

West Seattle Link Extension

Executive Committee

9/19/2024



Why we're here today

- West Seattle Link Extension project background
- Final EIS alternatives and results
- Cost evolution
- Next steps

No action today

Where we've been / where we're going

- ✓ **2019:** Board identified preferred alternatives and other alternatives to be studied in West Seattle and Ballard Link Extensions (WSBLE) Draft EIS
- ✓ **January 2022:** WSBLE Draft EIS published
- ✓ **July 2022:** Board identified West Seattle Link Extension (WSLE) preferred alternative and other alternatives to be studied in Final EIS
- **Today:** Executive Committee Update on WSLE and Final EIS
- **September 20, 2024:** WSLE Final EIS publication
- **September 26, 2024:** Board Update on WSLE and Final EIS
- **October 10, 2024:** SEC to consider recommendation of project to be built
- **October 24, 2024:** Board to consider action to select project to be built
- **Late 2024:** Anticipated Record of Decision (ROD) from Federal Transit Administration

***West Seattle Link Extension
project background***



West Seattle Link Extension

- ✓ Included in Sound Transit 3 (ST3) plan.
- ✓ Provide fast, reliable light rail connections in the SODO, Delridge and West Seattle neighborhoods.
- ✓ 4.1 miles of light rail service and serve 4 stations.



Link light rail

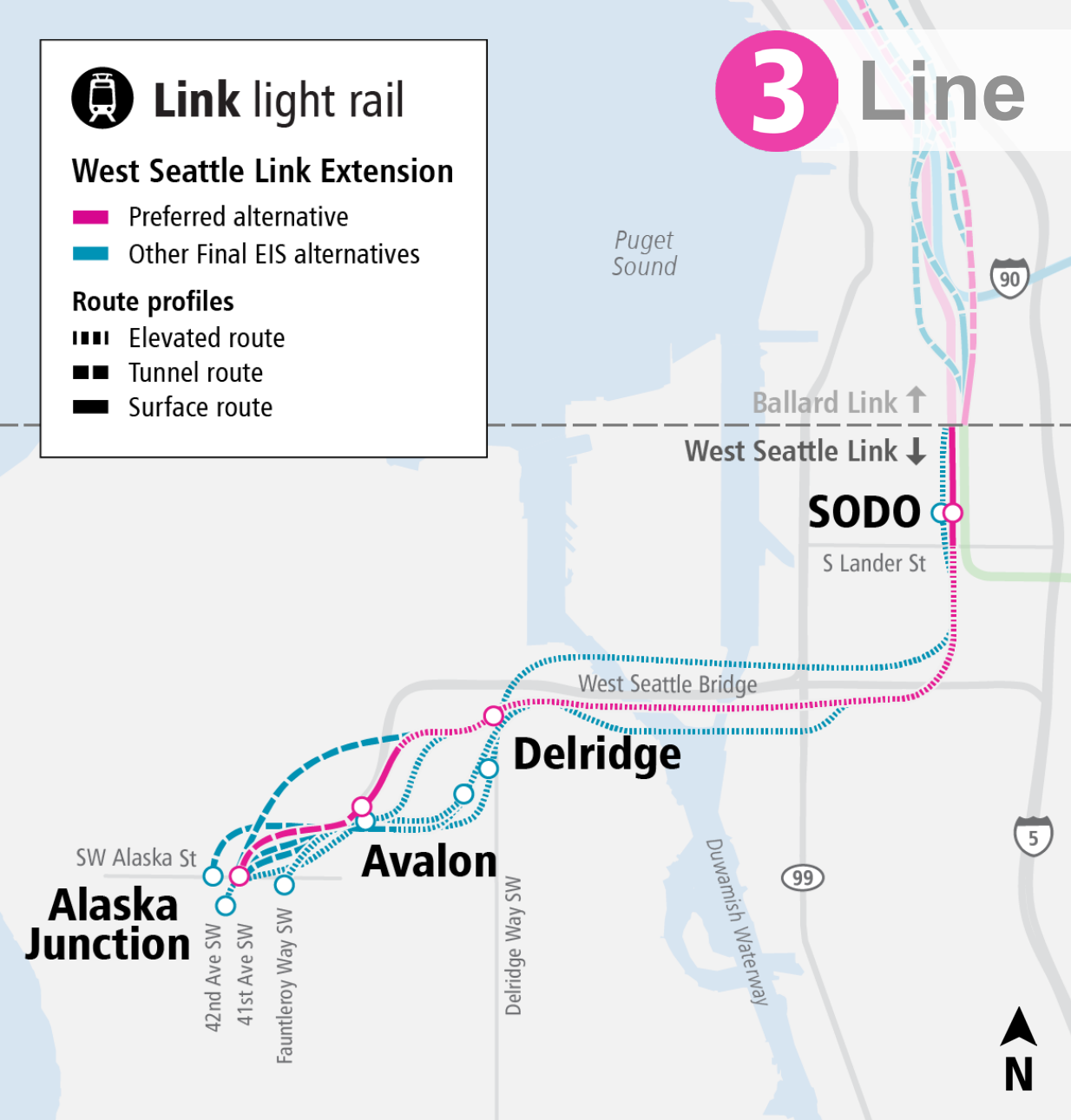
West Seattle Link Extension

- Preferred alternative
- Other Final EIS alternatives

Route profiles

- Elevated route
- Tunnel route
- Surface route

3 Line

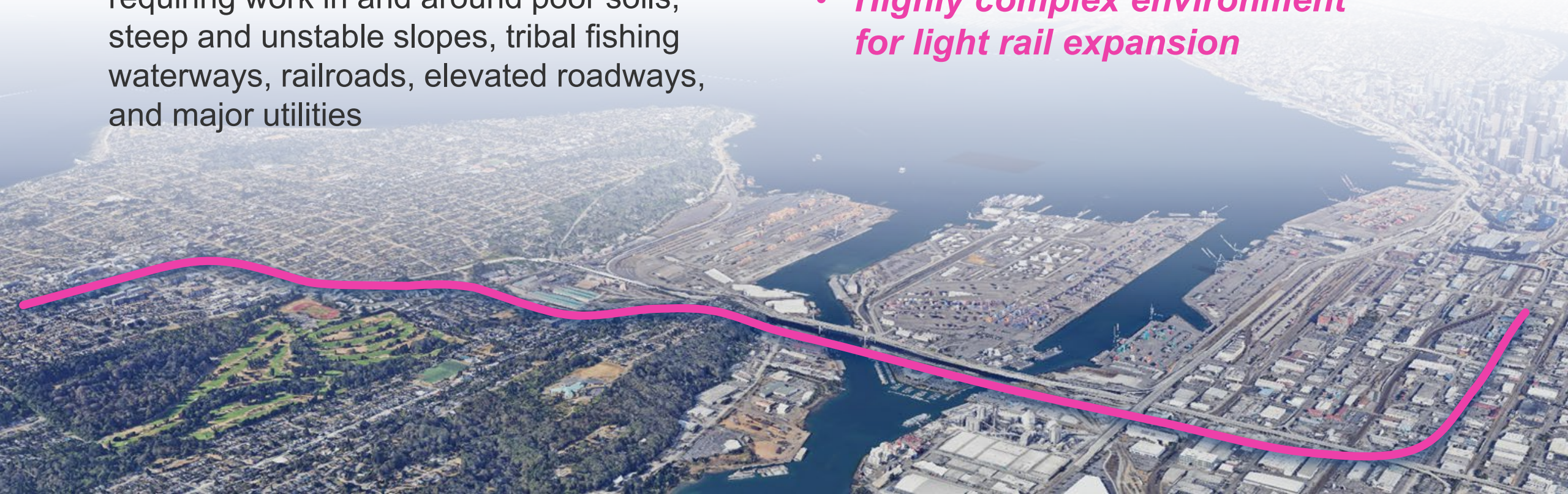


West Seattle Link Extension

- **Reduces transit travel time** from Alaska Junction to Westlake Station by 50% once Ballard Link Extension is complete.
- **Improves transit service frequency, reliability and capacity.**
- Facilitates redevelopment near stations, with focus on **affordable housing.**
- **Provides travel alternative** if West Seattle Bridge is congested or closed for repairs.
- **Facilitates future expansion** to south.

