



Agenda

- › *Welcome & Introductions*
- › *Community Engagement & Collaboration*
- › *Level 2 Alternatives*
- › *Level 2 Screening Criteria*
- › *CID & SODO Updates*
- › *Station Planning 101*
- › *Next steps & Next Meeting*



Community Engagement and Collaboration

Community engagement and collaboration



Meeting dates subject to change.

External Engagement Report: May 2018



50 comments and questions



4 Neighborhood forums

engaging more than
230 community members



2 email updates

engaging more than
3,450 subscribers



14 community briefings



3 Tweets

engaging more than
81,500 users



1 Stakeholder Advisory Group meeting



1 Elected Leadership Group meeting

May-June briefings snapshot

- ✓ InterIm CDA (5/2, 5/23)
- ✓ First Hill Improvement Association (5/8)
- ✓ Uptown Alliance (5/8)
- ✓ International Community Health Services (ICHS) (5/8)
- ✓ Friends of Little Saigon (5/9)
- ✓ Seattle Center Resident Directors (5/9)
- ✓ Mercer Corridor Stakeholders (5/10)
- ✓ Downtown Transportation Alliance (5/14)
- ✓ Magnolia Community Council (5/15)
- ✓ Access Magnolia Community Conversation (5/21)
- ✓ Fountleroy Business Association (5/24)
- ✓ Union Station Tour (5/25)
- ✓ CID Framework Capital Projects Coordination Workgroup (5/25)
- ✓ Chinatown-International District BIA (6/7)
- ✓ Seattle Design Commission (6/7)
- ✓ Pigeon Point Neighborhood Council (6/11)
- ✓ South downtown stakeholders (6/12)
- ✓ Seattle Planning Commission (6/14)
- ✓ Neighborcare Health Ballard (6/18)
- ✓ SODO BIA Transportation Committee (6/19)
- ✓ Ballard Food Bank (6/20)



2018 Festivals

- ✓ Morgan Junction Festival (6/16)
- ✓ Festival Sundiata (6/16-6/17)
- West Seattle Summer Fest (7/13-7/15)
- Ballard Seafood Fest (7/13-7/15)
- Dragon Fest (7/14-7/15)
- South Lake Union Block Party (8/10)
- Delridge Day (8/11)
- Celebrate Little Saigon (8/26)
- Night Market (9/8)
- Fishermen's Fall Festival (9/15)
- Sustainable Ballard Festival (9/22)
- Dia de Muertos (10/27-10/28)
- Magnolia Farmers Market (TBD)

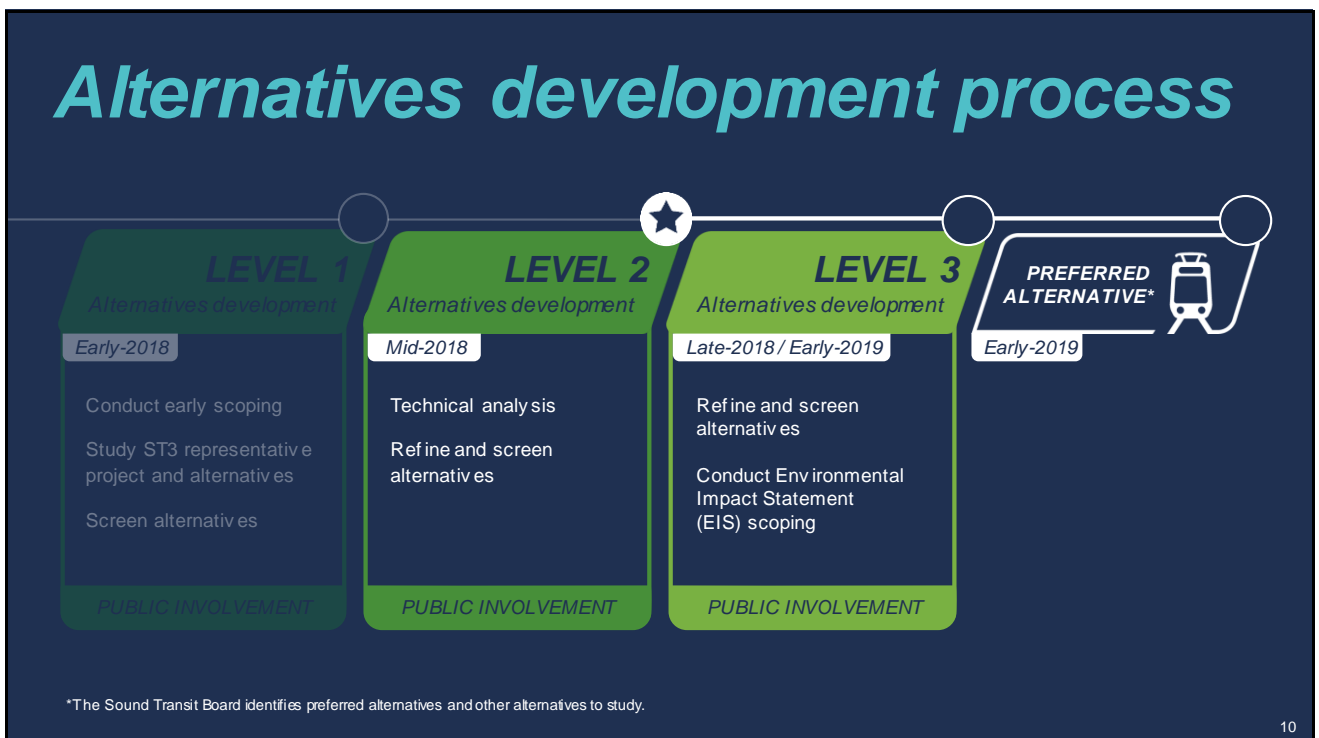


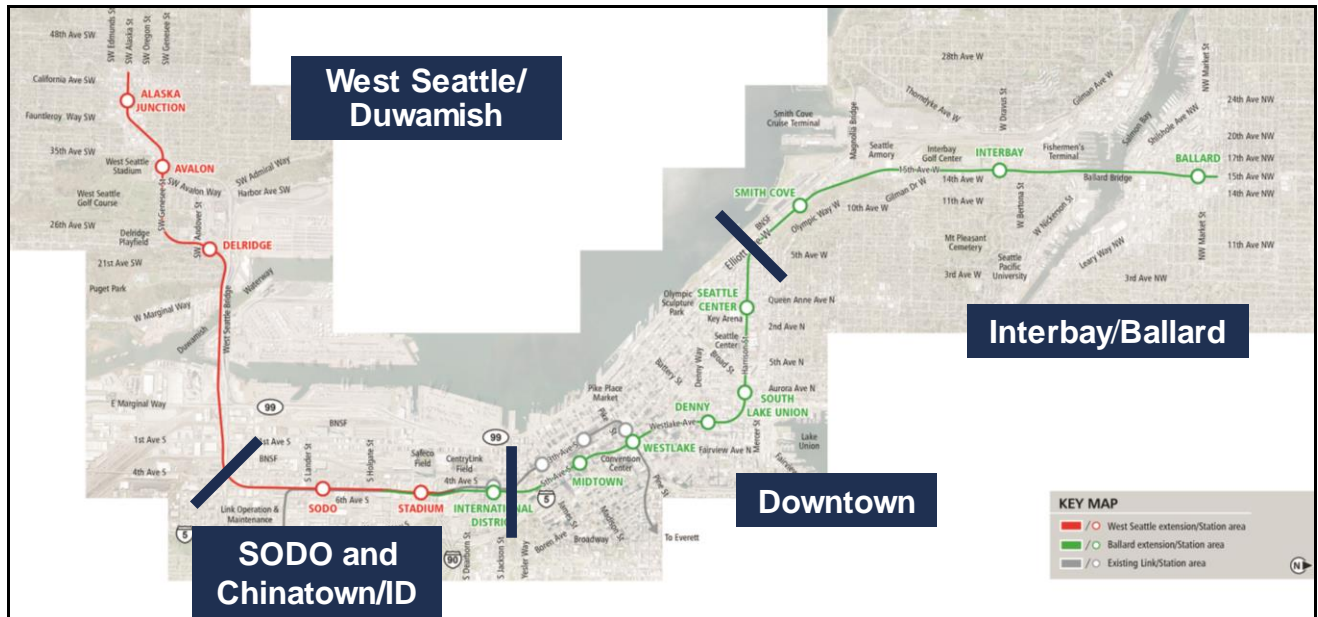
How are we doing? ✓

We want your input on our outreach process

- Survey targeted at all communities along project corridor.
- Notifications include ads, emails, flyers, etc.
- Open now through June 26.

➤ **Take the survey:** goo.gl/8z2HZL





Study segments

11

Level 2 alternatives

West Seattle/Duwamish	SODO and Chinatown/ID	Downtown	Interbay/Ballard
<ul style="list-style-type: none"> ST3 Representative Project Pigeon Ridge/West Seattle Tunnel Oregon Street/Alaska Junction/Elevated Oregon Street/Alaska Junction/Tunnel (new) Golf Course/Alaska Junction/Tunnel (modified) 	<ul style="list-style-type: none"> ST3 Representative Project Massachusetts Tunnel Portal Surface E-3 	<ul style="list-style-type: none"> ST3 Representative Project 5th/Harrison 6th/Boren/Roy 5th/Terry/Roy/Mercer (new) 	<ul style="list-style-type: none"> ST3 Representative Project 15th/Fixed Bridge/15th 20th/Fixed Bridge/17th 20th/Tunnel/15th Armory Way/Tunnel/14th Central Interbay/14th <ul style="list-style-type: none"> Movable Fixed (new) Central Interbay/Tunnel/15th (new)

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Level 2 alternatives

West Seattle/Duwamish

- ST3 Representative Project
- Pigeon Ridge/West Seattle Tunnel
- Oregon Street/Alaska Junction/Elevated
- Oregon Street/Alaska Junction/Tunnel (new)
- Golf Course/Alaska Junction/Tunnel (modified)

13



West Seattle/Duwamish – Level 2 alternatives

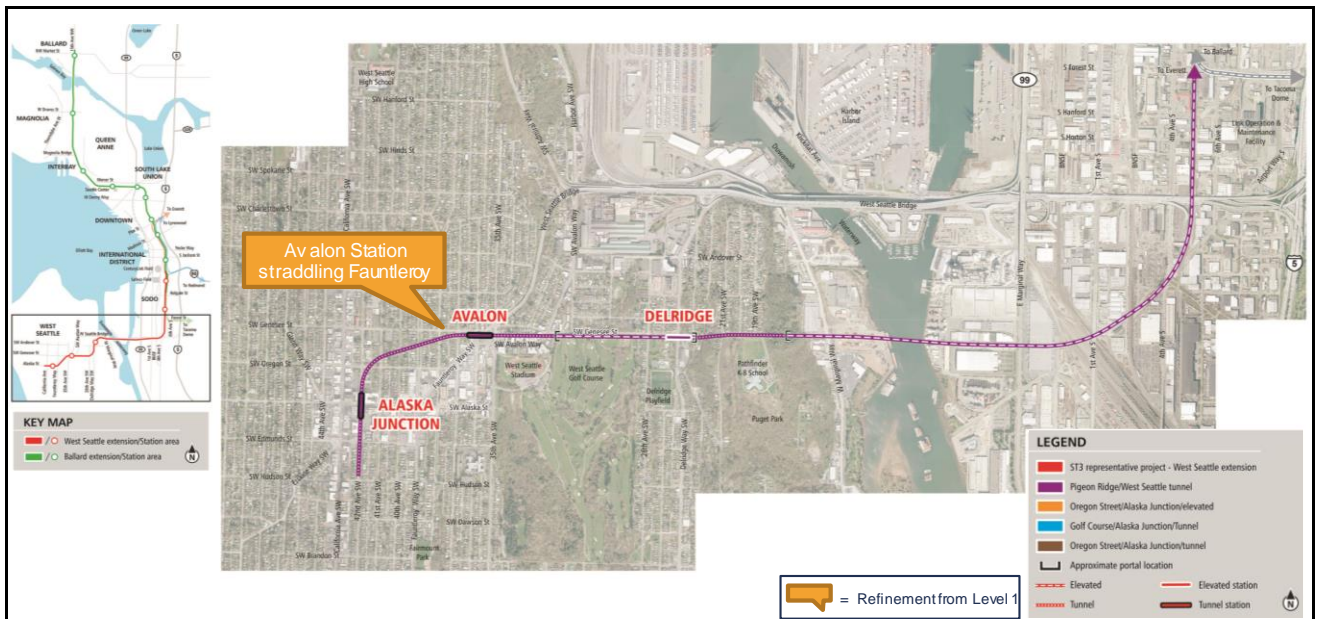
14



West Seattle/Duwamish

Level 2 Alternative – *ST3 Representative Project*

15



West Seattle/Duwamish

Level 2 Alternative – *Pigeon Ridge/West Seattle Tunnel*

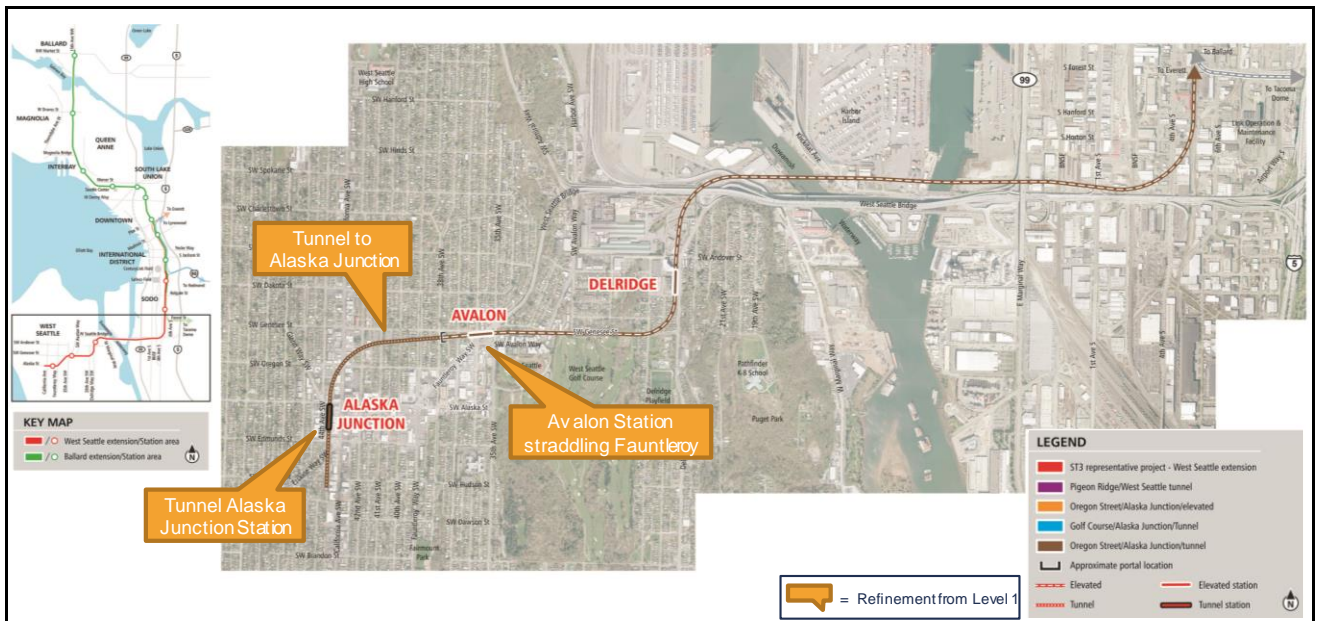
16



West Seattle/Duwamish

Level 2 Alternative – Oregon Street/Alaska Junction/Elevated

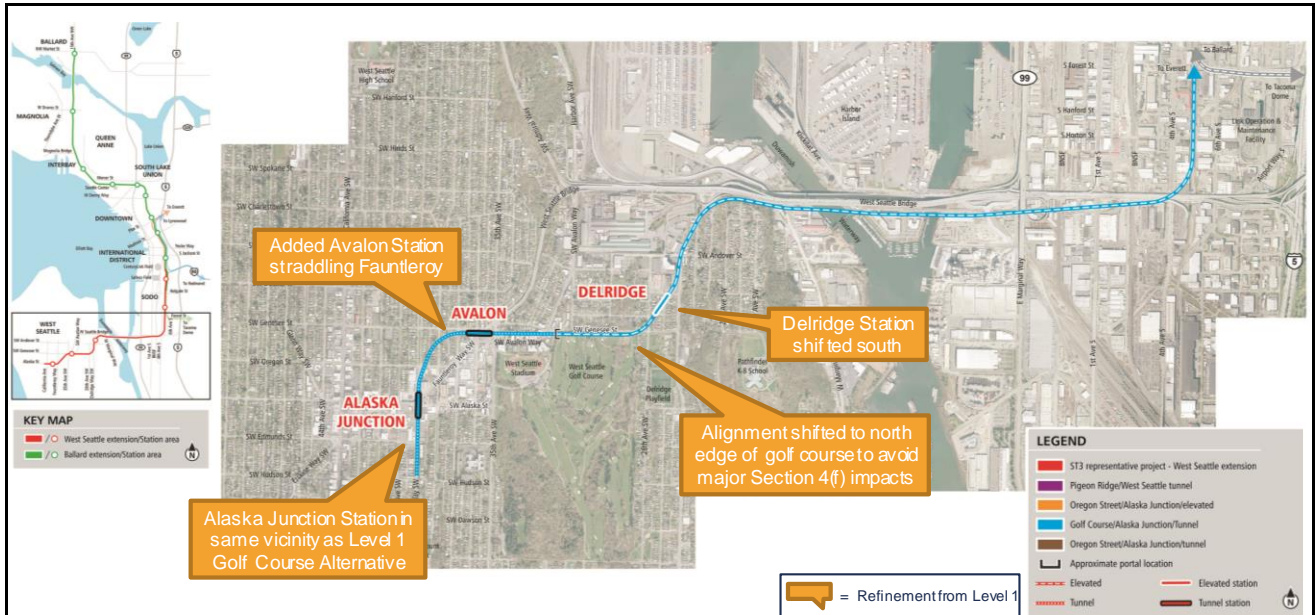
17



West Seattle/Duwamish

Level 2 Alternative – Oregon Street/Alaska Junction/Tunnel (new)

