

ENVIRONMENTAL CHECKLIST

Seattle-Tacoma International Airport (Sea-Tac Airport) North Runway Protection Zone Emergency Access Culvert Replacement

A. BACKGROUND

1. Name of proposed project, if applicable:

North Runway Protection Zone Emergency Access Culvert Replacement

2. Name of applicant:

Port of Seattle

3. Address and phone number of applicant and contact person:

Port of Seattle
P.O. Box 68727
Seattle, WA 98168

Contact: Steve Rybolt, Senior Environmental Program Manager
Telephone/Email: (206) 787-5527, Rybolt.S@portseattle.org

4. Date checklist prepared: February 4, 2021

5. Agency requesting checklist: Port of Seattle – SEPA File Number 21-03

6. Proposed timing or schedule (including phasing, if applicable):

The Aircraft Rescue and Firefighting Road (ARFF) Access Road, an existing emergency access and haul road for the north runway protection zone (RPZ; specifically, for Runway 16R), includes twin culverts under the road for Miller Creek. The road and culverts have been compromised by ongoing subsidence and sink holes in the road surface. The new culvert will provide continued access in the RPZ and enhance fish passage.

The Port of Seattle (Port) intends to begin construction in Quarter 3 2022 to replace a culvert under the ARFF Access Road within the 16R Runway Protection Zone. Construction is anticipated to take two to three months.

The project sequencing is as follows:

- Placement of temporary erosion and sediment control measures
- Diversion of Miller Creek
- Removal of existing storm drain pipes attached to ecology blocks
- Removal of ecology blocks
- Milling of existing road
- Pile driving – king piles and sheet piles
- Installation of pile caps for culvert foundation
- Placement of precast beam and approach slabs
- Placement of ecology blocks and placement of storm drain pipes along the ecology blocks
- Removal of sheet pile portion across Miller Creek acting as coffer dam
- Reintroduction of Miller Creek

7. Do you have any plans for future additions, expansion, or further activity related to or connected

with this proposal? If yes, explain.

There are no plans for future additions or expansions related to the Project at this time. The road is primarily emergency access for the north runway protection zone and secondarily is a haul route for airport construction projects.

The Port does not have any future plans related to this proposal, but the Project is part of a programmatic watershed-scale effort to improve fish passage on Miller Creek. In addition to the proposed project, this includes two Port projects completed in 2012; a pending Washington State Department of Transportation (WSDOT) project to create fish passage under and at the intersection of SR509 and Des Moines Memorial Way, and a City of Burien project located at Des Moines Memorial Way and 140th Street. This watershed approach ensures the proposed project contributes to the efficacy of other projects to support coho salmon and sea-run cutthroat trout migration to and from the marine environment.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The following documents were prepared for the Project:

- Geotechnical Concept Report, PanGEO, January 2019
- Wetland Verification Memo, AECOM, July 2020
- Cultural Resources Report, Monitoring Plan and Inadvertent Discovery Plan, AECOM, July 2020
- Topographic Survey, Port of Seattle, July 2020
- Geotechnical Engineering Report, Geometrics, September 2020
- 60% Basis of Design Report, Geometrics, November 2020
- Draft Stormwater Site Plan, AECOM [in production]
- Hydraulics Report, WSP, November 2020
- Joint Aquatic Resources Project Application (JARPA), AECOM, January 2021
- Endangered Species Act (ESA) No Effect Letter, AECOM, January 2021

9. Do you know whether applications are pending for governmental approvals or other proposals directly affecting the property covered by your proposal? If yes, explain.

There are no other applications pending for other proposals directly affecting the Project.

10. List any government approvals or permits that will be needed for your proposal, if known.

Yes, government approvals will be required in advance of Project commencement. These approvals include the following:

- Section 404 of the Clean Water Act (CWA), Nationwide Permit 27 (Aquatic Habitat Restoration, Enhancement, and Establishment Activities), US Army Corps of Engineers
- Coastal Zone Management (CZM) Consistency Certification, Ecology
- Section 7 of the ESA Consultation [US Fish and Wildlife Service (USFWS); National Marine Fisheries Service (NMFS)]
- Section 106 of the National Historic Preservation Act (NHPA) Consultation, Washington State Historic Preservation Office
- Hydraulic Project Approval (HPA), Washington State Department of Fish and Wildlife (WDFW)

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Project Background and Purpose

The Port of Seattle is required, per the Federal Aviation Administration's (FAA) Advisory Circular 150/5300-13A, Paragraph 318, Airport Rescue and Firefighting (ARFF) access to provide "...unimpeded two-way access for rescue and fire-fighting equipment to potential accident areas." These areas include Runway Protection Zones (RPZs).

The ARFF Access Road, the existing emergency access and haul road for the 16R RPZ, includes twin culverts under the road for Miller Creek. The road and culverts have been compromised by ongoing subsidence and sink holes in the road surface. The culverts are now substantially buried and prevent fish passage. Problems with the road surface have been addressed temporarily by filling the sink holes with quarry spalls and placing steel plates over the affected section of roadway, but a permanent solution is needed for continued use of the road for vehicular traffic. The Project will provide critical safety access and restore fish passage in Miller Creek.

This emergency access road is primarily known as the ARFF Access Road but is labelled as South 150th Street on some maps. The road is a non-public road that provides secure access for ARFF vehicles and other authorized vehicles in the 16R RPZ at the north end of Sea-Tac Airport. The existing road crosses over Miller Creek, a designated fish-bearing stream, via two failed 48-inch diameter pipe culverts.

Additional Project Background

The project purpose will be achieved by replacing the existing damaged and buried culverts with a new single precast concrete slab placed on king pile walls. The structure will be designed for fish passage using the WDFW stream simulation culvert design guidelines. The new structure will also improve hydrologic connectivity between areas of the large wetland bisected by the road and provide passage for amphibians and aquatic invertebrates. The project does not impact floodplain capacity or reduce flood attenuation.