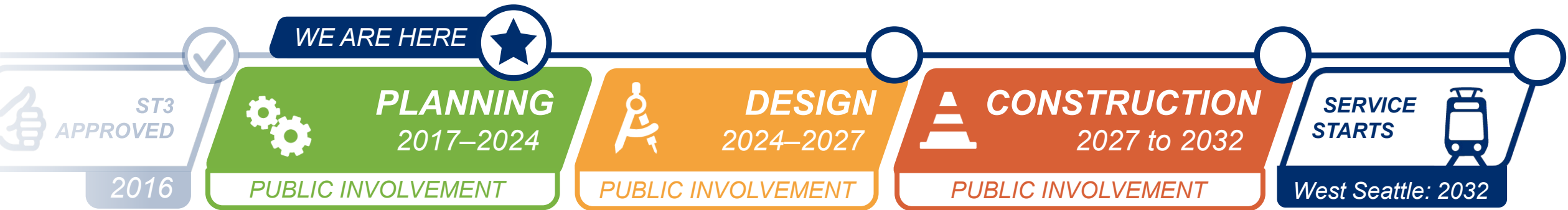
West Seattle Link Extension

- Urban area that has experienced rapid growth over the past decade
- Varied topography and built environment, requiring work in and around poor soils, steep and unstable slopes, tribal fishing waterways, railroads, elevated roadways, and major utilities
- Requires high-level fixed bridge over Duwamish Waterway and Port of Seattle facilities
- **Highly complex environment for light rail expansion**



West Seattle Link Extension

Final EIS Project timeline





ST3
APPROVED

2016



PLANNING



DES

2017–2019

Alternatives development

- ✓ Feb–March 2018: Early scoping
- ✓ Feb–April 2019: Scoping
- ✓ May–Oct 2019: Board identified preferred alternatives and other DEIS alternatives



2019–2024

Environmental review

Early 2022: Publish Draft EIS

Public comment period

Board confirms or modifies preferred alternatives

2024: Publish Final EIS

Board selects project to be built

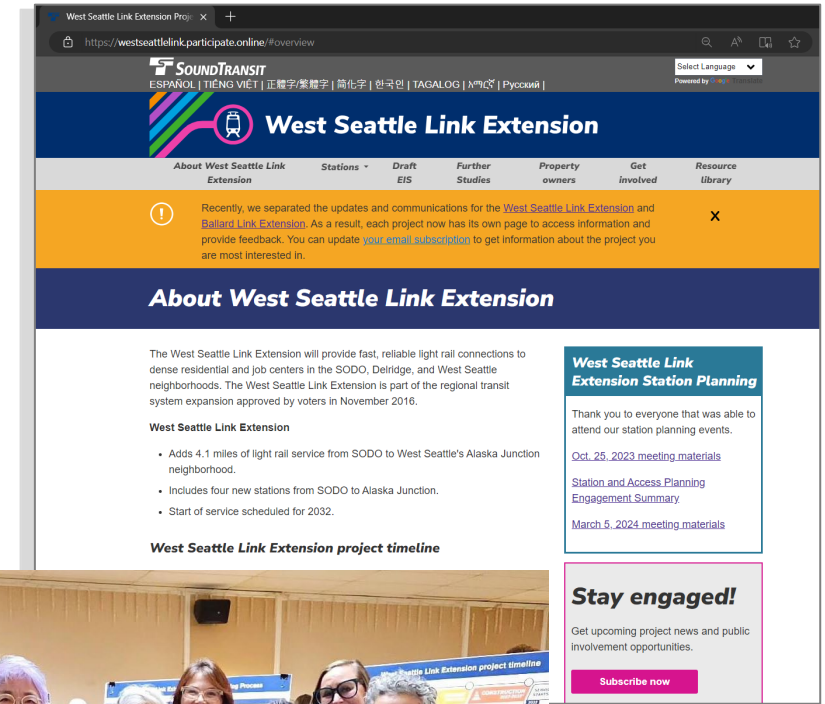
Federal Record of Decision

PUBLIC INVOLVEMENT

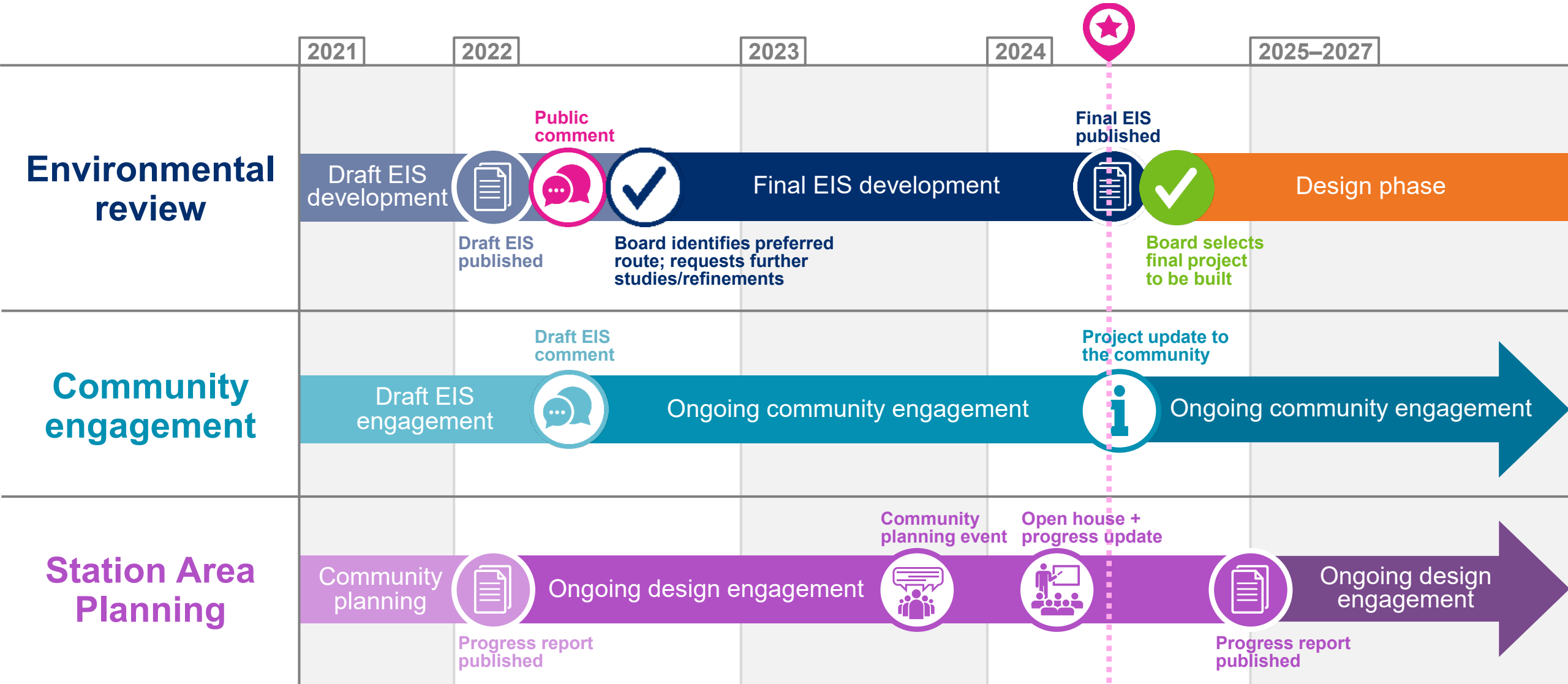
Engaging community throughout planning

Ways we've engaged

- **Stakeholder and Community Advisory groups**
- **Community briefings** with residents, businesses, community organizations, property owners and more
- **Public meetings:** Neighborhood forums, open houses, drop-in sessions
- **Online:** Project website, online open house, email updates, social media
- **Community liaisons**
- **Translated materials and interpretation**
- **Door-to-door business outreach**
- **Fairs, festivals and other events**



Community Engagement schedule



Draft EIS Comment Period Engagement



5,195 Draft EIS comments



5 Draft EIS public meetings



1 online open house engaging more than
19,500 online visitors



91 community briefings,
office hours and workshops



77 property owner webinars,
office hours and meetings



12 Community Advisory Group meetings



Ads featured on **30** unique radio,
digital and print publications



38 posts on social media platforms,
with 140K+ impressions



62 Fairs, festivals and other
tabling events



8 email updates engaging more than
and blog posts **10,900** subscribers



1,200+ posters delivered along
the corridor



11 Community
liaisons engaging more than
280 businesses

Station Planning Engagement snapshot

(Fall 2023-Spring 2024)



1,232 Completed English and in-language online survey



2 In-person Open Houses engaging more than **425** attendees



2 In-person WSLE SODO drop-in



2 In-language focus groups
Vietnamese; Somali and other East African languages



8 email updates engaging more than **12,417** subscribers



Materials translated into multiple languages to support equitable engagement



10 Community briefings



6 Fairs, festivals and other tabling events



Ads featured on **11** unique and local digital publications



360K Impressions on social media posts **2,000+** link click



900+ posters delivered along the corridor



6 Community liaisons engaging Delridge corridor's RET communities and local businesses

Racial Equity Toolkit (RET) Report Environmental Review

- Partnership with City of Seattle since 2017
- Sets forth RET Outcomes for RET focus areas and corridor-wide, including **enhancing mobility and access, bus-rail integration and equitable transit-oriented development**
- Updated to reflect Draft EIS comments and ongoing community feedback