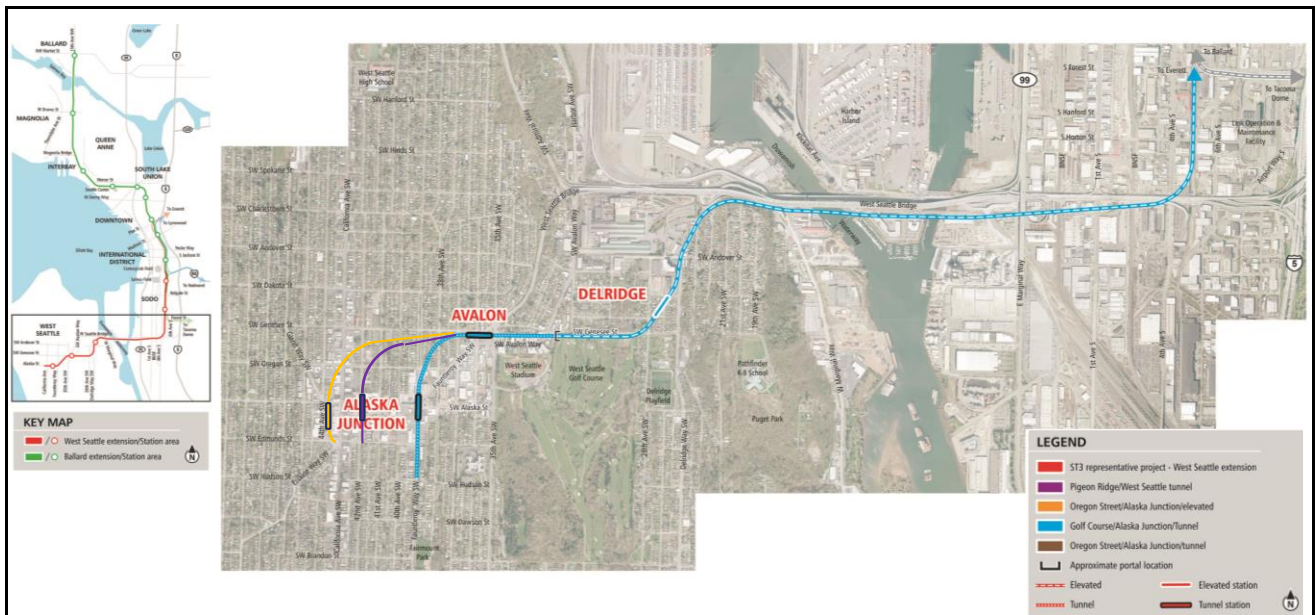
18



West Seattle/Duwamish

Level 2 Alternative – *Golf Course/Alaska Junction/Tunnel (modified)*

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West Seattle/Duwamish

Mix-n-Match Example

20

Level 2 alternatives

• SODO and Chinatown/ID

- ST3 Representative Project
- Massachusetts Tunnel Portal
- Surface E-3

21



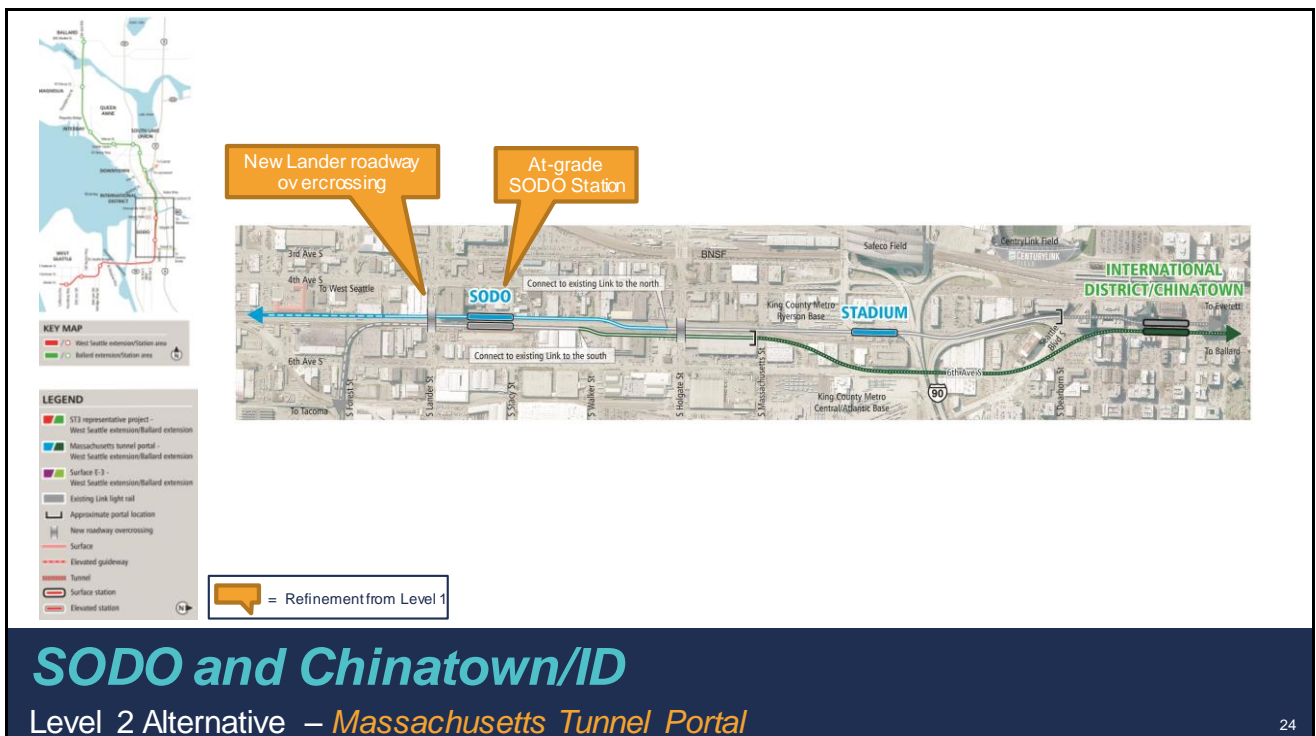
22



SODO and Chinatown/ID

Level 2 Alternative – *ST3 Representative Project*

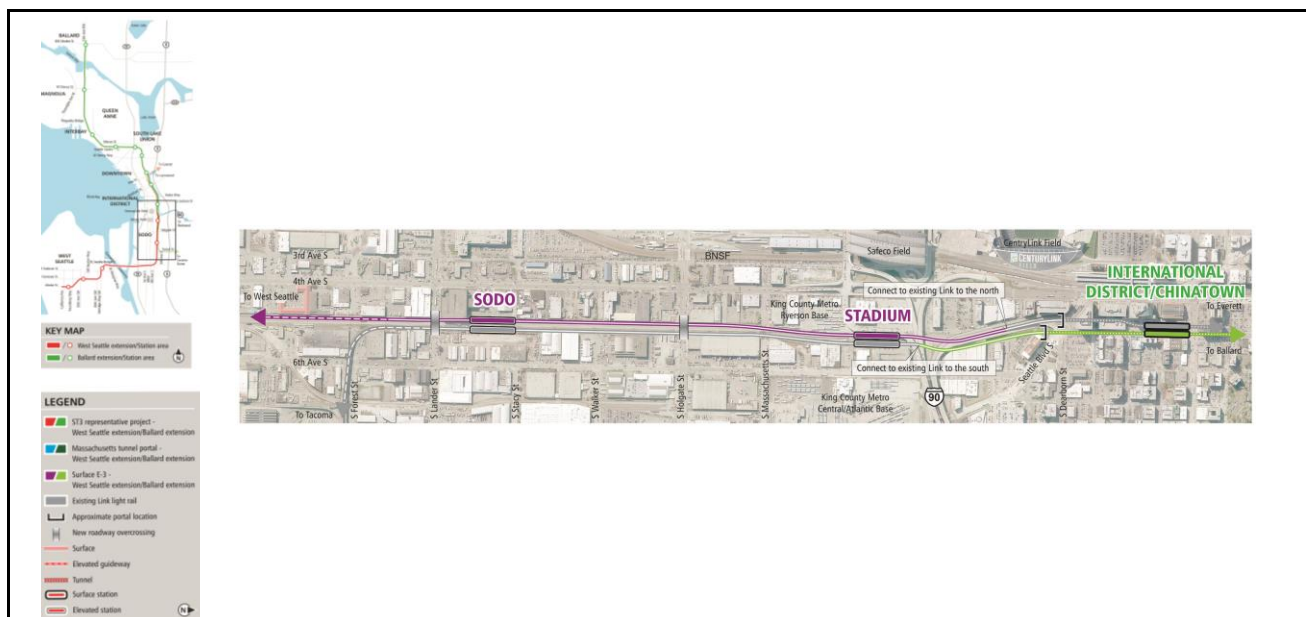
23



SODO and Chinatown/ID

Level 2 Alternative – *Massachusetts Tunnel Portal*

24



SODO and Chinatown/ID

Level 2 Alternative – *Surface E-3*

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Additional feedback

SODO and Chinatown/ID

- Consider 4th Avenue location for Chinatown/ID station
- Explore alignments further west of ST3 Representative Project

26



Downtown

Level 2 Alternative – *ST3 Representative Project*

29



Downtown

Level 2 Alternative – *5th/Harrison*

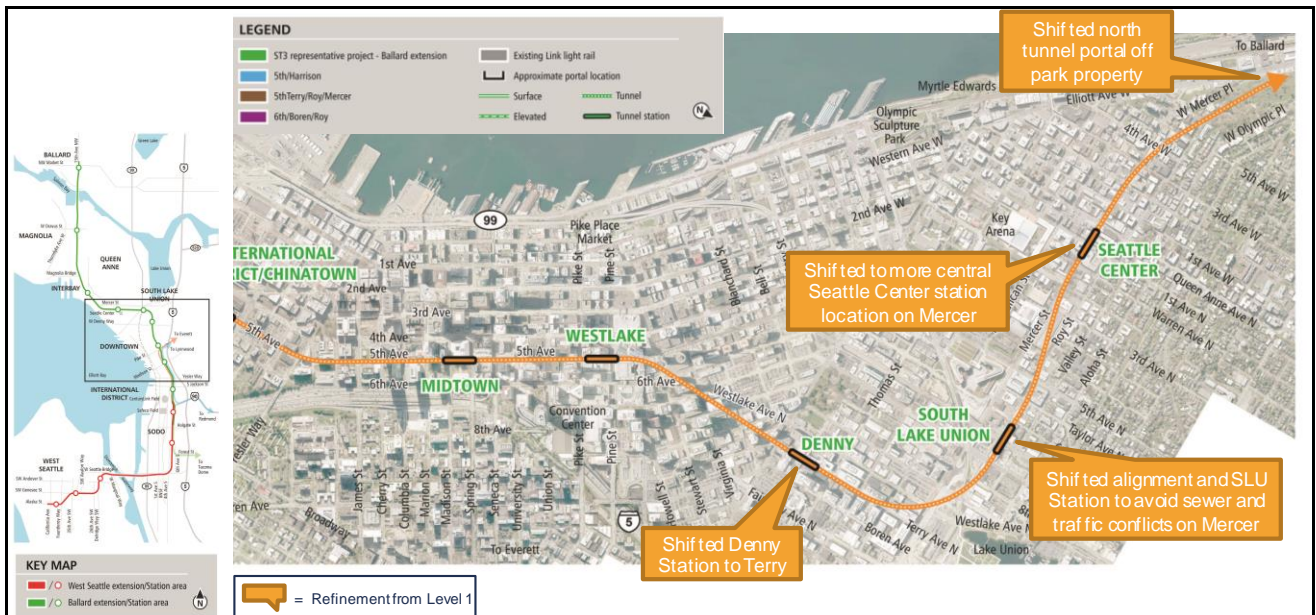
30



Downtown

Level 2 Alternative – 6th/Boren/Roy

31



Downtown

Level 2 Alternative – 5th/Terry/Roy/Mercer (new)

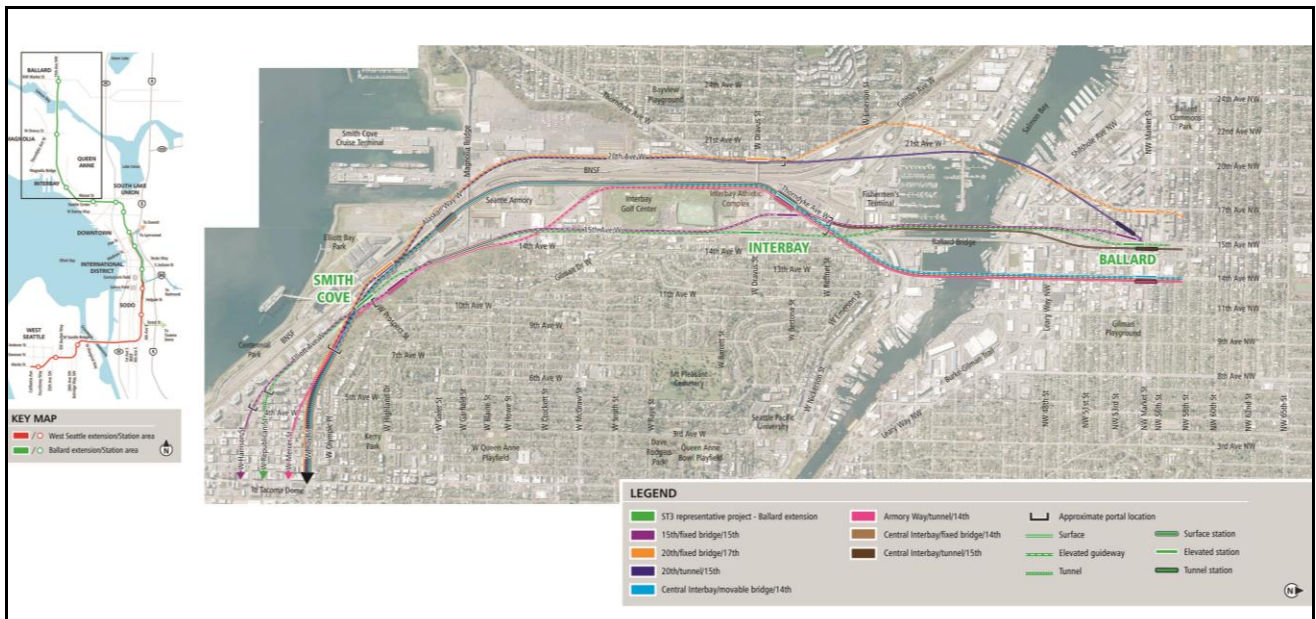
32

Level 2 alternatives

Interbay/Ballard

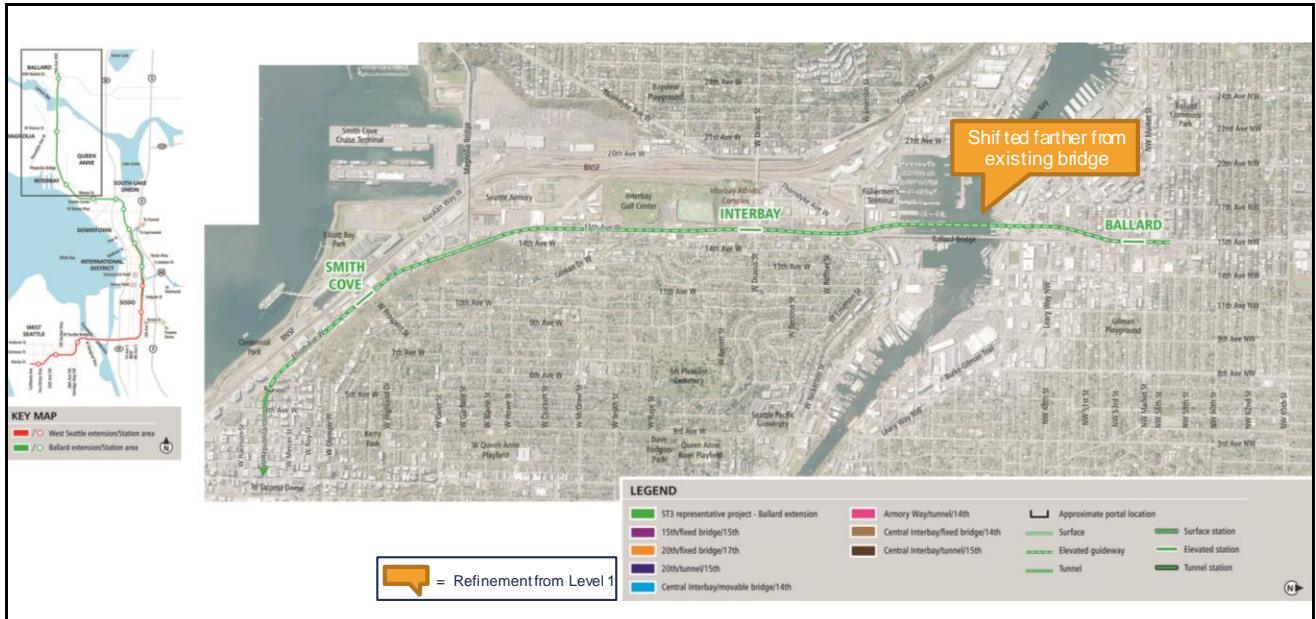
- ST3 Representative Project
- 15th/Fixed Bridge/15th
- 20th/Fixed Bridge/17th
- 20th/Tunnel/15th
- Armory Way/Tunnel/14th
- Central Interbay/14th
 - Movable
 - Fixed (new)
- Central Interbay/Tunnel/15th (new)