Based on the design reports and drawings, the proposed replacement structure includes precast prestressed concrete slab girders, girder end connections, pile caps, piles, retaining wall and approach slabs. The concrete slab girders will be supported by deep foundations consisting of steel king piles and sheet piles. This structural system was selected for the following reasons:

1. Using a precast structure allows for quicker installation to meet the tight in-water construction window.
2. The structure will have the required strength for truck traffic but will have a minimal footprint on the stream and wetland.
3. Due to the poor subsurface conditions (organic soils), the structure will need to be supported on piles driven into the deeper glacial material.
4. King piles with intermediate infill sheet piles are needed to prevent the approach fill from being washed away during a flood event.

Based on the hydrologic/hydraulic design input (including HEC-RAS analysis), the culvert span was designed be 20-feet using WDFW Stream Simulation culvert design method. The finished road surface will match the elevation of the existing roadway (268.5 feet), with the proposed culvert crown at elevation 266.5 feet, and the proposed streambed at elevation 262.80 feet. The streambed will include up to 1-foot of underlying streambed gravel provided as channel substrate and placed over a geotextile. The stream channel passing through the culvert will be designed with a low flow channel 4-feet wide transitioning to a small floodplain bench. Activities associated with flow diversion and re-introduction may temporarily disturb small areas of the adjacent wetlands. Temporarily disturbed areas will be replanted with native wetland vegetation.

Based on an analysis of the existing dual 48-inch arch culverts, it was decided that the culverts had settled to a depth such that removing them would not only be infeasible but would also increase wetland impacts. Their removal would require deep excavation and associated shoring, dewatering and non-native backfill in the adjacent stream channel and wetlands, all of which would increase risks to worker safety and be

very costly and time-consuming. Therefore, the existing culverts will be abandoned in place and backfilled to avoid fish entrapment. Based on the scour analysis for the project, it is not expected that the culverts will become exposed.

In-water work will occur during the period of low flow between July 1 and August 31. Miller Creek will be diverted around the construction zone in order to avoid excess sedimentation (see Section 3.a.4 for description).

The construction staging area is located on the ARFF Access Road to the west of the project area. During the mobilization phase, the contractor will use half the width of the existing ARFF Access Road for staging. During construction, the ARFF Access Road will be closed due to the construction activities, so the contractor will use the full width of the existing ARFF Access Road as the construction staging area. Emergency access will still be available from S 156th Street or Des Moines Memorial Drive South.

Photos of the existing road crossing are provided below (**Figure 2**). A site map with the surveyed stream location and 1-foot contours is provided in **Appendix A**, along with a typical section view of the proposed structure.



FIGURE 1 - SITE VICINITY MAP



Top: Photo facing upstream (north). Miller Creek draining through the road subgrade, north to south. Buried twin 48" culverts are not evident. **Bottom:** Photo facing upstream (north). Steel plates cover the damaged road surface over the culverts.

FIGURE 2 – PROJECT LOCATION

- 12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The Project site is specifically located along a non-public road that supports airport operations (known as the ARFF Access Road and identified on some maps as S 150th Street) at the north end of SEA (see Vicinity Map below, Figure 1). The road begins along Des Moines Memorial Drive South approximately 100 yards south of State Route 518. The ARFF Access Road crosses Miller Creek approximately 900 feet east of Des Moines Memorial Drive South and continues south and east before intersecting with S. 156th Way.

Latitude: 47.467987

Longitude: -122.316876

Section 20, Township 23 North, Range 04 East

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): ☒ Flat, rolling, hilly, steep slopes, mountainous, other

b. What is the steepest slope on the site (approximate percent slope)?

The Project site area near Miller Creek is flat. The valley side slopes are approximately 8% at their steepest. The road embankments have an approximately 2:1 slope.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

The ARFF Access Road crossing over Miller Creek is paved. Soils immediately downstream of the road crossing are black (10YR 2/1) organic (muck) to at least 18 inches. Immediately upstream of the road crossing there is a black mucky silt loam layer (5 inches) over very dark gray (10YR 3/1) silt loam to at least 16 inches. The soils were ponded or saturated to the surface during the June 25th wetland delineation field visit. These soils are inclusions within the mapped Alderwood-Everett-Urban Land Complex, 0 to 12 percent slopes (map unit 3058).¹ This site is not considered prime farmland by the Natural Resources Conservation Service (NRCS).

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Based on Port as-built drawings, the ARFF Access Road has been in place since at least 1980. The road and culverts have been settling over the last several years. Sink holes have formed in the road surface which have been temporarily filled with quarry spalls.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

¹ NRCS. 2020. Web Soil Survey. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Last accessed: June 2020.

The Project footprint will be approximately 30 feet wide (road width) by 57 feet long. The culvert span is expected to be approximately 20 feet. The approximate area and volume of excavation and fill to install the precast concrete structure and pile walls is 1,700 square feet and 250 cubic yards, respectively. An additional 300 square feet upstream and downstream of the road may be temporarily disturbed as a result of construction activities.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

The potential exists for some erosion to occur during construction; however, erosion and sediment control Best Management Practices (BMPs) will be implemented to minimize that potential, per the Project's Stormwater Pollution Prevention and Temporary Erosion and Sediment Control plans.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The Project will not expand the area of impervious surface beyond the existing paved road surface.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

A temporary erosion and sediment control plan will be implemented to prevent erosion at the site; this is a requirement of the Port's NPDES permit conditions for construction stormwater as implemented in their General Guide Specifications. Work will occur from the existing road surface to minimize soil compaction and rutting. Work will occur during the dry season (July – September) to minimize runoff into Miller Creek. Runoff from impervious surfaces directly into the stream and wetlands will be prevented by minimizing exposure of bare soils, and by the use and maintenance of erosion control fabrics, barriers and silt fences as appropriate. Project design criteria also include bypassing stream flows around the work area. In-water work will occur during the window specified in the Hydraulic Project Approval (i.e. during the period of low flow between July 1 and August 31).

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

During construction, emissions will be generated from construction vehicles, equipment, and workers traveling to and from the Project area. Construction activities will also result in short-term, construction-related air emissions such as dust and vehicle exhaust. These short-term impacts will be minimized to the best extent practicable (e.g., water trucks to suppress dust and new equipment).

The completed Project will not contribute to an increase in emissions.

