



West Seattle and Ballard Link Extensions

System Expansion Committee | May 9, 2019

West Seattle & Ballard Link Extensions

*Motion No. M2019-51
Identifying Alternatives for DEIS*

9 May 2019

Agenda

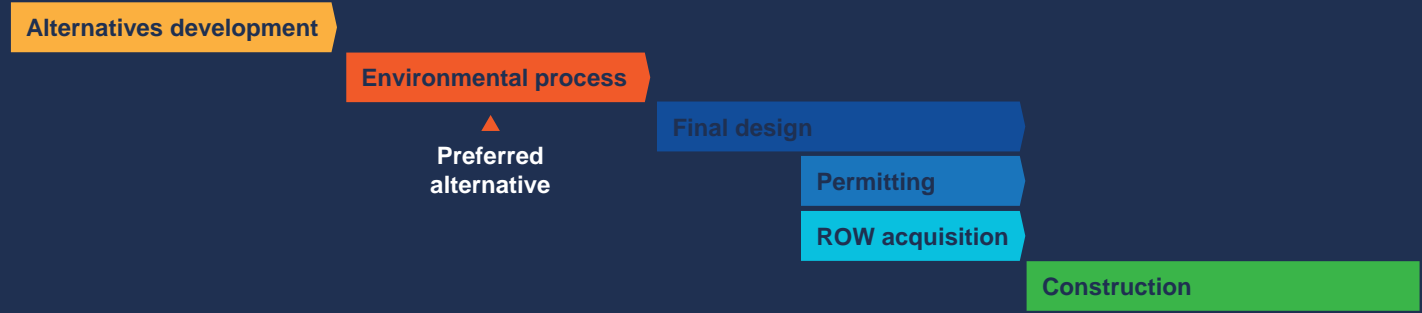
- Alternatives development process
- Level 3 alternatives and evaluation
- EIS Scoping feedback
- SAG recommendations
- ELG recommendations
- Next steps



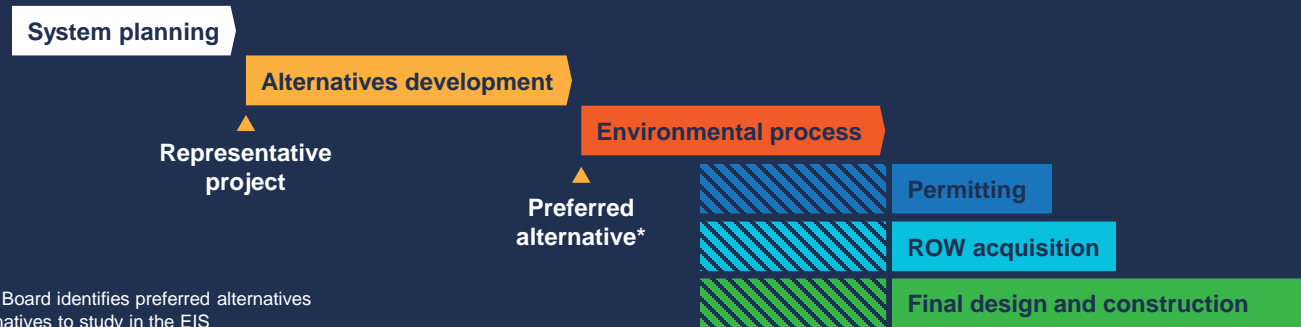
***Alternatives
development process***

New approach to project development

ST2 process



ST3 process



*Sound Transit Board identifies preferred alternatives and other alternatives to study in the EIS

City of Seattle Partnering Agreement

- Partnering agreement executed December 2017
- Identifies project schedule milestones including:
 - Board **identification of preferred alternative**: Q1/Q2 2019

PARTNERING AGREEMENT BETWEEN
THE CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY ("SOUND TRANSIT")
AND THE CITY OF SEATTLE FOR THE
WEST SEATTLE AND BALLARD LINK EXTENSIONS PROJECT

THIS PARTNERING AGREEMENT ("Agreement") is between the Central Puget Sound Regional Transit Authority, a regional transit authority organized under Chapter 81.112 RCW ("Sound Transit"), and the City of Seattle, a Washington municipal corporation ("City"), for the purposes set forth below. Sound Transit and the City are collectively referred to hereafter as "the Parties" or individually as a "Party."

INTRODUCTION

The ST3 mass transit system expansion approved by the voters in November 2016 is ambitious in scope and the timelines for implementation are aggressive. The scope and timeline for ST3 are equal to the scope and timeline for the prior two system expansions combined, Sound Move and ST2. Implementing ST3 consistent with the scope, budget, and schedule approved by the voters will take extraordinary effort by Sound Transit and by its federal, state, and local partners.

To meet the challenge of delivering projects as fast as possible, Sound Transit developed a System Expansion Implementation Plan that embraces new ways of working. Those adjustments include internal changes at Sound Transit, as well as new approaches to working with project partners, stakeholders, and local jurisdictions. The implementation plan includes

EXHIBIT D
SCHEDULE MILESTONES

Schedule Objective	Target Date
City Team Identified	Q3 2017
Project Development Begins	Q4 2017
Preliminary Permitting Plan Developed	Q1 2018
Preferred Alternative Identified	Q1/Q2 2018
ST Board Identifies Preferred Alternative	Q1/Q2 2019
Project Delivery Method Selected	2019
Preliminary Permitting Plan Updated	2019
Record of Decision & ST Board Selects Project to be Built	2022
Final Permitting Plan Developed	2022
Construction Begins	2025
Revenue Service to West Seattle	2030
Revenue Service to Ballard	2035

community engagement,
project development
es.
delivery processes
to do the same.
way of doing business so
by the voters in ST3 on
ment includes specific
following:

What is a preferred alternative?

- › SEPA / NEPA term
- › Makes clear to public ***where project is headed***
- › ***“Preference”*** among alternatives to be considered
- › ***Not a final decision*** or obligation
- › Board to also identify ***other DEIS alternatives*** in coordination with FTA

Community engagement and collaboration



Meeting dates subject to change.

External engagement overview

During Alternatives Development Phase: Jan 2018 – April 2019



5,600+ comments and questions



25 email updates



26 fairs, festivals, tabling events



17 open houses, forums, workshops



189 community briefings



14 Stakeholder Advisory Group meetings



7 Elected Leadership Group meetings



3 online open houses

Screening process

Level 1

**Broad range of initial
alternatives**

Level 2

**Refine remaining
alternatives**

Level 3

**Further
evaluation**

EIS

**Preferred Alternative(s)
and other EIS alternatives**

EIS alternatives

Identification of EIS alternatives 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

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

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



LEGEND

	ST3 Representative Project		Elevated station
	Elevated alignment		Surface station
	Surface alignment		Tunnel alignment
	Tunnel alignment		Tunnel station

	Approximate portal location		Existing elevated alignment
	Street overpass		Existing surface station
	Existing surface alignment		Existing tunnel alignment
	Existing tunnel station		

ST3 Representative Project

Summary of Level 3 alternatives

› ST3 Representative Project

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

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

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

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



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

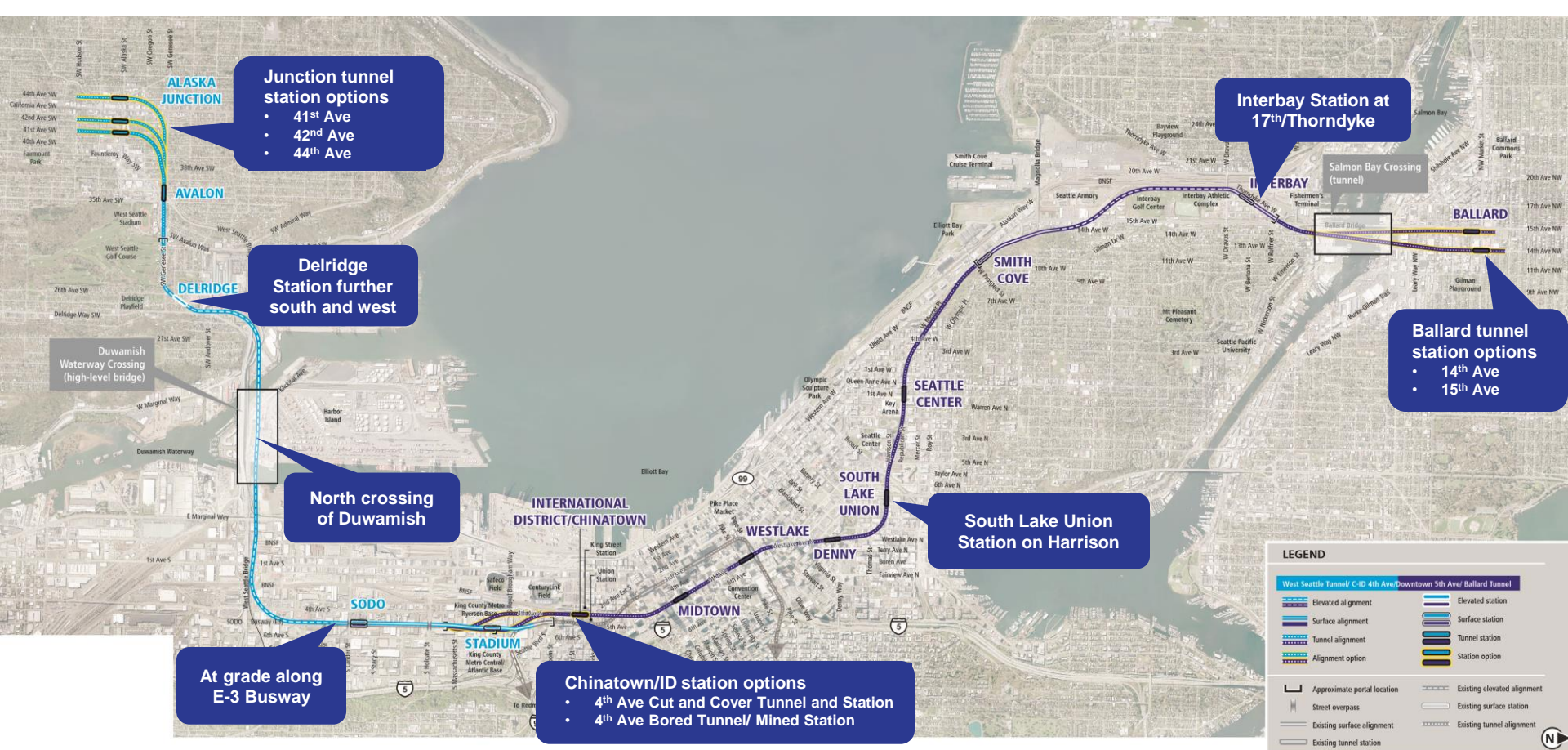
Summary of Level 3 alternatives

- › **ST3 Representative Project**
- › **West Seattle Elevated/ C-ID 5th Ave/
Downtown 6th Ave/ Ballard Elevated**
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West Seattle Tunnel/ C-ID 4th Ave/ Downtown 5th Ave/ Ballard Tunnel

- Junction station options: 41st Ave, 42nd Ave and 44th Ave
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- Ballard station options: 14th Ave and 15th Ave










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

A photograph of a modern light rail train station. A white train with a blue stripe and the text "CANTON SEATTLE" on its front is stopped at the platform. Several passengers are waiting, including a woman in a yellow hijab and white pants in the foreground. The station has a blue metal railing and a blue circular sign. The background shows green trees and a clear sky.

Level 3 evaluation

Preliminary 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

Evaluation measures

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

**Lower
Performing**

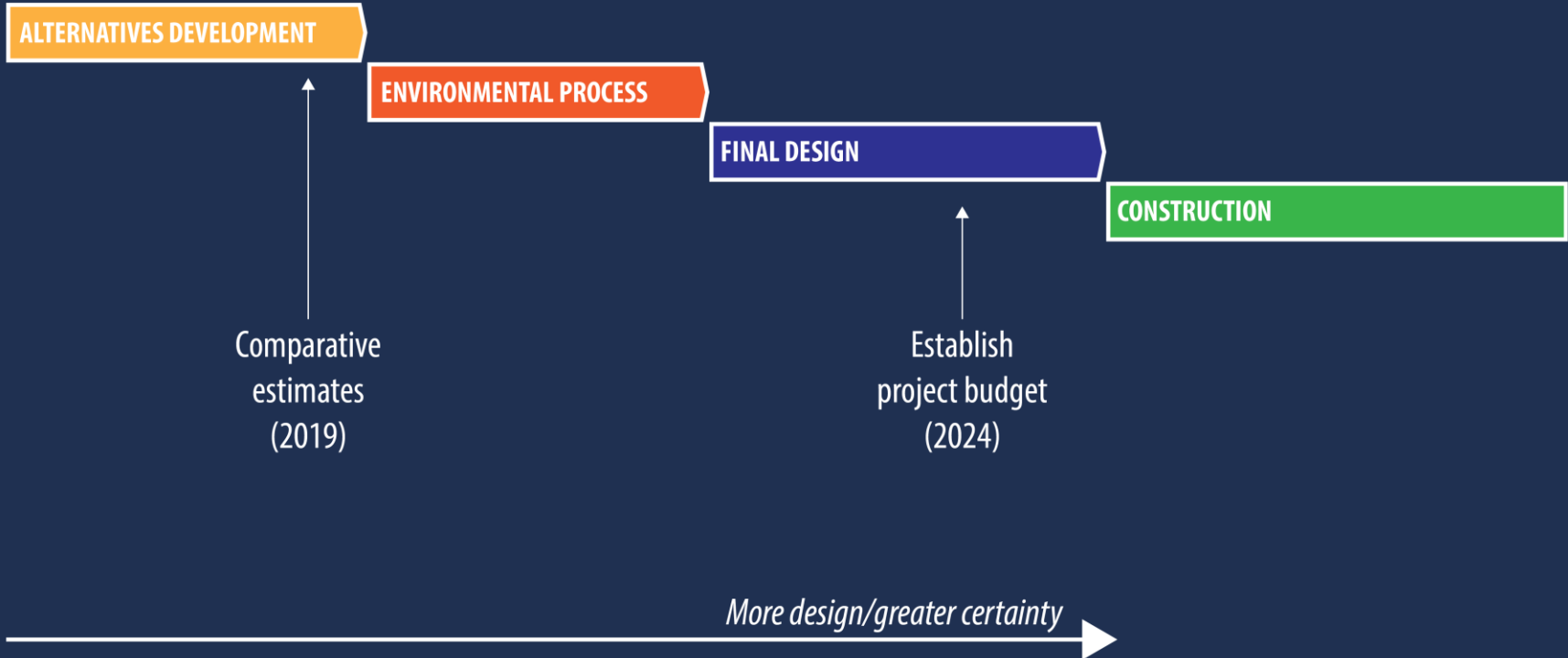
**Medium
Performing**

**Higher
Performing**

Comparative estimates

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

Project budget



Evaluation Measures	ST3 Representative	West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated		West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel				
	Project	5th Ave Cut-and-Cover International District/Chinatown Station	5th Ave Mined International District/Chinatown Station	41st Ave Alaska Junction/4th Ave Cut-and-Cover/14th Ave Ballard	42nd Ave Alaska Junction Station	44th Ave Alaska Junction Station	4th Ave Mined International District/Chinatown Station	15th Ave Ballard Station
<i>Provide high quality rapid, reliable, and efficient peak and off-peak light rail transit service to communities in the project corridors defined in ST3.</i>								
At-grade crossings	3	1						
Potential service interruptions/recoverability	Lower	Medium						
<i>Improve regional mobility by increasing connectivity and capacity through downtown Seattle to meet projected transit demand.</i>								
Network Integration	Lower	Medium						
<i>Connect regional centers as described in adopted regional and local land use, transportation, and economic development plans and Sound Transit's</i>								
Accommodates future LRT extension	Lower	Medium		Higher	Medium	Medium	Higher	Higher
<i>Implement a system that is consistent with the ST3 Plan that established transit mode, corridor, and station locations and that is technically feasible and financially sustainable to build, operate, and maintain</i>								
Potential ST3 schedule effects	Higher	Higher	Medium	Lower				
Potential ST3 operating plan effects	Lower	Higher		Higher	Medium	Medium	Higher	Higher
Engineering constraints	Lower			Lower				
Constructability issues	Lower			Lower				
Operational constraints	Lower			Higher	Lower	Lower	Higher	Higher
Capital cost comparison (2018\$)	-			+1,900M		+2,100M	+1,900M	+1,900M
<i>Encourage equitable and sustainable urban growth in station areas through transit-oriented development, station access, and modal integration in a manner that is consistent with local land use plans and policies.</i>								
Passenger transfers	Higher	Higher	Medium	Higher	Higher	Medium	Higher	Higher
Equitable development opportunities	Lower	Medium		Higher				
<i>Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built and social environments through sustainable practices.</i>								
Parks/recreational resource effects (acres)	1.4	5.3		5.7				
Water resource effects (acres)	0.8	0.5						
Fish and wildlife habitat effects (acres)	15.0	6.0						
Hazardous materials sites ⁽¹⁾	50	60						
Visual effects to sensitive viewers (miles)	2.5	1.7						
Potentially affected properties	Medium	Lower						
Residential unit displacements	Medium	Lower						
Business displacements (square feet)	Higher	Lower						
Construction impacts	Lower	Lower	Medium	Medium				
Burden on minority/low-income	Lower	Medium		Lower				
Traffic circulation and access effects	Lower	Medium		Higher				
Effects on transportation facilities		Medium		Medium				
Effects on freight movement		Medium		Medium				

