West Seattle and Ballard Link Extensions

Seattle Design Commission Briefing:

West Seattle Stations and Guideway Structures

April 7, 2022

SOUNDTRANSIT



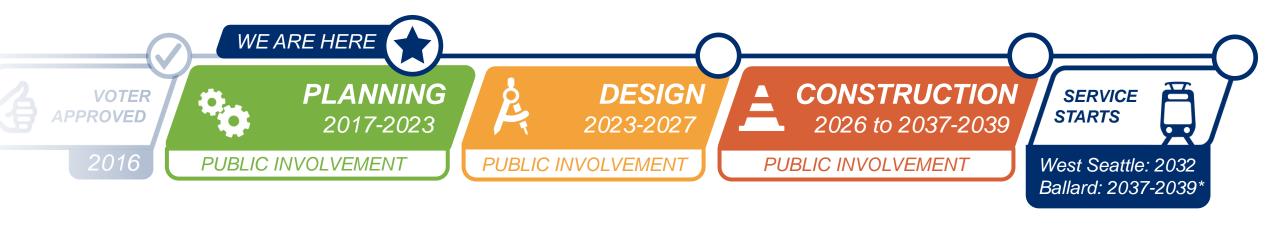
Agenda

- Welcome and introductions
- Project orientation
- Duwamish crossing
- Delridge station and guideways

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- Project orientation
- Duwamish crossing
- Delridge station and guideways

West Seattle and Ballard Link Extensions Project timeline







2016



PLANNING



2017-2019

Alternatives development

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

2019-2023

Environmental review

Early 2022: Publish Draft EIS

Public comment period

Board confirms or modifies preferred alternatives

2023: Publish Final EIS

Board selects projects to be built

Federal Record of Decision



Ballard < 2037-2039* Interbay 2037 Seattle South **Center Lake Union** Smith Cove Denny Link light rail Westlake West Seattle and Ballard Midtown **Link Extensions** Preferred alternatives Preferred alternatives with Int'l District/ Puget Sound third-party funding Chinatown Other Draft FIS alternatives Stadium Route profiles Flevated route Tunnel route Surface route SODO 🕹 Delridge Junction ****** Avalon

Draft EIS alternatives

What we're studying in this phase

- Preferred Alternatives
- Preferred Alternatives with Third-Party Funding
- Other Draft EIS alternatives

*Dates reflect an affordable schedule based on current financial projections and cost estimates, and a target schedule.



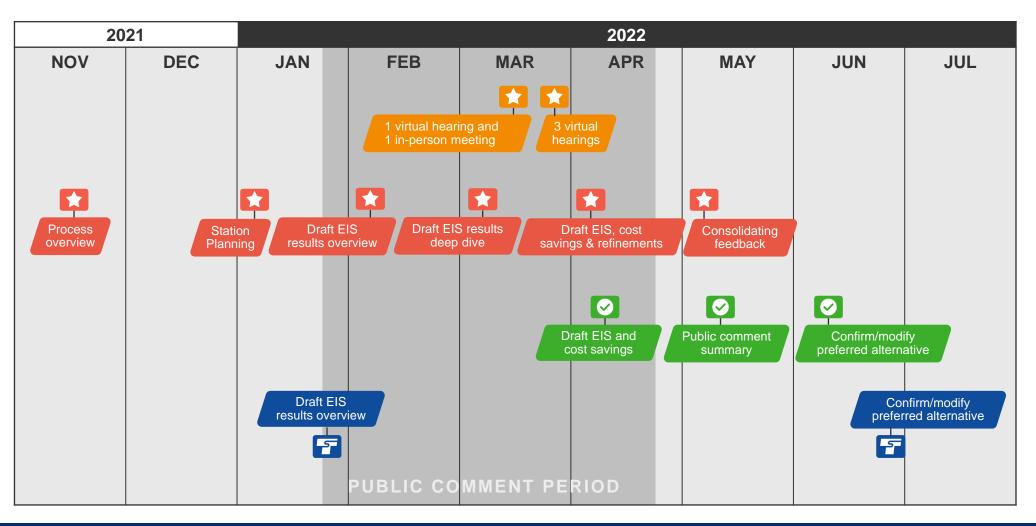
Community engagement and collaboration Draft Environmental Impact Statement (EIS)













RET Report: Environmental Review Phase

- Released as a Draft
- Will be updated based on comments received on the Draft EIS





City of Seattle Initiatives

City initiatives

- Longfellow creek SPU project
- Transit integration principles/guidelines (Delridge specifically)
- FTA grant/eTOD strategy related to Delridge
 - Delridge land use conditions (highlighting not yet "UV", potential upcoming changes through Comp plan-SAP sequence)
- SODO/industrial lands considerations



Q&A / Discussion

Agenda

- Welcome and introductions
- Project orientation
- Duwamish crossing
- Delridge station and guideways

Draft EIS Drawings

- Appendix J of DEIS contains engineering drawings of stations, guideway structures
- Designs reflect10% development





Visual in the Draft EIS

Chapter 4, section 4.2.5

Duwamish: 4.2.5.3.3

Delridge: 4.2.5.3.4

West Seattle Junction: 4.2.5.3.5

Appendix N.2 Visual and Aesthetics Technical Report

• 2.1: Duwamish

• 2.2: Delridge

2.3: West Seattle Junction

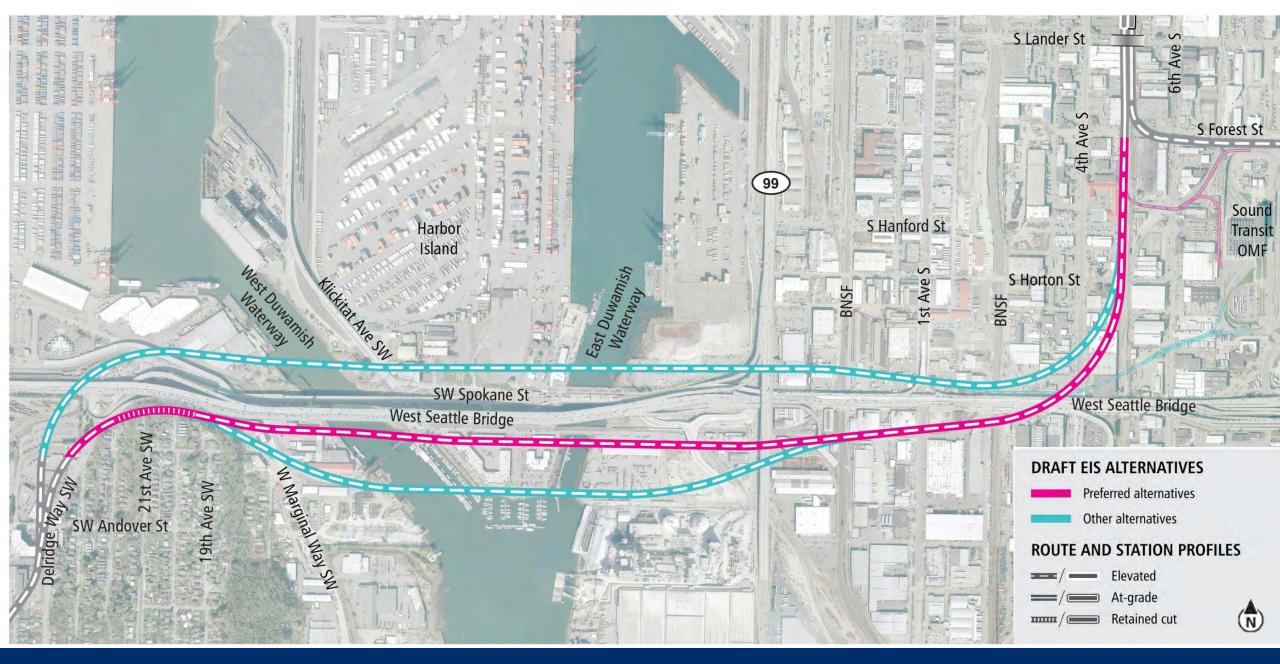
Visual in the Draft EIS

Key observation points/simulations

 The locations used for each simulation are called key observation points (KOPs). KOPs are used to depict current views toward a proposed project and how the views would change with the project.

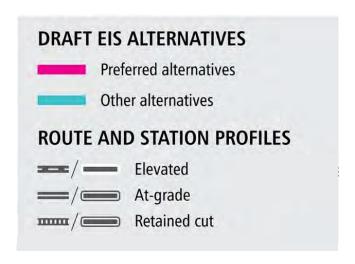
Impact Assessment

 Impact assessment is for the entire corridor, regardless of whether a simulation is prepared.

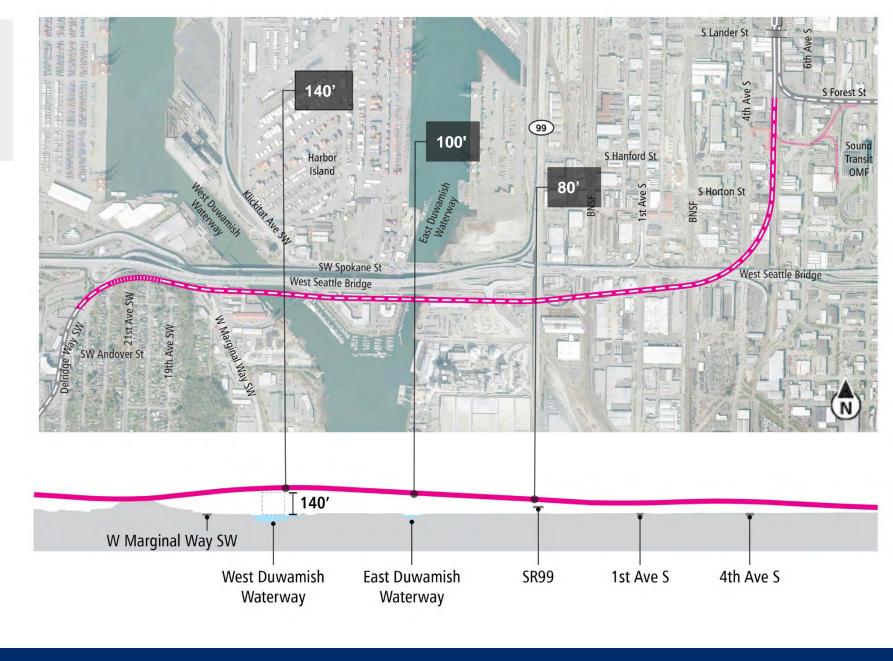


Preferred alternative

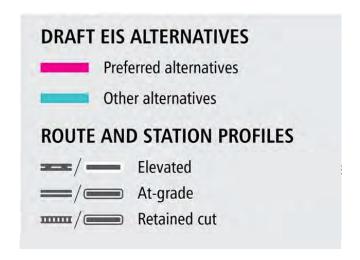
South Crossing Alternative



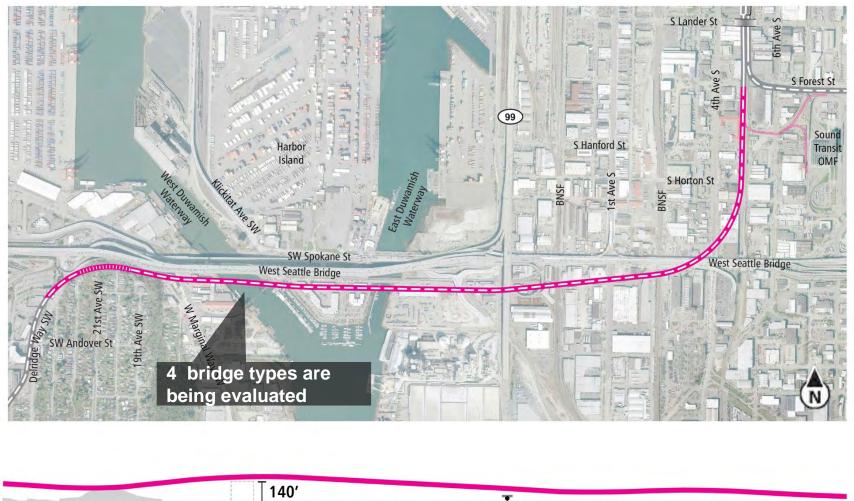
Diagrams are not to scale and all measurements are approximate for illustration purposes only. Connection to preferred alternative in Delridge is shown for illustration purposes.

