Washington State
Department of Transportation

Community Construction Management Plan

SR 520 West Connection Bridge

2/6/2014

The Community Construction Management Plan (CCMP) is a document that outlines the process through which members of the public have an ongoing opportunity to provide input into construction management decisions that can help to avoid, minimize, and/or mitigate the effects of construction activities 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 and modify the construction practices addressed by the CCMP.

Washington State Department of Transportation

Community Construction Management Plan:
SR 520 West Connection Bridge

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Community Construction Management Plan Overview

Purpose and background

WSDOT developed the Community Construction Management Plan (CCMP) as a mitigation commitment for project adverse effects 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 Section 106 Programmatic Agreement (PA). Construction effects (as defined in 36 CFR 800.5(a)(2)) may include vibration, noise, change of use or physical features of a property's setting; visual, atmospheric or audible intrusions.

During the consultation process, it was recognized that effects the CCMP was intended to mitigate were not exclusive to historic properties, but could potentially affect other resources in similar ways. 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."

This volume of the CCMP has been developed specifically for the SR 520 West Connection Bridge (WCB) construction area and activities. Additional volumes will be developed in conjunction with each contract awarded for the SR 520, I-5 to Medina: Bridge Replacement and HOV project. The WCB project phase covers the SR 520 corridor from the existing fixed bridge near the Madison Park neighborhood to the west end of the new floating bridge currently under construction.

WCB is being constructed using a design-bid-build contract, with design and plan preparation under the direct control of WSDOT. An open competitive bidding process was used to select the contractor. The contract was awarded in April 2013 with notice to proceed with construction given in June 2013.

The responsibilities of WSDOT include:

- Preparing final design including the specifications, criteria, and commitments to which the contractor will be held.
- Performing construction inspection and monitoring of contractor activities to ensure contract requirements are being met.
- Obtaining local, state, and federal permits as necessary for compliance with applicable laws and regulations. Coordinating and communicating with local governments, neighborhoods, and businesses on possible project impacts.

The responsibilities of the contractor include:

- Determining construction methods and techniques for project implementation.
- Constructing the project improvements for WCB
- Obtaining specific permits not previously secured by WSDOT.

How to use the CCMP

The CCMP is part of a process that allows members of the public an ongoing opportunity to have input into construction management decisions that can help to avoid, minimize, or mitigate the effects of construction activities on historic and other properties. The CCMP includes commitments made through the Section 106 PA, best management practices (BMPs), the WCB contract documents, environmental commitments made through other regulatory processes, and additional tools that will help to avoid, minimize, and/or mitigate construction effects on local communities and historic properties. The WCB CCMP is a living document which will be updated and revised through the course of the project phase to incorporate changes to construction activities or approaches to the work.

This CCMP is best read and reviewed electronically as there are a number of hyperlinks throughout the document. These hyperlinks direct users to websites and permit documentation that will provide more information on each topic.

The public is also encouraged 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 program website. While the WCB CCMP is for construction effects, questions on other topics such as design, permitting, operations and maintenance, and other non-construction related activities can be directed to the program inbox at SR520Bridge@wsdot.wa.gov. Contact information for CCMP-related effects is listed in the "Questions or Concerns?" section of this document.

Project Phase Overview

About the SR 520 West Connection Bridge Project Phase

The SR 520 West Connection Bridge project phase is one part of the I-5 to Medina: Bridge Replacement and HOV Project, which is one of four projects that make up the SR 520 Bridge Replacement and HOV Program. The SR 520 Program's 12.8-mile-long corridor area begins at I-5 in Seattle and extends to SR 202 in Redmond. The SR 520 Program also includes the Pontoon Construction Project, the Medina to SR 202: Eastside Transit and HOV Project, and the Lake Washington Congestion Management Project.

The WCB (see Figure 1 for project limits) connects the new floating bridge currently under construction as part of the SR 520 Floating Bridge and Landings to the existing SR 520 bridge north of the Madison Park neighborhood. The new bridge will have four general-purpose lanes – two in each direction. Part of the WCB will be constructed as a widening of the existing SR 520 bridge, and part will be a new alignment that joins the west end of the new floating bridge. The widened portion of the WCB will be replaced in its entirety when the final eastbound roadway is constructed between Montlake and the new floating bridge. Parts of the new alignment structure, including the shaft foundations and the easternmost span over the navigation channel, will be incorporated into the future eastbound roadway structure.

Construction activities for the SR 520 West Connection Bridge project phase will occur primarily at the project site, entirely upon Lake Washington. There are no on-land components of this project phase. However, supporting activities will take place at several locations throughout the Puget Sound:

- The contractor will utilize staging sites with marine access from which barges and boats can be loaded in order to supply the project site with equipment, materials and labor. The primary staging site is located in Tacoma, WA.
- Precast girders will be constructed off-site and delivered by barges to the project site. The girders will be prefabricated at the Port of Tacoma and delivered to the jobsite via barge.

Construction activities within the project area began in July 2013. Compliance with environmental permits restricts the construction schedule for in-water activities, such as pile driving. Construction is expected to be completed by early fall 2014.

Permitting Agencies and Jurisdictions

WSDOT is the lead agency responsible for construction of the SR 520 West Connection Bridge project phase. As part of the construction process, WSDOT and the contractor will receive several permits from various permitting agencies and jurisdictions.

Permitting agencies and jurisdictions include, but are not limited to:

- Federal Highway Administration (FHWA)
- The Washington State Department of Archaeology & Historic Preservation (DAHP)
- The United States Army Corps of Engineers (USACE)
- United States Coast Guard
- Washington State Department of Ecology
- Washington State Department of Fish and Wildlife
- Washington State Department of Natural Resources
- City of Seattle

Find more information on how to contact the project in the "Questions or Concerns?" section of this document.

Construction Components and Effects

This section of the CCMP is organized by types of potential construction effects. 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 and Erosion Control
- In-Water Work
- Construction Staging in WSDOT Right of Way

The **What to Expect During Construction** section characterizes the location, potential construction activities, duration and intensity of activity for each construction effect to help readers understand what to expect during construction.

The **Applicable Commitments** section provides information about and website links to documents describing construction related commitments. Understanding these commitments will help inform readers about the resources that the contractor and WSDOT will use to determine mitigation activities.

The **Measures and Practices** section under each construction effect describes the potential mitigation activities that may be implemented to mitigate for the stated construction effect.

The **How to Get More Information** section links resources and contact information to assist with questions that may arise during construction.

Project phase construction overview

Construction activities vary by location. See Figure 2 for a map that identifies the construction effects within the SR 520 West Connection Bridge area.