See Appendix B, Greenhouse Gas Emissions Worksheet – Supplemental Information for SEPA Environmental Checklist, for additional information.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

There are no off-site sources of emissions that will affect the Project.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Per the Port's General Guide Specifications, the construction contractor will be required to maintain and repair all equipment in a manner that meets state regulations and reasonably minimizes emissions.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Miller Creek is an approximately 6-mile long perennial stream with an approximately 5,600-acre drainage basin that is comprised primarily of residential, commercial and industrial land uses. Nearly a quarter of the basin is covered in impervious surfaces². The project site occurs in the upper reach of the stream at approximately river mile 3.8. This is a low-gradient, depositional channel that flows through an expansive peat deposit overlying glacial outwash.

The project site is situated within the Miller Creek Regional Detention Facility (MCRDF) that was established in 1992. The MCRDF receives runoff from 1,700 acres of mixed urban land use. The outlet control structure for the MCRDF impounds Miller Creek approximately 340-feet downstream from the ARFF Access Road culverts, and the project site is frequently flooded as a result.

The channel immediately upstream and downstream of the ARFF Access Road culverts occurs in wetlands with organic soils and lacks a distinct bed and bank or other indicators by which to determine an ordinary high-water mark for Miller Creek. The channel width at high water (bankfull width) is estimated at approximately 15 feet based on hydraulic modelling using representative channel cross sections upstream of the ARFF Access Road culverts.

Miller Creek is classified as a perennial Type F/Class II (fish-bearing or potentially fish-bearing) stream. WDFW SalmonScape mapping shows Chinook (*Oncorhynchus tshawytscha*), Chum (*O. keta*), and coho salmon (*O. kisutch*) and resident cutthroat trout (*O. clarki clarki*) present in the lower reaches of the stream, well downstream of the project area. Juvenile coho are stocked upstream by Trout Unlimited, adult coho have been anecdotally observed (C. Maney, personal communication) upstream of the project site, and cutthroat trout are also present upstream of the project site above SR-518. The culverts under the ARFF Access Road are listed as a complete fish blockage based on a 2018 survey. Due to further subsidence of the culverts and road since that time, the culverts now appear to present a complete blockage to fish passage. This stream reach was historically accessible to salmonids. As late as 2004, coho salmon and cutthroat trout were formally documented in the Project reach.³

The ARFF Access Road bisects a large wetland complex previously delineated by the Port and known as Wetland 8 (upstream) and Wetland 9 (downstream).⁴ The wetland boundaries near the Project site were recently reverified.⁵ Wetland 8 is a depressional and riverine wetland, with forested, scrub-shrub and emergent vegetation classes. Wetland 8 was classified as a Category I wetland using the 2014 Wetland Rating System for Western Washington⁶. Wetland 9 is a depressional and slope

² *City of SeaTac Comprehensive Plan, Land Use Background Report*, November 2019.
(<https://www.seatacwa.gov/government/comprehensive-plan>)

³ *Miller and Walker Creeks Basin Plan*, Executive Committee, February 2006.
(<https://www.kingcounty.gov/services/environment/watersheds/central-puget-sound/miller-walker-creeks/basin-plan.aspx>)

⁴ *2017 Wetland Redelineation Assessment*, Seattle Tacoma International Airport Master Plan Update Project, ESA, prepared for Port of Seattle, December 2017.

⁵ *Wetland Verification for ARFF Culvert Replacement*, AECOM, July 2020. Memo prepared for the Port of Seattle.

⁶ *Washington State Wetland Rating System for Western Washington*, 2014.
<https://fortress.wa.gov/ecy/publications/documents/1406029.pdf>

wetland with forested, scrub-shrub and emergent vegetation classes. Wetland 9 was classified as a Category II wetland.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

The creek is currently vegetated and is considered wetland, along with the adjacent low terrace. The footprint of the new culvert will occur entirely within the existing road footprint. Temporary impacts may occur in the stream and wetlands related to diversion of Miller Creek, pile driving, installation of pile caps for culvert foundation, placement of precast slab and approach slabs; and backfill.

See figures in **Appendix A**.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

The culvert will have a 20-foot span and a maximum depth of 5 feet (from re-established stream bed to culvert crown), which will result in less fill within the stream and wetlands than the existing structures. The new structure and re-established stream bed would require approximately 250 cubic yards of excavation and fill within 810 square feet of Miller Creek. The footprint of the new culvert would occur entirely within the existing road footprint, so stream and wetland impacts outside of the existing road footprint would be limited to temporary construction impacts. These are estimated to occur within 158 square feet of Wetland 9 and 130 square feet of Wetland 8.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

The project will require diverting stream flows around the project work area in order to avoid sediment being delivered to the stream. A stream diversion plan will be prepared by the contractor. Based on hydrologic simulation, the average daily flow during the construction period from July to September is 0.33 cfs. Cofferdams will be constructed upstream and downstream of the work area, and stream flow will be pumped into a flexible pipe to route water around the work area and back into Miller Creek downstream from the construction area. The pump and pipe will be sized to be able to capture the 10-year flow during this time, which is 19 cfs. If significant rains are forecast during the in-water work period, construction will be halted and the site will be stabilized to minimize erosion and sedimentation.

Braced fish netting will be installed upstream and downstream of the coffer dams. Prior to additional in-water work, a biologist will survey for and relocate any fish within the work area. Upon completion of the work, stream flows will gradually be reintroduced into the channel, increasing the flow rate in small increments over several days to minimize downstream turbidity.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

The Project area is within the FEMA preliminary 100-year floodplain of Miller Creek. The floodplain occupies the valley bottom below approximately elevation 274 feet NGVD29. This is the maximum design elevation per the Miller Creek Regional Detention Facility that regulates flow in this area. The existing road crossing is at approximately elevation 268.5 feet. The proposed road surface will not be elevated above this elevation and will not reduce available flood storage capacity. The road surface is expected to be submerged by events between the 2- and 5-year flood and will be passable by emergency vehicles.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

The Project does not involve any discharges of waste materials to surface waters.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known**

Groundwater will not be withdrawn from a well, nor will water be discharged to groundwater for this Project. Some shallow groundwater may seep into the site during construction that would be removed using a sump pump. This water would be conveyed to a sediment basin or other storage area for treatment.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals . . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