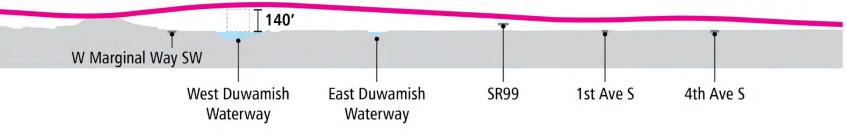


South Crossing Alternative

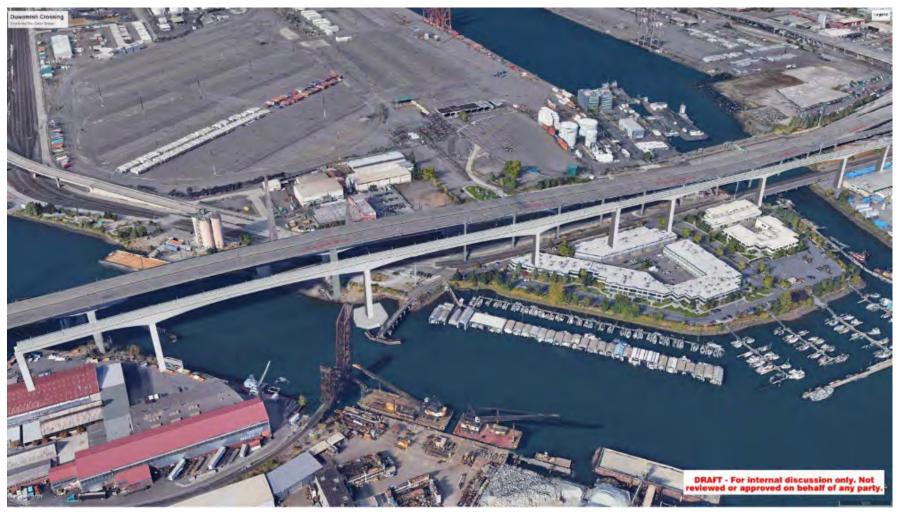


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Possible Bridge Types



Segmental Box Girder





Extradosed





Steel Continuous Truss





Cable Stayed



Existing Condition





Viewpoint: West Seattle Bridge Westbound Looking South

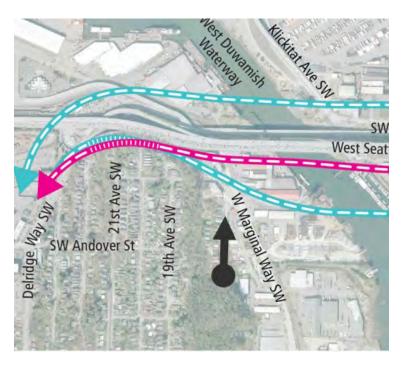
South Crossing Alternative





Viewpoint: West Seattle Bridge Westbound Looking South

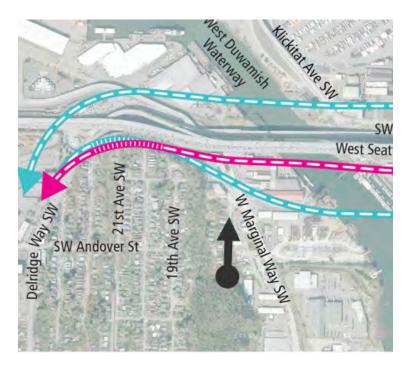
Existing Condition





Viewpoint: 17th Avenue Southwest Looking North

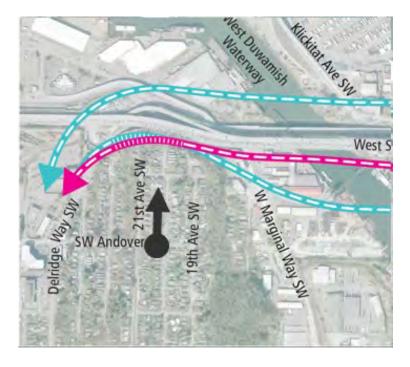
South Crossing Alternative





Viewpoint: 17th Avenue Southwest Looking North

Existing Condition



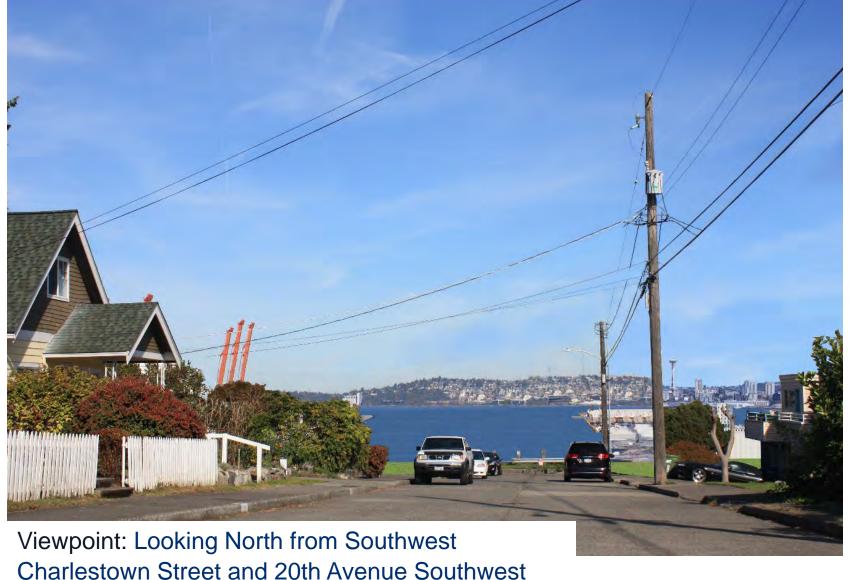


Charlestown Street and 20th Avenue Southwest

South Crossing Alternative

South Edge Crossing Alignment Option





Charlestown Street and 20th Avenue Southwest

South Crossing Alternative

Project cost (2019\$ in billions)



\$1.2B

Residential displacements



26 units

Business displacements



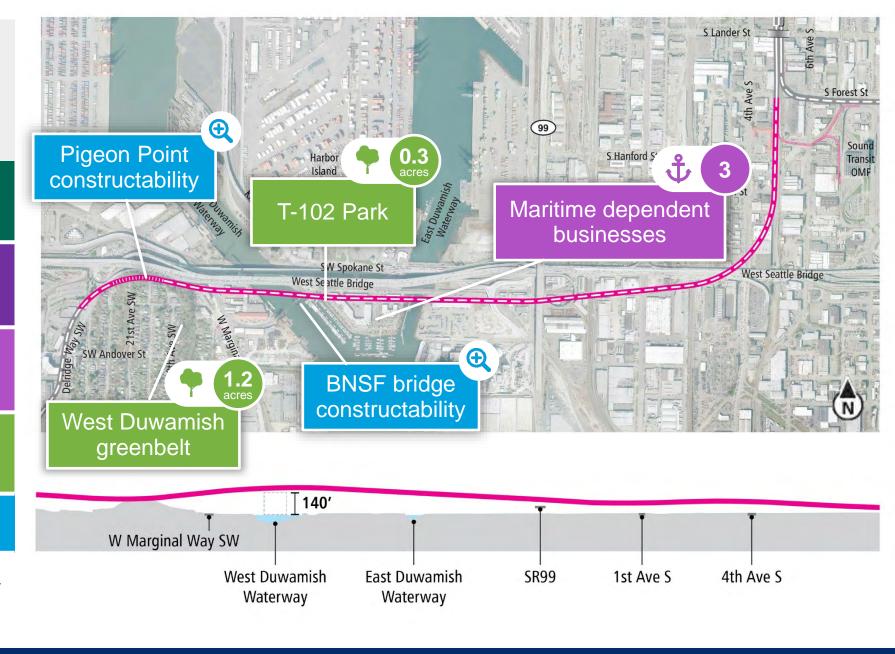
Park effects (permanent)

1.5 acres

Other considerations



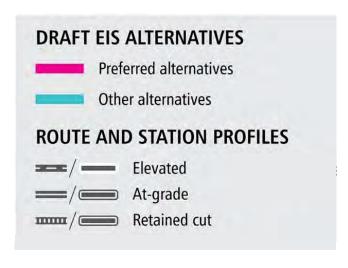
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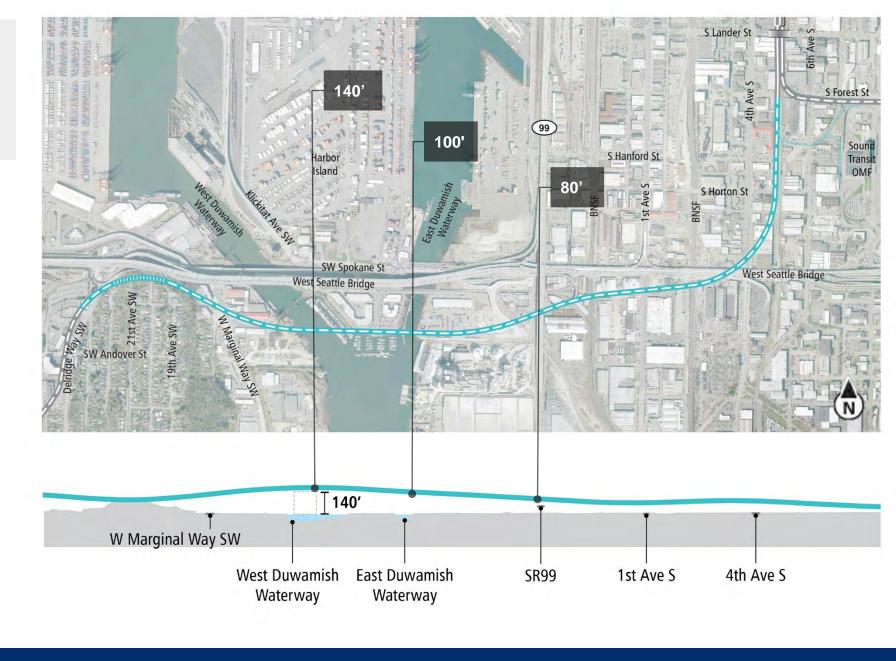


Other Draft EIS Alternatives

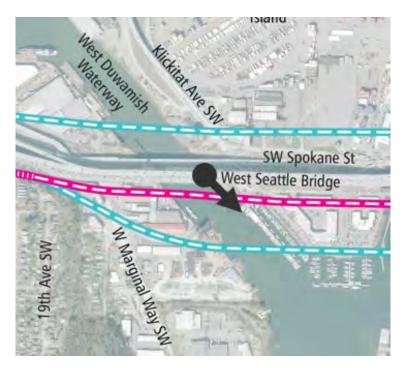
South Edge Crossing Alignment Option



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Existing Condition





Viewpoint: West Seattle Bridge Westbound Looking South

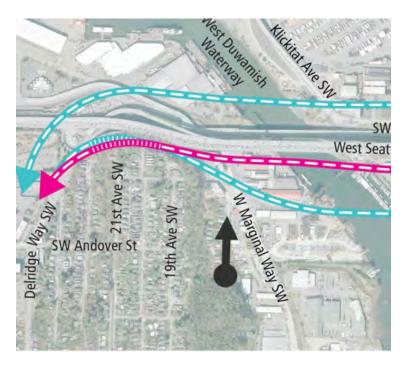
South Edge Crossing Alignment Option





Viewpoint: West Seattle Bridge Westbound Looking South

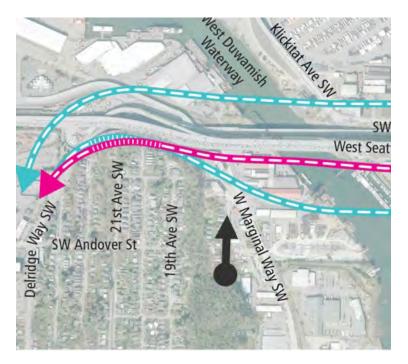
Existing Condition





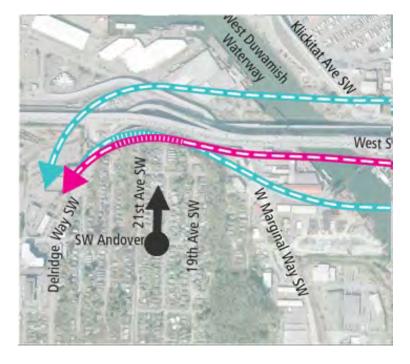
Viewpoint: 17th Avenue Southwest Looking North

South Edge Crossing Alignment Option





Viewpoint: 17th Avenue Southwest Looking North



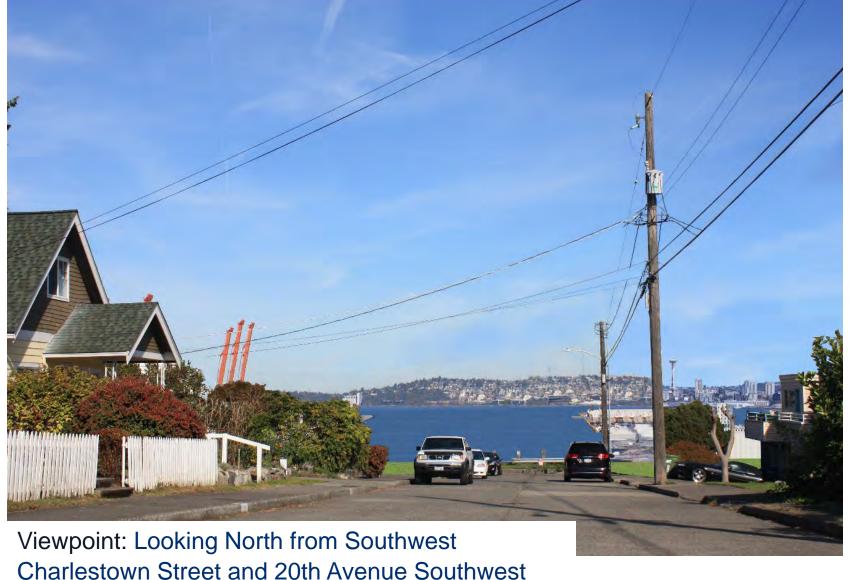


Charlestown Street and 20th Avenue Southwest

South Crossing Alternative

South Edge Crossing Alignment Option





Charlestown Street and 20th Avenue Southwest

South Edge Crossing Alignment Option

Project cost (2019\$ in billions)



\$1.3B

Residential displacements



26 units

Business displacements



Park effects (permanent)

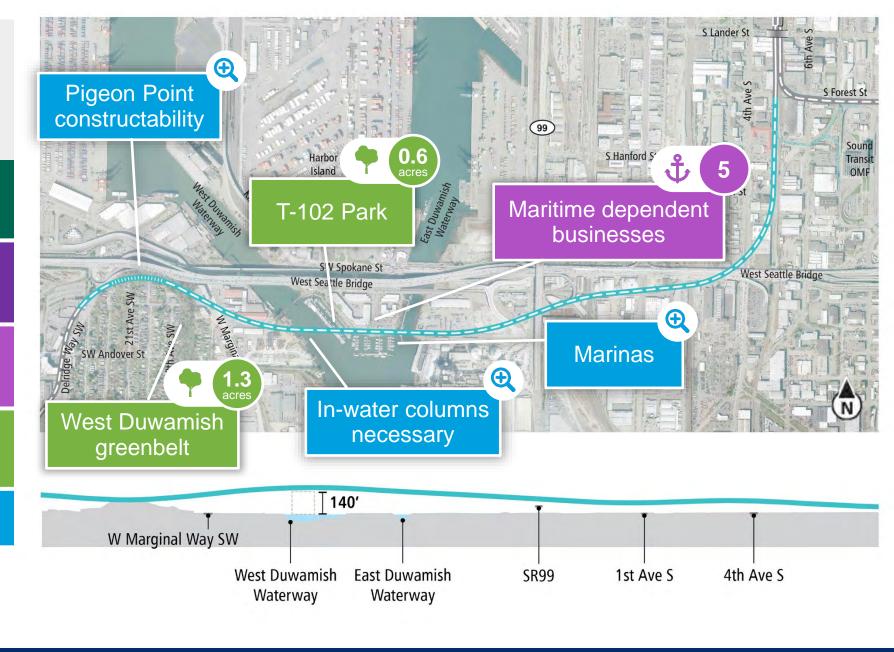


1.9 acres

Other considerations

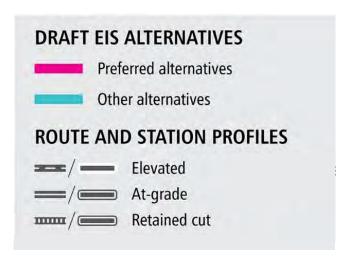


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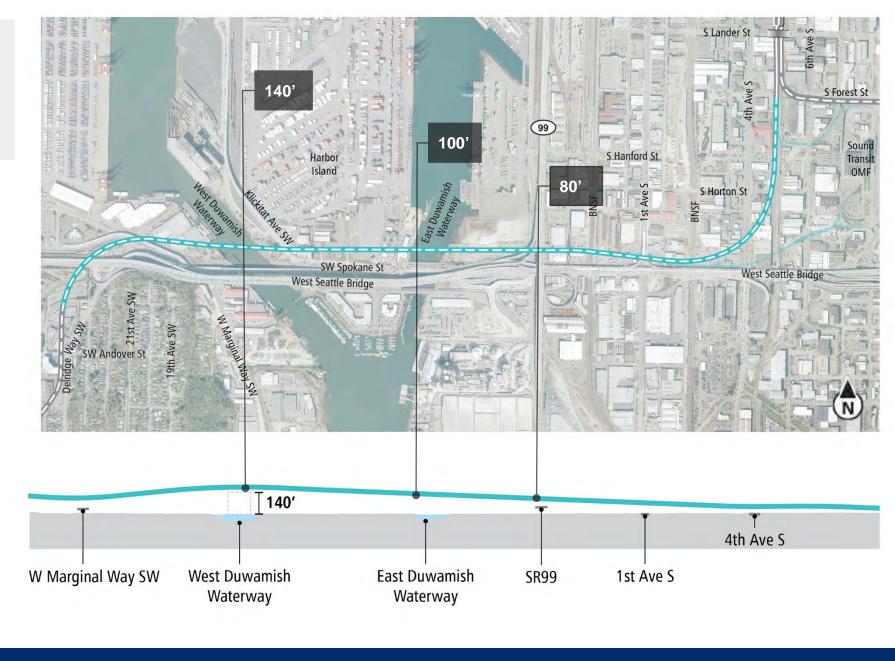