Potential construction effects

Noise

The contractor will perform many activities throughout the duration of bridge construction. Each activity will use different types of equipment and result in different levels and kinds of noise.

Construction operations will occur entirely over Lake Washington and within the City of Seattle as shown in Figure 2. The Madison Park neighborhood is closest to the West Connection Bridge work area although residents in the Laurelhurst neighborhood may also have line-of-sight to the project area.

What to expect during construction

The contractor will work both day and night as necessary to complete this project phase as required by the contract. Crews will typically work from 7 a.m. to 7 p.m., Monday through Friday, with occasional weekend work. Crews will also work overnight up to several nights per week for extended periods of the project phase. When nighttime work activities are necessary, they will be limited to operations that are less noisy whenever feasible.

Nighttime work may require a noise variance (or exemption) from the City of Seattle when noise levels are planned to exceed allowable levels. Nighttime work in residential areas is defined to occur Monday through Friday between 10 p.m. and 7 a.m., and between 10:00 p.m. and 9:00 a.m. Saturday and Sunday. The contractor will provide notification to the City and residents within 500 feet of the nighttime work zone in advance of noise variance use. If construction requires consecutive noise variances for an extended period (for example, intermittent night work over the course of several months), a single noise notification will be provided for this period. Information in the notifications will include the following:

- Legal project title, jurisdiction, description of the project, and description of the items of work to be performed at night by the Contractor.
- Start date and duration of the nighttime work.
- List of the expected nighttime noise sources.
- List of noise mitigation measures to be implemented.
- WSDOT complaint response phone number.

A Level of Noise chart has been included in the For More Information section of this document. This chart shows estimated noise levels associated with everyday activities as well as common construction activities. More information about how WSDOT measures noise can be found on the WSDOT website.

Chart 1 is an example of typical activities which are expected to occur during this project phase that may generate noise. Figure 3 helps illustrate how noise is perceived at varying distances. Noise may sound louder or quieter based on the surface over which it is travelling. Noise from construction activities attenuates less quickly over a “hard” surface (like flat water or pavement) than over “soft” surfaces (like grass). So the same equipment may sound different depending on where you are standing. Additionally, when work activities occur during highway closures, construction noise may seem more noticeable in the absence of normal highway traffic noise.

Applicable commitments

WSDOT’s Noise Program ensures compliance with local, state, and federal environmental regulations on noise from traffic and construction. During construction, WSDOT and the contractor will need to comply with permit requirements, as described in more detail later in this section. The process for determining appropriate mitigation is a dynamic process for construction noise because there is so much variation between construction projects. Construction noise is typically exempt from noise control requirements in the Washington Administrative Code (WAC), but is subject to local noise level limits as required through permits.

WSDOT and the contractor will adhere to all WSDOT, FHWA, local, and statewide regulatory requirements and as required by the contract documents. WSDOT has prepared a Construction Noise and Vibration Plan that identifies the expected noise levels at nearby receivers, risk of exceeding the impact criteria and control measures for the contractor to implement where exceedance of the criteria is predicted. A detailed mathematical model, based on the types of

equipment and activities, is used to determine the expected levels of noise at nearby receivers. The Construction Noise and Vibration Plan can be found on the WSDOT website.

Applicable local noise regulations include those of the City of Seattle, which are described in more detail below.

City of Seattle Noise Regulations

The Seattle Municipal Code chapter 25.08.425 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 construction noise method to determine the expected future construction noise levels.

Measures and practices

Current BMPs and WSDOT standard specifications will be followed.

To help maintain noise levels below the thresholds established as noted above, the contractor plans to implement BMPs which include but are not limited to:

- Use of impact or impulsive type tools such as hoe rams or Vac trucks will be prohibited between the hours of 10:00 p.m. and 8:00 a.m. Monday through Friday and between the hours of 10:00 p.m. and 9:00 a.m. Saturday, Sunday and holidays.
- Use of ambient sensitive backup warning devices on all vehicles. As an alternative, the contractor may use back-up observers in lieu of pure tone back-up warning devices for all equipment except dump trucks in compliance with WAC Chapter 296-155-610 and 296-155-615. The contractor will use back-up observers and back-up warning devices for dump trucks in compliance with WAC Chapter 296-155-610.
- All trucks performing export haul will have well maintained bed liners as inspected and approved by WSDOT.
- Prohibiting the banging of truck tailgates. All truck tailgates will be secured to prevent excessive noise from banging.
- Limiting the means of cleaning the roadway surface. Material or debris spilled on the roadway will be removed by hand methods or sweeping. No vacuum or scraping type equipment or activity will be used to clean decks or pavement surfaces.
- Use of WSDOT approved noise mitigation shields, noise blankets, skirts, or other means to reduce the effects of stationary noise generating equipment, such as light plants, generators, compressors, and jackhammers.
- Prohibiting the use of equipment using horns, alarms or sirens anywhere on site. Limiting night-time work operations; when working at night, limit operations to less noisy construction such as material delivery, concrete placement, and/or reinforcing steel placement. The plan is to limit loud "impact" operations such as pile-driving and demolition to daytime hours.

How to get more information

The issuance of noise variances or exemptions is a formal process with local jurisdictions. Most jurisdictions have a public notice/comment period prior to the issuance of the noise variance/exemption.

To find out more about noise variances and the process for the City of Seattle:

- Seattle Planning and Development, 206-684-7843 or David.George@seattle.gov

To contact the project about construction noise in your area, see the contact information in the Questions or Concerns? section of this document.

Vibration

What to expect during construction

The vibration-causing activities conducted during the construction of the WCB will be limited to levels below criteria presented in the I-5 to Medina project final EIS for risk of damage to historic and non-historic structures. Examples of construction activities that may induce vibrations include pile driving, drilled shaft foundation construction, and demolition of the existing bridge rail. Impacts along the Seattle shoreline are anticipated to be minimal. Figure 4 shows the location of vibration monitoring equipment and pre-construction surveys in Madison Park. Owners of buildings along the north shore of the Madison Park neighborhood have been contacted by WSDOT to conduct pre-construction surveys to document the existing condition of the buildings, as well providing information to residents about upcoming construction activities that may cause vibrations.

Applicable commitments

WSDOT has engaged the services of a vibration expert to evaluate the SR 520 I-5 to Medina Bridge Replacement and HOV Project corridor, including any potential haul routes along city arterial streets, and to identify areas where impacts to properties within the affected area may occur as a result of vibration. The vibration expert has prepared a Construction Noise and Vibration Plan which identifies the expected vibration levels at nearby receivers, risk of exceeding the damage risk criteria for vibration, control measures for the contractor to implement where exceeding the criteria is predicted, and locations where monitoring should be conducted. Mathematical modeling, based on the types of construction equipment and activities, was used to determine the expected levels of vibration at nearby receivers.

