

Ballard Link Extension
CID Station Alternatives
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Ballard Link Extension CID Station Alternatives

- A CID station is an opportunity for a regional transportation hub
- WSBLE DEIS in early-2022 assessed 5 CID station alternatives
- A CID 4th Ave S Shallow station has positive attributes, but higher cost & longer schedule
- Optimization concepts presented to the WSBLE team in September 2022
- Schedule Workshop held in August 2023 to validate CID schedule & constructability assumptions
- Additional studies conducted by BLE team

Independent Consultant Concepts

- High-capacity support walls (“slurry walls”) for tunnel/station; also to carry the 4th Ave S viaduct
- “Top-down” construction method (i.e., build viaduct above, while excavating station below) to accelerate construction
- Shallower stations at CID and Midtown, with tunnel above the DSTT
 - Impacts to 4th Ave, Yesler Way Bridge, Seattle Fire Station & Emergency Management



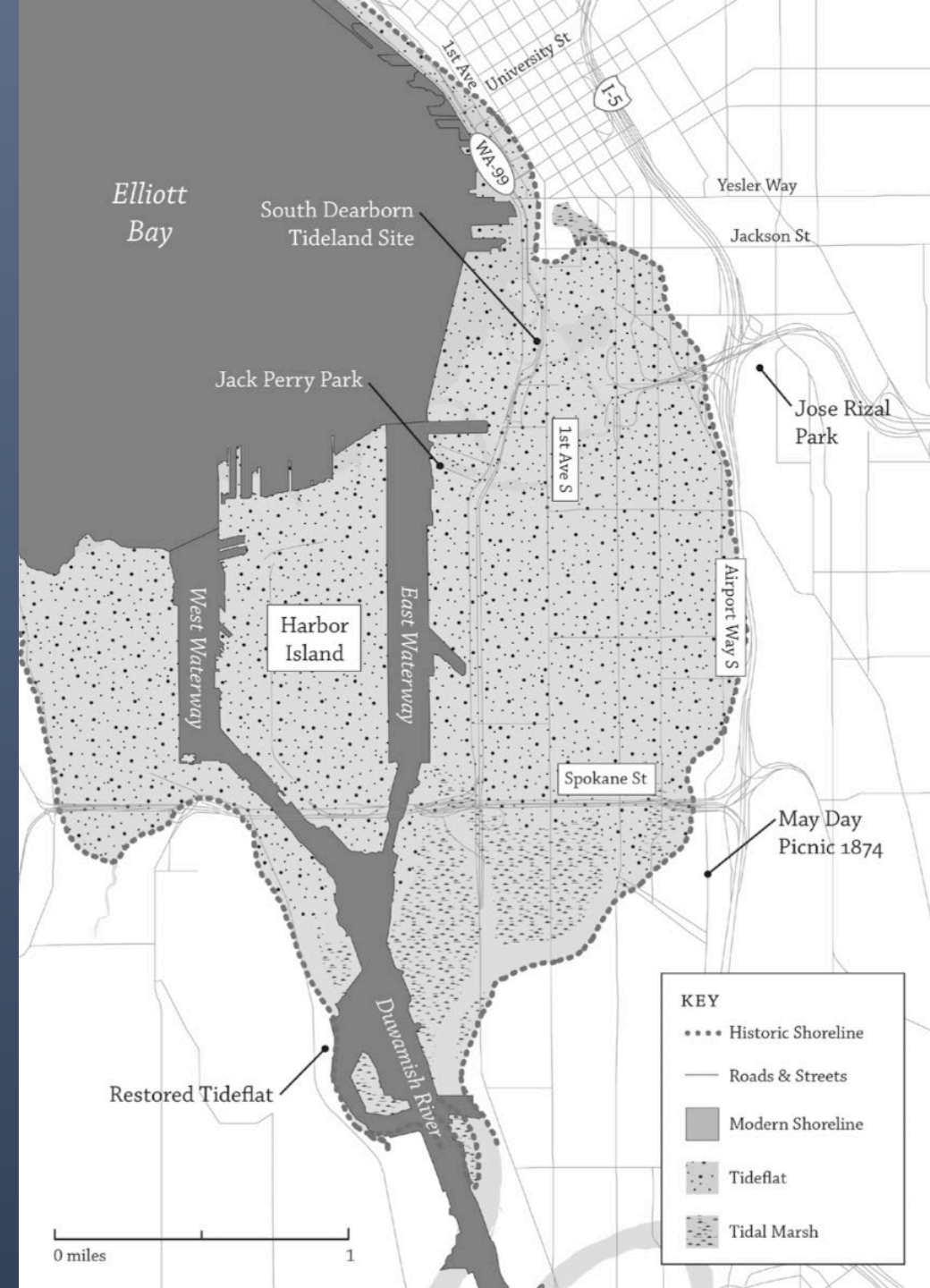
Slurry Wall Installation



Top-Down Construction

Construction Risks at 4th Ave

- High groundwater
- Poor soils
- Underground obstructions
- Utility mapping
- Limited access
- Hazardous materials



Construction Risks at 4th Ave



Construction Risks at 4th Ave

- 1905 Great Northern Railway Tunnel
- 1909 Prefontaine Building (which straddles the GNR Tunnel)
- 1990 Downtown Seattle Transit Tunnel