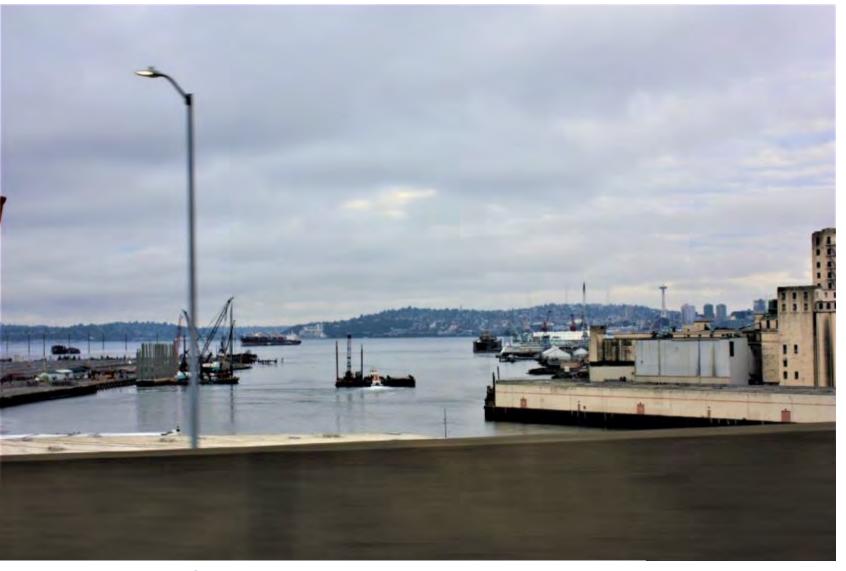
North Crossing Alternative



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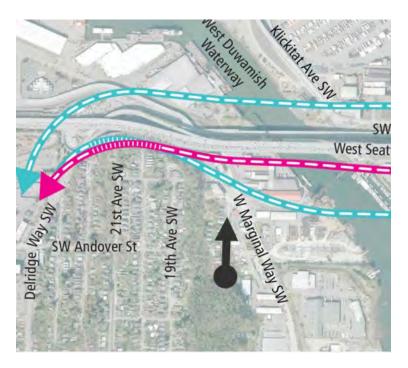
Viewpoint: West Seattle Bridge Westbound Looking North

North Crossing Alignment Alternative





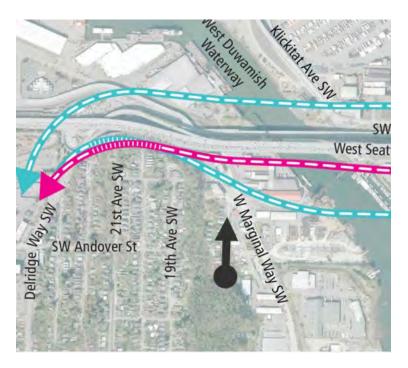
Viewpoint: West Seattle Bridge Westbound Looking North





Viewpoint: 17th Avenue Southwest Looking North

North Crossing Alignment Alternative





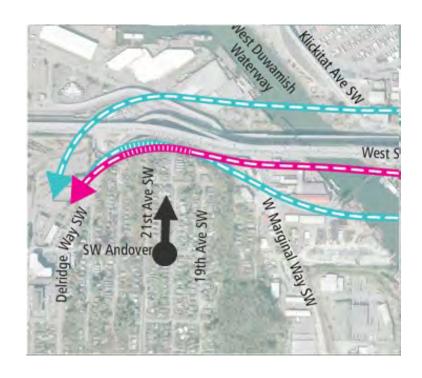
Viewpoint: 17th Avenue Southwest Looking North





Charlestown Street and 20th Avenue Southwest

North Crossing Alignment Alternative





Charlestown Street and 20th Avenue Southwest

North Crossing Alternative

Project cost (2019\$ in billions)



\$1.5B

Residential displacements



none

Business displacements



Park effects (permanent)

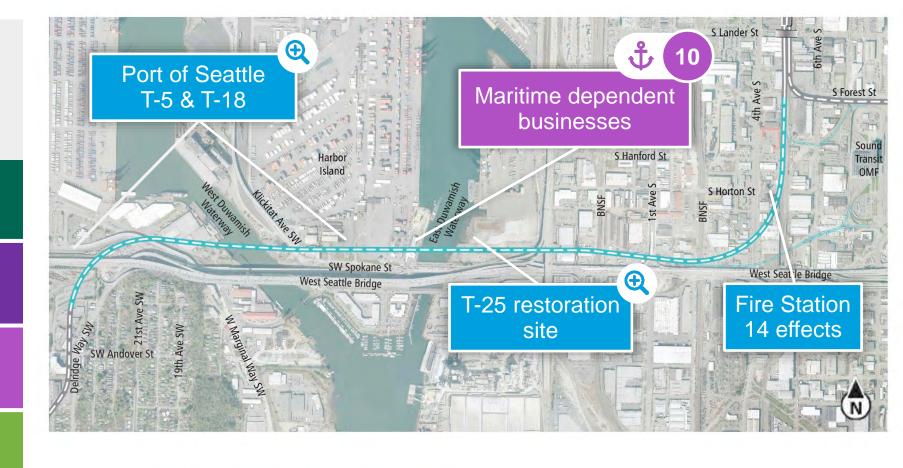


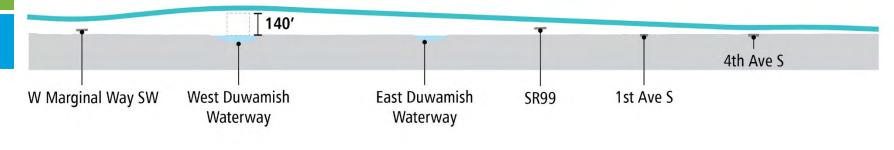
none

Other considerations



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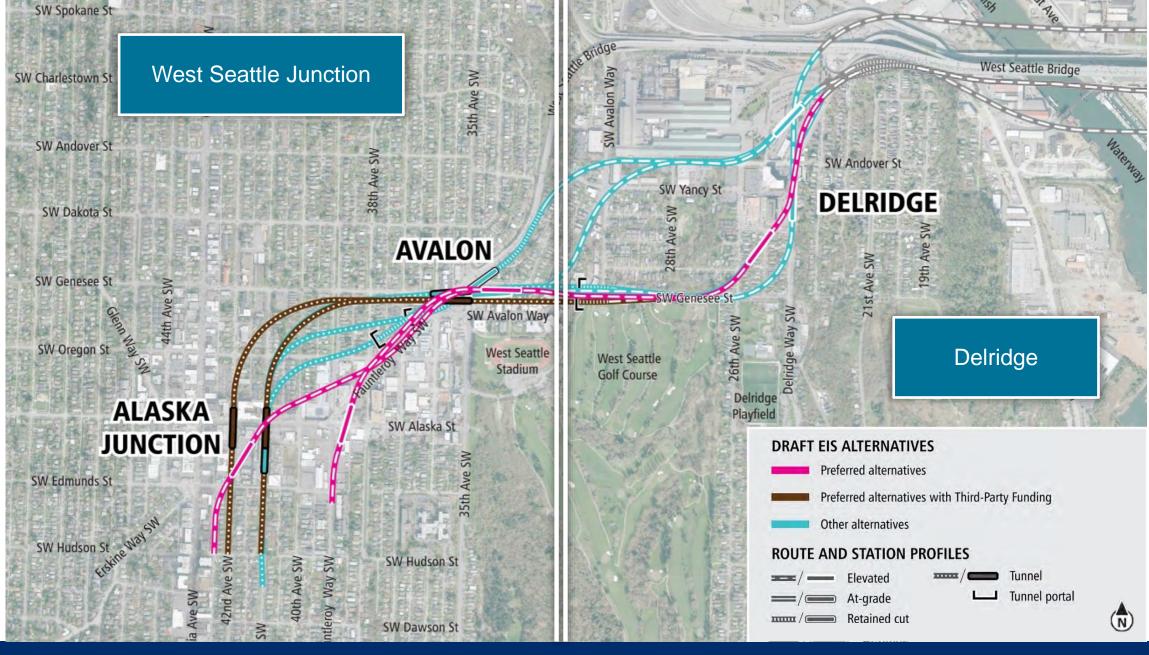
	South Crossing Alternative	South Edge Crossing Alignment Option	North Crossing Alternative
Project cost (2019\$ in billions)	\$1.2B	\$1.3B	\$1.5B
Residential displacements	26 units	26 units	none
Business displacements	36	29	38
Maritime Business displacements	3	5	10
Park effects (permanent)	1.5 acres	1.9 acres	none
Other considerations (4)	Pigeon Point constructability BNSF bridge constructability	Pigeon Point constructability In-water columns necessary Marinas	Port of Seattle T-5 & T-18 T-25 restoration site Fire Station 14 effects
	The above information is for illustration only. Please refe	r to DEIS for further detail.	Performance Lower performing ←→ Higher performing



Q&A / Discussion

Agenda

- Welcome and introductions
- Project orientation
- Duwamish crossing
- Delridge station and guideways



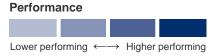
	Elevated Fauntleroy Dakota St	Elevated 41st /42nd Dakota St	Tunnel 41st Dakota St Lower Height	Tunnel 42nd Dakota St Lower Height	Short Tunnel 41st Dakota St	Medium Tunnel 41st Andover St Lower Height	Elevated Fauntleroy Andover St
Project cost (2019\$ in billions)	\$1.6B	\$2.0B	\$2.1B	\$2.2B	\$1.9B	\$1.6B	\$1.5B
Residential displacements	607 units	551 units	364 units	321 units	410 units	201 units	487 units
Business displacements	32	77	31	60	34	35	34
Park effects (permanent)	0.6 acres	0.6 acres	1.4 acres	1.6 acres	0.5 acres	none	none
	Taller guideway/ Delridge Station	Taller guideway/ Delridge Station	Lower guideway/ Delridge Station	Lower guideway/ Delridge Station	Taller guideway/ Delridge Station	Lower guideway/ Avalon Station	Taller guideway/ Delridge Station
Other ^① considerations	Social service provider	Social service provider	Tunnel Avalon and Alaska Jnct. stations	Tunnel Avalon and Alaska Jnct. stations	Tunnel Alaska Jnct. station	Guideway follows West Seattle Bridge	Guideway follows Avalon Way SW
			Social service provider	Social service provider	Social service provider	Delridge Station further north	Delridge Station further north
						•	•



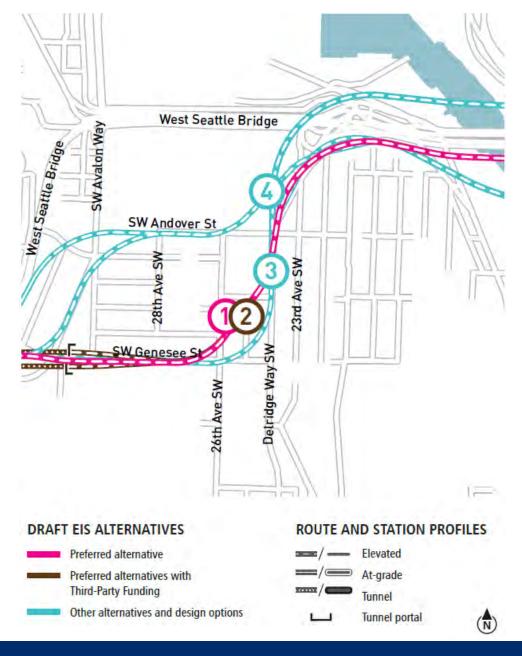
Lower performing ←→ Higher performing

	Elevated Fauntleroy Dakota St	Elevated 41st /42nd Dakota St	Tunnel 41st Dakota St Lower Height	Tunnel 42nd Dakota St Lower Height	Elevated Fauntleroy Delridge Way	Tunnel 41st Delridge Way Lower Height
Project cost (2019\$ in billions)	\$1.6B	\$2.0B	\$2.1B	\$2.2B	\$1.5B	\$2.1B
Residential displacements	607 units	551 units	364 units	321 units	586 units	341 units
Business displacements	32	77	31	60	32	31
Park effects (permanent)	0.6 acres	0.6 acres	1.4 acres	1.6 acres	0.7 acres	1.3 acres
Other [©] considerations	Taller guideway/ Delridge Station Social service provider	Taller guideway/ Delridge Station Social service provider	Lower guideway/ Delridge Station Tunnel Avalon and Alaska Jnct. stations Social service provider	Lower guideway/ Delridge Station Tunnel Avalon and Alaska Jnct. stations Social service provider	Taller guideway/ Delridge Station Social service provider Fire Station 36	Lower guideway Social Servicer Provider Fire Station 36

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

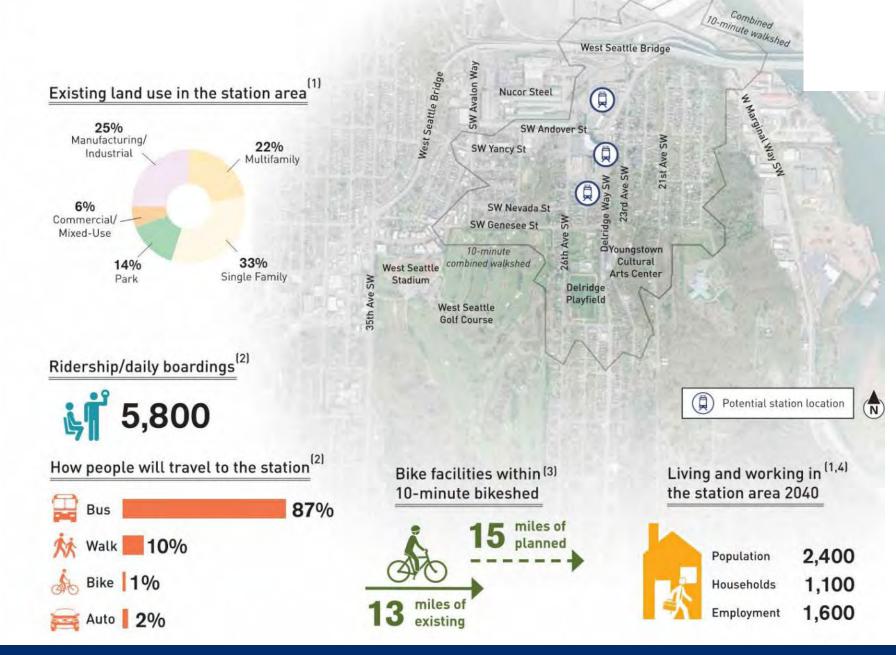






- Excellent bus and rail integration to enhance mobility and access for communities of color and low-income populations
- Opportunities for equitable development serving the community, including expanded affordable housing and food access









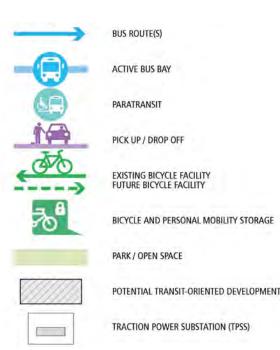


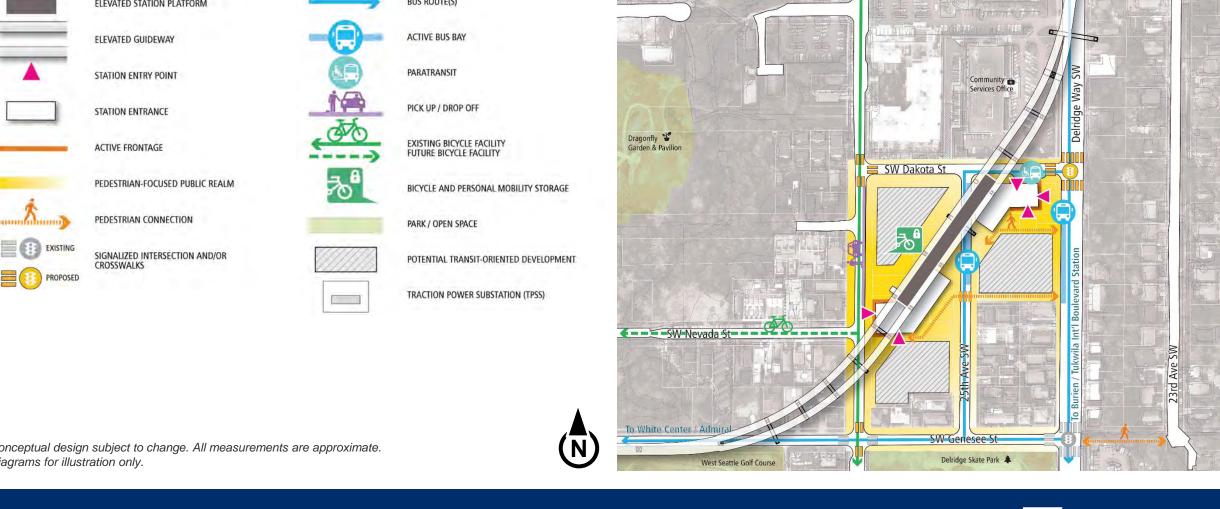
Neighborhood feedback gathered from in-person and on-line events during alternatives development 2018-2019.



