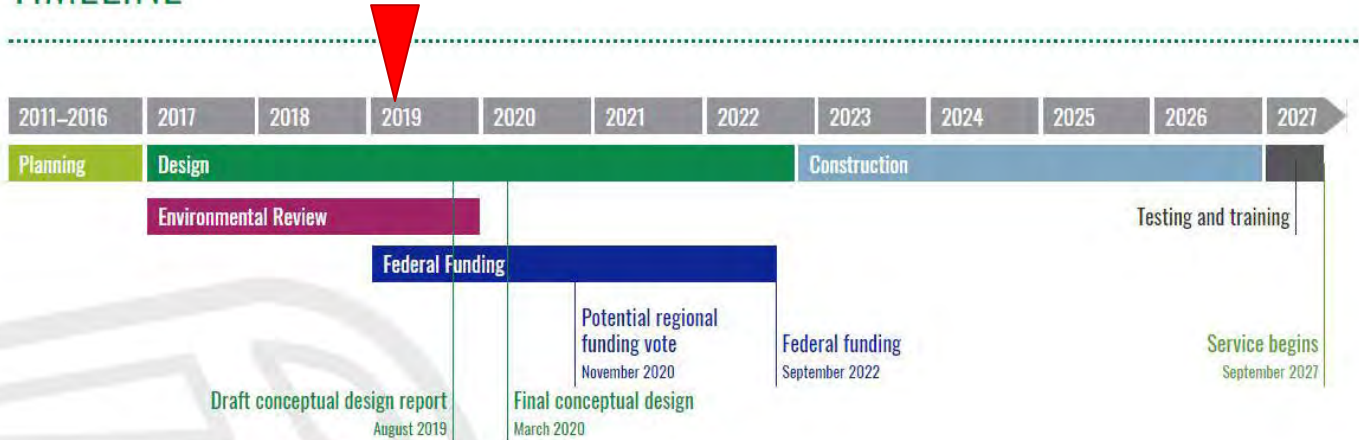




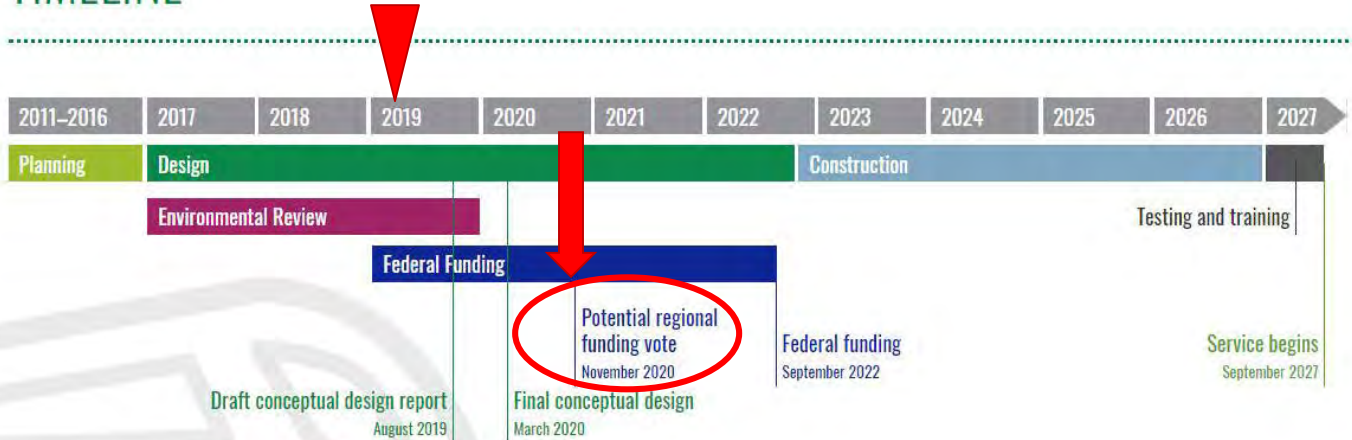
SOUTHWEST CORRIDOR LIGHT RAIL PROJECT

Steering Committee
April 8, 2019

TIMELINE



TIMELINE



Project Funding Sources

Revenue Sources	(in millions)
Federal New Starts Funds	\$1,250
Regional Funding Measure	\$ 850
Local, State, Regional Partner Funds (public and private)	\$ 425
	\$2,525

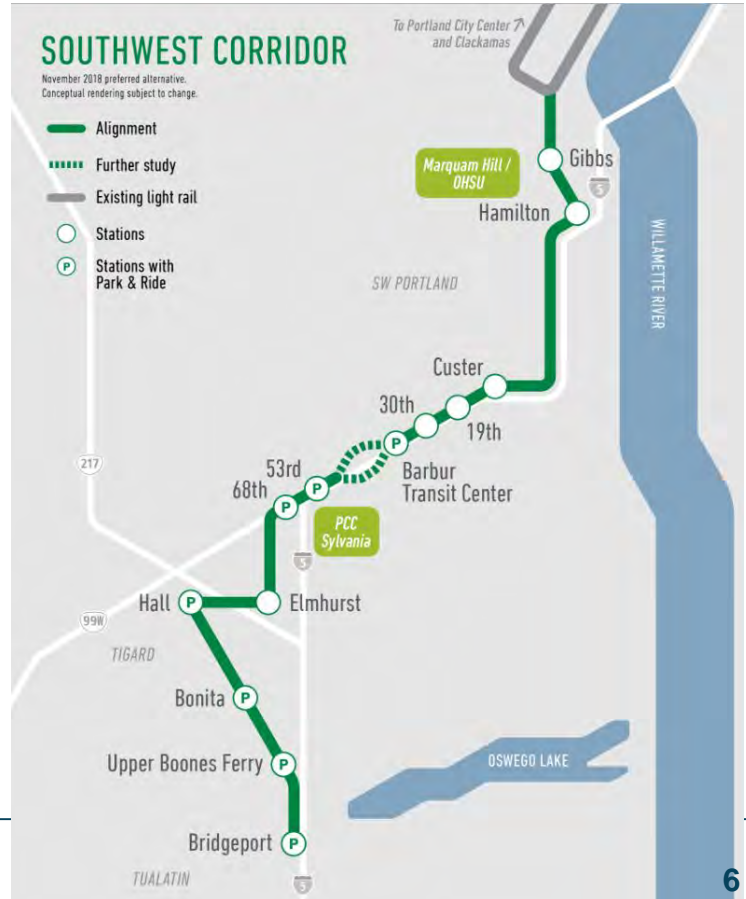
Project Scope (Cost) Target

Revenue Sources	(in millions)
Federal New Starts funds	\$1,250
Regional Funding Measure	\$ 850
Local, State, Regional Funds (public and private)	<u>\$ 425</u>
	\$2,525
(less interim finance)	<u>\$ 150</u>
Project Scope Target (YOE)	\$2,375

