

# Community Construction Management Plan

# SR 520 Portage Bay Bridge and Roanoke Lid Project CCMP

(Contract name: SR 520 / I-5 to Montlake - I/C and Bridge Replacement Project)

# DRAFT Updated July 2024

The Community Construction Management Plan (CCMP) outlines the process for community members to provide input about construction management practices to help avoid, minimize, and/or mitigate construction effects on historic and other properties. It also guides the actions of construction contractors, provides opportunities for the Washington State Department of Transportation (WSDOT) and hired contractors to keep the public and Section 106 concurring parties informed, and gathers input to improve the construction practices addressed by the CCMP.





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## **Acronyms and Abbreviations**

BMP	Best management practice
CCMP	Community Construction Management Plan
CFR	Code of Federal Regulations
DAHP	Washington State Department of Archaeology and Historic Preservation
FHWA	Federal Highway Administration
HOV	High-occupancy vehicle
I-5	Interstate 5
MTP	Marine Transportation Plan
PA	Programmatic Agreement
RCW	Revised Code of Washington
ROTW	Rest of the West
SDCI	City of Seattle Department of Construction and Inspections
SPCC	Spill Prevention, Control and Countermeasure Plans
SR 520	State Route 520
Portage Bay Bridge and Roanoke Lid Proje	SR520/I-5 to Montlake - I/C and Bridge Replacement Project ct
PBBN	Portage Bay Bridge North
PBBS	Portage Bay Bridge South
TESC	Temporary Erosion and Sediment Control
TVMPP	Tree and Vegetation Management and Protection Plan
WAC	Washington Administrative Code
WQMPP	Water Quality Monitoring and Protection Plan
WSDOT	Washington State Department of Transportation



## I. Community Construction Management Plan Overview

## A. Purpose and background

The <u>SR 520, I-5 to Medina: Bridge Replacement and HOV Program</u>'s 12.8-mile-long corridor area begins at SR 202 in Redmond and extends west to I-5 in Seattle. As part of the Program, the <u>Pontoon</u> <u>Construction Project</u>, the <u>Eastside Transit and HOV Project</u>, the <u>Floating Bridge and Landings Project</u>, and the <u>West Approach Bridge North Project</u> have been completed. The remaining work will be delivered in four project phases, collectively called <u>The Rest of the West</u>, and will complete WSDOT's enhancement of the SR 520 corridor. The <u>SR 520 Portage Bay Bridge and Roanoke Lid Project</u> is the third of these four project phases. The first and second phases, the <u>Montlake Project</u> and the <u>SR 520/I-5</u> <u>Express Lanes Connection Project</u>, are both currently under construction.

WSDOT developed the Community Construction Management Plan (CCMP) as a mitigation commitment for adverse effects from the <u>SR 520, I-5 to Medina: Bridge Replacement and HOV Program</u> (I-5 to Medina Project) to historic properties during the National Historic Preservation Act Section 106 Consultation process. Because Section 106 consulting parties had significant concerns related to construction effects (both indirect and direct) to historic properties, development of the CCMP was included in the earliest iterations of the <u>Section 106 Programmatic Agreement</u> (PA). Construction effects (as defined in <u>36 CFR 800.5(a)(2)</u>) may include vibration, noise, change of use or physical features of a property's setting, visual, atmospheric or audible intrusions.

During the consultation process, participants recognized that the construction effects and mitigation strategies outlined in the CCMP could affect the broader neighborhood and not just historic properties. The CCMP then became a project-wide commitment, not exclusive to Section 106 PA concurring parties. The PA language references the concurring parties "and others potentially affected by Project construction."

The CCMP provides members of the public an ongoing opportunity to share input that may be considered for construction management decisions to avoid, minimize, or mitigate the effects of construction activities on historic and other properties. Additional volumes and/or updates to existing CCMPs will be developed in conjunction with each contract awarded for future construction phases of the I-5 to Medina Project.

This volume of the CCMP has been developed specifically for the <u>SR 520 I-5 to Montlake – I/C and</u> <u>Bridge Replacement Project</u> (Portage Bay Bridge and Roanoke Lid Project). The Portage Bay Bridge and Roanoke Lid Project will construct two new parallel, three-lane bridges across Portage Bay with improved transit and HOV connections across Portage Bay between Montlake and I-5 along with extension of the regional SR 520 Trail across Portage Bay. A landscaped Roanoke lid over SR 520, between 10th Ave E and Delmar Dr E, and a bicycle and pedestrian crossing over I-5 will also be constructed.



## **B.** How to use the CCMP

The Portage Bay Bridge and Roanoke Lid Project CCMP is a living document. It will be updated throughout the course of the Project to incorporate changes to construction activities or approaches to the work. The initial version of the Portage Bay Bridge and Roanoke Lid Project CCMP was developed before the selection of a project contractor, and was reviewed and updated with the contractor, Skanska, upon execution of the construction contract.

The CCMP includes commitments made through the <u>Section 106 PA</u>, best management practices (BMPs), Portage Bay Bridge and Roanoke Lid Project contract documents, environmental commitments made through other regulatory processes, and additional tools to help avoid, minimize and/or mitigate construction effects on local communities and historic properties. WSDOT and Skanska will meet with the concurring parties to the <u>Section 106 PA</u> and others potentially affected by construction regularly during the construction of the project to discuss the CCMP.

WSDOT encourages the public to provide feedback about the effectiveness of the CCMP and suggest changes. Information about this CCMP will be available at project-related public meetings and on the <u>Portage Bay Bridge and Roanoke Lid Project website</u>. While the Portage Bay Bridge and Roanoke Lid Project CCMP addresses construction effects, questions on other topics such as design, permitting, operations and maintenance and other non-construction related activities on the Portage Bay Bridge and Roanoke Lid Project can be directed to <u>SR520Bridge@wsdot.wa.gov</u>. Contact information for CCMP-related effects is listed in the <u>Questions or Concerns?</u> section of this document.

## C. WSDOT Roles and Responsibilities

The Portage Bay Bridge and Roanoke Lid Project will be constructed using a design-build contract. An open competitive bidding process was used to select the contractor, Skanska. The contract was scheduled for advertisement to contractors in 2023, with construction expected to be completed by 2031.

WSDOT's responsibilities include:

- Developing the initial CCMP and ensuring the CCMP best management practices get implemented and the CCMP gets updated to reflect construction.
- Performing construction management, including inspection and monitoring of contractor activities to ensure contract requirements are met.
- Ensuring all local, state, and federal permits are obtained as necessary for compliance with applicable laws and regulations.
- Coordinating and communicating with local governments, neighborhoods, and businesses about possible project effects.

## D. Contractor Roles and Responsibilities

The responsibilities of the contractor, Skanska, include:

- Determining construction methods and techniques for project implementation.
- Preparing final design for the Portage Bay Bridge and Roanoke Lid Project.



- Providing updates to the CCMP to reflect final design and construction approach.
- Constructing the project for Portage Bay Bridge and Roanoke Lid Project improvements in accordance with the contract and specifications.

The roles of the contractor, Skanska, are as follows:

Project Role	General Responsibilities
Project Manager	An individual leading Skanska's design and construction efforts towards a successful project outcome. This person leads the project planning, directs key discipline managers and works with key stakeholders to identify project issues and develop positive solutions.
Construction Manager	An identified person who primarily focuses on the project construction operations, including the development of operational aspects such as work planning, sequencing, implementation and safety.
Marine Transportation Manager	A designated person who coordinates with stakeholders to prepare the Marine Transportation Plan, ensures any stakeholder questions or issues are addressed and collaborates with stakeholders to provide impact notifications.
EHS Director	A person appointed to ensure working conditions comply with all regulatory and corporate safety and health policies. This person evaluates, educates and administers the Environmental Health & Safety Program for all levels of employees on the project.
Environmental Compliance Manager	An identified person responsible for developing, overseeing and enforcing the Environmental Compliance Plans on the project to ensure work is conducted in accordance with pertinent laws and regulations.
Public Information Manager	A designated individual who works with WSDOT to support the day-to-day communications and crisis communications needs of the project. This person will coordinate with WSDOT and Skanska to identify public information needs or issues and





	will work to formulate strategies that address those challenges.
Quality Manager	A designated person who shall have responsibility for development, implementation and design/construction adherence to the project Quality Management Plan, with the intent of assuring material acceptance and installation in accordance with project requirements.