Waste materials will not be discharged into the ground from a septic system or other source.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The Project will maintain the same road footprint, does not increase impervious surfaces, and will collect the same runoff as the existing condition. Construction run-off will be controlled per the Projects' Stormwater Pollution Prevention and Temporary Erosion and Sediment Control plans. During construction, it is expected that any runoff would be captured prior to entering Miller Creek and pumped -to a temporary pond or tank for settling.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.**

Project design and construction management will prevent discharge of waste materials to surface waters through existing and upgraded stormwater BMPs as required by the Stormwater Management Manual for Western Washington, SEA's individual NPDES permit, and spill prevention, control, and countermeasure (SPCC) Plan.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

The Project will maintain the same road footprint and will collect the same runoff as the existing condition. Surface water flow under the road of Miller Creek and the adjacent wetlands will be improved by installing a structure to replace the function of the damaged culverts which are completely or mostly buried. The project will not affect function in adjacent floodplain wetland.

d. Proposed measures to reduce or control surface, ground, runoff water, and drainage pattern impacts, if any:

Adverse impacts to surface and groundwater and drainage patterns will be negligible. Water quality will be maintained per the conditions of an approved Stormwater Pollution Prevention Plan. A project-specific monitoring plan for water quality will also be required. Turbidity and pH in Miller Creek will be monitored during construction. Turbidity downstream of the work area will not exceed 5 NTU above

background turbidity. The pH will remain between 6.5 and 8.5. If these thresholds are exceeded, or any oil sheens are observed, work on the project will stop until problem sources are identified and controlled, and readings return to normal.

4. Plants

a. Check the types of vegetation found on the site:

- ☒ deciduous tree: Pacific willow
- ☐ evergreen tree:
- ☒ shrubs: Sitka willow, salmonberry, Himalayan blackberry
- ☒ grass: Reed canarygrass
- ☐ pasture
- ☐ crop or grain
- ☐ orchards, vineyards or other permanent crops
- ☒ wet soil plants: bittersweet nightshade, stinging nettles, lady fern
- ☐ water plants:
- ☐ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

The Project will mainly disturb the existing paved road surface. Work will be done from the road to minimize disturbance of the stream bed and wetlands. Some wetland vegetation immediately next to the road would be removed, including bittersweet nightshade (*Solanum dulcamara*), stinging nettle (*Urtica dioica*), reed canarygrass (*Phalaris arundinacea*), and Himalayan blackberry (*Rubus armeniacus*). The area of vegetation removed is estimated at less than 500 square feet.

c. List threatened, and endangered species known to be on or near the site.

No threatened or endangered plant species are known to occur on or near the Project area.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Clearing limits will be clearly marked on the site. Clearing of vegetation will be kept to the minimum necessary for the culvert replacement. No landscaping is proposed. Temporarily impacts areas waterward of the road prism will be revegetated using native wetland woody species.

e. List all noxious weeds and invasive species known to be on or near the site.

Japanese knotweed (*Reynoutria japonica/Fallopia j.*) is a noxious weed present at the edge of Wetland 8 upstream of the culvert. The Project is not expected to disturb this area. Reed canarygrass and Himalayan blackberry are noxious weed species common throughout the wetlands and adjacent uplands. Bittersweet nightshade is an invasive species common in both wetlands.

5. Animals

a. List any birds and animals which have been observed on or near the site or are known to be on or near the site. Examples include:

Birds: , heron, , , other: , , ,

Mammals: , bear, elk, , other: ,

Fish: bass, , , herring, shellfish, other: resident coastal cutthroat trout per WDFW

SalmonScape; coho (released upstream by Trout Unlimited)

b. List any threatened and endangered species known to be on or near the site.

No threatened or endangered animal species are known to occur on or near the Project site.

c. Is the site part of a migration route? If so, explain.

The Project is within the Pacific Flyway migratory route for birds, which runs from Alaska to Patagonia. However, the Port's wildlife hazard management plan has extensive measures in place to deter avian activities that may pose a threat to flight safety.

d. Proposed measures to preserve or enhance wildlife, if any:

The Project will restore fish passage, thereby enhancing wildlife. Temporarily disturbed areas which are currently covered with non-native species will be converted to native woody shrub cover. No additional preservation or enhancement measures are proposed.

e. List any invasive animal species known to be on or near the site.

Rock doves (*Columba livia*) and European starlings (*Sturnus vulgaris*) are the only invasive animal species known to occur at or near the Project site.

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

The completed Project will not have any energy needs.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The Project does not include any vertical structures and would not affect the potential use of solar energy by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal?

List other proposed measures to reduce or control energy impacts, if any:

The completed project will not have any energy demands.

7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

There are no known environmental health hazards for the Project.

1) Describe any known or possible contamination at the site from present or past uses.

There are no known contaminated soils at the site. Plans will be in place to handle contaminated soil if encountered during program construction, and all pertinent local, state, and federal regulations will be followed.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity

There are no known active or decommissioned transmission lines in and around the Project site. If contaminated chemicals or conditions are encountered that might affect the Project, plans will be in place to handle hazardous chemicals or conditions when and if they are encountered. Pertinent local, state, and federal regulations will be followed during construction.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

It is anticipated that lubricants, sealants, glues, and fuels will be used during construction. All toxic or hazardous chemicals will be stored in compliance with applicable regulations. Diesel fuel and gasoline will be used on-site to power construction equipment such as cranes, excavators, dump trucks, and power generators. Traps will be used under machines when not in use.

4) Describe special emergency services that might be required.

No special emergency services are expected as a result of implementing the Project. Construction-related accidents or injuries may require response from local fire, police, air units, or ambulances. The Port maintains its own police force and firefighting and rescue units that will be called upon for these types of incidents. The Port also maintains a trained response team available to respond at all times to any spill or loss of contaminated or hazardous materials.

5) Proposed measures to reduce or control environmental health hazards, if any:

No known environmental health hazards have been identified. If encountered, local, state, and federal regulations regarding safety and handling of hazardous materials will be followed and enforced.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

In general, the dominant source of noise in the airport vicinity is generated by aircraft.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Short-term noise is anticipated from the use of equipment during construction activities.

Construction is anticipated to occur during business hours and adhere to City of SeaTac Municipal Code requirements. Long-term noise is not anticipated as a result of the Project, because the Project will not increase aircraft operations or generate an increase in vehicle trips.