Locally Preferred Alternative

Project Scope Estimated \$2.733

- 12 mile corridor to Bridgeport
- Rebuilds existing infrastructure (roadway, structures)
- Connections to Marquam Hill and PCC campuses
- Stations and Park-and-Rides to access regional system
- Includes design mitigations (grade separations)



Target Cost Reduction

	(in millions)
Project Scope Target	\$2,375
LPA Cost Estimate	<u>\$2,733</u>
Target Cost Reduction	\$ (358)

SWC Cost Elements

Note: Assume 3.5% escalation

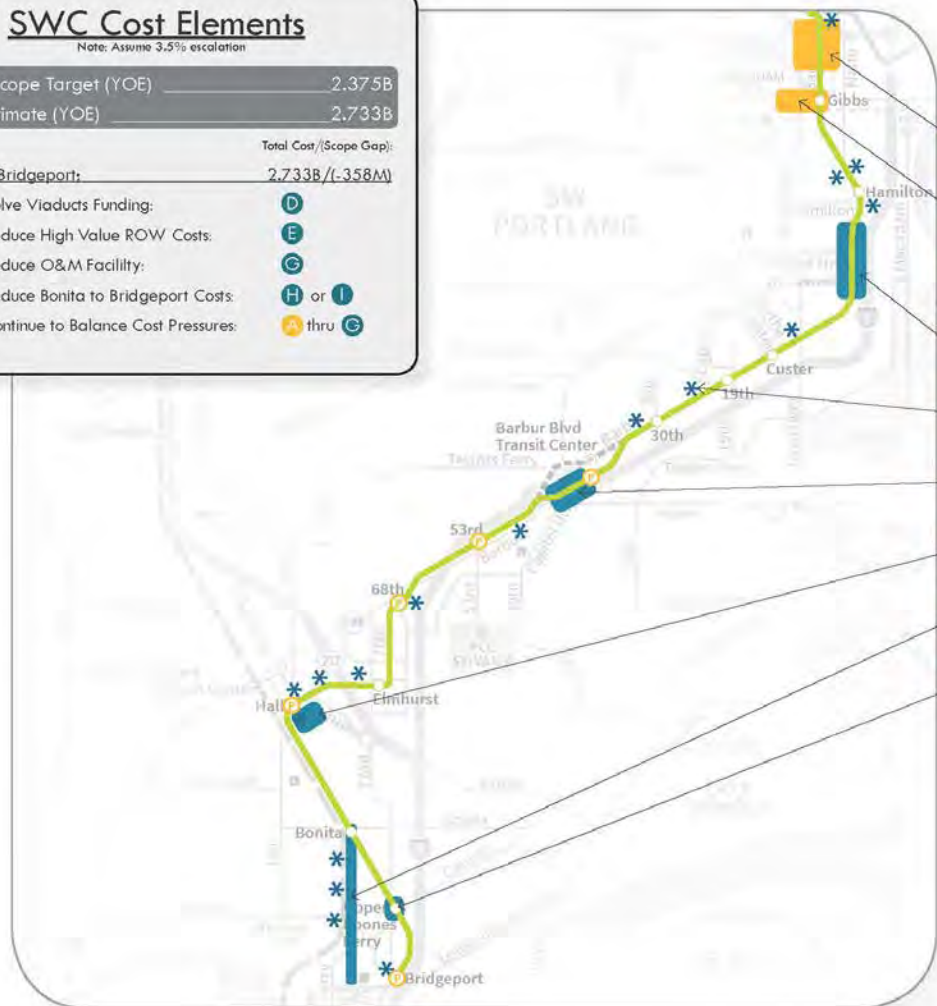
Project Scope Target (YOE) 2.375B

2018 Estimate (YOE) 2.733B

Total Cost/(Scope Gap):

To Reach Bridgeport: 2.733B / (-358M)

- Solve Viaducts Funding: **D**
- Reduce High Value ROW Costs: **E**
- Reduce O&M Facility: **G**
- Reduce Bonita to Bridgeport Costs: **H** or **I**
- Continue to Balance Cost Pressures: **A** thru **G**



- A Downtown Tie-in**
+ \$10-40M
- B Marquam Hill Connector**
+ \$0-20M
- C Consolidate Station(s)**
- \$3.4-7.5M
- D Viaducts**
- \$200M
- E High Value ROW ***
- \$15-50M
- F B2 - Short Span**
- \$0-7.5M
- G O&M Facility**
- \$15-50M
- H 74th Alignment**
- \$0-51M
- I Upper Boones At-Grade**
- \$55M