For the SR 520 West Connection Bridge project phase, WSDOT does not anticipate substantial vibration effects to vulnerable structures. WSDOT requires the construction contractor to submit a vibration monitoring plan that identifies how construction activities will be carried out in such a way as to ensure that vibrations do not reach a level that causes architectural or structural damage to any properties. This vibration monitoring plan is available on the WSDOT website.

WSDOT and the contractor will work to prevent damage to structures from vibration. However, if any structural or architectural damage to property occurs as a result of project construction, WSDOT will consult with property owners to assess the cause of the damage and will identify and provide for any necessary repairs. If the private property affected is 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 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.

Measures and practices

Over the course of the project, the contractor will complete several activities that are likely to cause vibratory impacts. In particular, column foundation activities are expected to cause vibration that may be perceptible to those near the project area. The activities that use vibration-generating equipment include:

- Constructing temporary work platforms on temporary pilings that will be vibrated or driven into the lake bottom.
- Setting steel casing for drilled shafts using vibratory equipment.
- Removing temporary work platforms and pilings using vibratory equipment.

Figure 5 shows the locations where piling and drilled shafts will be installed for this project phase. Additional work activities, including bridge rail demolition, may also cause vibration.

As described previously, where the Construction Noise and Vibration Plan indicates that a property is potentially vulnerable to construction-related vibration, WSDOT will take vibration measurements before and during construction. WSDOT will maintain contact with owners whose buildings are identified as vulnerable during construction and analyze the data to ensure that any damage or concerns are quickly identified.

How to get more information

If damage is identified by a property owner during construction, the property owner should notify WSDOT using the 24/7 project contact phone number listed in the Questions or Concerns? section of this document. WSDOT will respond within 72 hours and will consult with property owners to assess the cause of the damage in order to identify and provide for any necessary repairs. If WSDOT determines that project construction activities are resulting in structural or architectural damage to properties, WSDOT will direct the contractor to stop working on that construction activity until appropriate safeguards can be put in place. If WSDOT determines that an emergency situation is occurring (or has occurred) that threatens injury or significant structural damage, WSDOT will halt the construction activities as rapidly as possible.

To contact the project about construction vibration issues in your area, see the contact information in the "Questions or Concerns?" section of this document.

Air Quality and Fugitive Dust

What to expect during construction

Air quality issues and fugitive dust are generally associated with activities such as mobilization, general construction (particularly earthmoving operations and construction truck traffic), and demolition.

This project phase will be entirely built on Lake Washington. As a result, there will not be any disturbed earth that could result in fugitive dust. Demolition of a portion of the existing SR 520 bridge is the most likely source of any fugitive dust. Air quality can also be adversely affected by construction truck traffic and the hauling of materials over large distances.

Applicable commitments

WSDOT and the contractor will adhere to all WSDOT, FHWA, local, and statewide regulatory requirements and/or as required by the contract documents. The contractor has identified the methods for controlling concrete dust and saw-cutting residue in the Concrete Containment and Disposal Plan. 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 Puget Sound Clean Air Agency website.

WSDOT and the contractor will comply with additional agreements, such as environmental commitments made through other regulatory and permitting processes. As most of the permits for this project phase have been received already, the WCB CCMP and the contract documents include the commitments contained in those permits.

Measures and practices

Minimal dust is anticipated to be generated due to the contractor's activities. Bridge construction activities such as building forms, placing reinforcing bars and pouring concrete will not generate dust. Many building materials will arrive by barge, which further limits the amount of dust caused by on-highway vehicles. The only construction activity that is likely to create fugitive dust is demolition of a portion of the SR 520 bridge to connect the widening portion of WCB. During the demolition of the concrete bridge rail and part of the concrete bridge deck, water spray will be used to minimize fugitive dust.

How to get more information

To contact the project about construction dust or air quality issues in your area, see the contact information in the Questions or Concerns? section of this document.

Visual Quality: Aesthetics, Glare, Lighting

What to expect during construction

The new West Connection Bridge will be built immediately to the north of the existing bridge. During construction operations, residents near the Seattle shoreline will see work in Lake Washington, including barges and floating derricks (barges with mounted cranes). Work visible

from the Seattle shoreline will occur from July 2013 through August 2014. When working at night, crews may use safety, navigation and construction lighting as needed.

Applicable commitments
The contractor will adhere to all WSDOT, FHWA, local, and statewide regulatory requirements and/or as required by the contract documents. This includes WSDOT standard specifications.

Measures and practices
WSDOT and the contractor will limit the use of construction lighting when feasible. 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. During the winter months (November through March), the public should expect to notice increased work zone lighting at the beginning and end of the work day due to decreased daylight hours.

How to get more information
To contact the project about aesthetics, glare or lighting issues in your area, see the contact information in the "Questions or Concerns?" section of this document.

Traffic and Transportation

What to expect during construction
Construction effects or concerns related to traffic and transportation include:

- Haul routes
- Detours and closures
- Access, including emergency service access

Much of the WCB construction activities occur over-water and north of the existing bridge, removed from the vehicle traveling public. Barges will bring supplies and equipment primarily from the Port of Tacoma. The use of barges will reduce truck traffic coming to and from the new bridge.

For material hauling by truck, it is anticipated that the contractor will only use major roadways including I-5, SR 520, and I-90 in Seattle. It is possible that other major arterials designated as truck routes could be used by the contractor to access these major roadways.

For many of the concrete elements that will be built for the WCB, the contractor will work from the existing SR 520 roadway to pump concrete. To complete this work, the contractor will work overnight, restricting westbound traffic to a single lane on SR 520 or a full closure of westbound traffic on the bridge when additional work space is needed. These overnight closures are expected to occur up to several nights per week throughout this project phase.

For construction operations that cannot be completed under live traffic, 20 overnight and nine weekend closures are planned. These operations would include placing concrete for drilled shaft foundations, demolishing the existing bridge barrier, placing a temporary barrier in preparation of

widening the existing bridge, and placing concrete for the bridge deck. When possible, these closures will be combined with those needed for other work in the SR 520 corridor.

Applicable commitments

WSDOT and the contractor will adhere to all WSDOT, FHWA, local, and statewide regulatory requirements and/or as required by the contract documents.