Tunnels and 4th Ave S viaduct rebuild could extend construction schedule, add engineering complexity, constructability issues and cost

Limited TOD opportunities in West Seattle and Ballard

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

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

(1) On properties that overlap with the project footprint

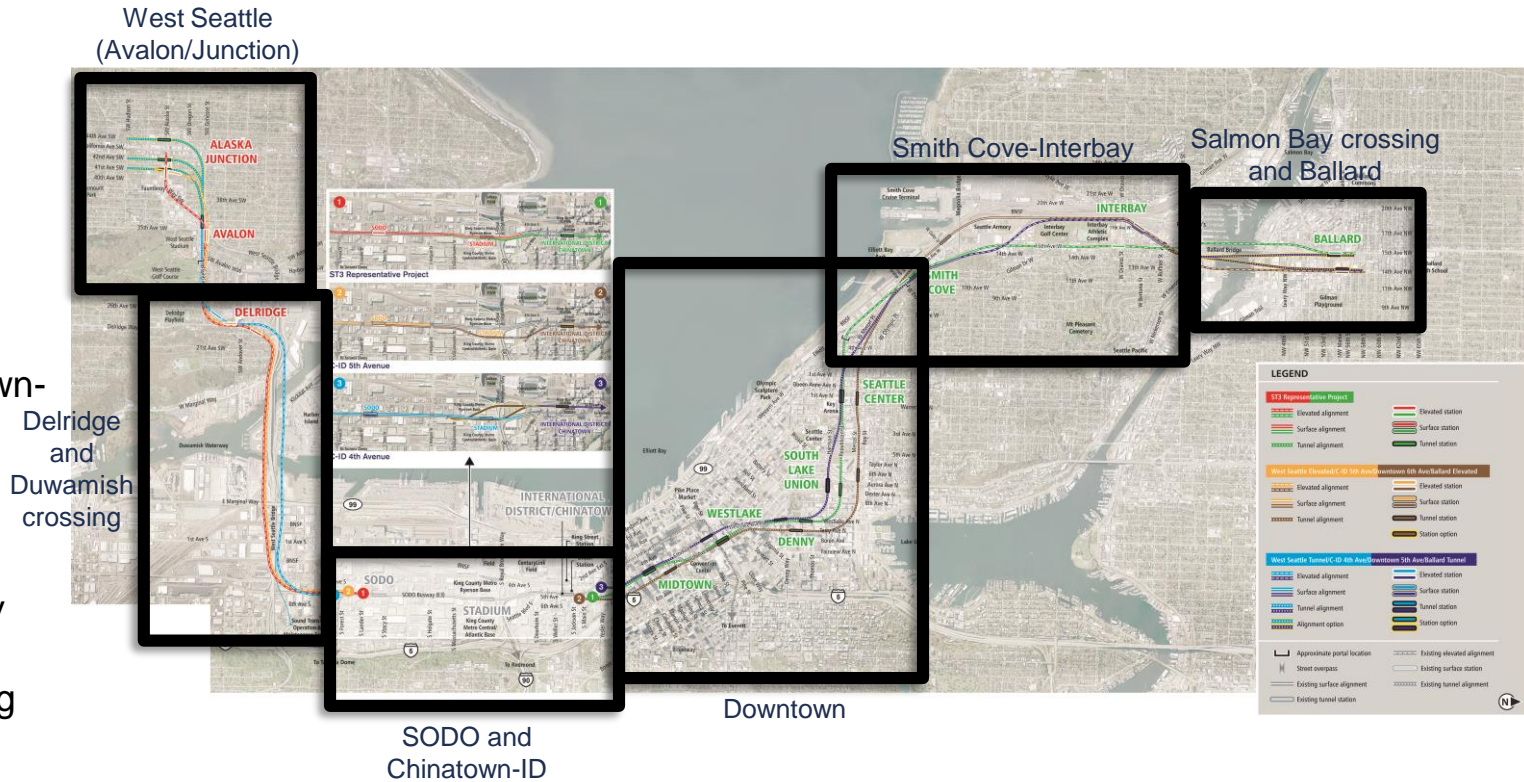
Lower Performing Medium Performing Higher Performing

Evaluation results Key differentiators

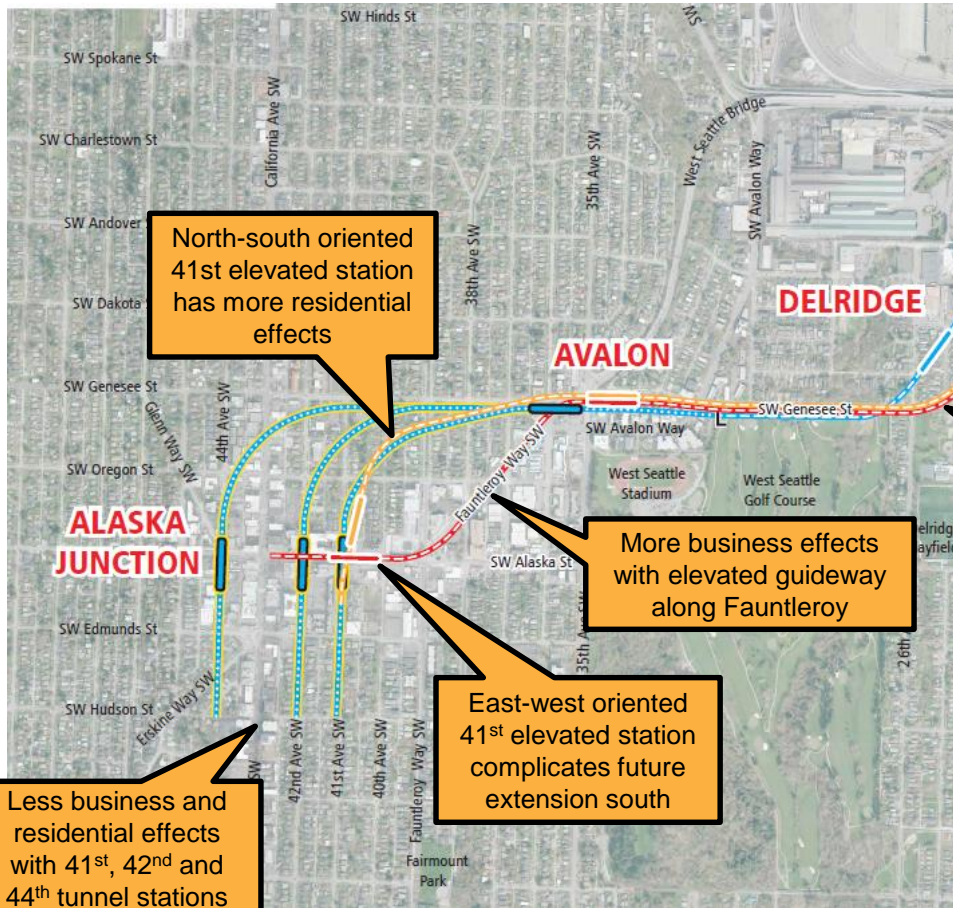
Ridership and travel time similar for all alternatives

Segments

- West Seattle (Avalon/Junction)
- Delridge and Duwamish crossing
- SODO and Chinatown-Int'l District
- Downtown
- Smith Cove-Interbay
- Salmon Bay crossing and Ballard



Key differentiators *By segment*



41 st elevated station (east-west orientation)	-
41 st elevated station (north-south orientation)	-
41 st , 42 nd or 44 th tunnel stations	+\$700M

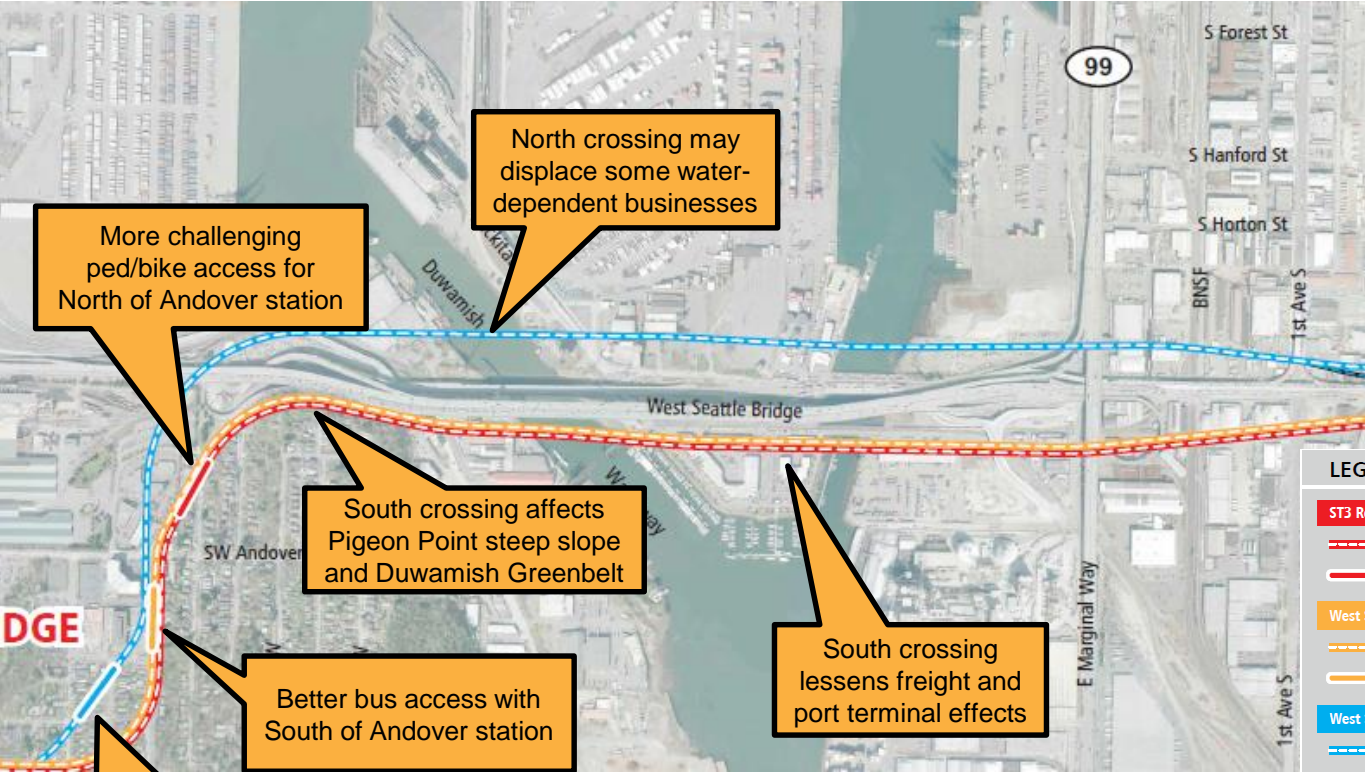
Comparative estimates greater than ST3 Representative Project are shown in italics

Elevated options in Alaska Junction result in higher guideway in Delridge

LEGEND

- ST3 Representative Project**
 - Elevated alignment
 - Elevated station
- West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated**
 - Elevated alignment
 - Elevated station
- West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel**
 - Elevated alignment
 - Tunnel alignment
 - Alignment Option
 - Elevated station
 - Tunnel station
 - Station Option

Key differentiators West Seattle (Avalon/Junction)



More challenging ped/bike access for North of Andover station

North crossing may displace some water-dependent businesses

South crossing affects Pigeon Point steep slope and Duwamish Greenbelt

Better bus access with South of Andover station

South crossing lessens freight and port terminal effects

Greater TOD potential with North of Genesee station

South crossing	-
South crossing	-
<i>North crossing</i>	<i>+\$300M</i>

Comparative estimates greater than ST3 Representative Project are shown in italics

LEGEND

ST3 Representative Project

- Elevated alignment
- Elevated station

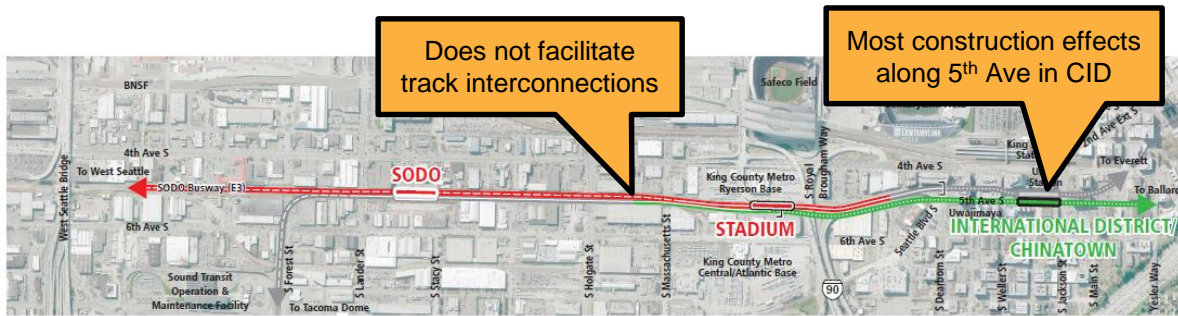
West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated

- Elevated alignment
- Elevated station

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

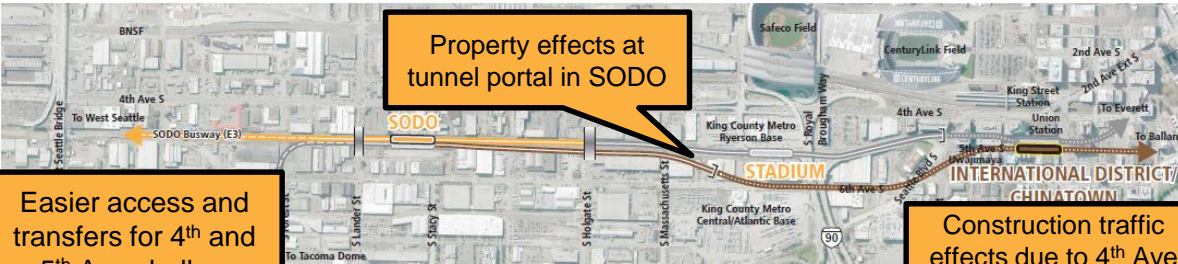
- Elevated alignment
- Elevated station
- Tunnel alignment
- Tunnel station
- Alignment Option
- Station Option
- OMF connection (elevated)
- OMF connection (surface)

Key differentiators *Delridge and Duwamish crossing*



5th Ave shallow (ST3)	-
5th Ave shallow station	-\$200M
5th Ave deep station	-
4th Ave shallow station	+\$300M
4th Ave deep station	+\$500M

Comparative estimates greater than ST3 Representative Project are shown in italics



LEGEND

ST3 Representative Project	West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated
Elevated alignment	Elevated alignment
Surface alignment	Surface alignment
Tunnel alignment	Tunnel alignment
Elevated station	Surface station
Surface station	Tunnel station option (shallow or deep)
Tunnel station	
West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel	
Elevated alignment	
Surface alignment	
Tunnel alignment	
Tunnel alignment option	
Surface station	
Tunnel station option (shallow or deep)	
Approximate portal location	Existing elevated alignment
Street overpass	Existing surface station
	Existing tunnel station
Existing tunnel alignment	