SWC Cost Elements

Note: Assume 3.5% escalation

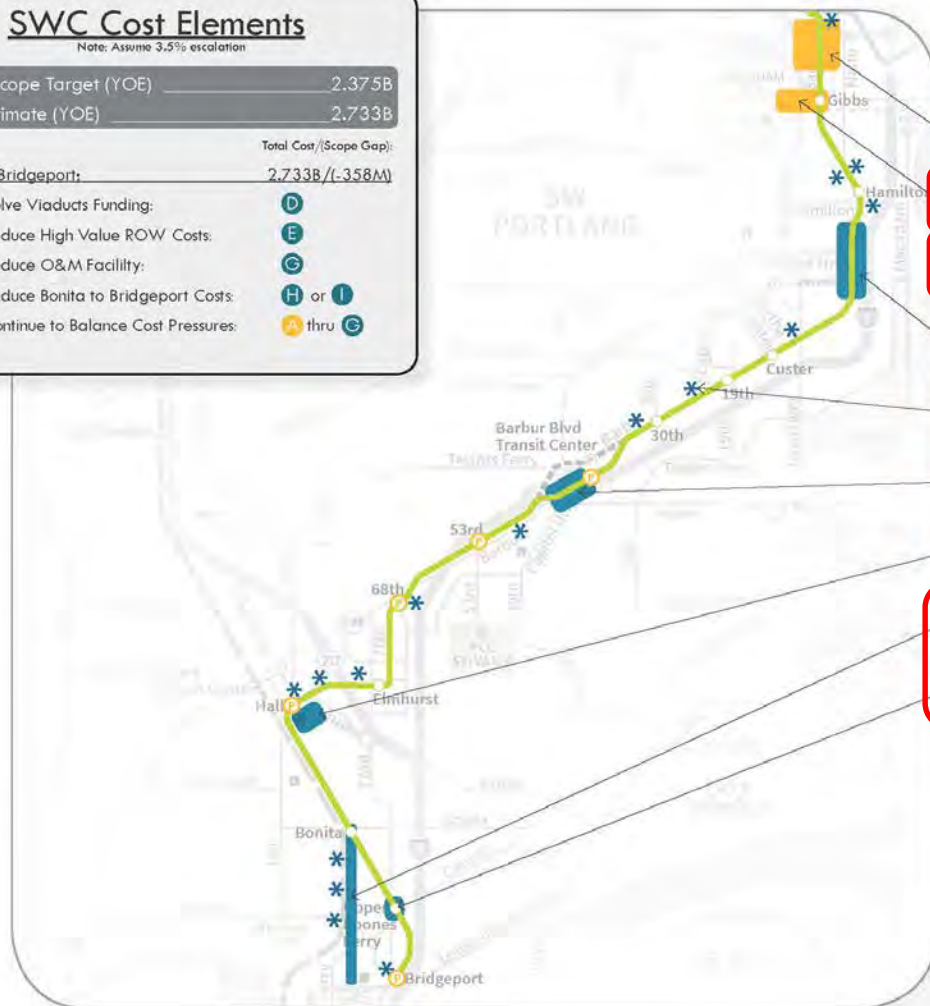
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B	Marquam Hill Connector	+ \$0-20M
C	Consolidate Station(s)	- \$3.4-7.5M
D	Viaducts	- \$200M
E	High Value ROW *	- \$15-50M
F	B2 - Short Span	- \$0-7.5M
G	O&M Facility	- \$15-50M
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SWC Cost Elements

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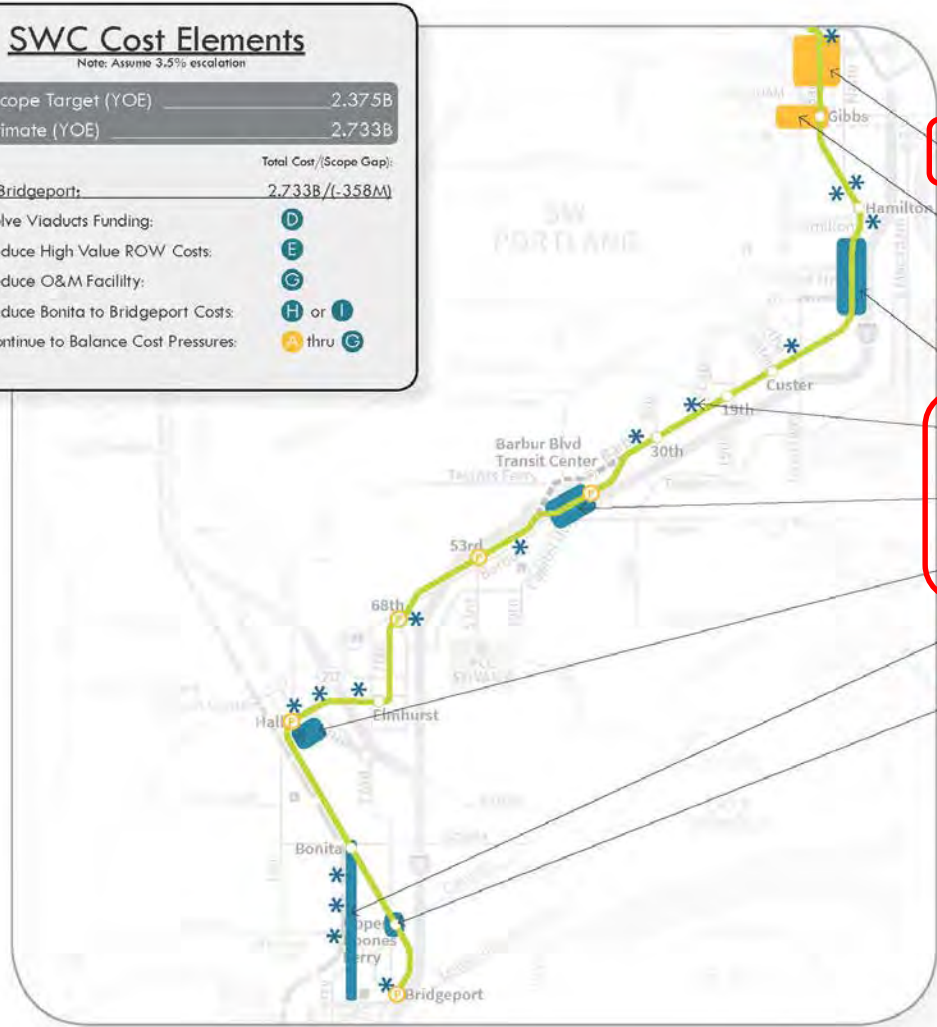
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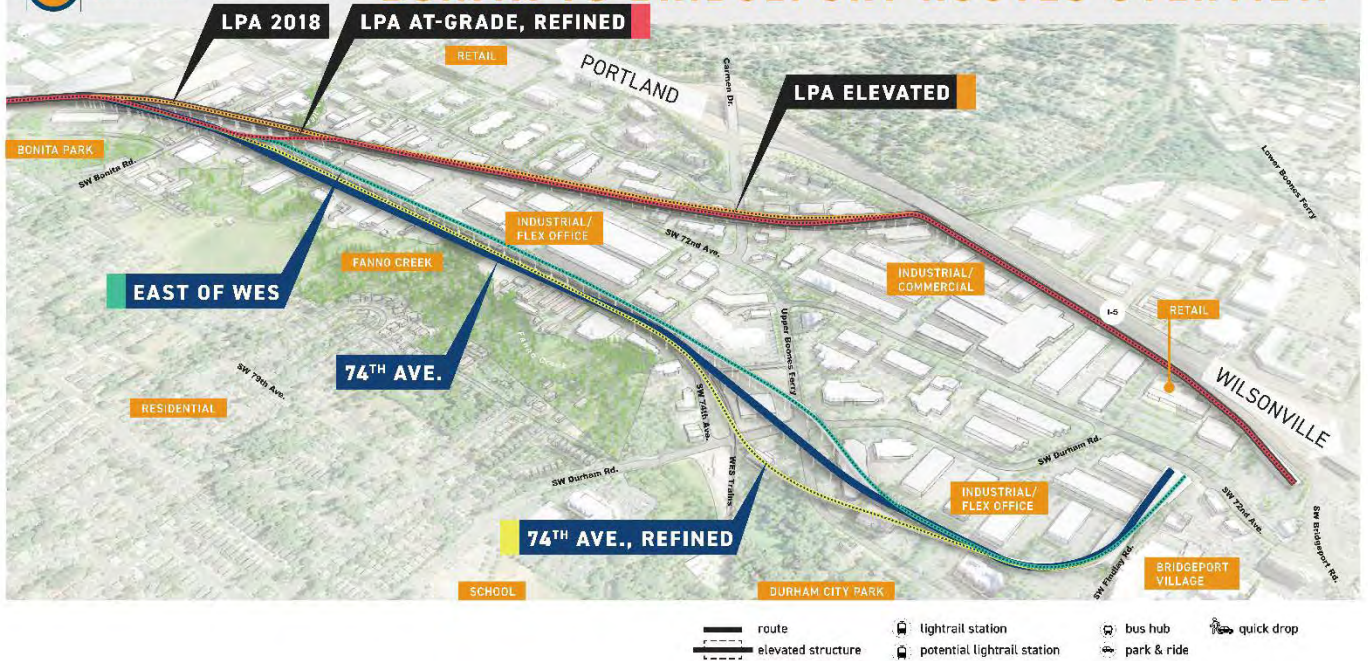
Next Steps

