



Item No.:	10a_Supp
Meeting Date:	September 28, 2021

# West Seattle Bridges

Memorandum of Understanding between the Port of Seattle and the City of Seattle

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September 28, 2021

# How We Got Here

## **March 2020:**

Closure of the West Seattle High Bridge upon discovery of rapidly expanding cracks in the bridge infrastructure.

## **November 2020:**

Mayor Durkan's decision to repair the high bridge, rather than replace with a new structure.

## **March 2021:**

Mayor Durkan requested funding from federal and local governments to aid in the immediate repair and rehabilitation of the bridges.

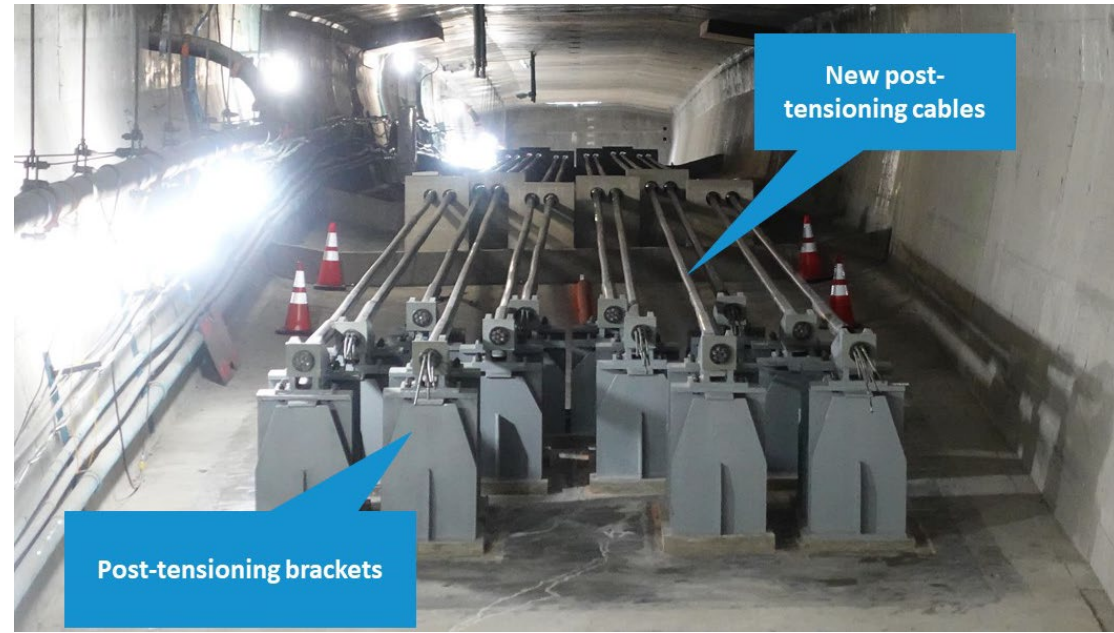
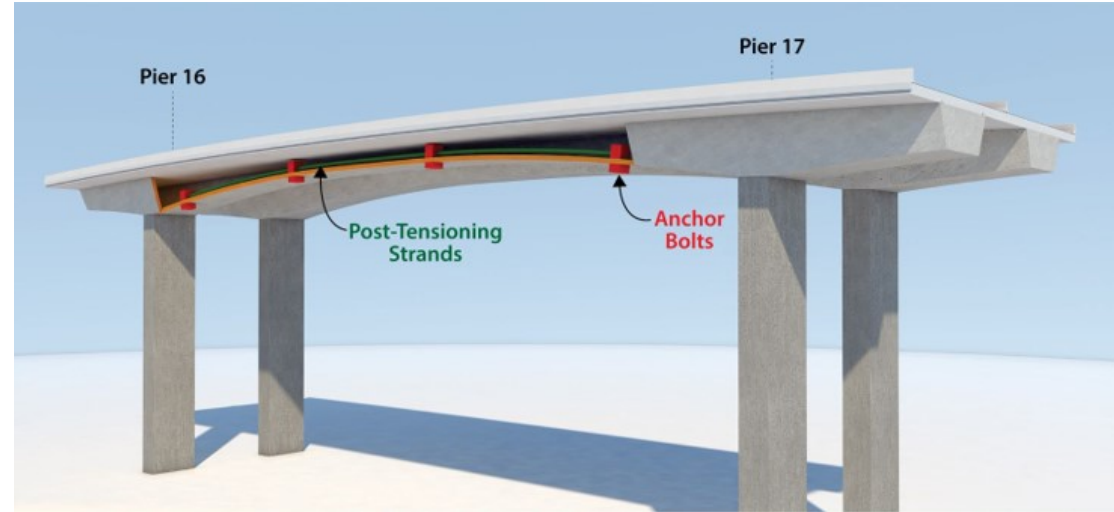
## **May 2021:**

City selected contractor for the final phase of repairs to safely reopen the bridge in mid-2022.