33



Interbay/Ballard – Level 2 alternatives

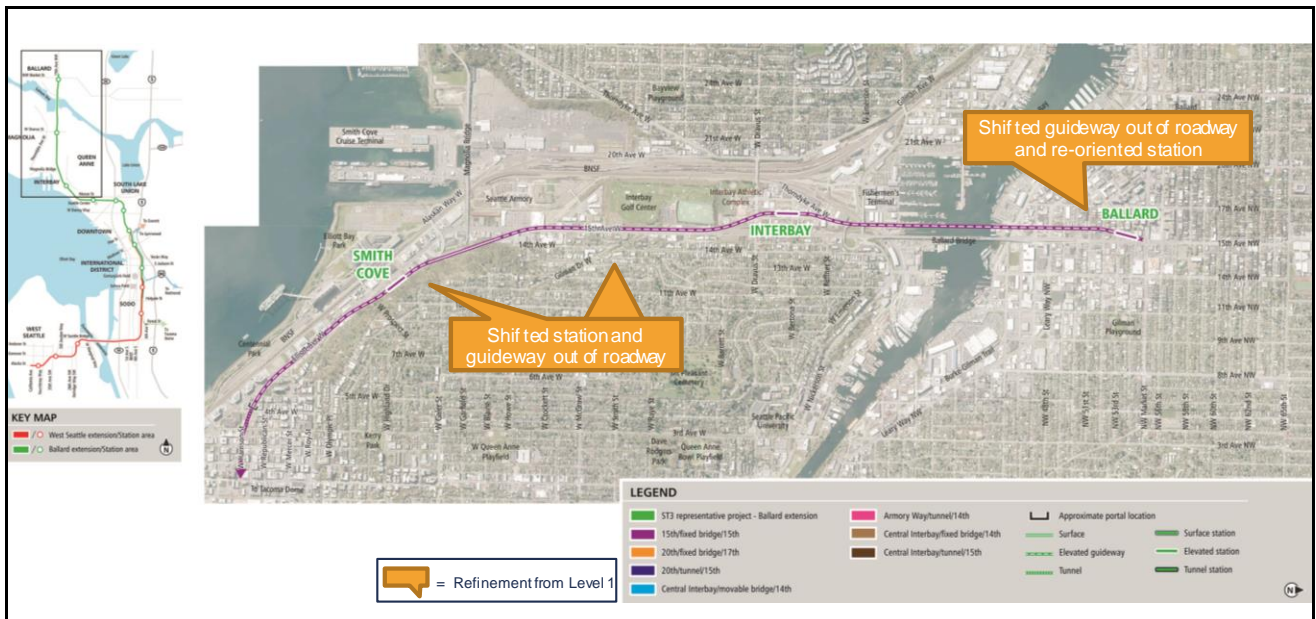
34



Interbay/Ballard

Level 2 Alternative – *ST3 Representative Project*

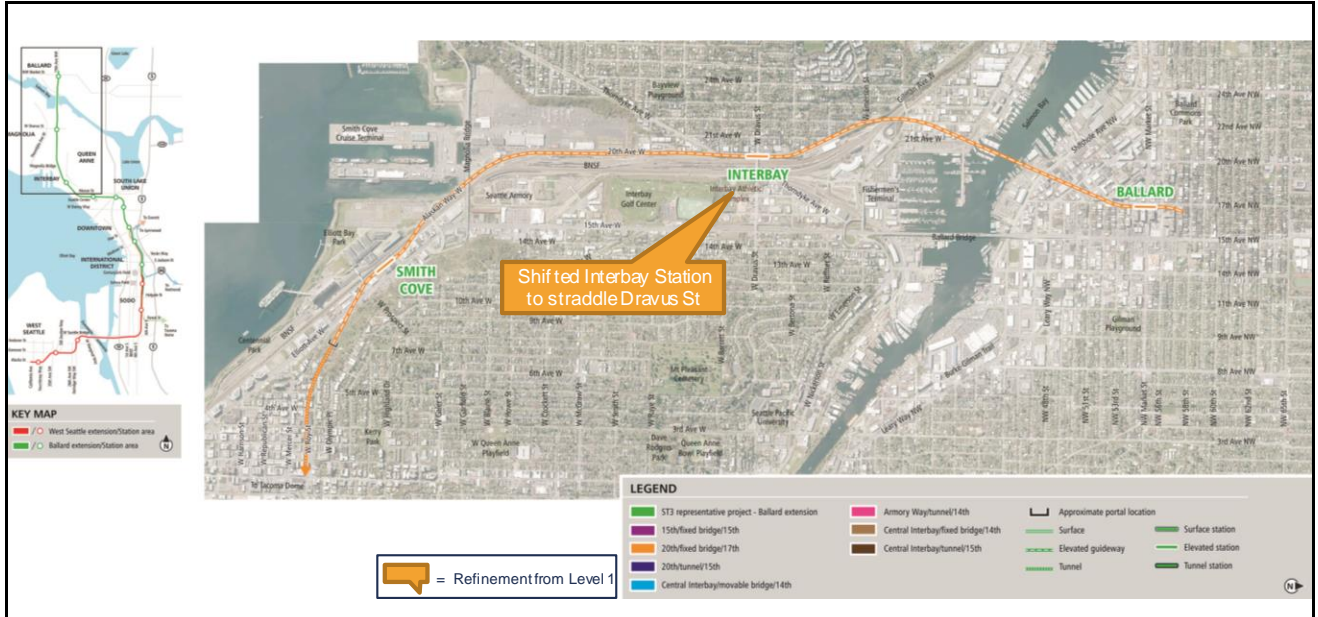
35



Interbay/Ballard

Level 2 Alternative – *15th/Fixed Bridge/15th*

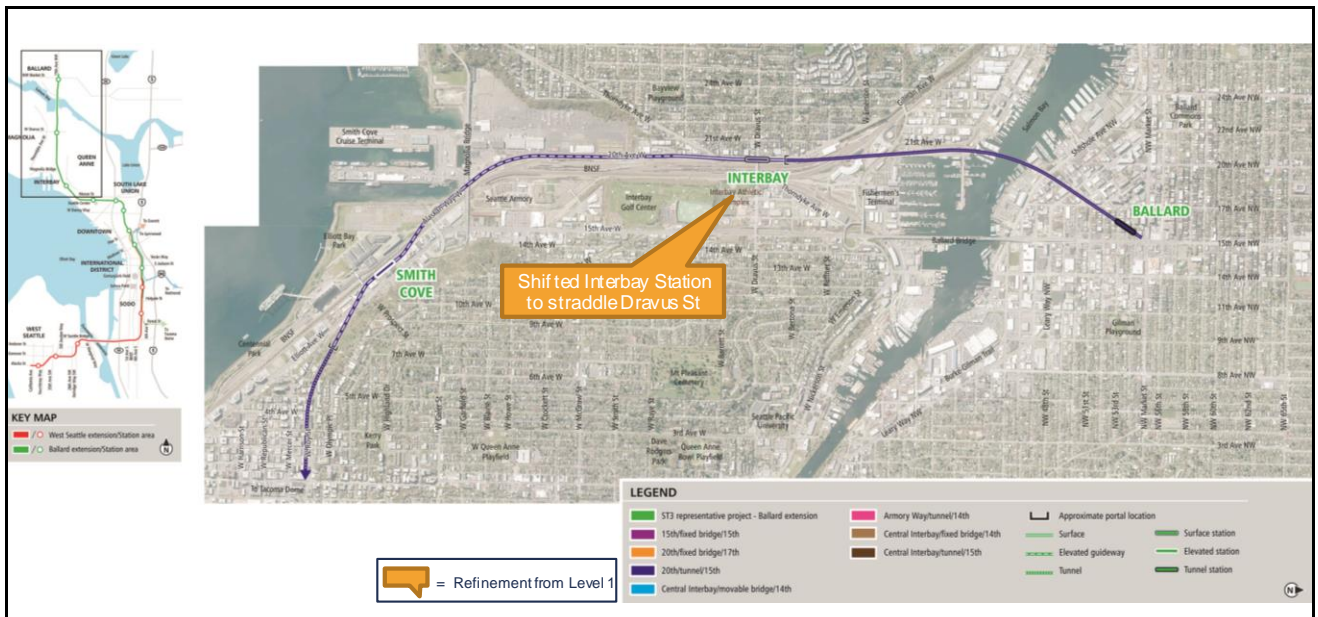
36



Interbay/Ballard

Level 2 Alternative – 20th/Fixed Bridge/17th

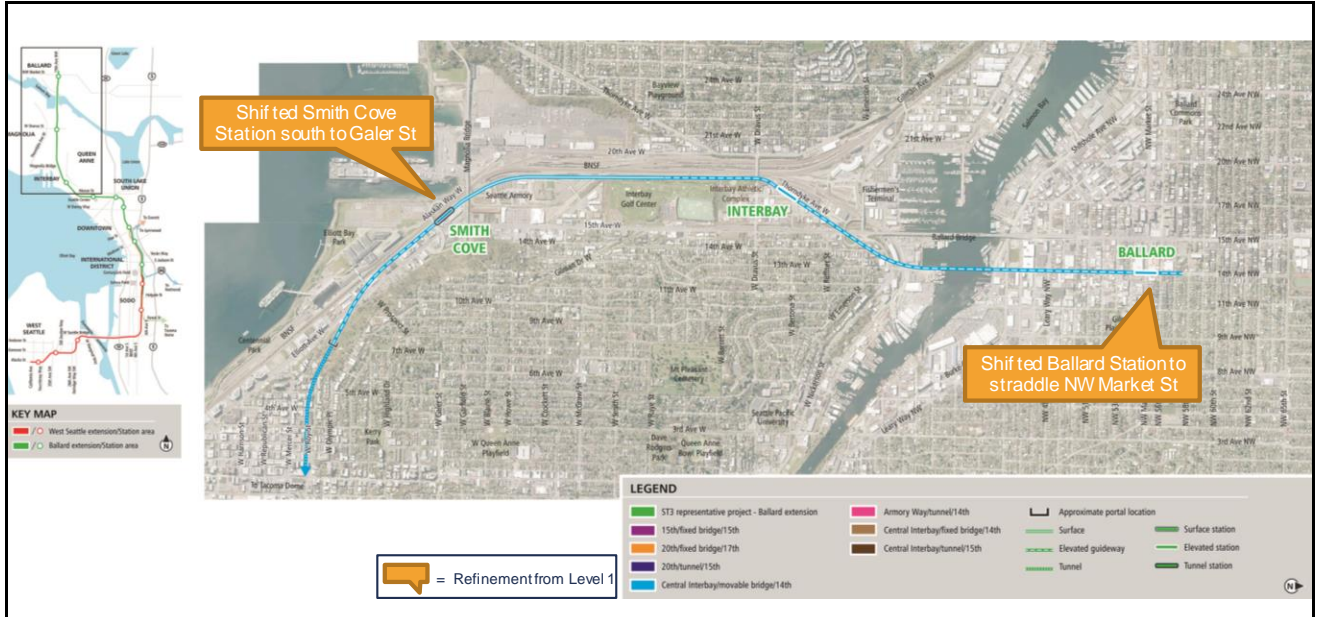
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Interbay/Ballard