The contractor does not plan to use City of Seattle non-arterial streets for material haul routes. If this changes during the course of this project phase, the contractor will develop a Neighborhood Traffic Management plan and comply with the haul route agreements outlined in the Section 106 Programmatic Agreement.

Measures and practices

As appropriate, the contractor will follow established BMPs, including:

Haul routes

- Utilize major roadways for material haul routes including I-5, SR 520, and I-90 in Seattle.
- Access the site according to the terms of haul route agreements with local jurisdictions where applicable. These agreements will be obtained by the contractor and included in this document as they are approved.

Detours and closures

- Follow the approved traffic control and detour plans in the contract documents.
- Have all detours, including signing, in place prior to the closure of any ramp, lane or road, and acquire all detour agreements with the affected local jurisdiction.
- Provide advance public notice of detours and closures.

Damage minimization and repair

- Repair any project-generated potholes as needed or as directed by WSDOT.
- Repair any project-generated damage to guardrails, barriers, attenuators, and traffic system signs.
- Provide adequate stormwater management during the project.
- Restore property and landscaping that is damaged in the course of construction to a condition similar, equal, or better than the existing before the damage occurred by repairing, replacing, rebuilding, or replanting.

Access

- Maintain uninterrupted access to all public facilities affected by the project except during approved closures of SR 520.
- 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.
- Properly notify all parties in the affected area of any access restrictions near the construction site.

How to get more information

If damage is identified by the owner during construction, the property owner shall notify WSDOT using the 24/7 Project contact phone number described in "Questions or Concerns?" section of this document. WSDOT will respond within 72 hours. If WSDOT determines that project hauling activities are resulting in structural or architectural damage, WSDOT will direct the contractor to stop use of that route until appropriate safeguards can be put in place.

If structural or architectural damage to any property occurs during a period when the route is being used for hauling, WSDOT will consult with property owners to assess the cause of the damage and will identify and provide for any necessary repairs. If the private property affected is a historic property, 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.

To contact the project about traffic or transportation issues in your area, see the contact information in the "Questions or Concerns?" section of this document.

Utilities and Services

What to expect during construction

During construction, the contractor will have minimal impacts to utilities and services. Impacts to utilities in Seattle are not expected during this project phase.

Applicable commitments

WSDOT and the contractor will adhere to all WSDOT, FHWA, local, and statewide regulatory requirements and or as required by the contract documents. Work will be performed in conformance with WSDOT standard specifications.

Measures and practices

Coordination with Seattle City Light may be needed for work on the bridge lighting and power systems. No disruptions to service are anticipated for surrounding homes and businesses.

How to get more information

To contact the project about utility or services in your area, see the contact information in the "Questions or Concerns?" section of this document.

Vegetation Management and Erosion Control

What to expect during construction

We anticipate no tree removal or vegetative impacts within Seattle associated with this project phase.

Applicable commitments

WSDOT and the contractor will adhere to all WSDOT, FHWA, local, and statewide regulatory requirements and or as required by the contract documents.

- Washington State Department of Ecology's Stormwater Management Manual
- Washington State Department of Ecology's Construction Stormwater General Permit
- WSDOT's Highway Runoff Manual
- WSDOT's TESC requirements

The SR 520 West Connection Bridge Water Quality Monitoring and Protection Plan (WQMPP) can be found on the WSDOT website.

WSDOT and the contractor will comply with additional agreements, such as environmental commitments made through other regulatory and permitting processes. As the permits for this project phase have been received already, the WCB CCMP and the contract documents include the commitments contained in those permits.

Section 7 of the Seattle Shoreline Substantial Development permit contains information about the plans and BMPs for the Project.

Measures and practices

The contractor's primary erosion control concern will be managing stormwater runoff during and after concrete pours until the concrete has cured sufficiently.

Management practices may include:

- Covering areas of freshly placed concrete to prevent rainwater from eroding the surface and leaching cement into the runoff.
- Collecting runoff and treating or hauling off-site for proper disposal if water quality criteria are exceeded.
- Maintaining BMPs – during the course of construction, maintenance work will be performed to ensure BMPs continue to function as intended.
- Ensuring that the WQMPP is followed.

How to get more information

To contact the project about vegetation management or erosion control issues in your area, see the contact information in the Questions or Concerns? section of this document.

Over-water and In-water Work

The project will have significant construction activities in Lake Washington. These activities include movement of materials by barge, construction of work platforms, bridge foundation construction, bridge superstructure construction, and removal of portions 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 West Connection Bridge is being built over the water, north of and connecting to the existing bridge. Barges and temporary work platforms will be used to support equipment and materials used to build the drilled shaft foundations bridge columns and bridge superstructure. Most project-related equipment and materials will be loaded onto barges in Tacoma, WA. The contractor will not use any on-lake staging areas along the Lake Washington shoreline of the City of Seattle.

Figure 2 shows construction locations and activities on Lake Washington.

The public should expect barge trips to and from the Lake Washington work zone from Tacoma. Up to 150 trips barge trips may be necessary for the transport of equipment and materials including derrick cranes, drill rigs, girders, rebar cages, forms, and work platforms.

Applicable commitments

WSDOT and the contractor will adhere to all WSDOT, FHWA, local, and statewide regulatory requirements and/or as required by the contract, including, but not limited to:

- Sections 401 & 404 of the Clean Water Act
- Section 10 of the Rivers and Harbors Act
- WAC Chapters 173, 220, 332
- Coast Guard Permit Requirements
- Section 7 of the Seattle Shoreline Substantial Development permit

WSDOT and the contractor will comply with additional agreements, such as environmental commitments made through other regulatory and permitting processes.

Measures and practices

The contractor will work closely with WSDOT, the Coast Guard, the City of Seattle and other regulatory agencies to ensure that work operations are in compliance with the commitments listed above. There are additional restrictions in the contract for work during certain fish windows, around certain events such as SeaFair, and the opening day of boating season. The WCB project is outside of the existing SR 520 west navigation channel so no impacts to the channel are anticipated

Figure 6 shows some of the in-water work restrictions included in the construction contract.

How to get more information

To contact the project about in-water construction issues in your area, see the contact information in the "Questions or Concerns?" section of this document.

Construction Staging in WSDOT Right of Way

What to expect during construction

The WCB contract does not allow for any construction staging along the Seattle Shoreline. The contractor will not be allowed to use staging areas along the WSDOT right-of-way.

Staging activities will take place in Tacoma, WA. As part of on-going updates to the WCB CCMP, this portion of the plan will be updated if other staging locations are needed.