# Why did the bridge fail?

- Post-tensioning strands are steel cables that tighten the bridge and strengthen the concrete
- Although designed to the standards of the time, **insufficient post-tensioning** caused the weight of the bridge (dead load) and the weight of traffic (live load) to be redistributed to parts not designed to carry these loads
- The center span has been stabilized. The tail spans have not
- Corridor-wide investment is needed to maintain reliability going forward
- 3 priorities during emergency closure: aggressive repair/rehabilitation to reopen; maintain mobility; mitigate detour routes



# Prioritizing Freight for Low Bridge Access



- **Low bridge policy's economic growth and sustainability objective:** Prioritize freight movement to support economic health and decrease detour route traffic
- Freight is a priority user along with emergency and transit vehicles
- All freight vehicles with gross vehicle weight of 10,001 pounds or higher can drive on the low bridge at any time
- Freight community members included on low bridge access subcommittee to help inform SDOT's decision on access

# Reconnect West Seattle



To date, Reconnect West Seattle has built over 200 traffic mitigation projects, including:

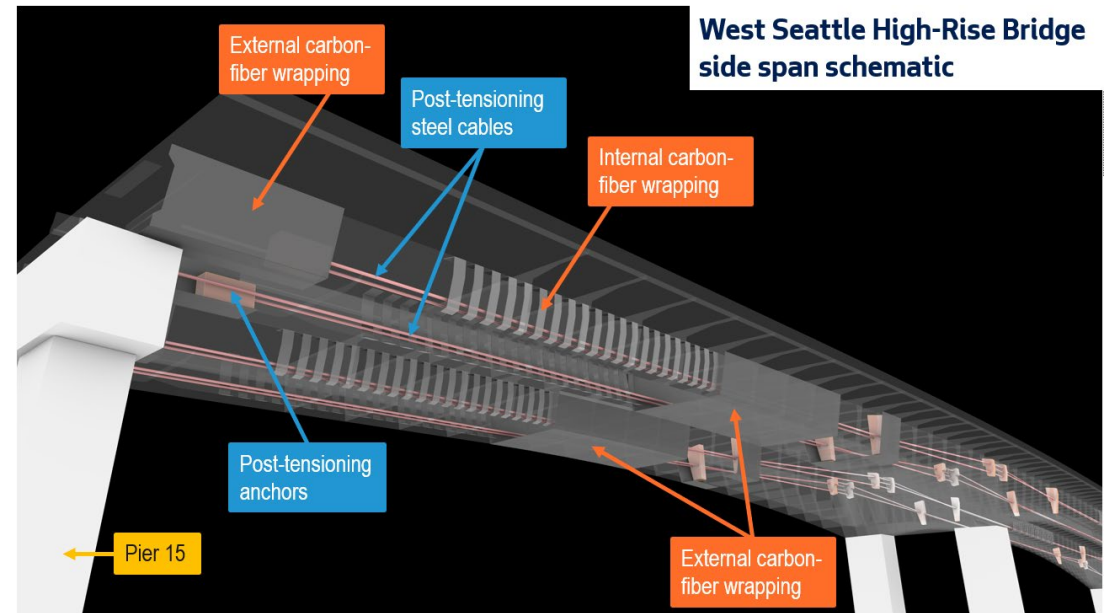
- Improving traffic flow at Highland Park Way and West Marginal Way by creating additional turning and travel lanes
- Refreshing pavement markings and signs and improving signal timing along freight routes
- Adding 30,000 annual transit hours in West Seattle this October, plus extending the summer water taxi schedule through the winter
- Building 61 Home Zone projects to calm traffic speeds and enhance accessibility along detour routes through South Park, Georgetown, and Highland Park



# Current West Seattle Bridge Repair Status

## What we have done recently:

- ✓ Secured \$37.7M in federal funding; grant legislation passed City Council on September 13
- ✓ Approved by USDOT to use Community Workforce Agreement to hire workers from disadvantaged zip codes
- ✓ Maintained schedule for project permits
- ✓ Completed 60% design and modified scope of work
- ✓ Completed 90% design review
- ✓ Obtained approval to begin early work in advance of rehab



# West Seattle Bridges provide Regional Mobility

- West Seattle has one-sixth of the city's population and many small businesses.
- The High Bridge carried over 84,000 cars and trucks, along with 25,000 bus riders, every weekday prior to closure.
- The lower Swing Bridge carried over 10,000 trips per day, especially trucks serving the maritime and industrial businesses of the Duwamish MIC.
- Restoring the high bridge to full capacity will also remove traffic detours in place since the closure which:
  - added 14-20 minutes to the typical resident's commute,
  - separated businesses from customers, and
  - impacted communities such as Georgetown and South Park.