- **Update Alignment Cost Estimate (Summer 2019)**
 - Incorporate Steering Committee Decisions (through May)
 - Working Assumptions for FEIS
 - Basis for Partner Funding

Bonita to Bridgeport



BONITA TO BRIDGEPORT ROUTES OVERVIEW



Data

Traffic

Travel time

Walksheds

Displacements

Natural resources

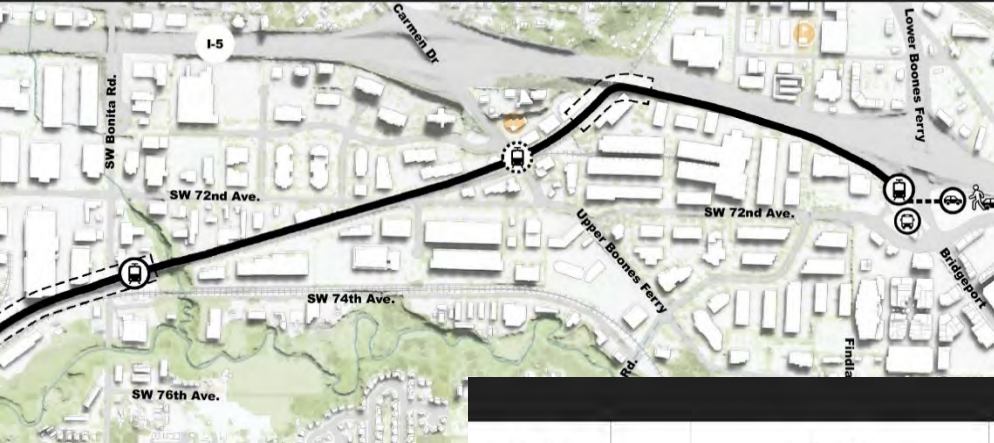
Constructability

Cost

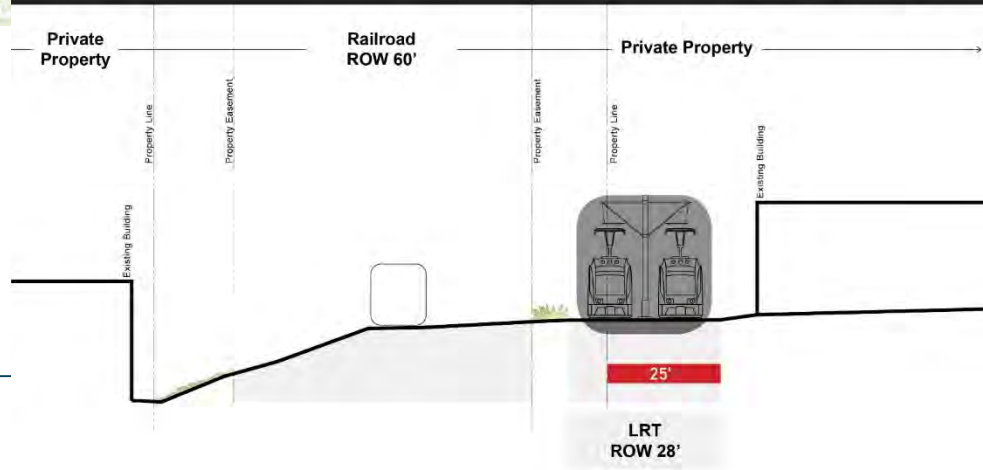
LPA 2018 (IRP in DEIS)