Applicable commitments

WSDOT and the contractor will adhere to all WSDOT, FHWA, local, and statewide regulatory requirements and or as required by the contract documents.

Measures and practices

To the maximum extent practicable, WSDOT and the contractor will:

- Locate construction sheds, barricades, and material storage away from private properties, and avoid obscuring views of and from private properties.
- Install temporary construction screens/barriers (fencing, plantings, etc.) around construction areas so that visual impacts of construction activities on private properties are minimized. The location and type of screens/barriers will be determined in consultation with adjacent property owners.
- Consult with adjacent property owners and others to restore staging areas as appropriate, once construction is finished.

How to get more information

To contact the project about an SR 520 staging area, see the contact information in the "Questions or Concerns?" section of this document.

Questions or Concerns?

Visit the program website at WSDOT – SR 520 Bridge Replacement and HOV Program

Visit the project Web page at WSDOT – SR 520 – West Connection Bridge

Call the 24-hour WSDOT Project Contact number at 206-708-4657 for concerns about possible property impacts caused by Project-related vibration.

For general project information, call the automated SR 520 Information Line: 1-888-520-NEWS (6397). Options available on the information link include:

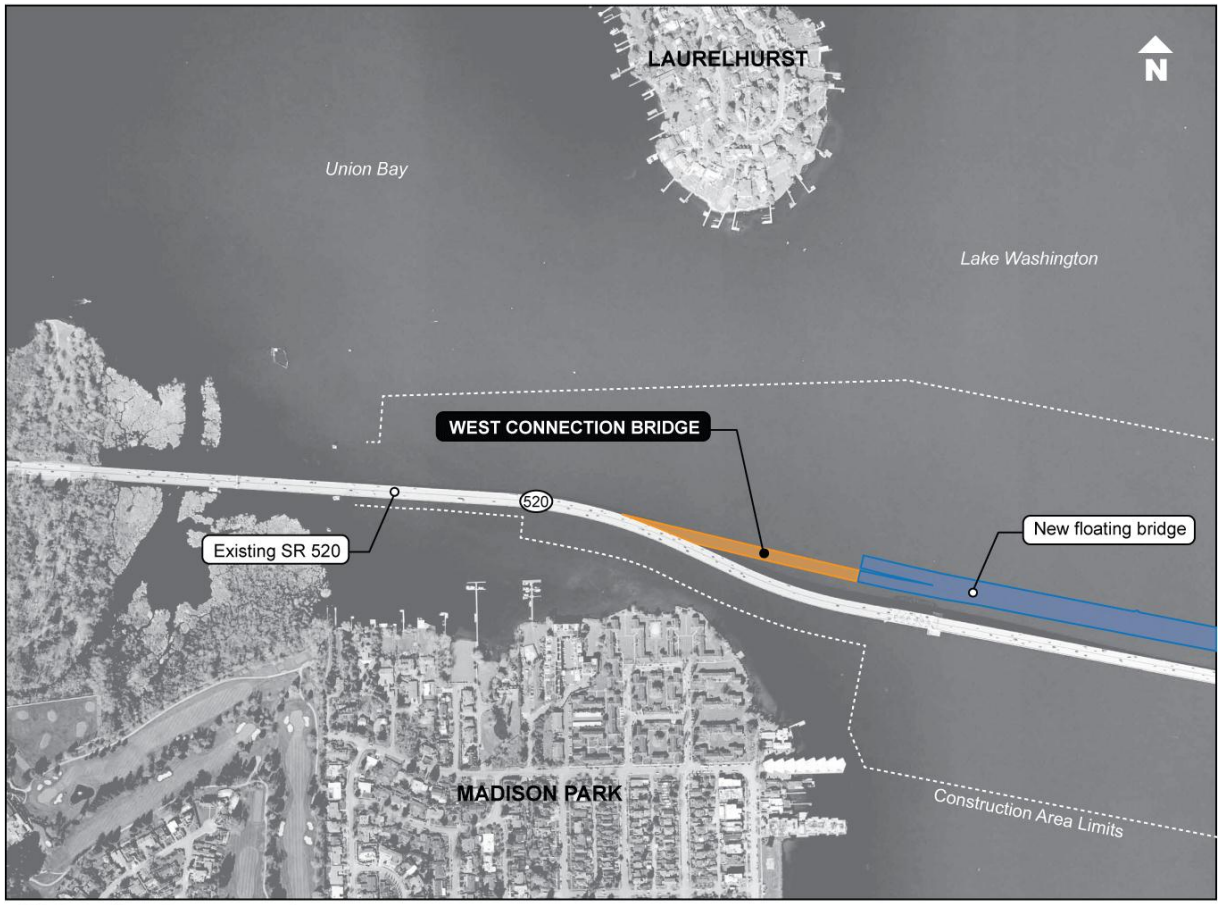
- Option 1: To connect directly to the WSDOT Project Contact.
- Option 2: To hear about Eastside construction
- Option 3: To hear about the SR 520 I-5 to Medina Bridge Replacement and HOV Project
- Option 4: To hear about the Pontoon Construction Project
- Option 5: To hear general information about the SR 520 Bridge Replacement and HOV Program
- Option 6: To hear about the tolling on SR 520
- Option 7: To leave a message for the project team or to be added to the email distribution list