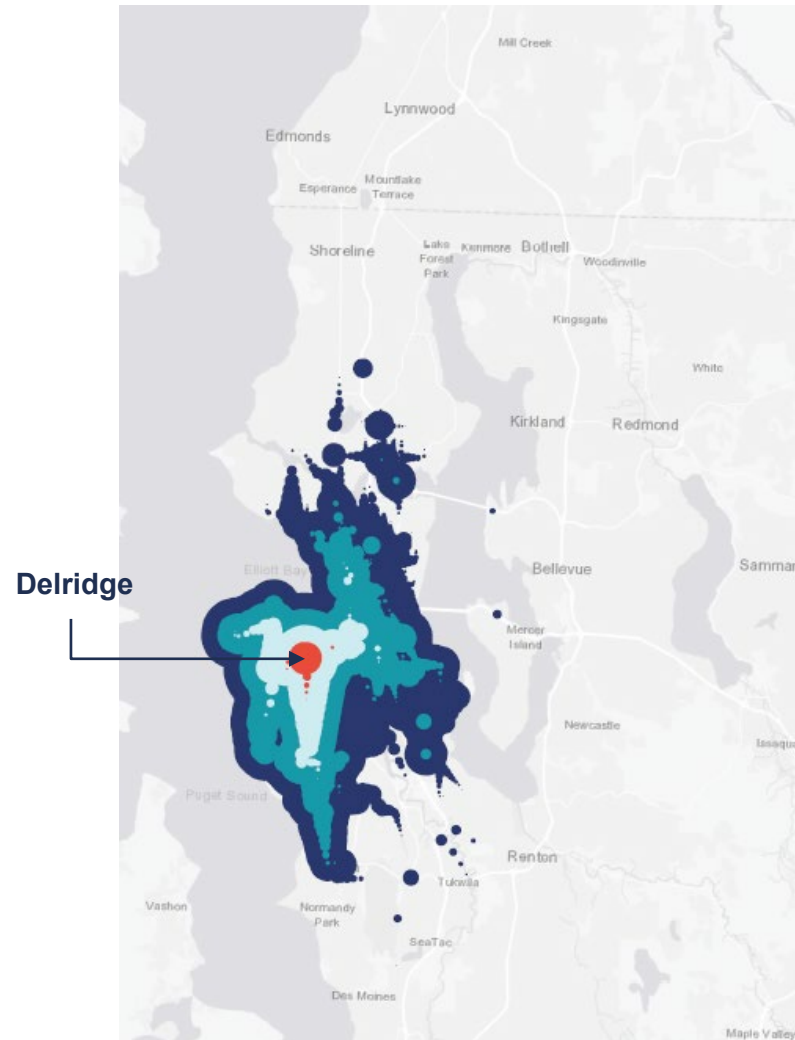


Transit travel sheds Delridge Station

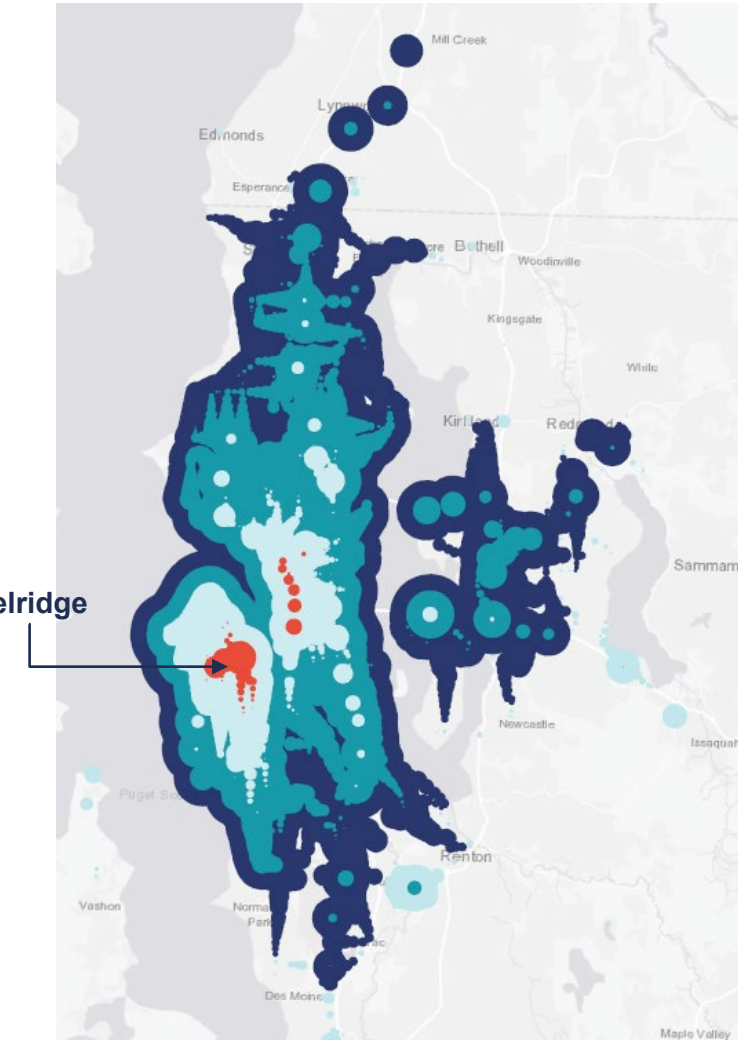
- **Connecting communities to a system** with light rail to Everett, Tacoma, Redmond and Ballard
- **Improves transit service frequency, reliability and capacity**

Enhancing mobility and access

Existing



2042 – With WSLE & BLE



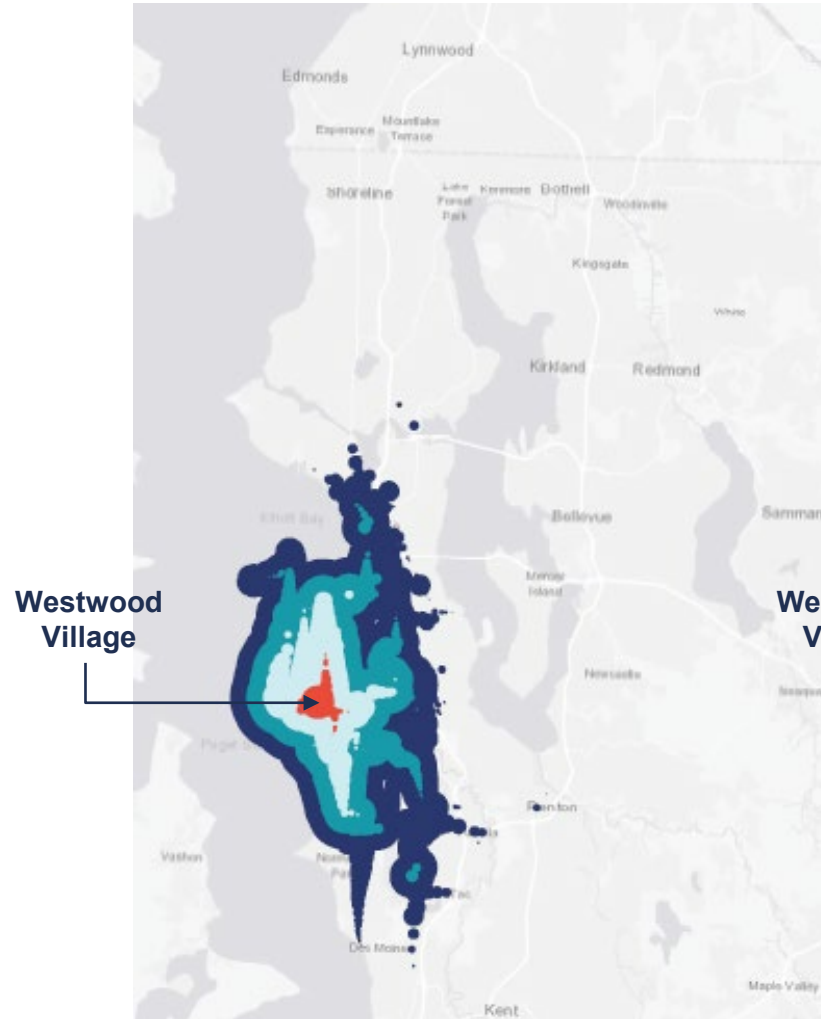
15 - minutes 30 - minutes 45 - minutes 60 - minutes

Transit travel sheds Westwood Village

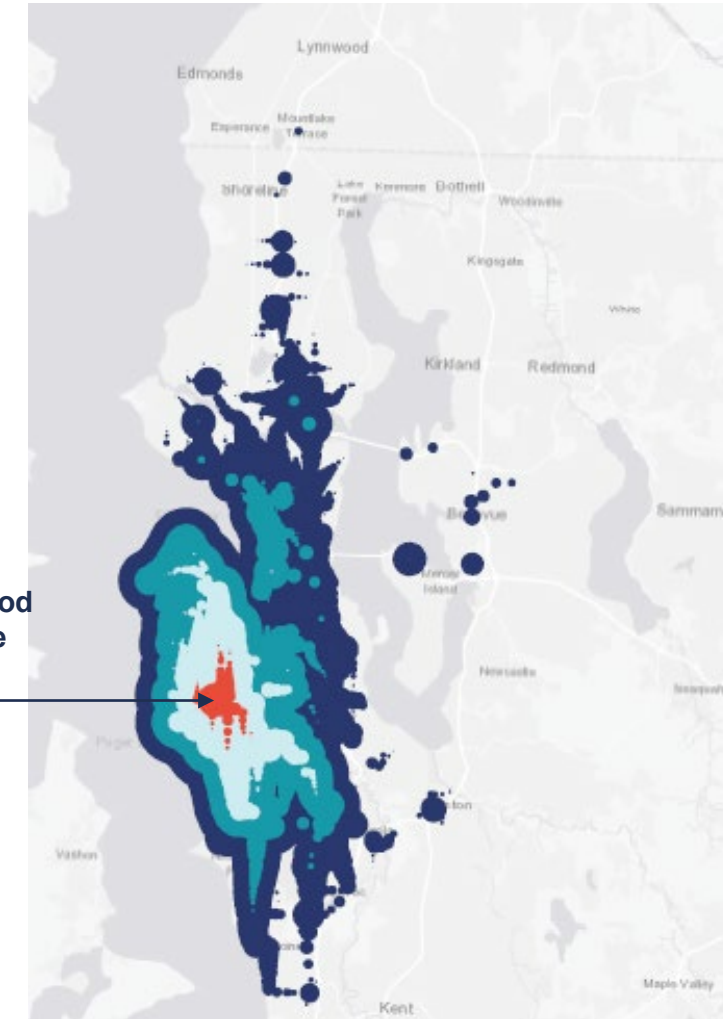
- **Connecting communities to a system with light rail to Everett, Tacoma, Redmond and Ballard**
- **Improves transit service frequency, reliability and capacity**

