



# *West Seattle and Ballard Link Extensions*

*Stakeholder Advisory Group | January 30, 2019*



# Agenda

- *Community engagement and collaboration*
- *Level 3 screening process*
- *Level 3 alternatives*
- *Level 3 evaluation results*
- *Potential mix-and-match opportunities*





# Community engagement and collaboration



# Community engagement and collaboration



Meeting dates subject to change.



# *External Engagement Report: Jan. 1 – 24, 2019*



**36** comments and questions



**15** community briefings



**1** email  
update

engaging more than

**4,330** subscribers



**1** Stakeholder Advisory Group meeting



# *Jan 1-24, 2019 briefings*

- ✓ Coastal Transportation (1/4)
- ✓ South Downtown Stakeholders (1/8)
- ✓ Delridge Community Center (1/9)
- ✓ Meltec Foundry / Young Corp. (1/9)
- ✓ Delta Marine (1/10)
- ✓ Harbor Island Machine Works (1/10)
- ✓ Uwajimaya (1/10)
- ✓ SSA Terminals (1/11)
- ✓ Seattle Maritime Academy (1/15)
- ✓ White Center Community Development Association (1/16)
- ✓ Community Briefing at Youngstown Cultural Arts Center (1/16)
- ✓ Port of Seattle Neighborhood Advisory Committee (1/16)
- ✓ Downtown Seattle Association (1/17)
- ✓ Alliance for Pioneer Square (1/24)
- ✓ Seniors in Action Foundation (1/24)

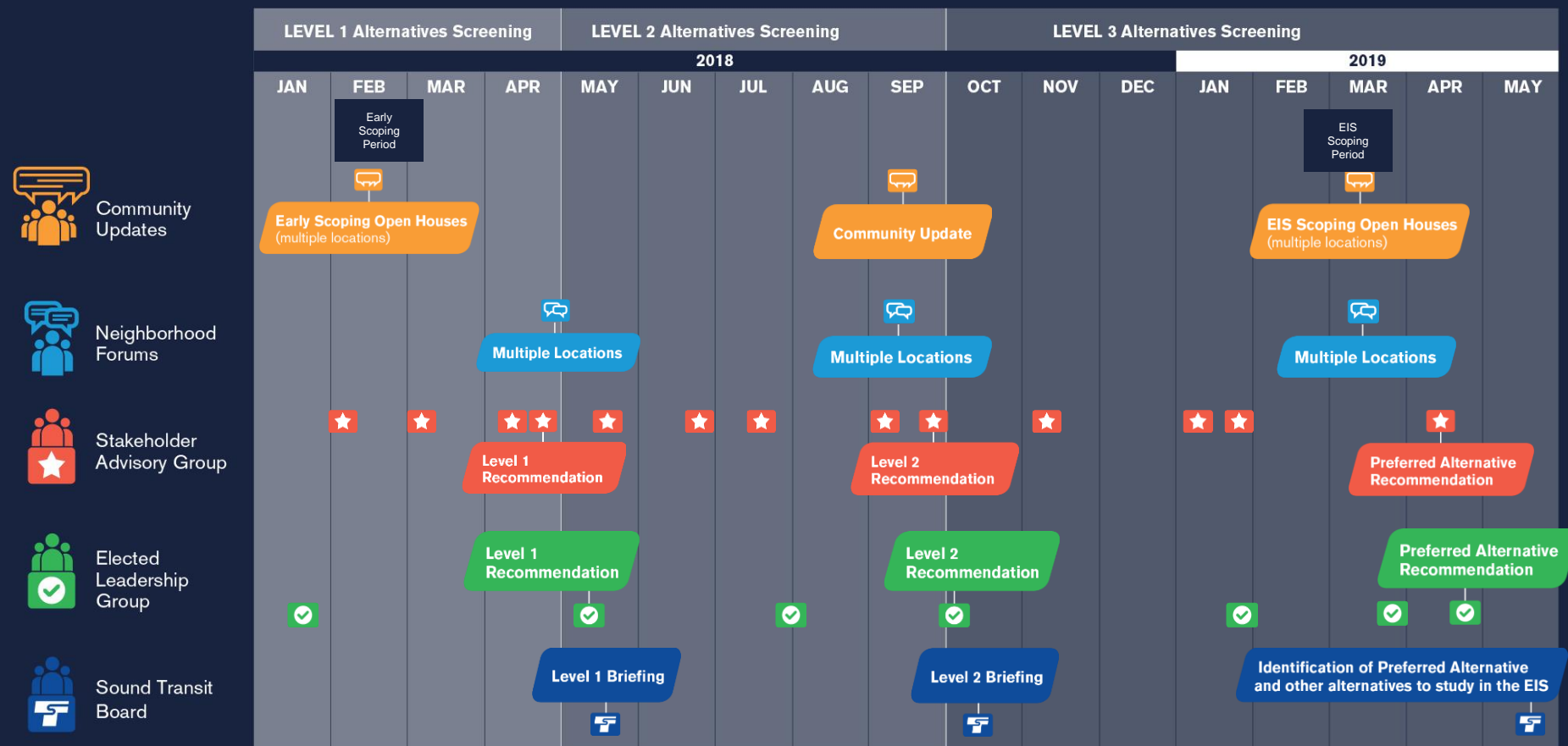




# ***Level 3 screening process***



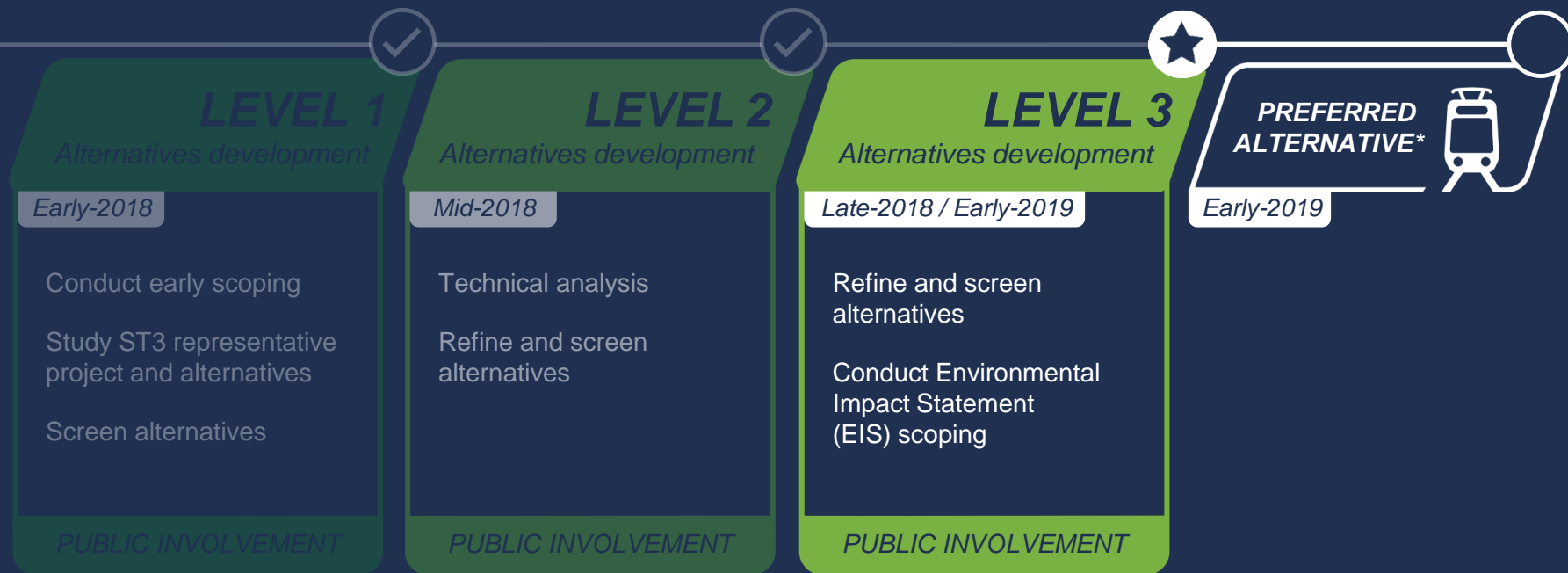
# Community engagement and collaboration



Meeting dates subject to change.



# Alternatives development process



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




# Level 3 alternatives screening

<b>SAG Meeting #12</b>	Jan 30	Level 3 evaluation results
<b>ELG Meeting #6</b>	Feb 1	Level 3 evaluation results
<b>EIS Scoping Open Houses / Neighborhood Forums</b>	Feb/ Mar TBD	Level 3 evaluation results
<b>ELG Meeting #7</b>	March 29	CID station focus
<b>SAG Meeting #13</b>	April TBD	Level 3 recommendations
<b>ELG Meeting #8</b>	April TBD	Level 3 recommendations
<b>Sound Transit Board System Expansion Committee</b>	May 9	Identify preferred alternative (and other EIS alternatives)
<b>Sound Transit Board Full Board</b>	May 23	Identify preferred alternative (and other EIS alternatives)



# Level 3 alternatives screening




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# *What is EIS Scoping?*

- Start of federal environmental review process
- 30-day **public comment period**
- Seeks 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*

- At **open house** / neighborhood forum
- Via **online** open house
- By **email** or USPS **mail** or voice **message** service



# Level 3 alternatives screening



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# ELG Meeting #7 – Chinatown/ID

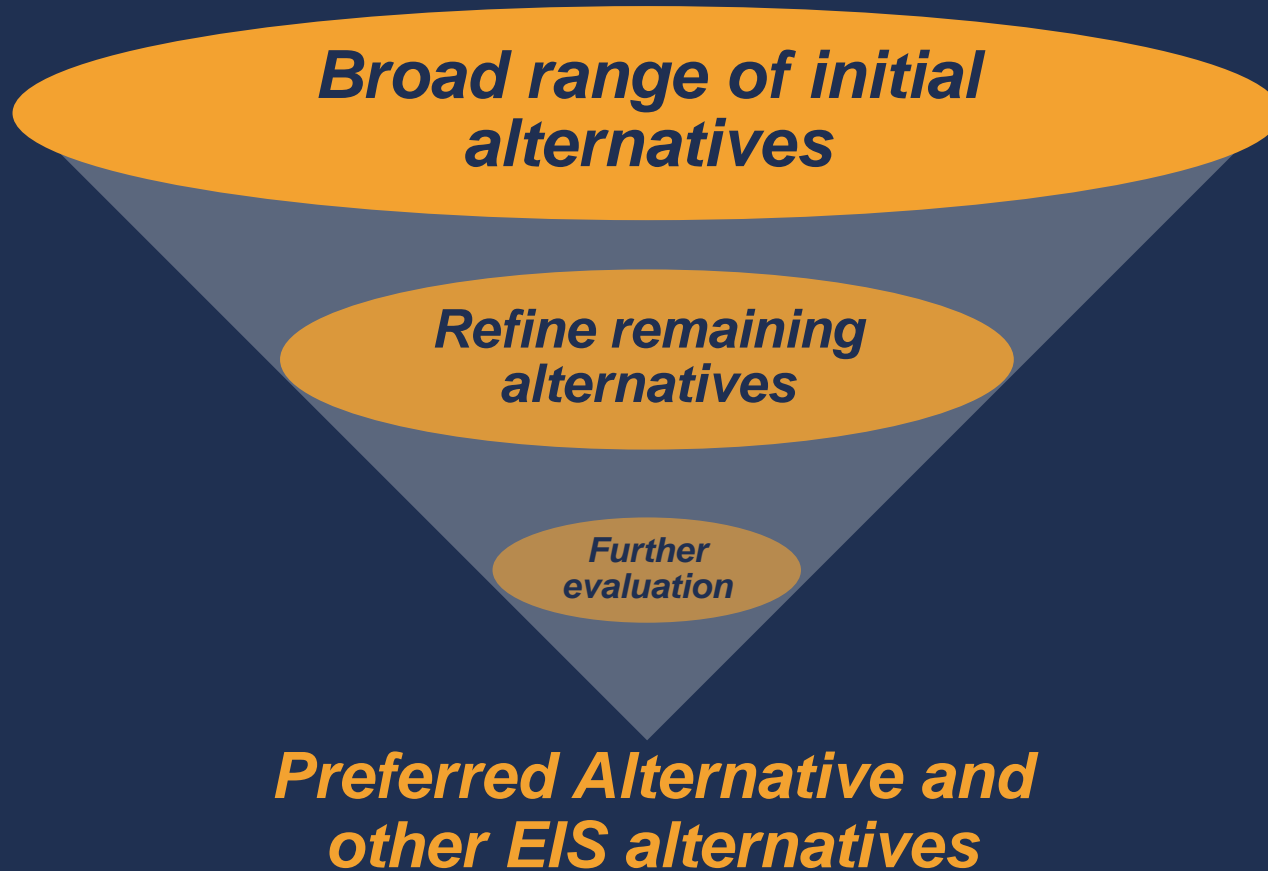


# Level 3 alternatives screening

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# Screening process





# *Level 3 recommendations*

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



# *Level 3 recommendations*

Informed by:

- Technical ***evaluation results***
- ***Public feedback*** gathered during scoping period and documented throughout the year
- ***Racial Equity Toolkit***, including findings from evaluation results and community input



# Level 3 alternatives screening

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# ***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



# *Summary of Level 3 alternatives*

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





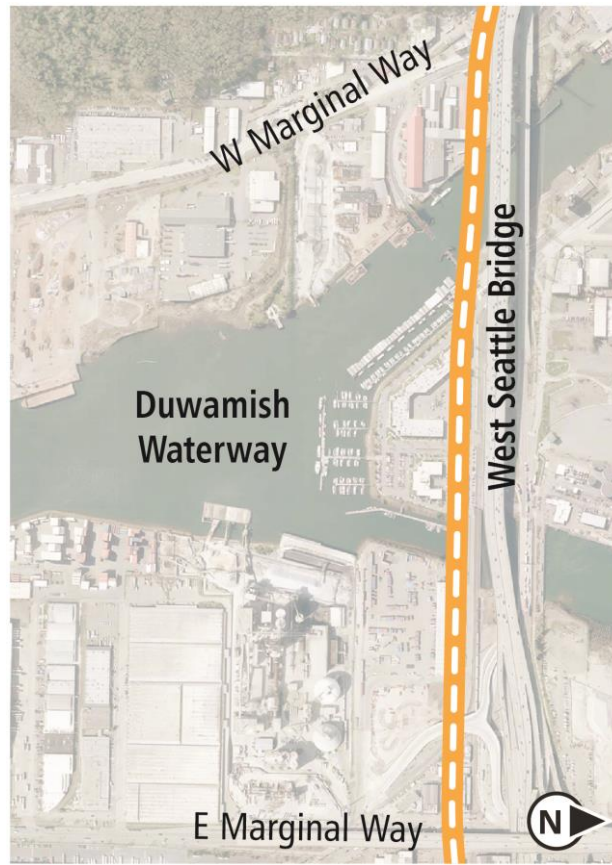
**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/  
Ballard Elevated *Alaska Junction elevated station orientation***





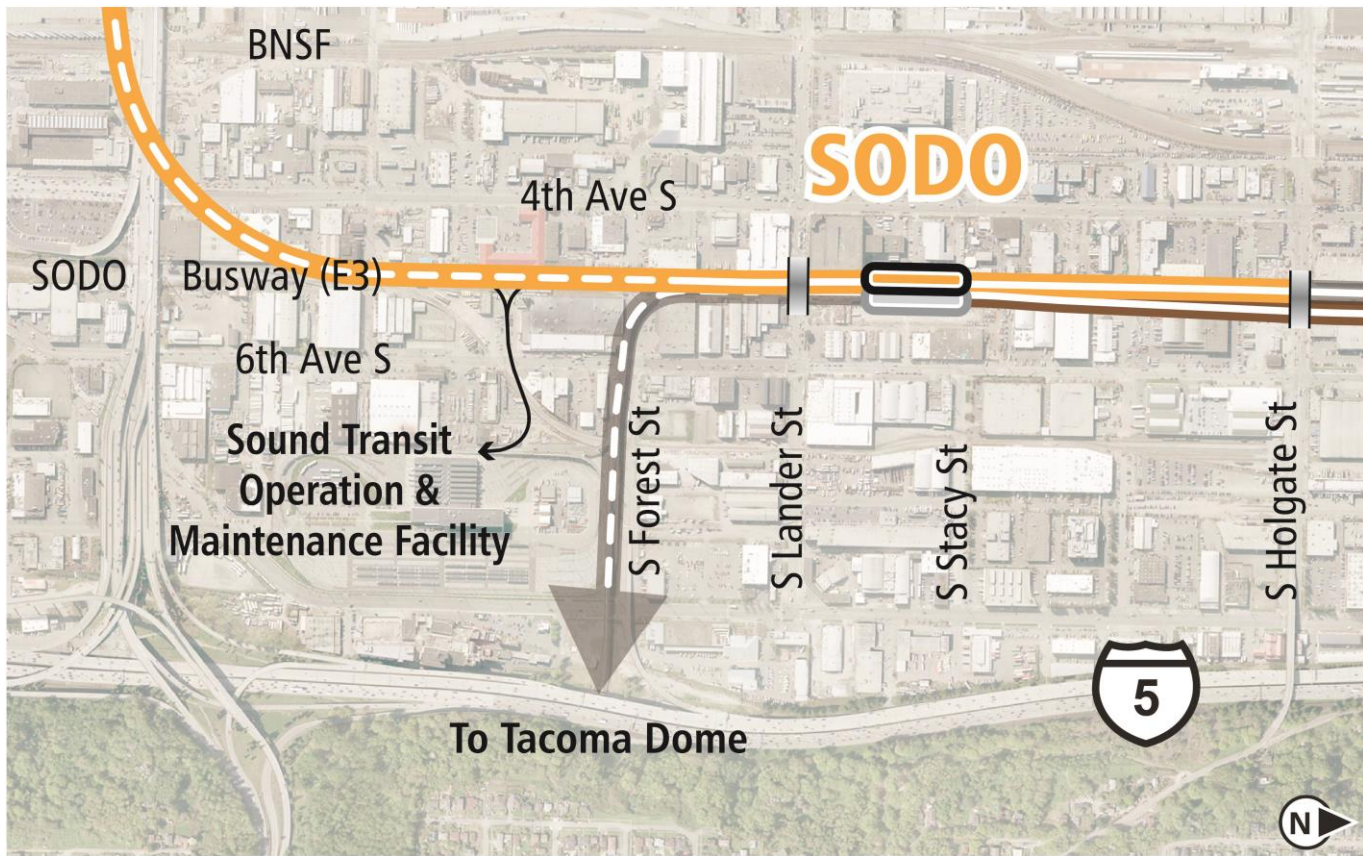
**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated** **Delridge Station further south**





**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**





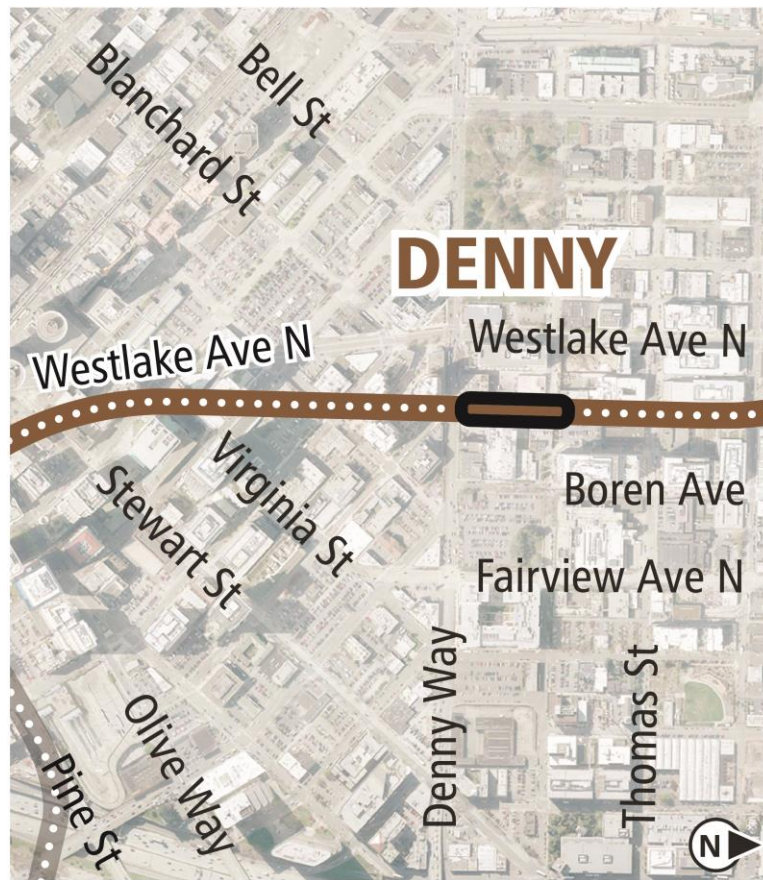
**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated C-ID Station options (shallow and deep)**





**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated** **6th Avenue route through downtown**





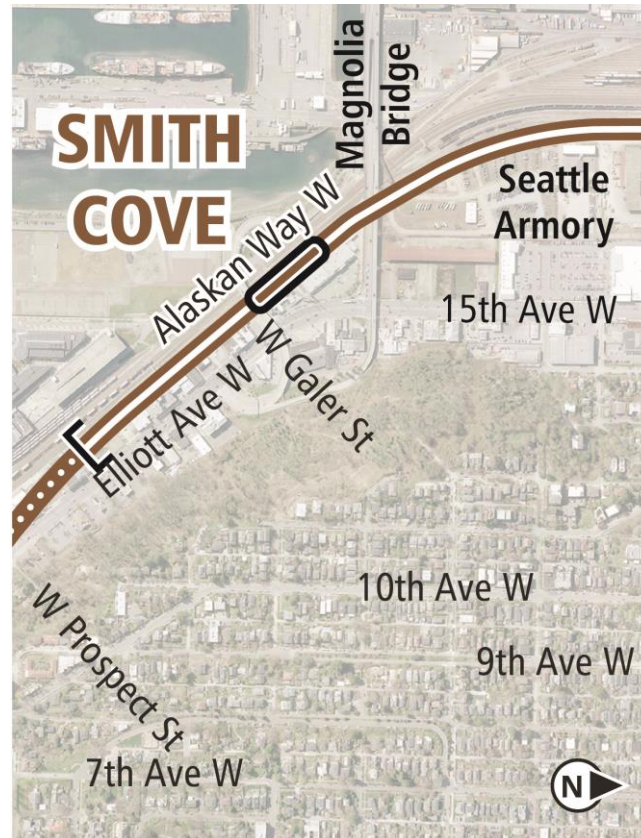
*West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated* ***Denny Station on Terry Ave***