3) Proposed measures to reduce or control noise impacts, if any:

Short-term noise from construction activities will be mitigated by using BMPs and adhering to the City of SeaTac's noise ordinance. No long-term noise mitigation measures are proposed, because the Project will not change existing use.

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The current use of the Project site is as an access road for emergency vehicles and haul trucks at the north end of SEA. Adjacent nearby land uses consist mainly of undeveloped wetlands that are within the clear zone of the SEA runway. The project area is not within a designated shoreline. The proposal will not affect current land use on nearby or adjacent properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other

uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Airport properties have not been used as working farmlands or forestlands.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

There are no surrounding working farms or forestlands near the Project site.

c. Describe any structures on the site.

The nearest structure to the Project site, other than the road and culverts, is the elevated runway lighting bridge deck approximately 250 feet to the west.

d. Will any structures be demolished? If so, what?

The existing road pavement will be replaced.

e. What is the current zoning classification of the site?

The current zoning classification of the Project area is designated by the City of SeaTac as Aviation Operations (AVO). The zoning will not change as a result of the Project, and there is no expected impact to nearby or adjacent land uses and properties.

f. What is the current comprehensive plan designation of the site?

The current comprehensive plan designation by the City of SeaTac is Airport (AP) for the Project area.

g. If applicable, what is the current shoreline master program designation of the site?

The Project area is not within a designated shoreline area.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Miller Creek and Wetlands 8 and 9 are classified as critical areas, and per the 2018 Inter-local Agreement between the Port and SeaTac, the project is exempt from critical areas development standards because it requires a Clean Water Act permit.

i. Approximately how many people would reside or work in the completed project?

No one would reside or work at the completed project.

j. Approximately how many people would the completed project displace?

The Project will not displace anyone.

k. Proposed measures to avoid or reduce displacement impacts, if any:

There will be no displacement impacts as a result of the Project.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

No measures are proposed because there will be no changes to existing or projected land use as a result of the Project.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

There are no nearby agricultural or forestlands.

9. Housing

- a. **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

This Project does not include the construction of any housing.

- b. **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

This Project does not include the elimination of any housing.

- c. **Proposed measures to reduce or control housing impacts, if any:**

There will be no housing impacts as a result of the Project; therefore, no measures to reduce or control housing impacts are proposed.

10. Aesthetics

- a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

The proposed culvert replacement would not add to the pre-subsidence height of the road. The completed road will be paved with asphalt.

- b. **What views in the immediate vicinity would be altered or obstructed?**

The Project will not alter or obstruct any views.

- c. **Proposed measures to reduce or control aesthetic impacts, if any:**

No measures are proposed because no aesthetic impacts are expected from the Project.

11. Light and glare

- a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

The proposed Project does not include any lighting.

- b. **Could light or glare from the finished project be a safety hazard or interfere with views?**

The Project does not include any lighting.

- c. **What existing off-site sources of light or glare may affect your proposal?**

There are no known existing off-site sources of light or glare that may affect the Project proposal.

- d. **Proposed measures to reduce or control light and glare impacts, if any:**

The Project does not include lighting. No measures will be implemented to reduce or control light and glare impacts.

12. Recreation

- a. **What designated and informal recreational opportunities are in the immediate vicinity?**

There are no designated or informal recreational opportunities in the immediate vicinity of the Project.

- b. **Would the proposed project displace any existing recreational uses? If so, describe.**

The Project will not displace any existing recreational uses.

- c. **Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

No impacts to recreation, including recreation opportunities, are anticipated.

13. Historic and cultural preservation

- a. **Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.**

Based on a review of aerial photographs and maps, there are no recorded historic buildings or structures located in or near the Project site. However, Department of Archaeology and Historic Preservation (DAHP) records indicate that 16 cultural resources investigations have been conducted and four previously recorded archaeological resources are documented within a 1-mile radius of the Project. None of the 16 cultural resources investigations overlaps the Project area; however, two were completed immediately adjacent to the Project.

The more recent of the two investigations was an archaeological resources and traditional cultural places assessment conducted for the Seattle–Tacoma International Airport’s Third Runway Project. One historic-period archaeological site, the Des Moines Memorial Elm Tree Site, was recorded along Des Moines Memorial Drive between State Route 518 and South 171st Place. Following World War I, local residents planted 1,400 Noble American elms along the roadway to honor lost soldiers. Although no prehistoric archaeological resources or traditional cultural places were identified for the Third Runway project, Larson Anthropological Archaeological Services identified two high probability areas for precontact archaeological and paleontological resources associated with peat deposits at Vacca Farm along Miller Creek (immediately west of the Project) and the Tyee Valley Golf Course near Angle Lake (about 3 miles south of the Project). An archaeological resource monitoring plan was prepared.

Archaeological resources monitoring was completed for Third Runway Project construction excavation activities at Vacca Farm along Miller Creek (stream channel excavation, over-excavation north subgrade improvement area, floodplain restoration and wetland mitigation elements) and identified recent debris and historic period artifacts associated with the Vacca Farm in the alluvium above the peat deposits. Historic period artifacts, found up to 11 feet below ground surface, included glass bottles and bottle fragments, red brick fragments, and metal debris associated with Vacca Farm activities. The artifacts were noted but not formerly recorded, because they appeared to have been disturbed or redeposited from their original settings.

- c. **Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

There are no landmarks, features or other evidence of Indian or historic use or occupation found on the project site. However, Southern Coast Salish groups traditionally inhabited this region, and ethnographically important camps and villages have been recorded along the Puget Sound shoreline and Green/Duwamish River. The Green/Duwamish River is located approximately 3 miles east of the Project site. Four previously recorded archaeological resources occur within one mile of the Project. In addition, the silt loam soils, the presence of natural wetlands, and the gently sloping topography suggest shallow buried precontact period archaeological sites have the potential to be present in the Project area.