Level 2 Alternative – 20th/Tunnel/15th

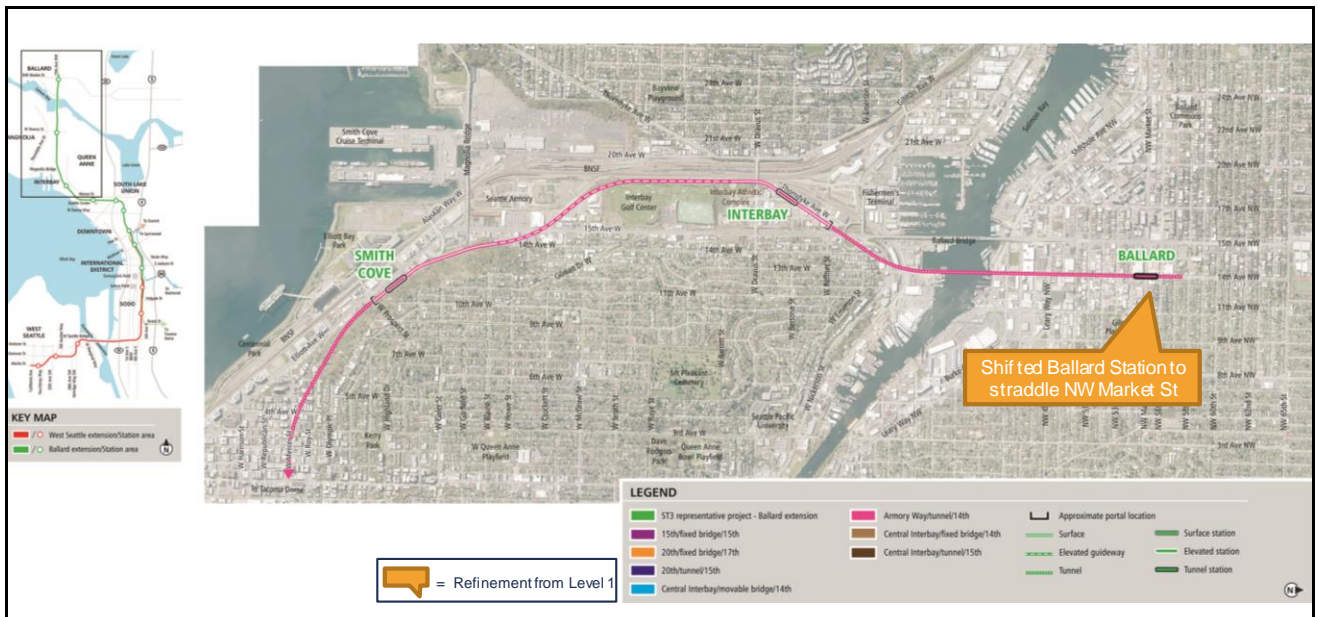
38



Interbay/Ballard

Level 2 Alternative – *Central Interbay/Movable Bridge/14th*

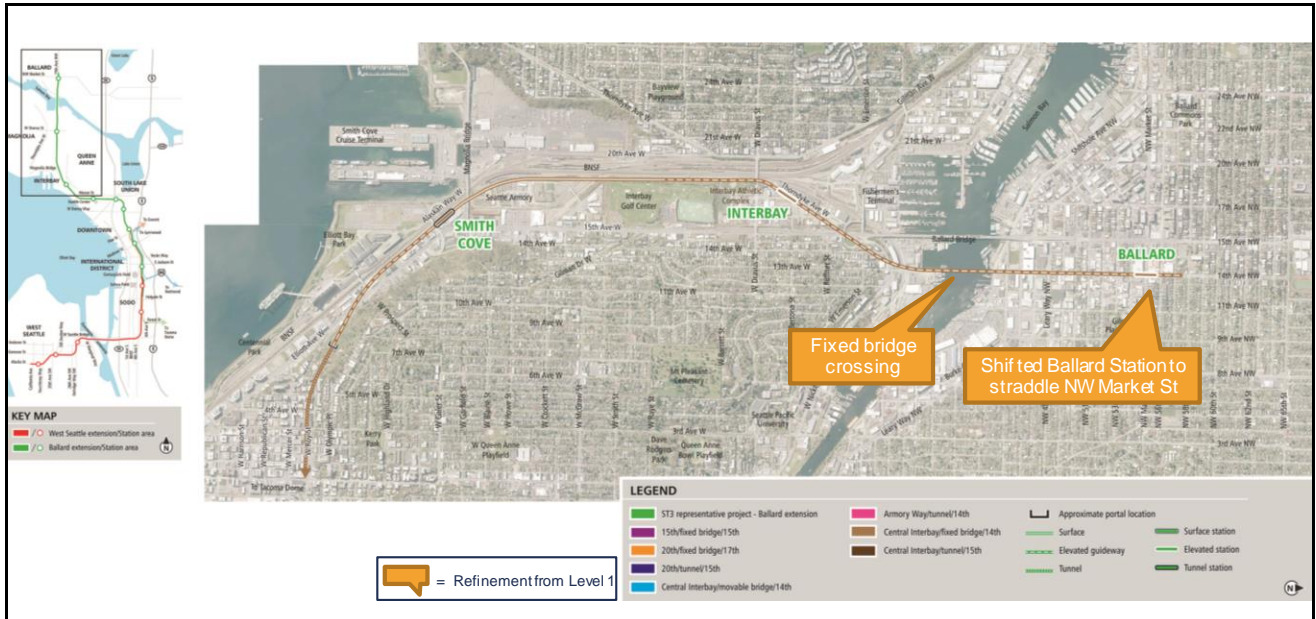
39



Interbay/Ballard

Level 2 Alternative – *Armory Way/Tunnel/14th*

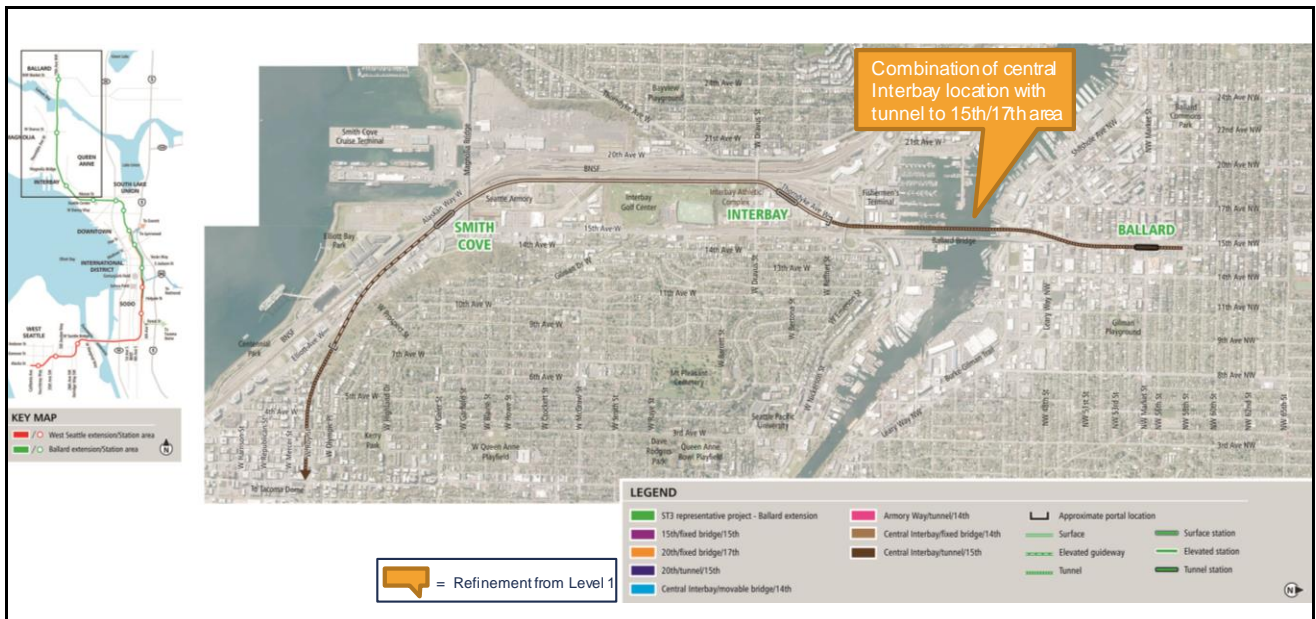
40



Interbay/Ballard

Level 2 Alternative – *Central Interbay/Fixed Bridge/14th (new)*

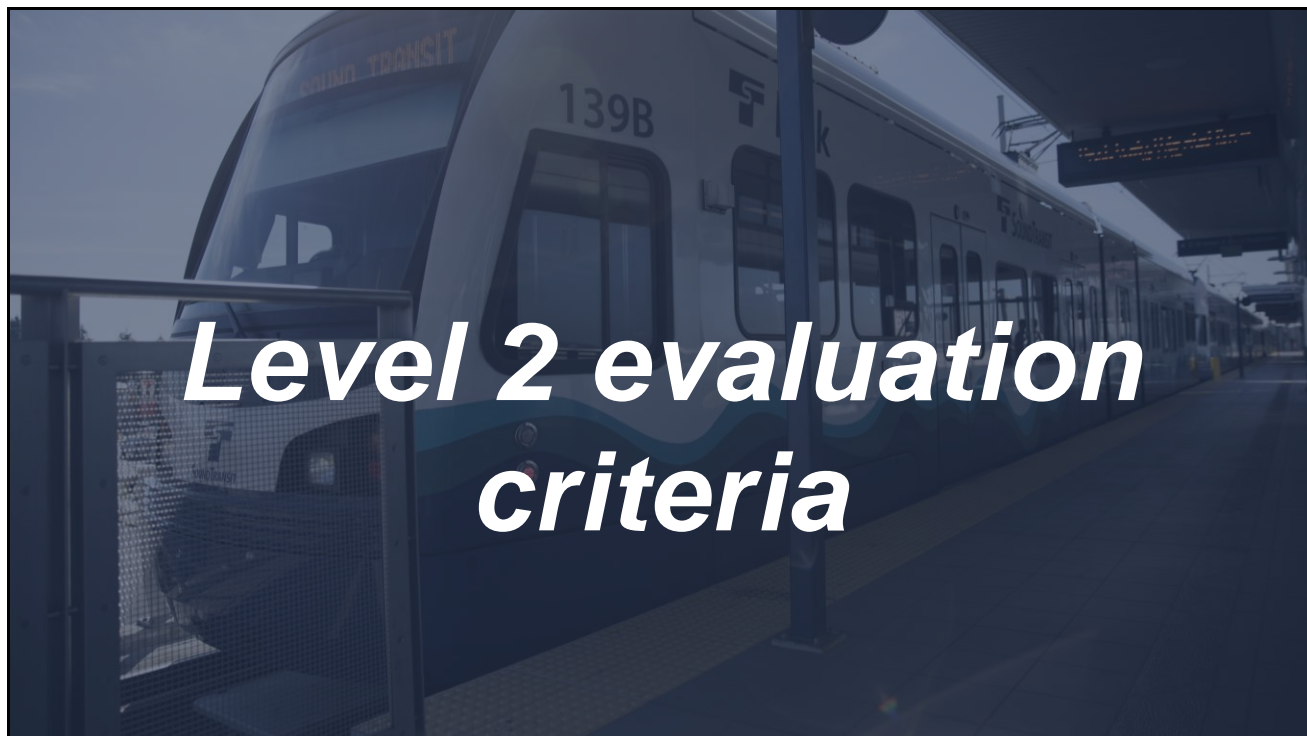
41



Interbay/Ballard

Level 2 Alternative – *Central Interbay/Tunnel/15th (new)*

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Level 2 criteria, measures and methods

Feedback received:

- *Stakeholder Advisory Group*
- *City of Seattle*
- *Port of Seattle*
- *King County Metro*

SAG Feedback and Questions

Specific questions and comments:

- How is ridership potential measured?
- What is meant by “historically underserved?”
- How is access for historically underserved populations assessed?
- Why switch between Federal, State and local standards?
- How do we address inflating construction costs?
- Concern regarding use of proposed legislation for assessment of equitable development opportunities.
- Are we considering economic effects during construction and long-term?

45

SAG Feedback and Questions

Other common themes:

- Are criteria/measures being weighted?
- Are we going to be able to see underlying data for rolled-up ratings?

46

Modifications to measures and methods

Clarifications on methods:

- Historically Underserved Populations
- Station Area Land Use Plan Consistency
- Modal Integration
- Station Area Development Opportunities
- Environmental Effects
- Economic Effects

47

Modifications to measures and methods

New measure added:

Station area land use plan consistency

- *Station locations consistent with current local land use plans*

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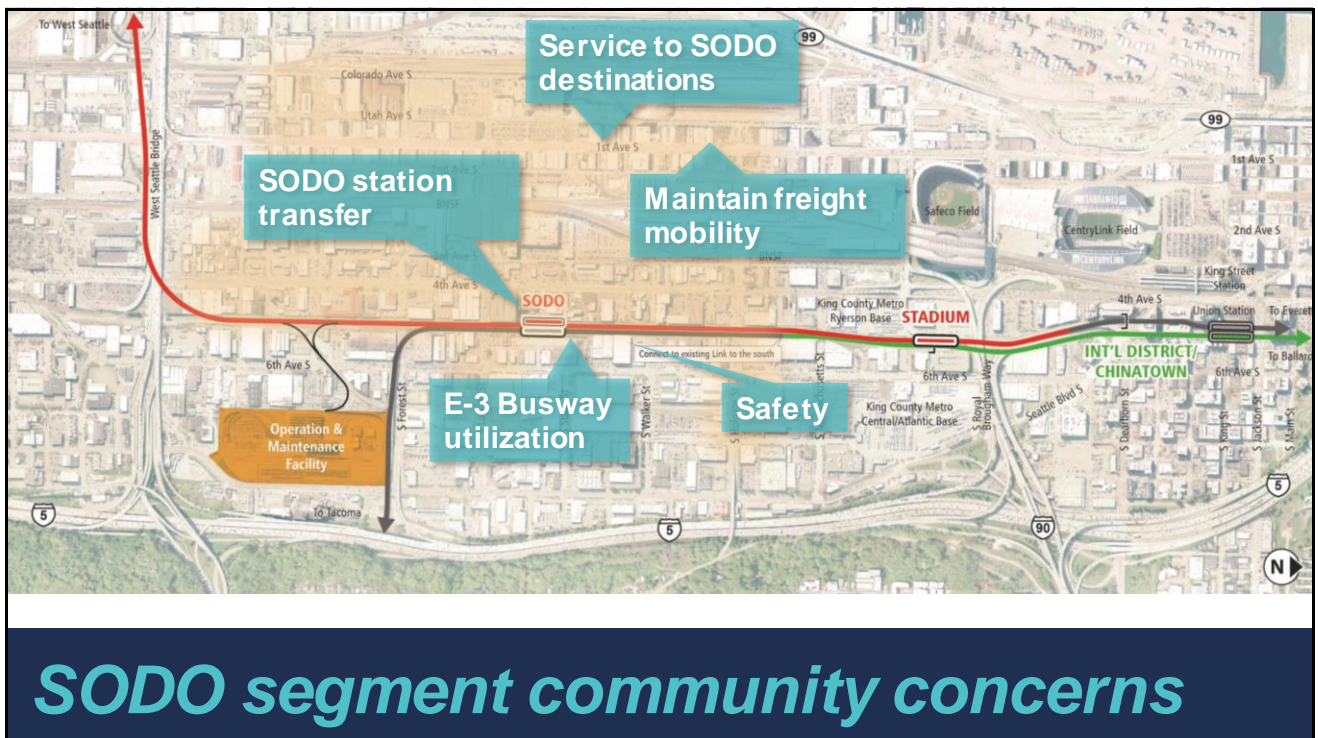


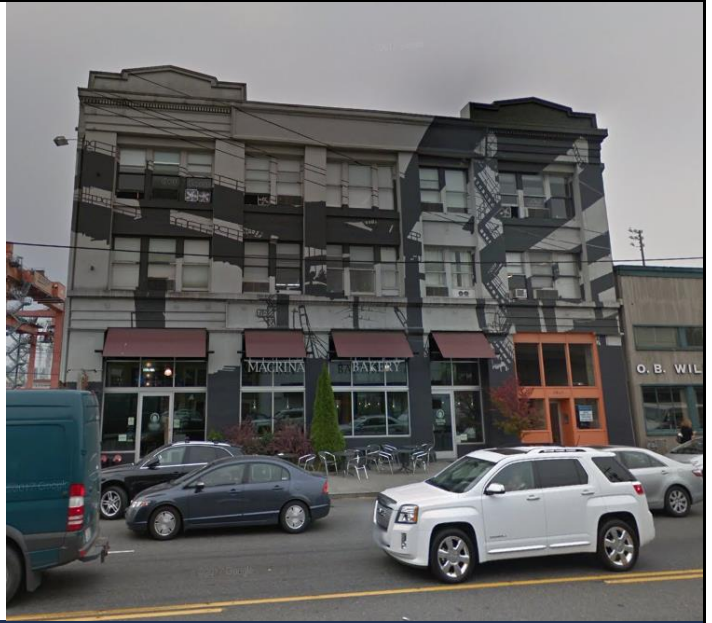
Agency Workshops

- › *June 6: Identify alternatives*
- › *June 14: Review alternatives*
- › *Early July: Review evaluation*

**Community engagement in parallel*

SODO Alignment and Station Alternatives





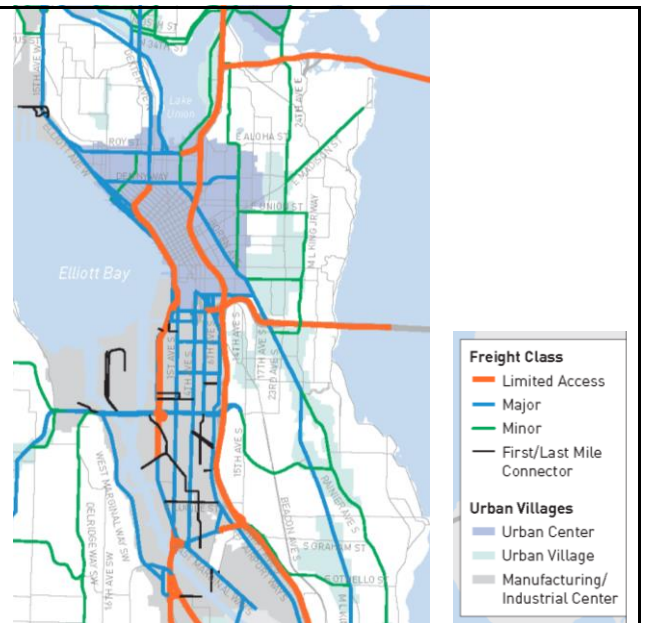
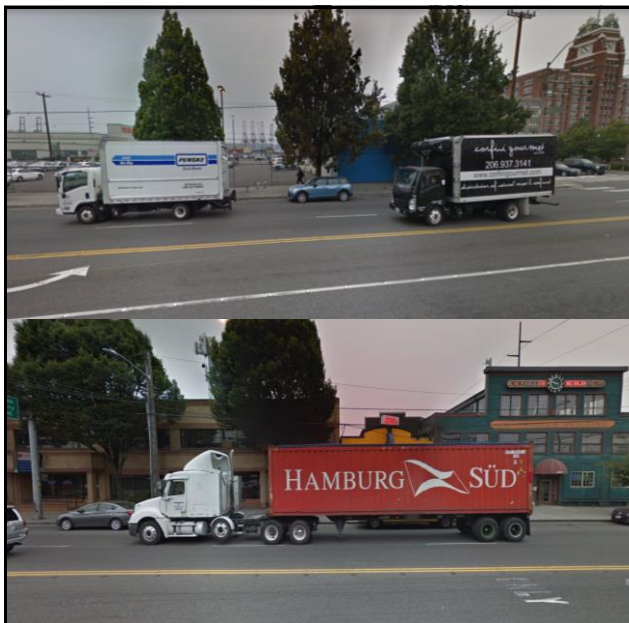
Service to SODO Destinations



