

West Seattle and Ballard Link Extensions

West Seattle Scoping Meeting | 2.27.19

Agenda

- Project overview
- Environmental review process
- Alternatives development recap
- Level 3 alternatives, results, key considerations
- Next steps

Tonight's event

- Open house
 - Learn visit informational materials, ask staff questions
 - Share leave a scoping comment on:
 - Latest route and station alternatives
 - Topics to study in the Environmental Impact Statement
 - Project purpose and need
- Neighborhood forum
 - Have a conversation with your neighbors
 - Staff available to answer questions





ST3 Representative project

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

West Seattle project timeline



2016

2017-2022

Alternatives development

Board identifies preferred

Draft Environmental Impact Statement

Final Environmental **Impact Statement**

Board selects project to be built

Federal Record of

PUBLIC INVOLVEMENT



DESIGN

2022-2025

Final route design

Final station designs

Procure and commission station and public art

Obtain land use and construction permits

Property acquisition/ Relocation

PUBLIC INVOLVEMENT



CONSTRUCTION

2025-2030





2030

Safety education

Testing and pre-operations

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

VOTER APPROVAL

2016



PLANNING

DESIG

2017-2019

Alternatives development

Board identifies preferred alternative*

2019-2022

Draft Environmental Impact Statement

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Board selects project to be built

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Alternatives development process

LEVEL 1

Alternatives development

Early-2018

Conduct early scoping

Study ST3 representative project and alternatives

Screen alternatives

PUBLIC INVOLVEMENT

LEVEL 2

Alternatives development

Mid-2018

Technical analysis

Refine and screen alternatives

PUBLIC INVOLVEMENT

LEVEL 3

Alternatives development

Late-2018 / Early-2019

Refine and screen alternatives

Conduct Environmental Impact Statement (EIS) scoping

PUBLIC INVOLVEMENT

PREFERRED ALTERNATIVE*



Early-2019

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

Screening process

Broad range of initial alternatives

Refine remaining alternatives

Further evaluation

Preferred Alternative and other EIS alternatives

Community engagement and collaboration



Board



Meeting dates subject to change.



VOTER APPROVAL

2016



PLANNING



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2019-2022

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What is an Environmental Impact Statement?

- Starts with scoping
- Evaluates reasonable range of alternatives

- Identifies potential impacts
- Identifies potential mitigation

What is EIS Scoping?

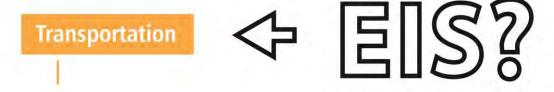
- Part of the federal and state environmental review process
- 30-day public comment period
- Seeks public feedback on scope of EIS
 - Range of alternatives
 - Topics to study
 - Purpose and need
- Helps inform Board decision on what to study in EIS*

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

What is typically studied in an



What is typically studied in an



- Ridership
- Transit
- Regional and local traffic
- Non-motorized facilities and modes
- Freight movement
- Marine navigation
- Aviation
- Construction traffic

What is typically studied in an

Transportation



- Ridership
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Natural ____

- Air quality and greenhouse gas emissions
- Ecosystems and fish and wildlife habitat
- Water resources
- Geology and soils

What is typically studied in an

Transportation

- EIS?
- \Leftrightarrow

Built Environment

- Ridership
- Transit
- Regional and local traffic
- Non-motorized facilities and modes
- Freight movement
- Marine navigation
- Aviation
- Construction traffic

Natural Environment

- Air quality and greenhouse gas emissions
- Ecosystems and fish and wildlife habitat
- Water resources
- Geology and soils

- Noise and vibration
- Economic effects
- Visual resources
- Parks resources
- Land use
- Acquisitions, displacements and relocations
- Energy use
- Hazardous materials
- Public services and utilities
- Impacts on low income and minority populations
- Cultural, historic and archaeological resources
- Construction impacts



PLANNING



Anticipated

publication

date:

Late 2020

2017-2019

Alternatives development

2019-2022

Draft Environmental Impact Statement

Final Environmental Impact Statement

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Federal Record of Decision

PUBLIC INVOLVEMENT

Board identifies preferred alternative*

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





Level 1 alternatives development



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PUBLIC INVOLVEMENT

PREFERRED ALTERNATIVE*



Early-2019



West Seattle/Duwamish Level 1 alternatives

Level 2 alternatives development

LEVEL 1

Alternatives developmen

Early-2018

Conduct early scoping

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PUBLIC INVOLVEMENT

LEVEL 2

Alternatives development

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PUBLIC INVOLVEMENT

LEVEL 3

Alternatives development

Late-2018 / Early-2019

Refine and screen alternatives

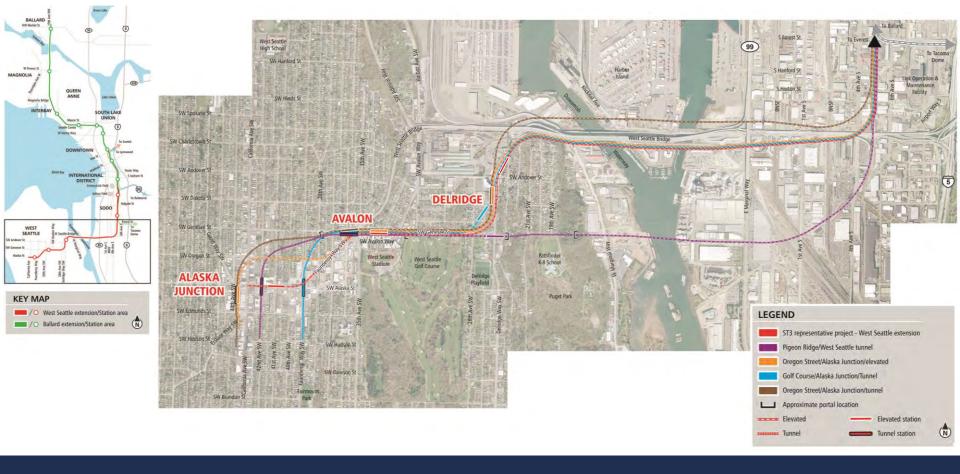
Conduct Environmental Impact Statement (EIS) scoping

PUBLIC INVOLVEMENT

PREFERRED ALTERNATIVE*



Early-2019



West Seattle/Duwamish Level 2 alternatives

Level 3 alternatives development

LEVEL 1

Early-2018

Conduct early scoping

Study ST3 representative project and alternatives

Screen alternatives

PUBLIC INVOLVEMENT

LEVEL 2

Alternatives development

Mid-2018

Technical analysis

Refine and screen alternatives

PUBLIC INVOLVEMENT

LEVEL 3

Alternatives development

Late-2018 / Early-2019

Refine and screen alternatives

Conduct Environmental Impact Statement (EIS) scoping

PUBLIC INVOLVEMENT

PREFERRED ALTERNATIVE*

Early-2019







West Seattle/Duwamish 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

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



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



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

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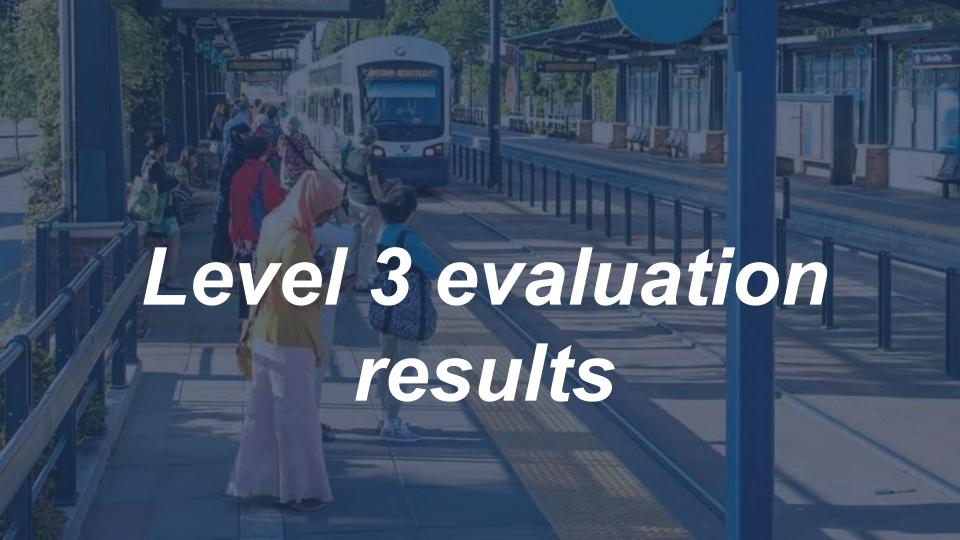
West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel



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



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



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
- Key differentiators and considerations among alternatives