WSDOT and Skanska will work to ensure the CCMP is updated as needed through the life of the project.





## **II. Project Overview**

## A. About the SR 520 Portage Bay Bridge and Roanoke Lid Project

## Description

The Portage Bay Bridge and Roanoke Lid Project is the last major project in the SR 520 corridor, completing SR 520's east-to-west reconstruction from I-405 to I-5. Like other 1960s-era bridges, the Portage Bay Bridge was built with hollow concrete columns that could collapse in a severe earthquake. This project will replace the old, structurally vulnerable Portage Bay Bridge with two parallel, seismically resilient bridges. The project will also build a landscaped lid over SR 520 between 10th Avenue East and Delmar Drive East, complete the highway's transit/HOV system between the Eastside and Seattle, and extend the regional SR 520 Trail across Portage Bay to the lid and local trail networks.

These features will ultimately strengthen connectivity between the growing cities of the eastside, Seattle's booming South Lake Union neighborhood, and downtown Seattle. Travel between these points will become safer and more reliable via the transit/HOV lane. The Roanoke lid will connect communities both north and south of the highway with landscaped open spaces, including trees and other landscape amenities (see Figure 1 for project limits).



Figure 1: SR520 Project Limits



## Schedule

WSDOT anticipates construction activities within the project area to begin in 2024, with completion anticipated in 2031. See the below table and Figure 2 for a summary schedule of activities anticipated to occur during this period.

Major Project Activities	Anticipated Start	<b>Anticipated Finish</b>
Design Development	Q1 2024	Q1 2026
Project Construction	Q3 2024	Q1 2031
Community Mitigations	Q1 2024	Q4 2025
SR520 Westbound Bridge (PBBN)	Q3 2024	Q1 2028
Demolition of Existing Bridge & Structures	Q1 2025	Q4 2028
SR520 Eastbound Bridge (PBBS)	Q4 2028	Q4 2030
LID Construction	Q1 2025	Q2 2030
Landscaping and Urban Aesthetics	Q4 2026	Q1 2031
Project Traffic Changes – Stage 1	Q2 2025	Q2 2028
Project Traffic Changes – Stage 2	Q2 2028	Q3 2029
Project Traffic Changes – Stage 3	Q4 2029	Q1 2031



Figure 2: Project Schedule



## Locations of activities and access points

Construction activities for the Portage Bay Bridge and Roanoke Lid Project will occur at several locations along SR 520 from the Montlake Interchange over the Portage Bay Bridge to the SR 520/I-5 Interchange, including the westbound on-ramp from and eastbound off-ramp to Montlake Boulevard East. The Portage Bay Bridge and Roanoke Lid Project construction activities will also occur on surface streets in the vicinity of the Montlake Interchange and SR 520/I-5 Interchange including Roanoke St, the Boyer Ave E to Boylston Ave E area, as well as replacement of the bridges at 10<sup>th</sup> Ave E and Delmar Drive E. Active transportation connections, including a Regional Shared Use Path (SR 520 Trail) on the Portage Bay Bridge, will connect to local facilities at the Montlake Interchange, the Montlake Playfield, Interlaken Park, and Harvard Ave E. A new bicycle and pedestrian crossing will be constructed across I-5 south of the existing E Roanoke St bridge.

- SR 520 mainline access: Skanska will be able to access the SR-520 mainline from westbound and eastbound SR 520. For in-water work access, Skanska will have barges and work platforms in Portage Bay.
- I-5 mainline access: I-5 work will be accessed from northbound and southbound I-5 and from the SR 520 westbound to I-5 northbound and southbound ramps.
- Staging areas: Available construction staging areas are located within WSDOT-owned right of way next to work to be performed. Construction staging areas will be used to store construction material, park construction vehicles, stage and service equipment and park/transport employees to the project. Staging area sites include the WSDOT right of way next to East Roanoke Street, the WSDOT Peninsula, and the WSDOT right of way under the Ship Canal Bridge. The former Montlake Market property will not be used for staging. Offsite staging for materials will include the Kenmore Staging Yard at the north end of Lake Washington. Other offsite staging areas may be used for material storage.
- Marine transportation: Certain construction materials will be transported to and from the project site via tugs and barges, particularly from the Kenmore Staging Yard at the north end of Lake Washington. Vehicles will access the site via the Montlake Cut or the Ballard Locks.
- Access from arterial streets: Skanska will access Boyer Ave E, 10<sup>th</sup> Ave E, Delmar Drive E, Roanoke St, Boylston Ave E to construct the project features over SR 520 and I-5.

The following Figures identify project access and logistics:

- Figure 3 illustrates the project work area and staging yards within close vicinity to the project.
- Figure 4 details the project yards and notes different mitigation measure Skanska plans to implement within the yard areas.
- Figure 5 displays the approved hauling and transportation traffic routes for construction vehicles to access the project and staging areas.
- Figure 6 illustrates the marine transportation plan to access the project and off-site Kenmore/Subcontractor staging areas, via tugboats and barges.







Figure 3: Project Footprint







Figure 4: Project Laydown Yards and Impact Mitigation





Figure 5: Construction Vehicle Access Routes

[Note: Configuration will change slightly at the Peninsula as construction commences. See Figures 7 & 8 for additional information regarding temporary traffic configurations]





Figure 6: Project Marine Transportation Plan



## Project Traffic Control Strategy

In addition to the project staging, Skanska has coordinated with WSDOT to develop a traffic control strategy to minimize impacts to the traveling public.

The project will be constructed in a three-stage, multi-phase approach that will continue to be refined over the course of the project through coordination with stakeholders. Initial elements of this strategy include the following:

- Work Bridge Installation: Temporary work bridges will be constructed to allow delivery of material, installation of project elements and demolition of bridges, which will decrease the number of traffic closures required to facilitate construction.
- **Temporary Bridge Design:** A temporary bridge structure and ramps will be constructed during State 1 of the project to provide SR 520 mainline continuity throughout construction. The use of modular and precast elements instead of cast-in-place structure will 1 shorten installation time within designated work windows. The construction of the temporary structures will occur as phases over the course of the project Stages.
- Project Stages:
  - Stage 1 Construction activities include: the installation of the 10<sup>th</sup> and Delmar Detour, installation of the work bridges, construction of the Portage Bay Bridge North (PBBN) and construction of the I-5 Trail Crossing Structure at E. Roanoke Street.
  - Stage 1, Shift The first major shift will occur at the end of Stage 1, where traffic will be relocated to the PBBN in a temporary, two-way condition.
  - Stage 2: Construction activities include: construction of the Roanoke Lid, completion of the 10<sup>th</sup> and Delmar surface streets and construction of the Portage Bay Bridge South (PBBS).
  - Stage 2, Shift The second major shift will occur at the end of Stage 2. Traffic will be moved onto the new PBBN and PBBS bridges in permanent condition.
  - Stage 3 Construction activities include: installation of project finishes, such as concrete surfacing, roadway striping, landscaping and architectural finishes.
- **Traffic Closures and Shifts:** Mainline SR520 traffic shifts will be limited to two major shifts, between each construction stage, from the current driver configuration. Full weekend closures, ramp closures, and roadway lane closures will also be reduced because of the construction means and methods.