Enhancing mobility and access, with bus-rail connections

Existing

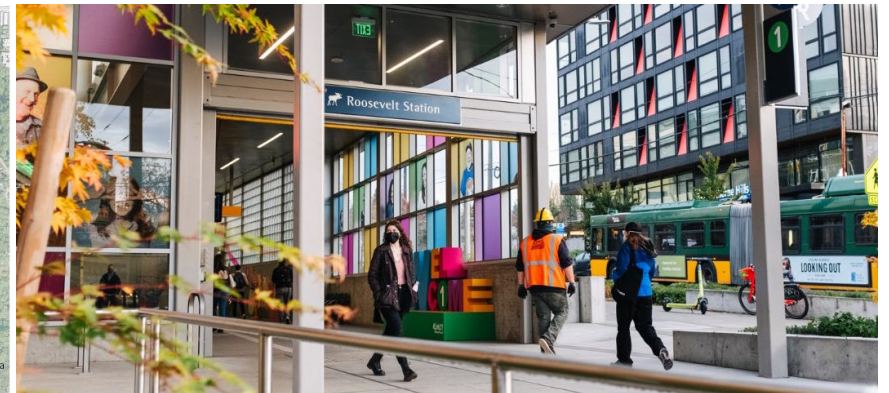
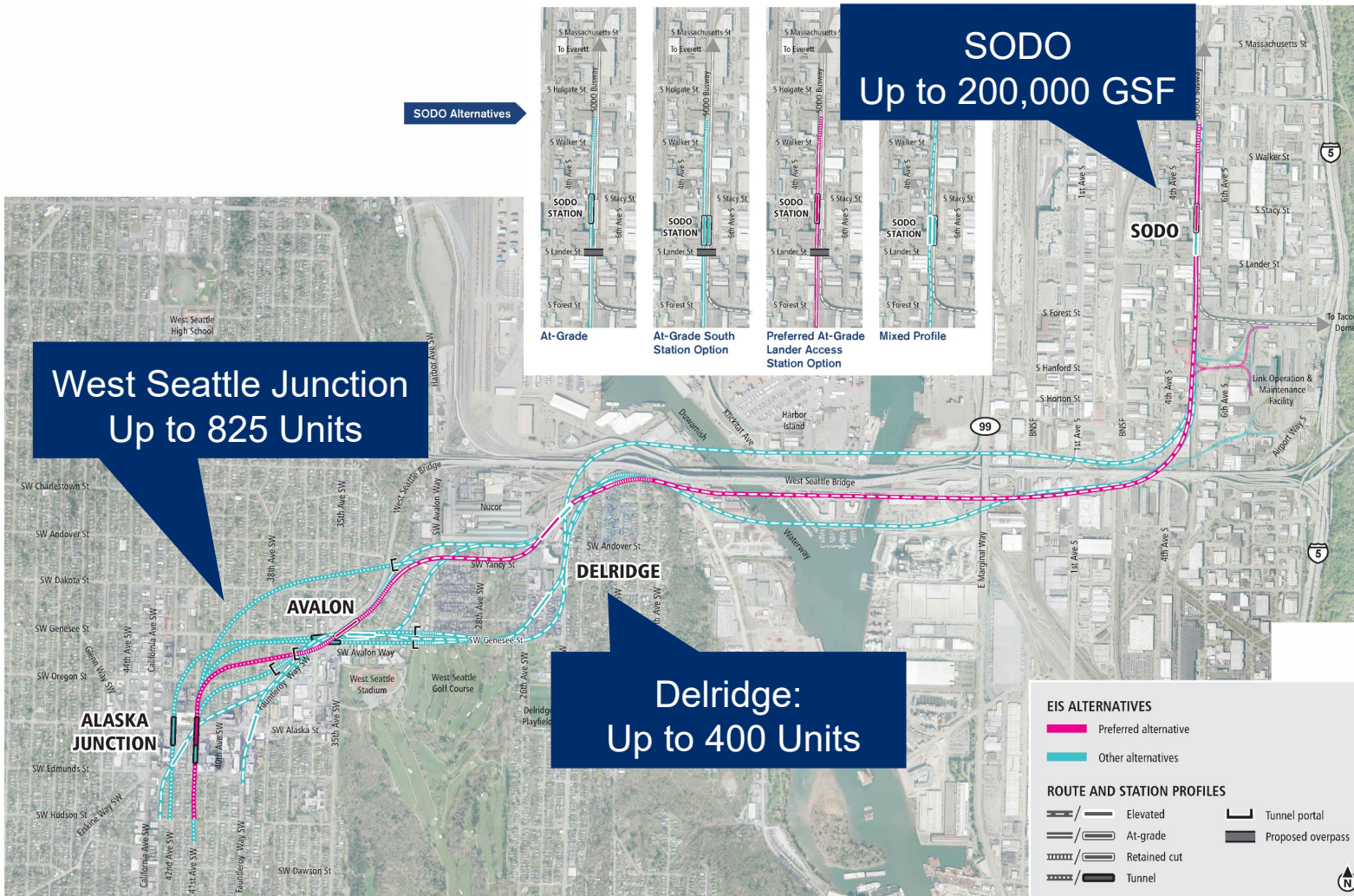


2042 – With WSLE & BLE



15 - minutes 30 - minutes 45 - minutes 60 - minutes

Transit Oriented Development (TOD)



17 Estimates based on station area development planning and represent Agency TOD, that could be complemented by community TOD.

***Final EIS alternatives
and results***

What is typically studied in an EIS?

Transportation

- Regional transportation
- Transit services
- Arterial and local street systems
- Parking
- Non-motorized facilities
- Navigation
- Freight

Natural environment

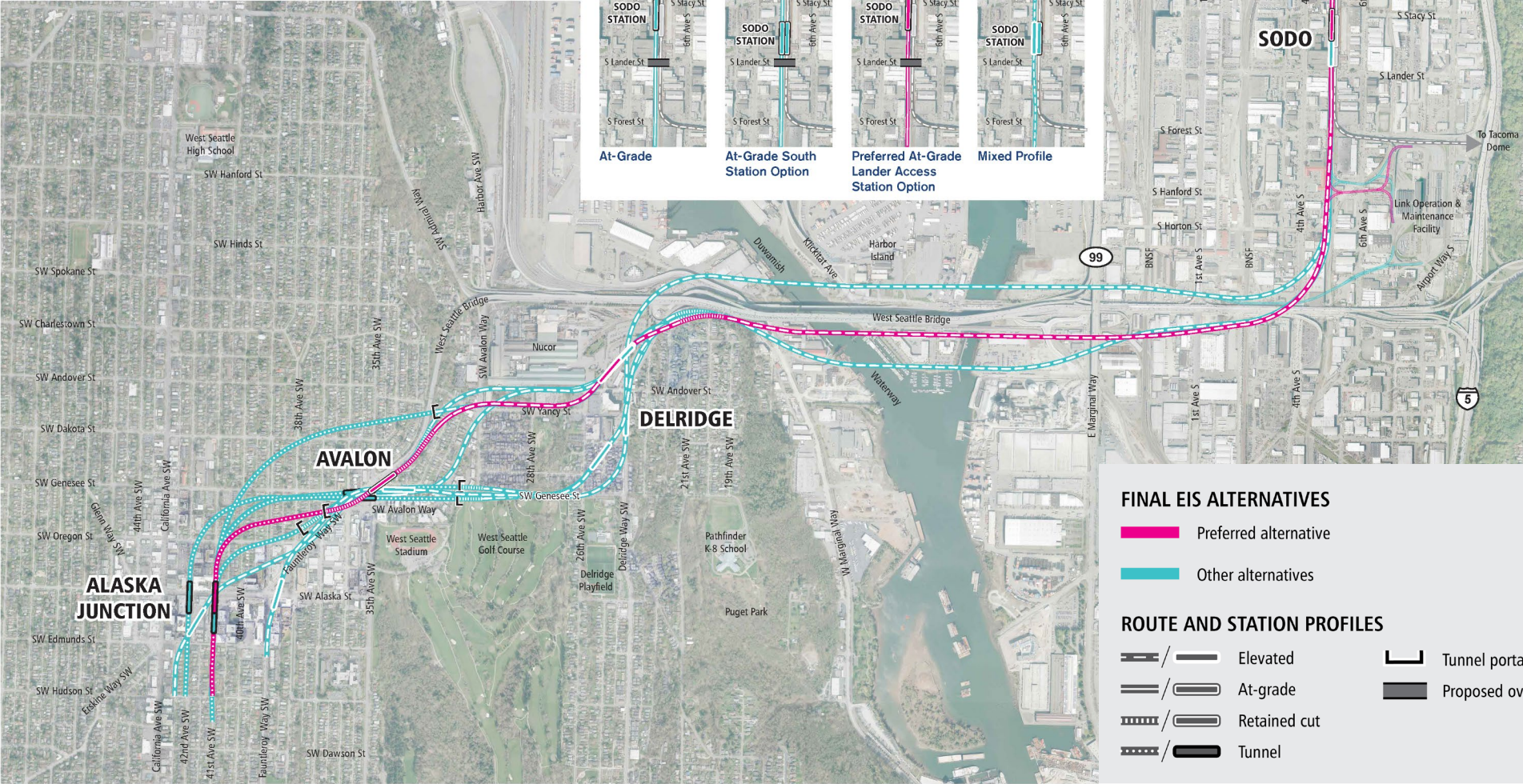
- Air quality and greenhouse gas emissions
- Ecosystems
- Water resources
- Geology and soils