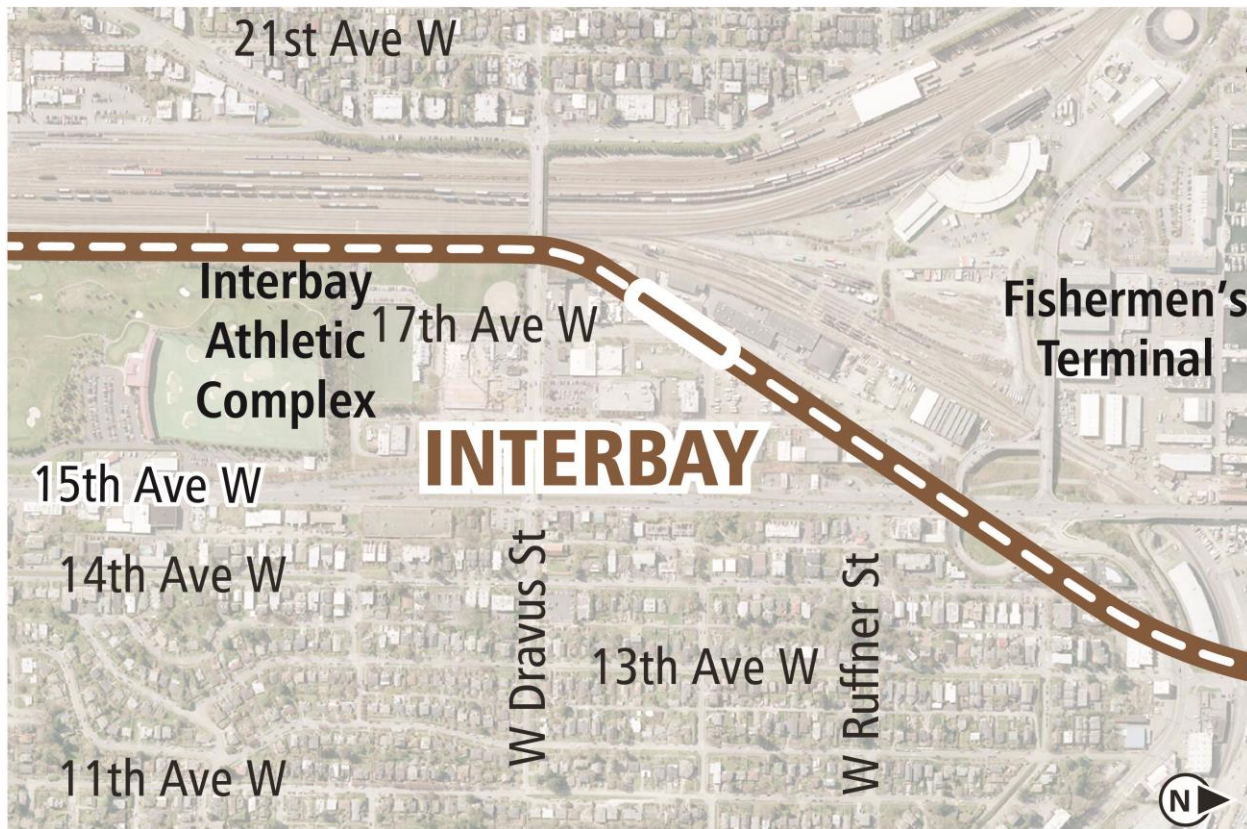
**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated** **Terry/Mercer route in South Lake Union**





**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 17<sup>th</sup> Ave/Thorndyke***





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



# *Summary of Level 3 alternatives*

## ➤ **ST3 Representative Project**

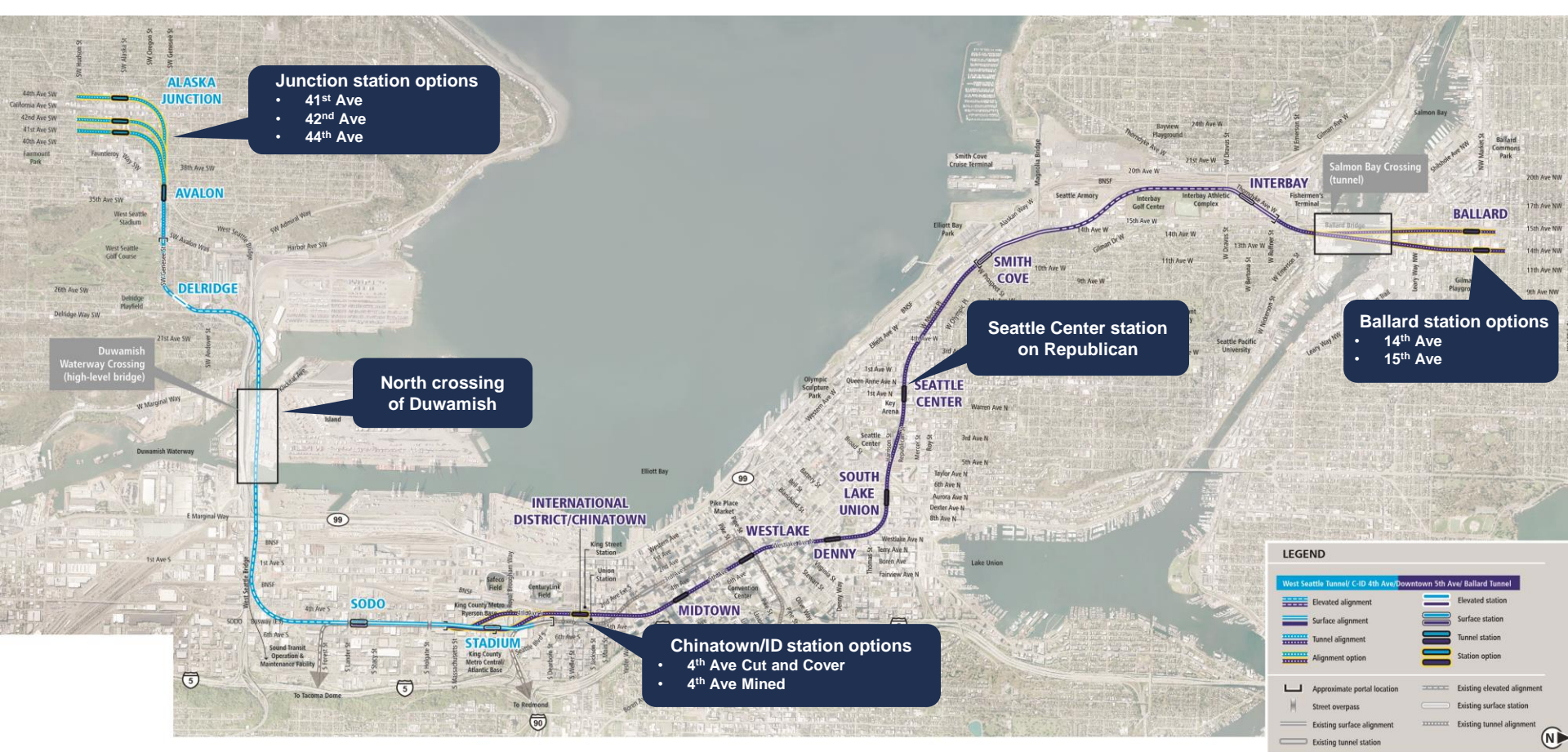
## ➤ **West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated**

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

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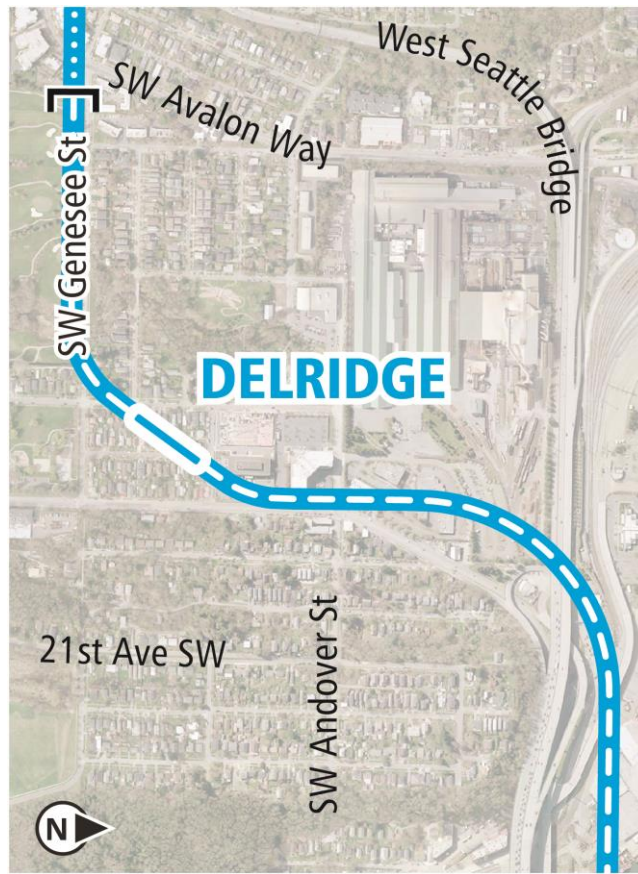
# West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel





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





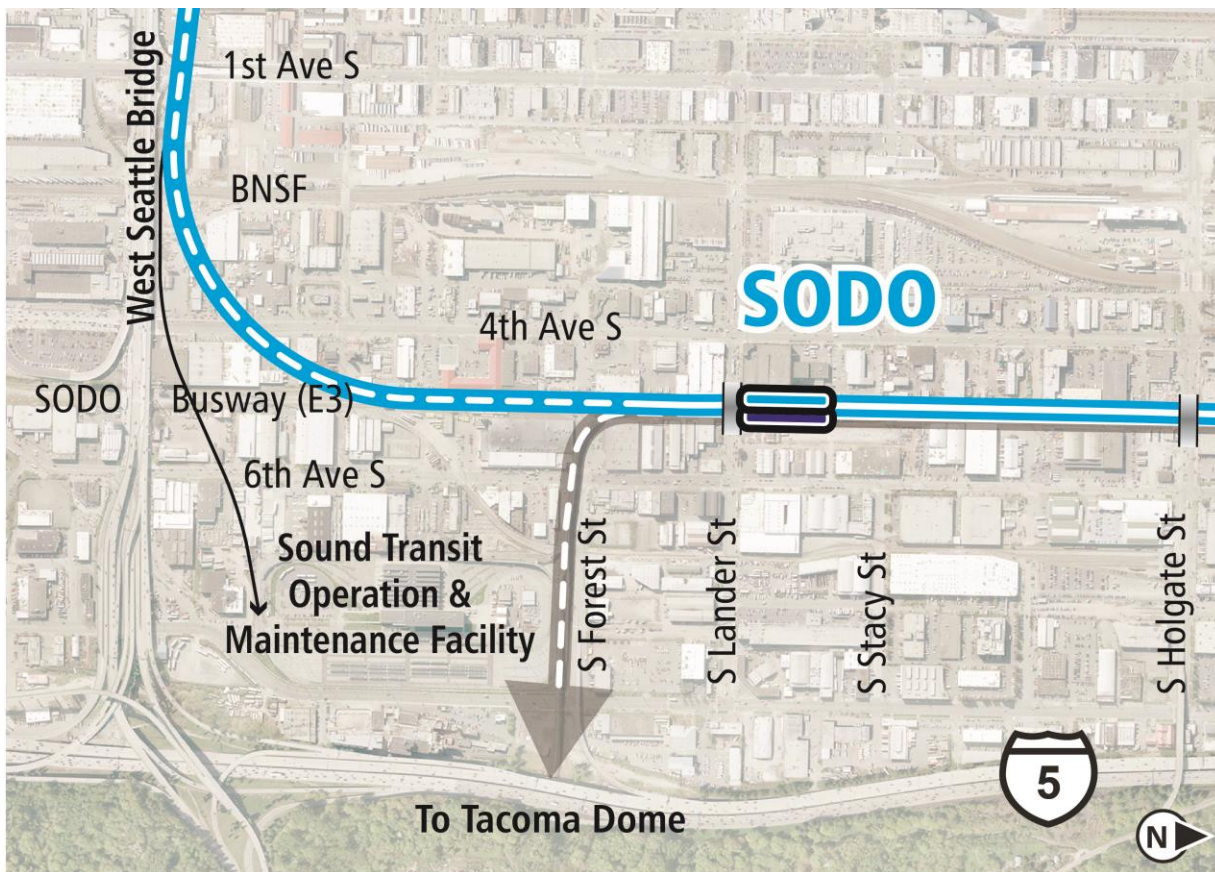
**West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel** **Delridge Station further south and west**