The following table summarizes the major anticipated closures and additional community impacts:

Closure	Closure Type	Duration	
Bill Dawson Trail	Trail Closure	4 years	
Boyer Ave Stairs	Stairway/Sidewalk Closure	3 years	
SR520 Full Closures	Full Highway Closure	Up to 30 Short-Term (i.e. weekends)	
Ramp Closures	On/Off Ramp Closures	Short-Term (i.e. nights)	
WB SR 520 On-ramp to Montlake Boulevard	Extended Ramp Closure	Maximum 100 calendar days (can be split into multiple closures)	
EB SR 520 Off-ramp to Montlake Boulevard	Extended Ramp Closure	Maximum 90 calendar days (can be split into multiple closures)	
City Street Closures	City Steet Full Closures	Short-Term, Variable Durations	

Skanska will work with the WSDOT and communications and outreach teams to notify the public regarding construction impacts. Further details under section III.B.5 of this CCMP. Figures 7 and 8 represent graphics of the project stages and the anticipated impacts to the traveling public.







Figure 7: Project Phasing – SR520 Stages of Construction





#### 🛞 By building the new roadways off-line, we reduce lane closures and maintain traffic movements throughout construction.

Figure 8 | Minimizing the use of roadway and lane closures on local streets.

Stage 1 | We will construct the partial lid structure to provide a temporary detour that consolidates 10th Ave and Delmar Dr to maintain north-south connectivity over mainline SR 520. This will allow the majority of the work to be constructed with only minor roadway closures to perform tie-in connections of the detour route.

Stage 2 | After opening the detour, the existing bridges will be demolished off-line, allowing for construction of the remaining lid structure. This work will then progress with no impacts to traffic in the temporary configuration with the exception of lane closures for the finish roadway tie-in points at 10th Ave. and Delmar Dr.





Figure 8: Project Phasing – Roanoke Lid Stages of Construction



## Summary of Marine Transportation Plan

Skanska plans to access the project via marine transportation to deliver select materials and equipment. The Marine Transportation Plan (MTP), summarized below, sets strategies for identifying and managing the impacts of Project marine work activities upon marine navigation, community marine events and tribal fishing. Figure 6, above, details the general logistics for marine access to and from the project. A full version of the Marine Transportation Plan will be available for the public once finalized.

### Summary of expectations:

During construction, stakeholders and nearby community members can expect to see barges transporting large construction material/equipment a couple of times per week, on average, throughout the duration of the bridge construction. Barge transportation will have minimal impact to boat traffic and waterfront access. Transportation frequency is subject to change throughout the project, but stakeholders and community will be notified of any potential impacts.

The Marine Transportation Plan includes the following details and will continue to be refined, as needed, throughout the duration of the project:

### Portage Bay Marine Transportation Stakeholders:

WSDOT, United States Coast Guard, United States Army CORPS of Engineers, University of Washington, Seattle Yacht Club, Queen City Yacht Club, Portage Bay Condominiums Marine Division, Portage Bay dock owners (south of Portage Bay Bridge), City of Seattle, the Suquamish Tribe, and the Muckleshoot Indian Tribe.

Descriptions of marine navigational requirements of the Project, including, but not limited to, the marine transport or delivery of bridge construction materials, supplies, prefabricated components, construction equipment, or demolition debris:

- The Work Bridge elements will be delivered to Portage Bay from the Kenmore yard and/or other yard via tugboats and barges for installation. Removal of the work bridge will be transported through the Ballard Locks and/or Montlake Cut
- Rebar for PBBN/PBBS will be delivered to the site via barges from the Kenmore site through the Montlake Cut. Elements may be pre-tied or not, varying from substructure and superstructure items.
- Formwork material for the structure, such as columns, pier tables, crossbeams/end diaphragms, decks and curbs may be delivered via barges from the Kenmore Yard.
- Demolition material from the existing Portage Bay Bridge structure will be primarily hauled off with trucks via the work bridge. Material will be towed offsite via barges.
- Notes and exact equipment amounts will be recorded in the Marine Transportation Leads (MTL) Daily Diaries that will be submitted weekly.

### Identification and layout of navigational ways near and through navigation channels at the Project

• See Figure 6 for Map of MTP





# Description of restrictions and impacts to the navigation channels, including measures taken to minimize restrictions and impacts:

- Potential restrictions and impacts are as follows:
  - Equipment and material barges traveling through the Ballard Locks and/or Montlake Cut
  - Impacts to these channels will be minimized through planning and coordinating the work with the stakeholders using schedules and meetings as described below.
- The Public Information Team will use weekly look-ahead schedules, monthly schedules and Local Notice to Mariners (USCG) to coordinate with stakeholders and minimize impacts.

#### <u>Procedures for coordinating and implementing navigation channel closures and blockages, including</u> <u>prior written notification to WSDOT:</u>

- The use of weekly look-ahead and monthly schedule will be used to coordinate with all stakeholders
- Local Notice to Mariners
- Our Public Information Team and Manager will help properly communicate marine activities along with the support of the MTL.

### Best Management Practices for limiting marine traffic shoreline impacts:

- Proper BMPs will be used to avoid shoreline impacts, these BMPs will include signage, a turbidity boom outlining the work area and educating our crews to not ground out barges or boats during their onboarding. The use of shallow draft tugboats will be used to fullest extent possible.
- The work zone will be a "no-wake" zone to help minimize impacts to the shoreline and local residents. Entering Portage Bay via water, at the E. Shelby St. intersection and towards the work zone will also be treated as a "no-wake" zone.

### Process to provide notification to and coordinate with stakeholders of key Project marine Work activities.

• The MTL will participate in pre-construction coordination, in-person and one-static online open house, public meetings and briefings and monthly public construction update meetings with interested stakeholders to communicate marine work activities.

# *Procedures to identify and incorporate the needs of emergency service providers and law enforcement entities.*

- The Marine Transportation Plan will be provided to: Seattle Fire Department, Seattle Police Harbor Patrol, USCG and Washington State Patrol for review after a pre-construction meeting is held. Once reviewed the MTL will facilitate incorporating the feedback of these emergency service providers.
- Reference our Emergency Action Plan (EAP), attached at the end of this document. Will be formally submitted soon.
- Main Emergency Contact:
  - Seattle Police Harbor Patrol





o 1717 N. Northlake Place, Seattle, WA 98103

If the MTL is onsite, they will mobilize to the incident immediately upon receiving notification and will coordinate the resources and equipment necessary to respond to the incident. In the event of an incident during non-work hours, after the MTL is notified, the MTL will coordinate for resources to be available within 30 minutes of notification.

#### <u>Provisions for maintaining existing waterborne access to shoreline properties affected by Project marine</u> work activities.

• The navigational channels in Portage Bay will always be available for the shoreline properties stakeholders.

#### <u>Procedures to update the Marine Transportation Plan (MTP) during construction to adapt to Project</u> <u>changes.</u>

• The MTP will be closely monitored by the MTL. The MTL will resubmit any updates or changes as needed. The MTP may be updated seasonally or annually and resubmitted.

#### Maintain access for recreational boaters in and out of the Montlake Playfield hand-carry boat launch.

• Access will be maintained for recreational boaters in and out of the Montlake Playfield handcarry boat launch area. The recreational boaters will be able to travel via the navigational channel.

# <u>Process for delineation of the marine construction work area, including adjustment in the summer and winter</u>

• The work area will be defined with buoys and a turbidity boom. Signage will also be used to control the work to not interfere with nearby stakeholders and community members.



## Major Project Improvements

Skanska has developed a composite plan of the SR520 project that identifies the major project improvements that will be implemented over the course of construction. These elements include, but are not limited to, the following:

- Portage Bay Bridge North & South
- Roanoke Lid Open Space
- I-5 Roanoke Crossing Bridge
- FLS Building
- Outlooks & Viewpoints
- Wall Improvements
- Urban Design Improvements (Stairs, Shared Use Paths, Multimodal Connections)
- Highway, Local, and Wayfinding Signage
- Maintenance and Equipment Access Areas
- Utility Relocations and Installations
- Wetland and Environmental Restorations

Figures 9 and 10 identify each of these major improvements.







