

Part 1 Project Description			
Federal Aid Project Number HPP-0080(016)	Route Pedestrian Walkway	Date 06/08/2010	Intent of Submittal <input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final <input type="checkbox"/> Re-Evaluate
Agency City of Bellingham	Federal Program Title <input checked="" type="checkbox"/> 20.205 <input type="checkbox"/> Other		
Project Title Boulevard/Cornwall Overwater Pedestrian Walkway			
Beginning MP n/a	Townships 38N		
Ending MP n/a	Ranges 2E		
Miles .47	Sections 36		
County Whatcom County			
Project Description - Describe the proposed project, including the purpose and need for the project. Please see attached Addendum (Appendix A).			

Part 2 Environmental Classification	
NEPA	SEPA
<input type="checkbox"/> Class I - Environmental Impact Statement (EIS)	<input type="checkbox"/> Categorically exempt per WAC 197-11-800
<input checked="" type="checkbox"/> Class II - Categorically Excluded (CE)	<input checked="" type="checkbox"/> Determination of Non-Significance (DNS)
CE Type (from 23 CFR 771.117) _____	<input type="checkbox"/> Environmental Impact Statement (EIS)
<input type="checkbox"/> Projects Requiring Documentation (Documented CE) (LAG 24.22)	<input type="checkbox"/> Adoption
<input type="checkbox"/> Programmatic CE MOU	<input type="checkbox"/> Addendum
<input type="checkbox"/> Class III - Environmental Assessment (EA)	<input type="checkbox"/> Supplemental
	(For informational purpose only)

NEPA Approval Signatures

Local Agency Approving Authority

Date

Regional Local Programs Engineer

Date

Highways and Local Programs Environmental Engineer

Date

Federal Highway Administration

Date

Completed By (Print Official's Name) Derek Koellmann, Anchor QEA, LLC	Telephone (include area code) (360) 733-4311 x221	Fax (include area code) (360) 733-4312
		E-mail dkoellmann@anchorqea.com

Part 3 Permits and Approvals Required									
Yes	No	Permit or Approval		Yes	No	Permit or Approval			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Corps of Engineers	<input checked="" type="checkbox"/>	Sec. 10	<input checked="" type="checkbox"/>	Sec. 404	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Rights Permit
			<input type="checkbox"/>	Nationwide Type			<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water Quality Certification - Sec. 401
			<input type="checkbox"/>	Individual Permit No. _____					Issued by Ecology _____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Coast Guard Permit			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Tribal Permit(s), (If any)		_____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Coastal Zone Management Certification							_____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Critical Area Ordinance (CAO) Permit							_____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Forest Practice Act Permit							_____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hydraulic Project Approval							_____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Local Building or Site Development Permits							_____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Local Clearing and Grading Permit							_____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	National Pollutant Discharge Elimination System (NPDES) Baseline General for Construction							_____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Shoreline Permit			<input type="checkbox"/>	<input checked="" type="checkbox"/>	ROW Acquisition Required		_____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	State Waste Discharge Permit			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is relocaton required?		_____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	TESC Plans Completed			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is a detour required?		_____

Part 4 Environmental Considerations								
<p>Will the project involve work in or affect any of the following? Identify proposed mitigation. Attach additional pages or supplemental information if necessary.</p>								
<p>1. Air Quality - Identify any anticipated air quality issues.</p> <p>Is the project included in the Metropolitan Transportation Plan? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, date Metropolitan Transportation Plan was adopted. <u>4/1/09</u></p> <p>Is the project located in an Air Quality Non-Attainment Area or Maintenance Area (for carbon monoxide, ozone, or PM10)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Is the project exempt from Air Quality conformity requirements? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, identify Please see attached addendum (Appendix A)</p>								
<p>2. Critical/Sensitive Areas - Identify any known Critical or Sensitive Areas as designated by local Growth Management Act ordinances.</p> <p>a. Is this project within an aquifer recharge area <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No a wellhead protection area <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No a sole source aquifer <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If located within a sole source aquifer, is the project exempt from EPA approval? If yes, please list exemption _____ If no, date of EPA approval _____</p>								
<p>b. Is this project located in a Geologically Hazardous Area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If so, please describe Please see attached addendum (Appendix A).</p>								
<p>c. Will this project impact Species/Habitat other than ESA listed species? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Explain your answer Please see attached addendum (Appendix A).</p>								
<p>Is the project within Bald Eagle nesting territories, winter concentration areas or bald eagle communal roosts? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Will blasting, pile driving, concrete saw cutting, rock drilling, or rock scaling activities occur within one-mile of a bald eagle nesting area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>								

Part 4 Environmental Considerations - Continued

d. Are wetlands present within the project area? Yes No If Yes, estimated area of impact in acre(s): _____
(Please attach a copy of the proposed mitigation plan)

3. Cultural Resources/Historic Structures - Identify any historic, archaeological, or cultural resources present with the project's area of potential effects.

Does the project fit into any of the exempt types of projects listed in Appendix C of the ECS Guidebook

Yes No

If Yes, note exemption below.

If No: Date of DAHP concurrence _____

Date of Tribal consultation(s) (if applicable) _____

Adverse affects on cultural/historic resources? Yes No

If Yes, date of approved Section 106 MOA _____

Please see attached addendum (Appendix A).

4. Flood Plains or Ways

Is the project located in a 100-year flood plain? Yes No

If yes, is the project located in a 100-year floodway? Yes No

Will the project impact a 100-year flood plain? Yes No (If Yes, describe impacts.)

Please see attached addendum (Appendix A).

5. Hazardous and Problem Waste - Identify potential sources and type.

Does this project require excavation below the existing ground surface? Yes No

Is this site located in an undeveloped area (i.e., no buildings, parking or storage areas, and agriculture (other than grazing), based on historical research? Yes No

Is this project located within a one-mile radius of a site of a Confirmed or Suspected Contaminated Sites List (CSCSL) maintained by Department of Ecology? Yes No

Is this project located within a 1/2-mile radius of a site or sites listed on any of the following Department of Ecology Databases? Yes No ; if yes, check the appropriate box(es) below.

Voluntary Cleanup Program (VCP)

Underground Storage Tank (UST)

Leaking Underground Storage Tank (LUST)

Has site reconnaissance (windshield survey) been performed? Yes No

If so identify any properties not identified in the database search that may affect the project (name, address and property use).

Please see attached addendum (Appendix A).

Based on the information above and project specific activities, is there a potential for the project to generate contaminated soils and/or groundwater? Yes No

If yes, explain:

If you answered yes to any of the questions in Section 5. Hazardous/Waste, contact your Region LPE for assistance before continuing with this form.

Part 4 Environmental Considerations - Continued

6. Noise

Does this project involve constructing a new roadway? Yes No

Is there a change in the vertical or horizontal alignment of the existing roadway? Yes No

Does this project increase the number of through traffic lanes on an existing roadway? Yes No

Is there change in the topography? Yes No

Are auxiliary lanes extending 1-1/2 miles or longer being constructed as part of this project? Yes No

If you answered yes to any of the preceding questions, identify and describe any potential noise receptors within the project area and subsequent impacts to those noise receptors. (Please attach a copy of the noise analysis.)

Please see attached addendum (Appendix A).

If impacts are identified, describe proposed mitigation measures.

Please see attached addendum (Appendix A).

7. Parks, Recreation Areas, Wildlife Refuges, Historic Properties, Wild and Scenic Rivers/Scenic Byways, or 4 (f)/6 (f).

a. 4(f) Please Identify any properties within the project limits and areas of impacts.

Boulevard Park is a 4(f) property.

b. 6(f) Please Identify any properties within the project limits and areas of impact.

There are no 6(f) properties within the project limits and/or areas of impacts.

c. Please list wild scenic rivers and scenic byways.

There are no wild scenic rivers and/or scenic byways within the project limits and/or areas of impacts.

8. Resource Lands - Identify any of the following resource lands within 300 feet of the project limits and those otherwise impacted by the project.

a. Agricultural Lands Yes No

Describe Impacts

If present, is resource considered to be prime and unique farmland? Yes No

If Yes, date of approval from Natural Resources Conservation Service (NRCS) _____

b. Forest/Timber Yes No

Describe Impacts

c. Mineral Yes No

Describe Impacts

Part 4 Environmental Considerations - Continued

9. Rivers, Streams (Continuous, Intermittent), or Tidal Waters

a. Identify all waterbodies within 300 feet of the project limits or that will otherwise be impacted.

Fisheries WA Stream No. n/a Ecology 303d Report No. n/a
(if known) Reason for 303d listing n/a

Date of Report _____

Waterbody common name Bellingham Bay

b. Identify stream crossing structures by type.

There are no stream crossing structures proposed as part of this project.

c. Water Resource Inventory Area (WRIA) No. & Name 1 Nooksack

10. Tribal Lands - Identify whether the project will impact any Tribal lands. (This includes reservation, trust and fee lands.)

The Project will not impact any Tribal reservations, trust, and/or fee lands.

11. Visual Quality

Will the project impact roadside classification or visual aspects? Yes No (If Yes, identify the impacts.)
(Such as aesthetics, light, glare and night sky impacts.)

Temporary light and glare impacts will result from vehicles in the Project area during construction.

However, no permanent impacts to light or glare, or any night sky impacts, are anticipated as a result of the Project. The embayment where the overwater walkway structure will be located was previously used for industrial activities. Historically, a boardwalk structure connected what is now Boulevard Park with the former Cornwall Avenue Landfill site.

12. Water Quality/Storm Water

Has NPDES municipal general permit been issued for this WRIA? Yes No

Amount of existing impervious surface within project limits: approx. 5,000 sf

Net new impervious surface to be created as a result of project: approx. 37,500 sf

Will this project's proposed stormwater treatment facility be consistent with the guidelines provided by either WSDOT's HRM, DOE's western or eastern Washington stormwater manuals, or a local agency equivalent manual? Yes No

If no, explain proposed water quality/quantity treatment for new and any existing impervious surface associated with proposed project.

The Project will introduce new impervious surface area resulting from construction of the overwater walkway and associated improvements. However, the impervious surfaces associated with the Project will not generate stormwater pollutants.

Part 4 Environmental Considerations - Continued

13. Commitments

a. **Environmental** Describe existing environmental commitments that may affect or be impacted by the project:
(For example, previous mitigation that may have been constructed within the project limits.)

Please see attached addendum (Appendix A Section 1.5) for details regarding previous environmental commitments in the Project vicinity.

b. Long-Term Maintenance Commitments

Are long-term maintenance commitments necessary for this project above and beyond normal on-going maintenance? Yes No If so, please identify.

14. Environmental Justice

Does the project meet any of the exemptions, as noted in Appendix E of the ECS Guidebook Yes No
(If Yes, Please note exemption and appropriate justification in the space below.)

If no, are minority and/or low income populations located within the limits of the project's potential impacts?

Yes No (If no, attach appropriate data to support finding.)

If yes, describe impacts and attach appropriate supporting documentation.

Please see attached addendum (Appendix A).

Part 5 Biological Assessment and EFH Evaluations

1. Are there any listed or proposed species and/or designated or proposed critical habitat located within the proposed project's action area? Yes No (Please attach species listings.)

Affected ESA Listed Species	2. Will any construction work occur within 0.5 miles of any of the following:	3. Does the project involve blasting, pile driving, concrete sawing, rock drilling, or rock scaling activities within 1 mile of any of the following?
Spotted owl management circles or designated critical habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Marbled murrelet nest or occupied stand, or designated critical habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Western snowy plover designated critical habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Listed Marine Mammal?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Canada lynx habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Gray wolf habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Grizzly bear habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Brown pelican night roosts?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Woodland caribou habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
A mature coniferous or mixed fixed forest stand?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Part 5 Biological Assessment and EFH Evaluations - Continued

4. Will the project involve any in-water work?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Will any construction work occur within 300 feet of any permanent or intermittent waterbody, which either supports or drains into a listed fish supporting waterbody?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6. Will any construction work occur within 300 feet of any wetland, pond, or lake that is connected to any permanent or intermittent waterbody?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7. Does the action have the potential to directly or indirectly impact designated critical habitat for salmonids (including adjacent riparian zones)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
8. Will the project affect the water regime of, or utilize any water from a waterbody, which supports or drains into a listed fish supporting waterbody; or any wetland, pond, or lake?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
9. Will construction work occur outside the existing pavement? If Yes, go to 9a.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9a. Will construction activities occurring outside the existing pavement involve clearing, grading, filling, or modifications of vegetation or tree cutting?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
10. Are there any Federal threatened, endangered, proposed or candidate plant species located within the project limits? (If so, please attach a list of plant species within the action area)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Determination

If each of the questions in the preceding section resulted in a "no" response or if any of the questions were checked "yes", but adequate justification can be provided to support a "no effect" determination, then check "No effect" below. If this checklist cannot be used for ESA Section 7 compliance (i.e., adequate justification cannot be provided or a "may affect" determination is anticipated), a separate biological assessment document is required.