Built environment

- Acquisitions, displacements and relocations
- Noise and vibration
- Economic effect
- Visual resources
- Parks and recreation
- Land use
- Energy
- Hazardous materials
- Public services
- Historic and archaeological resources
- Social resources, community facilities and neighborhoods
- Electromagnetic fields
- Utilities

Final EIS alternatives

SODO Alternatives



FINAL EIS ALTERNATIVES

- Preferred alternative
- Other alternatives

ROUTE AND STATION PROFILES

- Elevated
- At-grade
- Retained cut
- Tunnel
- Tunnel portal
- Proposed overpass



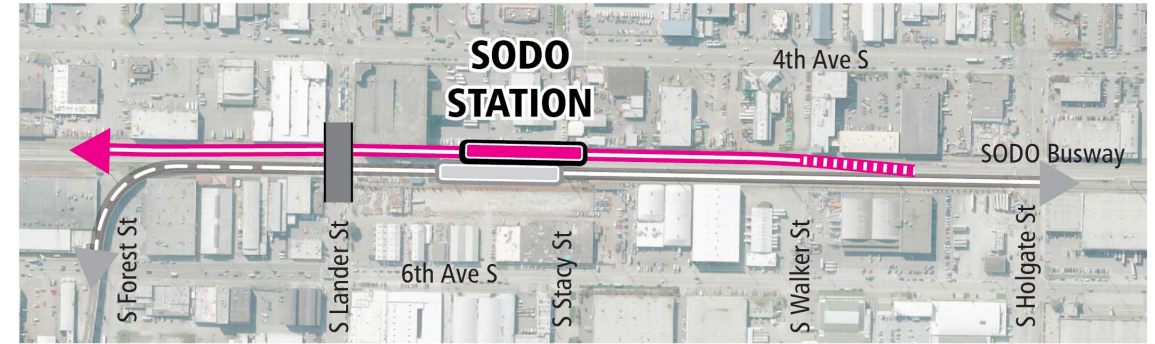
Final EIS alternatives SODO



At-Grade Alternative (SODO-1a)



At-Grade South Station Option (SODO-1b)



Preferred At-Grade Lander Access Station Option (SODO-1c)



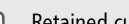

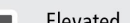



Mixed-Profile Alternative (SODO-2)

FINAL EIS ALTERNATIVES

- █ Preferred alternative
- █ Other alternatives
- █ Existing Link






ROUTE AND STATION PROFILES

-  /  At-grade
-  /  Retained cut
-  /  Elevated
-  Street overpass



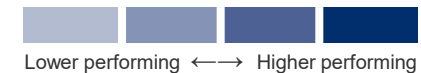
Diagrams are not to scale and all measurements are approximate for illustration purposes only.

Final EIS alternatives SODO

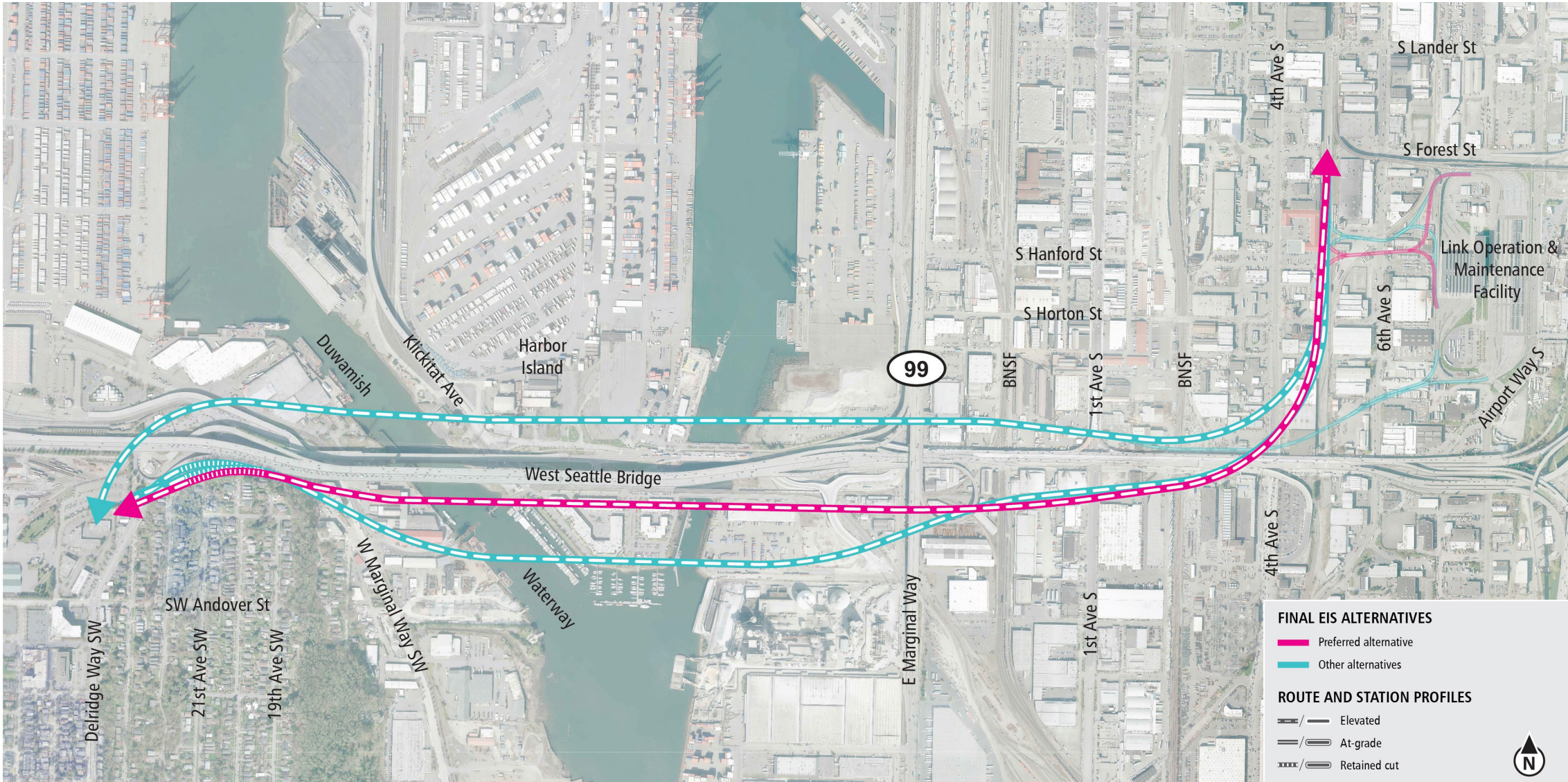
	At-Grade Lander Access Station	At-Grade	At-Grade South Station Option	Mixed Profile
Comparative estimate 	\$	\$	\$\$	\$\$
Business displacements 	33	34	35	31
Transportation effects 	SODO Busway (permanent closure)	SODO Busway (permanent closure)	SODO Busway (permanent closure)	SODO Busway (temporary closure 5 years)
Construction effects 	S. Lander Street closure (3 years)	S. Lander Street closure (3 years)	S. Lander Street closure (3 years)	S. Lander Street closure (nights/weekends)
Other considerations 	Avoids USPS relocation	Avoids USPS relocation	Relocation of USPS	Relocation of USPS

The above information is for illustration only. Please refer to FEIS for further detail.