Figure 9: Roanoke Lid and Portage Bay Composite Plan







Figure 10: Portage Bay Bridge Overall Plan



## **B.** Agency Coordination

As part of the development process for the Project, WSDOT and Skanska have coordinated with and/or obtained numerous permits and/or approvals from agencies, tribes and jurisdictions, including:

- Advisory Council on Historic Preservation
- Federal Highway Administration (FHWA)
- National Park Service
- National Oceanic and Atmospheric Administration National Marine Fisheries Service
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- Puget Sound Clean Air Agency
- Washington State Department of Archaeology and Historic Preservation (DAHP)
- Washington State Department of Ecology
- Washington State Department of Fish and Wildlife
- Washington State Department of Natural Resources
- Washington State Recreation and Conservation Office
- King County
- City of Seattle
- Tribal nations
- The University of Washington
- Seattle Yacht Club
- Queen City Yacht Club
- Portage Bay Condominiums Marine Division
- Portage Bay Private Dock Owners (South of the Portage Bay Bridge)

During construction, WSDOT will comply with permit requirements and will continue to coordinate with the permitting agencies, tribes and jurisdictions as needed throughout the Portage Bay Bridge and Roanoke Lid Project.



## **III.** Construction Components and Effects

This section of the CCMP is organized by potential construction effect. Construction effects covered in this section include:

- Noise
- Vibration
- Air Quality and Fugitive Dust
- Visual Quality: Aesthetics, Glare, Lighting
- Traffic and Transportation
- Utilities and Services
- Vegetation Management
- Erosion Control
- Over-Water and In-Water Work
- Construction Staging in WSDOT Right of Way

Each of these construction effects sections includes four subsections to provide details on the effect:

- What to Expect During Construction: Characterizes the location, potential construction activities, duration and intensity of activity for each construction effect.
- Applicable Commitments: Provides information about and links to documents describing construction-related commitments, including resources that Skanska and WSDOT will use to determine mitigation activities.
- Measures and Practices: Describes the potential activities that may be implemented to mitigate the construction effect.
- For More Information: Provides resources and contact information to assist with questions that may arise during construction.



## A. Project construction overview

Construction activities vary by location. The information in this section will be updated as needed by Skanska throughout construction. See Figure 1 and Figure 2 in Section II.A for maps that identify the construction and staging areas for the Portage Bay Bridge and Roanoke Lid Project.

Construction Means and Methods:

Skanska will take a holistic approach to potential community impacts by integrating mitigation efforts into all aspects of work, as further detailed in the below section for potential construction effects. A coordination, outreach, management and planning Team has been developed for the project and is comprised of the project discipline leads, public outreach manager, and representatives from WSDOT and the Seattle Design Commission. This team is dedicated to integrating strategies that will mitigate community concerns. Skanska is taking a "No Surprises" outreach approach to keep the public informed of schedule, construction activities and other potential impacts as early and as often as possible. Figure 11 highlights several potential concerns and solutions detailed in the following potential construction effects.





Figure 11: Highlight of Potential Construction Impacts and Optimizations



## **B.** Potential construction effects

## 1. Noise

Skanska will perform various construction activities throughout the Portage Bay Bridge and Roanoke Lid Project construction. Each activity uses different types of equipment and creates different levels and kinds of noise.

Construction is expected to occur at/on several locations including:

- Near the SR 520/I-5 interchange
- Near existing 10<sup>th</sup> Ave E and Delmar Drive
- Portage Bay
- The Montlake Interchange area
- Staging underneath I-5 near the Ship Canal Bridge and on the WSDOT Peninsula

### What to expect during construction

WSDOT anticipates that Skanska will work during daytime hours when possible and at night as necessary to complete the project. WSDOT has coordinated with the city of Seattle to obtain a <u>Major Public Project</u> <u>Construction Noise Variance</u> (record number: 6903010-NV) for nighttime work activities. Portage Bay Bridge and Roanoke Lid Project construction during nighttime hours are necessary to avoid:

- Extensive delays to the traveling public.
- Increased traffic volumes on city streets and nearby highways.
- Increased traffic accidents in the project work zone.

The information in this section will be updated if specific conditions change during the life of this project.

### **Daytime work**

Daytime work will occur between 7 a.m. and 10 p.m. Monday through Friday, and between 9 a.m. and 10 p.m. Saturday, Sunday, and legal holidays.

Anticipated Daytime Work Activities:

- <u>Demolition/wrecking of 10<sup>th</sup> Ave, Delmar Dr E and the existing Portage Bay Bridges</u>
- <u>Impact work construction operations, such as auger shaking</u>, striking pavement with an excavator bucket, jack hammering, impact wrenches, and impact pile driving, that result in impact noise
- Material hauling and deliveries, except when traffic control is necessary to facilitate delivery
- Installation of major bridge elements, including:
  - Vibratory pile driving
  - Drilled shaft casings
  - Concrete placement for structural elements





• Roadway restoration, including grading, excavation, and soil compacting

### <u>Nighttime work</u>

Nighttime work activities will be required to meet the conditions identified in the Major Public Project Construction Noise Variance (MPPCNV) granted by the city of Seattle throughout the duration of project construction.

Nighttime work will occur between 10 p.m. and 7 a.m. Monday through Friday, and between 10 p.m. and 9 a.m. Saturday, Sunday, and legal holidays. Due to existing traffic congestion on I-5 and SR 520, work in these areas is not feasible during daytime hours. Therefore, work along the project corridor will be completed at night or during off-peak commute hours.

Nighttime work will occur periodically during weeks and some weekends throughout the project. During construction planning, Skanska identified that some aspects of work will need to be performed during night shifts, such as when full highway closures or ramp/lane closures are needed to facilitate an operation. Traffic closures are scheduled during nighttime hours with the intent of minimizing rush-hour impacts to the traveling public and with the intent of providing safe work zones for the project employees.

Anticipated Nighttime Work Activities:

- <u>Utility relocations</u>
- Limited material hauling and deliveries
- Bridge superstructure (i.e. girder erection)
- Roadway restoration, including grading, paving, and striping
- <u>Concrete placement for structural elements</u>
- <u>Major traffic shifts and temporary striping</u>
- <u>Supporting operations for daytime activities</u>

### **Potentially noisy activities**

The loudest activities of pile installation and impact demolition will be scheduled for daytime hours. WSDOT anticipates that following activities and equipment will be used during nighttime construction:

- Excavation, embankment and paving (dozer, excavator, trucks, grader, vibratory rollers, asphalt roller, drill rig)
- Concrete sawing (concrete saw, compressors, dump trucks, loader, debris trucks, street sweeper)
- Place forms, rebar and concrete (hydraulic crane, crawler crane, concrete pump, compressors, trucks, concrete trucks)

Paving, signing, and striping (roller, concrete truck, delivery truck, dump truck, loader, street sweeper, sign and stripe trucks) Noise may sound different based on the surface it is traveling. Noise from



construction activities travels farther over a "hard" surface (like pavement) than over "soft" surfaces (like grass). Therefore, the same equipment may sound different depending on where you are standing. Figure 12 helps illustrate how such noise is perceived at varying distances. More information about noise can be found on the WSDOT website and in the I-5 to Medina Project Construction Noise and Vibration Mitigation and Monitoring Plan.

### Applicable commitments

WSDOT's <u>Noise Program</u> ensures compliance with local, state and federal environmental regulations on noise from traffic and construction. During construction, WSDOT and Skanska need to comply with permit requirements, including measures and practices described in more detail later in this section. The process for determining appropriate mitigation for construction noise is dynamic because construction varies across projects. During daytime hours, construction noise is typically exempt from noise control requirements in the <u>Washington Administrative Code (WAC)</u>, but must follow noise level limits as required through permits.

WSDOT and Skanska will adhere to all WSDOT, federal, local and statewide regulatory requirements and as required by the contract documents. WSDOT has prepared a <u>Construction Noise and Vibration</u> <u>Mitigation and Monitoring Report</u> that identifies the expected noise levels at identified locations, the risks of exceeding allowable levels, and the measures Skanska should use if noise exceeds allowable levels. WSDOT uses detailed mathematical models based on the types of equipment and activities to determine the expected levels of noise at nearby receivers.