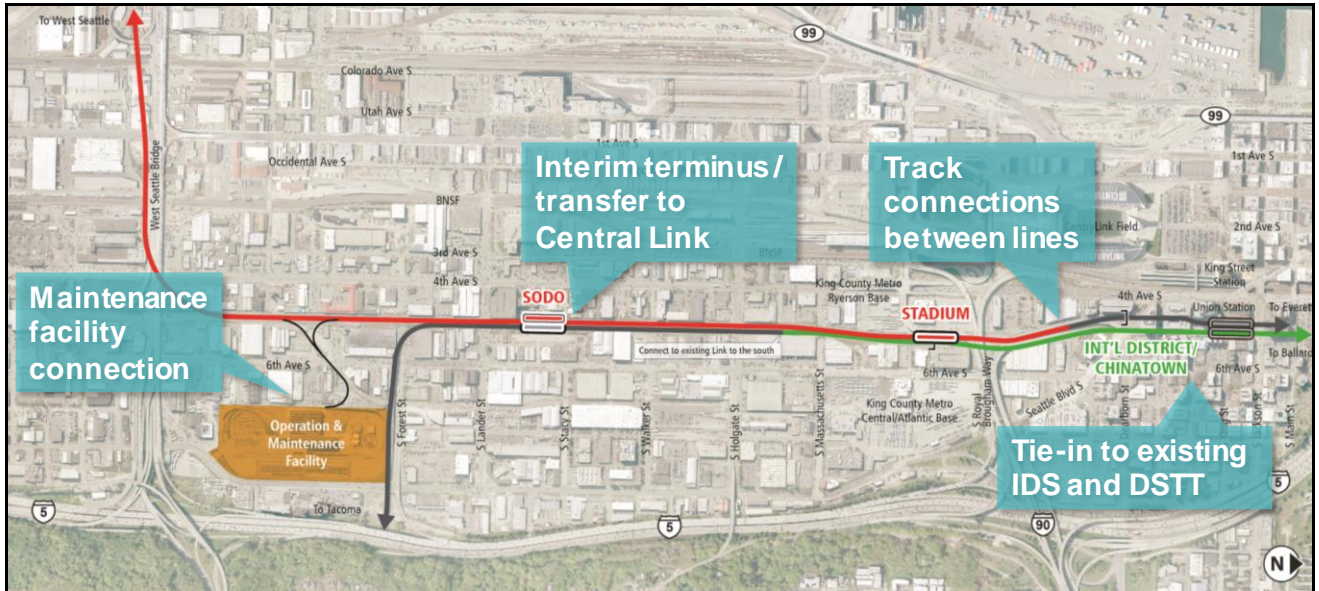
SODO Station Transfer



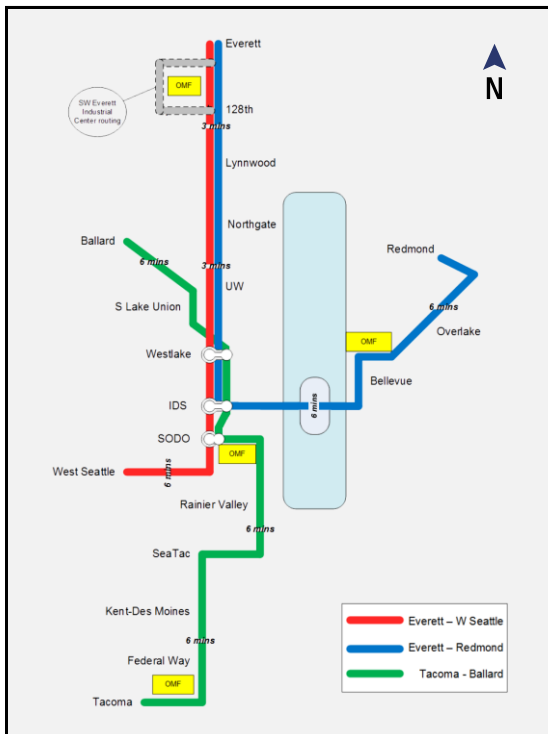
E-3 Busway Utilization



Maintain Freight Mobility



SODO Segment Operational Needs

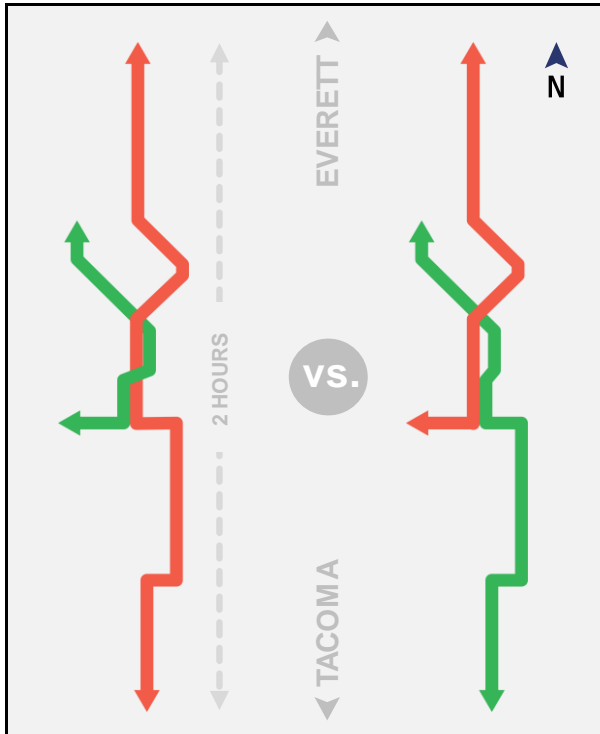


Operating plan

Everett to West Seattle via
Downtown Seattle Transit Tunnel

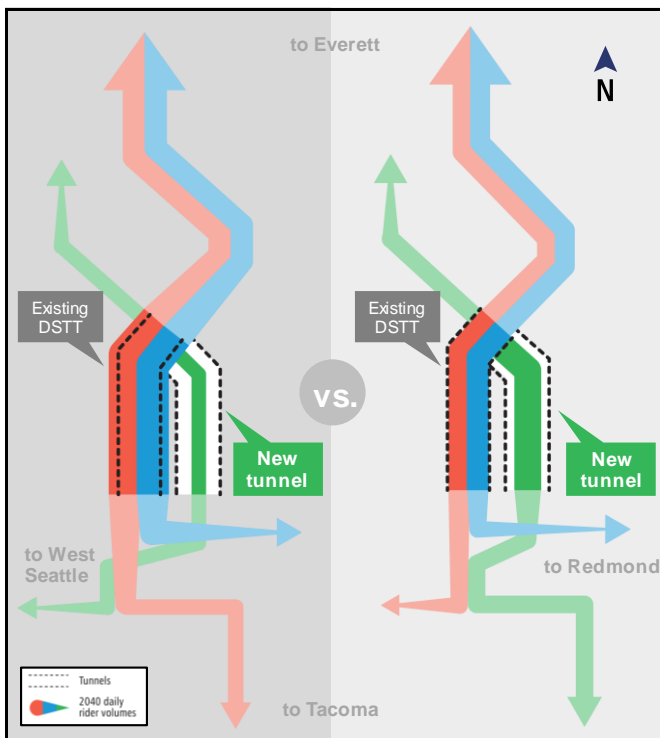
Everett to Downtown Redmond via
Downtown Seattle Transit Tunnel

Ballard to Tacoma via
new rail-only tunnel



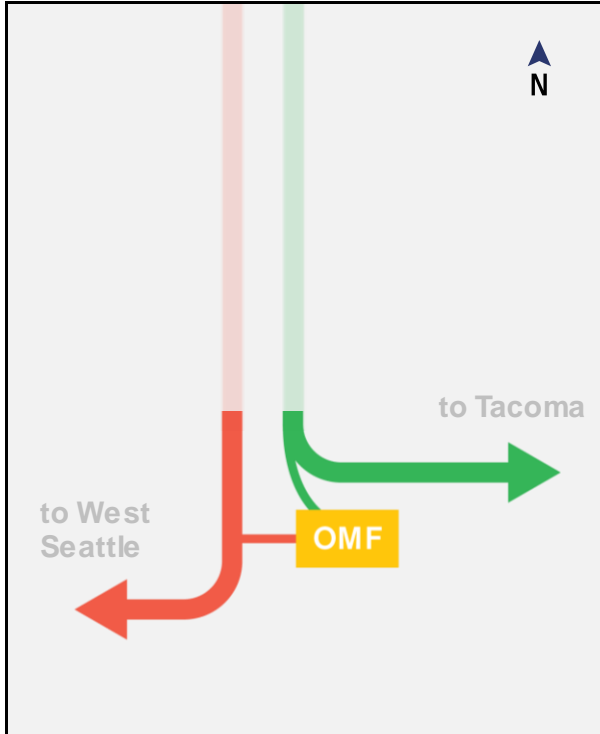
Spine segmentation

- ✓ Splits long trips from Tacoma to Everett



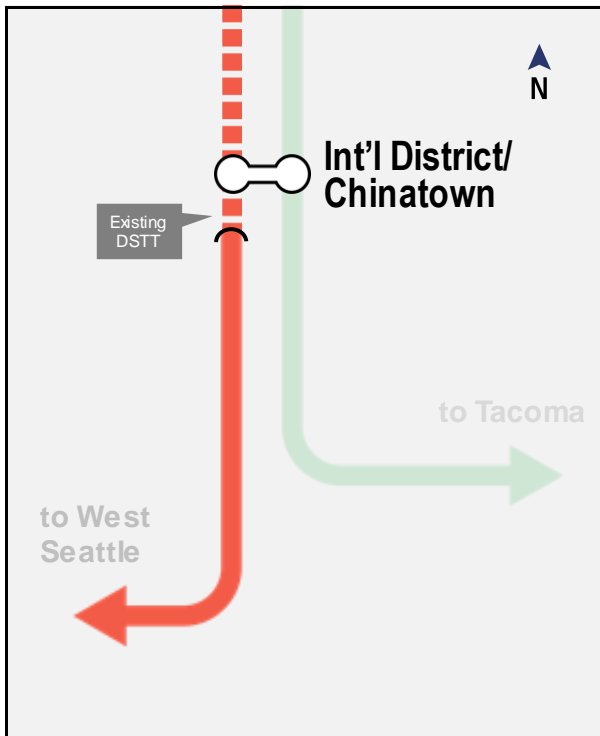
Balanced loads

- ✓ Balances passenger loads, enabling future growth
- ✓ All users benefit from core capacity expansion



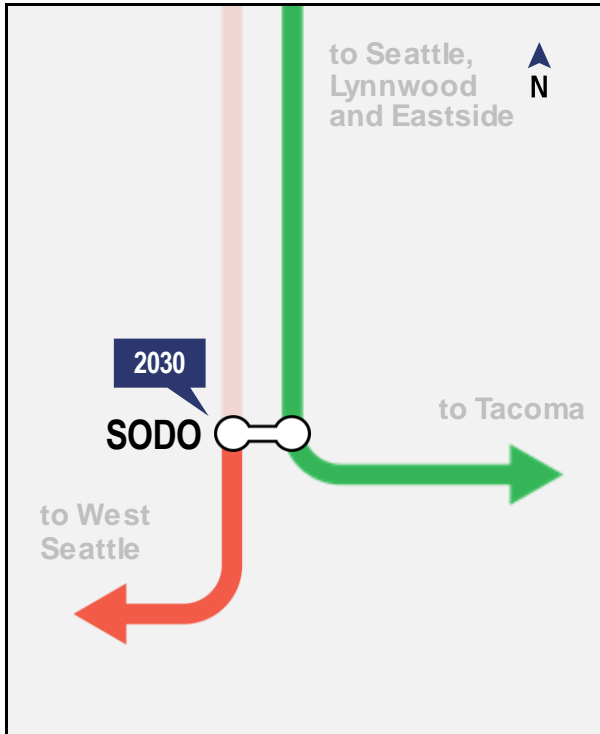
Maintenance facility connection

- ✓ Accommodate connection from West Seattle Link to existing maintenance facility at Forest Street



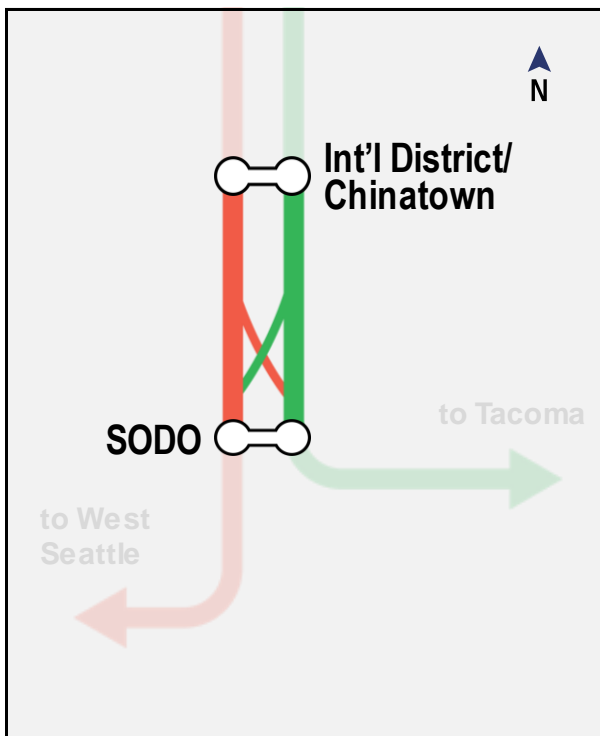
Tie-in to existing DSTT

- ✓ Connect to existing DSTT International District/Chinatown Station



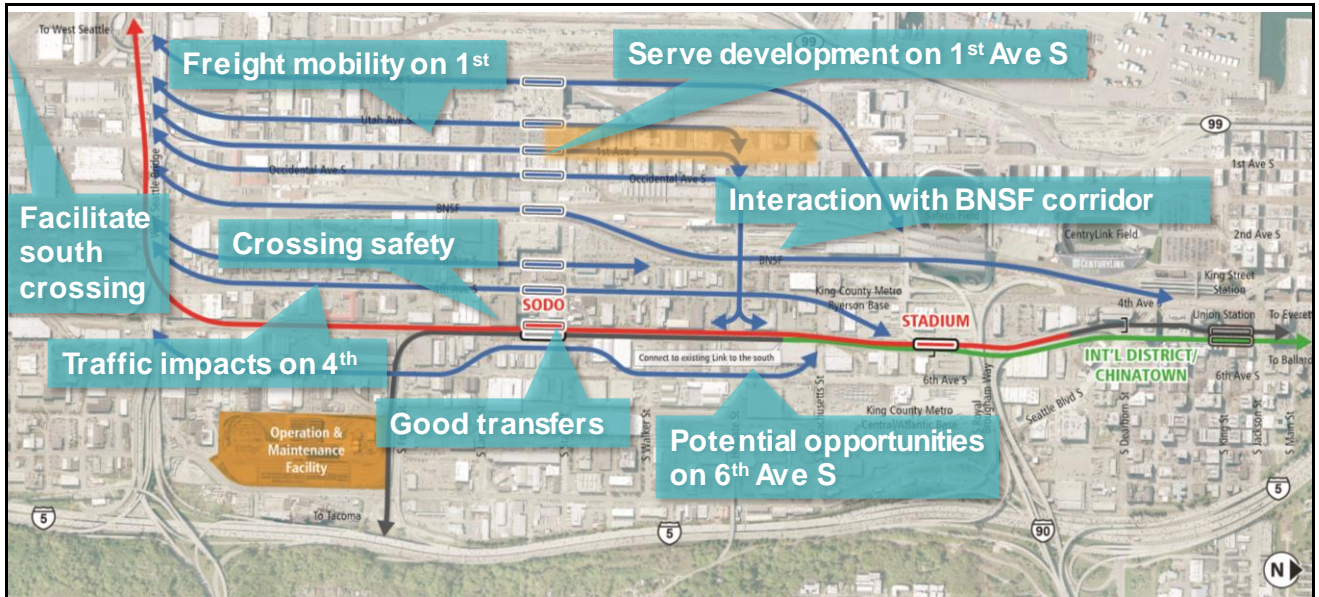
Interim terminus / transfer to Central Link

- ✓ Accommodate interim transfer to northbound Central Link and permanent transfer to southbound Central Link

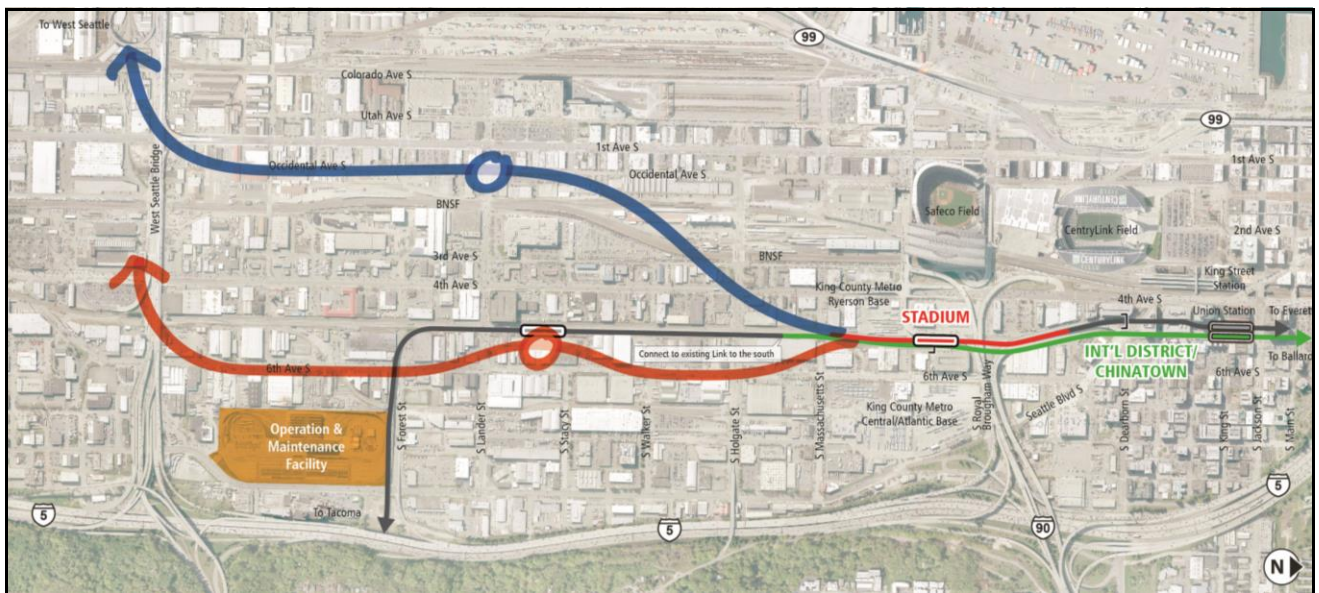


Track connections between lines

- ✓ Accommodate track connections between West Seattle Link and Ballard Link to allow for movement of trains and failure management

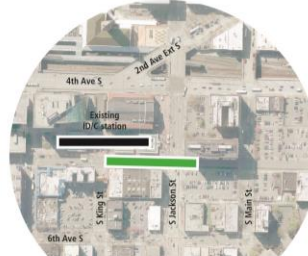
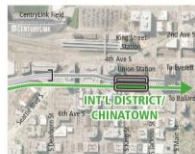
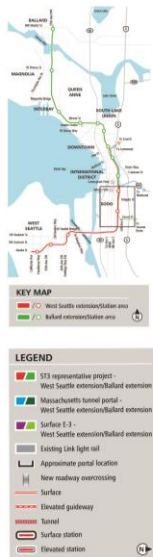


Agency workshop concerns/issues



Potential alternatives from agency workshop

C-ID Alignment and Station Alternatives



Station location alternative (straddle S Jackson St)
Note: applicable to both cut and cover and bored tunnel alternatives



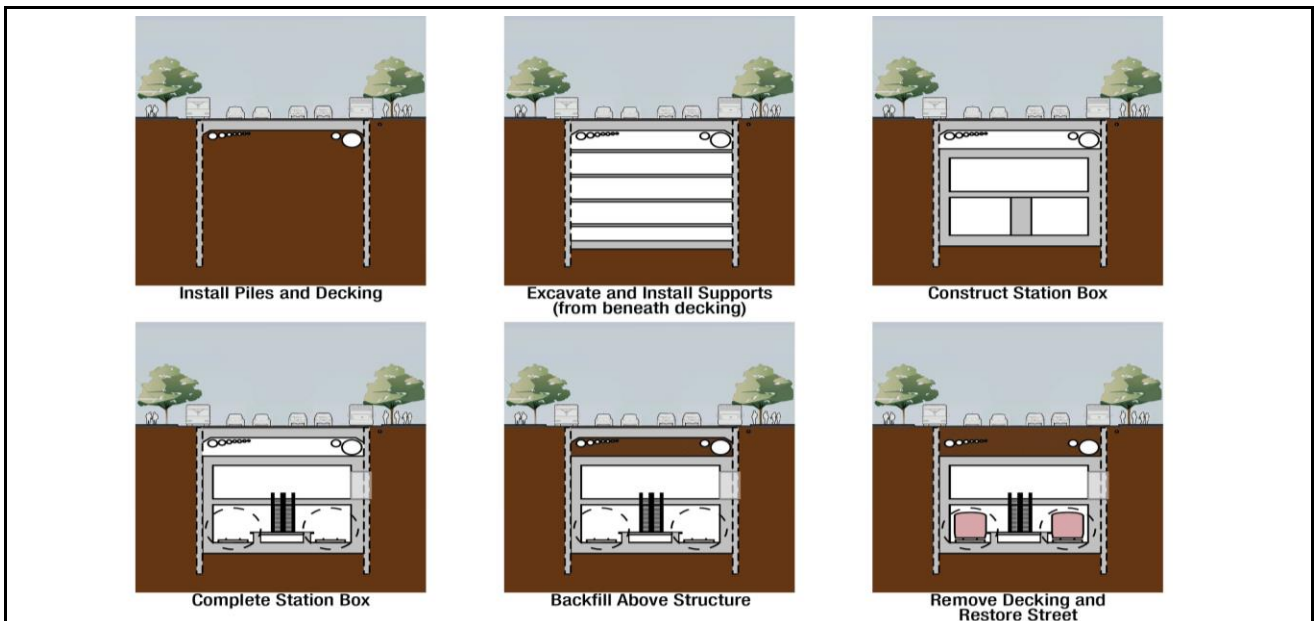
Bored tunnel alternative
Reduces in-street cut-and-cover construction from 1,600' to 400'

