



Spokane St Swing Bridge (Low Bridge) Emergency Closure

Seattle Bicycle Advisory Board
January 4, 2022



Seattle
Department of
Transportation

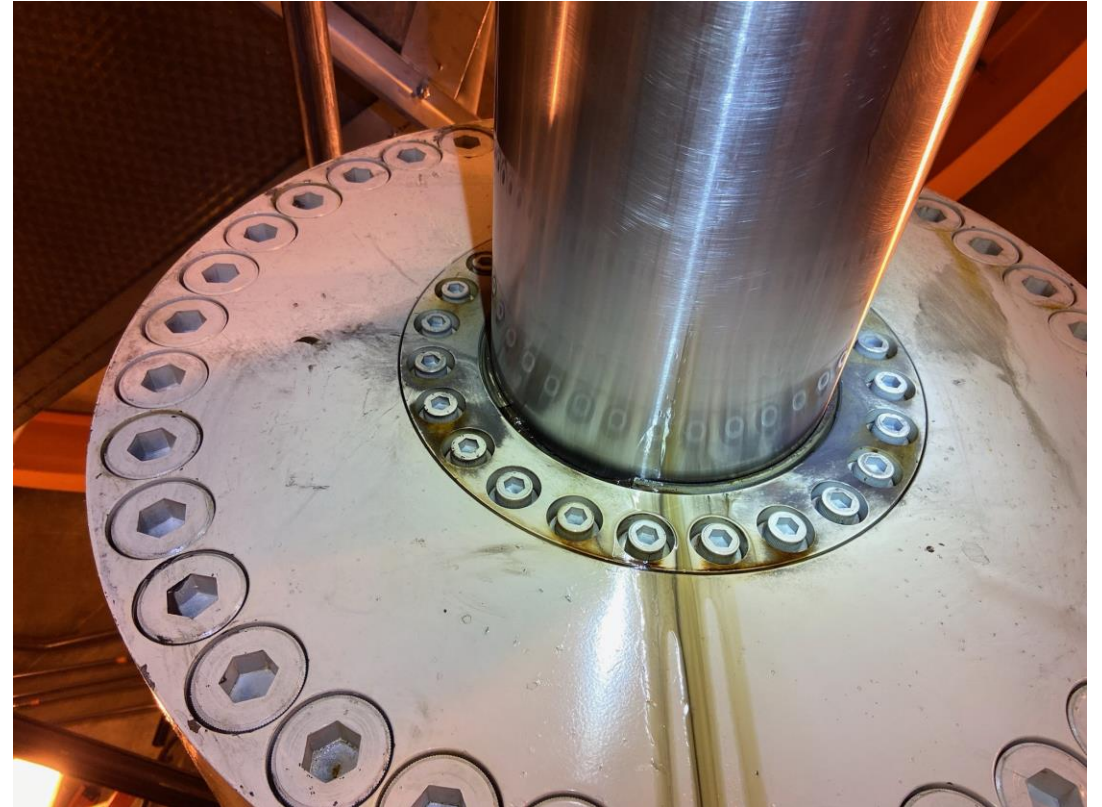
Agenda:

- Background of emergency closure
- Next steps for repair
- Bike detour route
- Questions & discussion