Potential schedule delay with 4th Ave station options

Key differentiators SODO and Chinatown-ID

ST3 Representative Project

- Tunnel alignment
- Tunnel station
- Elevated alignment

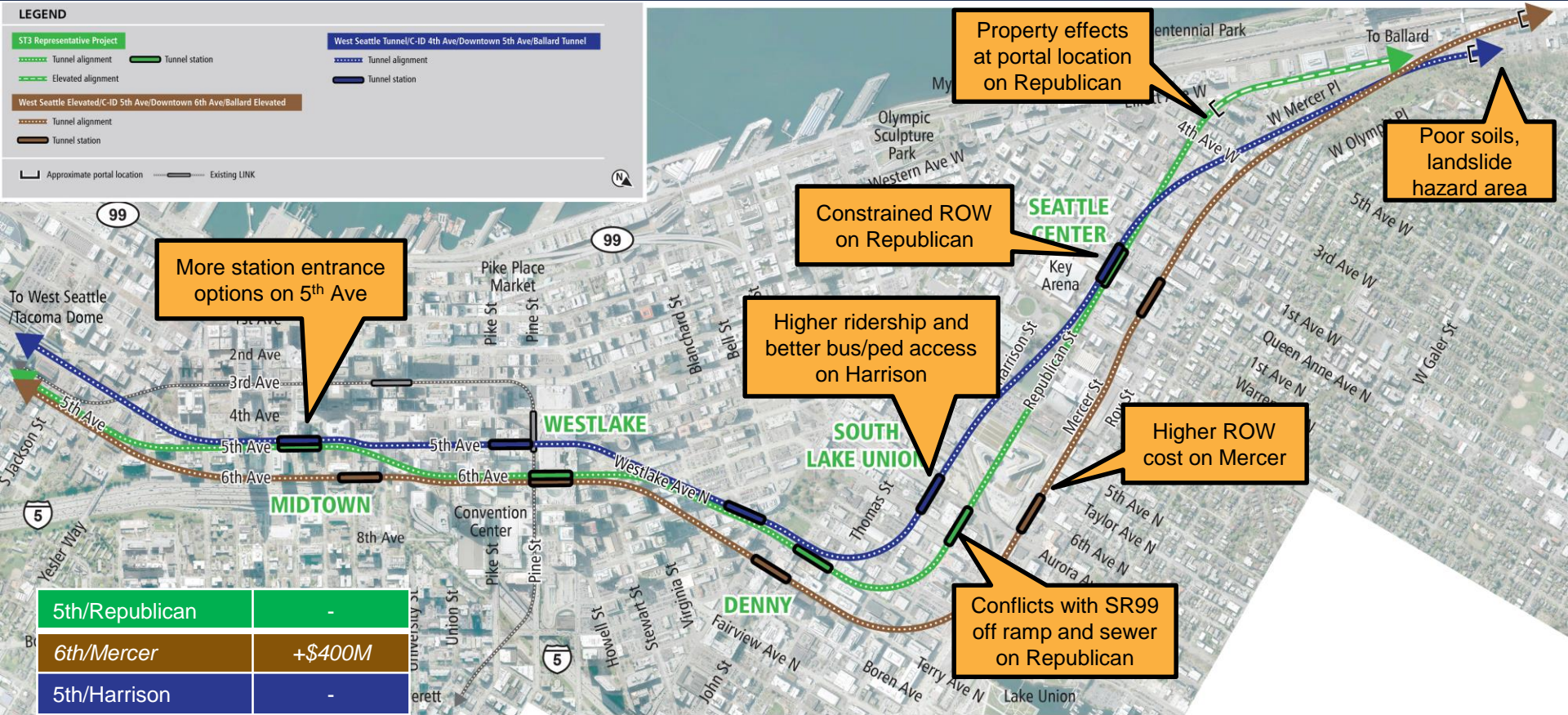
West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel

- Tunnel alignment
- Tunnel station

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

- Tunnel alignment
- Tunnel station

Approximate portal location Existing LINK



More station entrance options on 5th Ave

Constrained ROW on Republican

Higher ridership and better bus/ped access on Harrison

Higher ROW cost on Mercer

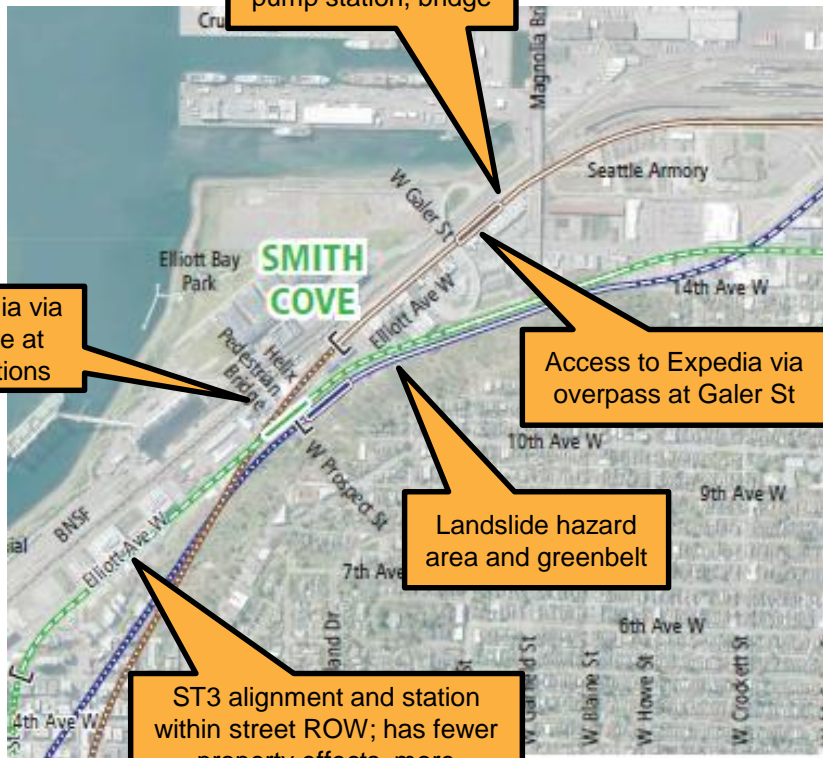
Conflicts with SR99 off ramp and sewer on Republican

Poor soils, landslide hazard area

5th/Republican	-
6th/Mercer	+\$400M
5th/Harrison	-

Comparative estimates greater than ST3 Representative Project are shown in italics

Key differentiators Downtown



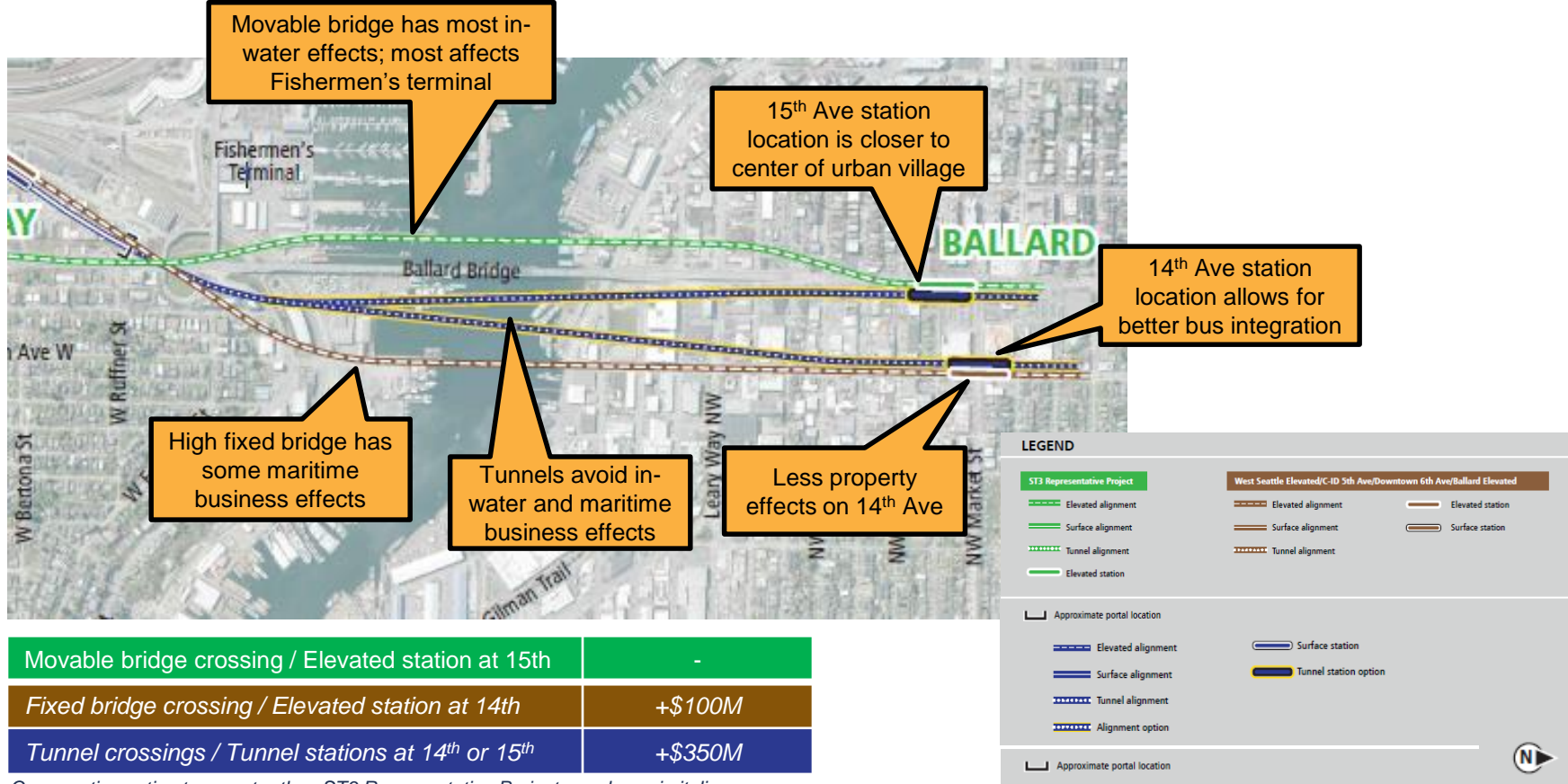
Prospect St station	-
Galer St station	+\$100M
Prospect St station	+\$200M

Comparative estimates greater than ST3 Representative Project are shown in italics

LEGEND

ST3 Representative Project	West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated	
Elevated alignment	Elevated alignment	Elevated station
Surface alignment	Surface alignment	Surface station
Tunnel alignment	Tunnel alignment	
Elevated station		
West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel		
Elevated alignment	Surface station	
Surface alignment	Tunnel station option	
Tunnel alignment		
Alignment option		
Approximate portal location		

Key differentiators *Smith Cove-Interbay*



Movable bridge crossing / Elevated station at 15 th	-
<i>Fixed bridge crossing / Elevated station at 14th</i>	<i>+\$100M</i>
<i>Tunnel crossings / Tunnel stations at 14th or 15th</i>	<i>+\$350M</i>

Comparative estimates greater than ST3 Representative Project are shown in italics

Key differentiators Salmon Bay crossing and Ballard

EIS Scoping feedback

WHO IS SOUND TRANSIT?

We plan, build and operate regional transit systems and services to improve mobility in urban areas of King, Pierce and Snohomish counties.

Sounder commuter rail

The Sounder train runs between Everett and Seattle, serving major South Puget Sound business centers. Sounder has the highest ridership in the region and is the most popular mode of transit in the Puget Sound area.

Link light rail

Link light rail runs from Everett to Seattle, serving major business centers and job centers. Link is the most popular mode of transit in the Puget Sound area.

Our Board

Sound Transit is governed by an 18-member Board made up of local elected officials and the Secretary of the Washington State Department of Transportation. The Board establishes policies and gives direction and oversight.

Funding

The system plan is paid for with a combination of intergovernmental funds, federal grants, farebox recovery, local bonds and interest payments. By 2026, system operating costs will be paid for with local taxes, farebox recovery, interest earnings, private sources and federal operating assistance.

 SOUNDTRANSIT

FUTURE SERVICE

Sound Transit System Expansion will:

- Build a 118-mile light rail network extending from Everett to Tacoma and from Seattle neighborhoods to Redmond and Issaquah.
- Establish Bus Rapid Transit (BRT) to the north, east and south of Lake Washington.
- Expand Sounder south line capacity and service adding two new stations.
- Improve service at existing stations.



 SOUNDTRANSIT

What is EIS Scoping?

- Part of federal and state environmental review process
- 45-day **public comment period** – Feb. 15 to April 2
- Requested public **feedback on scope of EIS**
 - Range of alternatives
 - Purpose and need
 - Topics to study
- **Informs Board identification** on what to study in EIS*

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



West Seattle and Ballard

Link Extensions

Scoping Information
Report

February 2019



West Seattle and Ballard Link Extensions

Online Open House



**Welcome! Please sign in to our online
open house**

Scoping overview

- Scoping: Feb. 15 to April 2
- Notification via postcards, advertisements, project website, email updates, press releases, social media, agency invitation letters, etc.
- 3 public meetings in Feb/March
- Online open house
- 1 agency meeting
- Other methods to comment



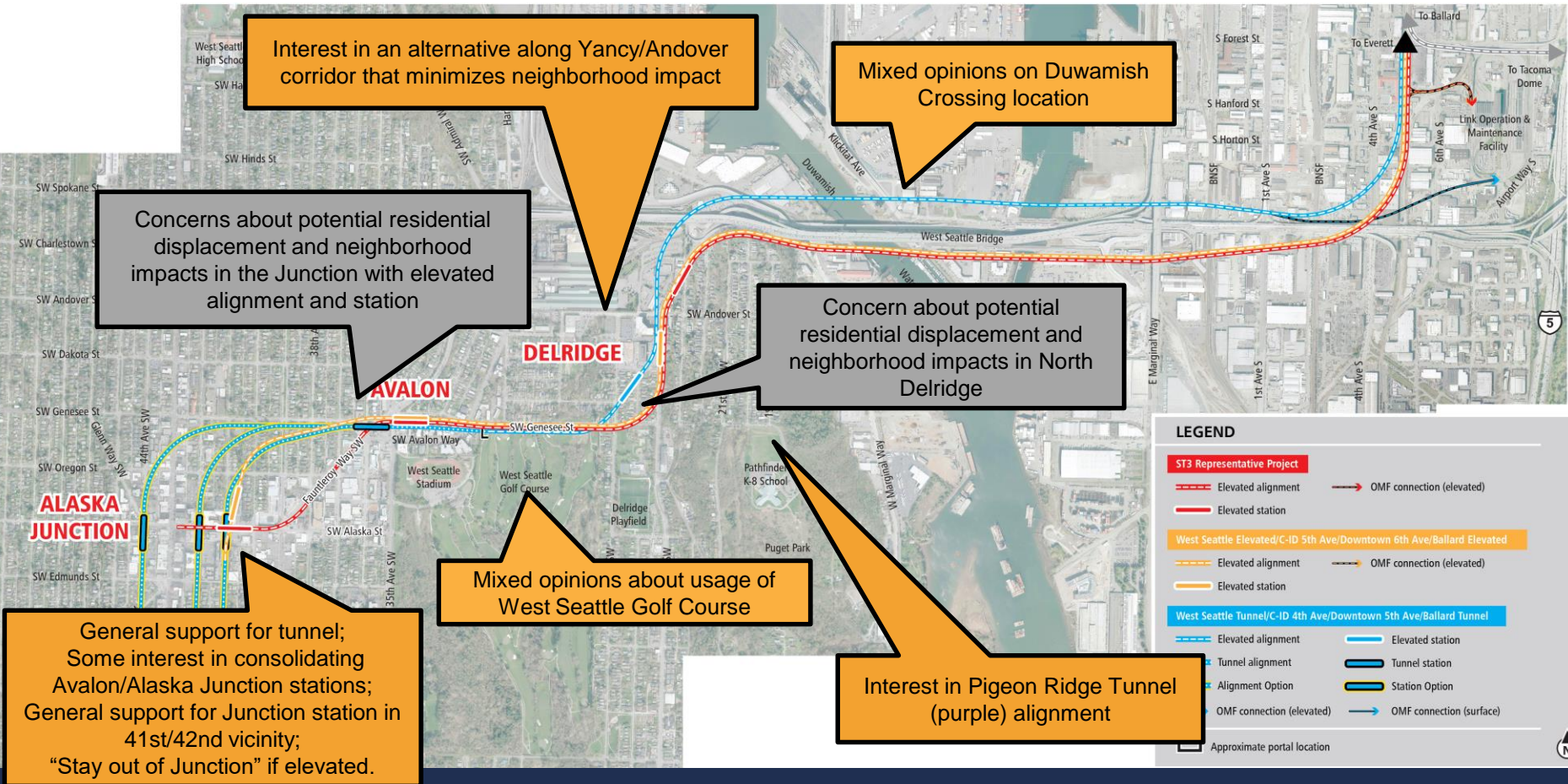
Scoping highlights

- 475 people attended three public meetings
- 11,700+ unique visitors viewed the online open house
- 6 agencies participated in agency scoping meeting
- 2,700+ total comments received via meetings and other methods
- All comments captured in *Scoping Summary Report*



Scoping feedback

- General comments – i.e., build it faster, plan for 100-year investment, etc.
- Feedback regarding alignments and stations
- EIS topics for evaluation - i.e., construction, environmental justice, neighborhood/ community impacts, TOD/housing
- Concerns regarding property impacts
- Comments regarding third party funding