C-ID alignment and station alternatives

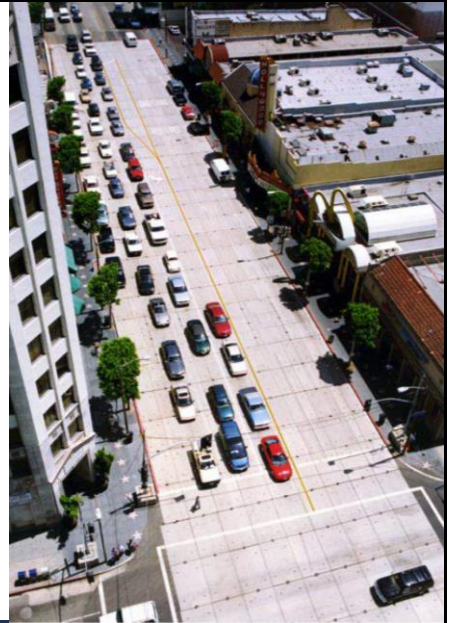
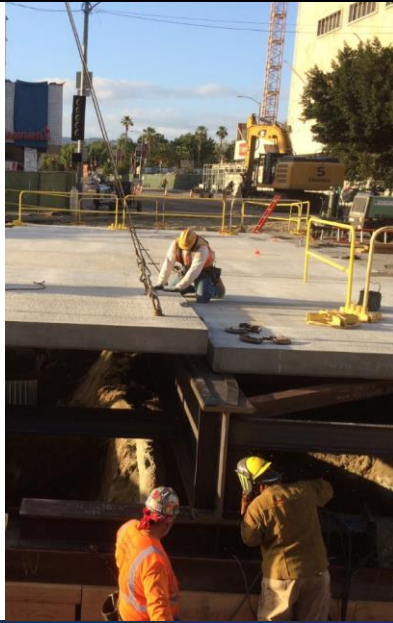


C-ID community concerns

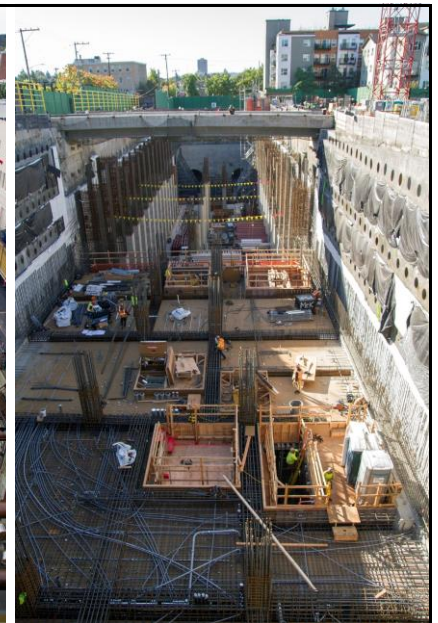
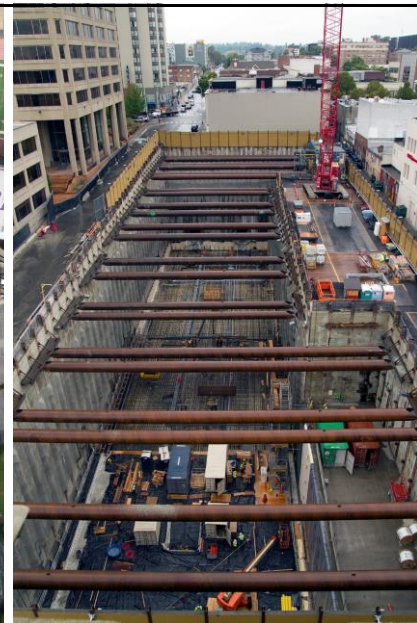
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Cut and Cover Station Construction



Cut and Cover Station Construction



Open Cut Station Construction



Mined Station Construction

Underground Stations in Seattle

Cut-and-cover stations:

- Pioneer Square, University Street (DSTT)

Open-cut stations:

- U District, Roosevelt (Northgate Link)
- Capitol Hill, UW (U-Link)
- International District/Chinatown, Westlake, Convention Place (DSTT)

Mined stations:

- Beacon Hill (Central Link)

C-ID Station Construction Constraints

Initial technical challenges

- Limited right-of-way
- Poor soil conditions
- Deep piles under 4th Ave, Union Station, existing ID/C Station
- Conflicts with existing DSTT structures

C-ID community concerns

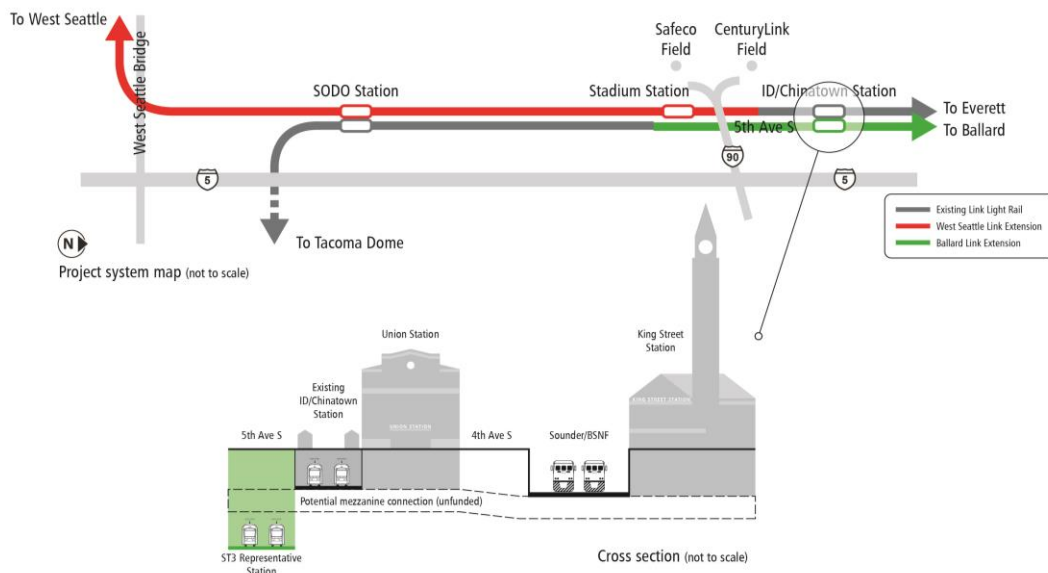
- ✓ Avoid construction impacts
- ✓ Improve intermodal connections
- ✓ Activate Union Station

Construction constraints

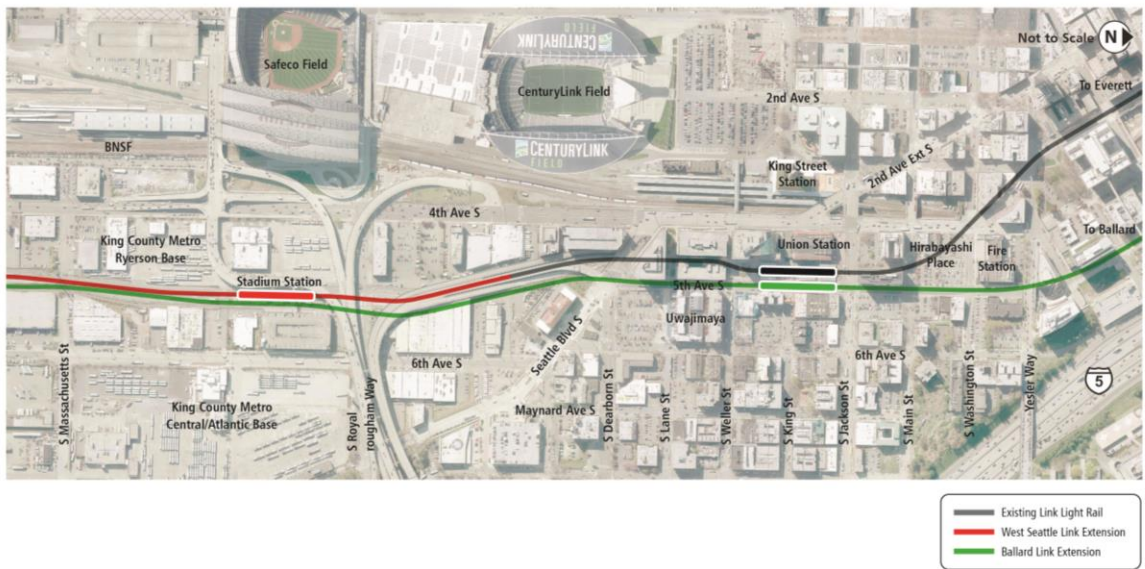
- ✓ Limited right-of-way
- ✓ Poor soil conditions
- ✓ Deep piles under 4th Ave, Union Station, ID/C Station
- ✓ Conflicts with existing DSTT structures

Potential C-ID Station Locations

Tunnel / Station Type	5 th Ave	4 th Ave	Union Station
Cut-and-cover	✓	✓	✗
Platform depth:	(50-70')	(30-40')	
Bored / mined	✓	✓	✓
Platform depth:	(80-100')	(80-150')	(80-150')

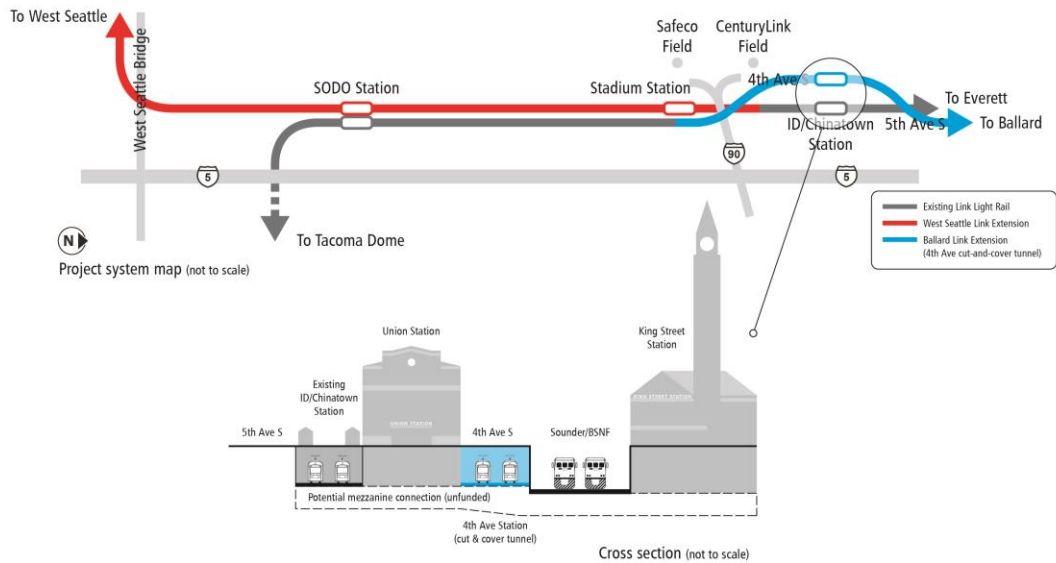


C-ID Station at 5th Ave S



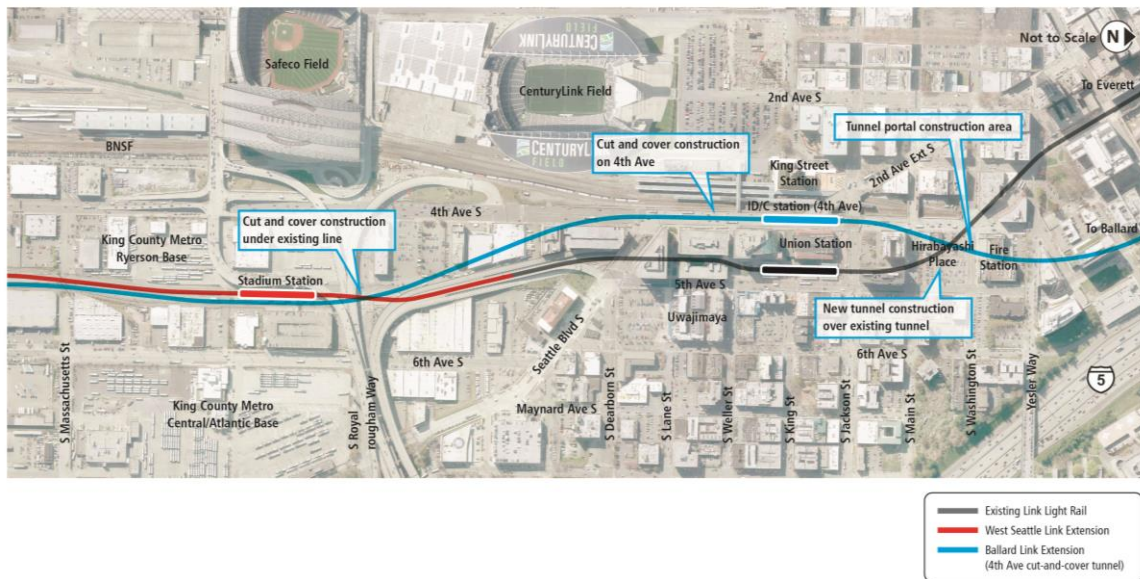
C-ID Station at 5th Ave S

81



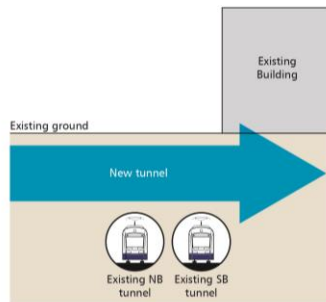
C-ID Station at 4th Ave S *Cut-and-cover*

82



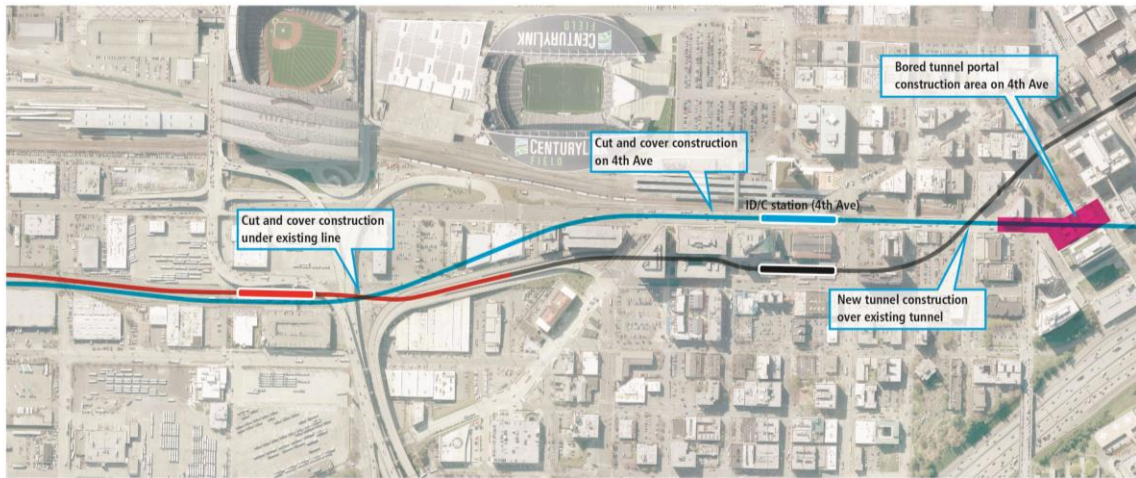
C-ID Station at 4th Ave S *Cut-and-cover*

83

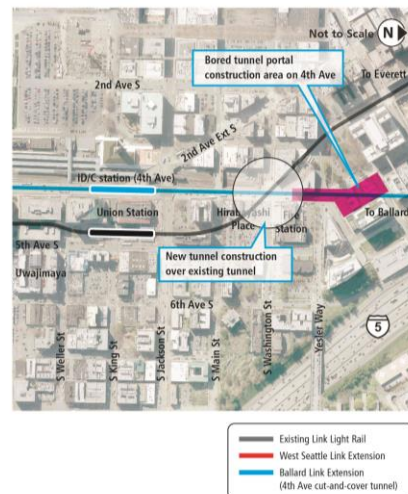
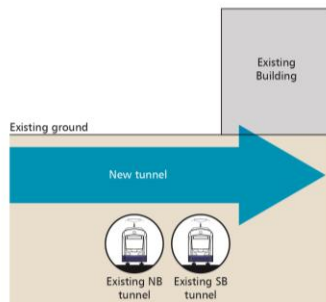