Construction Risks at 4th Ave

Railroad Construction Oversight

- BNSF controls within 25 feet of their track; further for cranes
- Limited “track windows” for construction (60 – 70 trains per day)
- BNSF flag-person can halt construction at any time
- 4th quarter construction moratorium



BNSF
RAILWAY

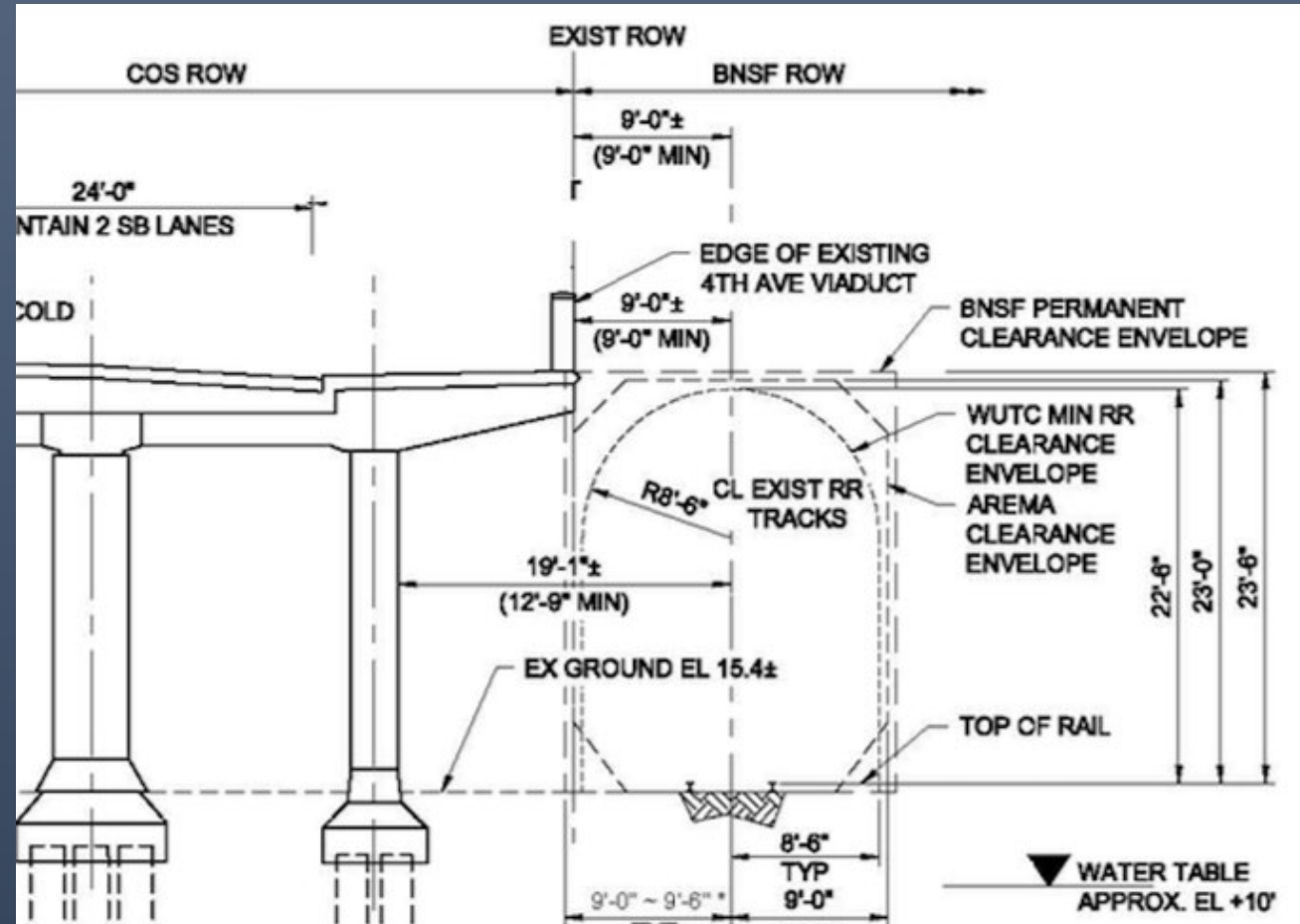
Public Projects Manual
Updated June 29, 2018

BNSF Railway Public Projects Team

Construction Risks at 4th Ave

Railroad Construction Oversight

- 4th Ave S viaduct abuts BNSF right-of-way
- BNSF controls demo and new construction
- Limitations on construction windows; protective shielding; type of equipment



Construction Risks at 4th Ave

Railroad Construction Oversight



Low-Headroom Slurry Wall Equipment



High-Mast Secant Pile Equipment

Summary

- There are substantial impediments to construction adjacent to the BNSF mainline
- Sound Transit will have little ability to manage and mitigate these risks, resulting in significant schedule and cost impacts
- Sound Transit will have no recourse to onerous restrictions
- The railroad-related risks for the CID 4th Ave S alternatives, as opposed to the other alternatives, are substantial, unpredictable, unquantifiable, and cannot be mitigated

Questions?