NOAA Fisheries	USFWS
<input type="checkbox"/> No Effect	_____
<input type="checkbox"/> NLTAA Date of Concurrence	_____
<input checked="" type="checkbox"/> LTAA Date BO Issued	_____
Date of First 6 Mo. Update	_____
Essential Fish Habitat Determination:	
<input type="checkbox"/> No Adverse Effect	_____
<input type="checkbox"/> Adverse Effect. Date of NOAA Concurrence	_____

Analysis for No Effects Determination (Required if any item in Section 5 was checked Yes). (Please attach additional sheets if needed.)

A Biological Assessment was provided to WSDOT under separate cover. The Project was determined by WSDOT to potentially affect listed species. Please see the attached addendum (Appendix A) for effects determinations.

Part 6 FHWA Comments

Use Supplement Sheet if additional space is required to complete this section.

APPENDIX A

ADDENDUM TO THE LOCAL AGENCY ENVIRONMENTAL CLASSIFICATION SUMMARY

Boulevard/Cornwall Overwater Pedestrian Walkway Project

Prepared for

Washington State Department of Transportation
15700 Dayton Ave N
Seattle, Washington 98133

Prepared by

Anchor QEA, LLC
1605 Cornwall Avenue
Bellingham, Washington 98225

June 2010

1 PART 1: PROJECT DESCRIPTION

The City of Bellingham (City) Parks and Recreation Department (Parks) proposes construction of an overwater pedestrian walkway structure between Boulevard Park and the former Cornwall Avenue Landfill site, a future park site (see Sheet 1 in Appendix B for vicinity map). The construction of the proposed overwater walkway will significantly improve public shoreline access along Bellingham's waterfront by providing a continuous shoreline trail between Fairhaven and the former Cornwall Avenue Landfill site, and by connecting to the Coast Millennium Trail route at Boulevard Park and the water district at the Cornwall Avenue site. The proposed overwater walkway complements the existing overwater walkway system including Taylor Avenue Dock and the Pattle Point Trestle located to the south of the proposed Boulevard/Cornwall Overwater Pedestrian Walkway Project (Project).

1.1 Project Background

The proposed overwater walkway has been identified in several planning documents as an important link in the network of Bellingham's waterfront trail system, including the 2002 *City of Bellingham Parks, Recreation and Open Space Plan* (COB Parks 2002) and its 2008 update (COB Parks 2008); the 2004 *Waterfront Vision and Framework Plan: Connecting Bellingham with the Bay* (WFG 2004); the 2006 *New Whatcom Preliminary Draft Framework Plan* (COB and POB 2006); the 2009 draft update of the *City of Bellingham Shoreline Master Program* (COB 2009); and the mayor's 2008 *Waterfront Connections Plan* (COB 2008). The Project has also been part of a Bellingham public vote, the third greenways levy, which was approved by voters in 2006. Prior to the vote, in an adopted ordinance, the Bellingham City Council recorded intent to pursue a list of potential greenway projects that included the overwater walkway. The list was assembled by citizens who examined the City's current plans and needs.

The Project will occur across several parcels under varying ownership: Boulevard Park is owned by the City, the former Cornwall Avenue Landfill site is jointly owned by the City and the Port of Bellingham, and aquatic lands are owned by the Washington Department of Natural Resources (WDNR).

1.2 Existing Conditions

The southern terminus of the proposed overwater walkway will be located within Boulevard Park, a major public waterfront park facility in Bellingham that is owned, managed, and maintained by Parks. The park is located adjacent to Bellingham Bay between the Fairhaven District (south) and the Bellingham Waterfront District (north), and includes maintained lawn and landscaping, a small performance stage, public restrooms, picnic facilities, parking, trails, and 'The Woods' coffee shop. The park and its trails are used extensively for recreation by locals and visitors due to their scenic value and central location on Bellingham Bay. There is no shoreline access except for a small pocket beach at the northeast corner of the park (Photo 1). The remainder of the shoreline is heavily armored with rock and concrete riprap.



Photo 1 – Profile view of the existing pier at Boulevard Park from the adjacent pocket beach located at the northeast corner of Boulevard Park (facing west)

An existing wharf and pier are located at the north end of Boulevard Park in the location of the southern terminus of the proposed overwater walkway (Photo 2). The pier is in structurally unsafe condition and is closed to the public. The overwater portion of the pier is supported by pier bents supported by 1-foot by 1-foot timber caps and eight corroded steel

H-piles. The overwater portion of the wharf is supported by approximately 87 creosote-treated timber piles. A low concrete wall supports the wharf on the landward side.



Photo 2 – View from Boulevard Park of the pier where the southern end of the overwater walkway will land (facing north)

The former Cornwall Avenue Landfill site is located at the north end of the proposed walkway within the City's Waterfront District redevelopment area. The upland portion is currently undeveloped and public access is restricted. Vegetation on the site is unmaintained. Non-native and invasive herbaceous plant species dominate the area near the proposed landing site. The shoreline is heavily armored with riprap and concrete rubble. Five derelict creosote-treated piles are located immediately offshore of the southwest corner of the property in the vicinity of the proposed walkway (Photo 3).



Photo 3 – View of the former Cornwall Avenue Landfill site where the north abutment of the proposed overwater walkway will land (facing southeast)

The outermost portion of the embayment (a part of Bellingham Bay) between Boulevard Park and the former Cornwall Avenue Landfill site (Photo 4), is presently used for transient and derelict vessel moorage; however, these transient vessels do not have WDNR authorization to moor in this area. The bathymetry of the embayment between Boulevard Park and the former Cornwall Avenue Landfill site indicates that the shoreline is gently sloping from the upland toward the Whatcom Waterway navigation channel. The substrate along the shoreline of the Project area waterward of the riprap at each landing site primarily consists of gravel, mud, cobble, sand, and shell fragments. A geotechnical study was conducted for the Project in October 2009, and borings indicated the material below elevation -20 feet mean lower low water (MLLW) is primarily composed of sand, soft clay, and silt.



Photo 4 – View of proposed overwater walkway location from the existing pier at Boulevard Park where the southern end of the walkway will land (facing northeast)

Native eelgrass (*Zostera marina*) beds are located in the embayment from approximately -2 feet MLLW to a depth of approximately -8 feet MLLW. See Sheet 2 in Appendix B for location and extent of the eelgrass beds. In addition, macroalgae was found mostly landward of the eelgrass (Grette Associates 2009).

1.3 Proposed Improvements

Parks proposes construction of an overwater walkway structure between Boulevard Park and the former Cornwall Avenue Landfill site, a future park site. The new facility will include a new overwater pedestrian walkway, 7 to 14 feet in width, with benches. The walkway will be constructed of steel and concrete with wood pedestrian guardrails to meet Americans with Disabilities Act (ADA) requirements. The landing to the south will connect to Boulevard Park, which is connected to the Coast Millennium Trail route. The connection to the north at the former Cornwall Avenue Landfill site is connected to the waterfront district. Project elements include:

- In-water piles
- Overwater precast and cast-in-place pile caps, precast deck panels, a finish slab, posts

and pedestrian guardrails meeting Americans with Disabilities Act (ADA) requirements, deck lighting, and benches

- Landings and associated improvements at both Boulevard Park and the former Cornwall Avenue Landfill site

The proposed improvements are detailed in Sections 1.3.1 and 1.3.2 and shown on Sheets 3 through 12 in Appendix B.

1.3.1 *Overwater Walkway Structure*

The proposed overwater structure will span approximately 2,350 feet across a portion of Bellingham Bay. The structure will be supported by 48 bents spaced at approximately 50 feet on center; each bent includes two 24-inch steel piles for a total of 96 piles, and a precast/cast-in-place concrete pile cap. The piles will be installed using a vibratory hammer and then proofed with an impact hammer to ensure vertical load requirements are met. Four of the piles will be located over areas of high bedrock and will be secured to the bedrock using steel rock anchors.

The bents will support 50-foot-long precast concrete double tee deck panels. A cast-in-place concrete finish slab will be installed over the top of the concrete panels. The final top of deck elevation will be +16.8 feet MLLW. In total, approximately 34,000 square feet of new decking will be installed as part of the Project. 1,515 square feet of grating will be integrated into the deck surface, including the three spans located closest to the Boulevard Park terminus and five spans located closest to the former Cornwall Avenue Landfill site.

Approximately 30% of the surface of these nearshore spans will be grated. The proposed grating will allow 70% light transmission.

The walkway deck will generally be 14 feet wide, except where it is widened to create alcoves for bench seating. The alcove areas will be 18.5 feet wide and 20 feet long, and will be located at approximately 200-foot intervals along the walkway. Wood pedestrian guardrails will be installed along both sides of the length of the overwater walkway.

Directional light-emitting diode (LED) lighting fixtures will be installed on the posts of the wood pedestrian guardrails of each walkway span (four per span, two on each side of the span) for a total of 188 LED lights. The power source for the lighting fixtures will be a main utility line that will run underground on the Boulevard Park side of the Project from the existing restroom located approximately 80 feet south of the proposed landing. The line splits to each side of the walkway from the landing and will run parallel below the underside of the boardwalk and on the outside edges, avoiding the openings in the grating. The light from these fixtures will be low voltage and directed at the overwater walkway deck, away from the water surface.

1.3.2 *Landings and Associated Improvements*

Landings for the overwater walkway will be developed at both Boulevard Park and the former Cornwall Avenue Landfill site (see Sheet 4 in Appendix B). On the Boulevard Park end, an existing timber wharf and timber pier will be demolished. Additionally, four existing creosote-treated timber piles located in the embayment to the north of the existing timber pier will be removed. Removal of the timber wharf, pier, and creosote-treated piles is expected to provide partial mitigation for Project impacts. Four existing evergreen trees, approximately 18 to 36 inches diameter at breast height (dbh), and an existing asphalt path will be removed as well. Debris from the demolished structures will be disposed of at an approved upland facility and all creosote-treated wood will be disposed of in accordance with Washington State's Dangerous Waste Regulations (Washington Administrative Code [WAC] 173-303) and Excluded Categories of Waste (WAC 173-303-071).

At the former Cornwall Avenue Landfill site landing, five existing creosote-treated timber piles located immediately offshore of the southwest corner of the property will be removed.

At the Boulevard Park landing, approximately 600 cubic yards (cy) of fill will be placed over an upland area of approximately 5,600 square feet, raising the grade up to 6 feet over existing grade to accommodate a paved ADA accessible path leading to the overwater walkway. This path will connect the structure with the current path system at the park. Concrete wingwalls will be constructed where the paths connect to the overwater walkway structure. Approximately 6,700 square feet of heavy, loose riprap will be placed above existing riprap at

the top of slope (above mean higher high water [MHHW]) of the new fill in the vicinity of the proposed landing. Sheet 6 shows the proposed grading and layout for the Boulevard Park landing and Sheet 9 provides typical sections of the ADA accessible paths for both the Boulevard Park and the former Cornwall Avenue Landfill site landings, as well as wingwalls and abutments for the landings.

The new landing at the former Cornwall Avenue Landfill site will be constructed similar to the Boulevard Park landing at the north end of the structure. Approximately 800 cy of fill will be placed over an area of approximately 12,300 square feet, raising the existing grade to provide an ADA accessible crushed rock path leading to the overwater walkway (constructed at a 1:20 slope). Concrete abutments will be constructed and approximately 2,300 square feet of heavy, loose riprap will be placed above existing riprap at the top of slope (above MHHW) of the new fill in the vicinity of the proposed landing to provide slope protection. The landing for the overwater walkway at the former Cornwall Avenue Landfill site has been developed so that it will not interfere with future park development plans. Sheet 7 shows the grading and layout for the former Cornwall Avenue Landfill site landing and Sheet 9 provides typical sections of the ADA accessible path.