- c. **Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

The Project was reviewed by a qualified professional archaeologist. Sources include Washington Department of Archaeology and Historic Preservation’s WISAARD database, historical maps, geotechnical data, and previous research. An intensive pedestrian survey of the 0.5-acre site was completed on June 26, 2020 by an AECOM archaeologist. Fieldwork was undertaken during clear and warm weather. Portions of the Project area were wet, and the ground surface was saturated due to Miller Creek and wetlands. The Project area consists of previously disturbed and densely vegetated land that was

surveyed using 10-meter transect intervals. Transects were generally oriented north to south. When examining the ground surface, the archaeologist focused on areas with exposed soils, including along roads, cut banks, natural profiles, and rodent burrows, as well as areas lacking vegetation. Ground surface visibility was poor, ranging between 0 to 25 percent due to a dense covering of vegetation. Subsurface probing was conducted in areas identified as having a high probability of containing archaeological resources but low ground surface visibility. Shovel probing was limited due to saturated soils, ground disturbances where intact soils were no longer present, and dense vegetation, particularly blackberry. Four probes were excavated at 40-meter intervals. All probes were excavated as 30-centimeter (cm) diameter cylindrical holes in 10 cm arbitrary levels until two sterile levels were encountered after extending a minimum of 50 cm in depth or until impenetrable strata prohibited excavation. Recovered sediments were passed through 0.25-inch mesh. The soil profiles of each shovel probe were characterized by stratigraphic layers and sediments, and their location was recorded using a Trimble GeoExplorer XT GPS unit capable of sub-meter accuracy. Digital photographs were taken of a representative sample of the probes. No known historic properties or cultural resources are within the Project area; therefore, no measures to avoid or minimize impacts are anticipated.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

No known historic properties or cultural resources are within the Project area; therefore, no measures to avoid or minimize impacts are anticipated. However, archaeological monitoring of the Project is recommended during major ground-disturbing construction activities (i.e., initial grading and excavation work) because of the presence of peat deposits in the Project area and the high probability for encountering precontact and historic archaeological resources. The project will include an Inadvertent Discovery Plan in case a situation arises where cultural or historic resources are identified during ground disturbing activities

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

The project site is served by a non-public access road that bisects the project area. This access road can be accessed from South 156th Street (approaching from the east), or from Des Moines Memorial Drive South (approaching from the west). Washington State Route 518 is to the north and east, and South 156th Way is to the south. The ARFF Access Road will be closed to traffic during construction.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The Project site is not served by public transportation. The closest bus stop (served by King County Metro and providing bus service to Burien and the Burien Transit Center) is located at the intersection of South 156th Street and Des Moines Memorial Drive South, approximately 0.6 mile from the Project site.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

There will be no additional parking spaces created or parking spaces eliminated by the Project.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

The Project will not require any new transportation facilities or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities.

- e. **Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

The Project will not require the use of water, rail, or air transportation. The Project will occur in the vicinity of air transportation for SEA.

- f. **How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?**

The completed Project is not anticipated to generate an increase in vehicular trips. As a designated haul route, ARFF Access Road is already used for vehicle activity, and this project would allow that use to continue.

- g. **Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

The Project will not interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area.

- h. **Proposed measures to reduce or control transportation impacts, if any:**

There are no measures proposed to reduce or control transportation impacts.

15. Public services

- a. **Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

The Project will not require a need for public services.

- b. **Proposed measures to reduce or control direct impacts on public services, if any.**

There are no measures proposed to reduce or control direct impacts on public services.

16. Utilities

- a. **Circle utilities currently available at the site:** electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other: stormwater, industrial water system, fire protection, WiFi
- b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

There are no utilities proposed for the project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature:  _____

Name of signee: Steven Rybolt

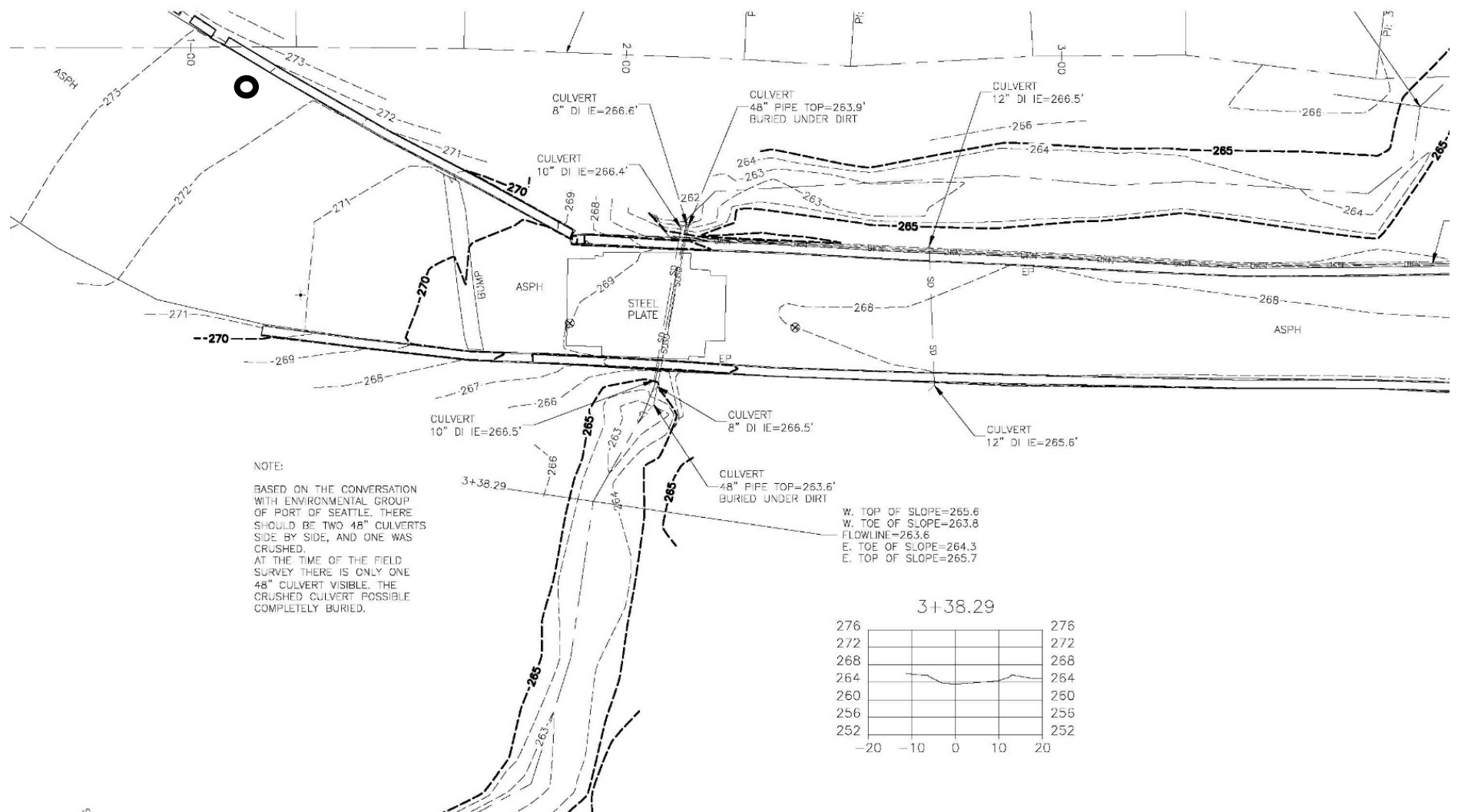
Position /Organization Senior Environmental Programs Manager, Port of Seattle