**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**





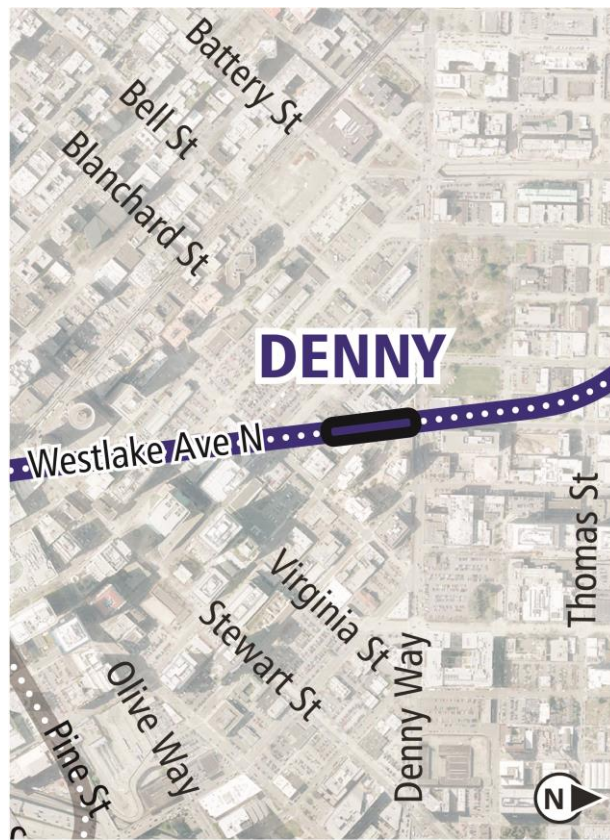
**West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel C-ID Station options (shallow and deep)**





**West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/  
Ballard Tunnel 5th Avenue route through downtown**





*West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/  
Ballard Tunnel   **Denny Station on Westlake Ave***





*West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/  
Ballard Tunnel **SLU Station on Harrison***





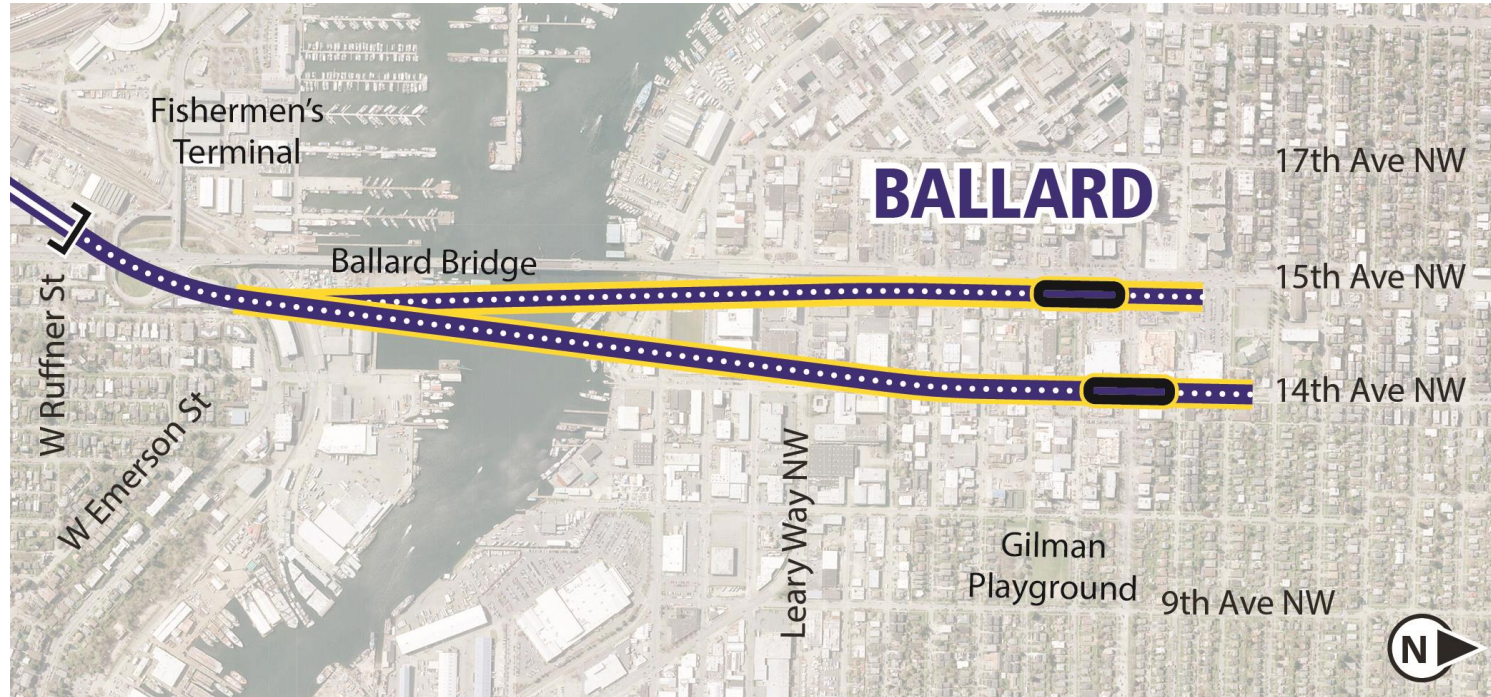
**West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/  
Ballard Tunnel** **Smith Cove Station near Prospect St**





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





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










A blue-tinted photograph of a train station platform. In the foreground, a group of people is waiting, including a woman in a yellow hijab and white pants. A train is arriving at the platform in the background. 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**

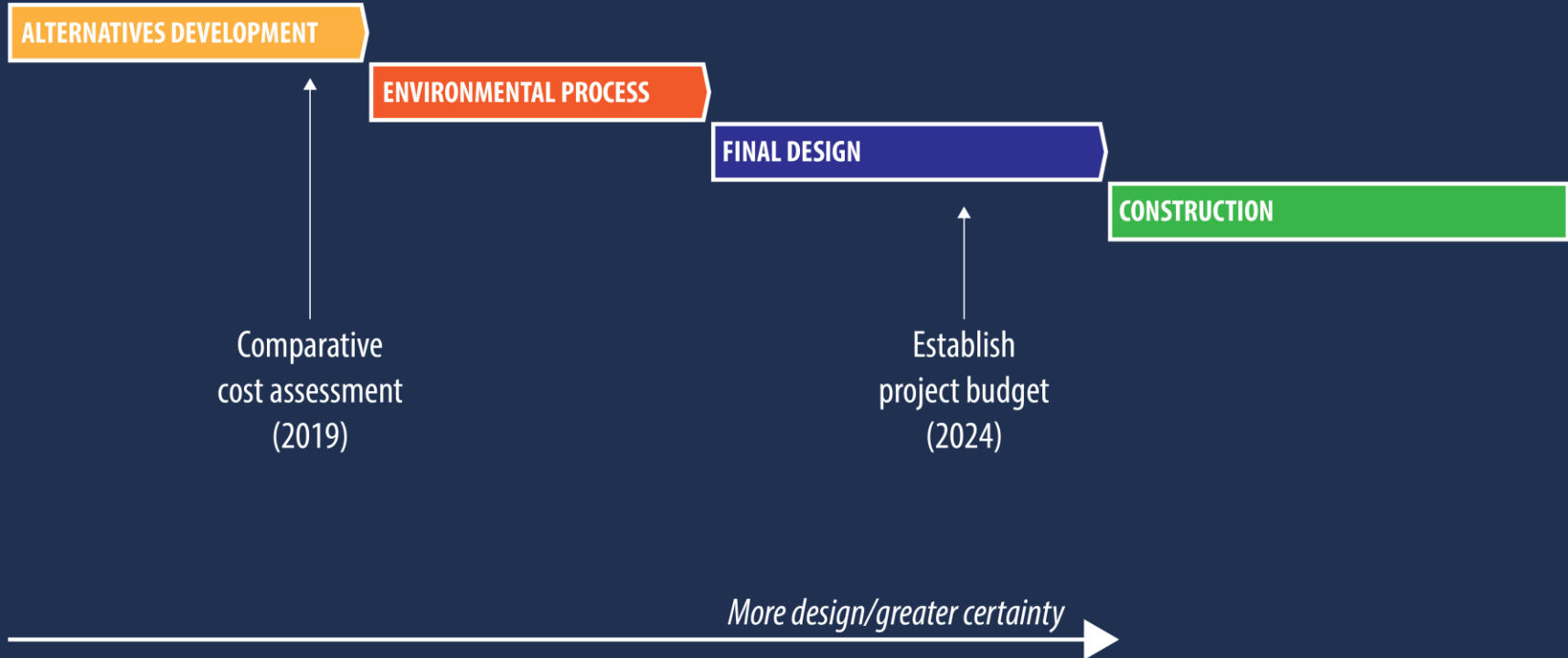


# Cost assessment

- 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
Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.								
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				
Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet projected transit demand.								
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				
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.								
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	
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.								
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				
Expand mobility for the corridor and region's residents, which include transit dependent, low income, and minority populations.								
Low-income/minority opportunities (activity nodes/rental units) <sup>(1)</sup>	Medium	Medium		Medium				
	23%	22%		23%				
Low-income population <sup>(1/2)</sup>	32% / 32%	32% / 32%		32% / 31%				
Minority population <sup>(1/2)</sup>	34% / 34%	34% / 35%		34% / 34 to 35%				
Youth population <sup>(1/2)</sup>	7% / 10%	7% / 9%		7% / 9 to 10%				
Elderly population <sup>(1/2)</sup>	14% / 11%	14% / 12%		14% / 11 to 12%				
Limited English Proficiency population <sup>(1/2)</sup>	7% / 8%	7% / 8%		7% / 7 to 8%				
Disabled population <sup>(1/2)</sup>	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