1.4 Environmental Considerations

1.4.1 *Eelgrass Beds*

Grette Associates conducted an underwater eelgrass survey within the embayment and mapped the extent of existing eelgrass beds. This survey occurred June 3 through June 5, 2008 (Grette Associates 2009), and employed a modified version of the Washington Department of Fish and Wildlife (WDFW) Intermediate Eelgrass/Macroalgae survey methods, modified to meet the needs of the Project and approved by WDFW (WDFW 2007). The results of the survey (Grette Associates 2009) showed that eelgrass is present along the entire shoreline of the embayment between Boulevard Park and the former Cornwall Avenue Landfill site. In general, eelgrass begins at an upper elevation of approximately -1.7 to -2.0 feet MLLW and extends waterward to approximately -8 to -10 feet MLLW. At the Boulevard Park landing, eelgrass density is lowest and the eelgrass band is narrowest at the existing pier. At the former Cornwall Avenue Landfill site, eelgrass density is generally similar along the entire shoreline area.

In addition, macroalgae was consistently found landward of the eelgrass bed surveyed. *Fucus* and *Ulva* were present on most transects, and sparse *Laminaria* was observed further waterward on some transects (Grette Associates 2009).

1.4.2 *Historic and Cultural Resources*

A cultural and historical resources report entitled *An Archeological Survey of the Boulevard/Cornwall Overwater Pedestrian Walkway Project Area, Bellingham Washington* was prepared for the Project by Wessen & Associates, Inc. (2010). This report will be submitted to the Federal Highways Administration (FHWA) for review, approval, and submission to the Department of Archaeology and Historic Preservation (DAHP). The final documentation from FWHA and DAHP will be provided to the U.S. Army Corps of Engineers (USACE) when received.

1.4.3 *Mitigation*

The proposed mitigation for the Project includes removing an existing timber pier and wharf at the north end of Boulevard Park and nine additional creosote-treated timber piles in the embayment. The pier is supported by eight steel H-piles (each 8 inches square) and the wharf is supported by approximately 87 creosote-treated piles, all of which will be removed. The wharf is supported on the southern (landward) end by an existing concrete wall that may also be removed, depending on the nature and level of contamination behind the wall. Further evaluation of sediment quality behind the wall will be conducted in the summer of 2010.

Four creosote-treated, 12-inch-diameter timber piles located immediately north of the existing pier at Boulevard Park and five creosote-treated, 12-inch-diameter timber piles immediately offshore of the southwest corner of the former Cornwall Avenue Landfill site will be removed.

The removal of the pier, wharf, and piles will result in a significant reduction of overwater cover. In addition, approximately 30% of the spans of the proposed structure located above nearshore areas (-12 feet MLLW or higher) will be grated: the three spans closest to the

Boulevard Park landing and the five spans closest to the former Cornwall Avenue Landfill site landing. The grating will be sized to provide 70% light transmission. Table 1 summarizes the anticipated changes in overwater cover resulting from the Project.

Table 1
Summary of Changes in Overwater Cover/Shading in the Intertidal Zone

Project Component	Removal of Existing Overwater Cover ¹	Total New Overwater Cover ¹	New Overwater Grated Areas ^{1, 3}	Net Change in Overwater Shading ^{1, 2}
Existing wharf, piles, and pier to be removed	-3,332	0	0	-3,332
Existing isolated piles (nine total) to be removed ⁴	-7	0	0	-7
Proposed overwater walkway structure	0	5,396	1,515 (1,060.5 open area)	4,335.5
Total	-3,339	5,396	1,515 (1,060.5 open area)	996.5

Table Notes:

1. All areas are in square feet
2. Changes in overwater cover are only detailed for intertidal areas where the seafloor elevations range between -12 feet MLLW and +8.5 feet MLLW (MHHW)
3. New overwater grated areas were calculated based on quantities and specifications provided by BergerABAM (approximately 30% grating—for areas described under item 2 above—with 70% openings)
4. Pile square footage is approximate and based on outside dimensions of the piles

Other avoidance and minimization measures are built into the Project design to minimize impacts to nearshore habitat (e.g., the widened deck portions will be located over areas with seafloor depths of -12 feet MLLW or lower). In addition, the preliminary overwater walkway design was modified based on discussions with WDFW (Williams, pers. comm. 2010) to ensure that the overwater walkway crosses over the narrowest area of eelgrass near the Boulevard Park landing (at the approximate location of the existing pier) and avoids crossing over the eelgrass areas near the former Cornwall Avenue Landfill site landing to minimize new macroalgae shading impacts from the overwater walkway (see Sheets 5 and 6).

1.5 MTCA Remedial Actions Associated with the Overwater Walkway

The overwater walkway is located within the boundaries of three Model Toxics Control Act (MTCA) sites that are regulated by the Washington State Department of Ecology (Ecology): the Boulevard Park (also known as the South State Street Manufactured Gas Plant [MGP] Site), Cornwall Avenue Landfill, and Whatcom Waterway sites. The Boulevard Park site is undergoing investigation under an Ecology Agreed Order (AO) for soil and groundwater contamination related to the former South State Street MGP. The Cornwall Avenue Landfill site is undergoing investigation under an Ecology AO for contamination associated with a former municipal landfill. The landings of the overwater walkway will fall within the boundaries of the Boulevard Park and Cornwall Avenue Landfill MTCA sites. The overwater walkway structure will cross over aquatic lands that are within the natural recovery area of the Whatcom Waterway site, which is undergoing cleanup and long-term monitoring consistent with the Whatcom Waterway Consent Decree. The Boulevard Park overwater walkway project and the various MTCA projects are coordinated by the City. The landings for the walkway have been designed not to interfere with any future proposed restoration actions at the Boulevard Park and Cornwall Avenue Landfill MTCA sites.

To accommodate the construction of the overwater walkway landings, one or more MTCA interim remedial actions may need to occur to avoid delaying the implementation of the Project. Any needed remedial activities will be coordinated through, and approved by, Ecology.

1.6 Construction Methods

The proposed improvements will likely be constructed as described in Sections 1.6.1 and 1.6.2.

1.6.1 Removal of Existing Structures

The existing wharf and pier (including the eight steel H-piles) at the north end of Boulevard Park, and the isolated timber piles at the former Cornwall Avenue Landfill site will be removed by a derrick barge or land-based conventional crane (see Sheet 4 for the demolition plan).

Best management practices (BMPs; see Appendix C) as identified by the USACE Dredged Materials Management Office (DMMO) and the WDNR Puget Sound Initiative will be employed during removal of the piles. Timber piles would be removed in whole, wherever possible, by pulling. Removal of whole piles is the preferred method, because it would ensure the removal of the creosote preservative adhering to the piles. During removal, if a pile were to break above the mudline, an attempt would be made to pull the remainder of the pile to minimize disturbance of sediments. All creosote-treated wood that is removed would be disposed of in accordance with Washington State's Dangerous Waste Regulations (WAC 173-303) and Excluded Categories of Waste (WAC 173-303-071). All waste and debris generated by the Project would be collected and removed to a legally permitted waste disposal or recycling site.

1.6.2 *Installation of New Structures*

1.6.2.1 *Upland Work*

Upland work (above ordinary high water [OHW] and MHHW) will be performed using standard heavy construction equipment. Construction areas will be secured with temporary fencing to prohibit public access during construction. BMPs will be implemented to prevent sediment and other deleterious materials from entering waters of the United States (see Appendix C).

1.6.2.2 *In- and Overwater Work*

Piles will be driven using a vibratory hammer from a derrick barge or land-based crane, which consists of pairs of a spring-isolated hammer head and a set of hydraulic pile clamps. This process begins by placing a choker around the pile and lifting it into vertical position with the crane. The pile is then lowered into position and set in place at the mudline. The pile is held steady while the vibratory hammer installs the pile to 5 feet above the required tip elevation. To ensure load bearing capacity, the pile will be driven with an impact hammer for the remaining distance. Four of the piles need to be anchored to the bedrock to support the design loads.

Duration of vibratory pile driving time depends on the substrate conditions. Once the pile is set in place, pile installation with a vibratory hammer can take less than 15 minutes under

steady substrate conditions, to more than an hour under difficult substrate conditions (such as glacial till and bedrock, or exceptionally loose material in which the pile repeatedly moves out of position). The Project location is not expected to have difficult conditions. During the construction period, 96 piles will be driven, four of which are located above MHHW. Based on this information, a conservative estimate of pile driving time could extend to approximately 30 to 60 hours of pile driving.

The bottom part of the precast concrete pile caps and deck panels will be set in place by a barge-mounted or land-based crane and secured in place. The concrete for the cast-in-place top part of the pile caps will be delivered and placed by barge. The concrete finish slab will be applied once the deck panels are in place. Concrete for the finish slab will be applied from either land or a barge. BMPs will be implemented to ensure that no uncured concrete comes into contact with surface waters. Pedestrian guardrails, lighting, and viewing benches will be installed after the finish slab has cured.

1.7 Construction Timing and Schedule

The entire Project, including demolition and construction, is expected to take approximately 42 to 46 weeks to complete. In-water work is expected to take approximately 14 weeks to complete. However, the duration and total period of in-water work would be affected by several factors, including the type of construction equipment and procedures selected by the contractor, and the sequencing of work elements. If it is necessary to perform certain work at night during a low tide, appropriate City, Whatcom County, and any other necessary approvals would be obtained. Approximate durations for various construction activities are listed in Table 2.

Table 2
Approximate In-Water Activity Durations

Project Element	Approximate Duration
Remove isolated timber piles	1 day
Remove timber wharf, piles, and pier	2 days
Install landings	2 weeks
Install walkway	40 weeks

In-water work will occur according to the allowable USACE and WDFW work windows for Bellingham Bay and/or in accordance with the requirements and conditions of the Hydraulic Project Approval (HPA) issued by WDFW and appropriate concurrence recommendations identified by the federal agencies during Endangered Species Act (ESA) consultation. The expected in-water work window for the Project is from July 16 to January 21 in the years in which construction will occur. Table 3 details the in-water work windows for the Project.

Table 3
In-water Work Windows

Species	Month												Approved Work Windows by Species
	J	F	M	A	M	J	J	A	S	O	N	D	
Salmon													July 2 to March 2
Bull Trout													July 16 to February 15
Herring													June 15 to January 21
Sand Lance													March 2 to October 14
Surf Smelt													N/A ¹

Note:

1 Surf smelt spawning occurs year-round.

2 PART 4: ENVIRONMENTAL CONSIDERATIONS

2.1 Section 1 – Air Quality

The Project is included in the Washington State Department of Transportation (WSDOT) *Washington State Statewide Transportation Improvement Program (STIP): 2009-2012* (WSDOT 2009). According to the STIP, the regional analysis was modeled by the Whatcom Council of Governments (WCoG).

Impacts to air quality will result from heavy equipment use during construction activities. These impacts will be temporary and localized during construction and no long-term impacts to air quality will occur as a result of the completed Project.

2.2 Section 2 – Critical/Sensitive Areas

2.2.1 *Section 2a – Is this project within an aquifer recharge area, a wellhead protection area, or a sole source aquifer?*

The Project is not located within an aquifer recharge area, a wellhead protection area, or a sole source aquifer as none are known to exist within the City of Bellingham jurisdictional boundaries (Newell pers. comm. 2010).

2.2.2 *Section 2b – Is this project located in a Geologically Hazardous Area?*

According to the City 2010 Geologic Hazards map, the proposed overwater walkway abutments at Boulevard Park and the former Cornwall Avenue Landfill site are located in high seismic hazard and potential wave erosion areas.

2.2.3 *Section 2c – Will this project impact Species/Habitat other than ESA listed species?*

The Project has the potential to impact non-ESA listed species or habitats due to short-term construction impacts from constructing the overwater walkway. The WDFW Priority Habitats and Species (PHS) maps and the WDNR Natural Heritage Program were referenced to determine the species and habitats that occur in the Project area.