Lower Performing

Medium Performing

Higher Performing

	ST3 Representative	West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated		h West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel				
Evaluation Measures	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 efficie	ent peak and off-peak	light rail transit service to c	ommunities in the project	corridors defined in ST3.				
At-grade crossings	3	1		1				
Potential service interruptions/recoverability	Lower	Med	ium		Medium		Lower	Medium
LRT travel times (minutes)	6 to 7 / 13 to 14	6 to 7 / 1	13 to 14	6 to 7 / 13 to 14				
Transit travel time savings (minutes)	12 to 20	12 to		12 to 20				
Improve regional mobility by increasing conne	ectivity and capacity th	nrough downtown Seattle t	o meet projected transit d	lemand.				
Network integration	Lower	Med			Higher		Medium	Higher
Passenger carrying capacity	Medium	Med				Medium		
Average weekday trips on West Seattle/	35,000 to 40,000 /	35,000 to	· · · · · · · · · · · · · · · · · · ·			35,000 to 41,000 /		
Ballard extensions (2042)	123,000 to 163,000	120,000 to	,			125,000 to 165,000		
Connect regional centers as described in adop	,			t plans and Sound Transit's R	Regional Transit Long-Ro			
PSRC growth centers served	5	5				5		
Pop/job densities served (2040)	38 / 39	39 /				37 / 38 to 39		
Accommodates future LRT extension	Lower	Med		Higher Medium Higher			er	
Implement a system that is consistent with th				d that is technically feasible (and financially sustaina		aintain.	
Mode, route and stations per ST3	Higher	High				Higher		
Potential ST3 schedule effects	Higher	Higher	Medium			Lower		
Potential ST3 operating plan effects	Lower	High	ner		Higher		Medium	Higher
Engineering constraints	Lower	Med	ium	Lower				
Constructability issues	Lower	Med	lium	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/	\$25 to \$30 /	\$25 to	\$30 /	\$25 to \$30 /				
Ballard extensions (2018\$ in millions)	\$55 to \$60	\$55 to		\$55 to \$60				
Expand mobility for the corridor and region's		le transit dependent, low in	come, and minority popul	lations.				
Low-income/minority opportunities	Medium	Med		Medium				
(activity nodes/rental units) (1)	23%	22	%	23%				
Low-income population (1/2)	32% / 32%	32% /	32%	32% / 31%				
Minority population (1/2)	34% / 34%	34% /	35%	34% / 34 to 35%				
Youth population (1/2)	7% / 10%	7% / 9%		7% / 9 to 10%				
Elderly population (1/2)	14% / 11%	14% / 12%		14% / 11 to 12%				
Limited English Proficiency population (1/2)	7% / 8%	7% / 8%		7% / 7 to 8%				
Disabled population (1/2)	12% / 11%	12% / 11%		12% / 11%				
(1) Within station walksheds: (2) Within 15 min								
Lovol 2	Lower Performing Medium Performing Higher Performing Higher Performing							

Level 3 evaluation - Part 1 of 2

Overview of Key Differentiators

	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				
Evaluation Measures	Project	5th Ave Cut-and-Cover International District/ Chinatown Station	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, stat		ation access, and modal integration in a manner that is consistent with local land use plans and policies.						
Compatibility with Urban Centers/Villages (1)	58%	569	6			55 to 58%		
Station land use plan consistency	Higher	High	er			Higher		
Activity nodes served (1)	302	29	3			300 to 303		
Passenger transfers	Higher	Higher	Medium	Higher			Medium	Higher
Bus/rail and rail/rail integration (1)	Medium	Med	um			Medium		
Bicycle infrastructure and accessibility (1)	19%	199	6	18 to 19%		18 to 19%		
Pedestrian/limited mobility accessibility	Higher	High	er	Higher				
Development potential (1)	14%	149	6	13 to 14%				
Equitable development opportunities	Lower	Medium		Higher				
Preserve and promote a healthy environment	and economy by mini	mizing adverse impacts on t	he natural, built and soci	al environments through sust	ainable practices.			
Historic properties/Landmarks (2)	40	20		40				
Potential archaeological resource effects (1)	Lower	Low	ower Lower					
Parks/recreational resource effects (acres)	1.4	5.3	}	5.7				
Water resource effects (acres)	0.8	0.9	5	<0.1				
Fish and wildlife habitat effects (acres)	15.0	6.0)	15.0				
Hazardous materials sites (2)	50	60	1	40				
Visual effects to sensitive viewers (miles)	2.5	1.7	1	1.2				
Noise/vibration sensitive receivers (1)	Medium	Med	Medium		Medium			
Potentially affected properties	Medium	Low	er	Higher				
Residential unit displacements	Medium	Low	er	Higher				
Business displacements (square feet)	Higher	Low	er	Higher				
Construction impacts	Lower	Lower	Medium		Medium		Lower	Medium
Burden on minority/low-income	Lower	Med	um	Lower				
Traffic circulation and access effects	Lower	Medium		Higher				
Effects on transportation facilities	Lower	Med	um	Medium				
Effects on freight movement	Lower	Med	um	Medium		<u></u>		
Business and commerce effects	Medium	Med	um	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

