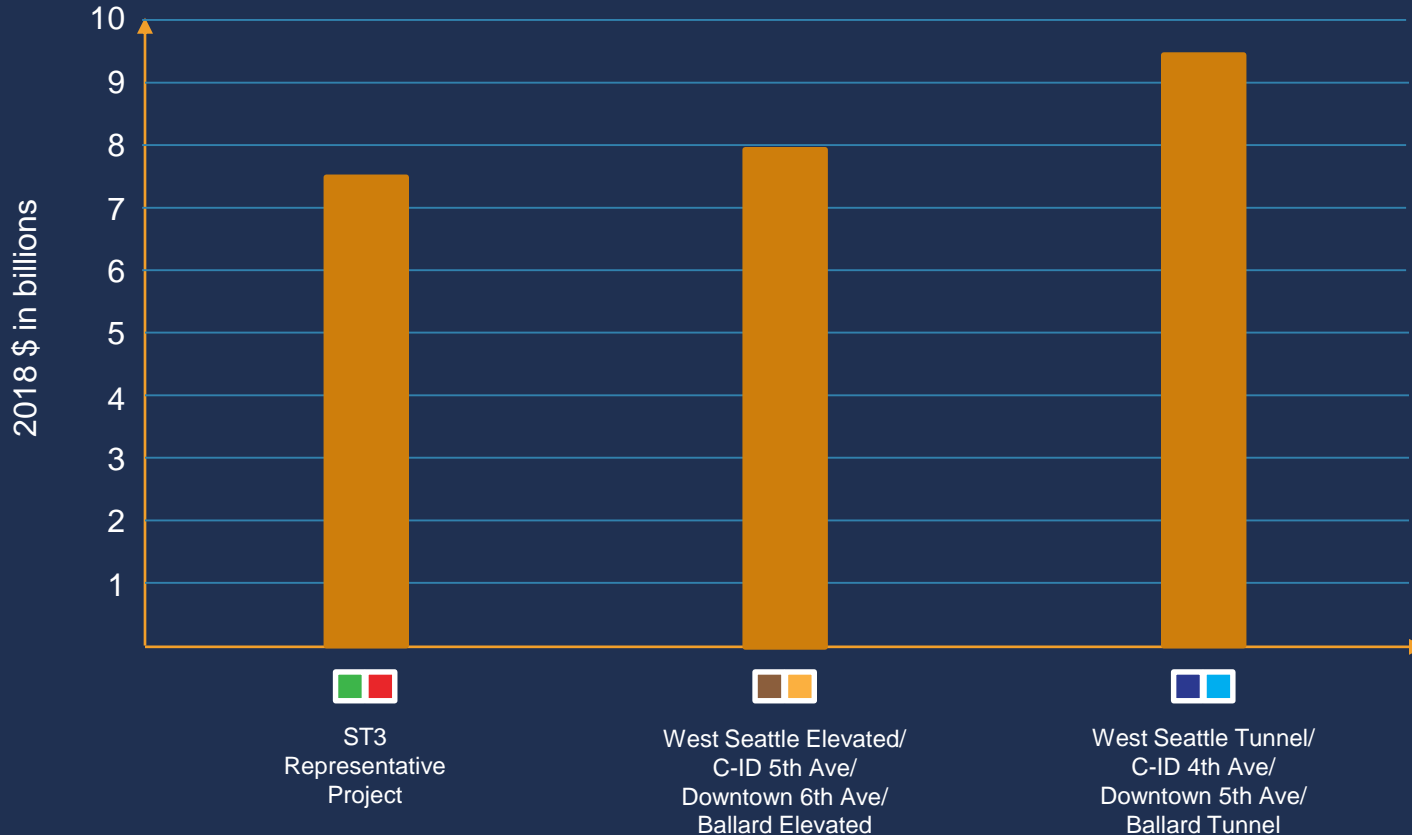
Evaluation Measures	ST3 Representative	West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated		West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel				
	Project	5th Ave Cut-and-Cover International District/Chinatown Station	5th Ave Mined International District/Chinatown Station	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
<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
<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>								
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>								
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
<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>								
Passenger transfers	Higher	Higher	Medium	Higher			Medium	Higher
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>								
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 ⁽¹⁾	50	60		40				
Visual effects to sensitive viewers (miles)	2.5	1.7		1.2				
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				

(1) On properties that overlap with the project footprint

Lower Performing Medium Performing Higher Performing

Summary of differentiators

Comparative estimates



Estimates based on limited conceptual design for the purpose of comparing alternatives only. Project budget established during final design (~2024).

A photograph of a modern light rail train station. A blue and white train is stopped at the platform, with the destination 'CANTON SEATTLE' visible on its front. The platform is crowded with people of various ages and ethnicities, some waiting and others walking. The station has a blue metal railing and a blue circular sign. The background shows green trees and a clear sky.

Potential mix-and-match opportunities

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



West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated – Potential mix-and-match opportunities

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



Elevated (instead of tunnel) Alaska Junction and Avalon stations

5th Ave (instead of 4th Ave) Chinatown/ID station

Elevated (instead of tunnel) Ballard station

LEGEND


	Elevated alignment		Elevated station
	Surface alignment		Surface station
	Tunnel alignment		Tunnel station
	Alignment option		Station option
	Approximate portal location		Existing elevated alignment
	Street overpass		Existing surface station
	Existing surface alignment		Existing tunnel alignment
	Existing tunnel station		

West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel – Potential mix-and-match opportunities

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/ Delridge station focus
SAG Meeting #13	April 17	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)

SAG = Stakeholder Advisory Group; ELG = Elected Leadership Group

soundtransit.org/wsblink 