The <u>Seattle Municipal Code chapter 25.08.425</u> addresses sounds created by construction and maintenance equipment. City of Seattle noise-level limits allow different levels for various types of equipment. For this project, the construction noise analysis used the FHWA's <u>construction noise method</u> to determine future construction noise levels. WSDOT has received an MPPCNV, from the city of Seattle, which establishes noise levels and requirements that must be met during project construction.

## **Measures and practices**

The following requirements are written into WSDOT's noise variance and will apply to all Portage Bay Bridge and Roanoke Lid Project construction activities occurring between 10 p.m. and 7 a.m., Monday through Friday, and between 10 p.m. and 9 a.m. on Saturday, Sunday, and legal holidays:

- Skanska will meet the noise level limits established in the noise variance.
- Skanska will design and install a temporary noise-barrier fence around the Roanoke Lid construction area that provides construction noise reduction to nearby properties (Figure 13). The fence will be installed before nighttime demolition work and will be maintained throughout major nighttime construction of the Roanoke Lid. As shown in the example cross-section, the edge of right-of-way is substantially higher than SR 520. A 12-foot noise-barrier fence would block line of sight from equipment working on SR 520 to residential properties on both the north and south.



- If Skanska installs shafts for the new Portage Bay Bridge at night, Skanska will use temporary noise shields around the equipment or install a temporary noise barrier during the shaft construction on the west side of Portage Bay.
- Skanska will use broadband or strobe backup warning devices or use backup observers in lieu of backup warning devices for all equipment, in compliance with Washington Administration Code, Sections 296-155-610 and 296-155-615. For dump trucks, if the surrounding noise level is so loud that broadband or strobe backup warning devices are not effective, then an observer must be used (WAC 296-155-610). This condition will apply to activity conducted between 10 p.m. and 7 a.m., Monday through Friday, and between 10 p.m. and 9 a.m. on Saturday, Sunday, and legal holidays. No pure-tone backup warning devices will be used after 10 p.m. and before 7 a.m. weekdays or 9 a.m. weekends and legal holidays.
- There will be no impact work undertaken under the MPPCNV, such as auger shaking, striking pavement with an excavator bucket, jack hammering, impact wrenches, and impact pile driving, during nighttime hours from 10 p.m. to 7 a.m. on weekdays and 10 p.m. to 9 a.m. on weekends and legal holidays.
- Skanska will securely fasten truck tailgates.
- Skanska will use sand, rubber or plastic-lined truck beds for all haul-trucks to reduce noise, unless an exception is approved by WSDOT.
- Skanska will not use compression brakes.
- Skanska will not leave equipment idle for longer than five minutes.
- Skanska will use temporary noise mitigation shields, enclose, or use low noise-generating stationary equipment, such as light plants, generators, pumps, and air compressors near residences where practical.

To ensure compliance with the MPPCNV and construction commitments, Skanska will be installing several real-time noise monitors that record noise levels 24 hours a day. The electronic noise monitors will immediately report any exceedances to an independent noise inspector who will report any violations or stop construction work until the exceedance can be corrected. Noise reports will periodically be made available on the Construction Corner webpage.

### Additional noise-control measures

Skanska may choose to implement additional noise-control measures. SDCI and WSDOT would review Skanska's selected noise-mitigation measures to ensure compliance with the limits set in the variance. Skanska will take a strategic approach to the project by selecting different construction methods to reduce noise impacts, such as using drilled shaft casings instead of standard pile driving methods.

Skanska and WSDOT recognize that Boyer Ave is a primary route for accessing the Portage Bay neighborhood and includes several historic properties that could be affected by noise, dust and traffic.





Skanska intends to limit use of Boyer Ave to only operations necessary for potential landslide mitigation. Delmar Landslide mitigation and construction efforts.

In the 2022 legislative session, the Legislature allocated \$1.1 million for noise-reducing measures on the Portage Bay Bridge and Roanoke Lid Project. This investment will expand the amount of noise-shielding fencing around the construction area and provide funding for other noise-reducing measures for nearby neighbors' homes.

## For more information

The issuance of an MPPCNV is a formal process with the city of Seattle. Additional information will be provided as part of the noise variance review process through future CCMP revisions.

To find out more about noise variances and the process for the city of Seattle, visit the <u>Seattle Department</u> of <u>Construction & Inspections website</u>.

To contact the project about construction noise happening in your area, see the contact information in the <u>Questions or Concerns?</u> section of this document or visit the <u>SR 520 Construction Corner</u>.

## 2. Vibration

Like noise, different types of construction activities and equipment may cause varying vibration levels. While low vibration levels may be imperceptible or only slightly noticeable, higher levels could be more noticeable to the point of being annoying or unpleasant. The highest levels could possibly result in damage to properties. However, the vibration-causing activities conducted during the construction of the Portage Bay Bridge and Roanoke Lid Project will be limited to levels below criteria expected to damage structures.

## What to expect during construction

While some activities necessary for Portage Bay Bridge and Roanoke Lid Project construction may cause vibrations, WSDOT is committed to minimizing activities that would result in noticeable vibrations and will work to prevent property damage. As described in the <u>Construction Noise and Vibration Mitigation</u> and <u>Monitoring Report</u>, construction activities anticipated for the Portage Bay Bridge and Roanoke Lid Project that may cause vibrations include demolition of existing structures and foundation construction.

The construction contract will specify limits for vibration levels. WSDOT will provide information to the residents about upcoming construction activities that may cause vibrations.

## Applicable commitments

WSDOT engaged the services of a vibration expert to evaluate the I-5 to Medina Project corridor, including any potential haul routes along city arterial streets, and identify areas where impacts to properties within the affected area may occur because of vibration. The vibration expert prepared a <u>Construction Noise and Vibration Mitigation and Monitoring Report</u> for the I-5 to Medina corridor that identifies the expected vibration levels at nearby receivers, risk of exceeding the damage risk criteria for vibration, control measures for Skanska to use where the criteria may be exceeded, and locations where



monitoring would be conducted. The vibration expert used mathematical modeling based on the types of construction equipment and activities to determine the expected levels of vibration at nearby receivers. WSDOT will identify how construction activities will be implemented so that vibration does not reach a level that could cause architectural or structural damage to any properties.

If property owners observe damage to their properties, WSDOT will consult with the owners to assess whether the damage was caused by the Portage Bay Bridge & Roanoke Project and, if applicable, provide for any necessary repairs. If the private property a historic property as defined by the National Historic Preservation Act, the repairs will be consistent with the U.S. Secretary of the Interior's <u>Standards for the Treatment of Historic Properties</u>. Additionally, for affected historic properties, WSDOT will offer DAHP the opportunity to review and comment on the consistency of any repairs with the Standards. WSDOT will also coordinate with the city of Seattle Landmarks Board as necessary.

## Measures and practices

As described above, the Construction Noise and Vibration Report indicates that if a property is potentially vulnerable to construction-related vibration, WSDOT will take vibration measurements before and during construction. WSDOT will also conduct pre-construction and post-construction inspections for properties that may be affected by vibration.

### **Construction Approach:**

Skanska will take a methodical approach to construction to reduce r noise and vibration throughout construction. Skanska has decided to use precast concrete shell cofferdams during bridge construction instead of traditional sheet pile cofferdams to reduce noise and vibration from installing sheet piles. Skanska also plans to use drilled shaft casings and reinforcement instead of driven pile to further reduce impacts.

During bridge demolition activities, Skanska has planned a "surgical" approach to removing the structural elements of the existing Portage Bay Bridges. Large, manageable sections of bridge will be carefully removed and exported from the area for off-site processing.

Similar to noise monitoring efforts, Skanska will install real-time vibration monitors around the project to provide data that tracks vibration levels and reports exceedances. Exceedances will be reported to the project team and construction activities will stop until corrective actions can be implemented.