C-ID Station at 4th Ave S *Cut-and-cover*

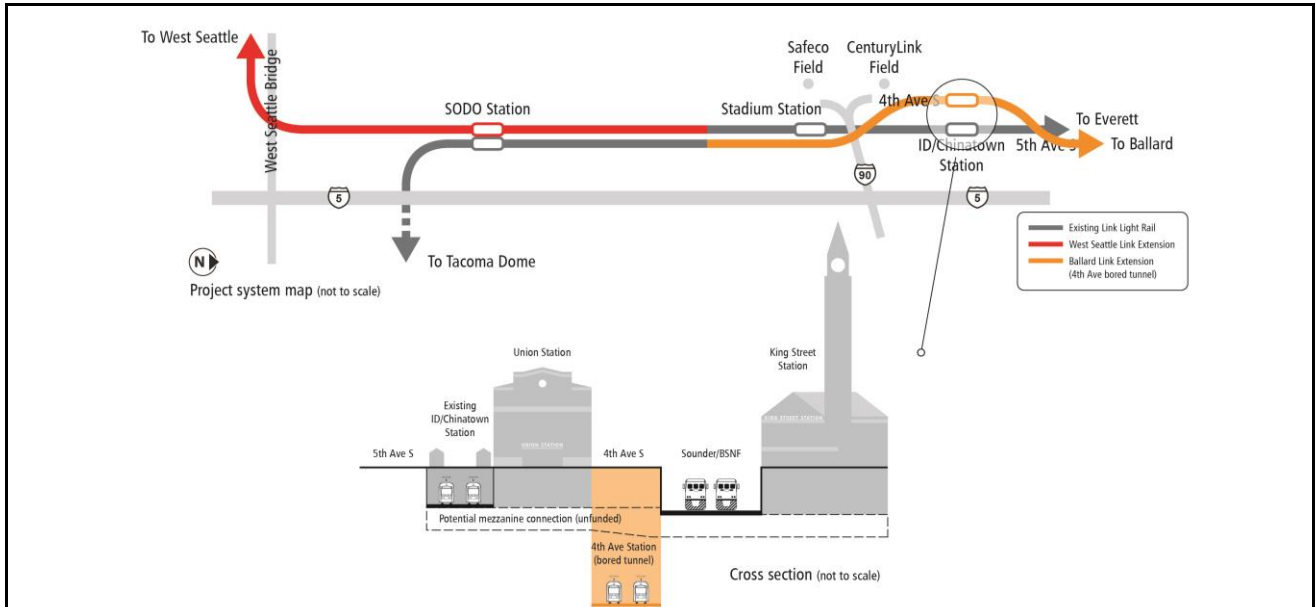
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C-ID Station at 4th Ave S *Cut-and-cover - revised*

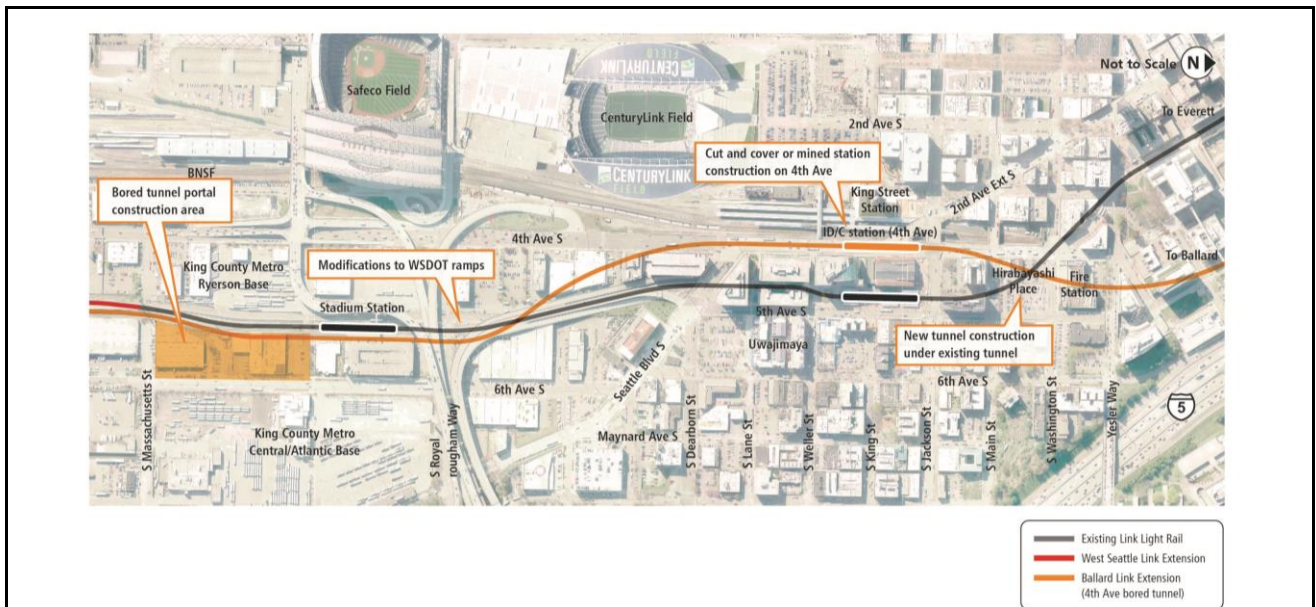


C-ID Station at 4th Ave S *Cut-and-cover - revised*



C-ID Station at 4th Ave S Bored tunnel

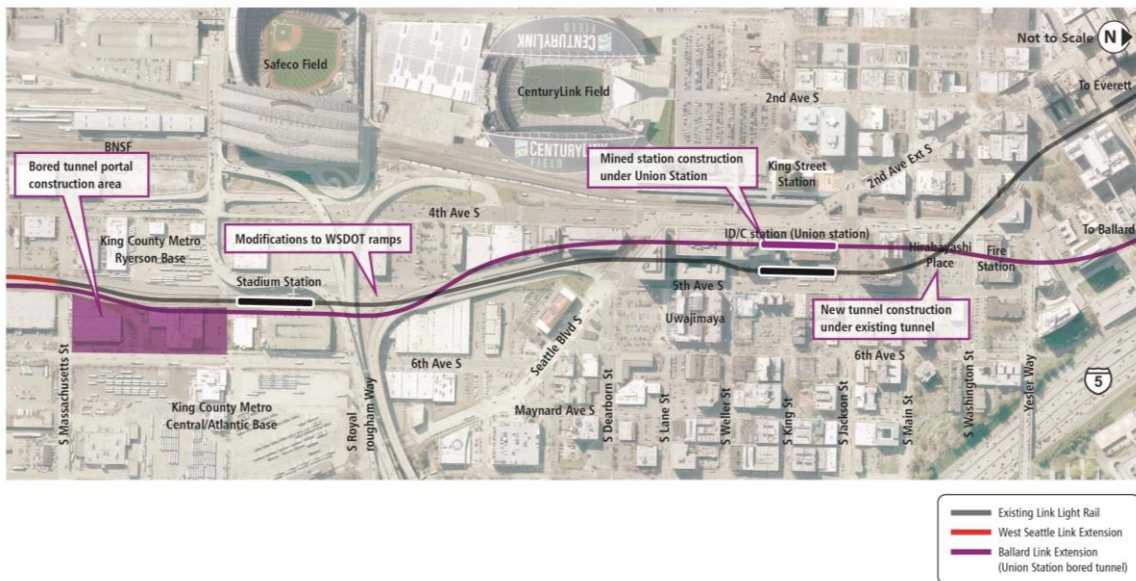
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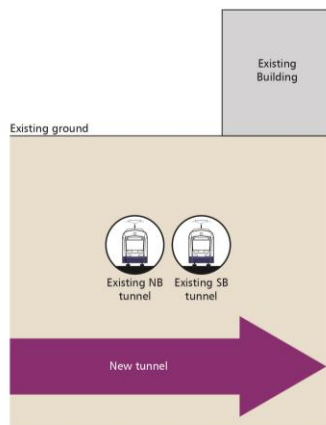
C-ID Station at 4th Ave S Bored tunnel

88





C-ID Station under Union Station *Bored tunnel*



C-ID Station under Union Station *Bored tunnel*



Station Planning Scope

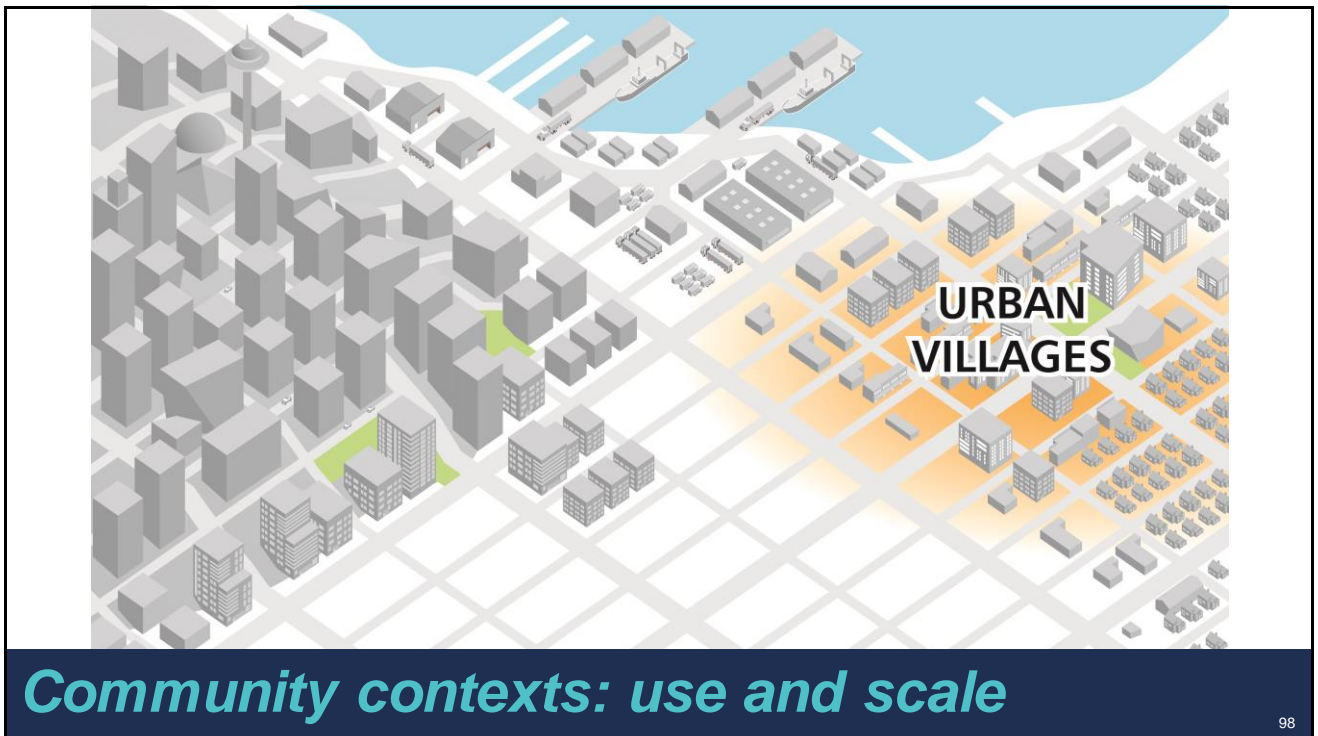
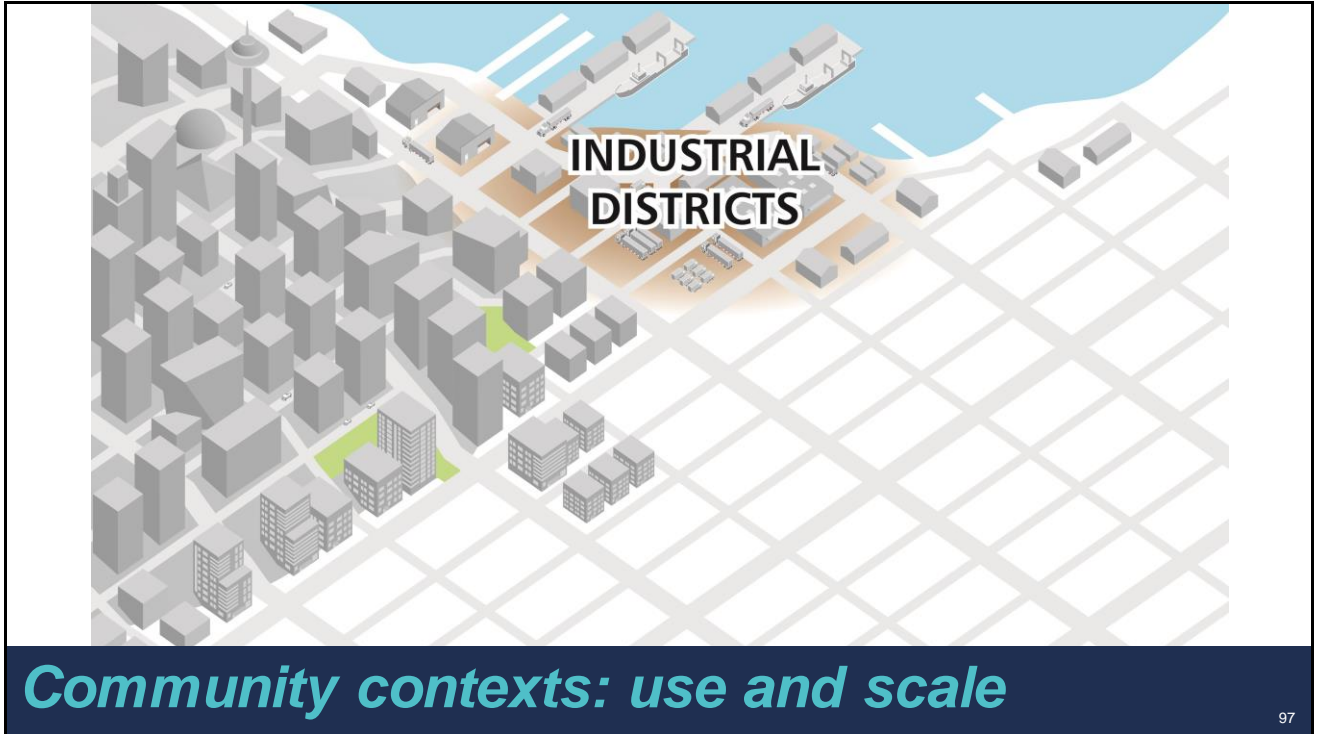
1. Support alternatives development process
2. Advance design concepts to assist evaluation of station locations
3. Identify opportunities and challenges for further study in EIS phase

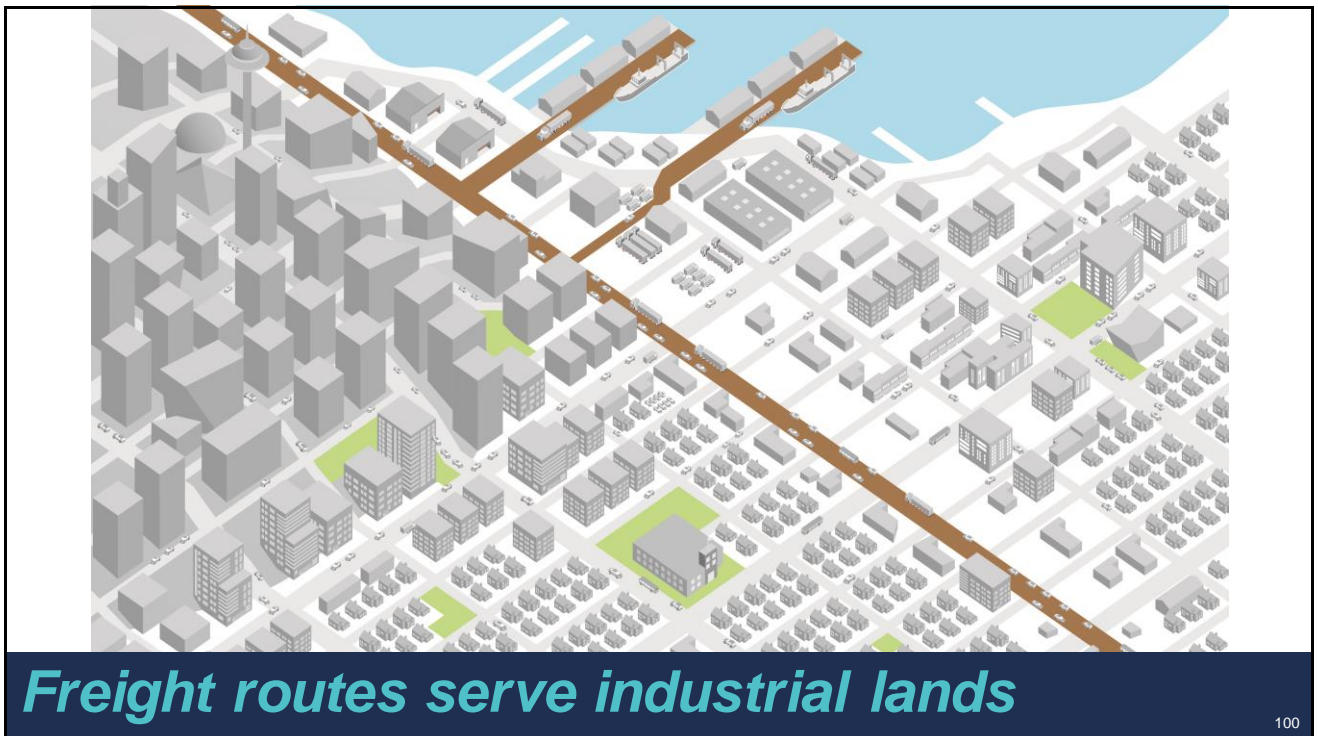
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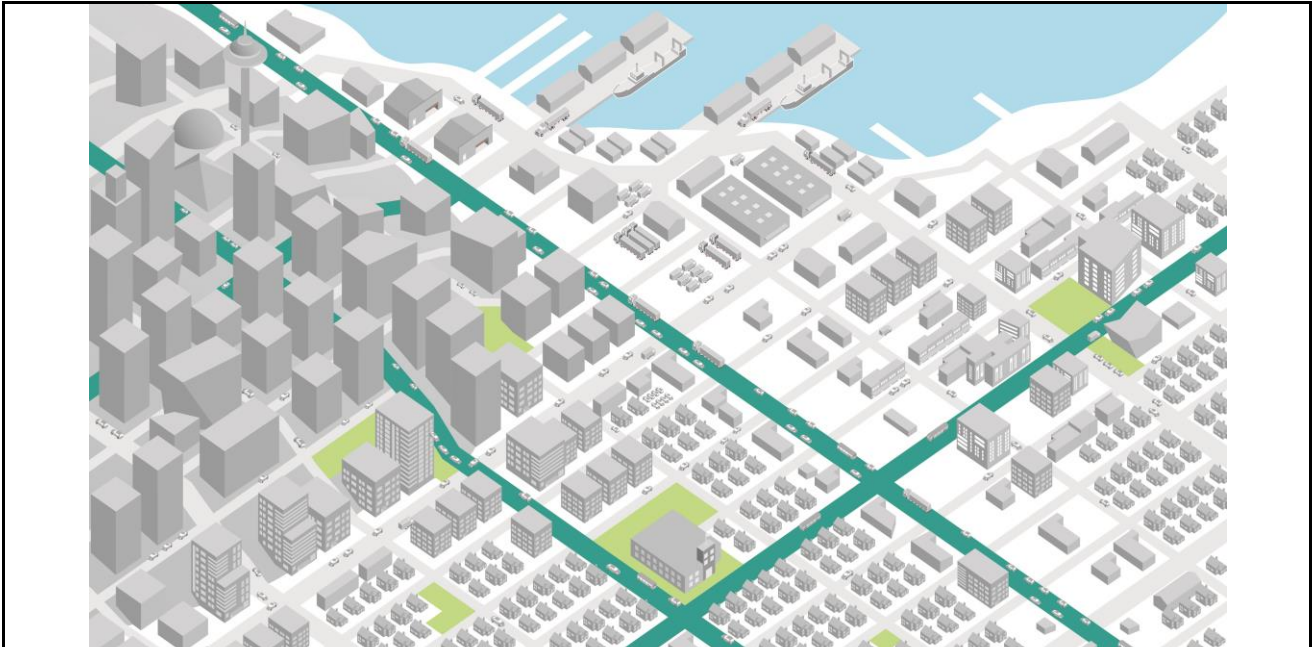