= Key Differentiators



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
Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.								
At-grade crossings	3	Elevated LRT guideway in SODO; does not grade separate Lander and Holgate roadway crossings			1			
Potential service interruptions/recoverability	Lower				Medium	Lower	Medium	
LRT travel times (minutes)	6 to 7 / 13 to 14				6 to 7 / 13 to 14			
Transit travel time savings (minutes)	12 to 20				12 to 20			
Improve regional mobility by increasing connectivity and capacity through downtown								
Network integration	Lower	Medium		Higher		Higher		
Passenger carrying capacity	Medium	Movable bridge over Salmon Bay has potential service interruptions		Deep mined station does not facilitate pocket track (for storing spare trains) and reduces service recoverability				
Average weekday trips on West Seattle/ Ballard extensions (2042)	35,000 to 40,000 / 123,000 to 163,000							
Connect regional centers as described in adopted regional and development plans and Sound Transit's Regional Transit L								
PSRC growth centers served	5							
Pop/job densities served (2040)	38 / 39	39 / 39				37 / 38 to 39		
Accommodates future LRT extension	Lower	Medium		Higher		Medium	Higher	
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.								
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	
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Youth population <sup>(1/2)</sup>	7% / 10%	7% / 9%		7% / 9 to 10%				
Elderly population <sup>(1/2)</sup>	14% / 11%	14% / 12%		14% / 11 to 12%				
Limited English Proficiency population <sup>(1/2)</sup>	7% / 8%	7% / 8%		7% / 7 to 8%				
Disabled population <sup>(1/2)</sup>	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

## Service Reliability

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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				
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Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet projected transit demand.								
Network integration	Lower	Medium		Higher			Medium	Higher
Passenger carrying capacity	Medium			Medium				
Average weekday trips on West Seattle/ Ballard extensions (2042)	35,000 to 40,000 / 123,000 to 163,000			35,000 to 41,000 / 125,000 to 165,000				
Connect regional centers as described in adopted regional and local land use, transportation, and Sound Transit's Regional Transit Long-Range Plan.								
PSRC growth centers served	5			5				
Pop/job densities served (2040)	38 / 39	39 / 39		37 / 38 to 39				
Accommodates future LRT extension	Lower	Medium		Higher			Medium	Higher
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.								
Mode, route and stations per ST3	Higher	Higher		Higher				
Potential ST3 schedule effects	Higher			Lower				
Potential ST3 operating plan effects	Lower			Higher			Medium	Higher
Engineering constraints	Lower			Lower				
Constructability issues	Lower			Lower				
Operational constraints	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				
Expand mobility for the corridor and region's residents, which include transit dependent, low income, and minority populations.								
Low-income/minority opportunities (activity nodes/rental units) <sup>(1)</sup>	Medium	Medium		Medium				
	23%	22%		23%				
Low-income population <sup>(1/2)</sup>	32% / 32%	32% / 32%		32% / 31%				
Minority population <sup>(1/2)</sup>	34% / 34%	34% / 35%		34% / 34 to 35%				
Youth population <sup>(1/2)</sup>	7% / 10%	7% / 9%		7% / 9 to 10%				
Elderly population <sup>(1/2)</sup>	14% / 11%	14% / 12%		14% / 11 to 12%				
Limited English Proficiency population <sup>(1/2)</sup>	7% / 8%	7% / 8%		7% / 7 to 8%				
Disabled population <sup>(1/2)</sup>	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

## Regional Mobility and Plan Consistency

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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
Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.								
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				
Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet projected transit demand.								
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						
Connect regional centers as described in adopted regional and local land use, transportation, and economic development plans.								
PSRC growth centers served	5	5						
Pop/job densities served (2040)	38 / 39	39 / 39						
Accommodates future LRT extension	Lower	Medium		Higher			Medium	Higher
Implement a system that is consistent with the ST3 Plan that established transit mode, corridor, and station locations that is technically feasible and financially sustainable to build, operate, and maintain.								
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				
Expand mobility for the corridor and region's residents, which include transit dependent, low income, and minority populations.								
Low-income/minority opportunities (activity nodes/rental units) <sup>(1)</sup>	Medium	Medium		Medium				
	23%	22%		23%				
Low-income population <sup>(1/2)</sup>	32% / 32%	32% / 32%		32% / 31%				
Minority population <sup>(1/2)</sup>	34% / 34%	34% / 35%		34% / 34 to 35%				
Youth population <sup>(1/2)</sup>	7% / 10%	7% / 9%		7% / 9 to 10%				
Elderly population <sup>(1/2)</sup>	14% / 11%	14% / 12%		14% / 11 to 12%				
Limited English Proficiency population <sup>(1/2)</sup>	7% / 8%	7% / 8%		7% / 7 to 8%				
Disabled population <sup>(1/2)</sup>	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

## Schedule

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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
Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.								
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				
Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet projected transit demand.								
Network integration	Lower	Medium		Higher			Medium	Higher
Passenger carrying capacity	Medium	Medium		Medium				
Average weekday trips on West Seattle/ Ballard extensions (2042)	25,000 to 40,000 / 28,000	25,000 to 30,000 / 28,000		28,000				
Connect regional centers as described in adopted economic development plans and Sound Transit's Regional Transit Plan.								
PSRC growth centers served	2	2		2			2	2
Pop/job densities served (2040)	2	2		2			2	2
Accommodates future LRT extension	2	2		Higher			Higher	
Implement a system that is consistent with the Sound Transit 3 plan and station locations and that is technically feasible and financially sound.								
Mode, route and stations per ST3	High	Higher		Higher			Higher	
Potential ST3 schedule effects	High	Higher	Medium	Lower				
Potential ST3 operating plan effects	Lower	Higher		Higher	Medium		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				
Expand mobility for the corridor and region's residents, which include transit dependent, low income, and minority populations.								
Low-income/minority opportunities (activity nodes/rental units) <sup>(1)</sup>	Medium	Medium		Medium				
	23%	22%		23%				
Low-income population <sup>(1/2)</sup>	32% / 32%	32% / 32%		32% / 31%				
Minority population <sup>(1/2)</sup>	34% / 34%	34% / 35%		34% / 34 to 35%				
Youth population <sup>(1/2)</sup>	7% / 10%	7% / 9%		7% / 9 to 10%				
Elderly population <sup>(1/2)</sup>	14% / 11%	14% / 12%		14% / 11 to 12%				
Limited English Proficiency population <sup>(1/2)</sup>	7% / 8%	7% / 8%		7% / 7 to 8%				
Disabled population <sup>(1/2)</sup>	12% / 11%	12% / 11%		12% / 11%				

Infrastructure conflicts in SODO (WSDOT ramps) and Downtown (SR 99 off-ramp, sewer under Republican)

Tunnels and 4<sup>th</sup> Ave S viaduct rebuild add engineering complexity, constructability issues

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

# Level 3 evaluation – Part 1 of 2

## Engineering Constraints and Constructability

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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
Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.								
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				
Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet projected transit demand.								
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				
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.								
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	
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.								
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				
Expand mobility for the corridor and region's residents, which include transit dependent, low income, and minority populations.								
Low-income/minority opportunities (activity nodes/rental units) <sup>(1)</sup>	Medium	Medium		Medium				
	23%	22%		23%				
Low-income population <sup>(1/2)</sup>	32% / 32%	32% / 32%		31%				
Minority population <sup>(1/2)</sup>	34% / 34%	34% / 35%		34% / 34 to 35%				
Youth population <sup>(1/2)</sup>	7% / 10%	7% / 9%		7% / 9 to 10%				
Elderly population <sup>(1/2)</sup>	14% / 11%	14% / 12%		14% / 11 to 12%				
Limited English Proficiency population <sup>(1/2)</sup>	7% / 8%	7% / 8%		7% / 7 to 8%				
Disabled population <sup>(1/2)</sup>	12% / 11%	12% / 11%		12% / 11%				

Steeper track grades with mined CID stations limit train acceleration and flexibility for track crossovers (connections)

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



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			
Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.											
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							
Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet projected transit demand.											
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							
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.											
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			Higher				
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 sound.											
Mode, route and stations per ST3	Higher	Higher		Highest cost alternatives due to additional tunnels in West Seattle and Ballard and 4 <sup>th</sup> Ave viaduct rebuild			Higher				
Potential ST3 schedule effects	Higher	Higher	Medium				Higher				
Potential ST3 operating plan effects	Lower	Higher					Higher	Medium	Higher		
Engineering constraints	Lower	Medium					Higher				
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				
Expand mobility for the corridor and region's residents, which include transit dependent, low income, and minority populations.											
Low-income/minority opportunities (activity nodes/rental units) <sup>(1)</sup>	Medium	Medium					Medium				
	23%	22%					23%				
Low-income population <sup>(1/2)</sup>	32% / 32%	32% / 32%					32% / 31%				
Minority population <sup>(1/2)</sup>	34% / 34%	34% / 35%					34% / 34 to 35%				
Youth population <sup>(1/2)</sup>	7% / 10%	7% / 9%					7% / 9 to 10%				
Elderly population <sup>(1/2)</sup>	14% / 11%	14% / 12%					14% / 11 to 12%				
Limited English Proficiency population <sup>(1/2)</sup>	7% / 8%	7% / 8%		7% / 7 to 8%							
Disabled population <sup>(1/2)</sup>	12% / 11%	12% / 11%		12% / 11%							

Highest cost alternatives  
 due to additional tunnels in  
 West Seattle and Ballard  
 and 4<sup>th</sup> Ave viaduct rebuild

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

# Level 3 evaluation – Part 1 of 2

## Capital Costs

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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 <sup>(1)</sup>	58%		56%			55 to 58%		
Station land use plan consistency	Higher		Higher			Higher		
Activity nodes served <sup>(1)</sup>	302		298			300 to 303		
Passenger transfers	Higher	Higher	Medium		Higher		Medium	Higher
Bus/rail and rail/rail integration <sup>(1)</sup>	Medium		Medium			Medium		
Bicycle infrastructure and accessibility <sup>(1)</sup>	19%		19%			18 to 19%		
Pedestrian/limited mobility accessibility	Higher		Higher			Higher		
Development potential <sup>(1)</sup>	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 <sup>(2)</sup>	40		20			40		
Potential archaeological resource effects <sup>(1)</sup>	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 <sup>(2)</sup>	50		60			40		
Visual effects to sensitive viewers (miles)	2.5		1.7			1.2		
Noise/vibration sensitive receivers <sup>(1)</sup>	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 Differentiators



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 <sup>(1)</sup>	58%		56%			55 to 58%		
Station land use plan consistency	Higher		Higher			Higher		
Activity nodes served <sup>(1)</sup>	302		298			300 to 303		
Passenger transfers	Higher	Higher	Medium		Higher		Medium	Higher
Bus/rail and rail/rail integration <sup>(1)</sup>	Medium		Medium			Medium		
Bicycle infrastructure and accessibility <sup>(1)</sup>	19%		19%			18 to 19%		
Pedestrian/limited mobility accessibility	Higher		Higher			Higher		
Development potential <sup>(1)</sup>	14%		14%			13 to 14%		
Equitable development opportunities	Lower							
<i>Preserve and promote a healthy environment and economy by maintaining and enhancing natural and social environments through sustainable practices.</i>								
Historic properties/Landmarks <sup>(2)</sup>	40							
Potential archaeological resource effects <sup>(1)</sup>	Lower							
Parks/recreational resource effects (acres)	1.4							
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 <sup>(2)</sup>	50		60			40		
Visual effects to sensitive viewers (miles)	2.5		1.7			1.2		
Noise/vibration sensitive receivers <sup>(1)</sup>	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