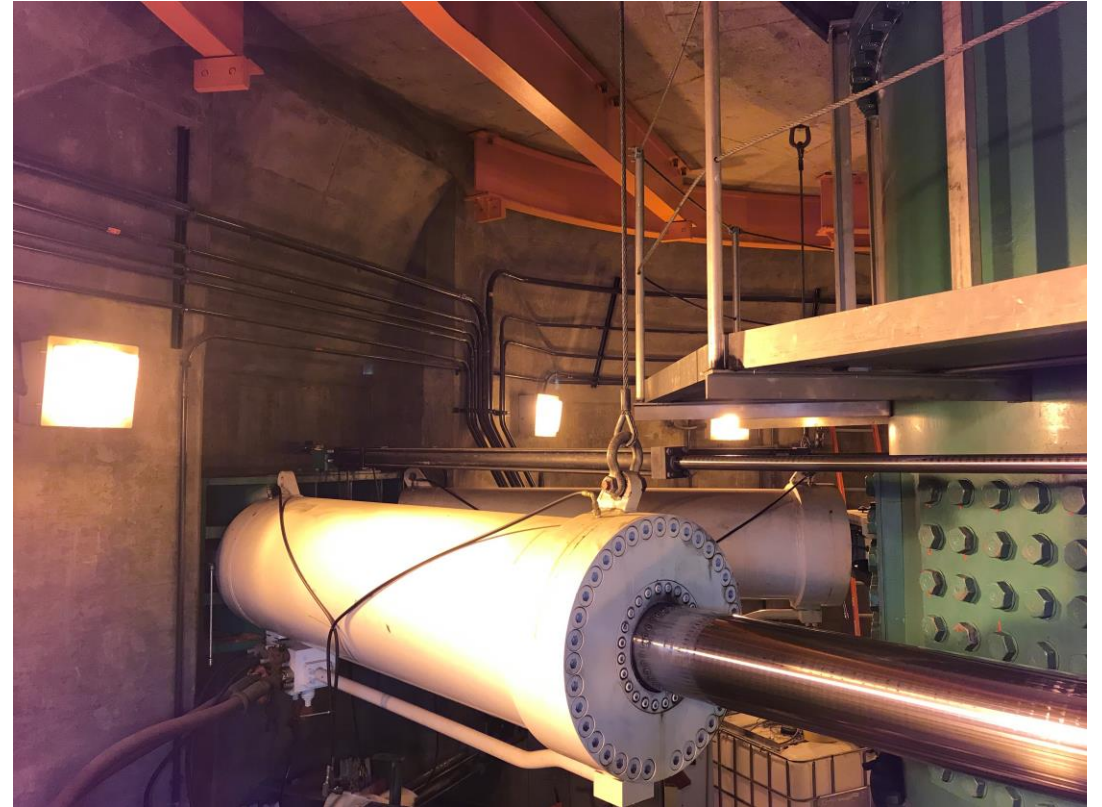
Diagnosis

- Record setting ice storm Dec. 23 resulted in a bridge power outage
- After outage, eastern bridge span only moved part way and stalled
- Span took several attempts to fully open
- Found slew cylinder hydraulic fluid leaking at greater rate than before
- Cylinder cannot be used without risk of creating a larger problem
- King Tide impacted electrical conduit to the bridge span tail locks



Slew cylinder leak

Hydraulic Slew Cylinder



Repair and Recovery Plan

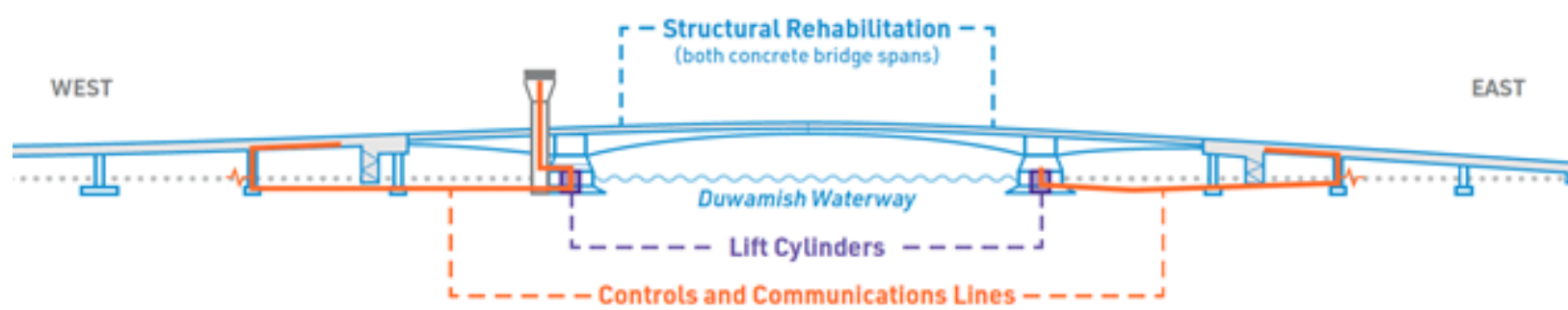
Bridge has 4 slew cylinders, 2 per side

- Remove leaking cylinder on east side for refurbishment
- Reprogram east side to operate with remaining cylinder
- Continue cycle until all 4 cylinders refurbished
- Bridge will open and close more slowly during single-cylinder operations

Last week we estimated the bridge would be closed for a minimum of two weeks; steady progress since then and we will know more about the reopening timeline after cylinder removed.