Preferred alternative



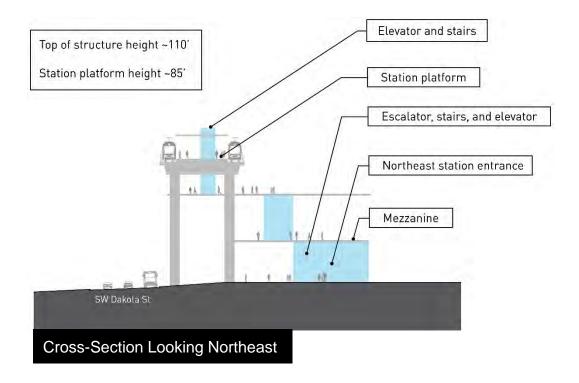




To The Junction

Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.

SW Andover St



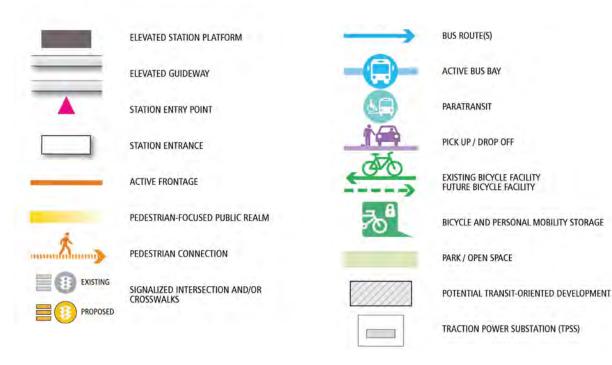
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SW Andover St



To The Junction



Community 6 Paratransit stop Services Office Dragonfly & Garden & Pavilion SW Dakota St SW-Nevada St Transit priority street on 25th

To The Junction

SW Andover St

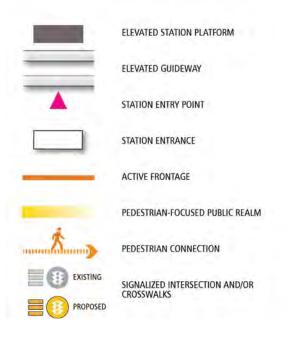
Delridge Skate Park

Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.



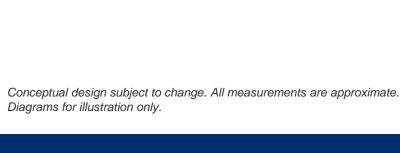
NB/EB bus stop

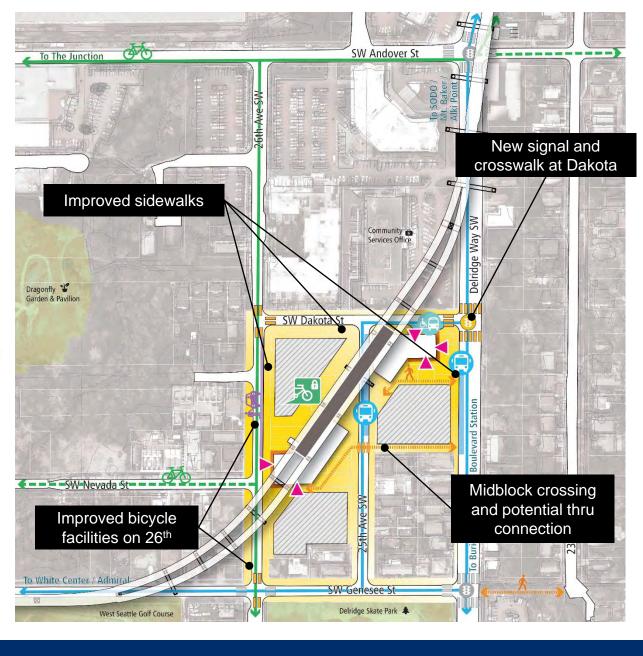
SB/WB bus stop



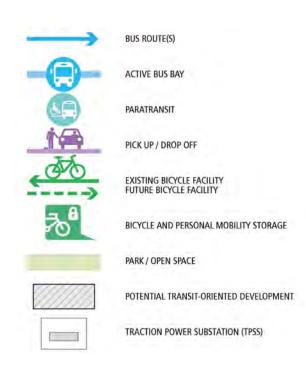












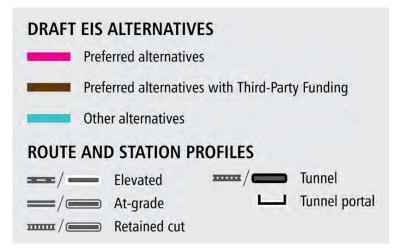


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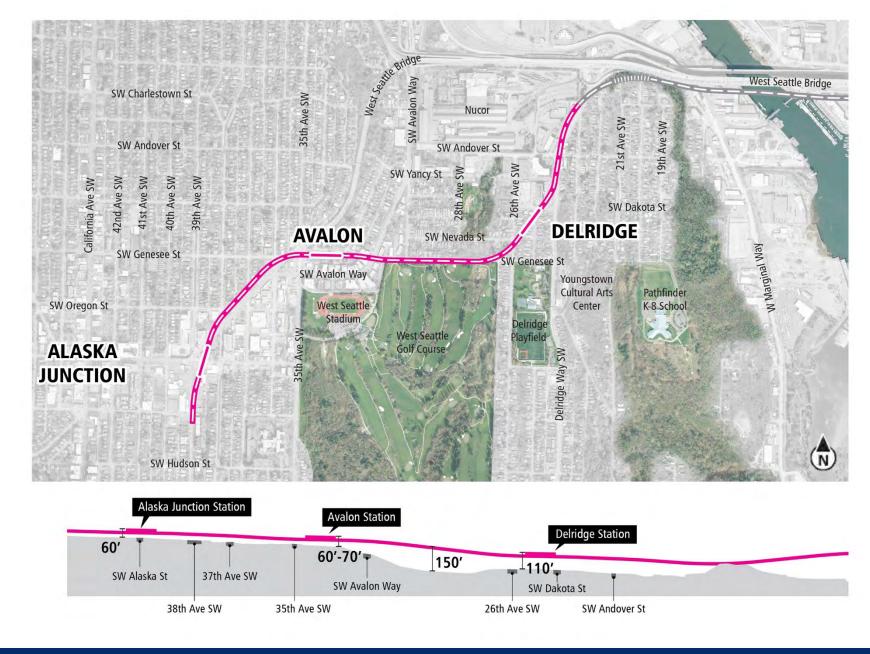


Elevated Fauntleroy Way Station

Dakota Street Station



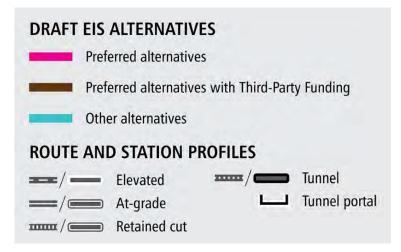
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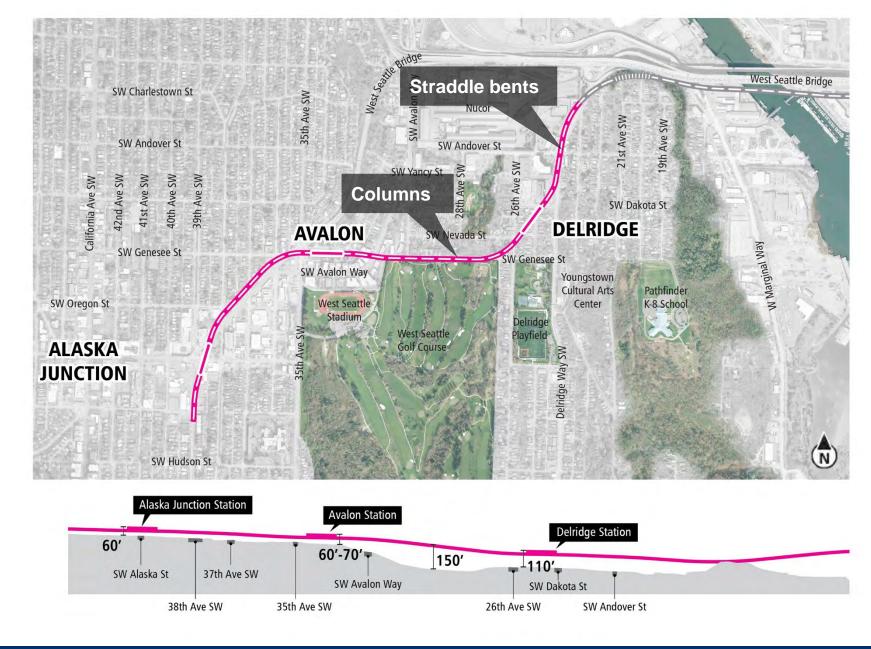


Elevated Fauntleroy Way Station

Dakota Street Station



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Viewpoint: Looking North along Delridge Way Southwest

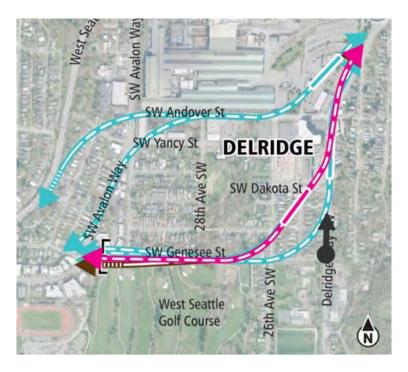
Dakota Street Station Alternative





Viewpoint: Looking North along Delridge Way Southwest

Dakota Street Station Alternative North Alignment





Viewpoint: Looking North along Delridge Way Southwest





Viewpoint: Looking Northwest from Delridge Playfield



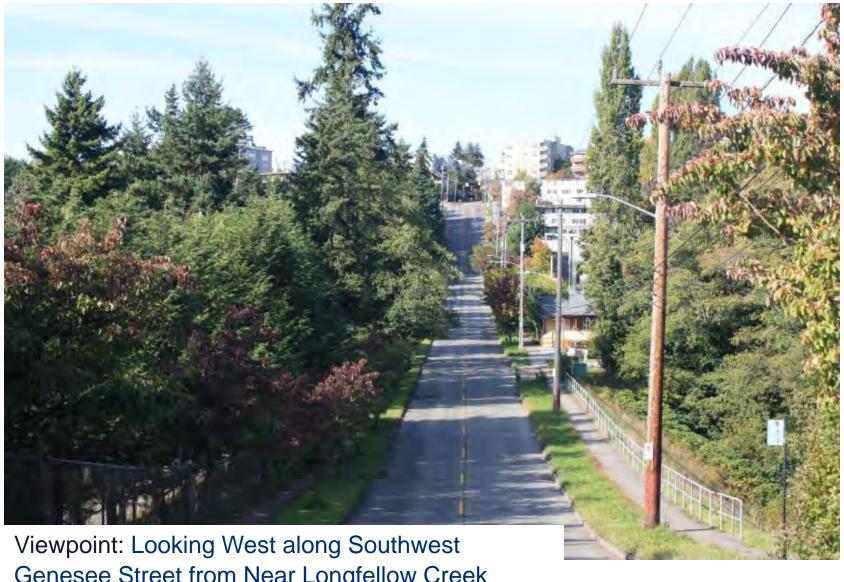
Dakota Street Station Alternative





Viewpoint: Looking Northwest from Delridge Playfield





Genesee Street from Near Longfellow Creek

Dakota Street Station Alternative





Genesee Street from Near Longfellow Creek

Dakota Street Station North Alignment Alternative





Genesee Street from Near Longfellow Creek

Existing Condition





Viewpoint: Looking Past the North End of the West Seattle Golf Course

Dakota Street Station Alternative





Viewpoint: Looking Past the North End of the West Seattle Golf Course



Dakota Street Station North Alignment Alternative





Viewpoint: Looking Past the North End of the West Seattle Golf Course

Existing Condition





Dakota Street Station Alternative





Dakota Street Station North Alignment Alternative





Elevated 41st/42nd Ave **Station**

Dakota Street Station

Project cost (2019\$ in billions)



\$2.0B

Residential displacements



551 units

Business displacements



Park effects (permanent)



0.6 acres

Other considerations



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Elevated Fauntleroy Way Station

Dakota Street Station

Project cost (2019\$ in billions)



\$1.6B

Residential displacements



607 units

Business displacements



Park effects

(permanent)



0.6 acres

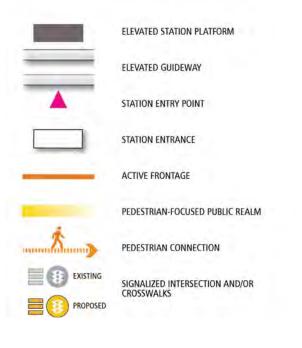
Other considerations

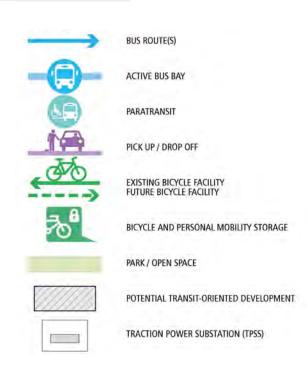


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Preferred alternative with third party funding