1. LPA 2018

Plan View



LPA Route Cross Section



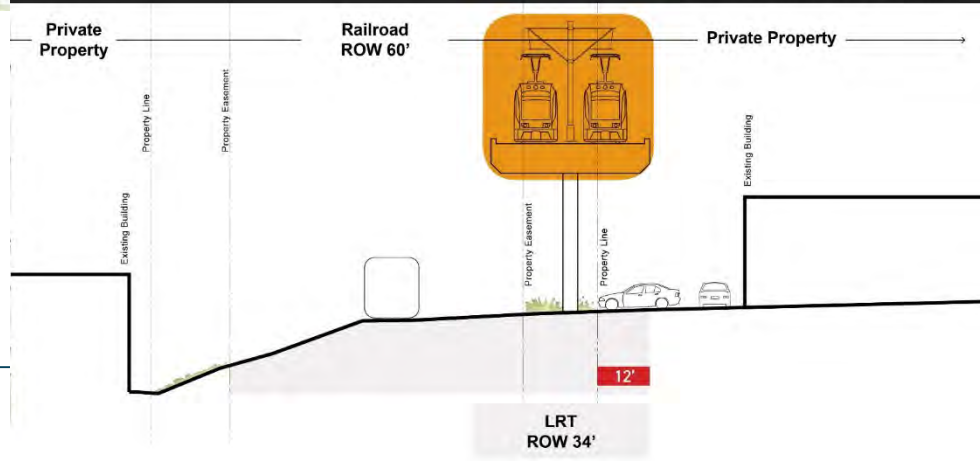
LPA Elevated

2. LPA ELEVATED

Plan View



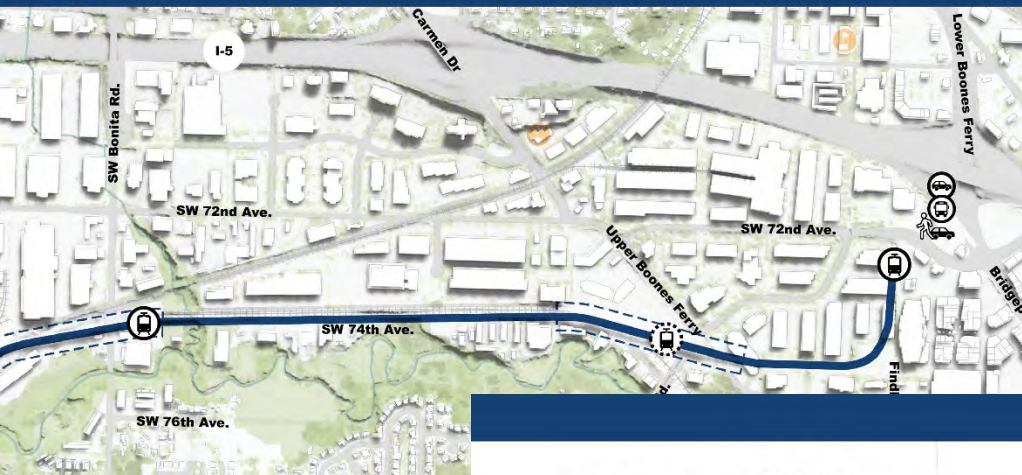
LPA Elevated Route Cross Section



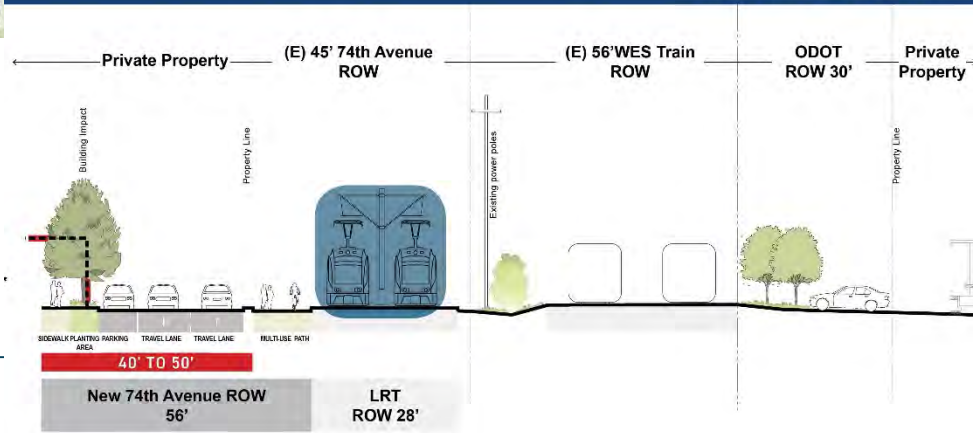
74th Ave

4. 74TH AVE.