Date Submitted: February 4, 2021

APPENDIX A

Site Maps

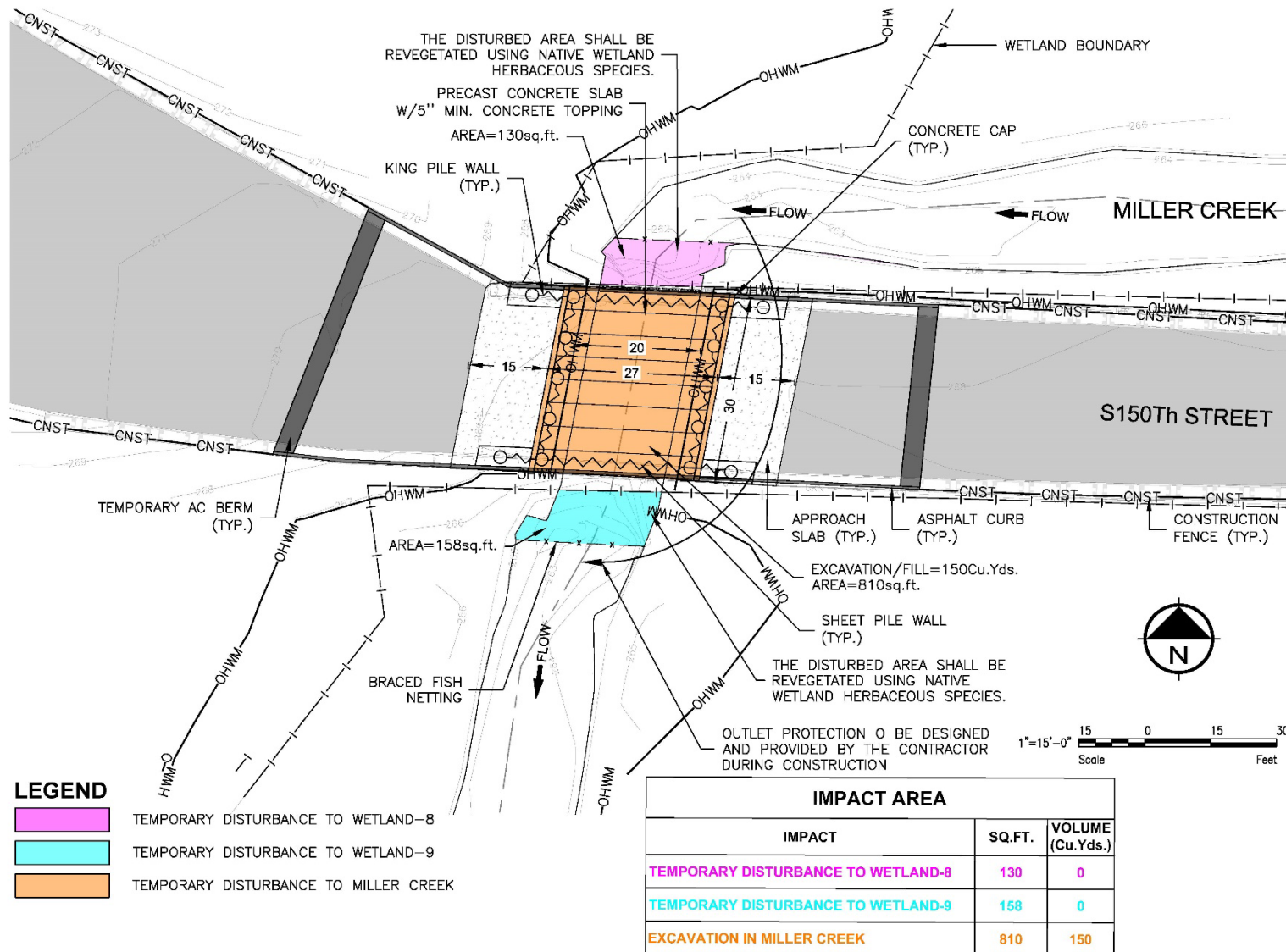
- Topographic Survey Map of Existing Road and Miller Creek (1-foot contours)
- Survey Map Overlaid on Google Earth Image
- Plan View of Proposed Culvert
- Typical Section View of Proposed Culvert