Scoping feedback West Seattle/Duwamish crossing

Some support for new elevated SODO station and elevating existing station

Interest in seamless transfers at SODO Station, especially with West Seattle interim terminus

More support for surface alignments in SODO for easy transfers between lines

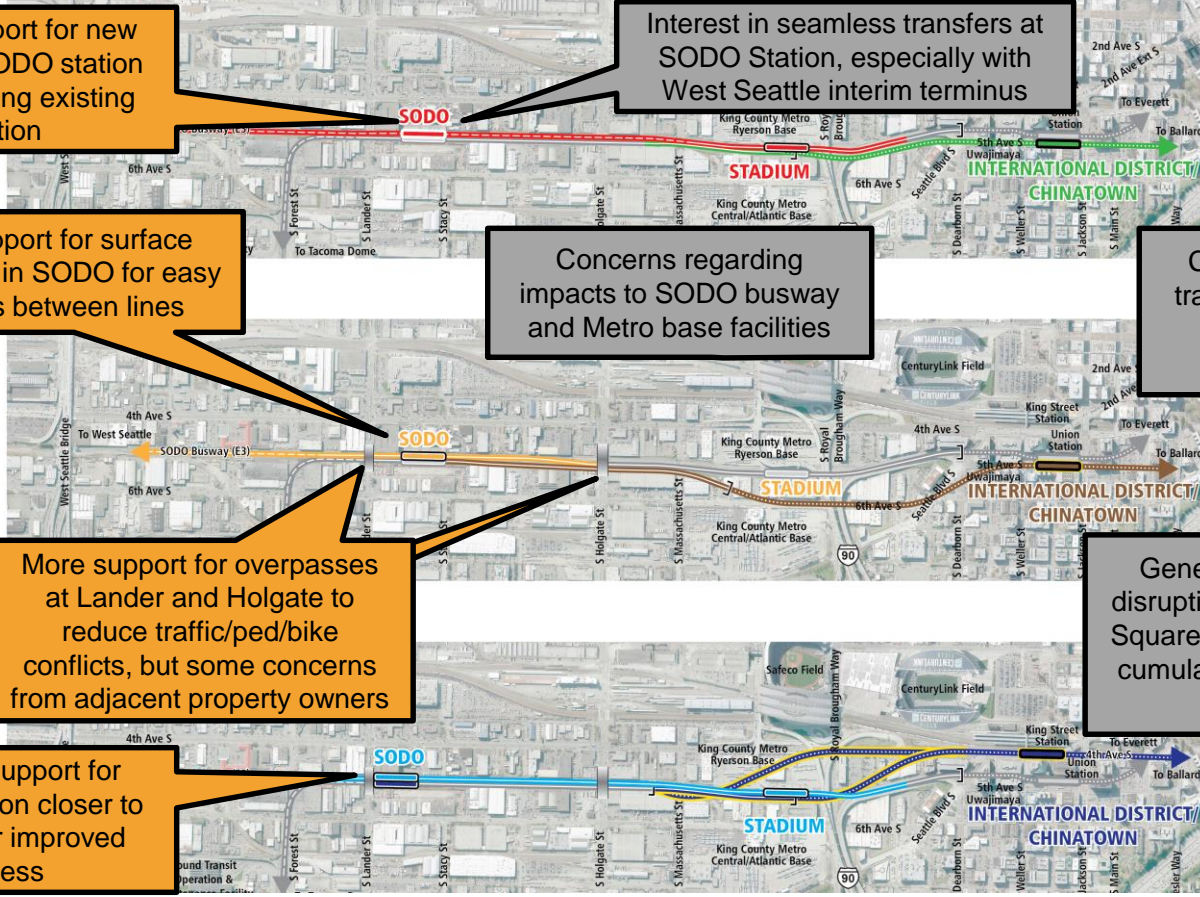
Concerns regarding impacts to SODO busway and Metro base facilities

Concern about future traffic and development affecting industrial businesses

More support for overpasses at Lander and Holgate to reduce traffic/ped/bike conflicts, but some concerns from adjacent property owners

General fatigue with construction disruption in SODO, CID and Pioneer Square; requests to evaluate parking, cumulative construction impacts and environmental justice

General support for SODO station closer to Lander for improved access



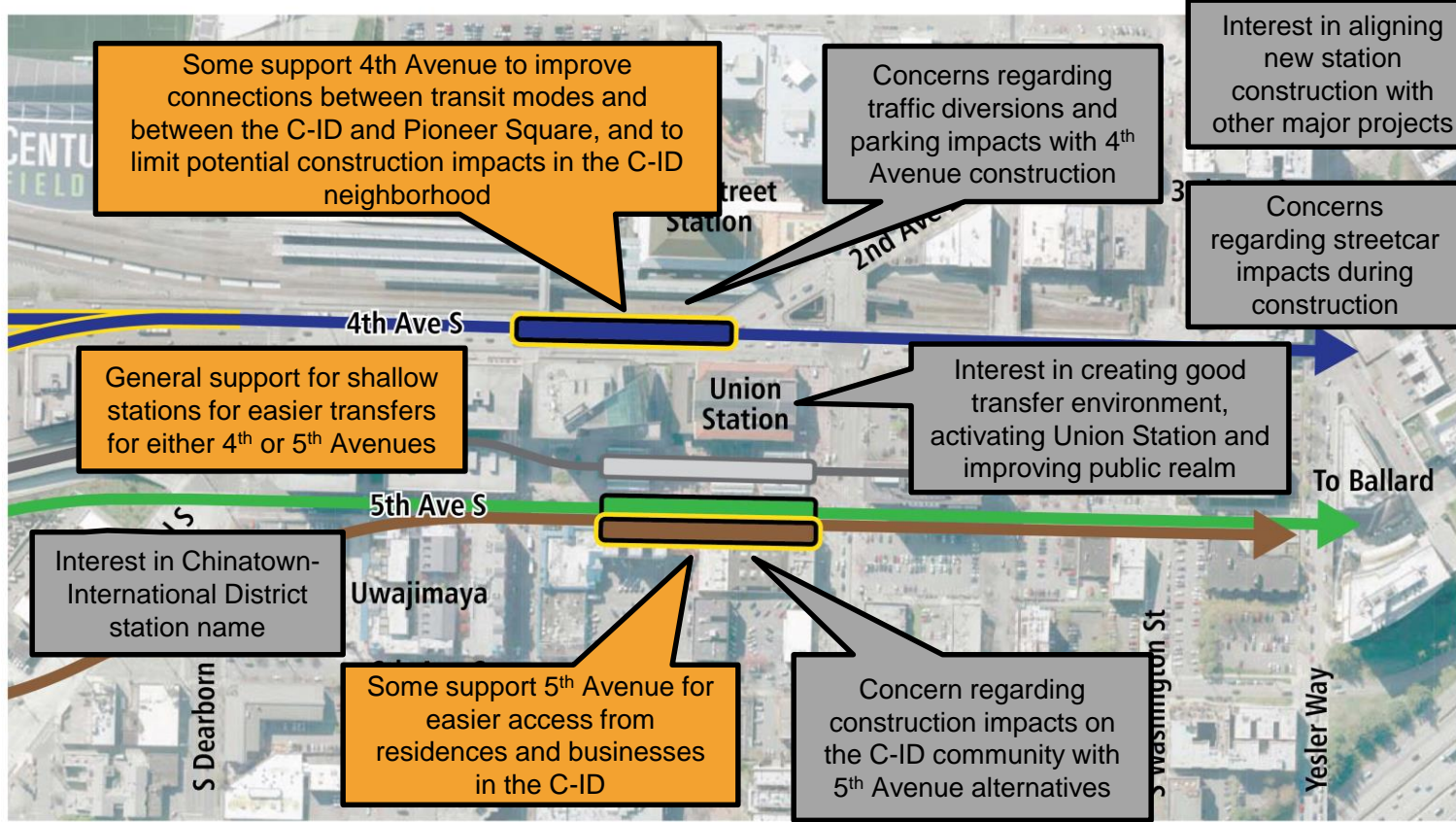
Scoping feedback SODO

Existing Link Light Rail

ST3 Representative Project

5th Ave. S shallow station or deep station

4th Ave. S shallow station or deep station



Scoping feedback Chinatown-ID

LEGEND

ST3 Representative Project

- Tunnel alignment
- Elevated alignment
- Tunnel station

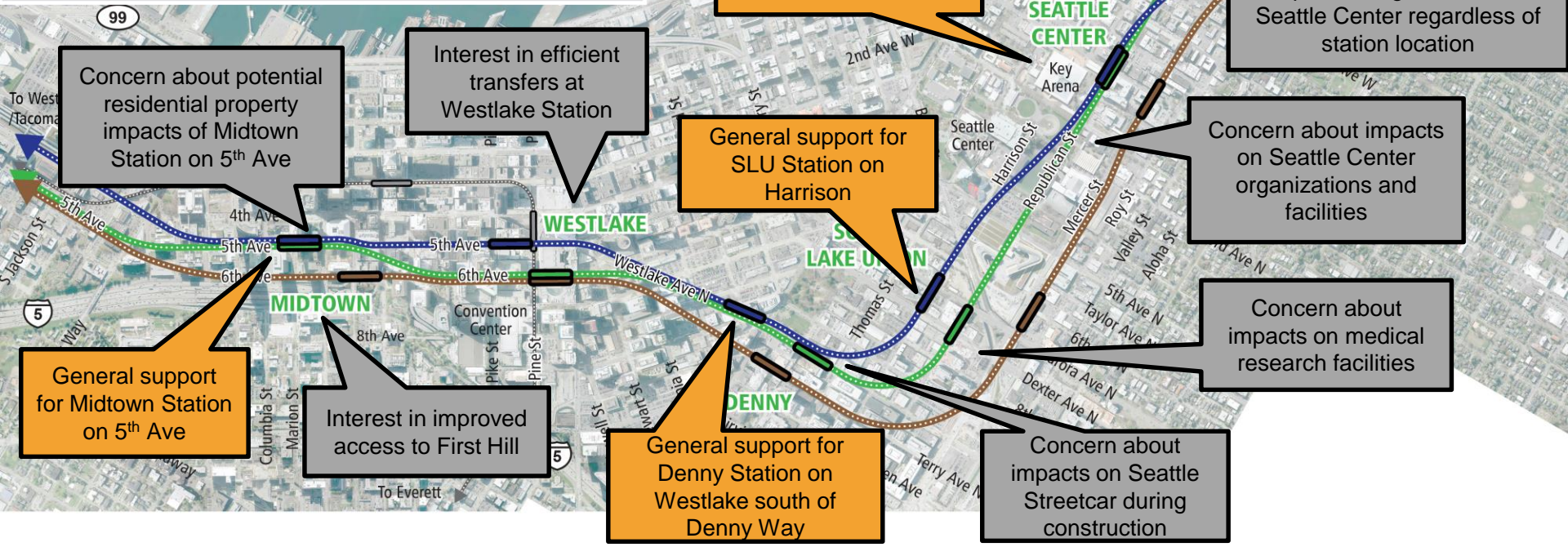
West Seattle Tunnel/C-ID 4th Ave/Downtown 5th Ave/Ballard Tunnel

- Tunnel alignment
- Tunnel station

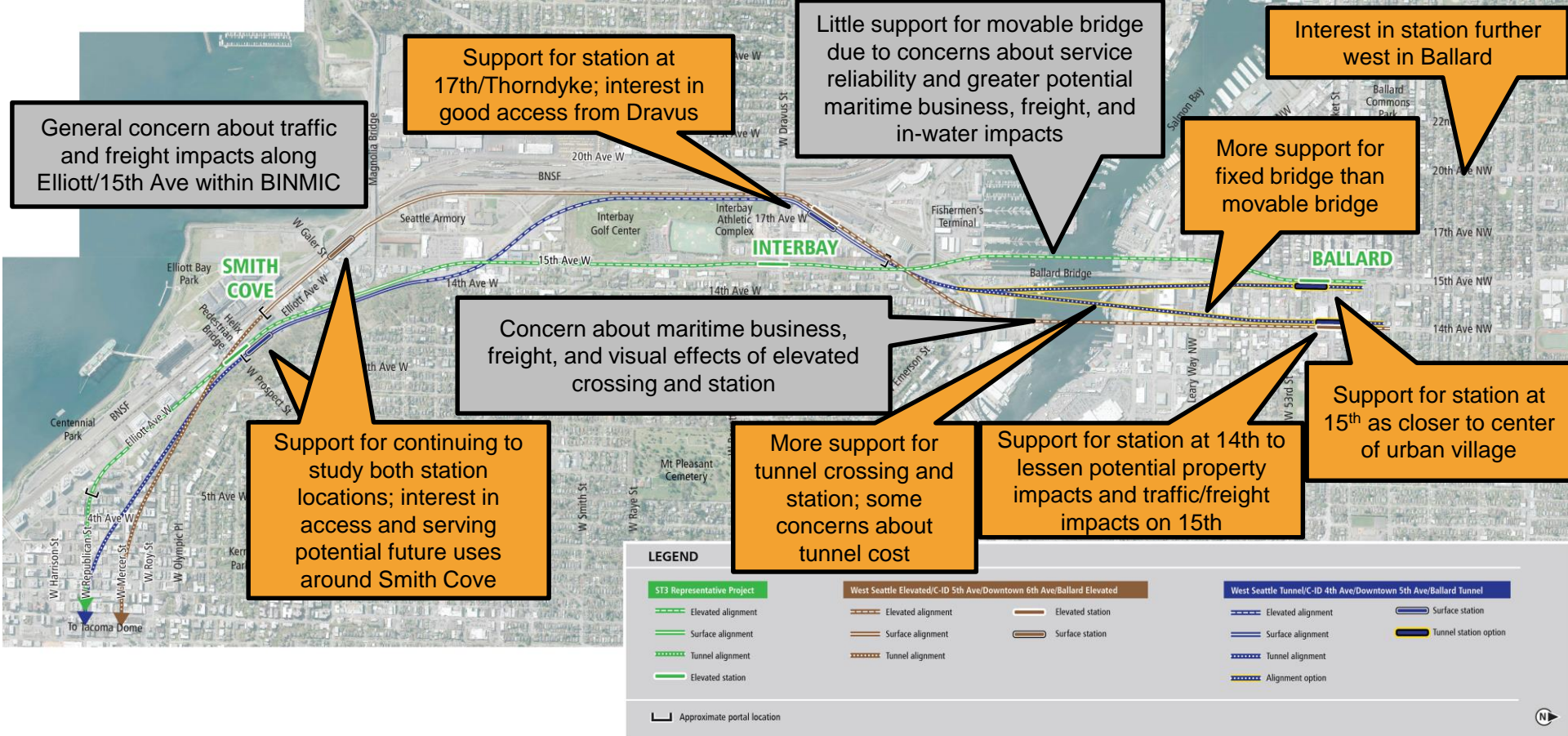
West Seattle Elevated/C-ID 5th Ave/Downtown 6th Ave/Ballard Elevated

- Tunnel alignment
- Tunnel station

Approximate portal location Existing LINK



Scoping feedback Downtown



Scoping feedback *Smith Cove/Interbay/Ballard*

Equity & Inclusion

- › **Sound Transit & City of Seattle partnership** utilizing the Racial Equity Toolkit (RET)
- › Working group structure focused on engagement and data analysis
- › Collaboration to elevate issues and considerations to **better inform the alternatives development process**
- › Strive to **provide information** that data alone cannot provide
- › What's next?: Report back to community members and continue engagement through EIS process and EJ analysis

Racial Equity Toolkit
to Assess Policies, Initiatives, Programs, and Budget Issues

RACE & SOCIAL JUSTICE INITIATIVE

The vision of the Seattle Race and Social Justice Initiative is to eliminate racial inequality in the community. To do this requires ending **individual racism**, **institutional racism** and **structural racism**. The Racial Equity Toolkit lays out a process and a set of questions to guide the development, implementation and evaluation of policies, initiatives, programs, and budget issues to address the impacts on racial equity.

When Do I Use This Toolkit?

Early. Apply the toolkit early for alignment with departmental racial equity goals and desired outcomes.

How Do I Use This Toolkit?

With Inclusion. The analysis should be completed by people with different racial perspectives.

Step by step. The Racial Equity Analysis is made up of six steps from beginning to completion:

- Step 1. Set Outcomes.**
Leadership communicates key community outcomes for racial equity to guide analysis.
- Step 2. Involve Stakeholders + Analyze Data.**
Gather information from community and staff on how the issue benefits or burdens the community in terms of racial equity.
- Step 3. Determine Benefit and/or Burden.**
Analyze issue for impacts and alignment with racial equity outcomes.
- Step 4. Advance Opportunity or Minimize Harm.**
Develop strategies to create greater racial equity or minimize unintended consequences.
- Step 5. Evaluate. Raise Racial Awareness. Be Accountable.**
Track impacts on communities of color overtime. Continue to communicate with and involve stakeholders. Document unresolved issues.
- Step 6. Report Back.**
Share information learned from analysis and unresolved issue with Department Leadership and Change Team.