Plan View



74th Ave. Route Cross Section



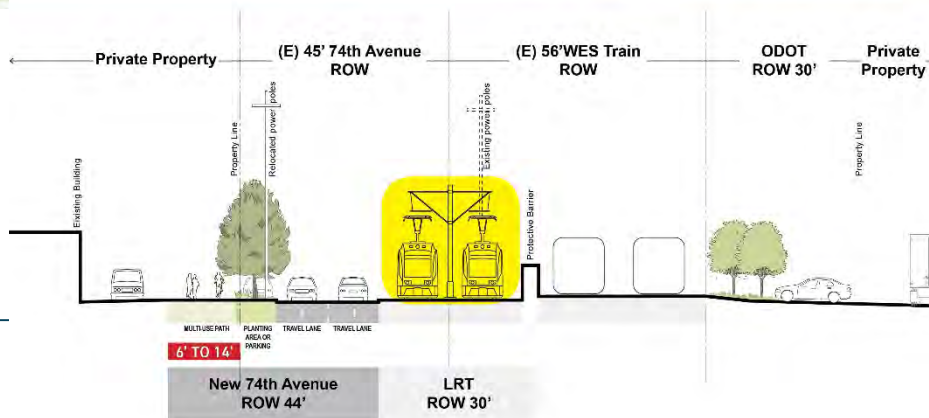
74th Ave, refined

5. 74TH AVE., REFINED

Plan View



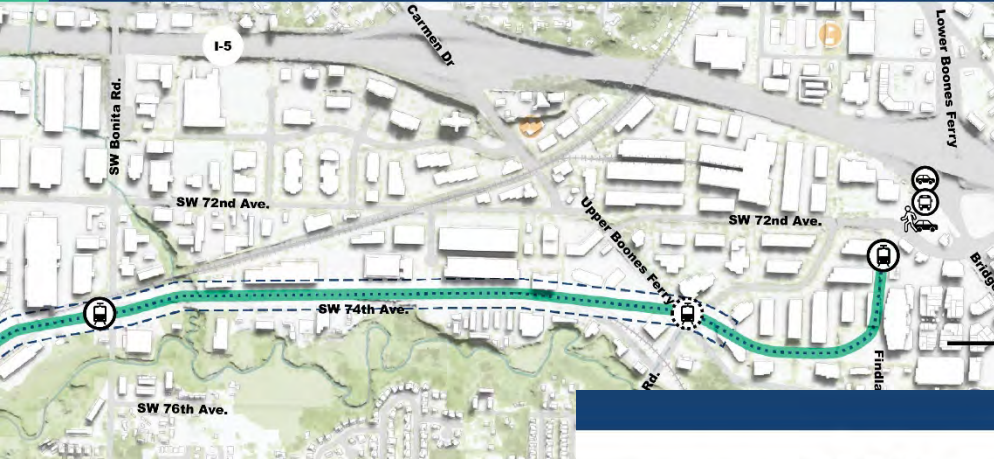
74th Ave. Refined Route Cross Sections



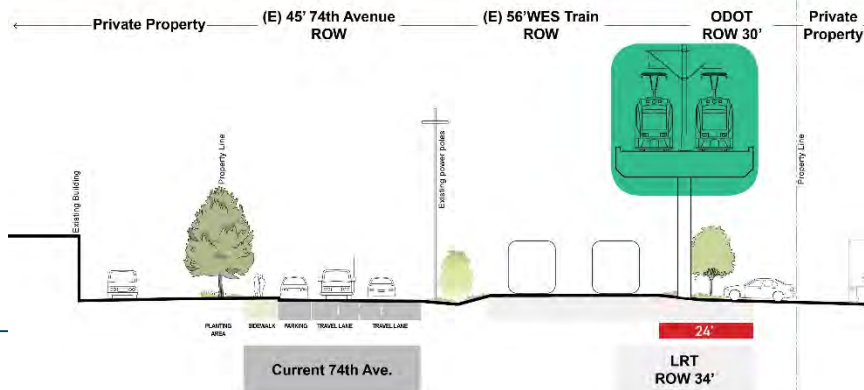
East of WES

6. EAST OF WES

Plan View



East of WES Route Cross Section



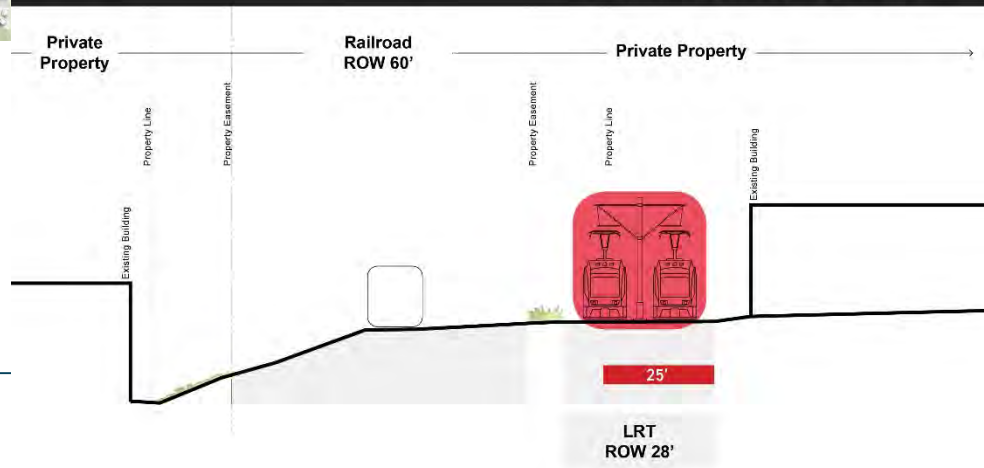
LPA at-grade, refined

3. LPA AT-GRADE, REFINED

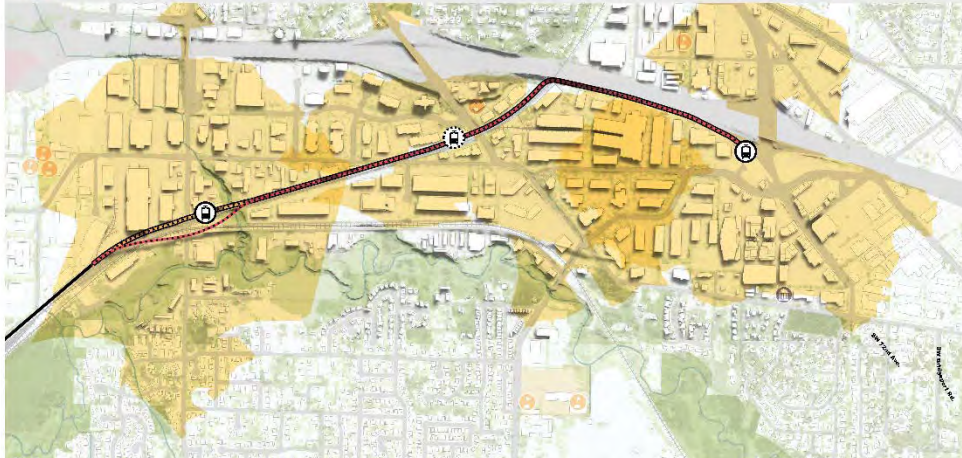
Plan View



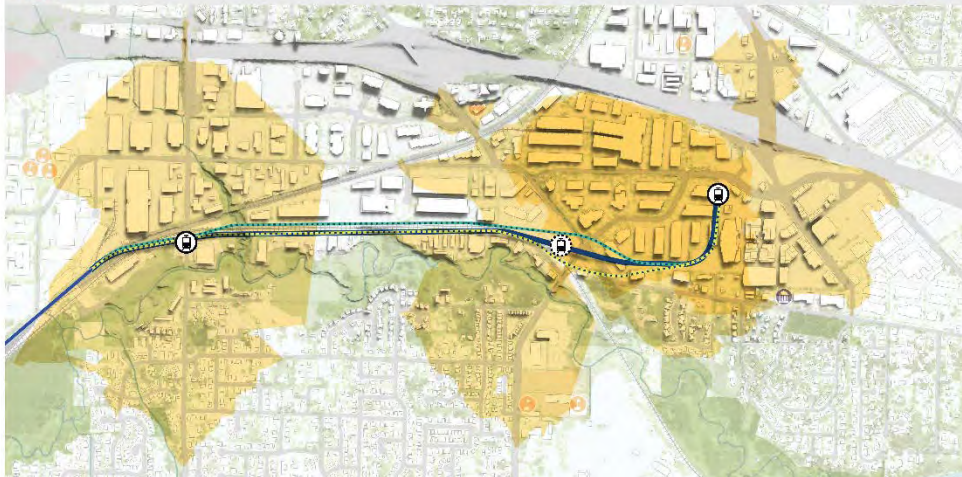
LPA At-Grade, Refined Route Cross Section