The WDFW PHS maps (2008) show that the Project area is located in a priority Estuarine Zone and includes potential surf smelt (*Hypomesus pretiosus*) and sand lance (*Ammodytes hexapterus*) spawning habitat at the north end of Boulevard Park. Priority species that might be affected by the proposed work include chum salmon (*Oncorhynchus keta*), coho salmon (*O. kisutch*), sea-run cutthroat trout (*O. clarkii clarkii*), pink salmon (*O. gorbuscha*), and sockeye salmon (*O. nerka*). Additionally, two priority harbor seal (*Phoca vitulina*) haul-out sites occur on log booms located offshore of the embayment between Boulevard Park and the former Cornwall Avenue Landfill. Documented priority Pacific herring (*Clupea harengus pallasi*) holding areas, Dungeness crab (*Cancer magister*), and Pandalid shrimp (*Pandalidae* spp.) are all located within one mile of the Project area. Priority aquatic vegetation and macroalgae species in the Project area include eelgrass and turf algae (*Endocladia muricata*). A detailed analysis of the eelgrass beds located in the vicinity of the Project is included in

Section 1.4.1. A bald eagle (*Haliaeetus leucocephalus*) nest is located approximately 1.25 miles to the southwest of the Project area (WDFW 2008). In July 2007, the bald eagle was removed from protection under the federal ESA. However, two other federal laws provide protection for the bald eagle: the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. These laws primarily address nest tree protection and protection from harassment.

Grading and filling activities; dock, wharf, and piling removal; pile installation; and construction of the overwater walkway superstructure will be conducted within the Project area. No blasting, concrete saw cutting, rock drilling, or rock scaling will occur. BMPs implemented during construction include erosion control measures and implementation of a Spill Prevention Control and Countermeasure (SPCC) Plan to minimize impacts to the aquatic environment (Appendix C). Impacts to non-ESA listed species or habitats from construction will be temporal in nature and are not anticipated to result in long-term negative impacts.

The WDNR Natural Heritage Program database was referenced to determine if any state-listed plants are documented within the Project area. No Natural Heritage Program plant species were identified within the Project area (WDNR 2009).

2.2.4 *Section 2d – Are wetlands present within the project area?*

According to the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory wetlands mapper, no wetlands were shown to be potentially located in the vicinity of the overwater walkway structure or construction staging areas (USFWS 2010). Additionally, no wetlands were identified in a site survey conducted on January 26, 2010 (Anchor QEA 2010).

2.3 Section 3 – Cultural Resources/Historic Structures

A cultural resources/historic structures assessment has been completed (Wessen & Associates 2010) and a determination of National Register of Historic Places eligibility and Project effects have been submitted to the Washington State Department of Archaeology and Historic Preservation and interested and affected Tribes.

2.4 Section 4 – Flood Plains or Ways

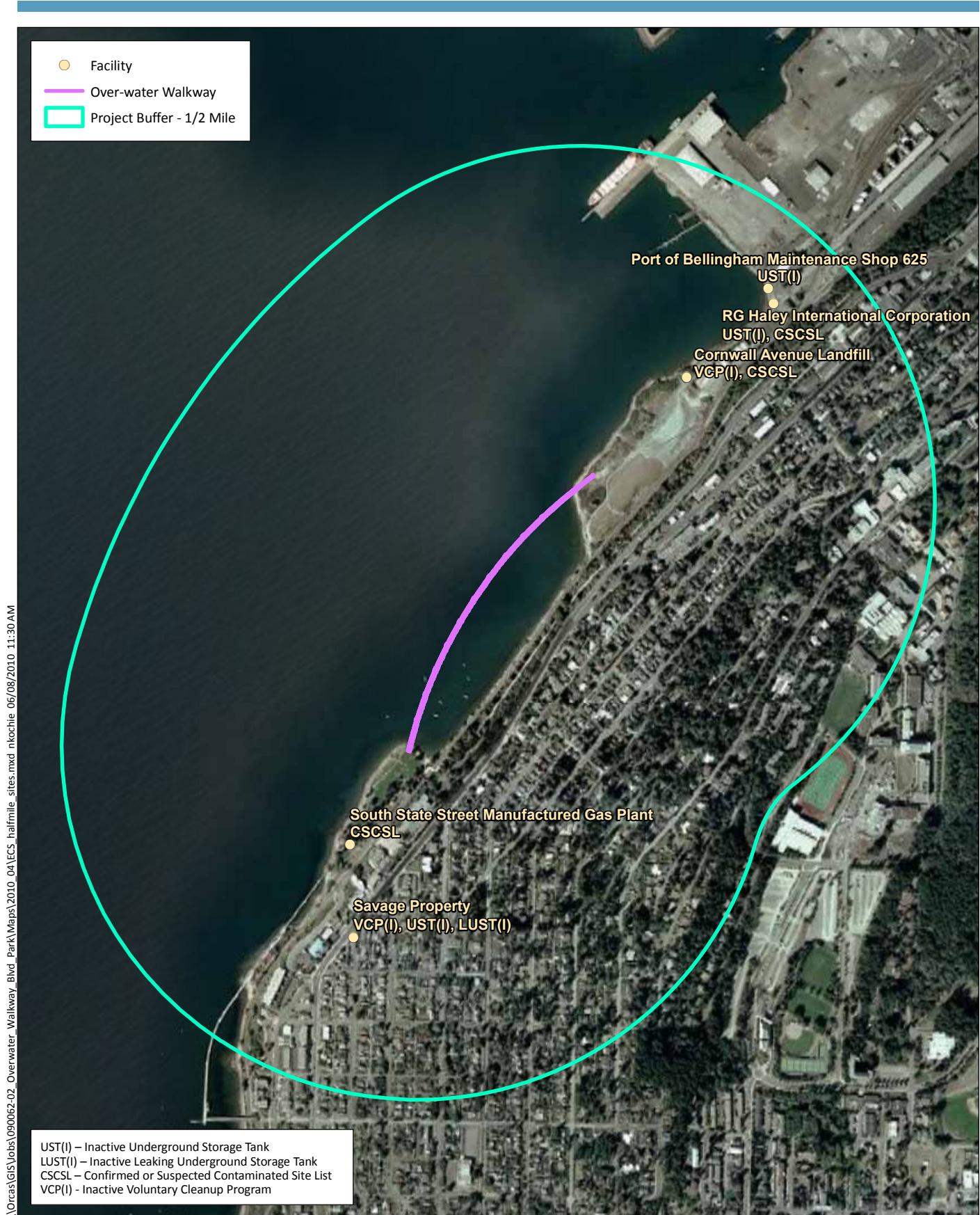
According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps for Bellingham, the Project area within the embayment between Boulevard Park and the former Cornwall Avenue Landfill is located within a Zone A 100-year flood hazard area (FEMA 2004). Zone A is a designation that is given to 100-year flood hazard areas where no base flood elevations have been determined. Impacts to the Zone A flood hazard caused by Project activities include removing an existing timber pier, piles, and wharf at the north end of Boulevard Park and nine additional creosote-treated timber piles in the embayment, and installation of the overwater walkway structure as detailed in Section 1.

2.5 Section 5 – Hazardous and Problem Waste

The Ecology Facility and Site Database was accessed to determine if there were any Underground Storage Tanks (USTs), Leaking Underground Storage Tanks (LUSTs), Voluntary Cleanup Program (VCP) sites, or Confirmed or Suspected Contaminated Sites List (CSCSL) sites, located within 0.5 mile of the Project area (Ecology 2010). Three inactive USTs and one inactive LUST are located within the 0.5-mile radius, with the nearest documented UST or LUST located approximately 0.25 mile south of the Project at the Savage Property. No USTs or LUSTs will be impacted by Project activities.

Two inactive VCP sites are located within the 0.5-mile radius of the Project including the Cornwall Avenue Landfill and the Savage Property. Three active CSCSL state cleanup sites are located within the 0.5-mile radius including the Cornwall Avenue Landfill, the RG Haley International Corporation, and South State Street MGP sites. Additionally, the overwater walkway structure will cross over aquatic lands that are within the natural recovery area of the Whatcom Waterway site, which is undergoing cleanup and long-term monitoring consistent with the Whatcom Waterway Consent Decree. These sites are described in further detail in Section 1.5, MTCA Remedial Actions Associated with the Overwater Walkway.

ECS Figure 1 provides a graphical depiction of documented hazardous and problem waste sites within the 0.5-mile radius.



Source: Washington Department of Ecology <http://www.ecy.wa.gov/fs>

ECS Figure 1

Known Hazardous and Problem Waste Sites
in the Vicinity of the Project
Boulevard/Cornwall Overwater Pedestrian Walkway Project

Table 4 shows each individual site and associated facilities within the 0.5-mile radius of the Project.

Table 4
Sites and Facilities Located within 0.5 Miles of the Project

Site Name	Facility	Status
Port of Bellingham Maintenance Shop 625	UST	Inactive
RG Haley International Corporation	UST	Inactive
	CSCSL	Active
Cornwall Avenue Landfill	VCP	Inactive
	CSCSL	Active
South State Street Manufactured Gas Plant	CSCSL	Active
Savage Property	UST	Inactive
	VCP	Inactive
	LUST	Inactive

CSCSL – Confirmed or Suspected Contaminant Site List

LUST – Leaking Underground Storage Tank

UST – Underground Storage Tank

VCP – Voluntary Cleanup Program

Source of information: <http://www.ecy.wa.gov/fs>

2.6 Section 6 – Noise

A noise analysis is included in the Project Biological Assessment (provided under separate cover). The Project activity that will have the most far-reaching extent of effects is noise due to proofing of piles to ensure structural load requirements are met. Potential receptors within the Project area include ESA listed and non-listed species, residential neighborhoods located to the east of the Project area, and businesses located within the Bellingham Central Business District. To mitigate for potential noise impacts, construction of the Project will only occur between the hours of 7 AM and 10 PM as required by the City Municipal Code 10.24.120 – Public Disturbance Noise.

2.7 Section 14 – Environmental Justice

The proposed Project will occur within jurisdiction of two City neighborhoods including the Bellingham Central Business District Neighborhood and the South Hill Neighborhood. The

Census 2000 Block Map for the City was referenced to determine if any environmental justice communities are located in the vicinity of the Project, and none were documented (Census 2000a). Figure 2 includes a summary of demographic information for the Bellingham Central Business District, South Hill neighborhoods and surrounding area (Census 2000b).

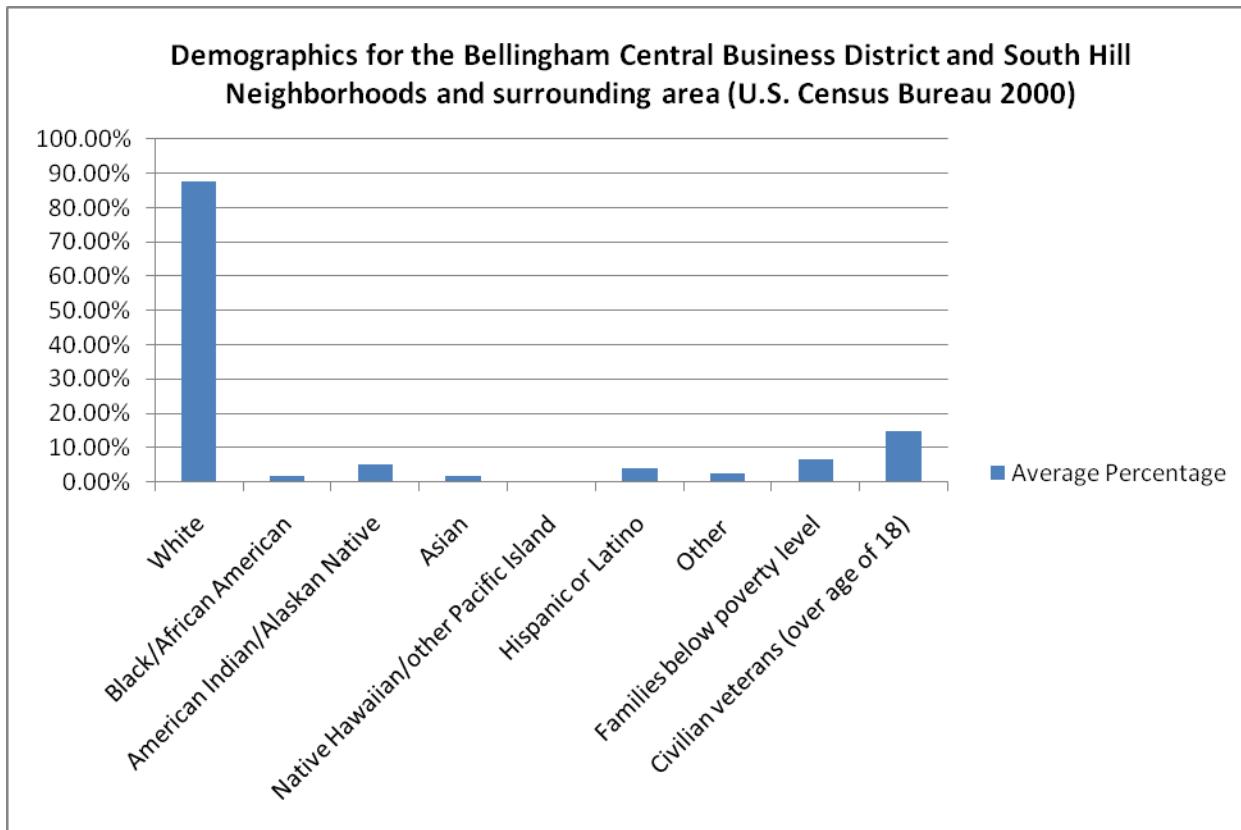


Figure 2
Demographics for the Bellingham Central Business District and South Hill Neighborhoods and Surrounding Area

3 PART 5 – BIOLOGICAL ASSESSMENT AND EFH EVALUATIONS

Table 5 includes the effects determinations for ESA-listed species that may occur within the action area per the Project Biological Assessment (provided under separate cover).