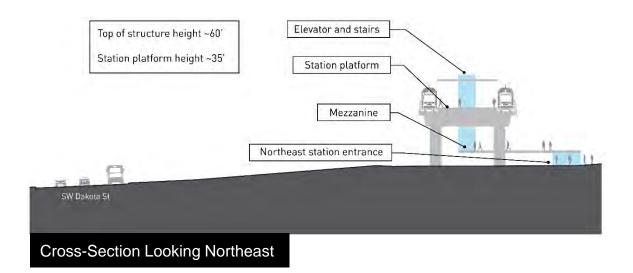


To The Junction



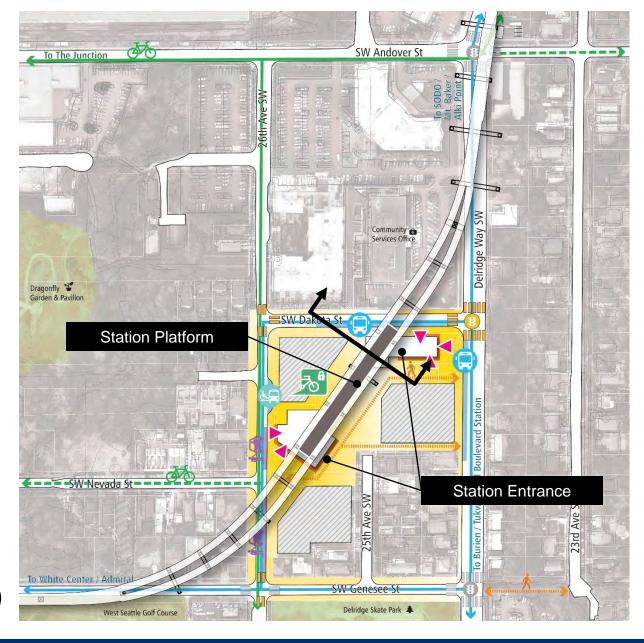
SW Andover St

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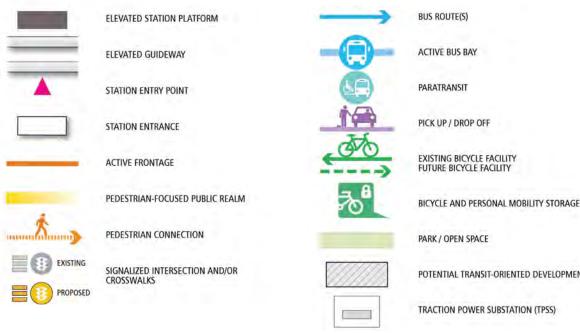


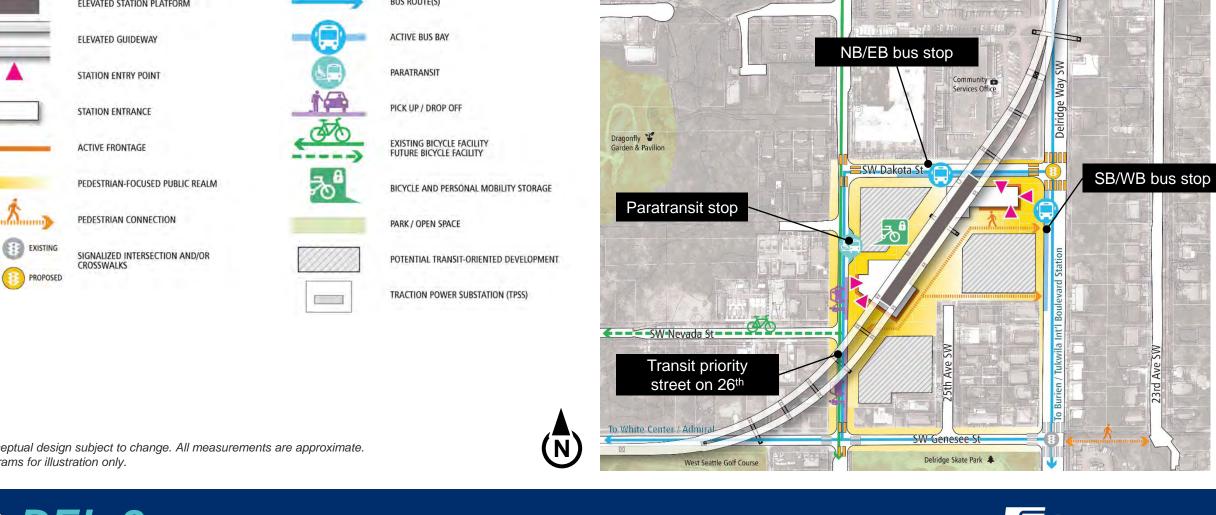
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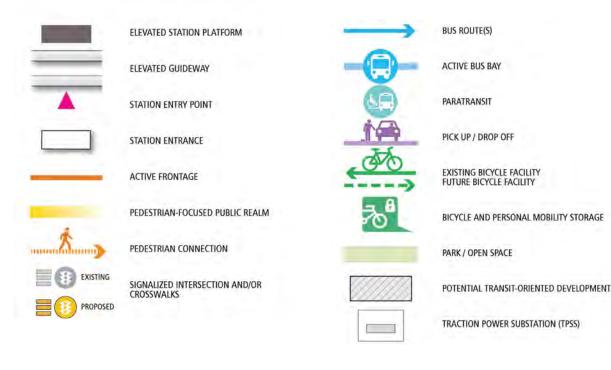


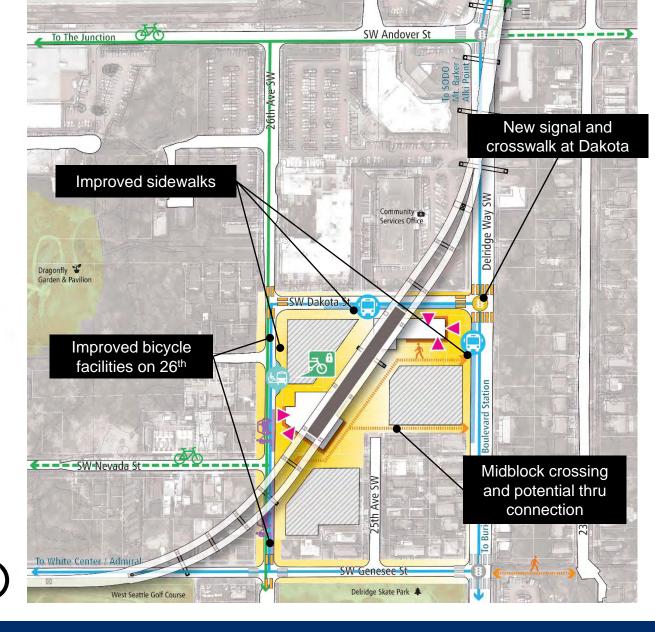
To The Junction

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SW Andover St

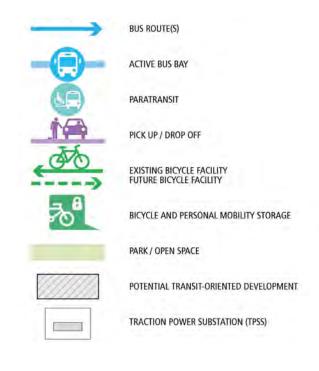


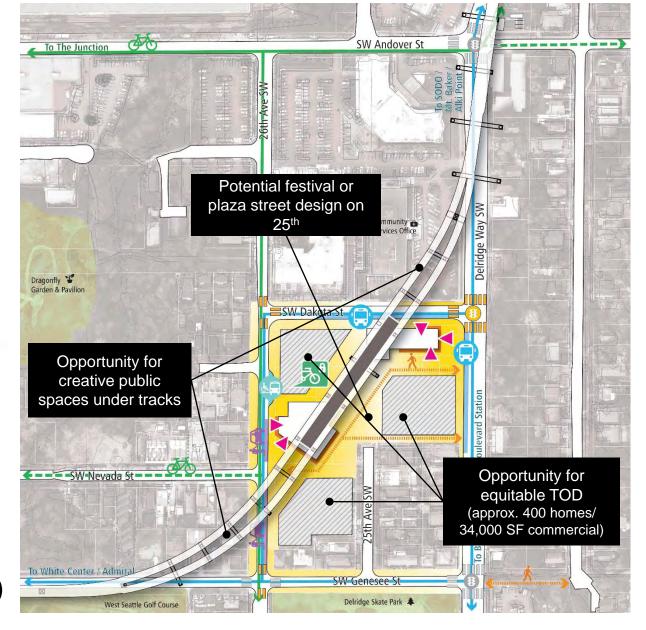


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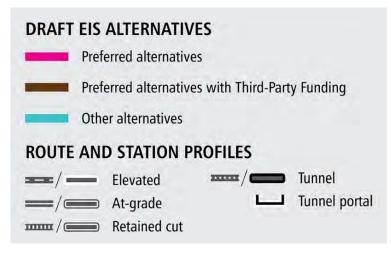


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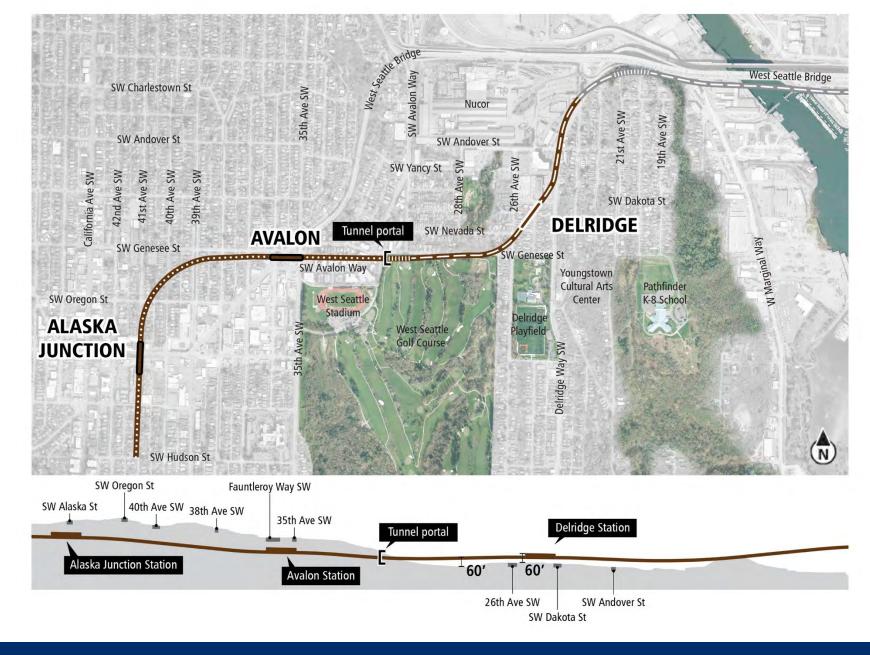


Tunnel 41st Ave Station

Dakota Street Station Lower Height

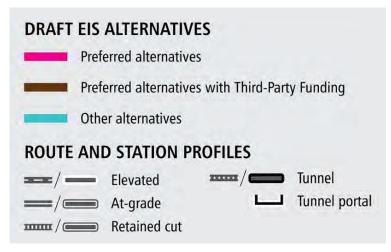


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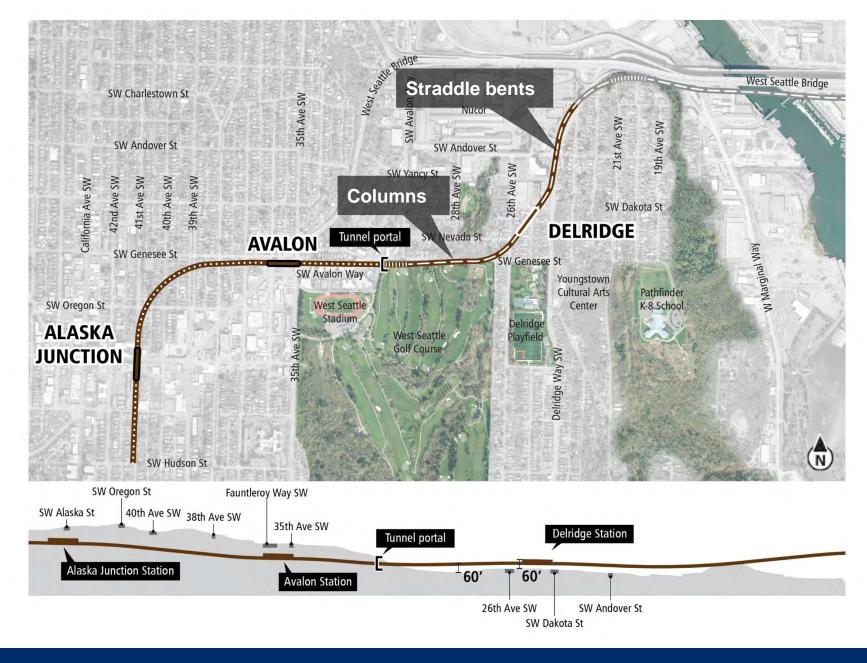


Tunnel 41st Ave Station

Dakota Street Station Lower Height



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Existing Condition





Viewpoint: Looking North along Delridge Way Southwest

Dakota Street Station Lower Height Alternative





Viewpoint: Looking North along Delridge Way Southwest

Existing Condition





Viewpoint: Looking Northwest from Delridge Playfield

Dakota Street Station Lower Height Alternative

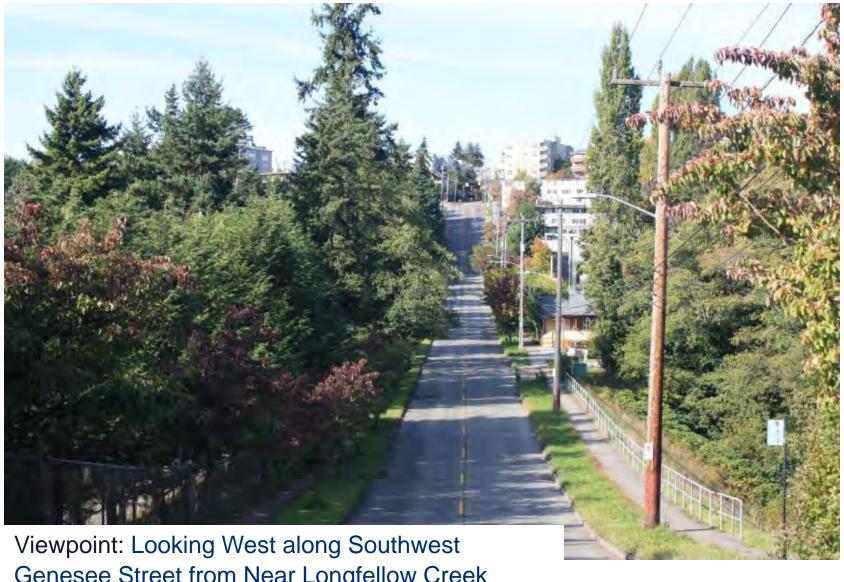




Viewpoint: Looking Northwest from Delridge Playfield

Existing Condition





Genesee Street from Near Longfellow Creek

Dakota Street Station Lower Height Alternative





Dakota Street Station Lower Height North Alignment Alternative





Existing Condition





Viewpoint: Looking Past the North End of the West Seattle Golf Course

Dakota Street Station Lower Height Alternative





Viewpoint: Looking Past the North End of the West Seattle Golf Course

Dakota Street Station Lower Height North Alignment Alternative





Viewpoint: Looking Past the North End of the West Seattle Golf Course

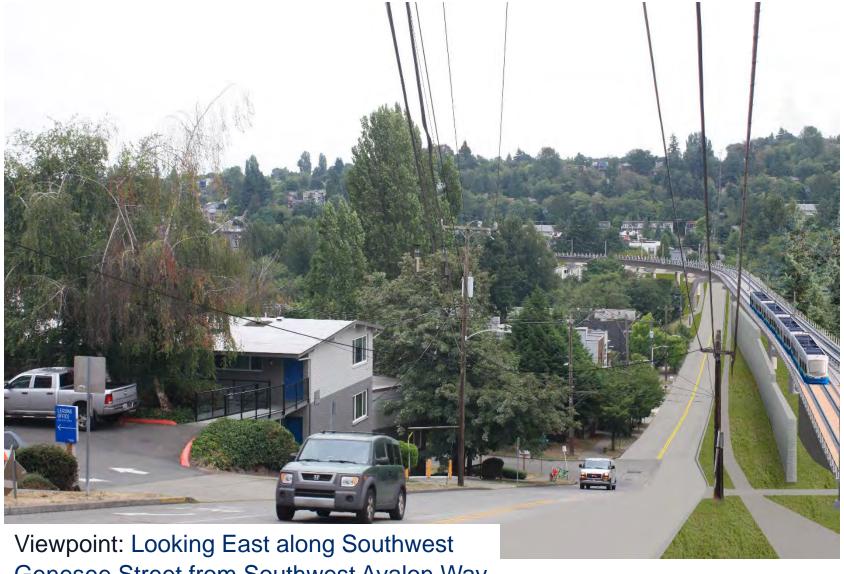
Existing Condition





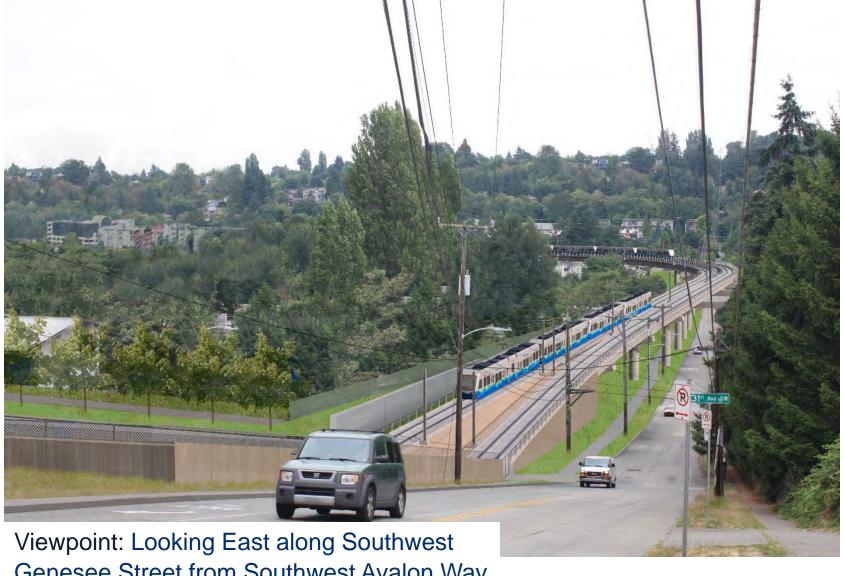
Dakota Street Station Lower Height Alternative