Send an email requesting more information to: SR520Bridge@wsdot.wa.gov

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

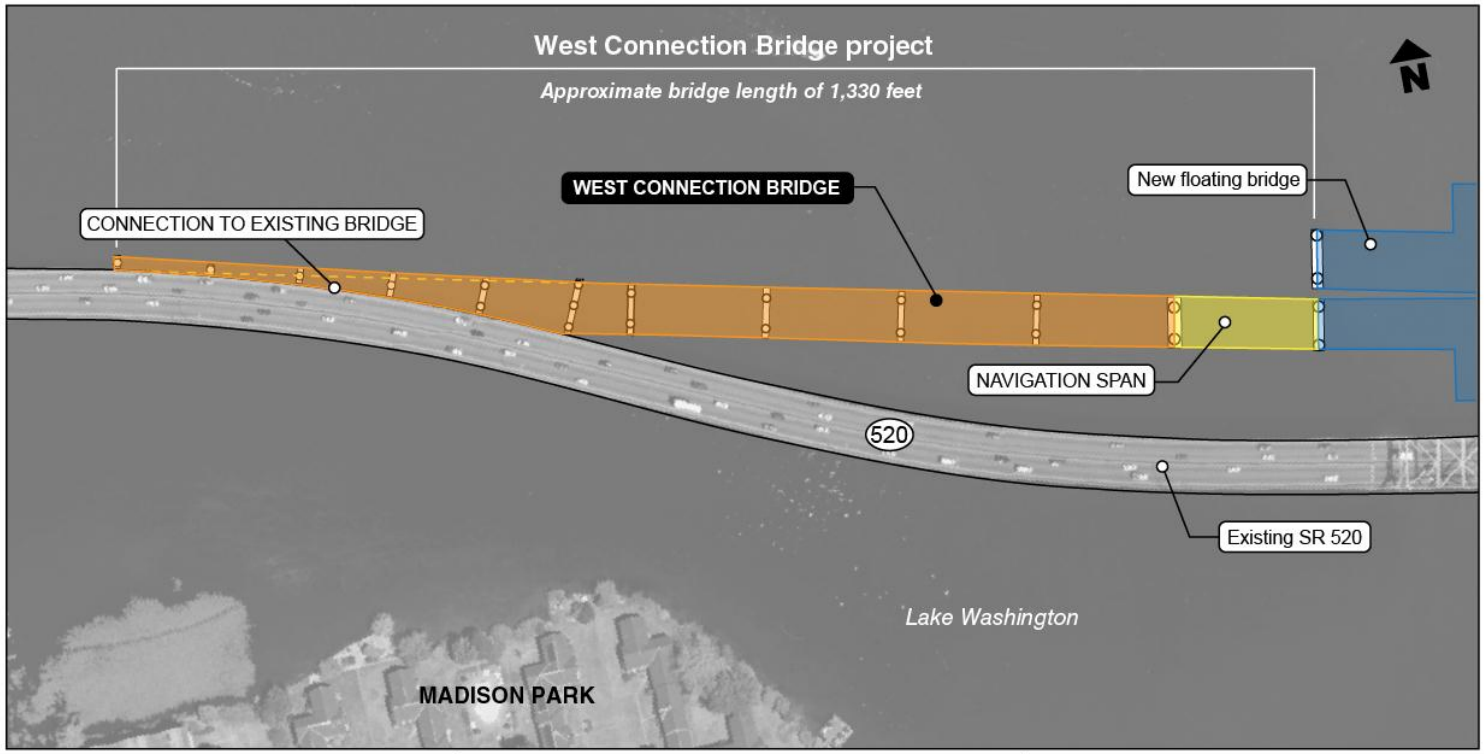
- Highway advisory radio, variable message signs, active traffic management signs, project identification signs.
- E-mail distribution lists – Login or subscribe to the SR 520 distribution list to get regular updates about construction activities.
- Public engagement activities (meetings, briefings and open houses) are posted on the program website.

For More Information



NOTE: For illustrative purposes only.

Figure 1: Location of the West Connection Bridge project area.



Barge activity	In-water work	Over-water work
Activities • Transporting construction materials and equipment • Supporting over-water and in-water construction work	**Activities** • Installing piles • Constructing temporary work platforms • Drilling shafts for column foundations	**Activities** • Building bridge columns • Building cross beams • Setting precast girders • Forming and pouring concrete bridge deck and barrier • Connecting electrical and information technology systems • Bridge rail demolition
Duration Summer 2013 – Summer 2014	**Duration** Summer 2013 – Spring 2014	**Duration** Summer 2013 – Summer 2014

Figure 2: Overview of West Connection Bridge construction activities.

Equipment Type	**Estimated Noise Level**	**Estimated Noise Level at 100 feet** *(approx. 6 dBA reduction)**	**Estimated Noise Level at 500 feet** *(approx. 20 dBA reduction)**	**Estimated Noise Level at 1000 feet** *(approx. 26 dBA reduction)**
Pile Driver	99-105 dBA	93-99 dBA	79-85 dBA	73-79 dBA
Air Compressor	70-76 dBA	64-70 dBA	50-56 dBA	44-50 dBA
Jackhammer	74-82 dBA	68-76 dBA	54-62 dBA	48-56 dBA
Loader	84-86 dBA	78-80 dBA	64-66 dBA	58-60 dBA
Concrete Pump	78-82 dBA	72-76 dBA	58-62 dBA	52-56 dBA
Forklift	87-94 dBA	81-88 dBA	67-74 dBA	61-68 dBA
Excavator	84-93 dBA	78-87 dBA	64-73 dBA	58-67 dBA
Tower Crane	70-76 dBA	64-70 dBA	50-56 dBA	44-50 dBA
Crane	90-96 dBA	84-90 dBA	70-76 dBA	64-70 dBA
Generator	81-90 dBA	75-84 dBA	61-70 dBA	55-64 dBA

** Approximate reductions based on distance from noise source.*

Chart 1: Estimated noise levels for common construction activities.