Future work planned for the bridge

- Improving the control system that opens and closes the bridge
- Rehabilitating the lift cylinders, which does the heavy lifting to open and close the bridge
- Replacing pump arrays; scheduled for 2/11 – 2/14
- Construction in 2023



Closure & *DRAFT* detour maps



- Closed: Spokane St Swing Bridge (low bridge)
Closed to everyone. No access allowed.
- - - Public access to Harbor Island
- Open: West Seattle High-Rise Bridge (high bridge)

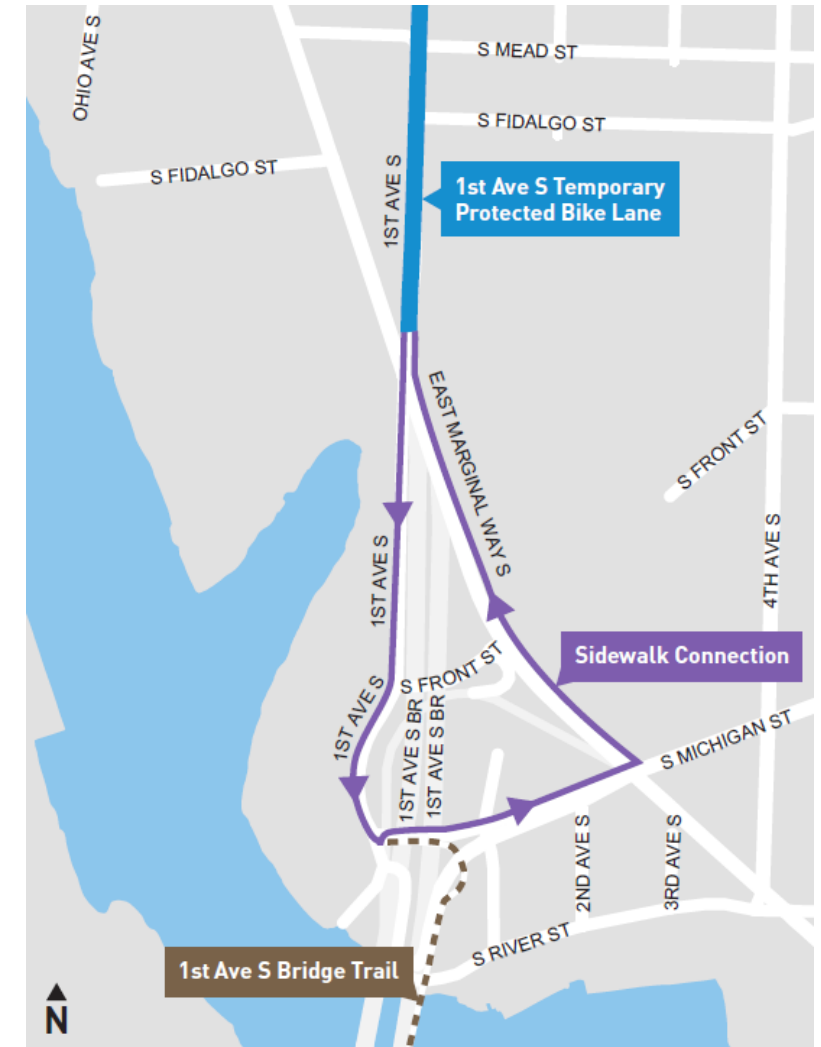
Bicycle detour

- Cleared debris, installed new detour route signs, reviewed asphalt conditions
- Building a temporary bike lane on 1st Ave S and West Marginal Way SW



Bicycle detour

- Georgetown to South Park routing (1st Ave S Bridge Trail to temporary 1st Ave S PBL) will be a sidewalk connection
- The temporary bike lanes will remain until the Spokane St Swing Bridge reopens





Free transit proposal

- Free rides for pedestrians and people biking on W Seattle buses and water taxi during closure
- Partnership with King County Metro
- Seattle Transit Measure funds
- Rides available using Transit Go rewards app widely promoted by Flip Your Trip/WSB Program in 2022
- Launch late this week

Questions & discussion