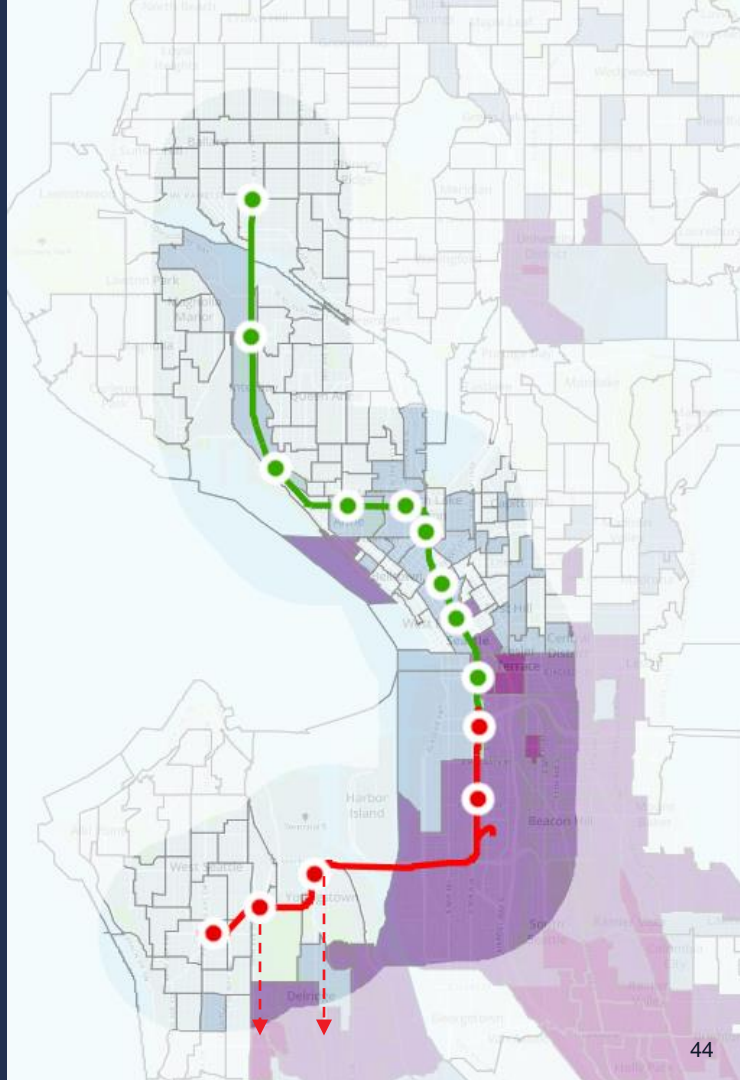
Racial Equity Toolkit

Level 1 Evaluation

- ✓ Data analysis showed areas of focus; Chinatown/ID and Delridge
- ✓ Determined shared outcomes
- ✓ Updated screening criteria

Figure: Concentrated communities of color (non-white population)

Source: 2011-2016 American Community Survey, projected in ArcGIS Online WSBLE Community Conditions Basemap



Racial Equity Toolkit

Level 2 Evaluation

- ✓ Measured connections, potential impacts and opportunities
- ✓ Gathered and shared community input



Racial Equity Toolkit

Level 3 Evaluation

Chinatown / ID Station

- Limit harmful impacts,
- Maximize connections for all users, and
- 100-year vision for the station.

Delridge Station

- Bus-rail integration; and
- Equitable transit-oriented development serving the community.



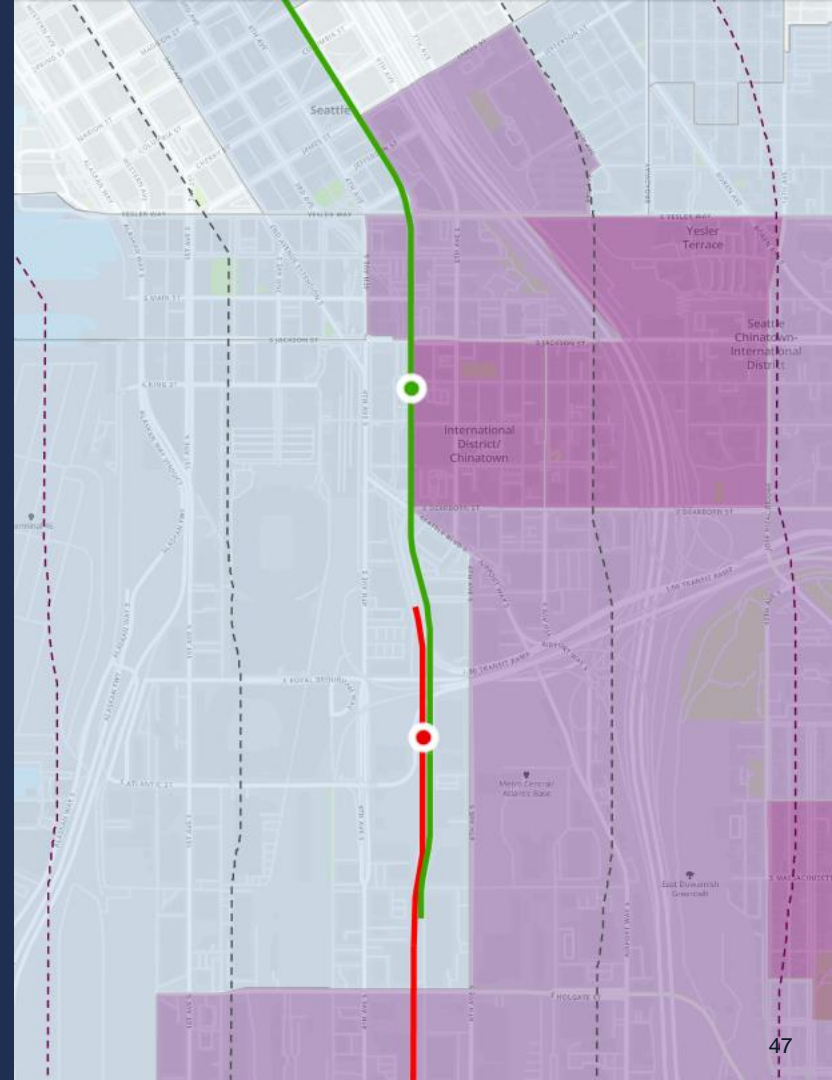
Level 3 RET findings

Chinatown / ID Station

Based on the Level 3 evaluation results and community feedback, it is unclear which alternative(s) would pose the greatest net benefit for the unique, multicultural communities that live and work in the surrounding south downtown neighborhoods.

Figure 1: Communities of Color in ½ mile catchment of C/ID and South Downtown

Source: 2011-2016 American Community Survey, projected in ArcGIS Online *WSBLE Community Conditions Basemap*



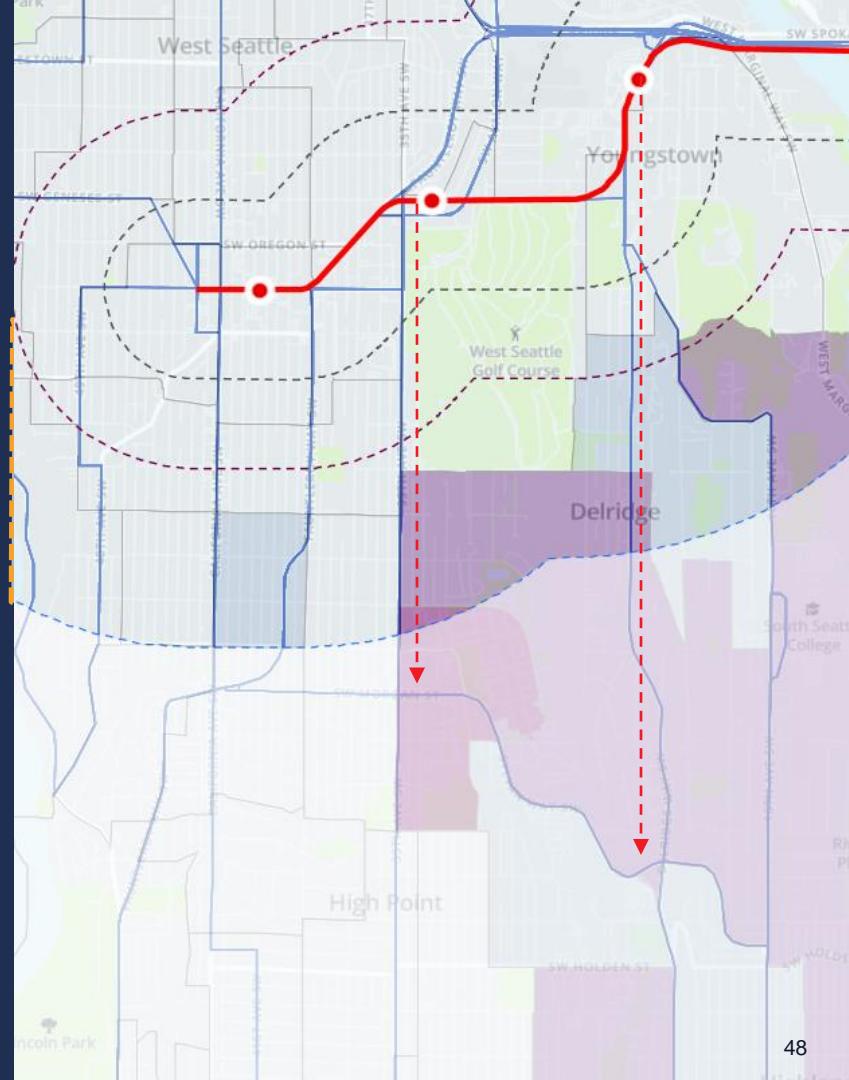
Level 3 RET findings

Delridge Station

Based on the Level 3 evaluation results and community feedback, the Delridge Station included as part of the ST3 Representative project offers the fewest net benefits to communities of color and low-income communities, in terms of bus-rail integration and opportunities to support equitable TOD.

Figure 2: Communities of color beyond 1/2-mile catchment of Delridge and Avalon Stations and major bus routes

Source: 2011-2016 American Community Survey, projected in ArcGIS Online WSBL Community Conditions Basemap)



A light rail train is stopped at a station platform. The train is white with blue and green decorative wave patterns along the bottom. Several people are on the platform. One man in a dark shirt is boarding the train. A woman in a pink top and black pants is walking towards the train. A man in a grey t-shirt and khaki pants is looking at his phone. A woman in a white top and grey pants is walking. In the background, there are other people, a blue sign with a train icon, and a city street with buildings and trees.

SAG *recommendations*

Segments with comparative estimates greater than ST3 Representative Project are shown in italics. Estimates not available for “Scoping feedback” suggestions.

Segment	ST3 Representative Project	West Seattle Elevated/ C-ID 5 th /Downtown 6 th / Ballard Elevated	West Seattle Tunnel/ C-ID 4 th /Downtown 5 th / Ballard Tunnel	Scoping feedback	SAG recommendation
West Seattle (Avalon/ Junction)	41 st elevated station (east-west oriented)	41 st elevated station (north-south oriented)/	<i>41st, 42nd, or 44th tunnel station</i>		TBD
West Seattle (Delridge)	N of Andover station	S of Andover station	N of Genesee station	Pigeon Ridge Tunnel or Yancy/Andover	
Duwamish crossing	South crossing	South crossing	<i>North crossing</i>	Pigeon Ridge Tunnel alignment	TBD
SODO/ Chinatown-ID	E3 elevated / 5 th shallow station	E3 at grade / 5 th shallow or deep station	<i>E3 at grade / 4th shallow or deep station</i>	Elevate new and existing SODO station	TBD
Downtown	5 th and Republican	<i>6th and Mercer</i>	5 th and Harrison	NA	TBD
Smith Cove	Prospect St station	<i>Galer St station</i>	<i>Prospect St station</i>	NA	TBD
Interbay/ Ballard	Movable bridge with 15 th elevated station	<i>High fixed bridge with 14th elevated station</i>	<i>Tunnel with 14th or 15th tunnel station</i>	Tunnel with 20 th tunnel station	TBD

Summary of Level 3 alternatives

Segment	SAG recommendation		Notes
West Seattle (Avalon/Junction)	41 st or 42 nd tunnel station		
West Seattle (Delridge)	N of Genesee station	Pigeon Ridge Tunnel (former purple line)	Support for Delridge station locations that are farther south
Duwamish crossing	South crossing		
SODO/ Chinatown-ID			Majority interest in studying all options
Downtown	5 th and Harrison		
Smith Cove	Prospect St station		
Interbay/ Ballard	Tunnel with 15 th tunnel station	Tunnel with 20 th tunnel station	General support for tunnel crossing and serving the Ballard urban village

SAG Recommendation: If 3rd party funding is secured



SAG Recommendation: If 3rd party funding is secured

Segment	SAG recommendation		Notes
West Seattle (Junction)	Elevated station with refinements	41 st or 42 nd tunnel station with consolidated Alaska and Avalon	Interest in a modified ST3 Representative Project Alaska Junction station, oriented North/South staying east of the Alaska Junction
West Seattle (Delridge)	N of Genesee station		
Duwamish crossing	South crossing		
SODO/ Chinatown-ID			Majority interest in studying all options
Downtown	5 th and Harrison		
Smith Cove	Prospect St station	Prospect St station	
Interbay/ Ballard			Mixed opinions, with interest in studying fixed bridge and tunnel. No support for movable bridge.

SAG Recommendation: If 3rd party funding not secured



SAG Recommendation: If 3rd party funding not secured

A light rail train is stopped at a station platform. Several people are visible: one man is boarding the train, while others are waiting on the platform. The train has a white body with blue and green decorative wave patterns. A blue circular sign with a white train icon is visible on a pole in the background. The scene is outdoors with buildings and trees in the distance.

ELG recommendations

Segments with comparative estimates greater than ST3 Representative Project are shown in *italics*. Estimates not available for “Scoping feedback” suggestions.

Segment	ST3 Representative Project	West Seattle Elevated/ C-ID 5 th /Downtown 6 th / Ballard Elevated	West Seattle Tunnel/ C-ID 4 th /Downtown 5 th / Ballard Tunnel	Scoping feedback	ELG recommendation
West Seattle (Avalon/ Junction)	41 st elevated station (east-west oriented)	41 st elevated station (north-south oriented)/	<i>41st, 42nd, or 44th tunnel station</i>		TBD
West Seattle (Delridge)	N of Andover station	S of Andover station	N of Genesee station	Pigeon Ridge Tunnel or Yancy/Andover	
Duwamish crossing	South crossing	South crossing	<i>North crossing</i>	Pigeon Ridge Tunnel alignment	TBD
SODO	E3 elevated	E3 at grade	E3 at grade	Elevate new and existing SODO station	
Chinatown-ID	5 th shallow station	5 th shallow or deep station	<i>4th shallow or deep station</i>		TBD
Downtown	5 th and Republican	<i>6th and Mercer</i>	5 th and Harrison	NA	TBD
Smith Cove	Prospect St station	<i>Galer St station</i>	<i>Prospect St station</i>	NA	TBD
Interbay/ Ballard	Movable bridge with 15 th elevated station	<i>High fixed bridge with 14th elevated station</i>	<i>Tunnel with 14th or 15th tunnel station</i>	Tunnel with 20 th tunnel station	TBD

Summary of Level 3 alternatives

Segment	Recommendation		Notes
West Seattle (Avalon/ Junction)	<i>41st or 42nd tunnel station</i>	Elevated station with refinements	No support for the orange Alaska Junction Station option. Recommended an elevated to study but more support for tunnel.
West Seattle (Delridge)	Station north of Genesee with refinements		
Duwamish crossing	South crossing		
SODO	E3 at grade		
Chinatown-ID	<i>Majority interest to study all options</i>		
Downtown	5 th and Harrison		Study both 5 th and 6 th Ave alignments through Westlake and Midtown Stations
Smith Cove	<i>Prospect St station</i>	<i>Galer St station</i>	
Interbay/ Ballard	<i>Tunnel with 14th or 15th tunnel station</i>	<i>High fixed bridge with 14th elevated station</i>	No support for movable bridge. Recommended an elevated to study but more support for tunnel.