Performance



Final EIS alternatives Duwamish









Final EIS alternatives

Duwamish

South Crossing Alternative

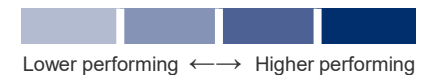
South Edge Crossing Alignment Option

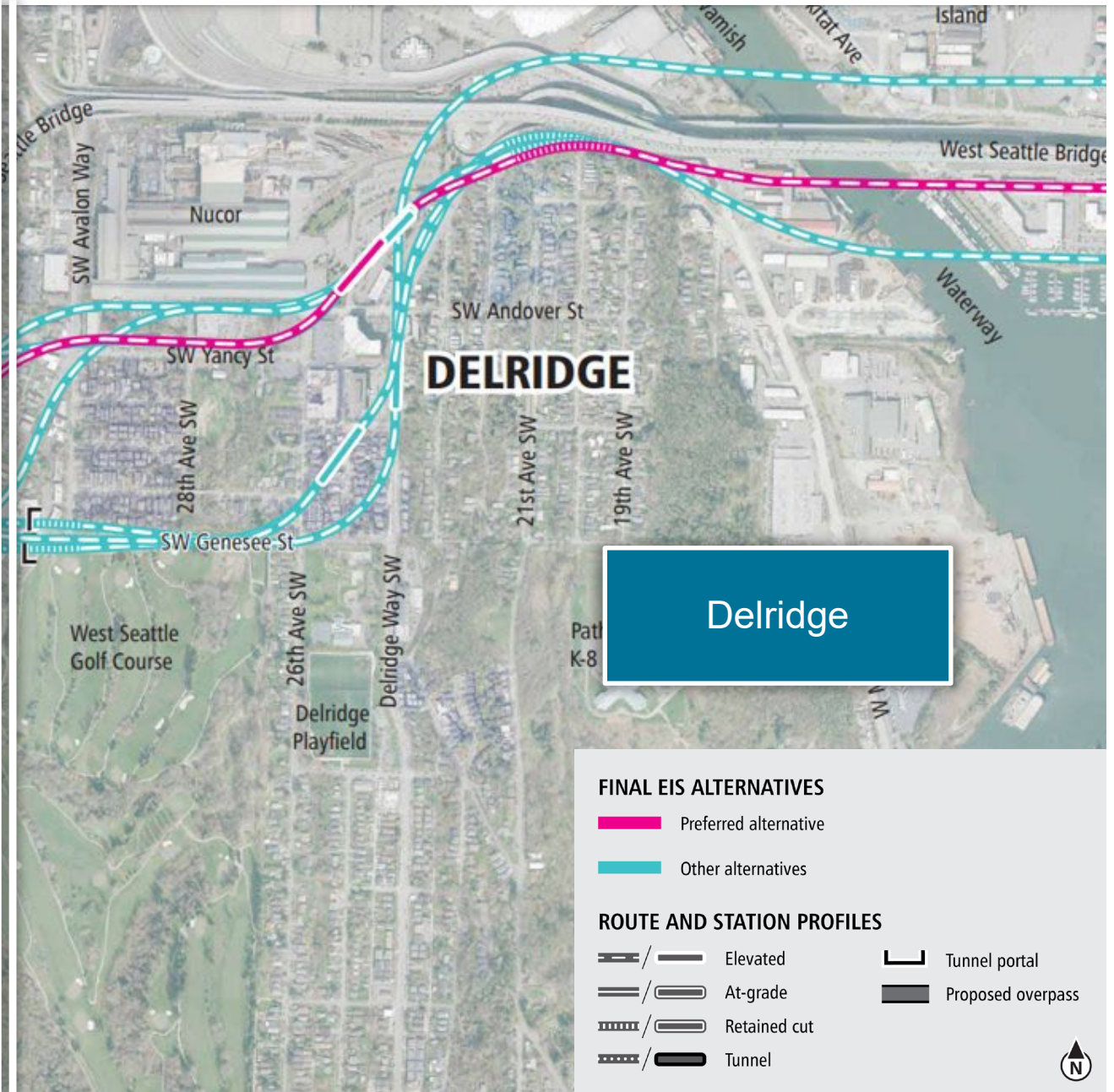
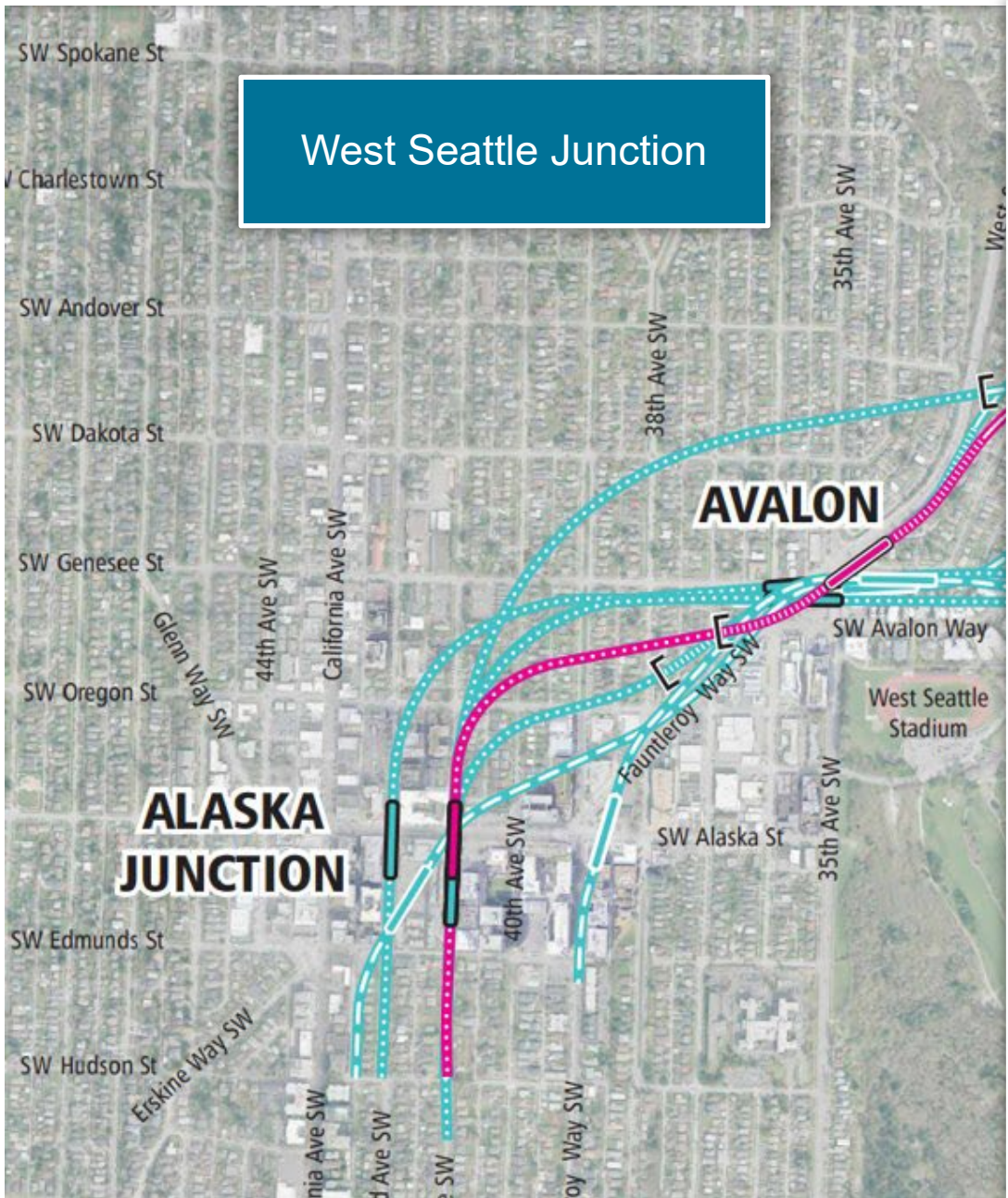
North Crossing Alternative

Comparative estimate 	\$	\$	\$\$
Residential displacements 	21 units	22-25 units	none
Business displacements 	36	29-30	36
Maritime Business displacements 	3	5	10
Park effects (permanent) 	1.1-1.3 acres	1.2 acres	none
Other considerations 	No in-water piers Pigeon Point constructability	In-water columns necessary Marinas Pigeon Point constructability	Port of Seattle T-5 & T-18 T-25 restoration site

The above information is for illustration only. Please refer to FEIS for further detail.

Performance










FINAL EIS ALTERNATIVES

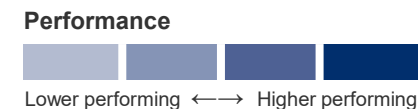
- Preferred alternative
- Other alternatives

ROUTE AND STATION PROFILES

	Elevated		Tunnel portal
	At-grade		Proposed overpass
	Retained cut		
	Tunnel		

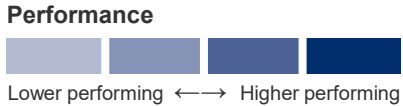
	Medium Tunnel 41st W. Entrance Andover St Lower Height South	Medium Tunnel 41st Andover St Lower Height	Elevated 41st /42nd Dakota St	Elevated Fauntleroy Dakota St	Tunnel 41st Dakota St Lower Height	Tunnel 42nd Dakota St Lower Height
Comparative estimate 	\$	\$	\$\$\$	\$	\$\$\$	\$\$\$
Residential displacements 	145 units	201 units	541 units	664 units	362 units	323 units
Business displacements 	63	31	74	35	33	60
Park effects (permanent) 	none	none	0.1 acres	0.1 acres	0.7 acres	0.9 acres
Other considerations 	Lower guideway/ Delridge Station Longfellow Creek Crossing	Lower guideway/ Delridge Station Social service provider	Taller guideway/ Delridge Station Social service provider	Taller guideway/ Delridge Station Social service provider	Lower guideway/ Delridge Station Tunnel Avalon and Alaska Jct. stations Social service provider	Lower guideway/ Delridge Station Tunnel Avalon and Alaska Jct. stations Social service provider