## For more information

If a property owner identifies damage during construction, the property owner should notify WSDOT <u>by</u> <u>email</u> or using the 24-hour construction hotline phone number listed in the <u>Questions or Concerns?</u> section of this document. WSDOT will respond within 72 hours and will consult with property owners to assess the cause of the damage and provide any necessary repairs. If WSDOT determines that project construction activities are resulting in structural or architectural damage to properties, WSDOT will direct Skanska to stop working on that construction activity until appropriate safety measures can be put in place. If WSDOT determines that an emergency is occurring (or has occurred) that could cause injury or

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significant structural damage, WSDOT will halt the construction activities as soon as possible and take necessary measures to stabilize structures and protect public safety.

You can also visit the <u>SR 520 Construction Corner</u> for up-to-date construction information.

## 3. Air Quality and Fugitive Dust

Fugitive dust is particulate matter that is caught in the air by wind or human activities. Some construction activities, especially those involving movement of soil, may create air pollutants such as fugitive dust, engine exhaust from trucks or other construction equipment, and volatile organic compounds from asphalt paving. Projects that require moving soil or have the potential to create fugitive dust are required to employ BMPs to control dust at project sites.

## What to expect during construction

Activities such as mobilization, general construction (particularly earthmoving operations and construction truck traffic), and demolition may cause air quality issues and generation of fugitive dust. Air quality can also be negatively affected by construction truck traffic and the hauling of materials over large distances.

## Applicable commitments

WSDOT and Skanska will follow all WSDOT, federal, local, and statewide regulatory requirements and/or requirements as required by the contract. A Fugitive Dust Prevention and Control Plan will be prepared by Skanska that provides additional details on activities to mitigate air quality impacts during construction.

Skanska will also identify the methods for controlling concrete dust and saw-cutting residue in the Concrete Containment and Disposal Plan, which will be completed before performing any dust-generating activities.

The Puget Sound Clean Air Agency is the primary agency overseeing air quality and fugitive dust issues in the Seattle area. More information about their operations and enforcement authority can be found at the <u>Puget Sound Clean Air Agency website</u>.

WSDOT and Skanska will comply with environmental commitments made through regulatory and permitting processes. The Portage Bay Bridge and Roanoke Lid Project CCMP and the contract documents include the commitments contained in those permits and approvals.

## Measures and practices

WSDOT will require Skanska to implement the following BMPs to help prevent, control, and manage fugitive dust and reduce short-term impacts to air quality:

• Apply water to the dust-generating active construction work areas as needed (and, if applicable, to other areas of the work site) to keep the soil damp and minimize fugitive dust without creating unnecessary muddy areas.



- Use a water spray to minimize fugitive dust during the demolition of concrete structures, as well as loading of construction trucks with demolition debris
- Limit idling equipment to reduce emissions.

Additional BMPs have been identified by Skanska, and this section of the CCMP has been updated to reflect the identified BMPs. These include, but are not limited to, the following:

- When appropriate, install tarpaulins on trucks to cover their loads before leaving the site to control the loss of material while the trucks are moving.
- Use efficient and modern equipment with appropriate emission-control devices (where applicable) to reduce emissions from vehicular exhaust. Use low-sulfur diesel when possible.
- When possible, use cleaners with low hazardous air pollutant and volatile organic compound content such as water-based, alkaline or microbial cleaners.
- Immediately contain spent material from construction activities such as sandblasting and disposing at an appropriate facility.
- Implement methods for efficient paint application to reduce over-spraying, including proper training for painters.
- Pave access roads or dedicated haul routes to laydown/staging yards, temporary work bridges, and other areas to reduce dust and track out.
- Install and regularly inspect rumble strips, quarry spalls, and other track-out controls at enter and exit points
- Provide a street sweeper crew on-site to remove any loose material from city streets
- Enforce low vehicle speeds for all non-paved surfaces, to reduce kick-up of dust

## For more information

To contact the project about construction air quality effects happening in your area, see the contact information in the <u>Questions or Concerns?</u> section of this document or visit <u>SR 520 Construction Corner</u>.

## 4. Visual Quality: Aesthetics, Glare, Lighting

Roadway construction can affect the quality and character of the surrounding community and landscape. Construction will cause temporary, and in some instances, permanent changes to views of SR 520, primarily due to construction equipment, new infrastructure, staging areas, and vegetation removal.

## What to expect during construction

Most construction activities for the Roanoke Lid will occur at night during low-traffic volume hours and will require lighting for the safety of workers and the public. While most construction activities for the Portage Bay Bridge replacement will be conducted during the day, nighttime activities will require lighting as well. During the winter months (November through March), there may be increased work zone lighting at the beginning and end of the workday due to decreased daylight hours.

## Applicable commitments



WSDOT and Skanska will follow all WSDOT, federal, local, and statewide regulatory requirements and/or requirements as required by the contract documents. This includes <u>WSDOT standard</u> <u>specifications</u>.

As described in the <u>Section 106 PA</u>, WSDOT will protect trees and other screening vegetation near the construction work areas to the maximum extent possible. Information related to tree protection and screening vegetation can be found in the <u>Vegetation Management section</u> of this document.

## Measures and practices

WSDOT will require Skanska to implement the following BMPs to minimize visual quality effects:

- Limit the use of construction lighting as much as possible. When lighting is required, it will be shielded, directed toward the work, and pointed away from residences, traffic, and other sensitive areas to the maximum extent practicable.
- Construct fencing around the Roanoke Lid construction area, as described in the sub-section on Noise.

Additional BMPs have been identified by Skanska, and this section of the CCMP has been updated to reflect the identified BMPs. These may include:

• Use directional lights instead of flood lights, and direct light to the work zones and away from residents to minimize light spillover beyond the construction limits to the maximum extent practicable.

## For more information

To contact the project about construction visual effects happening in your area, see the contact information in the <u>Questions or Concerns?</u> section of this document or visit the <u>SR 520 Construction</u> <u>Corner</u>

## 5. Traffic and Transportation

Construction activities will result in a variety of traffic and transportation effects to the traveling public. The construction will require several extended shifts to the traffic patterns, on- and off-ramp revisions, temporary closures, and temporary lane restrictions. Lane closures and restrictions will be generally limited to low traffic times such as nights or weekends. In addition, these activities will result in changes to pedestrian and bicycle routes and transit stops.

Almost all construction activities will occur within existing WSDOT right of way, including nighttime work. There will be lane and ramp closures on SR 520 and local streets. There will be construction vehicle traffic on local streets.

## What to expect during construction

Construction effects related to traffic and transportation may occur related to:

• Haul routes



- Lane closures, ramp closures, and roadway directional closures
- Maintaining access, including emergency service access

### Local traffic

Lane closures and/or closures of local streets are expected to construct the lid and where the highway reconstruction crosses local streets.

### **Highway traffic**

Types of closures would range from full closures of mainline SR 520 to single-direction and/or multilane closures of SR 520 and I-5.

WSDOT will work with Skanska to minimize daytime disruptions as much as possible by scheduling higher-impact closures during nights and weekends when traffic volumes are lower. WSDOT will notify the public in advance about when travel through the area could be disrupted.

### Applicable commitments

WSDOT will require Skanska to follow all WSDOT, federal, local, and statewide regulatory requirements and/or other regulations as required by the contract. This includes <u>WSDOT standard specifications</u> and coordination with the city of Seattle. Skanska will be required to comply with the haul route terms outlined in the <u>Section 106 PA</u>.

WSDOT and SDOT will continue to monitor and address any traffic concerns during the construction of the Portage Bay Bridge and Roanoke Lid Project.

Figure 4 shows anticipated Portage Bay Bridge and Roanoke Lid Project construction access and haul routes.