ELG Recommendations

ELG Level 3 Recommendation Discussion

Interbay/ Ballard

- ✓ General support for tunnel option across Salmon Bay
- ✓ Interest in continuing to study the fixed bridge in the DEIS as an elevated alternative to the tunnel option
- ✓ Potential refinements to the Ballard Station should optimize bus/rail integration and access to the Ballard urban village (such as improved connections across 15th Avenue NW)
- ✓ Mixed opinions about the new Tunnel with 20th tunnel station option and requests for more information to inform Sound Transit Board discussions – concerns about potential disruption to the neighborhood and feasibility, but interest in serving Ballard further west with a tunnel



ELG Level 3 Recommendation Discussion

Smith Cove

- ✓ Interest in Smith Cove Station at Galer Street to better serve potential future development, connect to the Port's cruise terminals, and reduce costs

Downtown

- ✓ Given broad community support, study the 5th Harrison (blue) alignment, understanding there may be design refinements
- ✓ Study 5th and 6th Avenues from Westlake through Midtown Stations, looking for opportunities to optimize transfers and bus integration with Madison BRT



ELG Level 3 Recommendation Discussion

Chinatown-ID

- ✓ Based on community feedback and technical work so far, interest in advancing all alternatives for the C-ID station and activating union station
- ✓ Concern with potential impacts to Ryerson Base and bus operations
- ✓ Concern about deep stations and long-term operational impacts (relying on elevators with a large volume of transfers)
- ✓ Balance near-term construction impacts with long term operations



ELG Level 3 Recommendation Discussion

SODO

- ✓ Questions about two elevated stations option at SODO
- ✓ Support for E3 at grade with vehicle overpasses, being mindful of impacts to adjacent property owners
- ✓ Need to continue to examine the impact to bus transit currently using the E3 busway



ELG Level 3 Recommendation Discussion

Duwamish Crossing

- ✓ Questions about the need for studying the north crossing in the DEIS as a 4f avoidance alternative

Delridge

- ✓ Some interest to explore a refined south crossing that includes a tunnel through Pigeon Point, with a further south Delridge station location and reduced neighborhood residential impacts; requests for more information to inform Sound Transit Board discussions
- ✓ Interest in refining the blue station location, prioritizing further south location and looking for opportunities to minimize residential impacts, create a high quality transfer environment, optimize TOD potential and reduce costs
- ✓ Interest in exploring a Yancy/Andover alignment to minimize neighborhood impacts with a Delridge Station serving Youngstown



ELG Level 3 Recommendation Discussion

West Seattle (Avalon and Alaska Junction)

- ✓ Support for retaining Avalon Station, but continue to evaluate potential cost savings opportunities including consolidating stations and implications for ridership
- ✓ Support for looking for opportunities to minimize community impacts and create high quality transfer environment for both Avalon and Alaska Junction station locations
- ✓ Support for underground alignment to support TOD potential
- ✓ Support for a modified ST3 Representative project (Alaska Junction station oriented North/South and staying east of the Alaska Junction on Fauntleroy or in the vicinity of Jefferson Square)

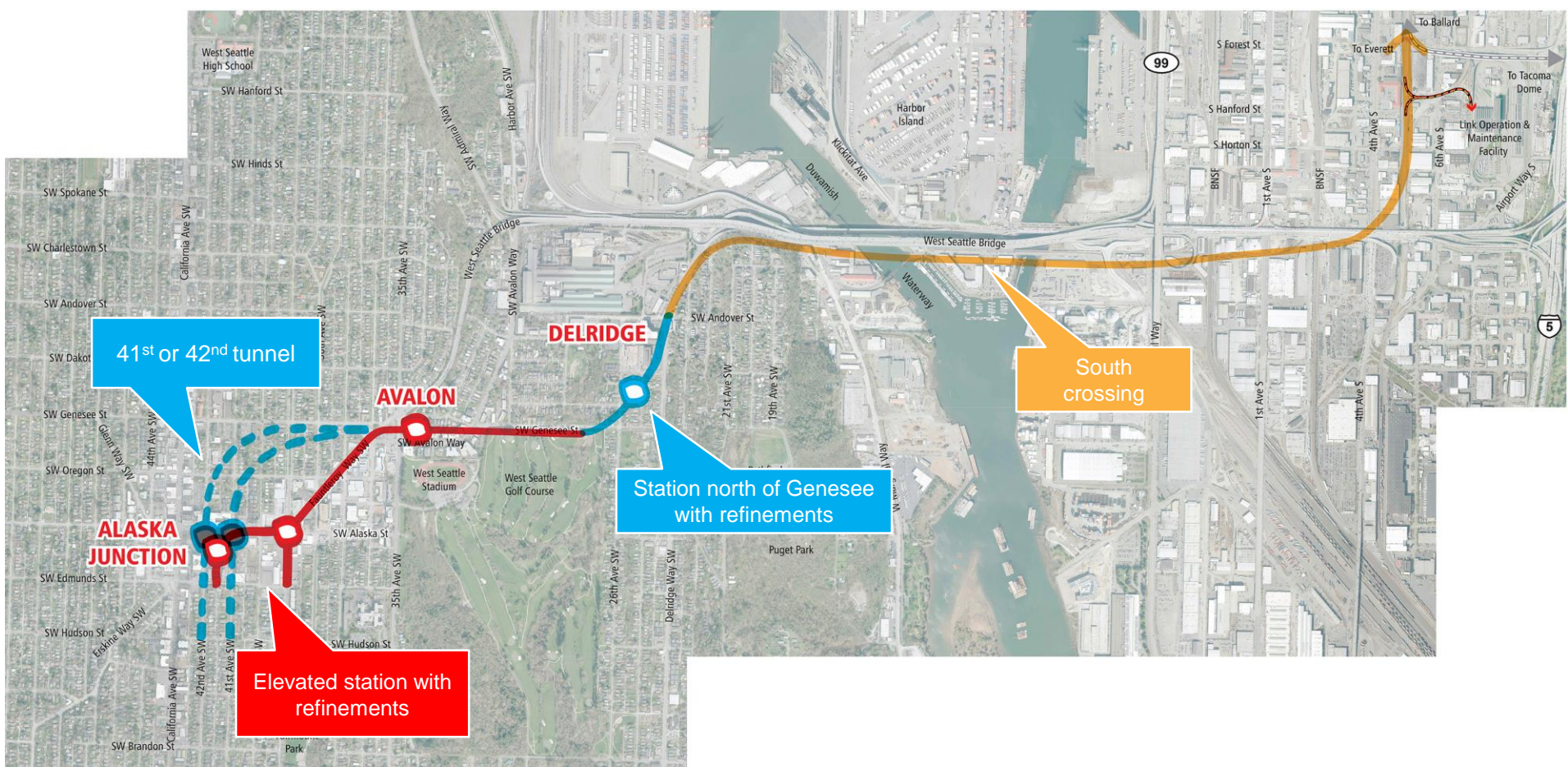


ELG Level 3 Recommendation Discussion

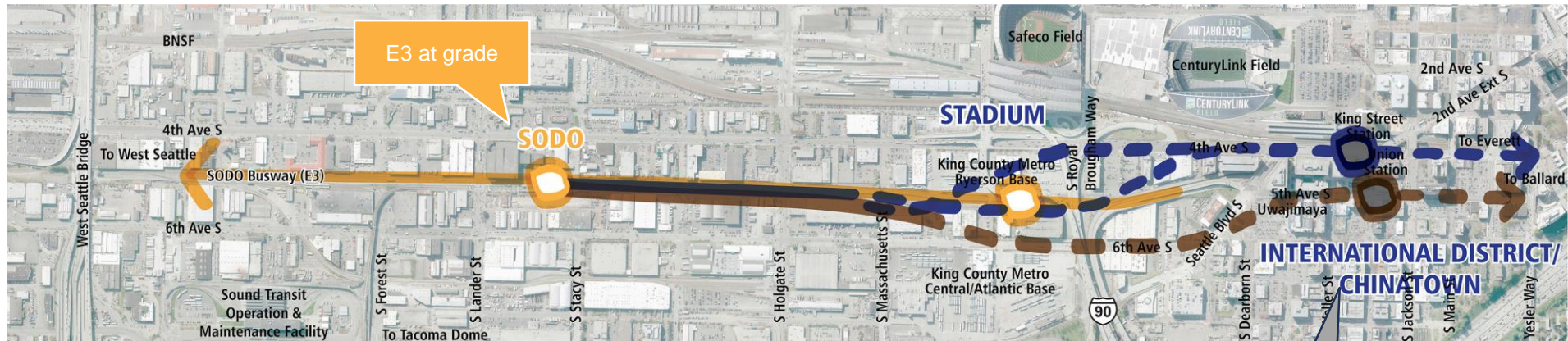
General Feedback

- ✓ Discussion about process and recommendations to the Sound Transit Board: mixed opinions about making recommendations on two alternatives, one if third party funding is secured and one if third party funding is not secured
- ✓ Discussion of need to look at potential sources of third party funding if project elements beyond the scope of the ST3 Representative project are carried forward; some interest in establishing a working group to consider third party funding
- ✓ Interest in further refinements and evaluation before identifying sources of third party funding





ELG Recommendations West Seattle/Duwamish

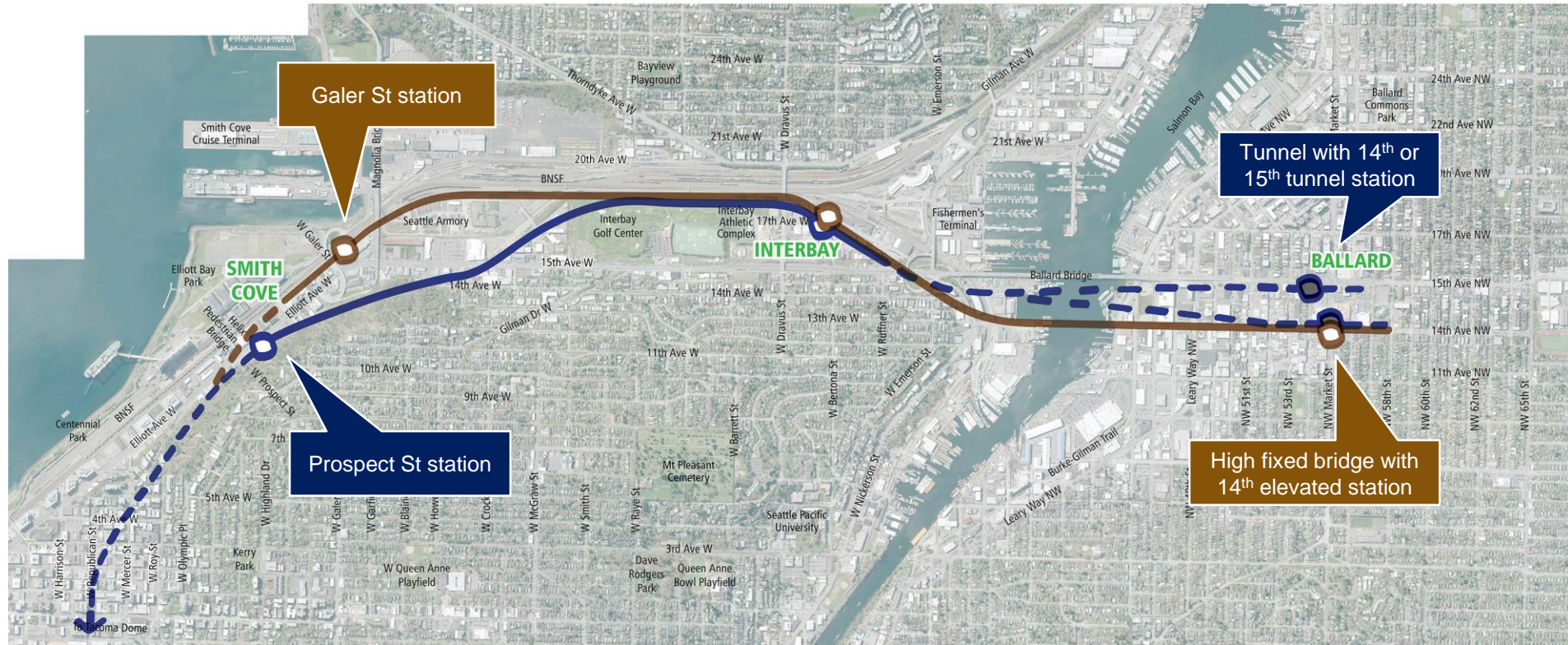


Majority interest to study all options

ELG Recommendations SODO/Chinatown-ID



ELG Recommendations *Downtown*



ELG Recommendations *Interbay/Ballard*

Segment	ST3 Representative Project	ELG recommendations (low estimate)	ELG recommendations (high estimate)
West Seattle (Avalon/Junction)	41 st elevated station (east-west oriented)	Elevated station with refinements (+\$0)	<i>41st, 42nd tunnel station (+\$700M)</i>
West Seattle (Delridge)	N of Andover station	Station north of Genesee with refinements (+\$0)	Station north of Genesee with refinements (+\$0)
Duwamish crossing	South crossing	South crossing (+\$0)	South crossing (+\$0)
SODO/CID	E3 elevated / 5 th shallow station	E3 at grade / 5 th shallow (-\$200M) or deep station (+\$0)	<i>E3 at grade / 4th shallow (+\$300M) or deep station (+\$500M)</i>
Downtown	5 th and Republican	5 th and Harrison (+\$0)	5 th and Harrison (+\$0)
Smith Cove	Prospect St station	<i>Galer St station (+\$100M)</i>	<i>Prospect St station (+\$200M)</i>
Interbay/ Ballard	Movable bridge with 15 th elevated station	<i>High fixed bridge with 14th elevated station (+\$100M)</i>	<i>Tunnel with 14th or 15th tunnel station (+\$350M)</i>
Total	-	+\$0 to +\$200M	+\$1,550M to +\$1,750M

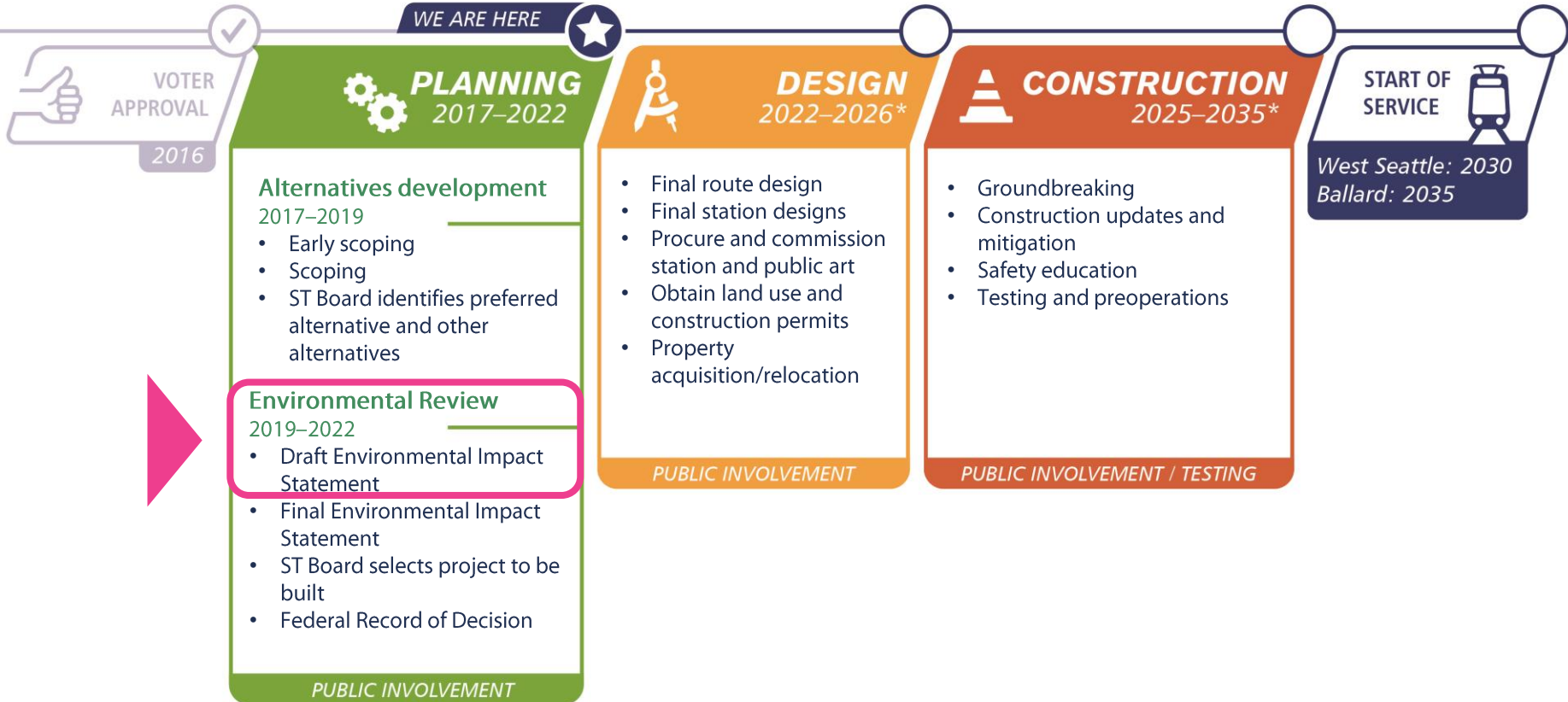
Segments with comparative estimates greater than ST3 Representative Project are shown in italics
Does not include alternatives suggested during EIS Scoping as comparative estimates are not available