## Passenger transfers

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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 <sup>(1)</sup>	58%		56%			55 to 58%		
Station land use plan consistency	Higher		Higher			Higher		
Activity nodes served <sup>(1)</sup>	302		298			300 to 303		
Passenger transfers	Higher	Higher	Medium			Higher	Medium	Higher
Bus/rail and rail/rail integration <sup>(1)</sup>	Medium		Medium					
Bicycle infrastructure and accessibility <sup>(1)</sup>	19%							
Pedestrian/limited mobility accessibility	Higher							
Development potential <sup>(1)</sup>	14%							
Equitable development opportunities	Lower							
<i>Preserve and promote a healthy environment and economy by minimizing adverse impacts on the built and social environments through sustainable practices.</i>								
Historic properties/Landmarks <sup>(2)</sup>	40		20			40		
Potential archaeological resource effects <sup>(1)</sup>	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 <sup>(2)</sup>	50		60			40		
Visual effects to sensitive viewers (miles)	2.5		1.7			1.2		
Noise/vibration sensitive receivers <sup>(1)</sup>	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

## Parks and Recreational Resources

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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 <sup>(1)</sup>	58%		56%			55 to 58%		
Station land use plan consistency	Higher		Higher			Higher		
Activity nodes served <sup>(1)</sup>	302		298			300 to 303		
Passenger transfers	Higher	Higher	Medium		Higher		Medium	Higher
Bus/rail and rail/rail integration <sup>(1)</sup>			Medium			Medium		
Bicycle infrastructure and accessibility <sup>(1)</sup>			19%					
Pedestrian/limited mobility accessibility			Higher					
Development potential <sup>(1)</sup>			14%					
Equitable development opportunities			Medium					
<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 <sup>(2)</sup>	40		20					
Potential archaeological resource effects <sup>(1)</sup>	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 <sup>(2)</sup>	50		60			40		
Visual effects to sensitive viewers (miles)	2.5					1.2		
Noise/vibration sensitive receivers <sup>(1)</sup>	Medium					Medium		
Potentially affected properties	Medium					Higher		
Residential unit displacements	Medium					Higher		
Business displacements (square feet)	Higher					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		

Greater in-water effects of movable bridge over Salmon Bay

Greater effects to SW Queen Anne Greenbelt; avoids Pigeon Point in West Seattle

Affects both Pigeon Point and SW Queen Anne Greenbelt

(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

## Water Resources and Wildlife Habitat

Lower Performing

Medium Performing

Higher Performing

 = Key Differentiators



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 <sup>(1)</sup>	58%		56%			55 to 58%		
Station land use plan consistency	Higher		Higher			Higher		
Activity nodes served <sup>(1)</sup>	302		298			300 to 303		
Passenger transfers	Higher	Higher	Medium		Higher		Medium	Higher
Bus/rail and rail/rail integration <sup>(1)</sup>	Medium		Medium			Medium		
Bicycle infrastructure and accessibility <sup>(1)</sup>	19%		19%			18 to 19%		
Pedestrian/limited mobility accessibility	Higher		Higher			Higher		
Development potential <sup>(1)</sup>	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 <sup>(2)</sup>	40		20			40		
Potential archaeological resource effects <sup>(1)</sup>	Lower					Lower		
Parks/recreational resource effects (acres)	1.4					5.7		
Water resource effects (acres)	0.8					<0.1		
Fish and wildlife habitat effects (acres)	15.0		6.0			15.0		
Hazardous materials sites <sup>(2)</sup>	50		60			40		
Visual effects to sensitive viewers (miles)	2.5		1.7			1.2		
Noise/vibration sensitive receivers <sup>(1)</sup>	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		

More elevated guideway near visually sensitive viewers

(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

## Visual effects

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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 <sup>(1)</sup>	58%		56%			55 to 58%		
Station land use plan consistency	Higher		Higher			Higher		
Activity nodes served <sup>(1)</sup>	302		298			300 to 303		
Passenger transfers	Higher	Higher	Medium		Higher		Medium	Higher
Bus/rail and rail/rail integration <sup>(1)</sup>	Medium		Medium			Medium		
Bicycle infrastructure and accessibility <sup>(1)</sup>	19%		19%			18 to 19%		
Pedestrian/limited mobility accessibility	Higher		Higher			Higher		
Development potential <sup>(1)</sup>	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 environment and community through sustainable practices.</i>								
Historic properties/Landmarks <sup>(2)</sup>	40		20			40		
Potential archaeological resource effects <sup>(1)</sup>	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 <sup>(2)</sup>	50		60			40		
Visual effects to sensitive viewers (miles)	2.5		1.7			1.2		
Noise/vibration sensitive receivers <sup>(1)</sup>	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		

Greater property acquisitions and displacements associated with elevated guideway outside of public right of way in West Seattle and Interbay-Ballard

(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

## Property Acquisitions and Displacements

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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
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.								
Compatibility with Urban Centers/Villages <sup>(1)</sup>	58%	56%		55 to 58%				
Station land use plan consistency	Higher	Higher		Higher				
Activity nodes served <sup>(1)</sup>	302	298		300 to 303				
Passenger transfers	Higher	Higher	Medium	Higher			Medium	Higher
Bus/rail and rail/rail integration <sup>(1)</sup>	Medium	Medium		Medium				
Bicycle infrastructure and accessibility <sup>(1)</sup>	19%	19%		18 to 19%				
Pedestrian/limited mobility accessibility	Higher	Higher		Higher				
Development potential <sup>(1)</sup>	14%	14%		13 to 14%				
Equitable development opportunities	Lower	Medium		Higher				
Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built and social environments through sustainable practices.								
Historic properties/Landmarks <sup>(2)</sup>	40	20		40				
Potential archaeological resource effects <sup>(1)</sup>	Greater construction effects of cut-and-cover tunnel/station in C-ID and elevated guideway in Elliott/15th Ave W median		Reduced construction effects on 5 <sup>th</sup> Ave S in C-ID with mined station		Lower			
Parks/recreational resource effects (acres)					5-7			
Water resource effects (acres)					Higher			
Fish and wildlife habitat effects (acres)					Higher			
Hazardous materials sites <sup>(2)</sup>	Extended traffic diversions due to full closure of 4th Ave S during construction in C-ID				Medium			
Visual effects to sensitive viewers (miles)					Higher			
Noise/vibration sensitive receivers <sup>(1)</sup>					Higher			
Potentially affected properties					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

## Construction Impacts

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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
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Bus/rail and rail/rail integration <sup>(1)</sup>	Medium		Medium			Medium		
Bicycle infrastructure and accessibility <sup>(1)</sup>	19%		19%			18 to 19%		
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Potential archaeological resource effects <sup>(1)</sup>	Lower		Lower					
Parks/recreational resource effects (acres)	1.4		5.3					
Water resource effects (acres)			0.5					
Fish and wildlife habitat effects (acres)			6.0					
Hazardous materials sites <sup>(2)</sup>			60					
Visual effects to sensitive viewers (miles)			1.7					
Noise/vibration sensitive receivers <sup>(1)</sup>			Medium					
Potentially affected properties			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		

Greater construction effects with cut-and-cover C-ID tunnel/station

Reduced construction effects with bored tunnel under 5<sup>th</sup> Avenue in C-ID

Traffic diversion effects due to multi-year partial closure of 4<sup>th</sup> Ave S during C-ID station construction

Extensive traffic diversion effects due to multi-year full closure of 4<sup>th</sup> Ave S during C-ID station construction

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

Lower Performing

Medium Performing

Higher Performing



= Key Differentiators



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
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Passenger transfers	Higher	Higher	Medium		Higher		Medium	Higher
Bus/rail and rail/rail integration <sup>(1)</sup>	Medium		Medium			Medium		
Bicycle infrastructure and accessibility <sup>(1)</sup>	19%		19%			18 to 19%		
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Hazardous materials sites <sup>(2)</sup>	50					40		
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Noise/vibration sensitive receivers <sup>(1)</sup>	Medium					Medium		
Potentially affected properties	Medium					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		

More traffic, transportation infrastructure and freight impacts due to lengthy sections of elevated track along high volume arterials in West Seattle and Interbay-Ballard

(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

## Traffic, Transportation and Freight

Lower Performing

Medium Performing

Higher Performing

 = Key Differentiators



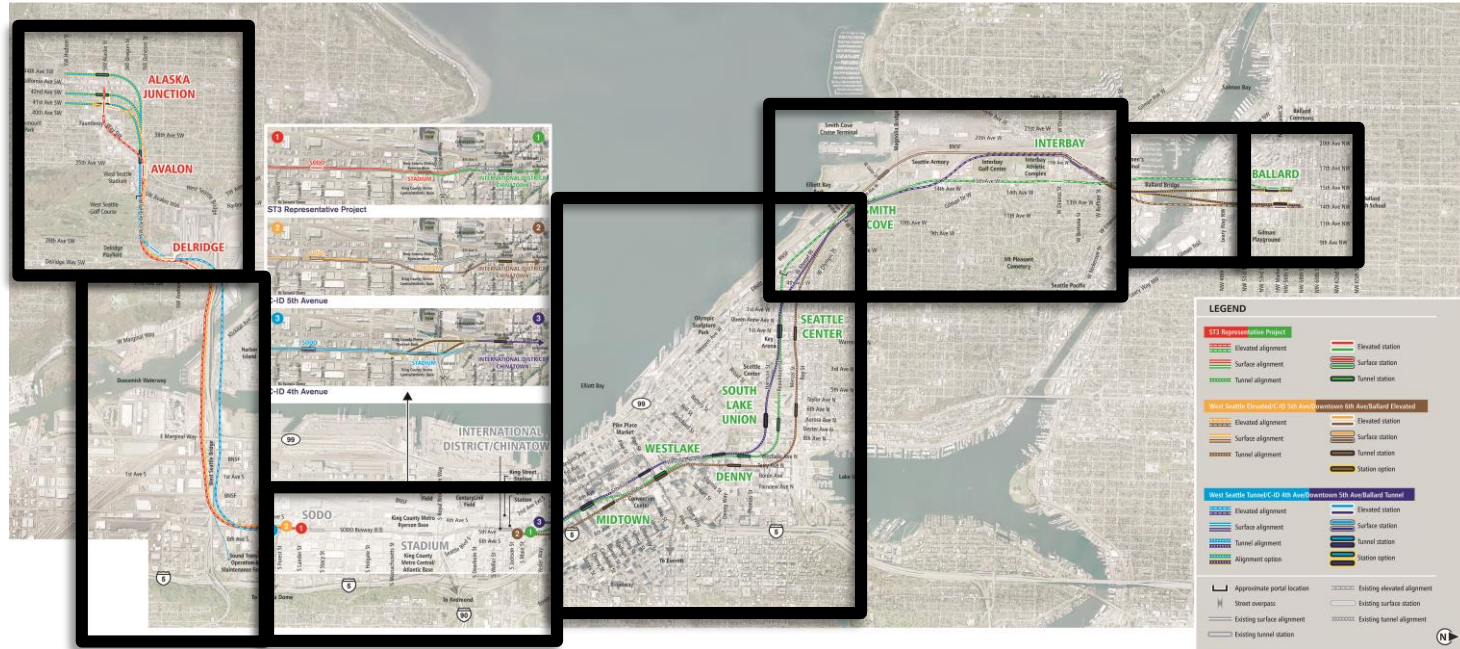


# ***Key considerations***



# 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

- East-west oriented elevated Alaska Junction Station complicates future LRT extension; constrained terminal station on SW Alaska Street
- High guideway on SW Genesee Street
- Park effects may require 4(f) avoidance alternative
- Delridge Station problematic proximity to freeway/Nucor