Dakota Street Station Lower Height North Alignment Alternative





Tunnel 41st Ave Station

Dakota Street Station Lower Height

Project cost (2019\$ in billions)



\$2.1B

Residential displacements



364 units

Business displacements



31

Park effects (permanent)

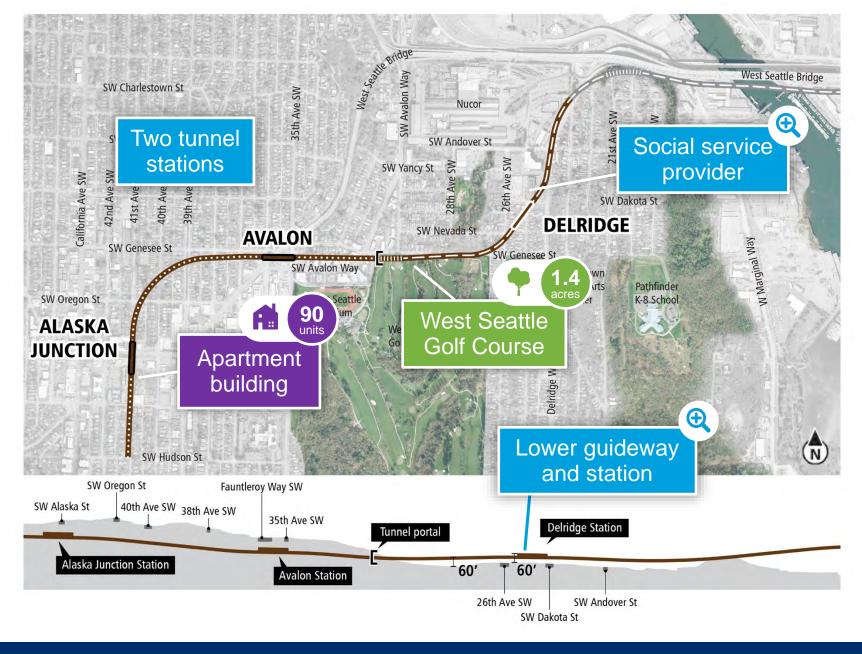


1.4 acres

Other considerations



Diagrams are not to scale and all measurements are approximate. The above information is for illustration only. Please refer to DEIS for further detail. Connection to preferred alternative in Duwamish is shown for illustration purposes.





Tunnel 42nd Ave Station

Dakota Street Station Lower Height

Project cost (2019\$ in billions)



\$2.2B

Residential displacements



321 units

Business displacements



Park effects (permanent)



1.6 acres

Other considerations (1)



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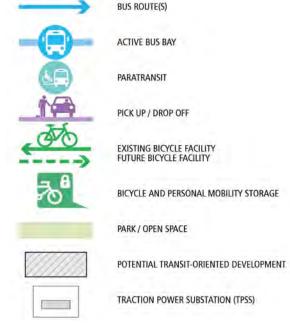




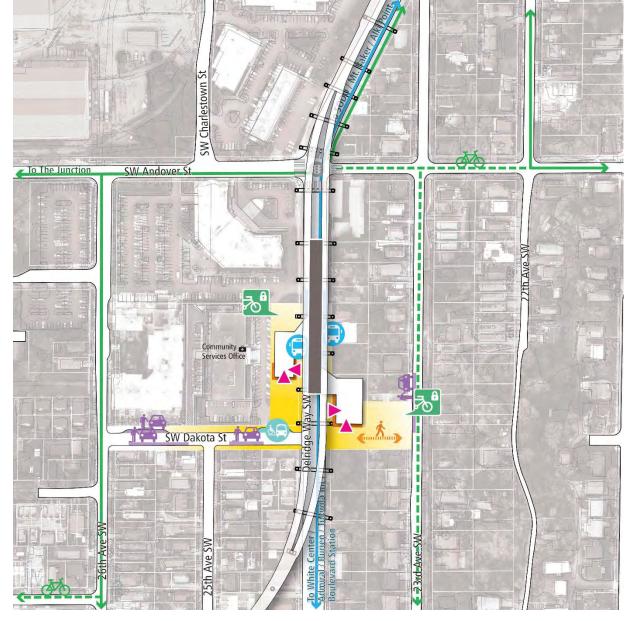
Other Draft EIS alternatives: Delridge Way

Elevated Delridge Way Station



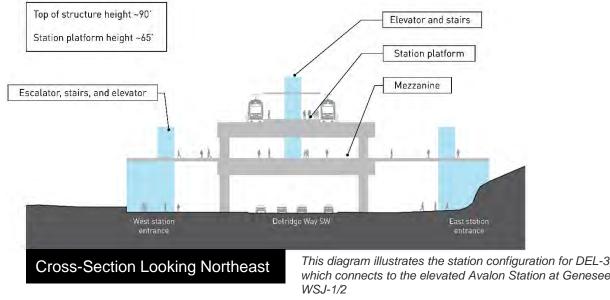


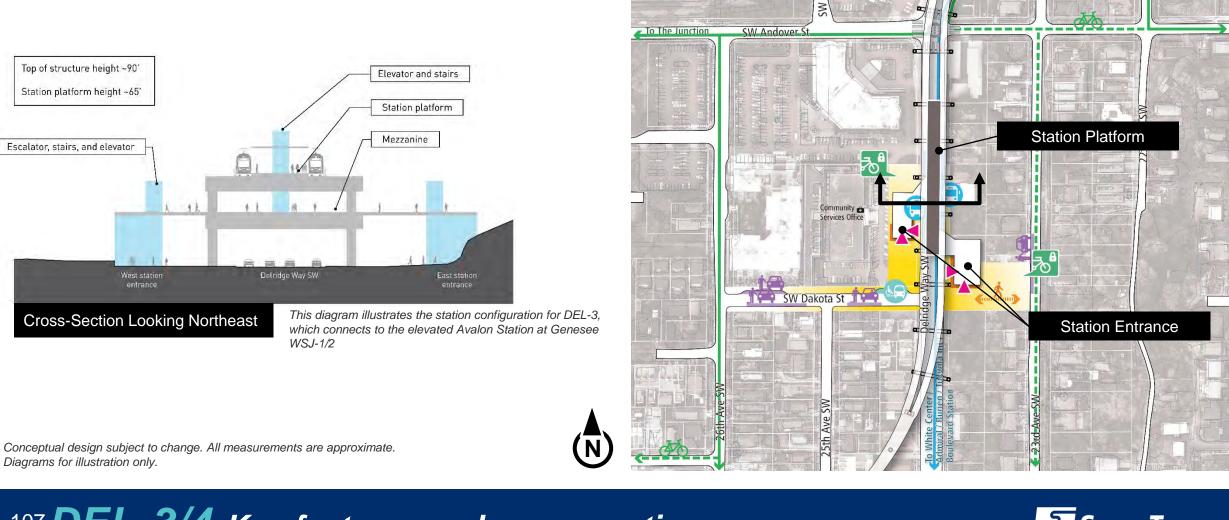




Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.

Elevated Delridge Way Station

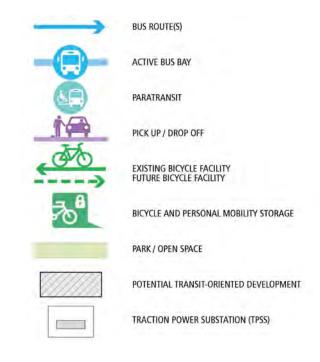




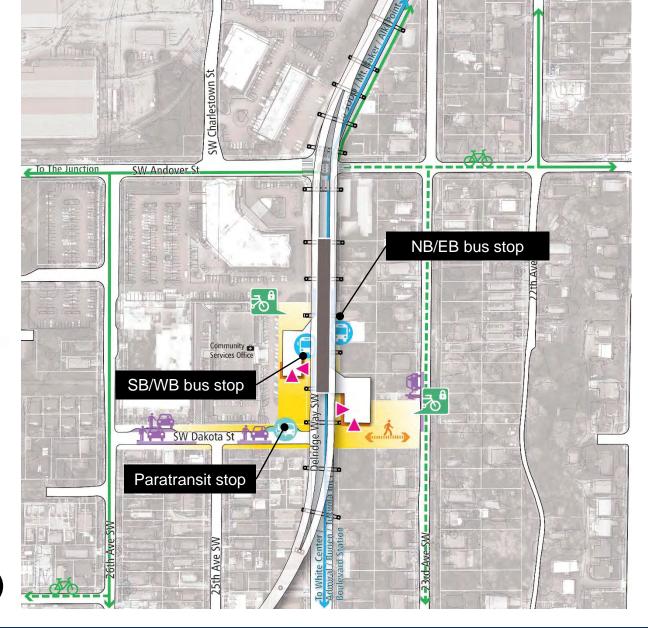


Elevated Delridge Way Station







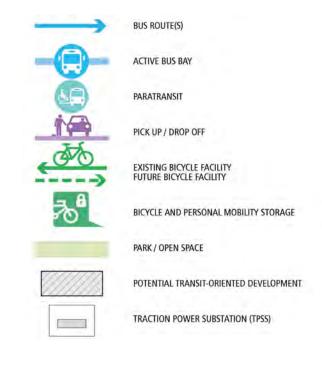


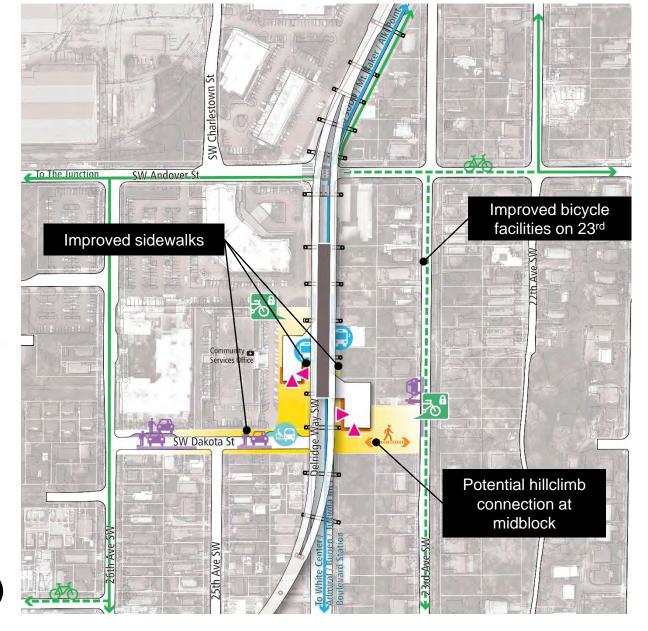
Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.



Elevated Delridge Way Station



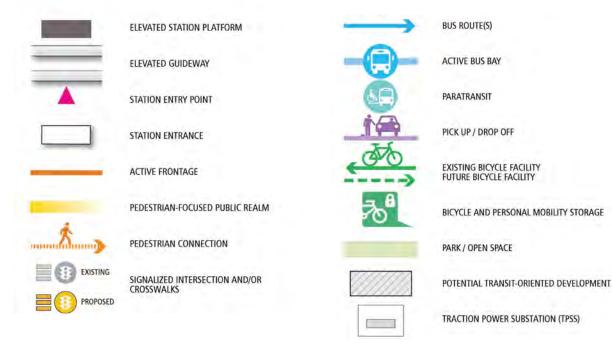




Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.



Elevated Delridge Way Station

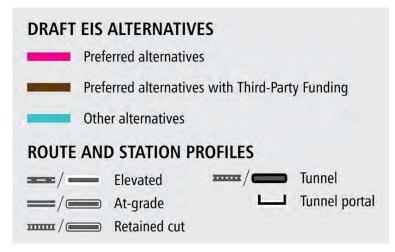




Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.