Table 5
ESA Listed and Proposed Species and Critical Habitat in the Action Area¹

Species	Status	Agency	Effects Determination	Critical Habitat Status	Critical Habitat Effects Determination
Chinook salmon (<i>Oncorhynchus tshawytscha</i>) Puget Sound ESU	Threatened	NMFS	LAA	Designated	NLAA
Steelhead (<i>Oncorhynchus mykiss</i>) Puget Sound DPS	Threatened	NMFS	NLAA	None proposed or designated	N/A
Green sturgeon (<i>Acipenser medirostris</i>) Southern DPS	Threatened	NMFS	No effect	None in Puget Sound	N/A
Pacific eulachon (<i>Thaleichthys pacificus</i>) Southern DPS	Threatened	NMFS	No effect	None proposed or designated	N/A
Bocaccio (<i>Sebastes paucispinus</i>) Georgia Basin DPS	Endangered	NMFS	LAA	None proposed or designated	N/A
Yelloweye rockfish (<i>Sebastes ruberrimus</i>) Georgia Basin DPS	Threatened	NMFS	LAA	None proposed or designated	N/A
Canary rockfish (<i>Sebastes pinninger</i>) Georgia Basin DPS	Threatened	NMFS	LAA	None proposed or designated	N/A
Killer whale (<i>Orcinus orca</i>) Southern Resident DPS	Endangered	NMFS	NLAA	Designated	NLAA
Humpback whale (<i>Megaptera novaeangliae</i>)	Endangered	NMFS	No effect	None proposed or designated	N/A
Steller sea lion (<i>Eumetopias jubatus</i>)	Threatened	NMFS	No effect	None in Washington State	N/A
Bull trout (<i>Salvelinus confluentus</i>) Coastal Puget Sound DPS	Threatened	USFWS	NLAA	Designated	NLAA
Marbled murrelet (<i>Brachyramphus marmoratus</i>)	Threatened	USFWS	NLAA	None in action area	No effect

Notes:

NLAA – may affect, not likely to adversely affect

LAA – may affect, likely to adversely affect

ESU – Evolutionary Significant Unit

DPS – Distinct Population Segment

NMFS – National Marine Fisheries Service

USFWS – U.S. Fish and Wildlife Service

N/A – not applicable

1 – USFWS identifies the additional species of Canada lynx (*Lynx Canadensis*), gray wolf (*Canis lupus*), grizzly bear (*Ursus arctos*), and the Northern spotted owl (*Strix occidentalis caurina*) to be present in Whatcom County (USFWS 2007); however, these species are not addressed in the Project Biological Assessment due to lack of suitable habitat within and adjacent to the Project area.

4 REFERENCES

Anchor QEA (Anchor QEA, LLC), 2010. Site survey performed by Anchor QEA on January 26, 2010.

Census (U.S. Census Bureau), 2000a. Census 2000 Block Map: Bellingham City. Prepared for the U.S. Department of Commerce Economics and Statistics Administration and the U.S. Census Bureau; January 1, 2000.

Census, 2000b. 98225 Fact Sheet – American Fact Finder. Census 2000 Demographic Profile Highlights prepared by the U.S. Census Bureau; January 1, 2000.

COB (City of Bellingham), 2009. *Final Draft Shoreline Master Program*. Prepared by the City of Bellingham Planning Commission on June 2009.

COB, 2008. *Waterfront Connections Plan*. Prepared for Mayor Dan Pike of the COB. September 2008.

COB Parks (City of Bellingham Parks and Recreation Department), 2008. *Parks, Recreation and Open Space Plan*. Updated and amended 2008.

COB Parks, 2002. *Parks, Recreation and Open Space Plan*. Drafted by the COB for the COB Comprehensive Plan. 2002.

COB and POB (City of Bellingham and Port of Bellingham), 2006. *New Whatcom Preliminary Draft Framework Plan 2016*. Summary and map presented by the COB and POB. September 25, 2006.

Ecology (Washington State Department of Ecology), 2010. Facility/Site Database <http://www.ecy.wa.gov/fs/> Accessed on March 1, 2010.

FEMA (Federal Emergency Management Agency), 2004. Flood Insurance Rate Maps (FIRM). Map numbers 53073C1632D and 53073C1651D; January 16, 2004.

Grette Associates, 2009. Boulevard Park Overwater Walkway Eelgrass Habitat Memorandum. Prepared by Grette Associates LLC on May 7, 2008. Revised February 15, 2009.

Newell, Kate, 2010. Personal Communication between Kate Newell, City of Bellingham GIS Department and Josh Jensen of Anchor QEA via telephone. April 9, 2010.

WDFW (Washington State Department of Fish and Wildlife), 2008. Priority Habitats and Species Maps. Olympia, Washington; report date, August 19, 2008.

USFWS (U.S. Fish and Wildlife Service), 2010. National Wetlands Inventory: Geospatial Wetlands Digital Data <http://www.fws.gov/wetlands/Data/index.html> Accessed on March 3, 2010.

WDFW, 2007. Eelgrass/Macro Algae Habitat Survey Guidelines.

WDNR (Washington Department of Natural Resources), 2009. The DNR Washington Natural Heritage Program Geographic Information System (GIS) Data Set. January 2009.

Wessen & Associates, Inc., 2010. *An Archeological Survey of the Boulevard/Cornwall Overwater Pedestrian Walkway Project Area, Bellingham Washington*. April 2010.

WFG (Waterfront Futures Group), 2004. *Waterfront Vision and Framework Plan: Connecting Bellingham with the Bay*. Drafted by the WFG. December 2004.

Williams, Brian, personal communication, 2010. Meeting between Louis Klusmeyer of BergerABAM, Brian Williams of WDFW, and Paul Schlenger and Derek Koellmann of Anchor QEA, LLC. February 5, 2010.

WSDOT (Washington State Department of Transportation), 2009. *Washington State Statewide Transportation Improvement Program (STIP): 2009-2012*. Prepared for WSDOT: November 3, 2009.

APPENDIX B

JARPA DRAWING SHEETS

PROJECT LOCATION



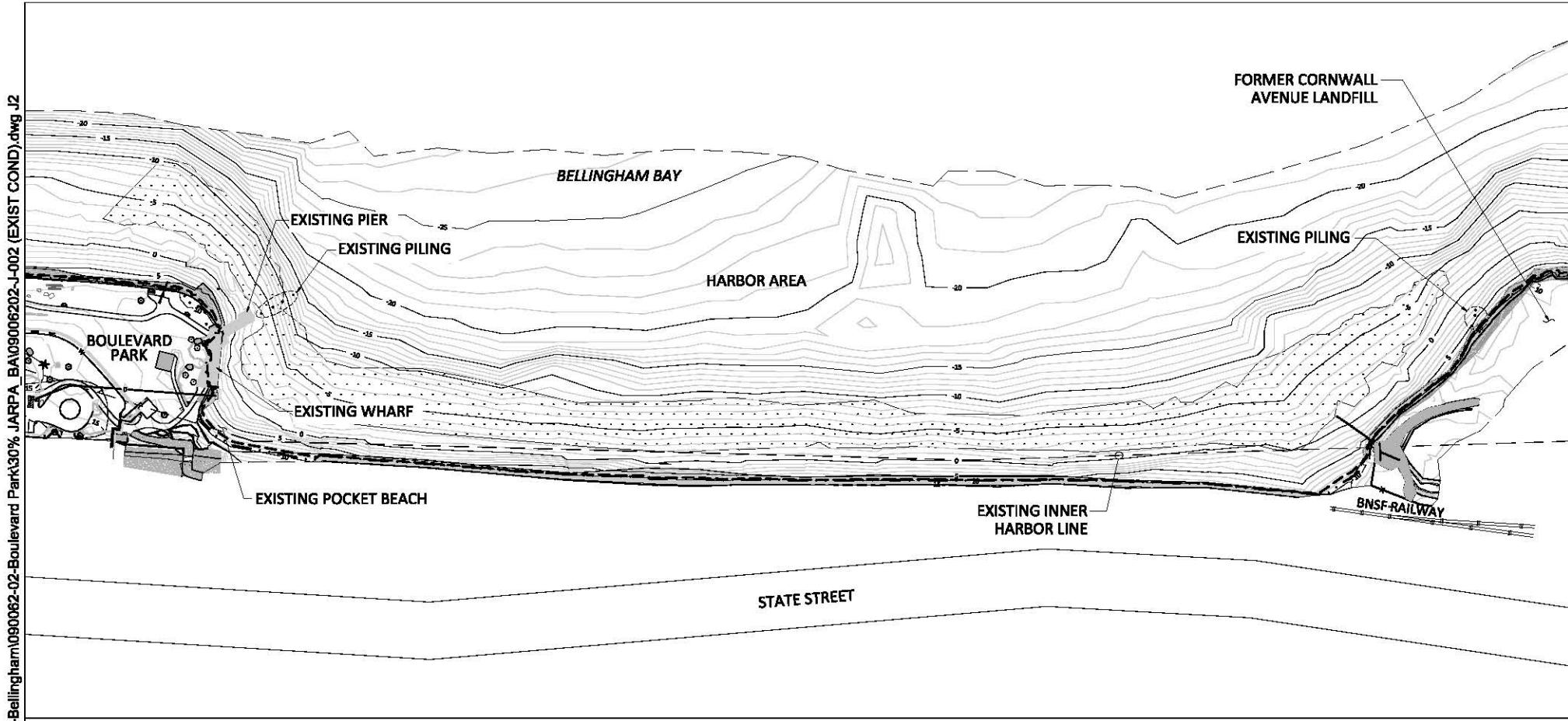
SOURCE: AERIAL FROM GOOGLE EARTH PRO, 2010.