ELG Recommendations Comparative estimates

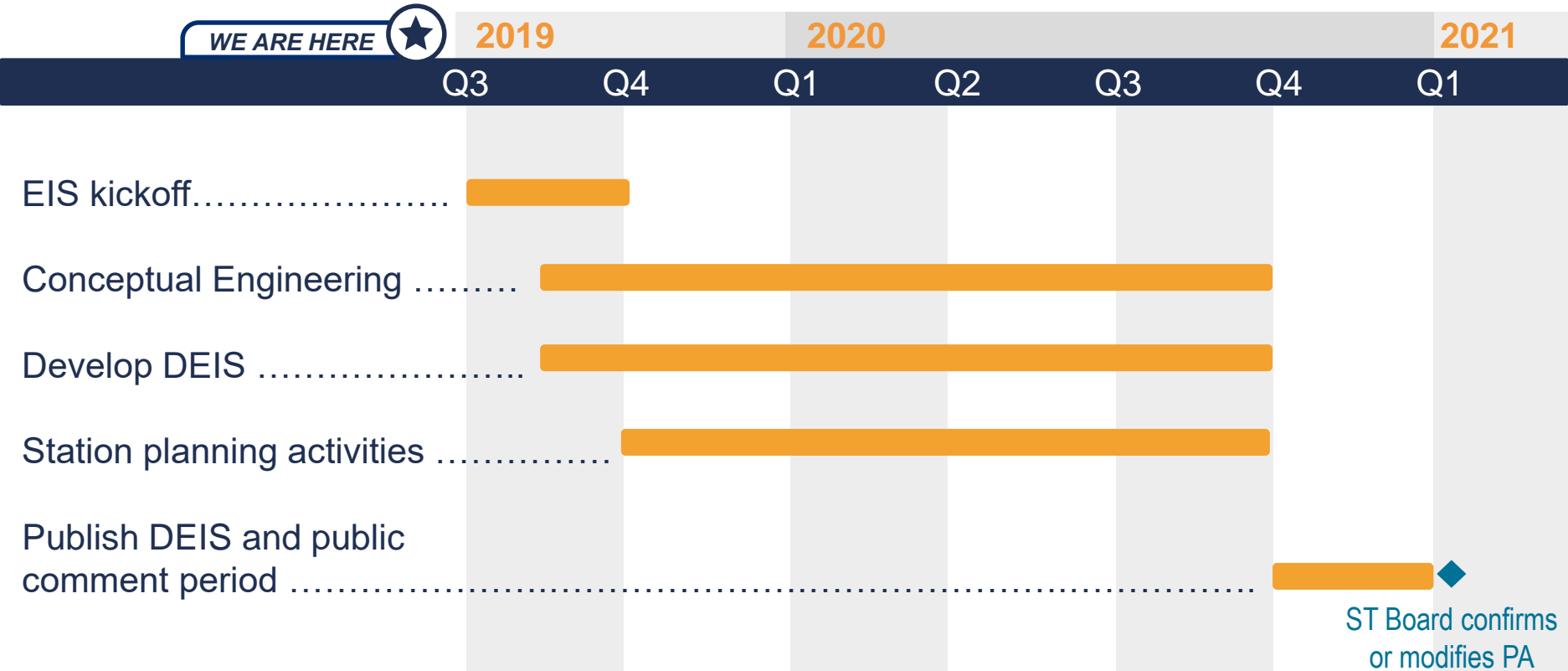


Next steps

Environmental Review Phase



Environmental Review



***West Seattle & Ballard Link Extensions
DSTT Capital Improvements***

Motion No. M2019-52

Contract modification with HNTB Corporation

9 May 2019

Contract Modification

- Motion No. M2017-119 Authorized Contract with HNTB
- Option to modify contract for each phase of project development
- Scope
 - Phase 1: Alternatives Development – **complete**
 - Phase 2: Draft EIS and Conceptual Engineering – **this action**
 - Phase 3: Final EIS and Preliminary Engineering

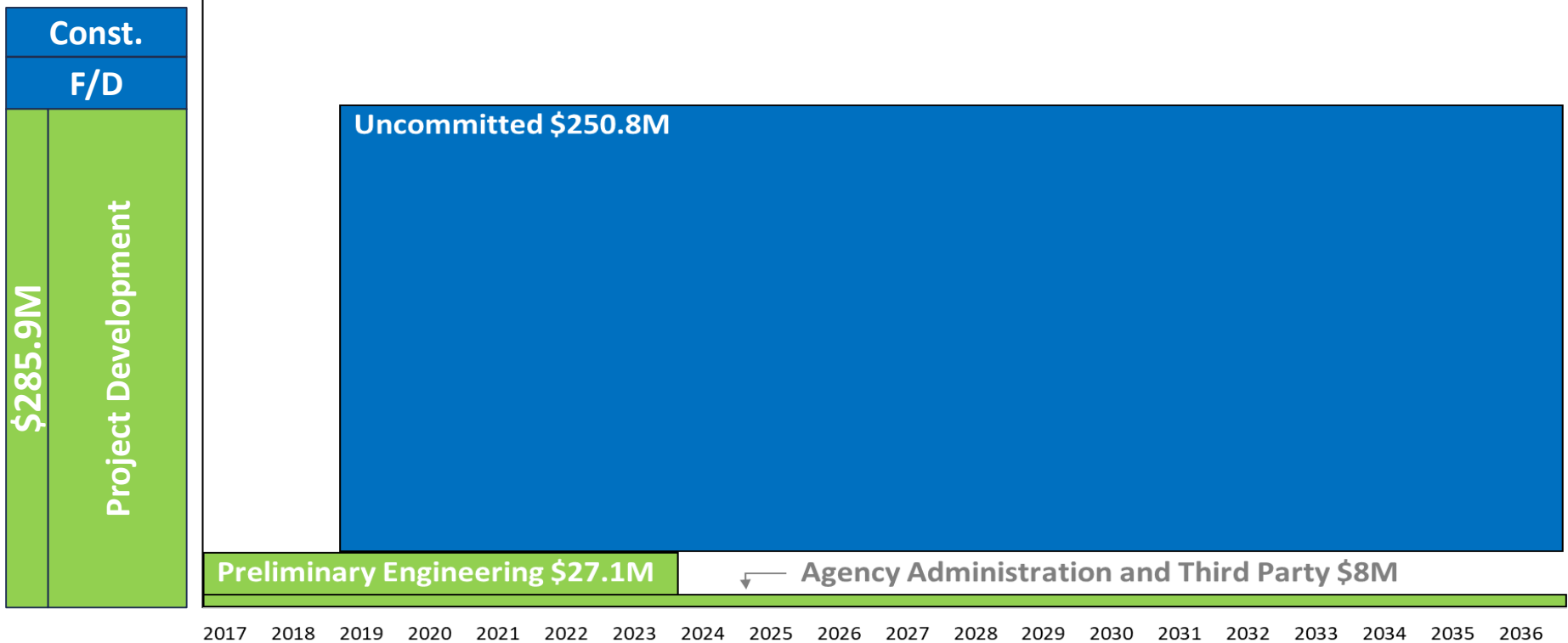
Phase 2 Scope

- › Draft EIS analysis and related design support
- › Advanced conceptual engineering and geotechnical analysis
- › Station planning and urban design
- › Permit streamlining, agency coordination
- › Community outreach and engagement
- › Study of potential improvements to existing Westlake Station

Illustrative - Not to Scale

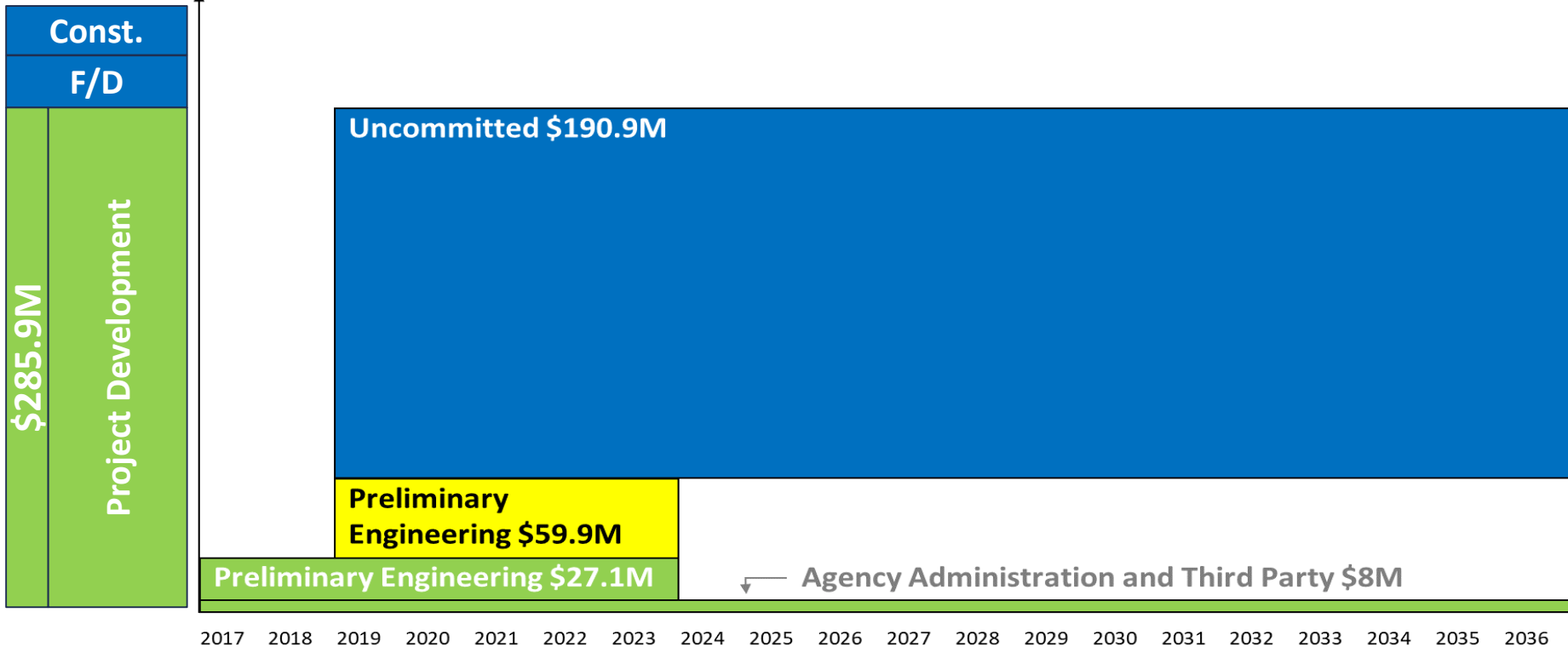
West Seattle & Ballard Link Extensions: Authorized Project Allocation \$285.9M

ALLOCATION \$ COMMITMENTS



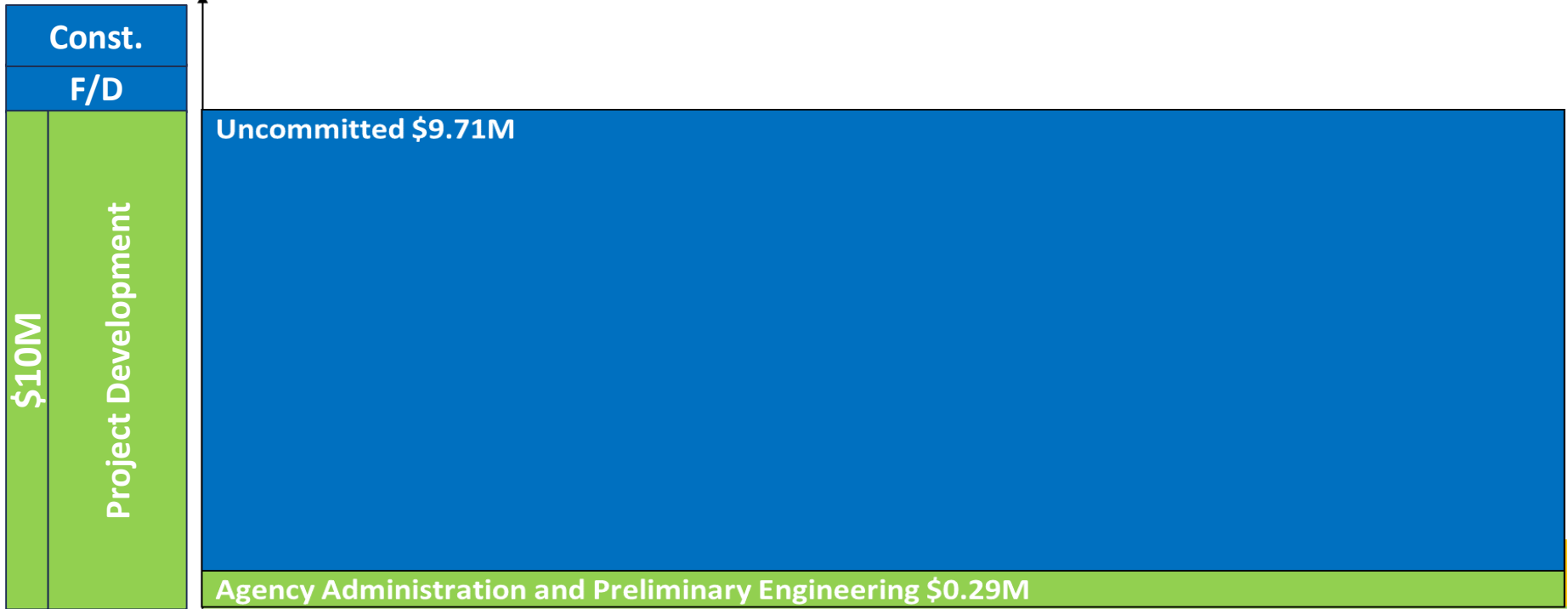
West Seattle & Ballard Link Extensions: Board Approves Contract Amendment \$59.9M (Total contract \$60.3M)

ALLOCATION \$ COMMITMENTS



DSTT Capital Improvements: Authorized Project Allocation \$10M

ALLOCATION \$ COMMITMENTS

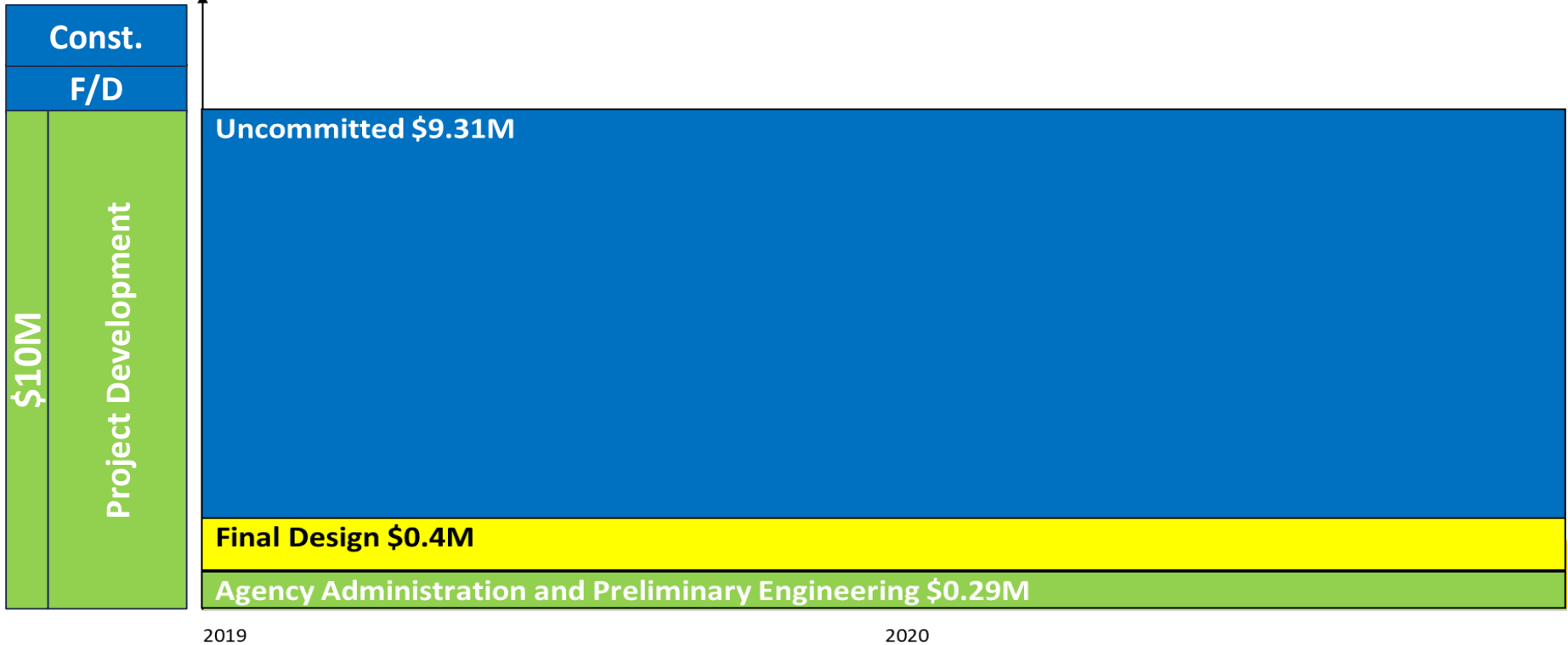


2019

2020

DSTT Capital Improvements: Board Approves Contract Amendment \$0.4M (Total contract \$60.3M)