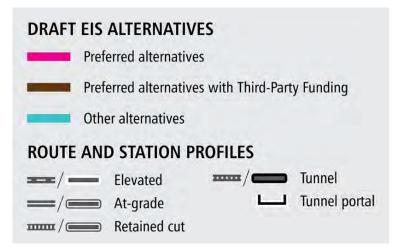
Elevated Fauntleroy Way Station Delridge Way Station

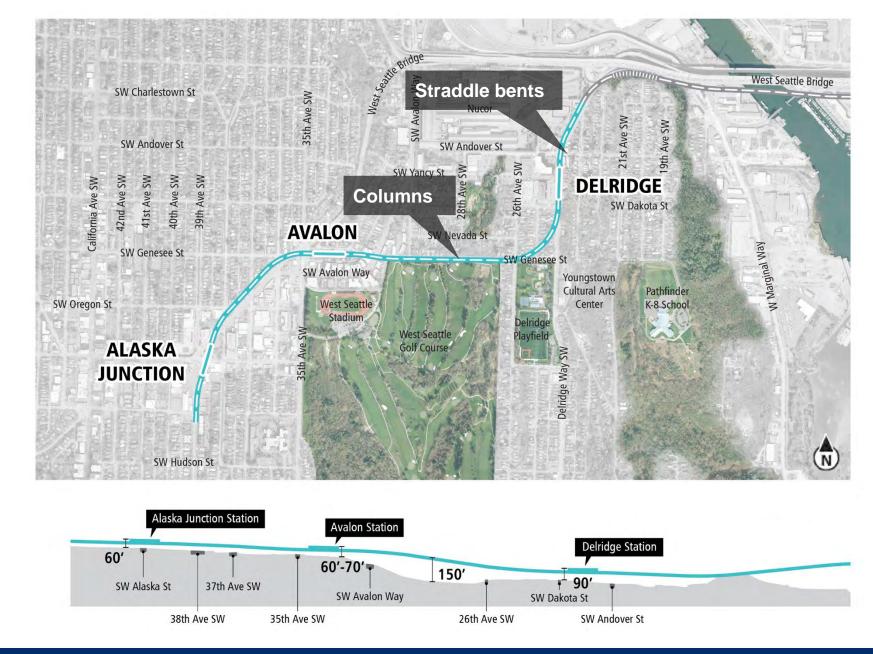






Elevated Fauntleroy Way Station Delridge Way Station







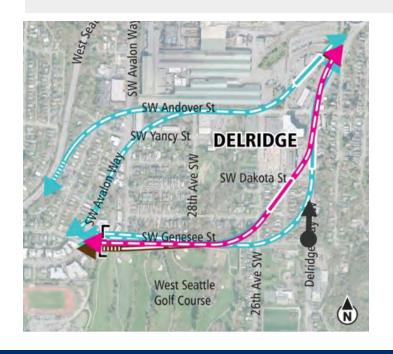




Viewpoint: Looking North along Delridge Way Southwest

Delridge Way Station Alternative

Delridge Way Station Lower Height Alternative





Viewpoint: Looking North along Delridge Way Southwest





Viewpoint: Looking Northwest from Delridge Playfield

Delridge Way Station Alternative





Viewpoint: Looking Northwest from Delridge Playfield



Delridge Way Station Lower Height Alternative

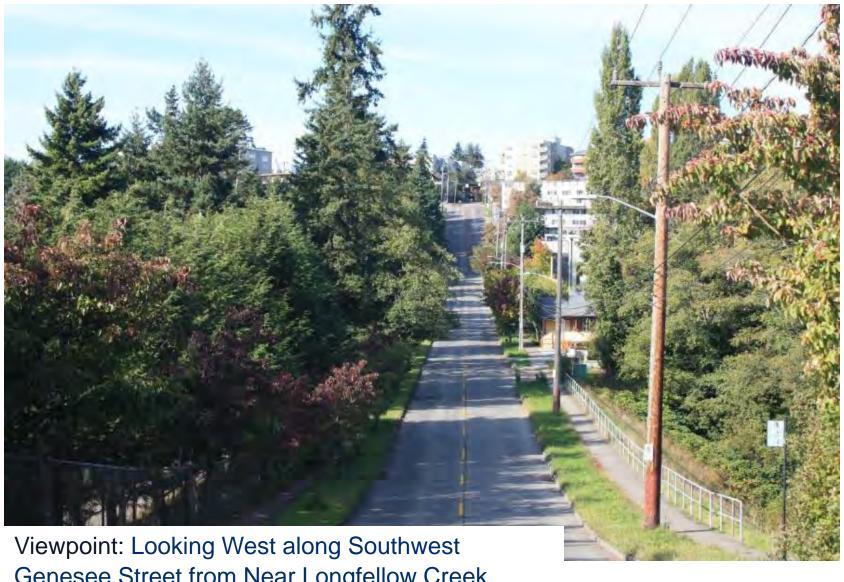




Viewpoint: Looking Northwest from Delridge Playfield

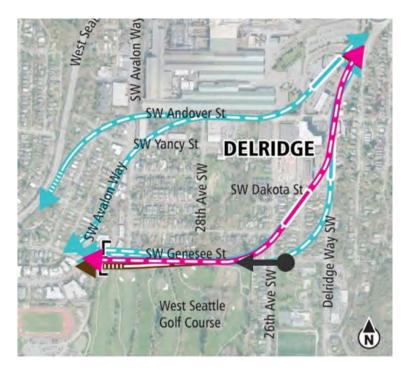






Genesee Street from Near Longfellow Creek

Delridge Way Station Alternative





Delridge Way Station Lower Height Alternative









Viewpoint: Looking Past the North End of the West Seattle Golf Course

Delridge Way Station Alternative





Viewpoint: Looking Past the North End of the West Seattle Golf Course

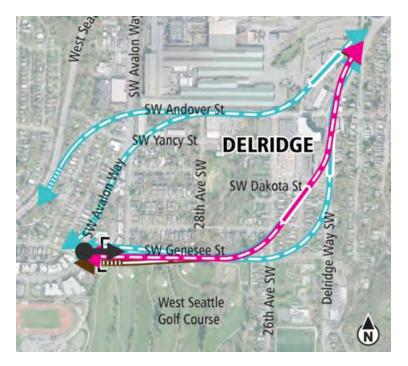


Delridge Way Station Lower Height Alternative





Viewpoint: Looking Past the North End of the West Seattle Golf Course

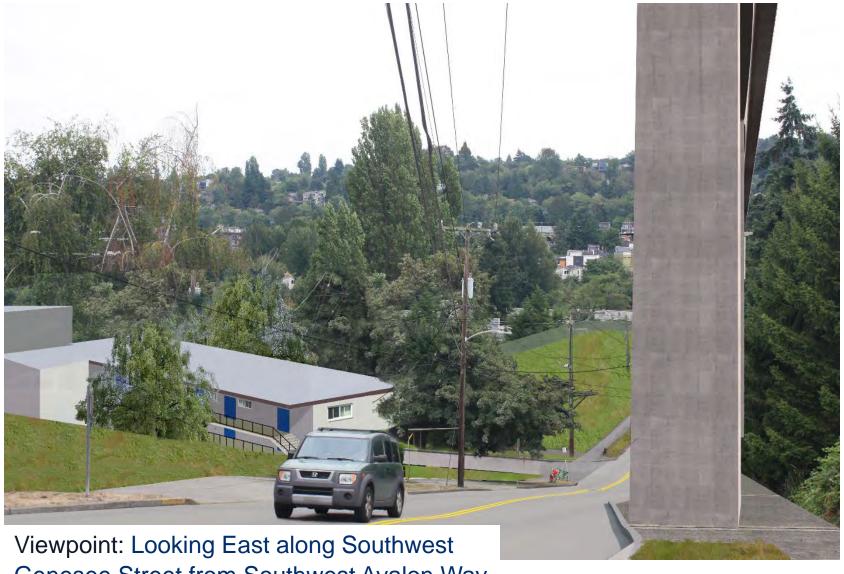




Genesee Street from Southwest Avalon Way

Delridge Way Station Alternative





Genesee Street from Southwest Avalon Way

Delridge Way Station Lower Height Alternative





Genesee Street from Southwest Avalon Way

Elevated Fauntleroy Way Station

Delridge Way Station

Project cost (2019\$ in billions)



\$1.5B

Residential displacements



586 units

Business displacements



32

Park effects (permanent)



0.7 acres

Other considerations



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Tunnel 41st Ave Station Delridge Way Station Lower Height Alternative

Project cost (2019\$ in billions)

(3)

\$2.1B

Residential displacements



341 units

Business displacements



31

Park effects (permanent)



1.3 acres

Other considerations

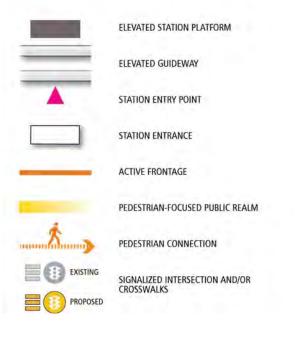


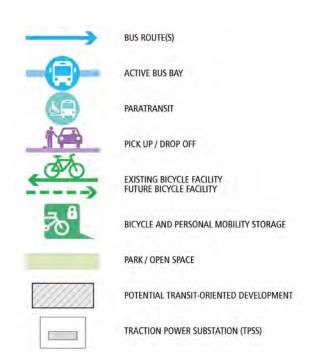
Diagrams are not to scale and all measurements are approximate. The above information is for illustration only. Please refer to DEIS for further detail. Connection to preferred alternative in Delridge is shown for illustration purposes.





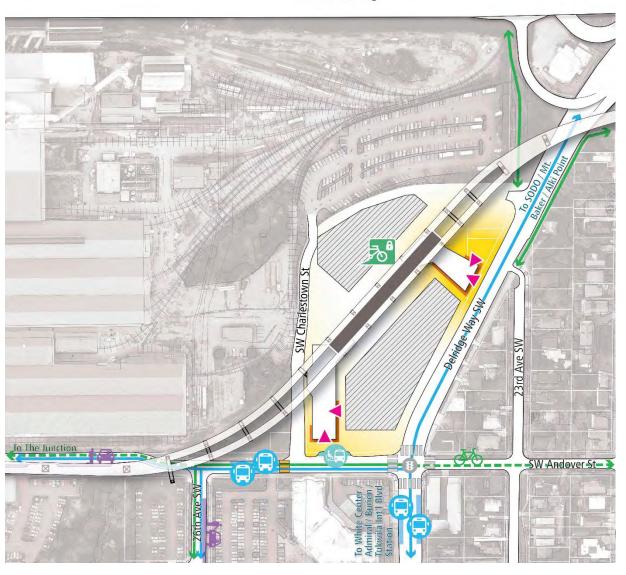
Other Draft EIS alternatives: Andover Street





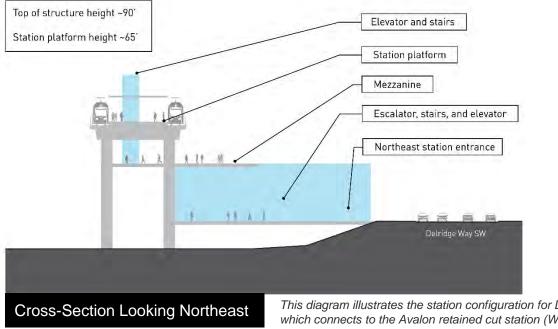


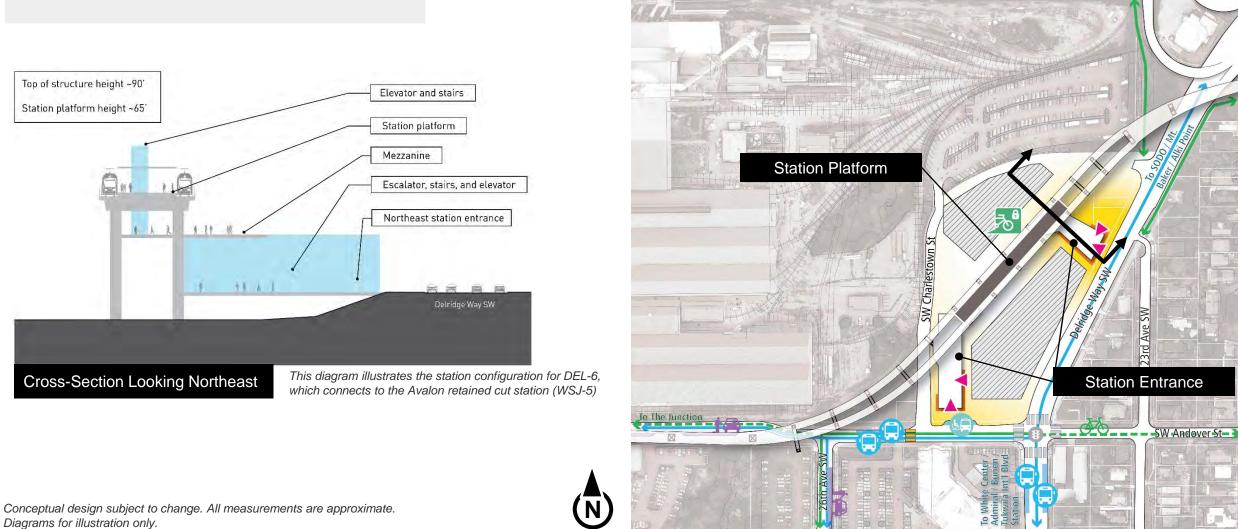
West Seattle Bridge



Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.





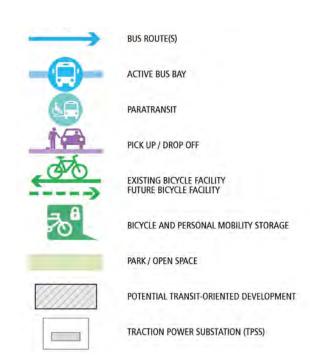


SW Spokane St

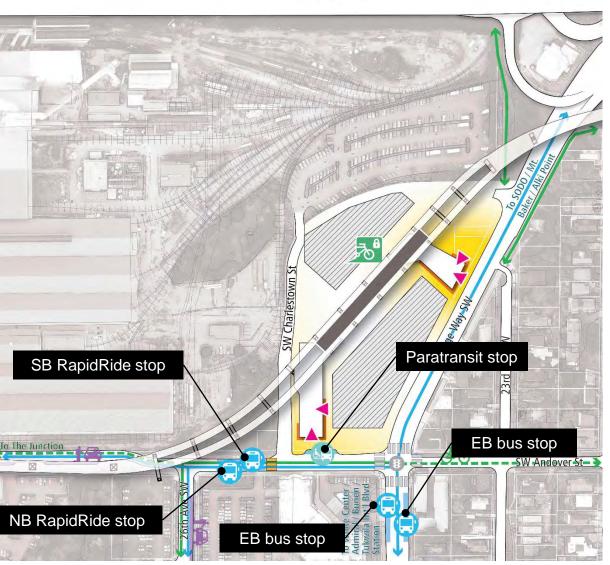
West Seattle Bridge

Diagrams for illustration only.



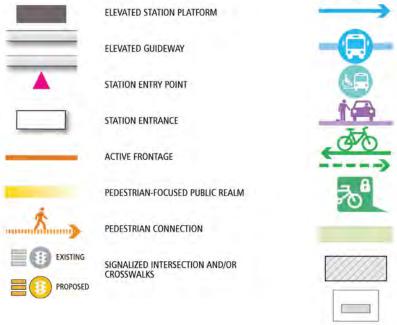


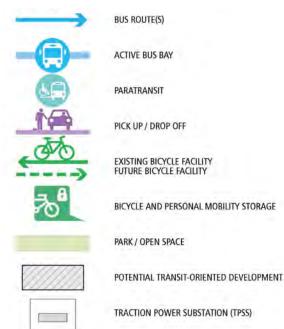


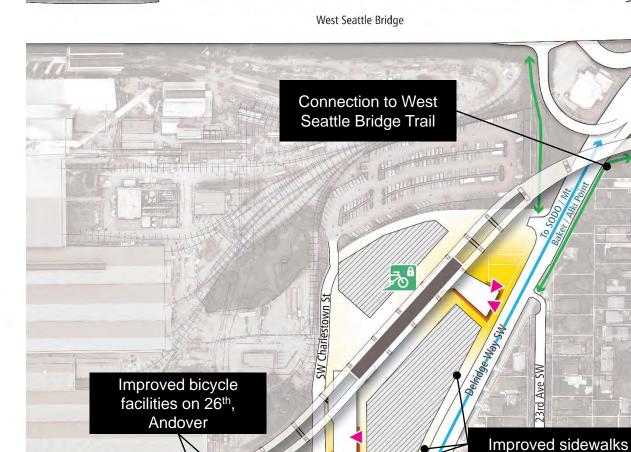


Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.











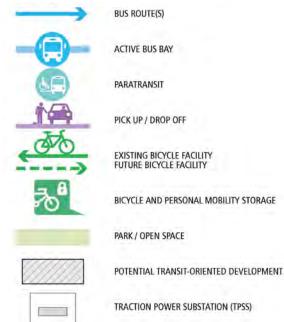
SW Spokane St

Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.