# Regional and statewide importance

- West Seattle Bridge is a critical point in region, state and the nation's transportation network
- Nearby terminals are key to our state's agriculture and maritime industries
- International cargo businesses headquartered nearby along with companies that serve as a lifeline for residents of Alaska and Hawaii
- Need to support large public investment in Terminal 5 made by The Northwest Seaport Alliance





# West Seattle Bridge Vicinity Map and Terminal 5

Terminal 5

West Seattle  
Bridge Closure

# POS/NWSA Principles for West Seattle Bridges Improvements Program

-  Low Bridge Freight Access
-  Maritime Industry Access
-  Strategic Economic Impact
-  Local Operations Support
-  Rapid Restoration
-  Equitable Implementation
-  Sustainable Solutions
-  Broadly Supported Execution

# Port Freight Mobility Investments



**Heavy Haul Network agreement**  
(October 2015)



**Lander Memorandum of Agreement**  
(August 2016)



**Safe & Swift Memorandum of Understanding**  
(August 2017)



**Freight Master Plan** (September 2016) and  
**Industrial Areas Freight Access Project** (May 2015)



**Puget Sound Gateway Program Interlocal Agreement**  
between WSDOT / Port of Seattle (May 2020)

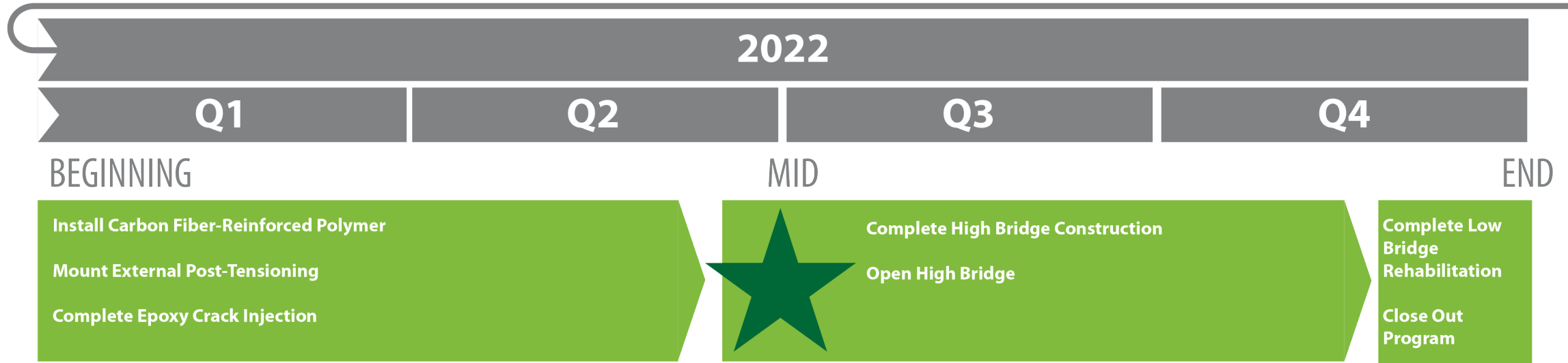
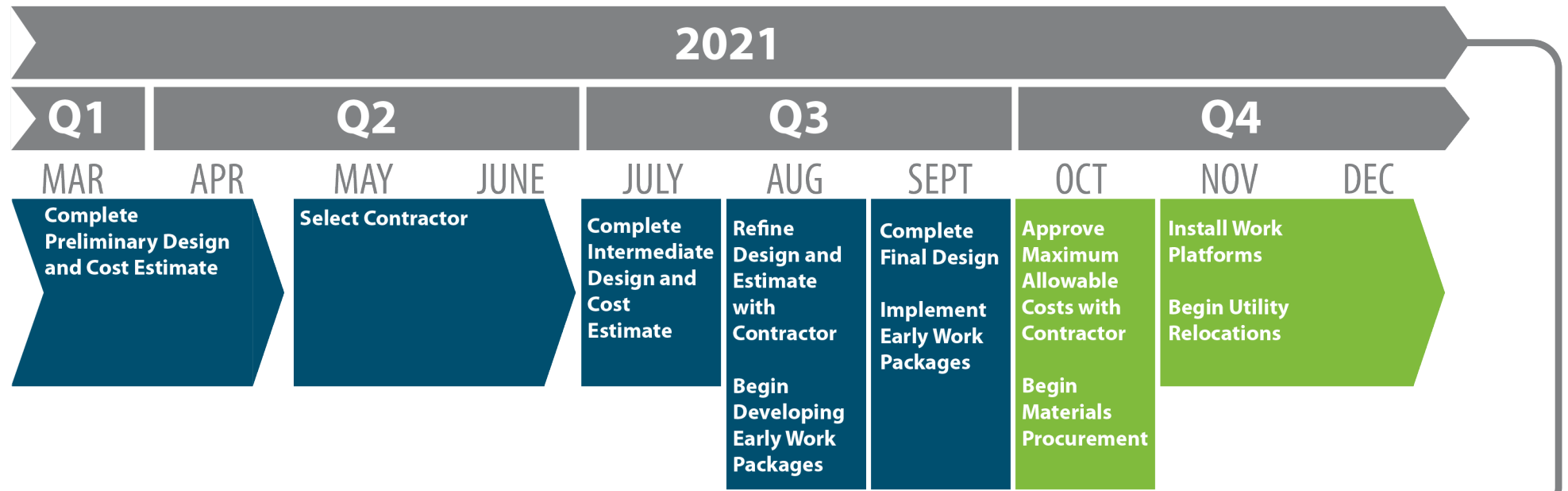
# Low and high bridge structural rehabilitation construction schedules