Community contexts: use and scale

96







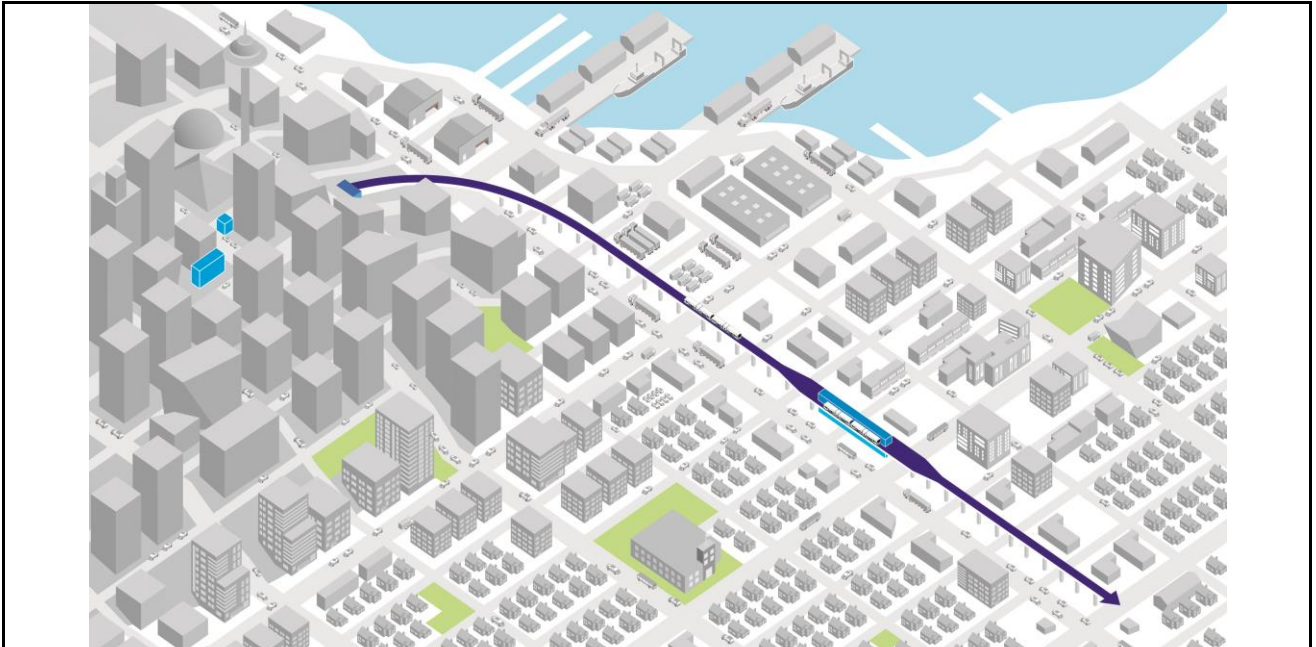
Transit corridors connect places

101



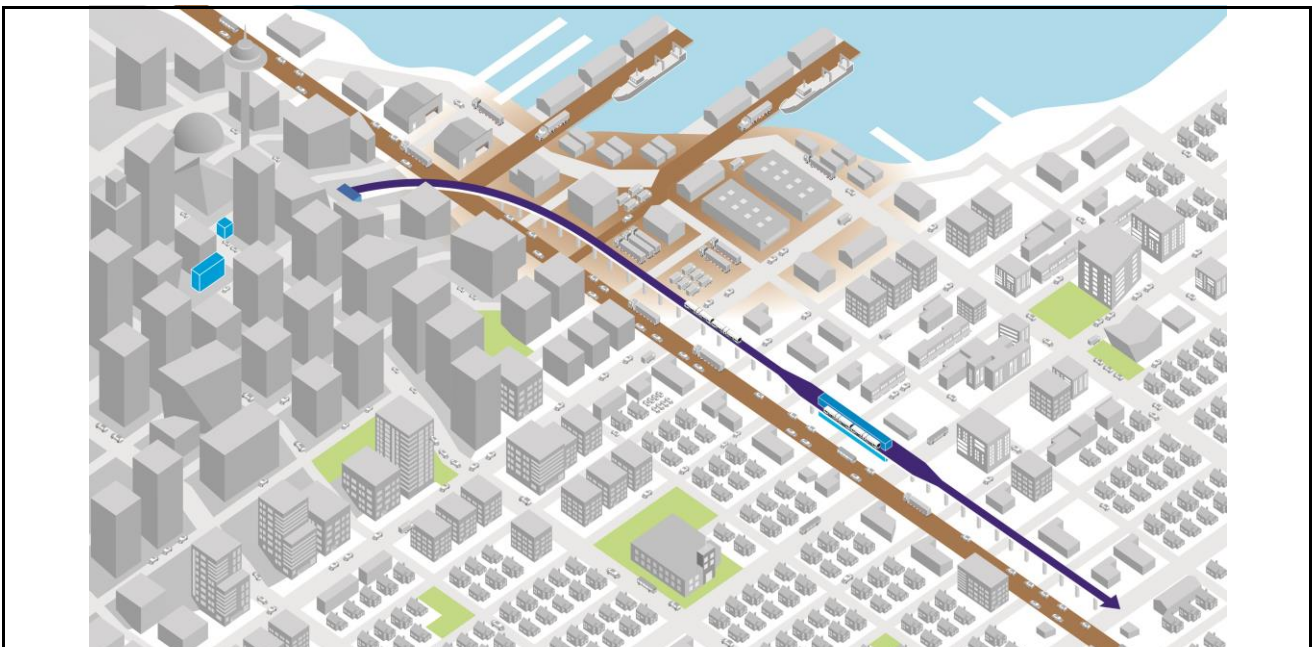
Greenways serve commutes and recreation

102



LRT brings new service and infrastructure

103



How does it interact with industrial uses?

104



How does it interface with urban core?

105



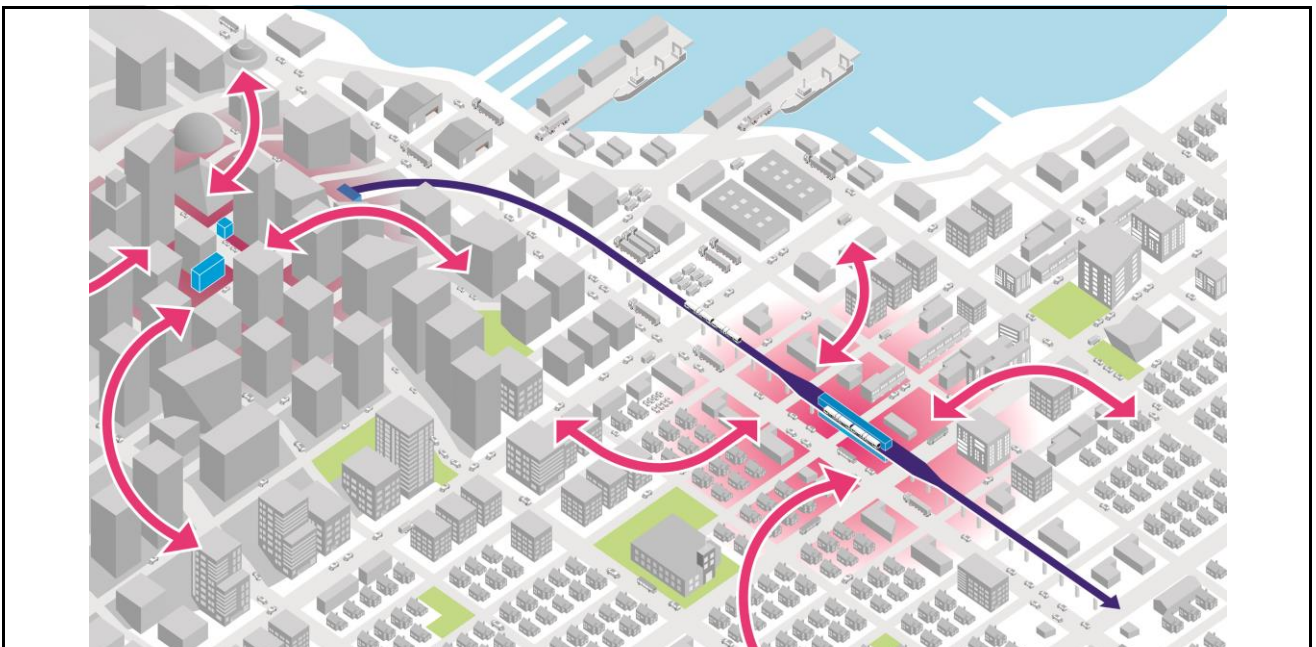
How does it tie into urban villages?

106



How do neighborhoods connect?

107



LRT station becomes a community hub

108



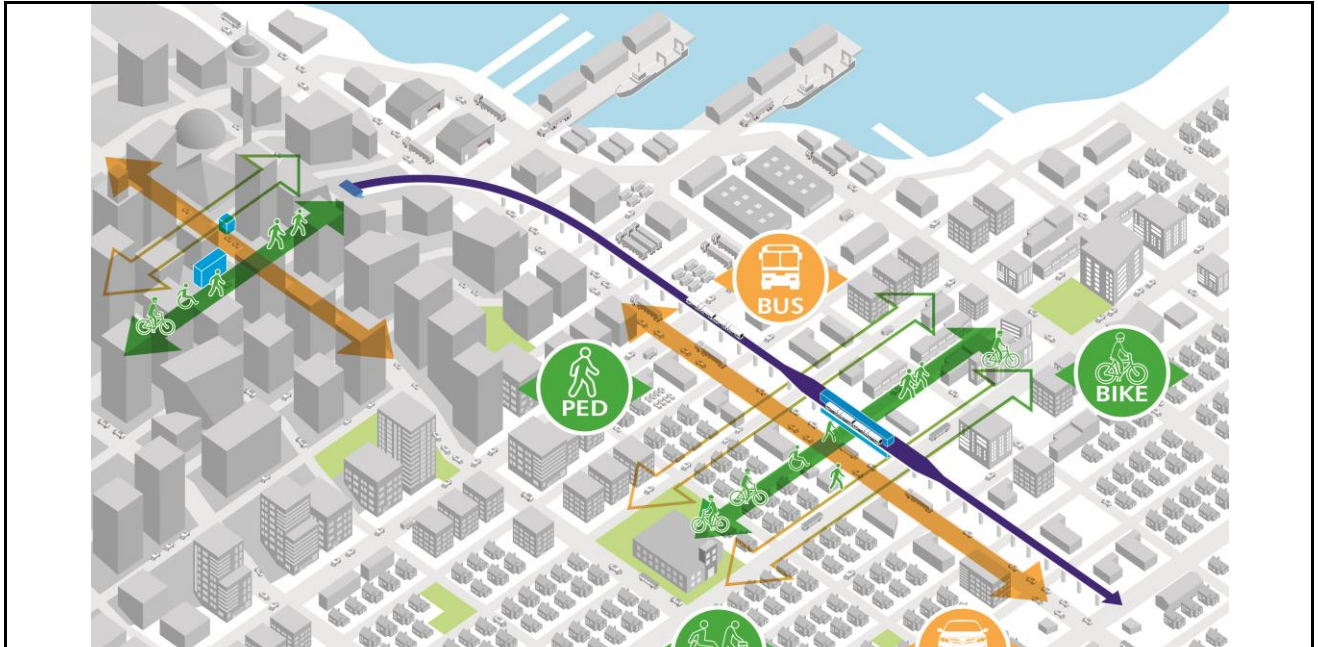
How to integrate transit services?

109



How to facilitate non-motorized access?

110



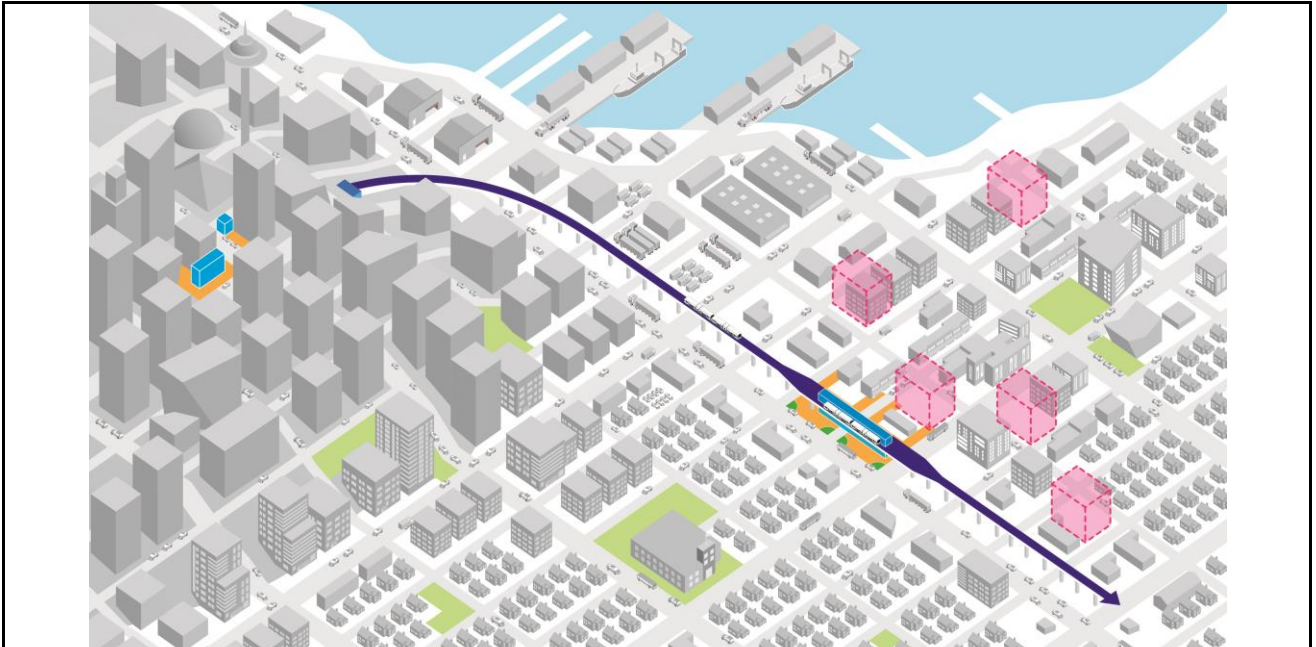
Organizing circulation and arrival

111



Designing the station footprint

112



Supporting existing and future development

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Station Planning and Alternatives Development

Level 1

Existing Conditions and Baseline

- Community conditions basemapping, plan review
- Issue identification with Agency partners and community
- Technical evaluation

Level 2

Develop Station Concept(s)

- Station locations and profile
- Conceptual station layout and urban design concepts
- Access and circulation
- Land use and zoning

Level 3

Opportunity Identification and Evaluation

- Transit service integration
- Access investments and resource alignment
- Equitable development opportunities in station areas

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Upcoming Level 2 Meetings

SAG Meeting #7 July 16, 2018	<ul style="list-style-type: none"> Stakeholder/community engagement Chinatown/ID & SODO alignment and station alternatives Technical briefings: TBD
ELG Meeting July 19, 2018	<ul style="list-style-type: none"> Stakeholder/community engagement Chinatown/ID & SODO alignment and station alternatives
SAG Meeting #8 Sept. 5, 2018	<ul style="list-style-type: none"> Stakeholder/community engagement Level 2 evaluation results
SAG Meeting #9 Sept 26, 2018	<ul style="list-style-type: none"> Stakeholder/community engagement Level 2 recommendations
ELG Meeting Oct. TBD, 2018	<ul style="list-style-type: none"> Stakeholder/community engagement Level 2 recommendations