Lower Performing Medium Performing Higher Performing



Key considerations

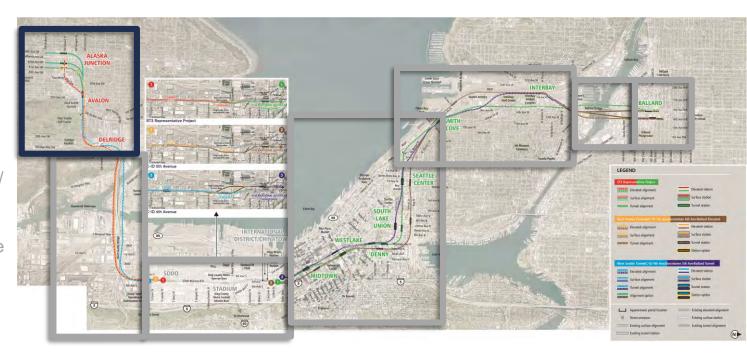
- West Seattle stations and guideway
- Duwamish Waterway crossing
- SODO and Chinatown/ Int'l District
- Downtown tunnel route
- Smith Cove-Interbay
- > Salmon Bay crossing
- > Ballard terminus station



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

West Seattle



Key considerations

West Seattle 47



West Seattle:

Key differentiators

- Station location
- Potential property effects
- Guideway height in Delridge
- Comparative estimate



West Seattle

Key Differentiators	Elevated 41 st South of Alaska	Tunnel 41 st /Alaska	Tunnel 42 nd /Alaska	Tunnel 44 th /Alaska
Station location (Alaska Junction)	Farther away from bus routes on California Ave	Farther away from bus routes on California Ave	Closer to bus routes on California Ave than 41 st	Closer to bus routes on California Ave than 41 st and 42 nd
Potential property effects* (residential units / square feet of businesses potentially displaced)	More / Fewer	Fewer / Fewer	Fewer / Fewer	Fewer / Fewer
Guideway height in Delridge	neight in Higher		Lower	Lower
Comparative Estimate (2018\$)*		+ \$700M	+ \$700M	+ \$700M

ALASKA JUNCTION 40th Ave SW 38th Ave SW AVALON West Seattle Golf Course 26th Ave SW DEL Delridge Playfield Delridge Way SW

^{*}Compared to ST3 Representative Project

Key considerations

- West Seattle stations and guideway
- Duwamish Waterway crossing
- SODO and Chinatown/ Int'l District
- > Downtown tunnel route
- > Smith Cove-Interbay
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Key considerations

ST3 Representative Project

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

West Seattle Elevated

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

West Seattle Tunnel

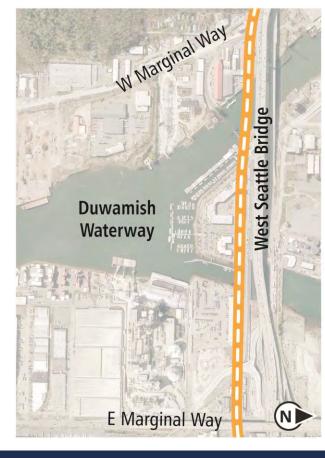
- North bridge crossing avoids Pigeon Point steep slope and effects to Duwamish Greenbelt
- Affects freight, port terminal facilities especially during construction

Duwamish Waterway Crossing



Key considerations

Duwamish Waterway Crossing



Duwamish Crossing:

Key differentiators

- Engineering constraints
- Potential fish and wildlife effects
- Potential property effects
- Potential freight movement effects
- Potential business and commerce effects
- Comparative estimate



Duwamish Crossing

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



^{*}Compared to ST3 Representative Project



Next steps

EIS Scoping Open Houses / Neighborhood Forums	February 15 – March 18	Level 3 evaluation results		
Delridge Community Workshop	March 12	Delridge station focus		
Chinatown/ID Station Community Workshop	March 13	CID station focus		
ELG Meeting #7	March 29	CID and 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)		

Delridge Station Community Workshop

Tuesday, Mar. 12

6:30 – 8:30 p.m. Youngstown Cultural Arts Center (4408 Delridge Way SW, Seattle)



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- Neighborhood forum
 - Have a conversation with your neighbors
 - Staff available to answer questions

How to provide scoping comments

- Attend an open house:
 - 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 <u>Union Station</u>
- 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