## KEY

PROJECT DESIGN



PROJECT CONSTRUCTION



*Note: Schedule and budget will be updated with more detail as we reach each project milestone.*

# Total Program Costs and Funding Strategy

## West Seattle Bridge Program Elements and Costs

<b>WEST SEATTLE BRIDGES PROGRAM</b>	
Reconnect West Seattle	\$ 49,994,731
Emergency Repairs	19,742,722
Bridge Monitoring/Testing	3,360,344
High Bridge Repair	58,173,189
Low Bridge Strengthening	13,297,000
Low Bridge Control System / HDD and Comms	4,051,005
High Bridge Replacement Planning	10,000,251
Traffic and Revenue Study	2,354,303
Program Development	14,276,672
<b>Total:</b>	<b>\$175,250,217</b>

## City Funding Strategy

<b>City of Seattle</b>	
• Bonding – City of Seattle	\$ 107,813,000
• STBD	8,000,000
• Gas Tax	4,840,000
• Street Use & Occupation	730,000
• Commercial Parking Tax	217,000
• General Funds/TNC	500,000
<b>Federal Grants</b>	39,150,600
<b>Port of Seattle</b>	9,000,000
<b>Other Local Funds</b>	5,000,000
<b>Total:</b>	<b>\$ 175,250,600</b>

# Memorandum of Understanding Components

<b>Container Operations Nexus</b>	2.4	Commit to <b>Spokane Street Low Bridge access</b> to Port properties, especially T-5 for freight, workers and construction/maintenance
	2.5	Include Port/NWSA needs in City's <b>construction &amp; traffic control</b> planning to avoid or minimize freight impacts
	2.6	Support <b>T-5 construction and permitting</b> , especially emerging issues
<b>Duwamish Transportation Operations Interests</b>	2.7	Ensure <b>freight mobility</b> and support for <b>industrial lands vitality</b>
	2.8	Ensure the "Future Replacement Bridge" study <b>protects container terminal functionality</b> for 2030 Sound Transit and 2060 W Seattle Bridges
	2.9	Support street improvements <b>for T-18 truck access</b> (in design)
	2.10	Establish <b>truck parking</b> areas in the Duwamish MIC for benefit of both truck drivers and Duwamish Valley residents
	2.11	<b>Delay WMW bike lane</b> decision until bridge reopens <ul style="list-style-type: none"> <li>• Future bike lane design to maximize safety and minimize freight impacts</li> </ul>
<b>Additional Interests</b>	2.12	Support <b>East Marginal Way Improvements Phase 2 as priority</b> for next Levy
<b>Funding Strategy</b>		Three progressive payments upon completion of construction

# Progress Payments

## FIRST PAYMENT OF \$3,000,000 AFTER THE CITY HAS:

- reopened the High Bridge with full access consistent with prior operations (7 lanes) and shown progress on other MOU provisions
- expected in mid-2022



## SECOND PAYMENT OF \$3,000,000 AFTER THE CITY HAS:

- made upon Substantial Completion of the Spokane St Swing Bridge Repair and Improvement Projects
- including progress on other MOU provisions
- expected by year end 2022



## THIRD AND FINAL PAYMENT \$3,000,000:

- made upon Final Acceptance of all projects
- including progress on other MOU provisions
- expected in 2023

# Questions?