West Seattle High-Rise Bridge Safety Project

Seattle Freight Advisory Board
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City of Seattle

Presentation overview

- Background - what has changed since March 23
- Future of the bridge remains uncertain
- Stabilization and shoring, tentative schedule
- Technical Advisory Panel
- Communications

Background and what has changed

Background

- Bridge closed on March 23 due to rapid growth in cracking along the center section of the bridge

- The bridge was built to the standards, and using the best computation methods, of the day

Recent findings

- Recent inspections have found cracks continue to grow, but at slower rate, confirming immediate removal of live load was essential

- Crews are inspecting the bridge for new and growing cracks each day

- The bridge is safe for crews to work

- SDOT has a better understanding of stabilization timeline, but there is still uncertainty

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Safety is top priority

- SDOT continues to inspect the bridge daily
- We are installing intelligent monitoring equipment to monitor any changes to the bridge in real time, with 24/7 alerts
- We are modeling potential cracking scenarios and preparing contingency plans
- These plans will enable rapid response to preserve public safety

Future of the Bridge Remains Uncertain

- SDOT does not yet know if repair of the bridge is feasible technically or financially

- If repair is feasible, it could provide up to 10 years of additional use

- We will need to replace the West Seattle High Bridge, the question is when

- We do not anticipate traffic returning to the bridge in 2020 or 2021

- We are committed to clear communication and transparency throughout

Closed: West Seattle High-Rise Bridge
High Bridge is closed to everyone. No access allowed.

Restricted: Spokane St "Low" Bridge
Low Bridge is restricted to transit, freight, and emergency vehicles. Path is open to people walking and biking.

Public access to Harbor Island

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Stabilization and shoring schedule

- Ongoing—Continue field inspection and install instrumentation hardware/real time alerts

- Immediately—Pier 18 restraint release design

- Spring—Shoring and repair design begin, technical advisory panel for peer review launched

- Summer—Pier 18 restraint released; shoring materials procurement begins

- Late Fall—Shoring construction begins

- Early Spring 2021—Shoring construction complete

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Establishing Technical Advisory Panel

- The condition of the West Seattle High Bridge and the complexities of monitoring, design, and repair are complex

- The Technical Advisory Panel will provide qualitative review, insight, constructive feedback, and validation

- The Panel will consist of experts with experience in bridge design and construction, geotechnical engineering for bridge structures, and marine/maritime expertise
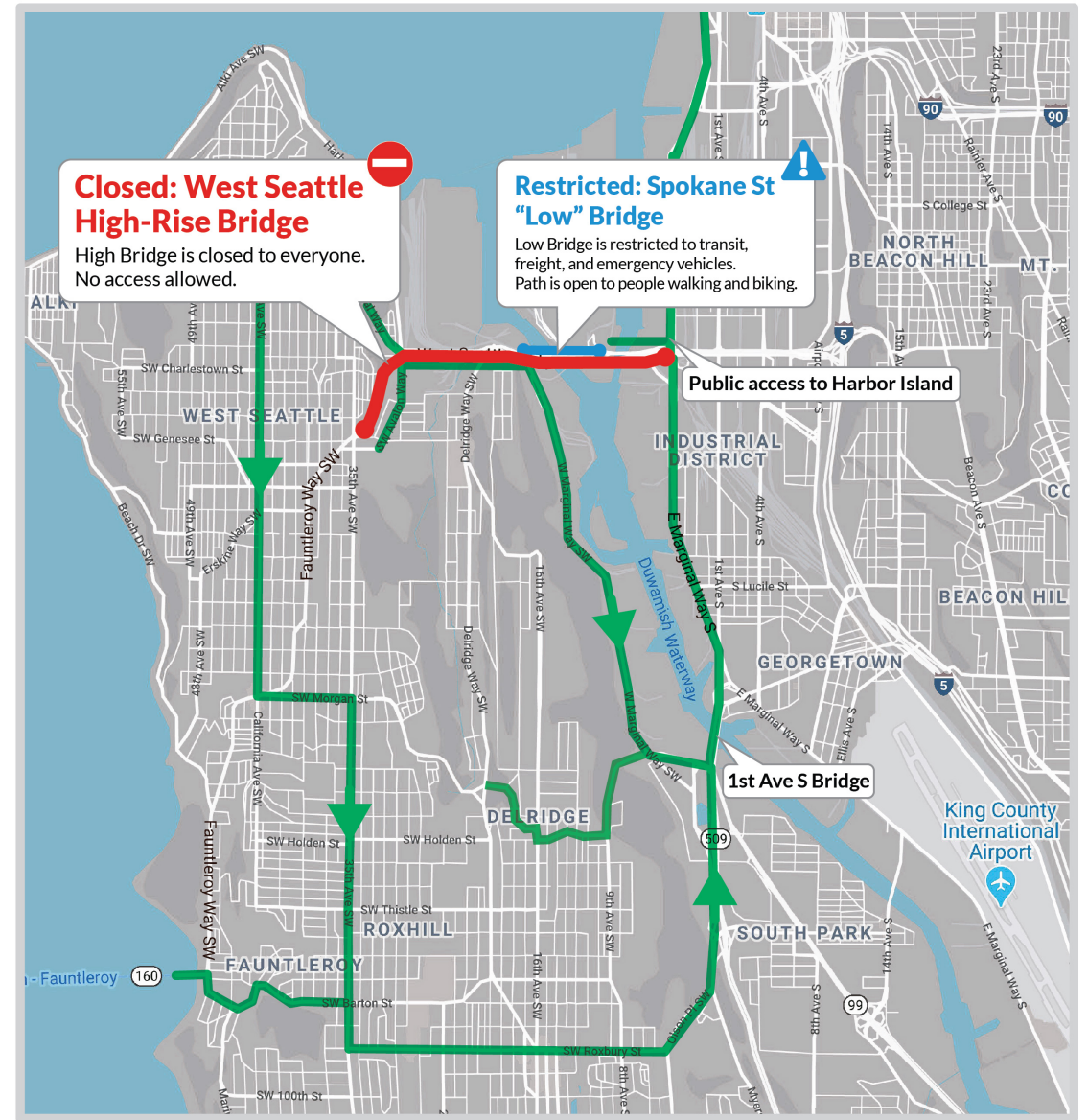
Traffic Mitigations — Low Bridge

- Closing the West Seattle Bridge has a similar level of complexity to our recent Viaduct closure, but with fewer re-route choices, and shorter timeline

- Low Bridge restricted to people driving emergency vehicles, freight trucks, and public transit

- Seattle Police Department is supporting enforcement

- Path open to people walking and biking

- Access to Harbor Island for general public via east channel bridge

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Traffic Mitigations — Detour Routes

- Traffic signal installed at Highland Park Way SW and SW Holden St

- Detour route signage to 1st Ave S Bridge improved

- Signals at the five-way intersection connected to citywide system for remote monitoring adjustment. Repave intersection weekend of 4/24-26.

- Stripe, sign, and smooth alternative routes

- Additional measures to be identified

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1st Ave S Bridge

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Bringing Community Together

- Work with West Seattle community and maritime and freight businesses to keep people informed, provide resources, and answer questions
- Share email updates with 1,000+ subscribers so they hear from SDOT about what's happening and how to get around
- Post blogs, new maps and graphics to help with commuting, and answers to important questions online
- Work closely with media, sharing news and answering questions for broader audiences
- Continue to build partnership with Department of Neighborhoods and Office of Economic Development to reach out to the broader community, freight, and maritime communities

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Questions / Discussion

www.seattle.gov/transportation/westseattlebridge

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