### **Measures and practices**

Skanska will follow established BMPs, including:

### <u>Haul routes</u>

Major roadways such as I-5, SR 520, and I-90 in Seattle will be used for major material haul routes. Other major city arterials designated as truck routes will also be used to access these major roadways. This includes the I-5 NE 45<sup>th</sup> Street Interchange, Fuhrman Avenue, Boyer Avenue, SR 520 Montlake Interchange, Eastlake Avenue to access the construction staging area at Fuhrman Avenue, and Lake Washington Boulevard to access the construction staging area in the WSDOT Peninsula area.

Additional Section 106 coordination will be required if Skanska proposes the use of haul routes outside of those identified or restricted in the Section 106 coordination process. If WSDOT determines that haul routes in Seattle not outlined in the <u>SR 520, I-5 to Medina: Bridge Replacement</u> and <u>HOV project Final Environmental Impact Statement</u> might be used, WSDOT will follow the process described in the <u>Section 106 PA</u>.





### Planning and compliance

- Perform the work to prevent tracking of dirt and gravel onto local streets in accordance with the WSDOT's Temporary Erosion and Sediment Control (TESC) requirements.
- Access the site according to the terms of Street Use Permit with the city of Seattle where applicable.

### **Detours and closures**

- Coordinate local street closures with the city of Seattle through city-issued Street Use Permits.
- Coordinate closures/detours in advance with transit providers.
- Provide adequate signing for detours and closures.
- Have all detours, including all signing, in place before the closure of any road or lanes, and acquire all detour agreements with the affected local jurisdiction.
- Coordinate with other contractors in the vicinity to use planned closures and reduce the overall number of closures needed on the project

WSDOT will provide advance notices regarding closures and/or detours.

### Damage minimization and repair

- Repair any project-generated potholes as needed.
- Repair any project-generated damage to guardrails, barriers, attenuators, and traffic system signs.
- Provide adequate stormwater management during the project.
- Restore any construction-related property and landscaping damage to a similar or equal condition to existing before the damage occurred.

### Local, Public and Emergency Access

- Minimize interruptions to access to public facilities affected by the project unless there is a public/construction safety risk.
- Allow access to the site for spill response and make personnel and equipment available to respond to emergencies.
- Cooperate with law enforcement and other emergency response agencies in response to accidents, fires, spills, or other emergencies in any area affected by the project.
- Work with emergency service providers to address their concerns about emergency access to and through the project corridor.
- Ensure access to all historic properties is maintained. Except for emergency situations, provide 24 hours advance notice to affected property owners before any unavoidable interruptions of access. Consult with the affected property owners to address their needs, which may include the development of an alternate access strategy for short-term interruptions of access and longer-term detours.

If any owner identifies damage during construction, the property owner should notify WSDOT using the contact phone number described in <u>Questions or Concerns?</u> section of this document. This contact phone



number is available 24 hours per day, 7 days per week. WSDOT will respond within 72 hours and consult with the property owner to assess the cause of the damage and, if applicable, provide for any necessary repairs. If WSDOT determines that project hauling activities are creating structural or architectural damage, WSDOT will direct Skanska to stop use of that route until appropriate safety measures can be put in place.

If the affected private property is a historic property, the repairs will be consistent with the U.S. Secretary of the Interior's <u>Standards for the Treatment of Historic Properties</u>. Additionally, for affected historic properties, WSDOT will offer DAHP the opportunity to review and comment on the consistency of any repairs with the Standards.

To contact the project about traffic or transportation issues in your area, see the contact information in the <u>Questions or Concerns?</u> section of this document or visit the <u>SR 520 Construction Corner</u>.

## 6. Utilities and Services

Portage Bay Bridge and Roanoke Lid Project construction will require relocation or connection to some utilities such as sewer, water, power, gas, fiber optic, and cable television lines. Effects to utilities and services have been identified through coordination with the utility owners including Puget Sound Energy, Seattle Public Utilities, Seattle City Light, Seattle Information Technology, King County Metro Transit, and Lumen Technologies (previously CenturyLink), and will continue to be coordinated throughout the duration of the project.

## What to expect during construction

Three major utility relocations will be required for the project: relocating a 42" water line and a major communication duct bank under SR 520 and moving overhead power lines in the Roanoke Lid area underground. Skanska will provide a work plan for utility installation. As excavation occurs, the trench opening will be temporarily covered when work is not in progress. The trench will be backfilled, and the area will be restored similar to its existing condition.

For worker safety, connection to power supply lines will require short interruptions in service.

WSDOT and Skanska will notify potentially impacted residents of necessary work that may result in service interruptions or closures.

Skanska anticipates the electrical relocation efforts to occur in 2024 into early 2025 prior to several of the major project structural elements. The water line relocation is anticipated to occur in 2027-2028, following Roanoke Lid installation progress.

Additional effects to utilities and services may be identified through further coordination with utility owners. If identified, this section will be updated to include necessary details.

## Applicable commitments

WSDOT and Skanska will follow all WSDOT, federal, local, and statewide regulatory requirements and/or regulations as required by the contract documents.



WSDOT will coordinate with the Utility Owners prior to any service interruption. WSDOT and Skanska will coordinate with the city of Seattle prior to any service interruption.

Work will be performed in conformance with WSDOT standard specifications.

## Measures and practices

Advanced notification will be provided to potentially impacted residents and other stakeholders before conducting work that may affect utilities or services. Notifications will include contact information for comments or questions.

WSDOT will coordinate with Seattle City Light and Seattle Public Utilities about utility relocations and/or effects to service. Disruptions to services that will affect surrounding homes or businesses will be minimized; advanced notification would be provided if such disruptions are required.

## For more information

To contact the project about utility or services in your area, see the contact information in the <u>Questions</u> or <u>Concerns?</u> section of this document or visit the <u>SR 520 Construction Corner</u>.

## 7. Vegetation Management

Some vegetation will be removed from the project area for construction staging or project improvements.

### What to expect during construction

WSDOT has developed a Tree and Vegetation Management and Protection Plan (TVMPP), which will be implemented before construction. The TVMPP can be found as Appendix A of this document. The plan addresses areas of the Portage Bay Bridge and Roanoke Lid Project corridor where specific trees and/or vegetation will be removed or disturbed due to construction or resulting project improvements.

The TVMPP identifies areas of mature tree removal, protection, potential relocation, and restoration of project areas. It also shows areas temporarily dedicated to construction, including staging and lay down areas. The goal of the plan is to minimize tree and vegetation removal. WSDOT will notify neighbors in advance of impacts, ensure that contractors follow the plan, and limit tree and vegetation removal to the approximate time required for construction.

## Applicable commitments

WSDOT and Skanska will follow all WSDOT, federal, local, and statewide regulatory requirements and/or regulations as required by the contract.

WSDOT and Skanska will retain mature vegetation outside of the Roanoke Lid limits as outlined in the TVMPP.

WSDOT and Skanska will plant replacement vegetation to mitigate for tree loss.

Invasive species will be removed and managed as part of the restoration efforts.



Skanska will also comply with tree and vegetation protection measures outlined in the TVMPP, as outlined in Appendix A of this document.

## For more information

Please see Appendix A for the complete TVMPP.

To contact the project about vegetation management issues in your area, see the contact information in the <u>Questions or Concerns?</u> section of this document or visit the <u>SR 520 Construction Corner</u>.

## 8. Erosion Control, Over-water, and In-water Work

Construction activities, such as clearing, grubbing and grading which expose bare soil, or pavement removal and replacement, create conditions that increase stormwater volume and velocity. WSDOT is preparing the Temporary Erosion and Sediment Control (TESC) Plan and Spill Prevention, Control and Countermeasures (SPCC) plan to manage erosion and spill related risks during construction. Together, the TESC and SPCC plans are designed to meet the Stormwater Pollution Prevention Plan (SWPPP) requirements.

This project involves in- and over-water demolition of the existing Portage Bay Bridge, as well as the construction of the replacement Portage Bay bridges. The project will have construction activities in Portage Bay, including movement of materials by barge, construction of temporary work platforms, bridge foundation construction, bridge superstructure construction, and removal of the existing bridge.

The project will also transport materials and bridge components through the Lake Washington Ship Canal.