SW-Andover-St-

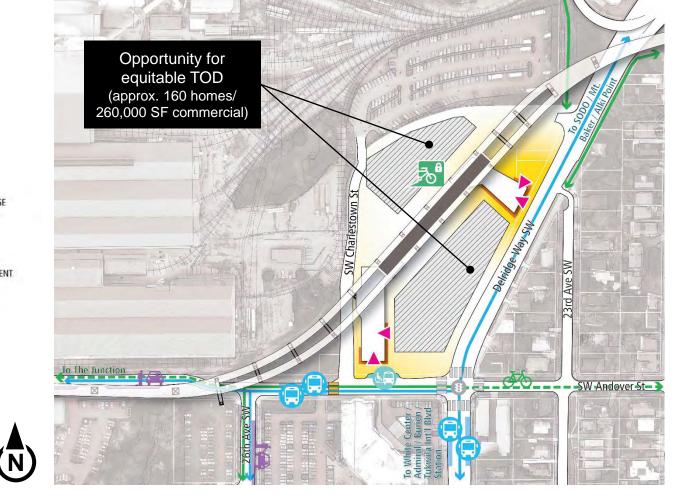






SW Spokane St





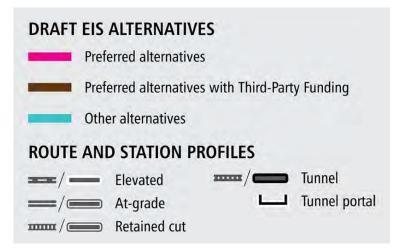
West Seattle Bridge

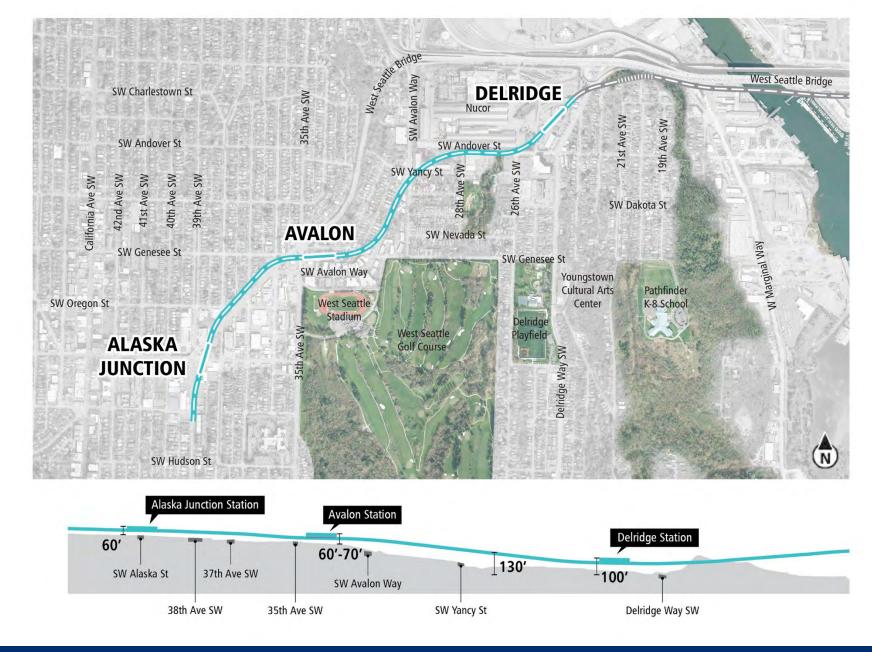
Conceptual design subject to change. All measurements are approximate. Diagrams for illustration only.



Elevated Fauntleroy Way Station

Andover Street Station

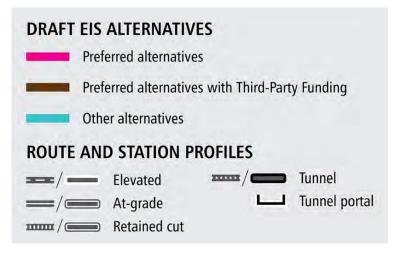


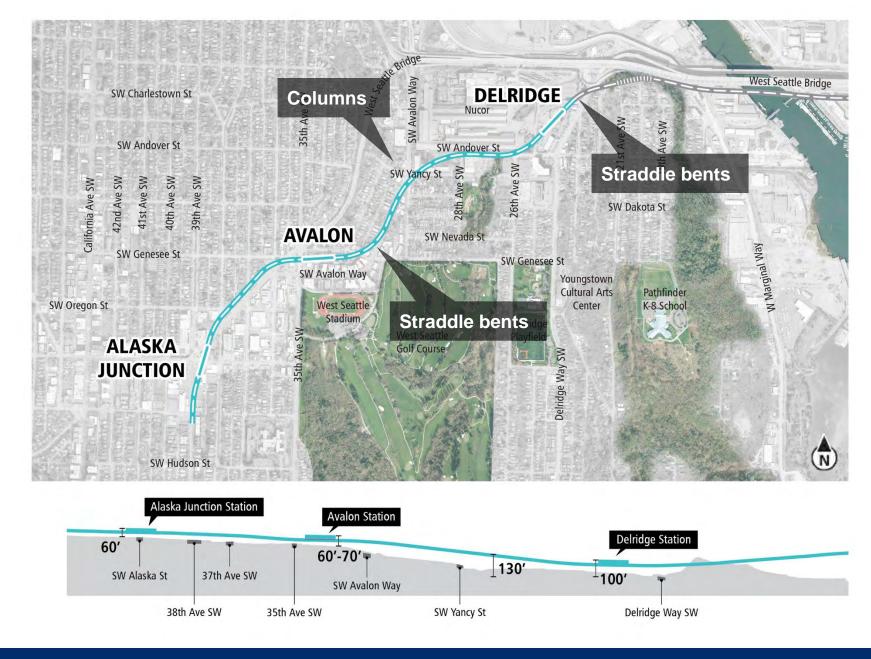




Elevated Fauntleroy Way Station

Andover Street Station

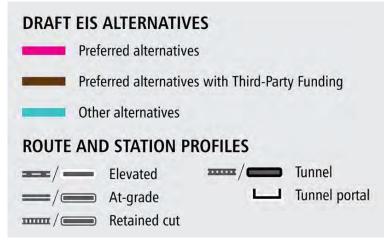


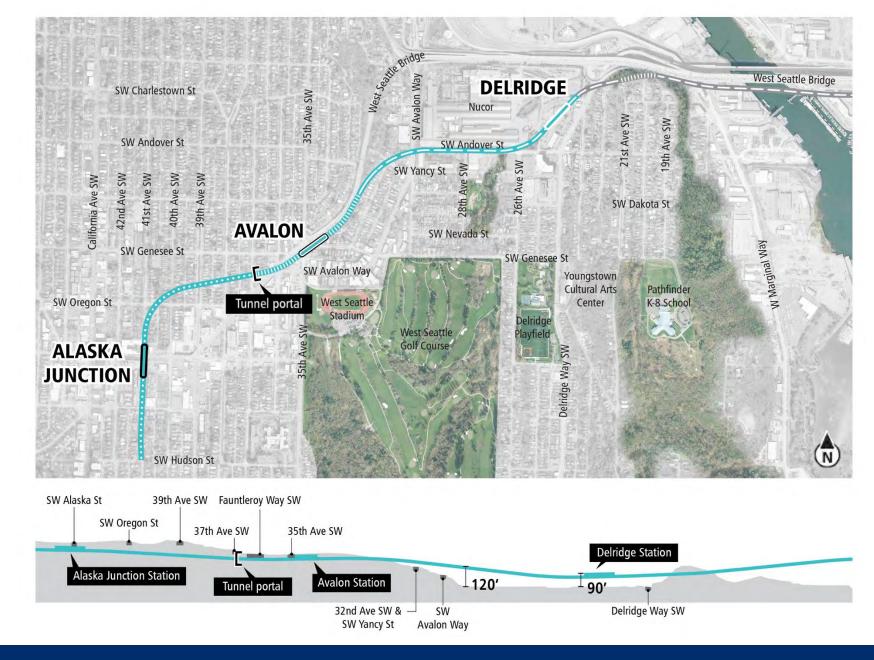




Medium Tunnel 41st Avenue Station

Andover Street Station Lower Height

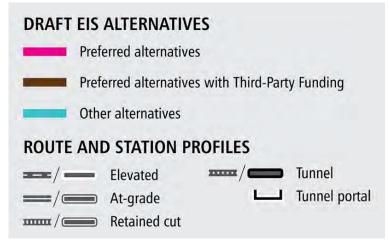


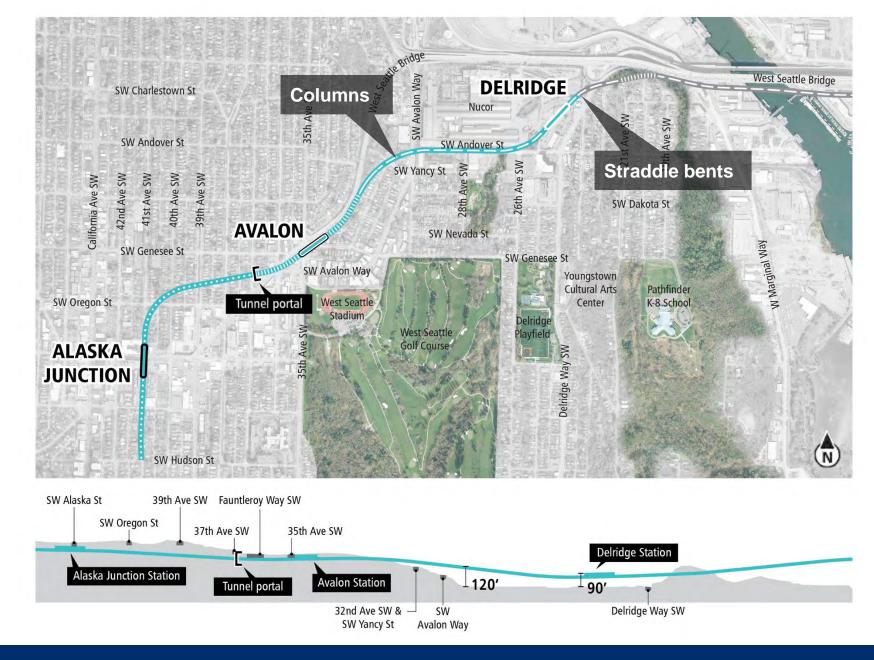




Medium Tunnel 41st Avenue Station

Andover Street Station Lower Height











Viewpoint: Looking North along Delridge Way Southwest



Andover Street Station Alternative





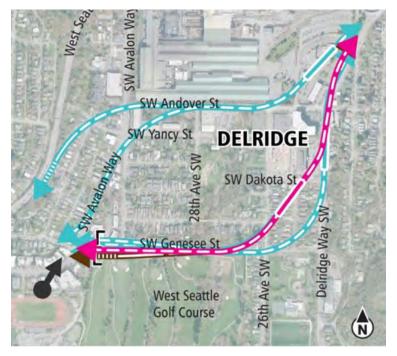
Viewpoint: Looking North along Delridge Way Southwest

Andover Street Station Lower Height Alternative





Viewpoint: Looking North along Delridge Way Southwest





Intersection with Southwest Genesee Street

Andover Street Station Alternative





Intersection with Southwest Genesee Street





Viewpoint: Looking north Along 32nd Avenue SW

Andover Street Station Lower Height Alternative





Viewpoint: Looking north Along 32nd Avenue SW

Elevated Fauntleroy Way Station

Andover Street Station

Project cost (2019\$ in billions)



\$1.5B

Residential displacements



487 units

Business displacements



Park effects (permanent)

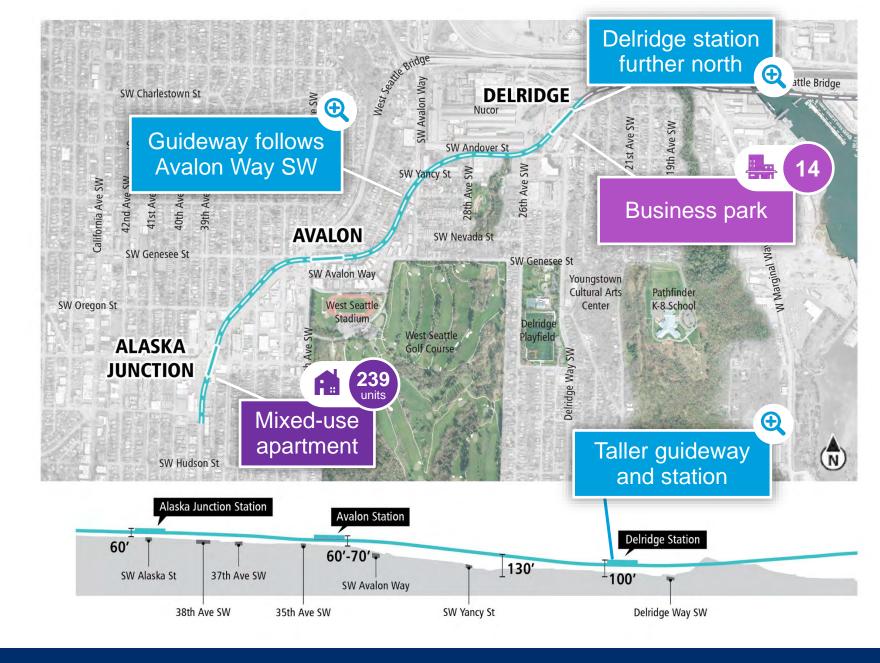


none

Other considerations ①



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Medium Tunnel 41st Avenue Station

Andover Street Station Lower Height

Project cost (2019\$ in billions)



\$1.6B

Residential displacements



201 units

Business displacements



35

Park effects (permanent)

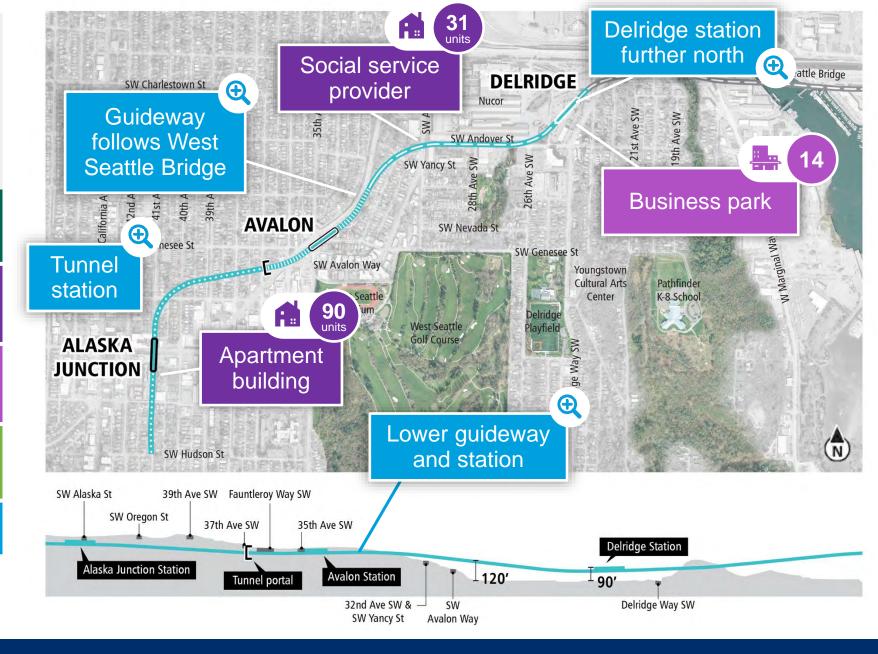


none

Other considerations



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Q&A / Discussion

wsblink@soundtransit.org (206) 903-7229



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Reference: Summary Slides