NOT TO SCALE

0 2
SCALE IN MILES

VICINITY MAP

<p>PURPOSE: IMPROVE PUBLIC SHORELINE ACCESS DATUM: MLLW 0.0' LATITUDE: 48°44'07.87"N, LONGITUDE: -122°19'54.95"W S-T-R: 36-38N-2E</p> <p>SITE LOCATION ADDRESS: BOULEVARD PARK, FORMER CORNWALL AVENUE LANDFILL, STATE-OWNED AQUATIC LANDS (LEASE #22-084455) BELLINGHAM, WASHINGTON 98225</p>	<p>NAME: BOULEVARD/CORNWALL OVERWATER PEDESTRIAN WALKWAY</p> <p>ADJACENT PROPERTY OWNERS: 1 - CITY OF BELLINGHAM PARKS AND RECREATION DEPARTMENT 2 - BURLINGTON NORTHERN SANTA FE 3 - PORT OF BELLINGHAM 4 - WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES</p>	<p>PROPOSED: OVERWATER WALKWAY IN: BELLINGHAM BAY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON</p> <p>DATE: JUNE 2010</p>
--	---	---



LEGEND:



EXISTING EELGRASS BED

- - - MEAN HIGHER HIGH WATER (+8.51' MLLW)

- - - ORDINARY HIGH WATER MARK (+9.51' MLLW)



SCALE IN FEET

SOURCE: DRAWING BY BERGER/ABAM DATED 3/2010.
NOTES: ELEVATION DATUM MLLW

EXISTING CONDITIONS

PURPOSE: IMPROVE PUBLIC SHORELINE ACCESS

DATUM: MLLW 0.0'

LATITUDE: 48°44'07.87"N, LONGITUDE: -122°19'54.95"W

S-T-R: 22-21N-3E

SITE LOCATION ADDRESS:

BOULEVARD PARK, FORMER CORNWALL AVENUE LANDFILL,
STATE-OWNED AQUATIC LANDS (LEASE #22-084455)
BELLINGHAM, WASHINGTON 98225

NAME: BOULEVARD/CORNWALL OVERWATER PEDESTRIAN WALKWAY

ADJACENT PROPERTY OWNERS:

- 1 - CITY OF BELLINGHAM PARKS AND RECREATION DEPARTMENT
- 2 - BURLINGTON NORTHERN SANTA FE
- 3 - PORT OF BELLINGHAM
- 4 - WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

PROPOSED: OVERWATER WALKWAY

IN: BELLINGHAM BAY

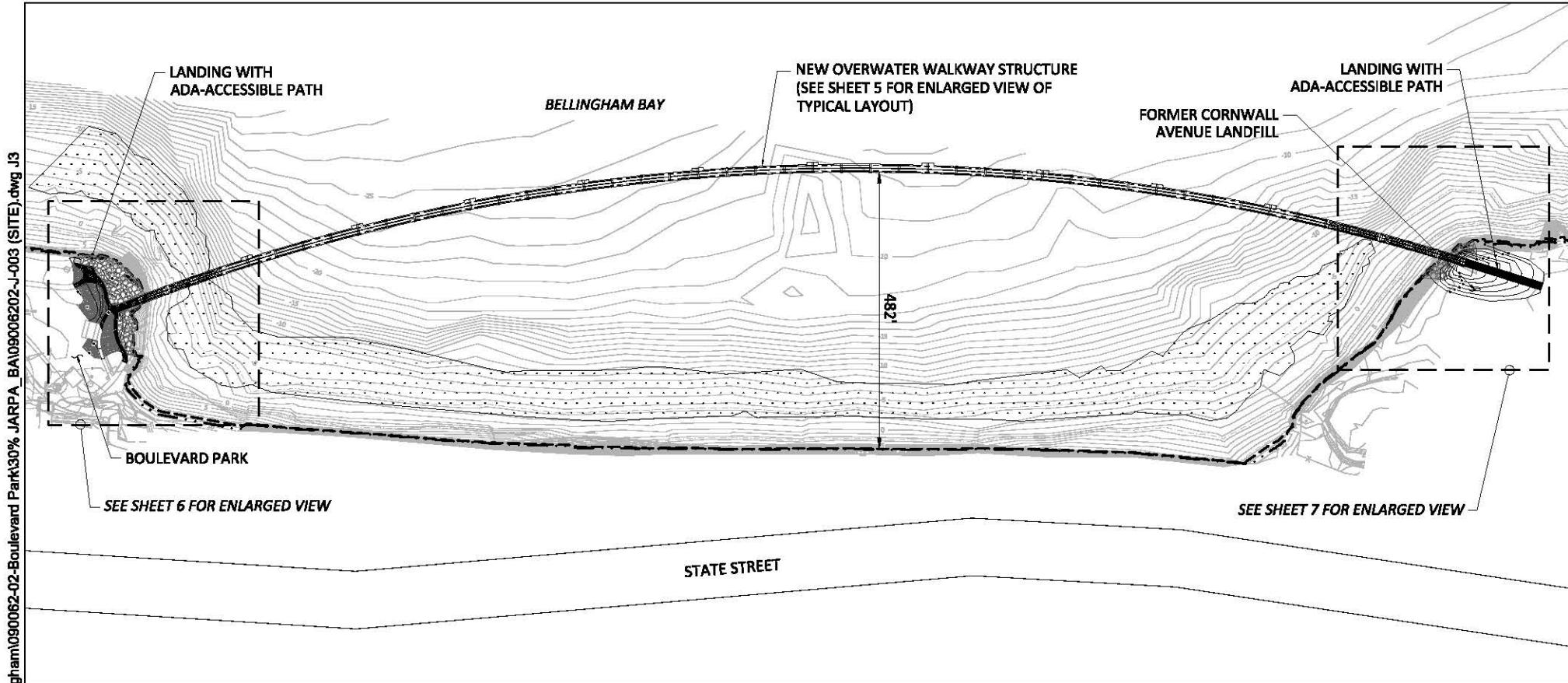
NEAR/AT: BELLINGHAM

COUNTY OF: WHATCOM

STATE: WASHINGTON

DATE: JUNE 2010

SHEET: 2 OF 9



SOURCE: DRAWING BY BERGER/ABAM DATED 3/2010.
NOTE: FOR TYPICAL STRUCTURE LAYOUT SEE SHEET 5.

COMPOSITE SITE PLAN

PURPOSE: IMPROVE PUBLIC SHORELINE ACCESS

DATUM: MLLW 0.0'

LATITUDE: 48°44'07.87"N, LONGITUDE: -122°19'54.95"W

S-T-R: 22-21N-3E

SITE LOCATION ADDRESS:

BOULEVARD PARK, FORMER CORNWALL AVENUE LANDFILL,
STATE-OWNED AQUATIC LANDS (LEASE #22-084455)
BELLINGHAM, WASHINGTON 98225

NAME: BOULEVARD/CORNWALL OVERWATER PEDESTRIAN WALKWAY

ADJACENT PROPERTY OWNERS:

- 1 - CITY OF BELLINGHAM PARKS AND RECREATION DEPARTMENT
- 2 - BURLINGTON NORTHERN SANTA FE
- 3 - PORT OF BELLINGHAM
- 4 - WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