## What to expect during construction

The replacement Portage Bay Bridges are being built over the water. The new south bridge is largely within the alignment of the existing bridge. The new north bridge is mostly to the north of the existing bridge. Barges and temporary work platforms on steel pilings will be used to support equipment and materials used to demolish the existing bridges, and build the drilled shaft foundations, bridge columns and bridge superstructure. These activities include demolishing the existing bridge barrier, placing a temporary barrier in preparation of widening the existing bridge, and placing concrete for the bridge deck.

WSDOT anticipates supplying some equipment and materials by barge to a construction staging area located on the work bridge. Access restrictions within the construction work zone will be necessary for safety and security purposes.

The public should expect barge trips to and from the Portage Bay work zone.

## Applicable commitments

The Portage Bay Bridge and Roanoke Lid Project TESC Plan will be included in the contract documents. If needed, Skanska will submit any proposed modifications to the TESC Plan to WSDOT for review.

WSDOT and Skanska will adhere to all WSDOT, federal, local, and statewide permits and approvals, including, but not limited to:



- Sections 401 & 404 of the Clean Water Act
- Formal Endangered Species Act consultation
- <u>WSDOT Temporary Erosion and Sediment Control Manual</u> (TESCM)
- Construction NPDES Permit
- Hydraulic Permit Approval
- Coast Guard Permit Requirements
- Seattle SDCI SR 520 Portage Bay Bridge Shoreline permit

The WSDOT *Temporary Erosion and Sediment Control Manual* (TESCM) provides policies for preventing erosion related impacts to waters of the state during construction. This manual also outlines WSDOT's policies for meeting the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit requirements, and the requirements in Volume II of the stormwater management manuals published by the Washington State Department of Ecology.<u>http://www.wsdot.wa.gov/NR/rdonlyres/9044C195-3DE0-49A0-AEF7-81F314B55BB1/0/SR520\_Att2\_FBSuppInfo.pdf</u>

### Measures and practices

- Restrictions will be in place for work during certain fish windows, around certain events such as Seafair, and for the opening day of boating season.
- BMPs will be developed in accordance with the WQMPP for on-land work and in- or over-water work. The BMPs will vary depending on the work location and the type of work being performed and may include:
  - Daily inspections of BMPs with repair and maintenance as required.
  - Using fueling locations and procedures approved by the Washington State Department of Ecology.
  - Having spill response kits and containment booms on board barges and vessels.
  - Providing containment and/or covering for fuels, concrete, concrete process water, stormwater runoff, construction materials and debris.
  - Sweeping barges and work platforms.
  - Anchoring portable restrooms.
  - Using containment methods beneath structures being constructed or demolished and beneath work platforms.
  - Avoiding barge grounding within the project area.
  - Spraying down dust and grinding residue.
  - Installing turbidity curtains when required.
  - Providing linings for barges used to hold concrete and/or slurry water waste bins.
  - Placing absorbent materials under stationary vehicles and equipment on barges or temporary work platforms.
  - Placing concrete during dry weather conditions or protecting from adverse weather.
  - Installing and using emergency cut-off valves on concrete pumps and pipelines.





- Operating equipment to minimize suspension of near shore sediments.
- Installing valves on slurry lines and closing when the lines are not in use.
- Coordination and communication with the Seattle Yacht Club and Queen City Yacht Club regarding access and timing of project activities and any closures.
- Provision of water access at one or more locations with at least 10 feet of vertical clearance to cross under the Portage Bay Bridge and temporary construction trestles for small boat access to and from Montlake Playfield.

Skanska will work closely with WSDOT to ensure that work operations comply with the commitments listed above.

### For more information

To contact the project about erosion control issues in your area, see the contact information in the <u>Questions or Concerns?</u> section of this document or visit the <u>SR 520 Construction Corner</u>.

## 9. Construction Staging in WSDOT Right of Way

WSDOT anticipates that Skanska will stage equipment and materials on land near the SR 520 Program construction areas. Staging areas will vary in size and function but will be available for use by Skanska 24 hours per day, 7 days per week.

### What to expect during construction

WSDOT anticipates that Skanska will load and unload materials and equipment at work areas. In addition, Skanska will be able to store equipment and materials at identified construction staging locations, which could include the SR 520/I-5 interchange and underneath the Ship Canal Bridge. There may also be staging in an area south of SR 520 and east of East Lake Washington Boulevard on WSDOT-owned right of way known as the WSDOT Peninsula. This area is separated by a berm and trees from adjacent roadway and away from nearby residences.

Any changes to staging areas will need to be reflected in updated TESC plans and an updated SPCC Plan. Figures 3-6 illustrate construction staging areas, contractor access points, and haul routes.

## Applicable commitments

WSDOT and Skanska will follow all WSDOT, federal, local, and statewide regulatory requirements and or regulations as required by the contract.

## **Measures and practices**

BMPs utilized on WSDOT projects may include but are not limited to:

• Locate construction sheds, barricades, and material storage away from private properties, and avoid obscuring views of and from private properties.





- Avoid short-term construction features where they would require permanent removal of or damage to mature trees.
- Install noise-control and visual fencing around the Roanoke Lid construction area.

## For more information

To contact the project about an SR 520 staging area, see the contact information in the <u>Questions or</u> <u>Concerns?</u> section of this document or visit the <u>SR 520 Construction Corner</u>.

## **Questions or Concerns?**

Construction is complex and at times will be disruptive to neighbors. WSDOT maintains on-site inspectors to ensure compliance with various project commitments and requirements. WSDOT is committed to being a responsible project owner and to being responsive to community concerns as they arise.

WSDOT has a process for determining if a non-compliance event occurs. In the event of non-compliance, WSDOT has a process for determining the appropriate corrective actions. <u>WSDOT's March 2019</u> <u>Construction Manual</u> further outlines the process for identifying non-compliance.

### Information on property damage concerns

If a property owner suspects or identifies damage during construction, the property owner should notify WSDOT by calling the 24-hour construction hotline listed below. WSDOT will respond within 72 hours and consult with the property owner to assess the cause of the damage and, if applicable, will provide for any necessary repairs. If WSDOT determines that hauling activities are resulting in structural or architectural damage, WSDOT will stop use of that route until appropriate safe measures are put in place. If the affected property is a historic property, WSDOT is required to ensure the repairs will be consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties. Additionally, for affected historic properties, WSDOT will offer DAHP the opportunity to review and comment on the consistency of any repairs with the Standards.

## **Contact information**

Below is additional information on how to stay informed through project construction and how to contact WSDOT with questions and/or concerns:

### Visit the website:

- SR 520 Bridge Replacement and HOV Program
- SR 520 Portage Bay Bridge and Roanoke Lid Project

### Call the project:

• For routine questions and information, call the SR 520 Program from 8 a.m. to 5 p.m., Monday through Friday: 206-200-9484.





• A 24-hour construction hotline for questions or concerns regarding construction activities and progress: 206-319-4520.

### *Email the project team:*

• Submit a question or request information by emailing <u>SR520Bridge@wsdot.wa.gov.</u>

### Stay informed about project construction:

Other tools available for the public to stay informed and involved related to project construction:

- <u>SR 520 Construction Corner</u> for up-to-date construction information and closure updates.
- <u>E-mail updates</u> Subscribe to SR 520 project updates to get regular information about construction activities.
- Highway advisory radio, variable message signs, active traffic management signs, project identification signs.
- SR 520 social media accounts:

<u>Twitter</u> <u>Flickr</u> <u>YouTube</u>



# **IV.** Additional Figures

Figure 12: How do we hear noise?

- Movement causes vibrations, or waves, in the air that produce sound once they reach our ears.
- Sound is measured in units called decibels (dBA).
- An average person's ear can perceive a 3 dBA or greater change in noise levels.
- A 10 dBA reduction sounds half as loud to the human ear; a 10 dBA increase sounds twice as loud.







### Figure 13. Conceptual Location of Roanoke Lid Construction Area Noise Barrier Fence