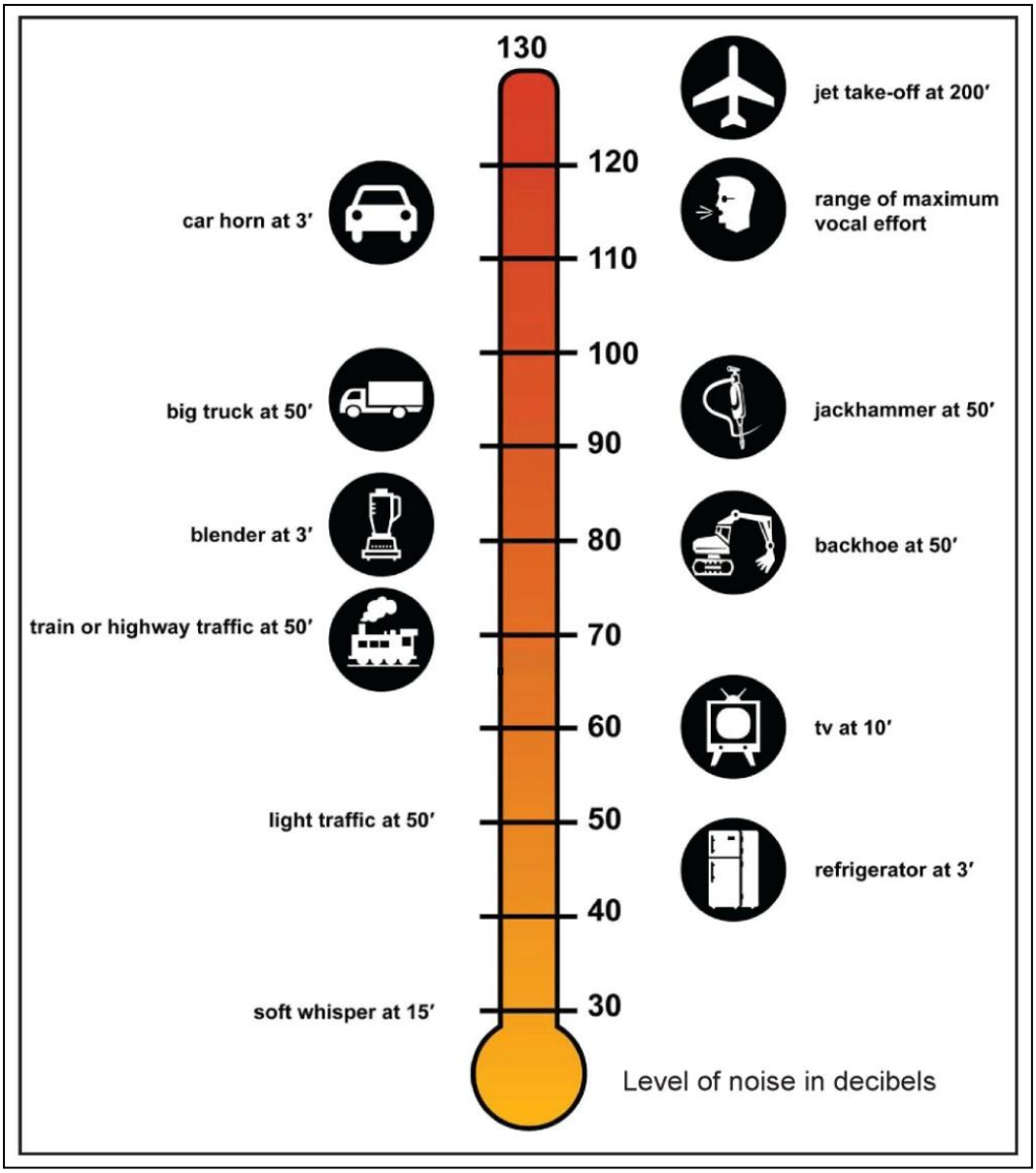


Figure 3: Scale indicating noise level of common sounds.

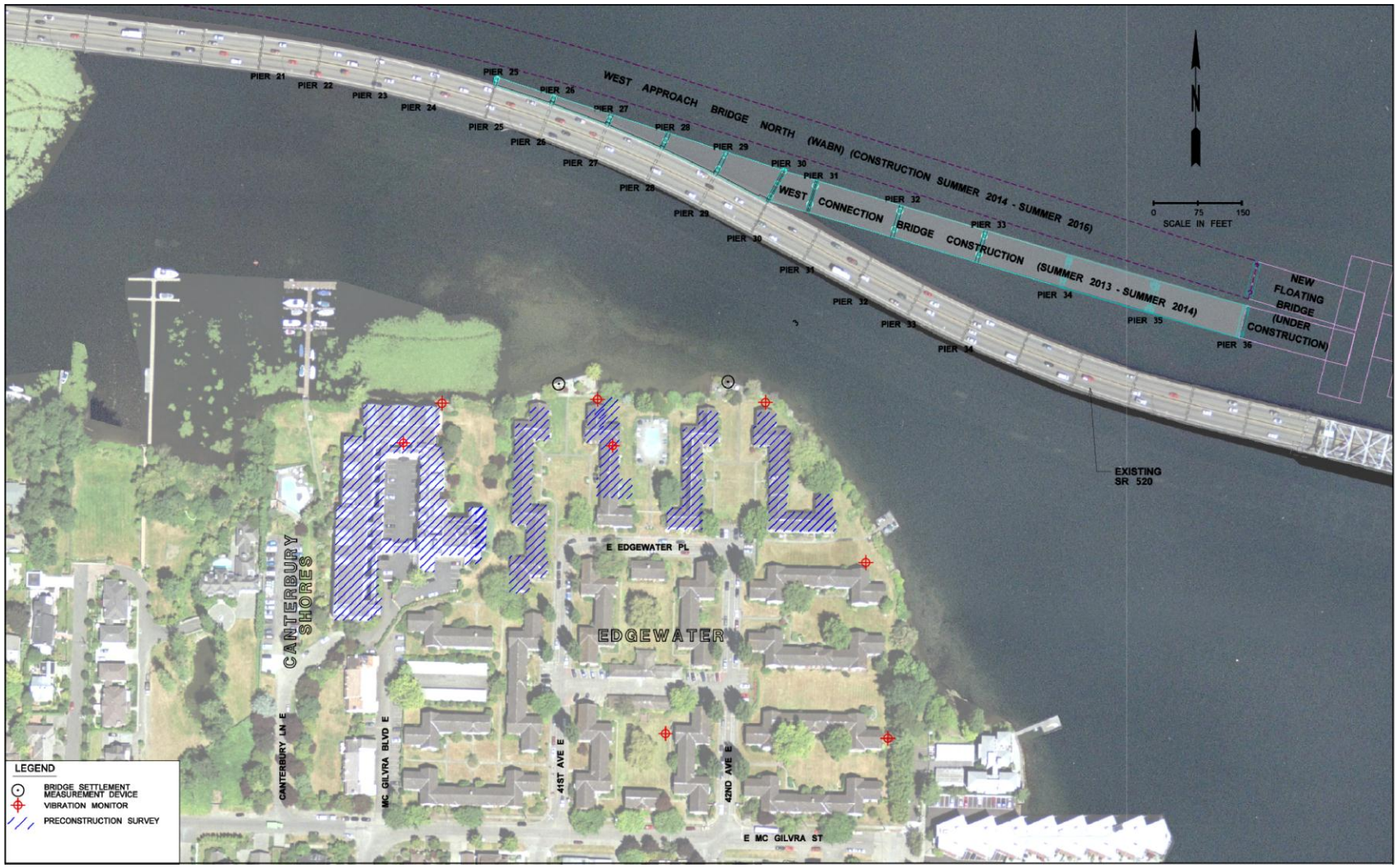


Figure 4: Approximate locations of vibration monitoring equipment (red diamonds) and pre-construction surveys (buildings shaded with blue lines) in Madison Park.