PROPOSED: OVERWATER WALKWAY

IN: BELLINGHAM BAY

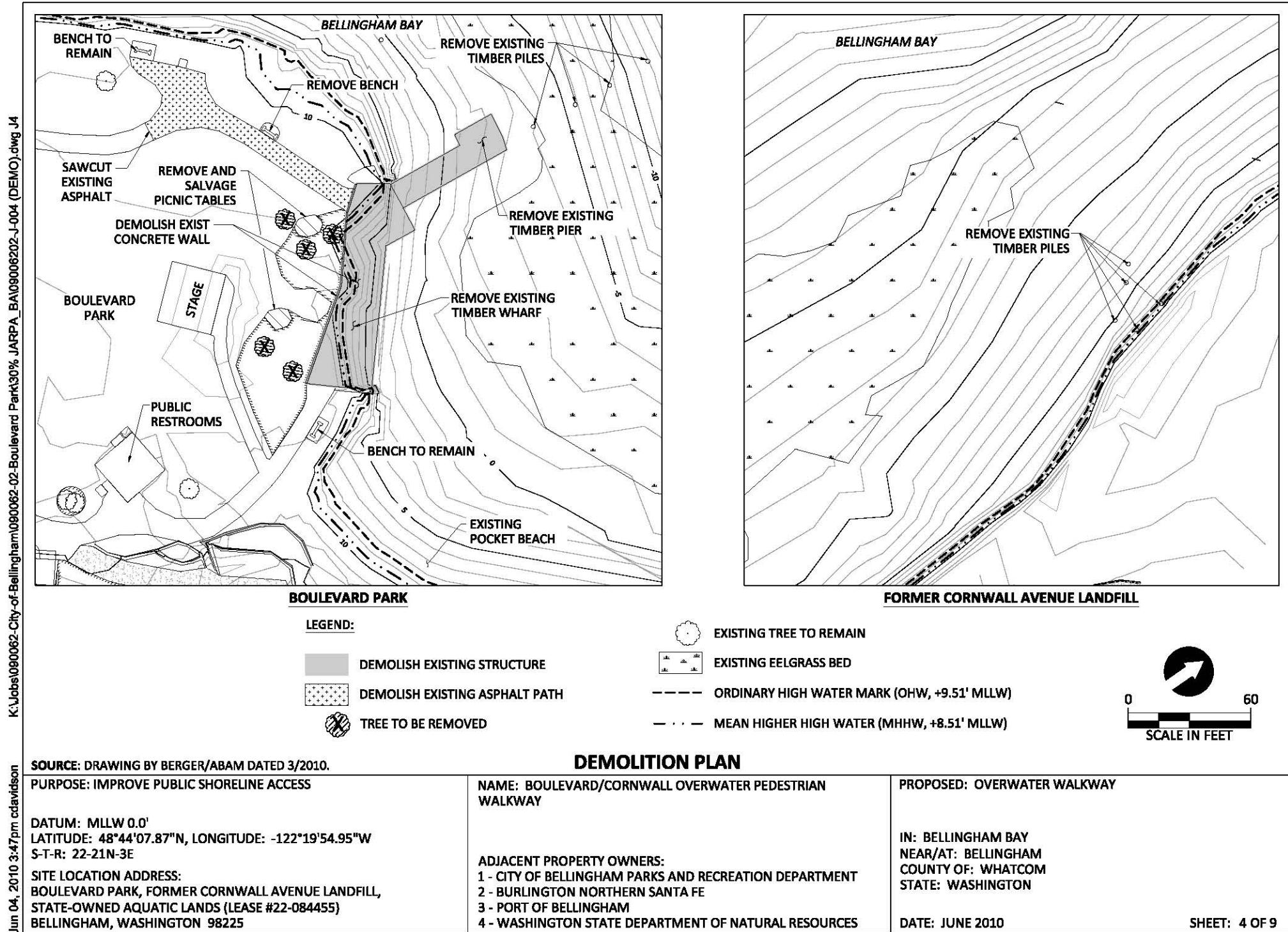
NEAR/AT: BELLINGHAM

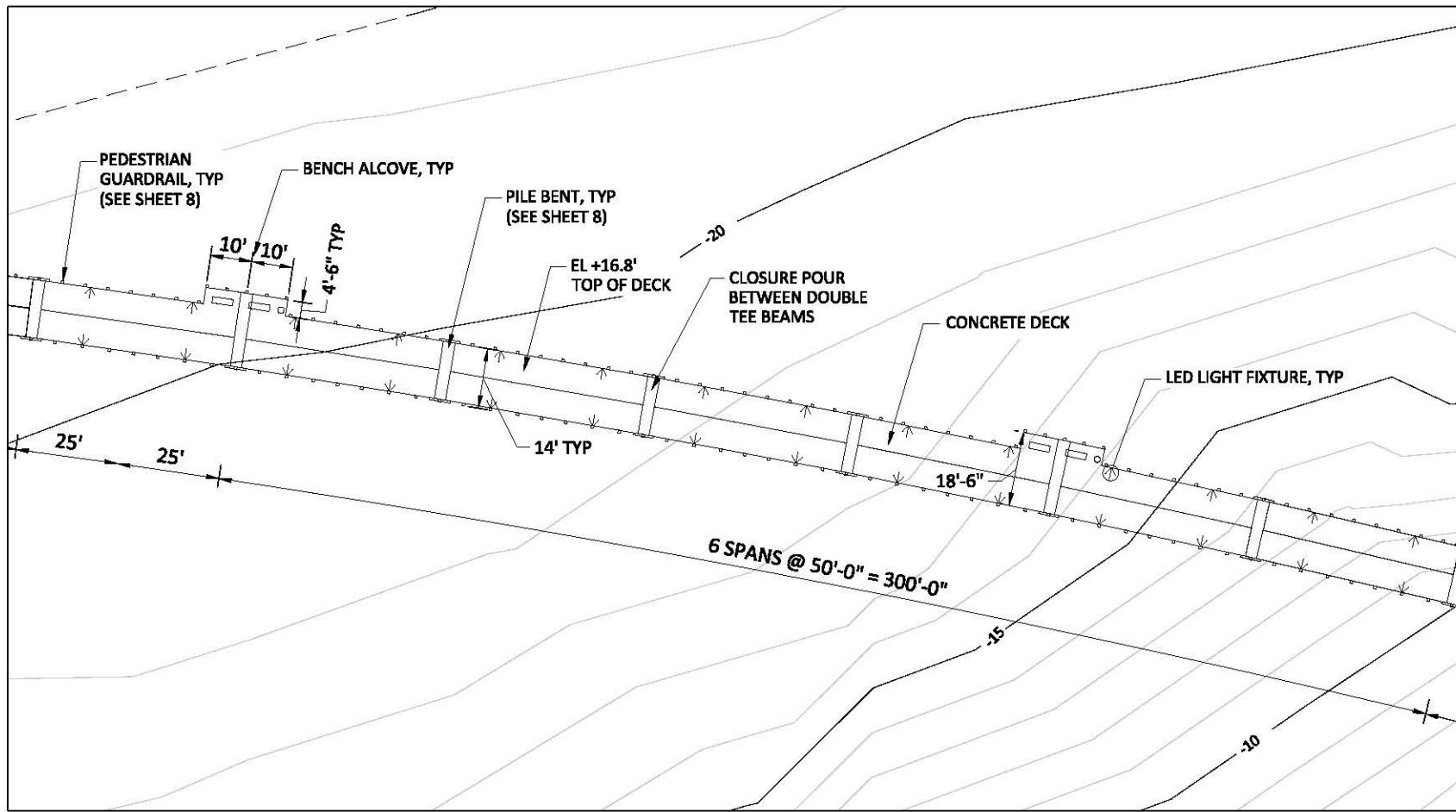
COUNTY OF: WHATCOM

STATE: WASHINGTON

DATE: JUNE 2010

SHEET: 3 OF 9





OVERWATER WALKWAY TYPICAL LAYOUT (ENLARGED)

SOURCE: DRAWING BY BERGER/ABAM DATED 3/2010.

PURPOSE: IMPROVE PUBLIC SHORELINE ACCESS

DATUM: MLLW 0.0'

LATITUDE: 48°44'07.87"N, LONGITUDE: -122°19'54.95"W

S-T-R: 22-21N-3E

SITE LOCATION ADDRESS:

BOULEVARD PARK, FORMER CORNWALL AVENUE LANDFILL,
STATE-OWNED AQUATIC LANDS (LEASE #22-084455)
BELLINGHAM, WASHINGTON 98225

NAME: BOULEVARD/CORNWALL OVERWATER PEDESTRIAN WALKWAY

ADJACENT PROPERTY OWNERS:

1 - CITY OF BELLINGHAM PARKS AND RECREATION DEPARTMENT
2 - BURLINGTON NORTHERN SANTA FE
3 - PORT OF BELLINGHAM
4 - WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

PROPOSED: OVERWATER WALKWAY

IN: BELLINGHAM BAY

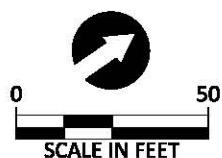
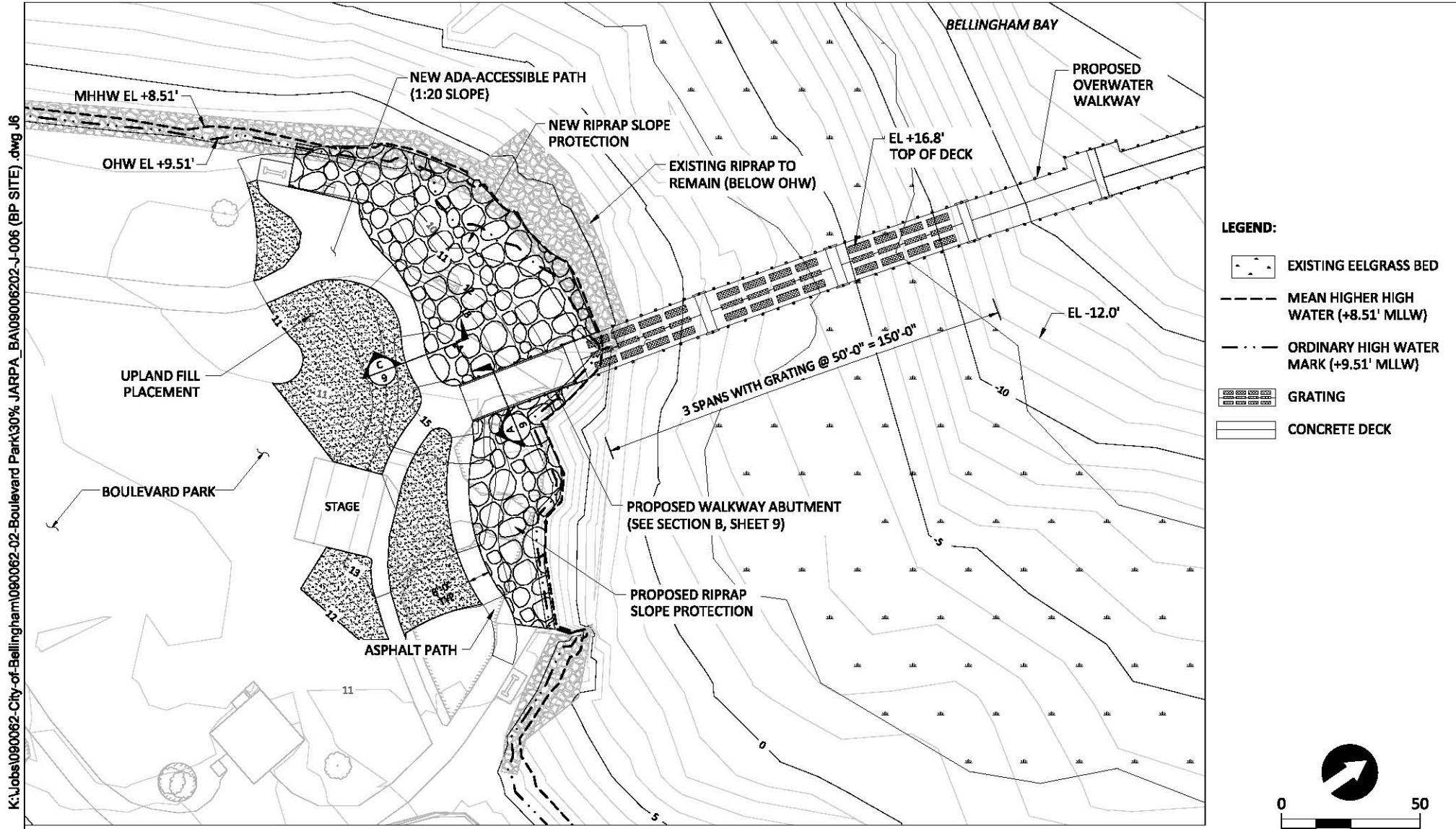
NEAR/AT: BELLINGHAM

COUNTY OF: WHATCOM

STATE: WASHINGTON

DATE: JUNE 2010

SHEET: 5 OF 9



SOURCE: DRAWING BY BERGER/ABAM DATED 3/2010.

PURPOSE: IMPROVE PUBLIC SHORELINE ACCESS

DATUM: MLLW 0'

LATITUDE: 48°44'07.87"N, LONGITUDE: -122°19'54.95"W

S-T-R: 22-21N-3E

SITE LOCATION ADDRESS:

BOULEVARD PARK, FORMER CORNWALL AVENUE LANDFILL,
STATE-OWNED AQUATIC LANDS (LEASE #22-084455)
BELLINGHAM, WASHINGTON 98225

NAME: BOULEVARD/CORNWALL OVERWATER PEDESTRIAN WALKWAY

ADJACENT PROPERTY OWNERS:

1 - CITY OF BELLINGHAM PARKS AND RECREATION DEPARTMENT
2 - BURLINGTON NORTHERN SANTA FE
3 - PORT OF BELLINGHAM
4 - WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

PROPOSED: OVERWATER WALKWAY

IN: BELLINGHAM BAY

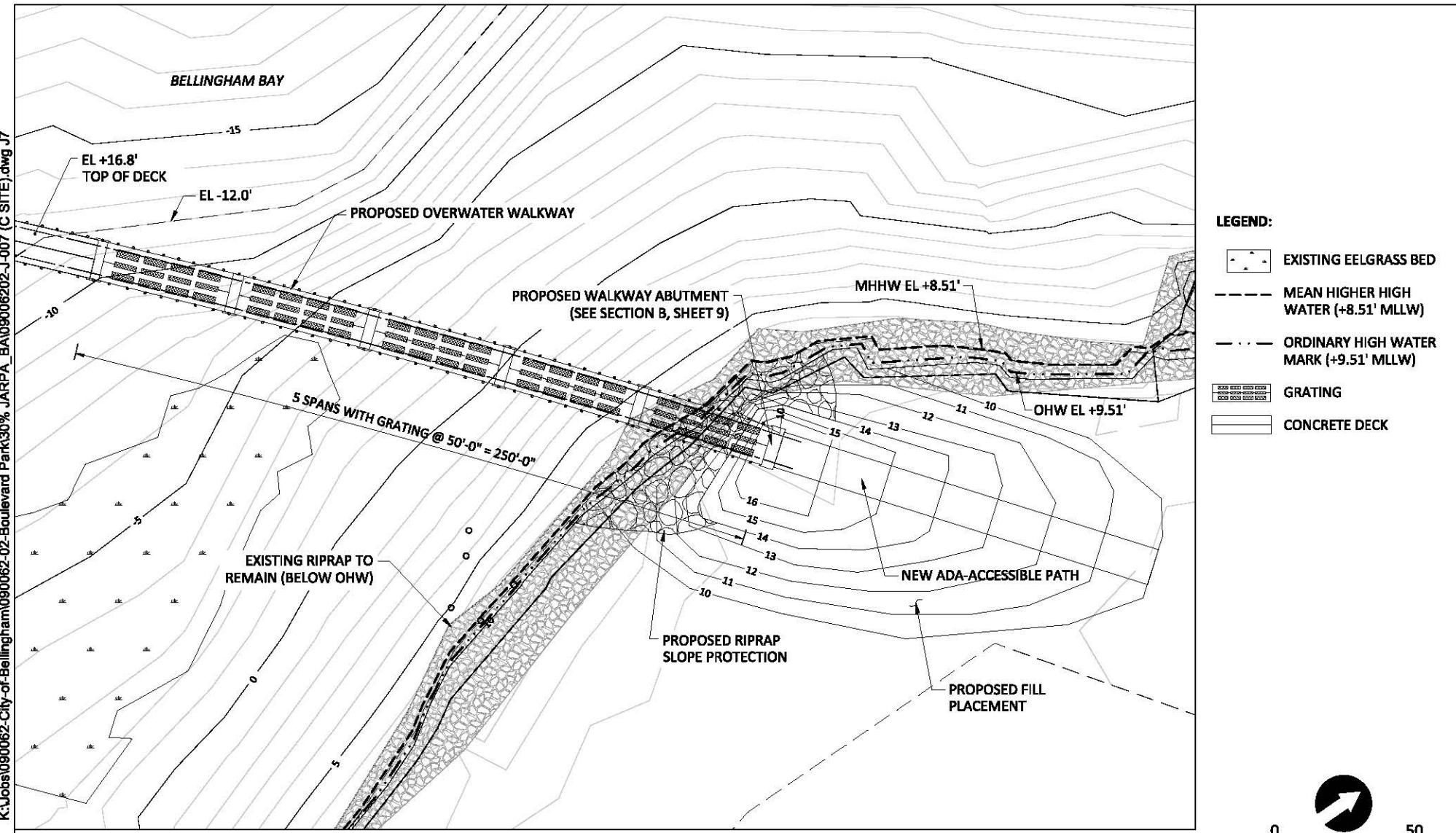
NEAR/AT: BELLINGHAM

COUNTY OF: WHATCOM

STATE: WASHINGTON

DATE: JUNE 2010

SHEET: 6 OF 9



FORMER CORNWALL AVENUE LANDFILL ENLARGED SITE PLAN

SOURCE: DRAWING BY BERGER/ABAM DATED 3/2010.