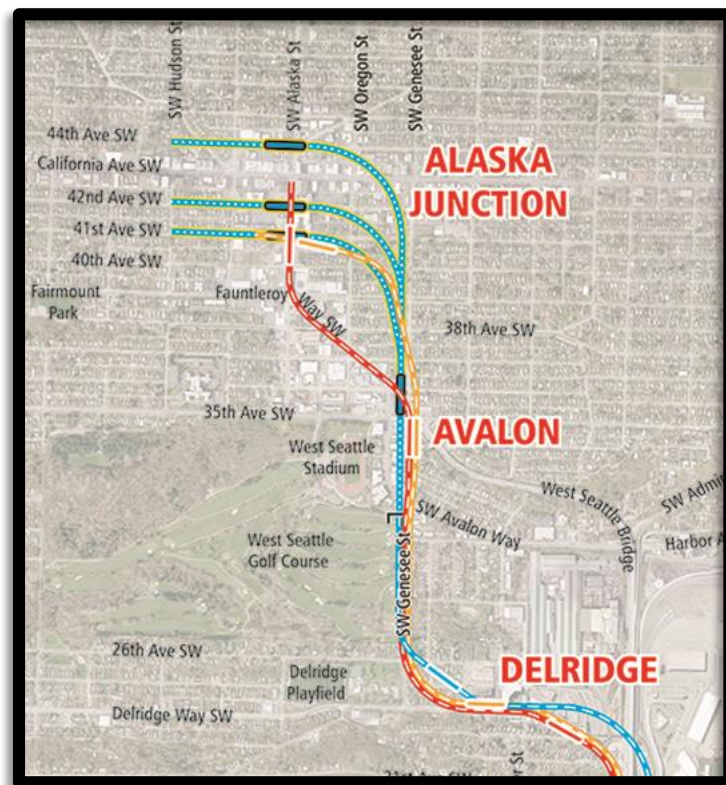
## West Seattle Elevated

- More displacements between Alaska Junction and Avalon stations; similar number of displacements in Delridge
- Greatest disruption to neighborhood around Alaska Junction Station
- High guideway on SW Genesee Street
- Park effects may require 4(f) avoidance alternative

## West Seattle Tunnel

- Fewer displacements with tunnel Alaska Junction Station; similar number of displacements in Delridge
- Tunnel facilitates lower guideway on SW Genesee Street, but could increase implementation schedule and require 3rd Party funding
- Park effects may require 4(f) avoidance alternative
- Lower Delridge Station in neighborhood

## West Seattle Stations and Guideway



# Key considerations

## West Seattle Stations and Guideway



## ST3 Representative Project

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

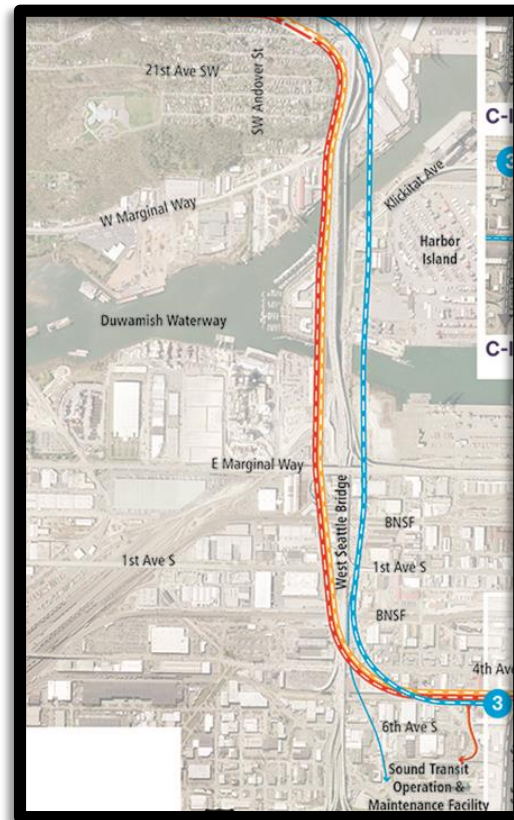
## West Seattle Elevated

- 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



## ST3 Representative Project

- More complex and costly elevated track
- Does not facilitate track interconnections
- Does not grade separate Lander and Holgate roadway crossings

## 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 and Chinatown/ International District



## 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 option reduces effects but has less convenient access/transfers
- Affects future Central base expansion

## C-ID 4th Avenue

- Viaduct rebuild results in more construction complexity and traffic diversions, schedule delays; requires 3<sup>rd</sup> Party funding
- Mined station option increases traffic effects and has less convenient access/transfers
- Impacts Ryerson bus base

**Key considerations**  
SODO and Chinatown/ International District



## ST3 Representative Project

- More complex and costly elevated track
- Does not facilitate track interconnections
- Does not grade separate Lander and Holgate roadway crossings

## 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



The map displays three proposed transit alignments for the Seattle stadium area:

- ST3 Representative Project (Red Line):** Connects SODO to the stadium area via a route passing through the International District/Chinatown.
- C-ID 5th Avenue (Orange Line):** Connects SODO to the stadium area via a route passing through the International District/Chinatown.
- C-ID 4th Avenue (Blue Line):** Connects SODO to the stadium area via a route passing through the International District/Chinatown.

Key locations and landmarks shown include SODO, Stadium, International District/Chinatown, Safeco Field, CenturyLink Field, and various streets such as 4th Ave S, 5th Ave S, and 6th Ave S.

- 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

- Cut-and-cover station on 5th Ave S results in construction effects in C-ID but bored tunnel limits effects
- Mined station option reduces effects but has less convenient access/transfers
- Affects future Central base expansion

- Viaduct rebuild results in more construction complexity and traffic diversions, schedule delays; requires 3<sup>rd</sup> Party funding
- Mined station option increases traffic effects and has less convenient access/transfers
- Impacts Ryerson bus base

## SODO and Chinatown/ International District – Ballard extension



## Downtown Tunnel Route



### ST3 Representative Project

- Impacts SR 99 off ramp and requires large sewer relocation
- Constrained right-of-way at Seattle Center Station
- North tunnel portal results in more acquisitions and displacements

### Downtown 6th Ave

- Limited entrance options for Midtown Station
- Wider right-of-way for Seattle Center Station
- North tunnel portal located in poor soil conditions

### Downtown 5th Ave

- Higher ridership potential at South Lake Union Station due to better pedestrian access and bus connections
- Constrained right-of-way at Seattle Center Station
- North tunnel portal impacts SW Queen Anne Greenbelt in landslide hazard area

# Key considerations

## Downtown Tunnel Route



## 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



# 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

### 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



A photograph of a light rail train at a station platform. The train is white with blue accents and has "CANTON SEATTLE" written on its front. Several people are waiting on the platform, including a woman in a yellow hijab and a man in a blue shirt. The platform has blue railings and a blue circular sign. The background shows trees and a clear sky.

# *Summary of Level 3 evaluation results*



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
Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.								
At-grade crossings	3	1		1				
Potential service interruptions/recoverability	Lower	Medium		Medium			Lower	Medium
Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet projected transit demand.								
Network Integration	Lower	Medium		Higher			Medium	Higher
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.								
Accommodates future LRT extension	Lower	Medium		Higher			Medium	Higher
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.								
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
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.								
Passenger transfers	Higher	Higher	Medium	Higher			Medium	Higher
Equitable development opportunities	Lower	Medium		Higher				
Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built and social environments through sustainable practices.								
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 <sup>(1)</sup>	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



Key Considerations	Summary of Findings
<b>West Seattle stations and guideway</b>	<ul style="list-style-type: none"> <li>• ST3 Representative Project's east-west oriented elevated Alaska Junction Station complicates future LRT extension</li> <li>• Tunnel alternatives could delay opening of West Seattle extension; require 3rd Party funding</li> <li>• Park effects in West Seattle may require 4(f) avoidance alternative</li> </ul>
<b>Duwamish Waterway crossing</b>	<ul style="list-style-type: none"> <li>• North bridge crossing avoids Pigeon Point steep slope and effects to Duwamish Greenbelt; affects freight, port terminal facilities especially during construction</li> </ul>
<b>SODO and Chinatown/International District</b>	<ul style="list-style-type: none"> <li>• ST3 Representative Project has more complex/costly elevated track in SODO; does not facilitate track interconnections</li> <li>• Deep mined C-ID station options (on 4<sup>th</sup> and 5<sup>th</sup> Aves) result in less convenient passenger access/transfers</li> <li>• 4th Ave S viaduct rebuild creates engineering/constructability issues, potential schedule delay, extensive traffic diversions during construction and requires 3rd Party funding</li> </ul>
<b>Downtown tunnel route</b>	<ul style="list-style-type: none"> <li>• ST3 Representative Project on Republican impacts SR 99 off ramp and requires large sewer relocation</li> <li>• Higher ridership potential at South Lake Union Station on Harrison due to better pedestrian access/bus connections</li> </ul>
<b>Smith Cove-Interbay</b>	<ul style="list-style-type: none"> <li>• ST3 Representative Project affects Elliott/15th Ave W</li> <li>• Alignments on east side of Elliott affect landslide hazard area and SW Queen Anne Greenbelt</li> <li>• Park effects in Interbay may require 4(f) avoidance alternative</li> </ul>
<b>Salmon Bay crossing</b>	<ul style="list-style-type: none"> <li>• Movable bridge has potential service interruptions and more in-water effects</li> <li>• Tunnel crossings add costs; require 3rd Party funding</li> </ul>
<b>Ballard terminus station</b>	<ul style="list-style-type: none"> <li>• Wider 14th Ave NW right-of-way better accommodates guideway, station and tail tracks</li> <li>• 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</li> </ul>

# Summary of key considerations





***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**

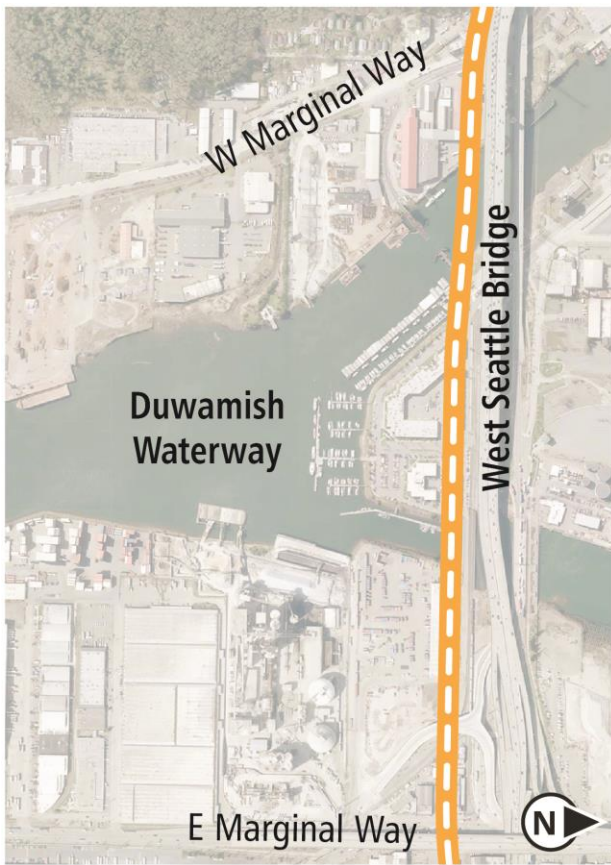
- Junction station options: 41st Ave, 42nd Ave and 44th Ave
- C-ID station options: 4th Ave Cut-and-Cover and 4th Ave Mined
- Ballard station options: 14th Ave and 15th Ave