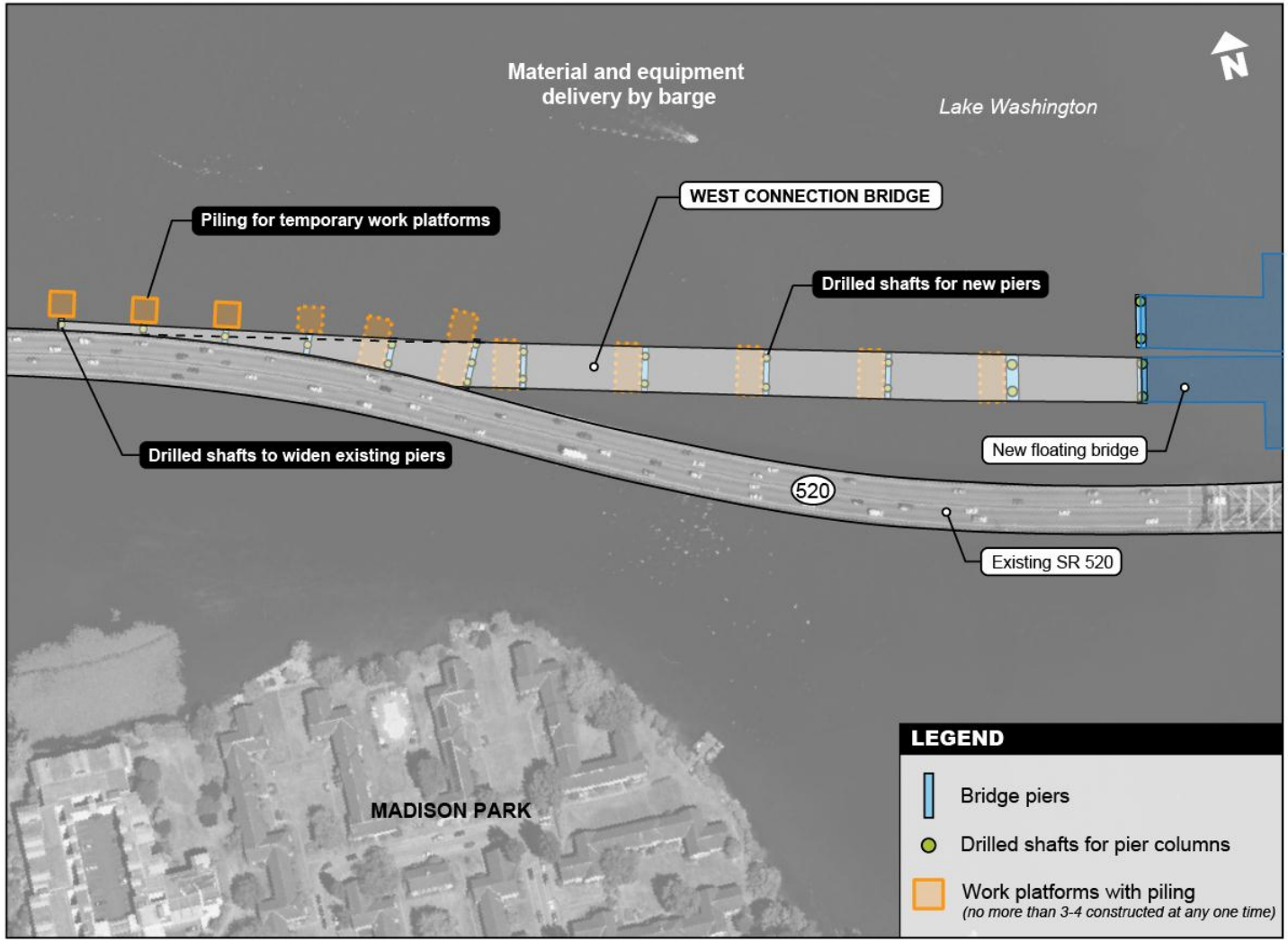
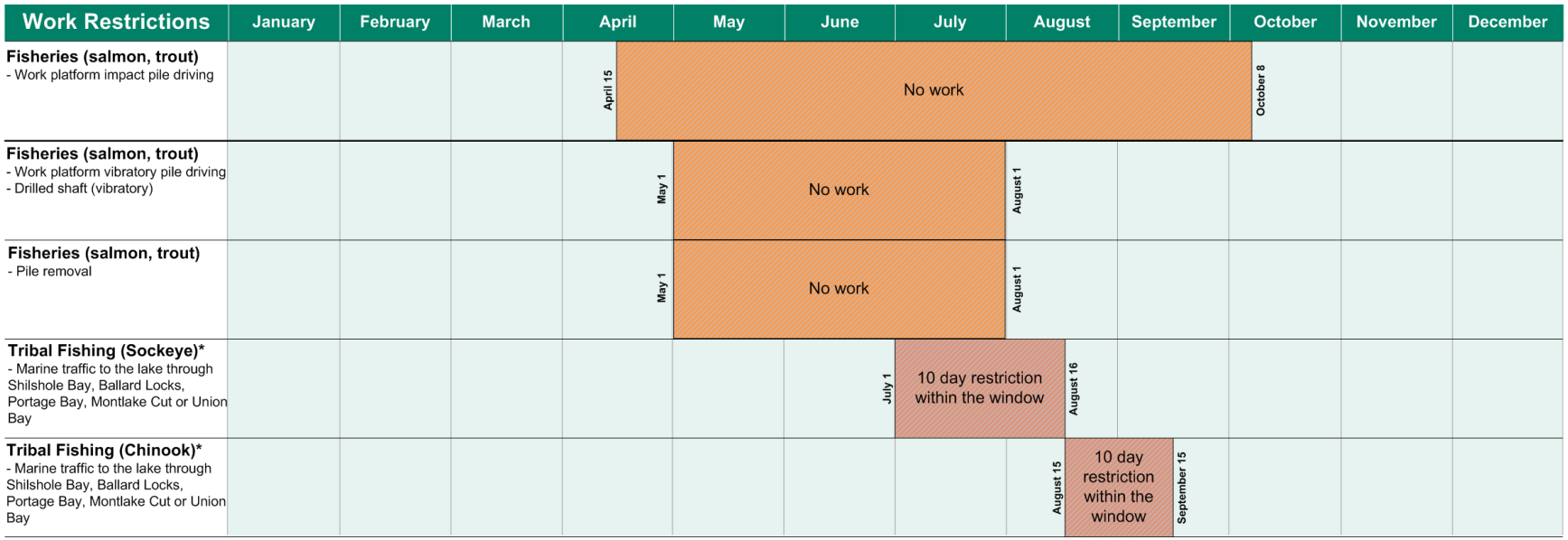


Figure 5: Locations of piling and shafts for the West Connection Bridge.

Washington State Department of Transportation

I-5 to Medina: Bridge Replacement and HOV Project

West Connection Bridge Work Window Restrictions



** Restriction to occur only if there is a tribal fishing season.*

Figure 6: In-water work restrictions.