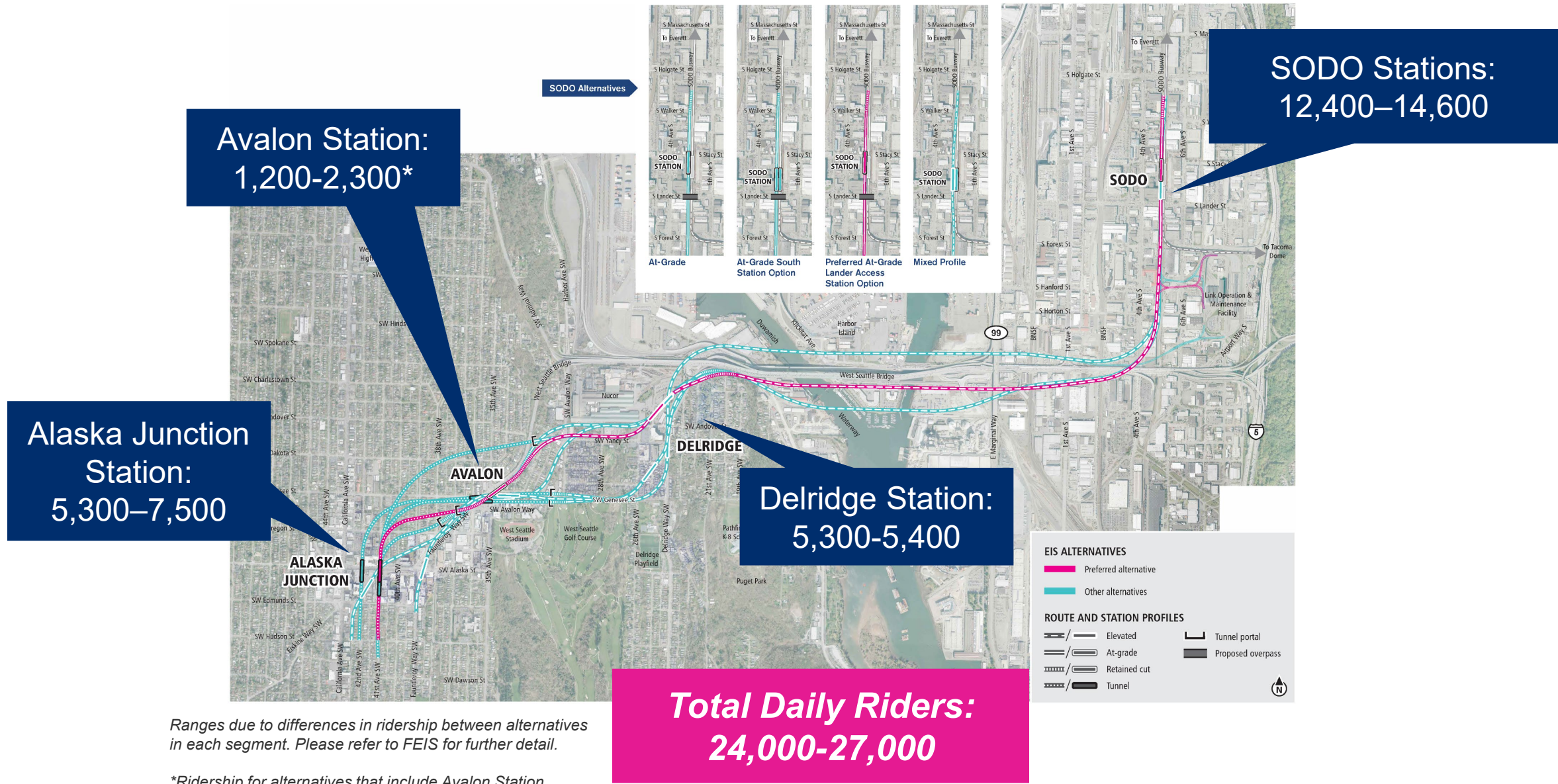
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	Short Tunnel 41st Dakota St	Elevated Fautleroy Andover St	Elevated Fautleroy Delridge Way	Tunnel 41st Delridge Way Lower Height	No Avalon Station Andover St Lower Height South
Comparative estimate 💰	\$\$\$	\$	\$	\$\$\$	\$\$
Residential displacements 🏠	425 units	606 units	643 units	339 units	123 units
Business displacements 🏢	34	35	36	33	25
Park effects (permanent) 🌳	none	0.1 acres	0.2 acres	0.8 acres	none
Other considerations 🔍	Taller guideway/ Delridge Station Tunnel Alaska Jnct. station Social service provider	Taller guideway/ Delridge Station Guideway follows Avalon Way SW Delridge Station further north	Taller guideway/ Delridge Station Social service provider Fire Station 36	Lower guideway Social Servicer Provider Fire Station 36	Lower guideway/ Delridge Station No Avalon Station Tunnel


The above information is for illustration only. Please refer to FEIS for further detail.





Cost evolution

Cost evolution



	2023 Finance Plan <i>(based on 2022 DEIS)</i>	2024 FEIS	2024 Preliminary Engineering
Cost (billions of \$)	\$4.0	\$5.1 - \$5.6	\$6.7 - \$7.1
Year \$	2023\$	2024\$	2024\$
Level of design	<10%	~10%	~30%*
Basis of estimate	Comparative**	Comparative	Bottom-up
Cost factors	Escalated 2022 Draft EIS, Inflation index did not reflect global market issues (ie. Pandemic)	Includes design progression and refinements, updated ROW	Reflects market conditions, more advanced level of design, additional site data, constraints, etc.

* Preferred Alternative only

WSLE estimate progression

← ST3 2016

2023				2024				2025				2026				2027				2028			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Planning & Environmental								Design (Design Development and Construction Documents)								Construction							

- Alternatives Development, Draft EIS, Final EIS
- Station planning
- Potential ROW impacts
- Fieldwork and early geotech
- Interagency coordination and collaboration
- Multiple alternatives advanced with community feedback
- 0% to ~10% design progression on alignment and stations for all alternatives
- **Comparative estimate**

- Advance design to 100%
- Advance geotechnical investigations
- Refine our constructability analysis
- Conduct quantitative risk assessment
- Implement value engineering and other cost savings strategies
- Assess financial capacity and funding opportunities
- Preconstruction activities, contractor early engagement and pricing
- **Bottom-up estimates**

Comparative estimate \$5.1B–5.6B (2024\$)

- Final EIS, published in September 2024
- \$5.1-5.6B (2024\$)
- Design progression to ~10%, largely completed in March 2023
- Change between Draft EIS and Final EIS reflects design progression, including:
 - Moved Duwamish Crossing piers out of the waterway
 - Enhanced access to Delridge Station
 - Shifted Alaska Junction Station entrance and deepened station depth
 - Accounted for additional environmental mitigation

Preliminary estimate \$6.7–7.1B (2024\$)

- Progressed design on preferred alternative from 10% to 30%, (conceptual to preliminary engineering)
- Methodology shift from comparative estimates to a preliminary bottom-up estimate
- Industry practice at this stage to report as a range and consistent with Triunity recommendations
- Includes an array of potential value engineering ideas and agency initiatives

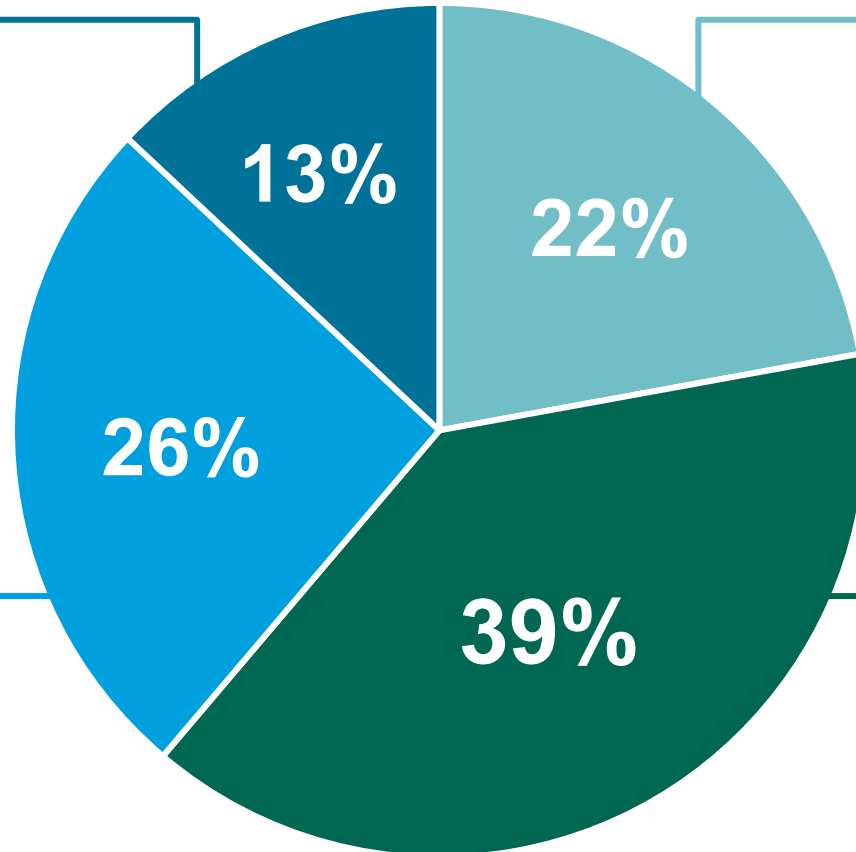
Drivers of cost growth on WSLE

Higher indirects –
professional services
and owner requirements

Market conditions –
limited labor and
contractor pool

Project development /
Environmental
process delays

Design progression,
cost escalation,
estimating methodology
and pandemic impacts



National Construction Economic Outlook¹

- 2023 monthly transportation spending of \$65 billion
- Strong growth in non-residential infrastructure market is putting pressure on prices
- Asphalt, cement and **concrete show the highest cost increases**
- Labor availability is contractors' number one problem and wage premium for construction is high
- **Craft labor costs continue to increase** at a rate of 5% or more per BLS
- Contractor capacity for mega projects is limited