LPA STATIONS & 1/2 MILE WALK DISTANCE



74TH STATIONS & 1/2 MILE WALK DISTANCE



Bridgeport Station



DEIS



B



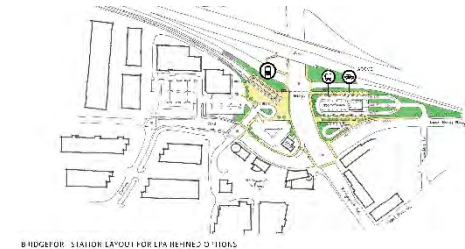
C



D



E



BRIDGEPORT STATION LAYOUT FOR LPA REFINED OPTIONS

F

Comparison of options

Bonita to Bridgeport Options Comparison
DRAFT 4/4/19

	LPA 2018 (IRP in DEIS) (Summer 2018)	LPA Elevated (Late 2018)	LPA at-grade refined (Mar/Apr 2019)	74th Ave (Jan/Feb 2019)	74th Ave Refined (Mar/Apr 2019)	East of WES (Mar/Apr 2019)
Traffic						
At-grade crossings	72nd Ave Upper Boones, with queuing concern	--	72nd Ave Upper Boones, with queuing concern	--	--	--
Bridgeport Park & Ride	South of Lower Boones	South of Lower Boones	South of Lower Boones	North of Lower Boones	North of Lower Boones	North of Lower Boones
Light Rail Performance						
Travel time difference from LPA	N/A	30 seconds faster	30 seconds slower	60 seconds faster	60 seconds faster	60 seconds faster
On-time performance	Risk of delay	--	Risk of delay	--	--	--
Property Acquisitions						
Full taxlot parcels	10	8	12	7	4	3
Partial acquisitions	21	20	21	25	30	21
Relocations						
Businesses	12	11	8	31	8	9
Employees	320	270	130	520	160	250
Environmental Impacts						
Acres of floodplain	0.00	0.00	0.00	0.80	0.00	0.00
Acres of wetland	0.01	0.01	0.80	0.58	0.14	0.28
Land Use, Trails						
Differences in land uses served by an Upper Boones station	More commercial, industrial	More commercial, industrial	More commercial, industrial	More residential	More residential	More residential
Regional trail opportunity	--	--	--	On-street	On-street	--
Risks						
Railroad interface	Union Pacific; no existing agreement	Union Pacific; no existing agreement	Union Pacific; no existing agreement	Outside railroad right-of-way	Portland & Western (WES); shared use agreement	Portland & Western (WES); shared use agreement
Utilities	--	--	--	High risk	Higher risk	--
Cost						
Difference from most recent full- project cost estimate	(-\$55m)	--	(-\$53m)	(-\$31m)*	(-\$77m)*	+\$12.5m*

* Risk of additional environmental study

Community Engagement

- Letters (January); meetings, calls, correspondence (ongoing)
- Public meetings (January, February)
- **Open houses** (March, April)
- April 25, 6-7:30 p.m.
PacTrust Business
Center, Building F
16505 SW 72nd Ave



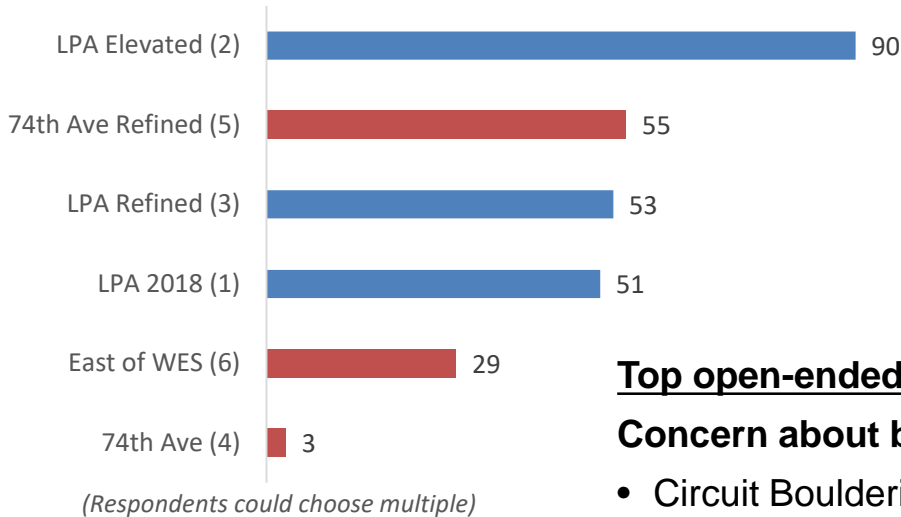
Community Engagement

- Over 350 emails and letters
- Over 325 attendees at meetings and open houses



March & April Comment Cards

Preferred options:



Top open-ended comments:

Concern about business impacts (109)

- Circuit Bouldering Gym (54)

Concern about traffic impacts (45)

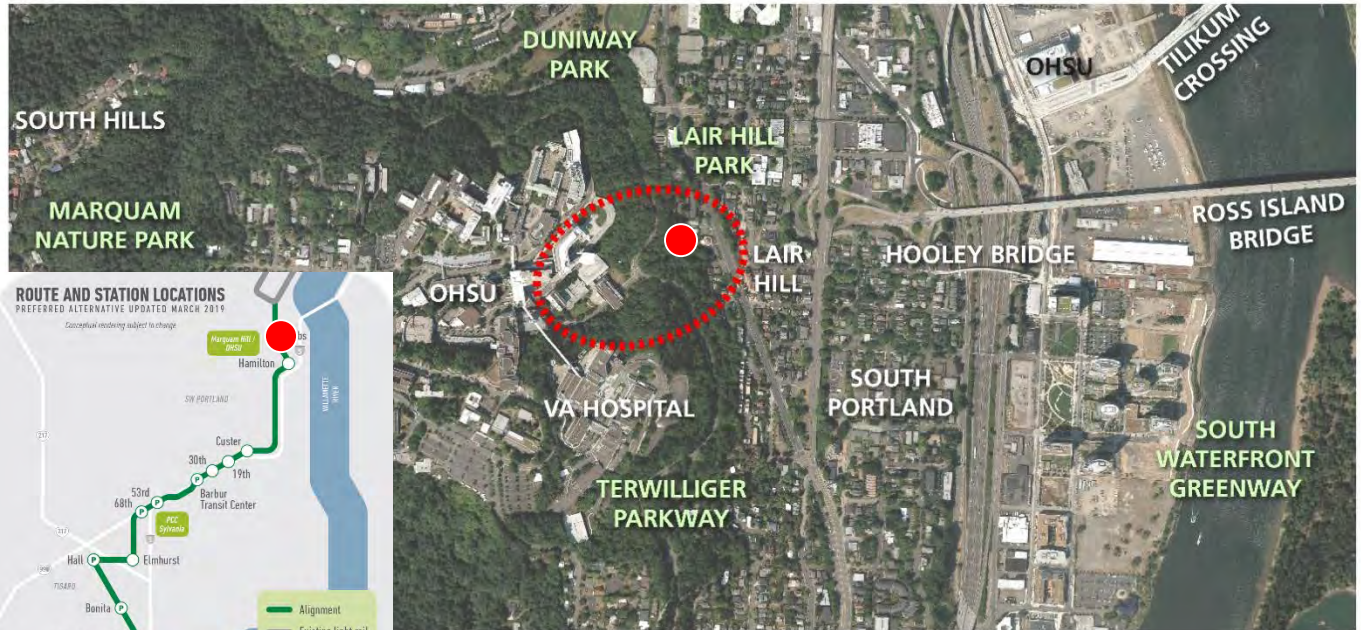
Cost Considerations (25)