Source: Survey by Port of Seattle, July 2020

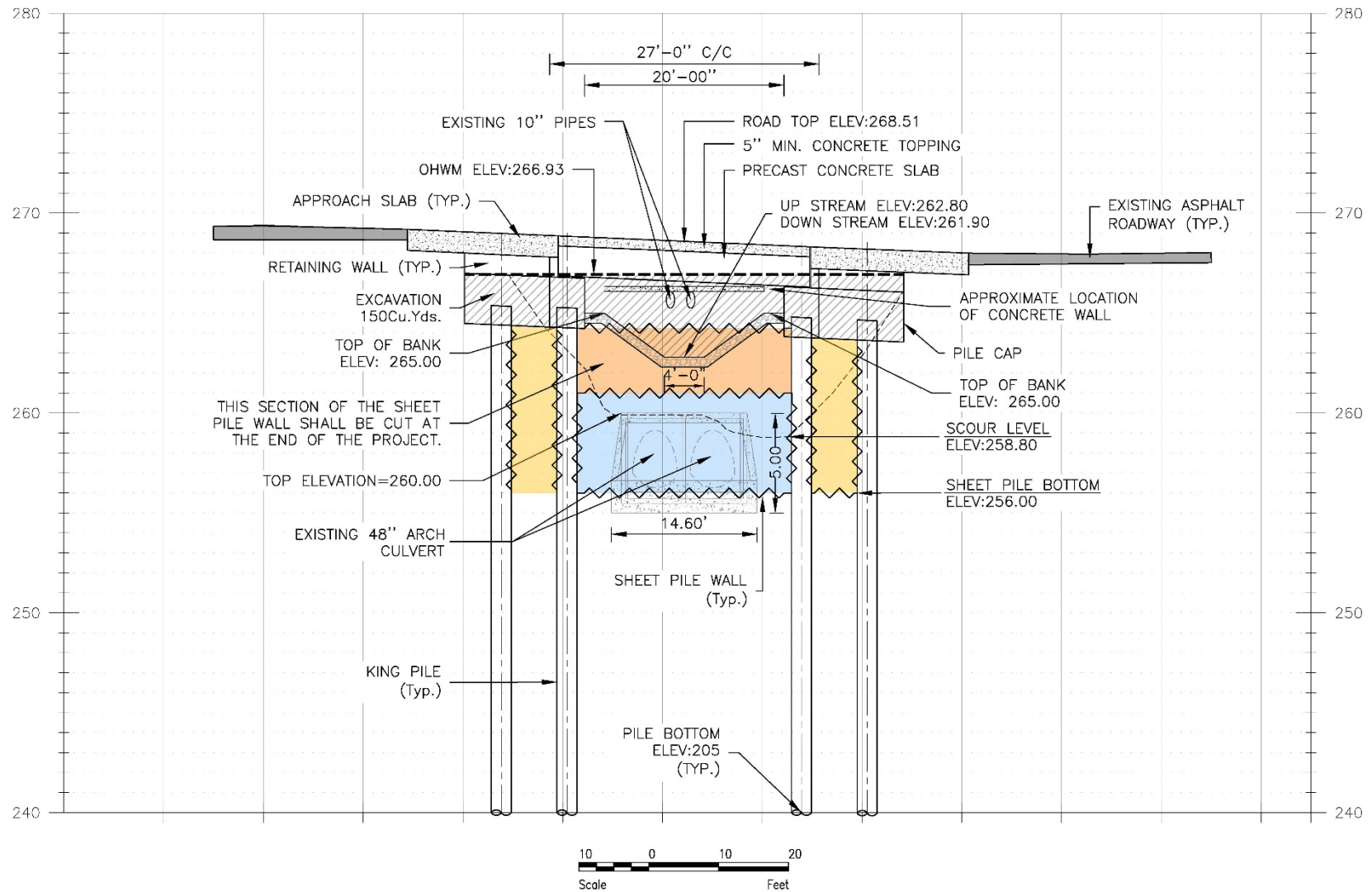


TOPOGRAPHIC SURVEY OVERLAID ON GOOGLE EARTH IMAGE



PROPOSED CULVERT PLAN VIEW

Source: 60% Design, Geometrics Engineering, November 23, 2020



PROPOSED CULVERT TYPICAL SECTION

Source: 60% Design, Geometrics Engineering, November 23, 2020

APPENDIX B

Greenhouse Gas Emissions Worksheet Supplemental Information for SEPA Environmental Checklist

GHG Emission Sources (CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆) ¹	What sources are likely from the proposal? <i>List specific type of activities, and duration of emissions</i>	What is the quantitative or qualitative assessment of those emissions?	What available mitigation will avoid or reduce those emissions?
On-Road Mobile Sources	Not Applicable	Not Applicable	
Non-Road Mobile Sources	Not Applicable	Not Applicable	
Stationary Combustion	Not Applicable	Not Applicable	
Industrial Processes	Not Applicable	Not Applicable	
Fugitive Emissions	Not Applicable	Not Applicable	
Agricultural Emissions	Not Applicable	Not Applicable	
Land Disturbance	Not Applicable	Not Applicable	
Purchased Electricity and Steam	Not Applicable	Not Applicable	
Construction	Construction vehicles (See Section 14.f)	Temporary and short-term use associated with construction-related emissions is not expected to be significant.	Contractor performing construction and demolition will be required to maintain and repair all equipment in a manner that reasonably minimizes emissions.
Extraction of Purchased Materials	Not Applicable	Not Applicable	
Processing of Purchased Materials	Not Applicable	Not Applicable	
Transportation of Purchased Materials	Concrete, asphalt, steel and the structure are the primary components of the Project. The Port will work with the contractor to source these components locally, to the extent practicable.	Temporary and short-term use associated with construction-related emissions is not expected to be significant.	Contractor transporting equipment will be required to maintain and repair all vehicles in a manner that reasonably minimizes emissions.
New facility operations	Not Applicable	Not Applicable	
Other Mobile Emissions	Not Applicable	Not Applicable	

GHG Emission Sources (CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆) ¹	What sources are likely from the proposal? <i>List specific type of activities, and duration of emissions</i>	What is the quantitative or qualitative assessment of those emissions?	What available mitigation will avoid or reduce those emissions?
Water Use and Wastewater Disposal	Not Applicable	Not Applicable	
Waste Management	Not Applicable	Not Applicable	
Product Use	Not Applicable	Not Applicable	

CH₄	Methane	Landfills, production and distribution of natural gas & petroleum, fermentation from the digestive system of livestock, rice cultivation, fossil fuel combustion, etc.
N₂O	Nitrous Oxide	Fossil fuel combustion, fertilizers, nylon production, manure, etc.
HFCs	Hydrofluorocarbons	Refrigeration gases, aluminum smelting, semiconductor manufacturing, etc.
PFCs	Perfluorocarbons	Aluminum production, semiconductor industry, etc.
SF₆	Sulfur Hexafluoride	Electrical transmissions and distribution systems, circuit breakers, magnesium production, etc.