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





## Duwamish Crossing:

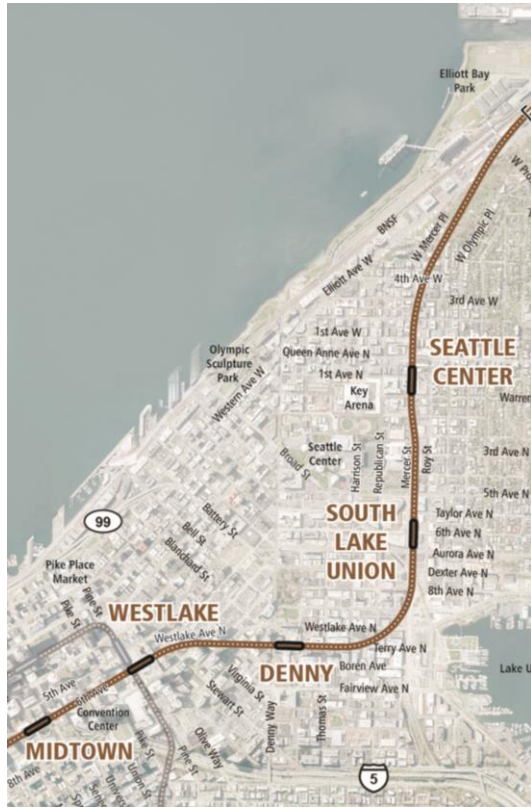
### Key differentiators

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



**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/  
Ballard Elevated Crossing on north instead of south side**

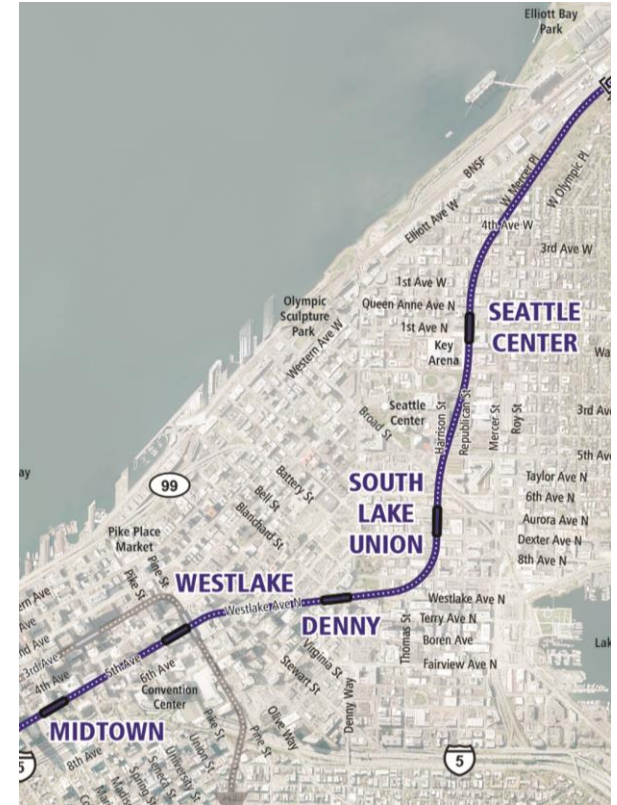




## Downtown:

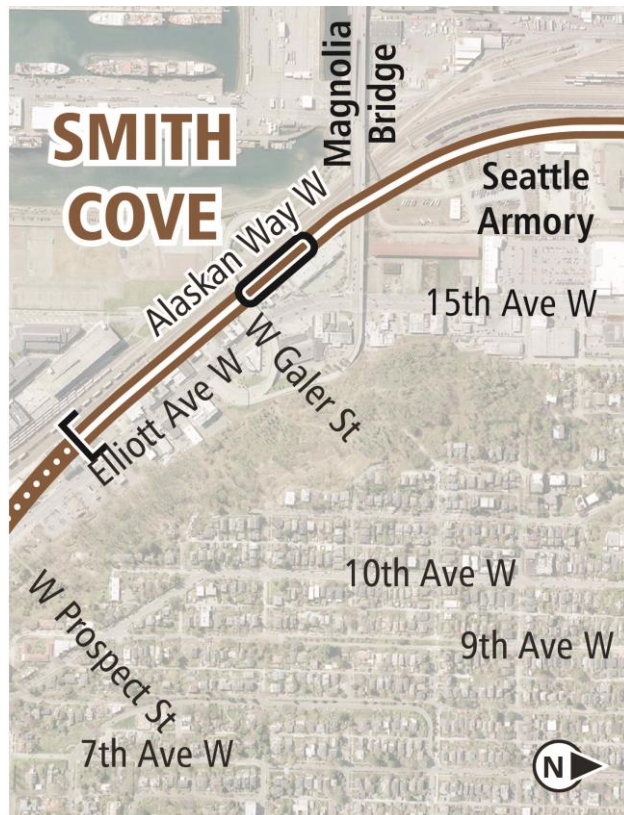
### Key differentiators

- Midtown Station
- SLU Station
- Seattle Center Station
- North tunnel portal
- Cost



**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated 5th/Harrison route instead of 6th/Mercer**





## Smith Cove:

### Key differentiators

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



**West Seattle Elevated/ C-ID 5th Ave/ Downtown 6th Ave/ Ballard Elevated** **Station near Prospect instead of Galer**



# *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**

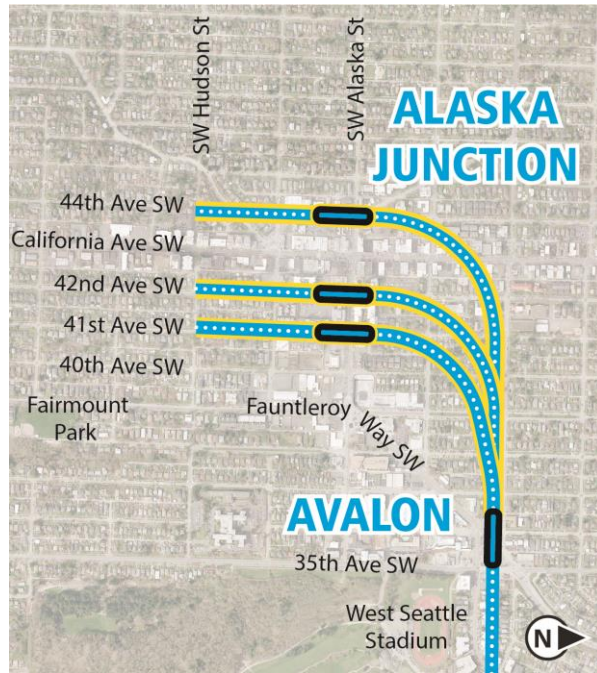
- Junction station options: 41st Ave, 42nd Ave and 44th Ave
- C-ID station options: 4th Ave Cut-and-Cover and 4th Ave Mined
- Ballard station options: 14th Ave and 15th Ave





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

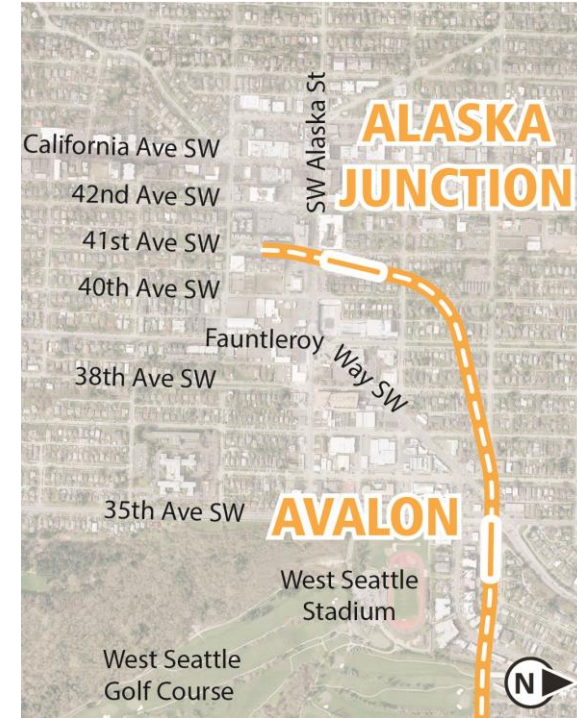




## Alaska Junction:

### Key differentiators

- Station location
- Property effects
- Guideway height in Delridge
- Cost



**West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel** *Elevated instead of tunnel stations*





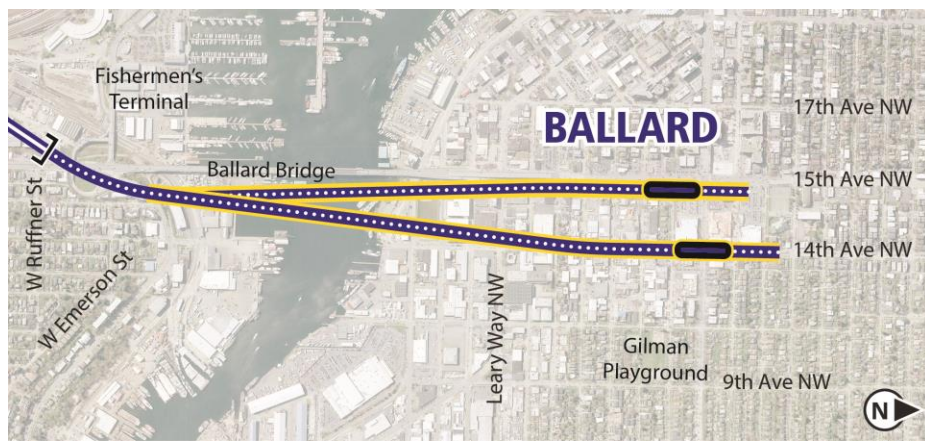
## SODO and Chinatown-ID:

### Key differentiators

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

**West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel 5th Ave instead of 4th Ave CID station**





## Salmon Bay Crossing and Ballard Station:

### Key differentiators

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

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




A photograph of a tram at a station platform. The tram is white with blue and green wavy patterns. Several people are boarding or walking on the platform. A man in a dark shirt and khaki pants is entering the tram. A woman in a pink shirt and black pants is walking on the platform. Other people are visible in the background. The text "Next steps" is overlaid in white, italicized font.

***Next steps***



# Level 3 alternatives screening



<b>SAG Meeting #12</b>	Jan 30	Level 3 evaluation results
<b>ELG Meeting #6</b>	Feb 1	Level 3 evaluation results
<b>EIS Scoping Open Houses / Neighborhood Forums</b>	Feb/ Mar TBD	Level 3 evaluation results
<b>ELG Meeting #7</b>	Mar 29	CID station focus
<b>SAG Meeting #13</b>	Apr TBD	Level 3 recommendations
<b>ELG Meeting #8</b>	Apr TBD	Level 3 recommendations
<b>Sound Transit Board System Expansion Committee</b>	May 9	Identify preferred alternative (and other EIS alternatives)
<b>Sound Transit Board Full Board</b>	May 23	Identify preferred alternative (and other EIS alternatives)





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