- Prefer lower cost option (16)
- Prefer higher cost for lower impacts (9)

Marquam Hill Connections



Context

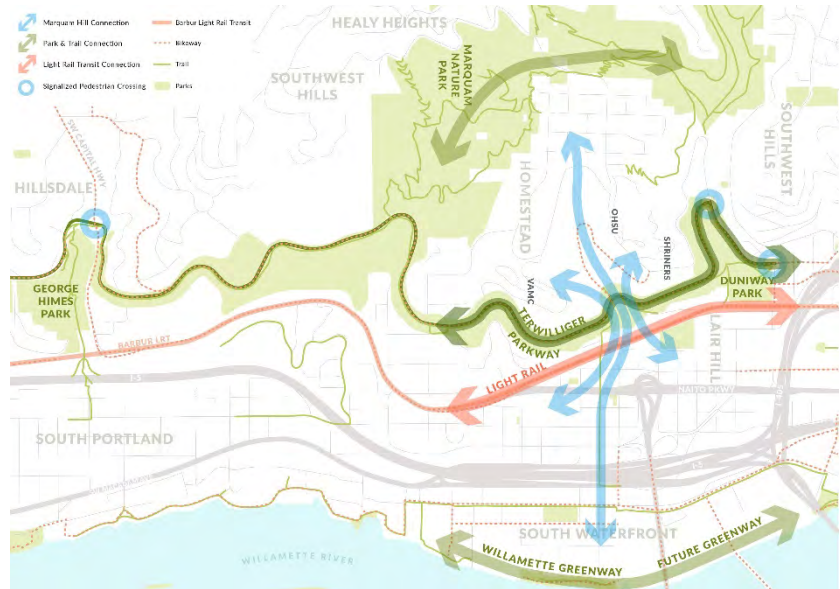


Marquam Hill Vicinity & Gibbs St. Station

Southwest Corridor Alignment

Purpose

- To connect the Gibbs St. Station to the many destinations on Marquam Hill & bus routes as well as the neighborhoods & Terwilliger Parkway



Goals & Criteria

- Access: Develop equitable, efficient, convenient connections for all users to a number of destinations.
- Safety: Create a safe & secure, 24/7 connection for all users.
- Context: Enhance & improve the historic, scenic & recreational resources; consider the unique character of the area in the design.
- Environmental: Project & enhance natural resources & habitat.

Goals & Criteria

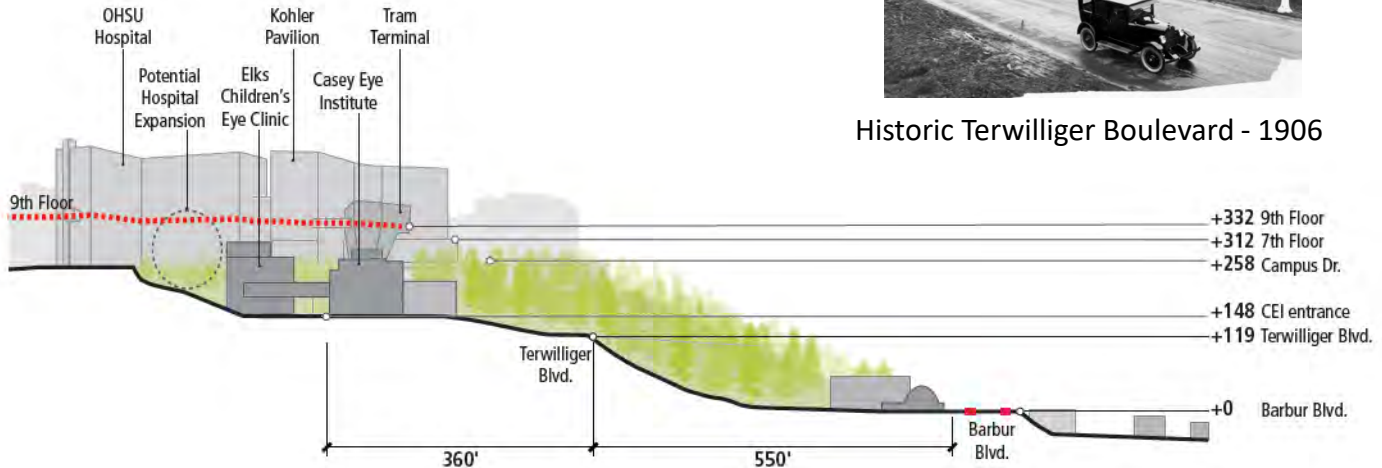
- Operational: Provide a long-term, sustainable connection for current & future users.
- Budget/Schedule: Be cost effective & timely within the SW Corridor Light Rail project.
- Experience: Create a connection that provides a high-quality user experience & inspires civic pride.

Special Considerations

Distance of about 1,000 horizontal ft. & 300 vertical ft.
Historic Olmsted Brothers parkway & environmental resources



Historic Terwilliger Boulevard - 1906



Site Section: Marquam Hill to Gibbs St. Station on Barbur Blvd.

Process

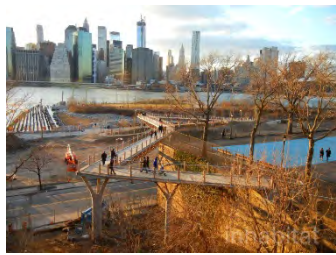


- **Working Group:** Participates in mode studies with design team
- **Green Ribbon Committee:** Provides perspective & overview; makes recommendations to Steering Committee



Working Group site visit on Terwilliger Blvd.

Many Options Considered



Bridge + Elevator

Precedents



Tunnel + Elevator

Precedents



Inclined Elevator

Precedents



Ljubljana, Slovenia



Edmonton, Canada



Deer Crest, Utah



Montmartre, Paris

Next Steps

Open house	April 10
Online open house	April 15
Green Ribbon Committee meetings	April 10 + May 8
Committee on Accessible Transportation (CAT)	April 11
Portland Design Commission briefing	April 18
Community Advisory Committee (CAC)	May 2
Portland City Council work session	May 7
Steering Committee	May 13