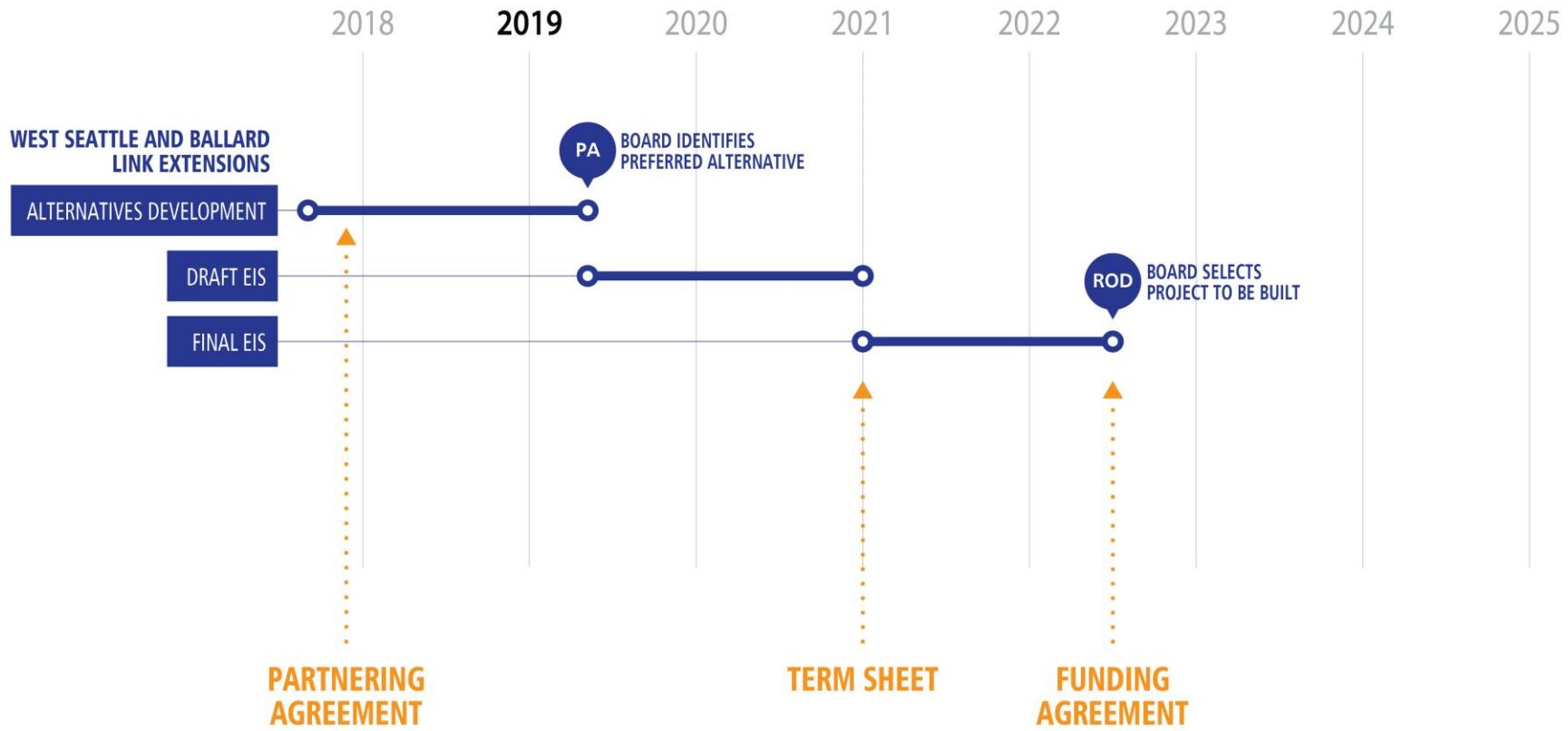
ALLOCATION \$ COMMITMENTS



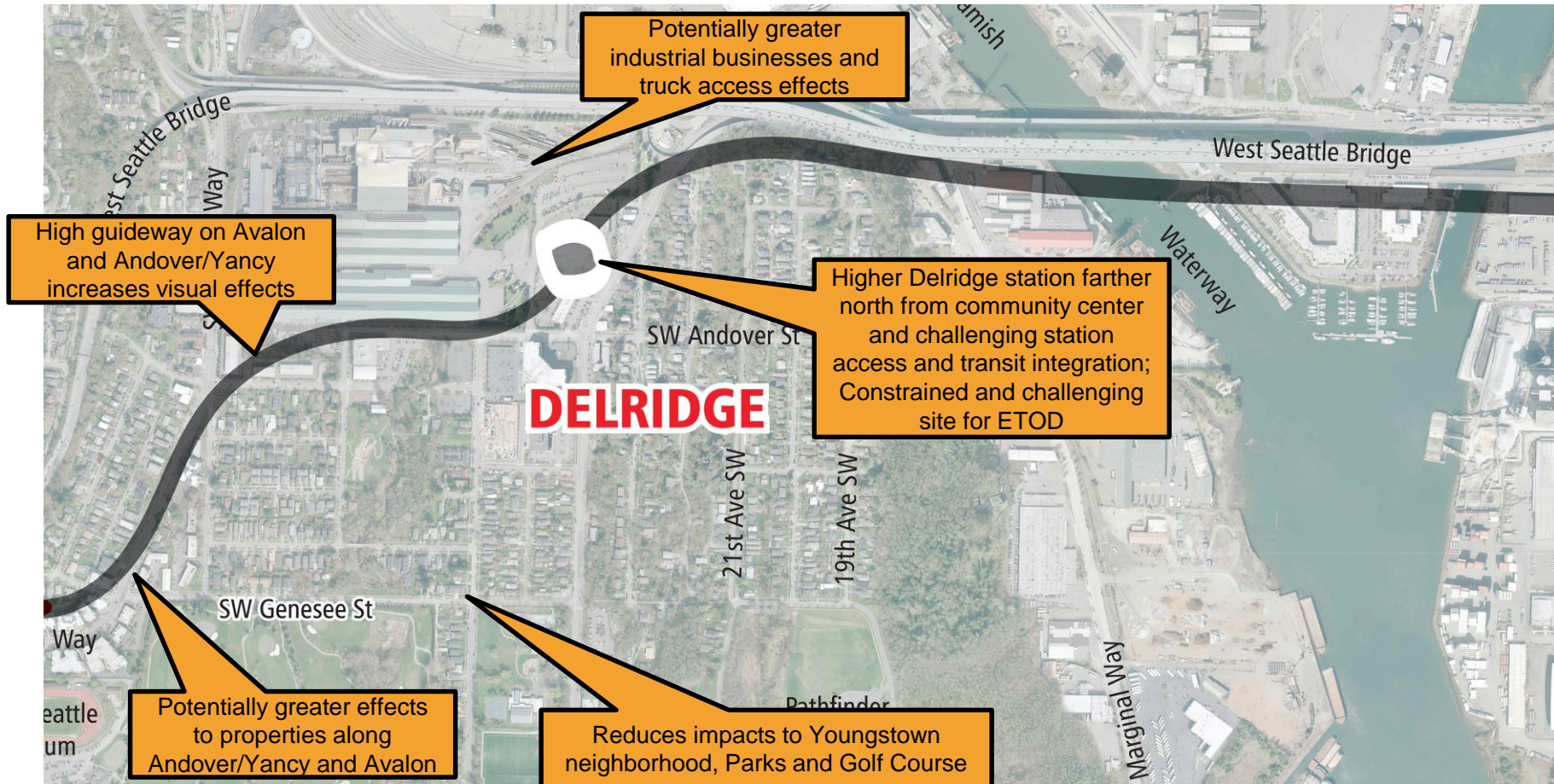


soundtransit.org/wsblink 

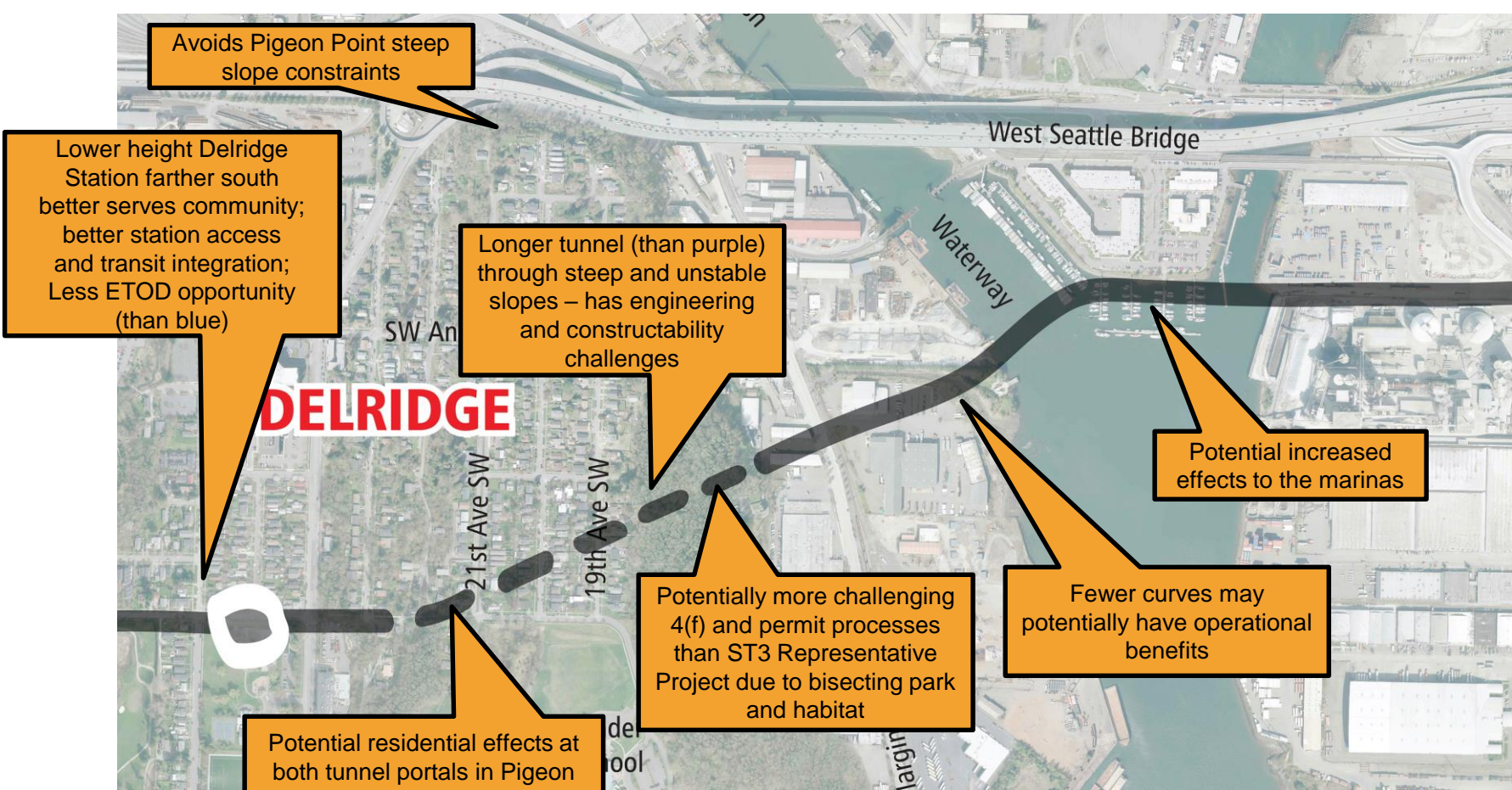




Third party funding



Initial observations *Yancy/Andover*



Avoids Pigeon Point steep slope constraints

Lower height Delridge Station farther south better serves community; better station access and transit integration; Less ETOD opportunity (than blue)

Longer tunnel (than purple) through steep and unstable slopes – has engineering and constructability challenges

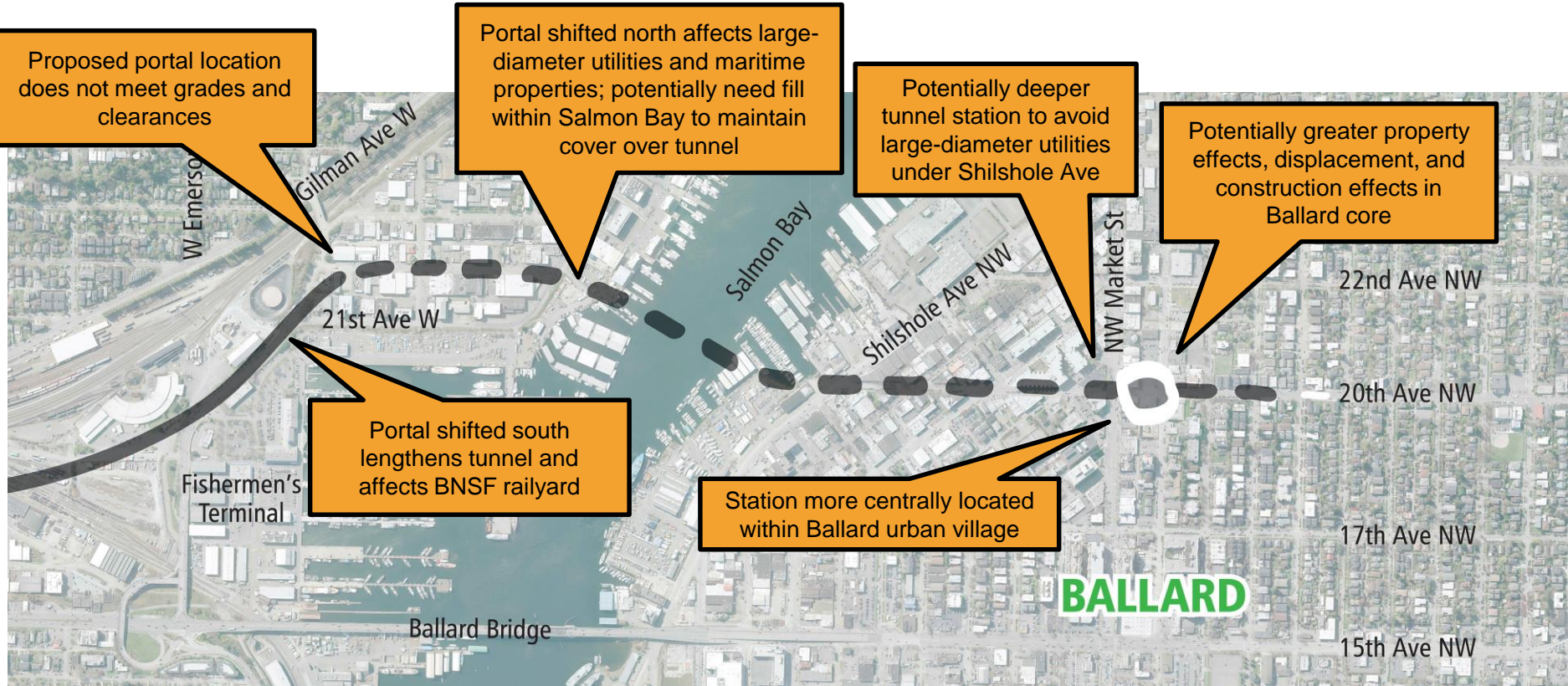
Potential increased effects to the marinas

Potentially more challenging 4(f) and permit processes than ST3 Representative Project due to bisecting park and habitat

Fewer curves may potentially have operational benefits

Potential residential effects at both tunnel portals in Pigeon Point neighborhood

Initial observations Pigeon Point Tunnel



Initial observations 20th Tunnel