Program level opportunities

High

- Offsite construction
- Align indirect costs
- Strategies to reduce OH costs
- Collaborative delivery
- Bundling strategy/add alternate work
- Target value design – Design and build to budget

Medium

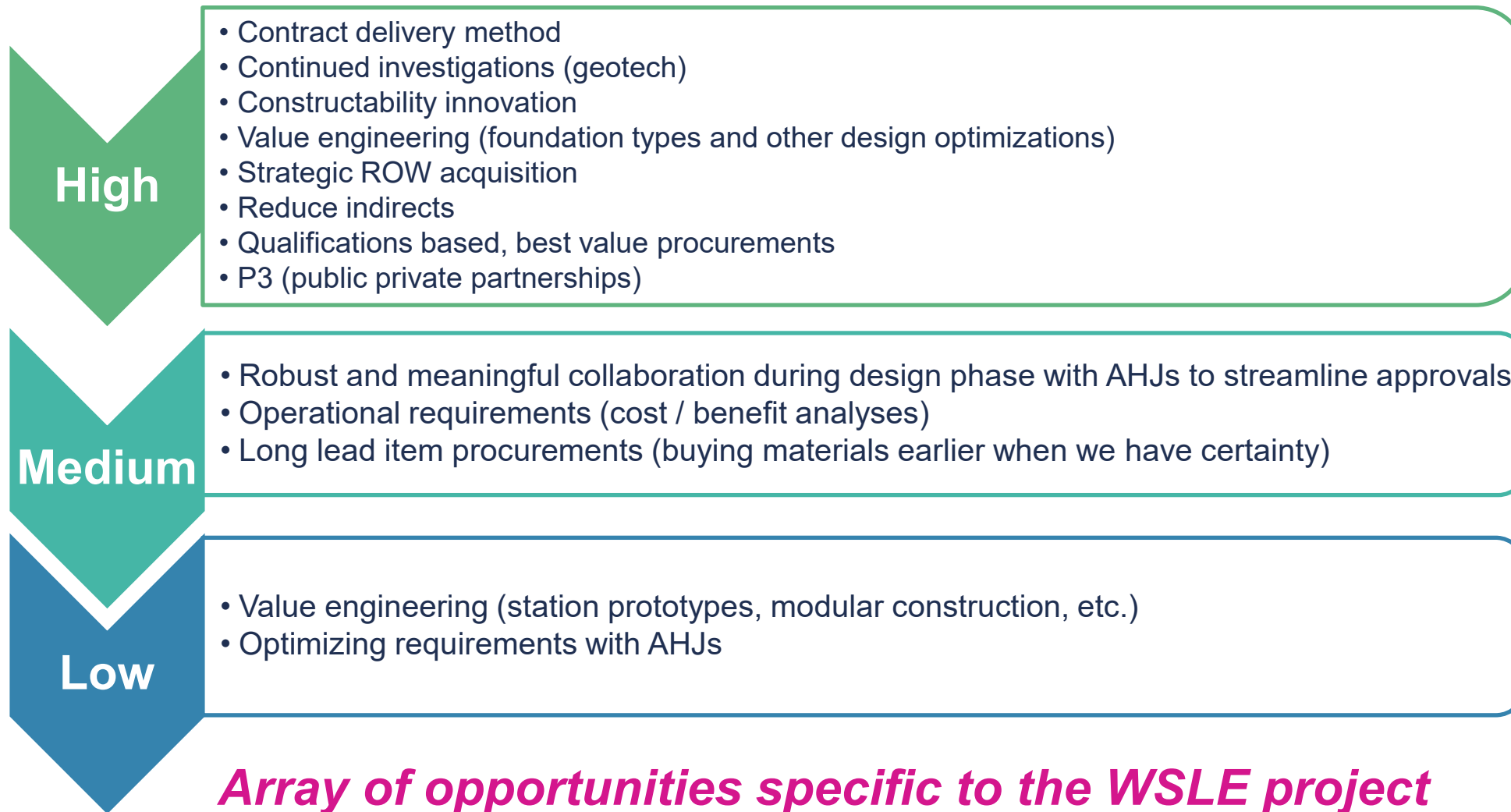
- Betterments – new policy
- Permitting – strategies to streamline construction timeline
- Third party MOUs – early engagement, clear expedited escalation, decision maker clarity
- Station infrastructure cost share – P3 opportunities/TOD opportunities
- Rally Industry
- Higher investment in gathering site conditions

Low

- Modularity/consistent kit of parts approach – Repeated elements (site adapt, prefab)
- Early procurement – ST purchased material (buy things early, buy in volume)
- Vendor agreements / contracts with economic price adjustment, fixed unit cost pricing

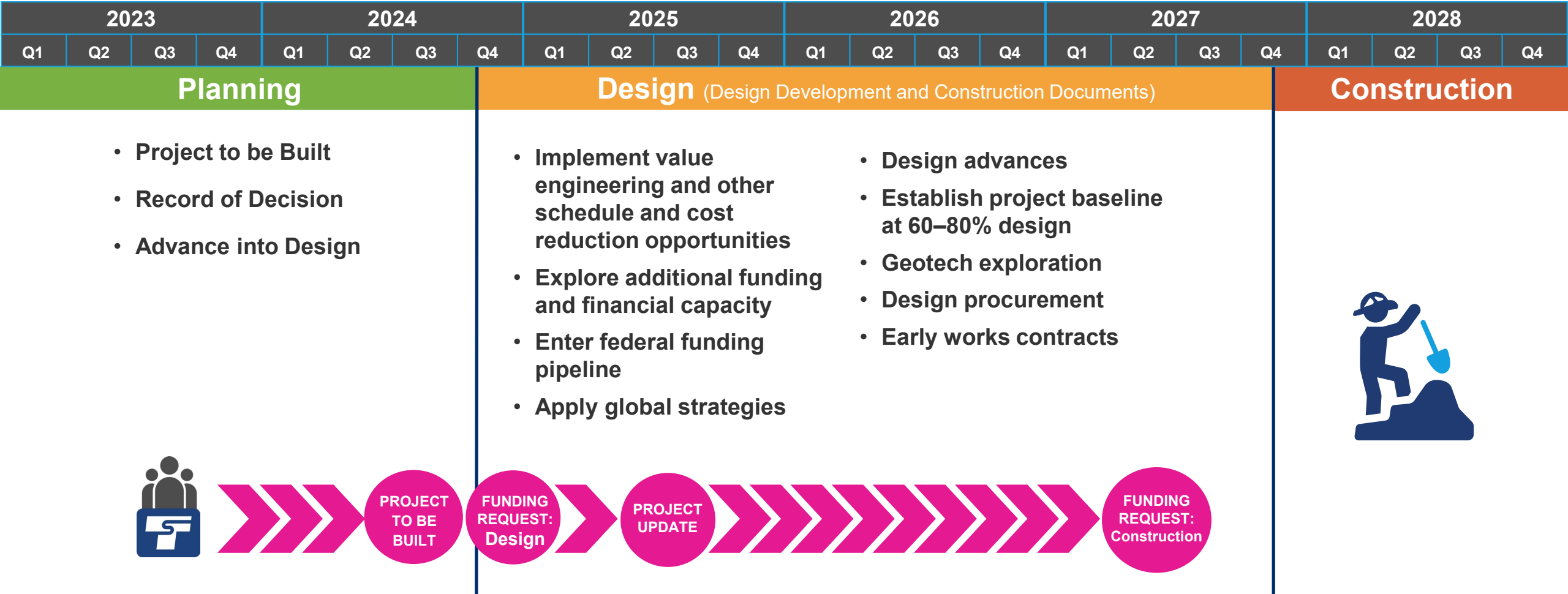
Tools and approaches to leverage opportunities across portfolio

WSLE project level opportunities



WSLE next steps summary

← ST3 2016



Next steps

Project to be Built decision

What does the Project to be Built action do?

Action on the Project to be Built is a step to completing the environmental review phase and **allows the project to proceed into design** in a timely manner.

Approving the WSLE project to be built will not negatively impact the agency's ability to advance other projects in the expansion program.

The agency will return to the Board in the future as design progresses, to baseline the project and to authorize construction dollars.

Upcoming drop-in sessions

Final EIS publication



Drop-In Session in Delridge

Wednesday, September 25, 2024, 4:30-6:30pm
Youngstown Cultural Arts Center

Drop-In Session near Alaska Junction/Avalon

Tuesday, October 1, 2024, 4:30-6:30pm
Alki Masonic Center

Drop-In Session in SODO

Wednesday, October 2, 2024, 11am-1pm
Gallery B612



Where we're going

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- **September 20, 2024:** WSLE Final EIS publication
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 *wsblink@soundtransit.org*
(206) 903-7229



soundtransit.org/wsblink