PURPOSE: IMPROVE PUBLIC SHORELINE ACCESS

DATUM: MLLW 0.0'

LATITUDE: 48°44'07.87"N, LONGITUDE: -122°19'54.95"W

S-T-R: 22-21N-3E

SITE LOCATION ADDRESS:

BOULEVARD PARK, FORMER CORNWALL AVENUE LANDFILL,
STATE-OWNED AQUATIC LANDS (LEASE #22-084455)
BELLINGHAM, WASHINGTON 98225

NAME: BOULEVARD/CORNWALL OVERWATER PEDESTRIAN WALKWAY

ADJACENT PROPERTY OWNERS:

1 - CITY OF BELLINGHAM PARKS AND RECREATION DEPARTMENT
2 - BURLINGTON NORTHERN SANTA FE
3 - PORT OF BELLINGHAM
4 - WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

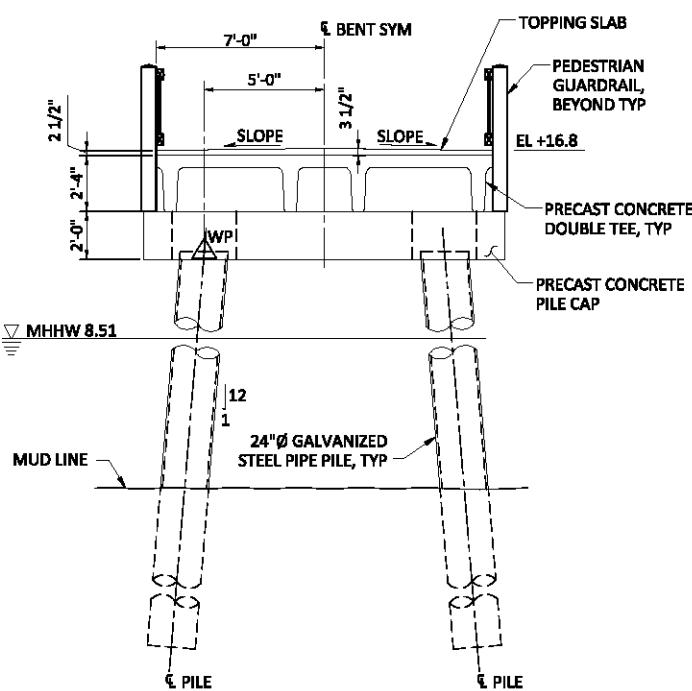
PROPOSED: OVERWATER WALKWAY

IN: BELLINGHAM BAY
NEAR/AT: BELLINGHAM
COUNTY OF: WHATCOM
STATE: WASHINGTON

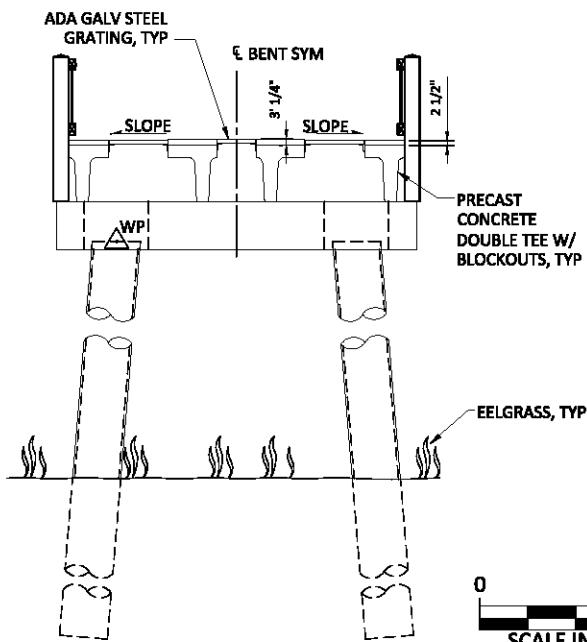
DATE: JUNE 2010

SHEET: 7 OF 9

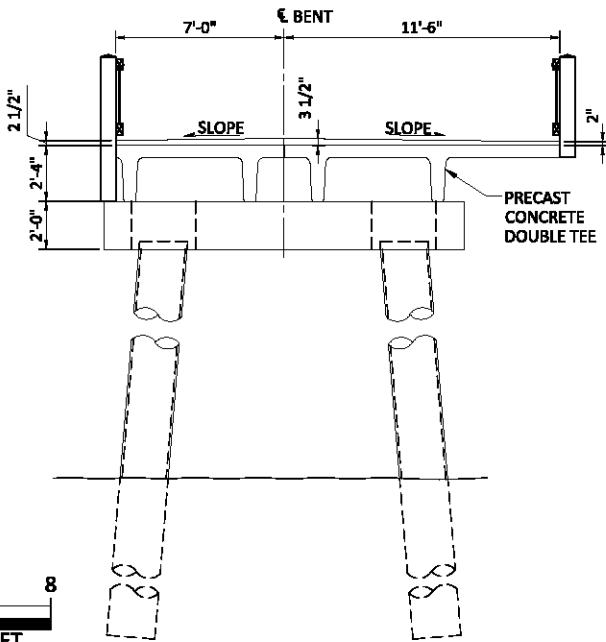
SECTION - TYPICAL BENT



SECTION - TYPICAL BENT WITH GRATING



SECTION - TYPICAL BENT WITH ALCOVE

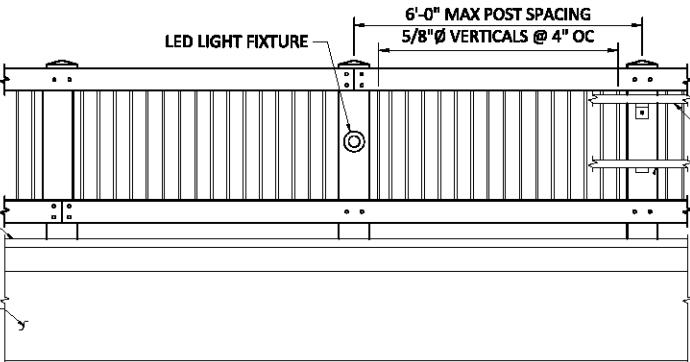


ELEVATION - TYPICAL PEDESTRIAN GUARDRAIL

SOURCE: DRAWING BY
BERGER/ABAM DATED 3/2010.

PURPOSE: IMPROVE PUBLIC SHORELINE ACCESS

DATUM: MLLW 0.0'
LATITUDE: 48°44'07.87"N, LONGITUDE: -122°19'54.95"W
S-T-R: 22-21N-3E
SITE LOCATION ADDRESS:
BOULEVARD PARK, FORMER CORNWALL AVENUE LANDFILL,
STATE-OWNED AQUATIC LANDS (LEASE #22-084455)
BELLINGHAM, WASHINGTON 98225



DETAILS

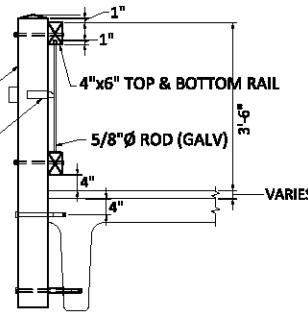
NAME: BOULEVARD/CORNWALL OVERWATER PEDESTRIAN WALKWAY

ADJACENT PROPERTY OWNERS:
1 - CITY OF BELLINGHAM PARKS AND RECREATION DEPARTMENT
2 - BURLINGTON NORTHERN SANTA FE
3 - PORT OF BELLINGHAM
4 - WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

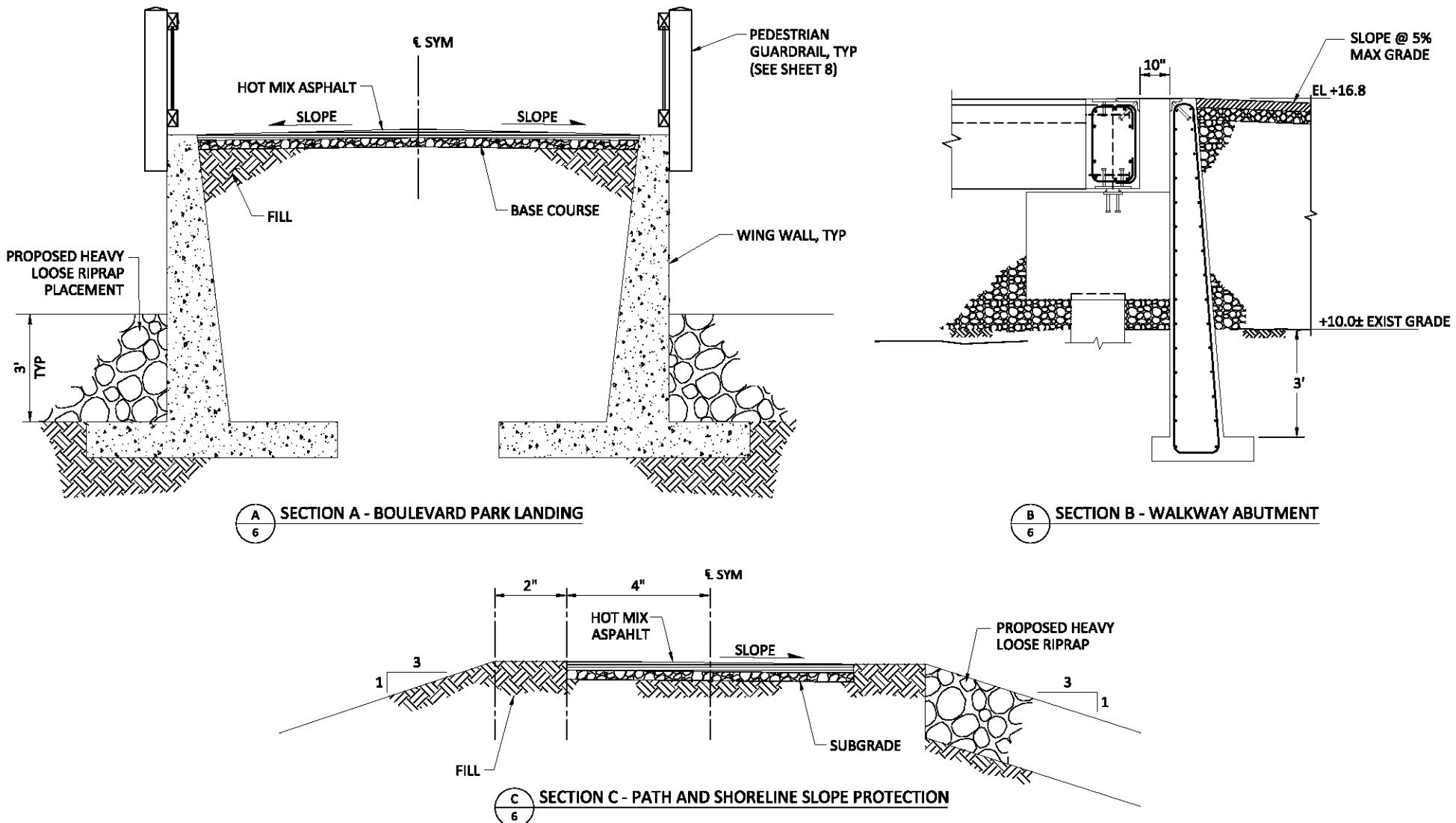
PROPOSED: OVERWATER WALKWAY

IN: BELLINGHAM BAY
NEAR/AT: BELLINGHAM
COUNTY OF: WHATCOM
STATE: WASHINGTON

DATE: JUNE 2010



SHEET: 8 OF 9



SOURCE: DRAWING BY BERGER/ABAM DATED 3/2010.

PURPOSE: IMPROVE PUBLIC SHORELINE ACCESS

DATUM: MLLW 0.0'

LATITUDE: 48°44'07.87"N, LONGITUDE: -122°19'54.95"W

S-T-R: 22-21N-3E

SITE LOCATION ADDRESS:

BOULEVARD PARK, FORMER CORNWALL AVENUE LANDFILL,
STATE-OWNED AQUATIC LANDS (LEASE #22-084455)
BELLINGHAM, WASHINGTON 98225

LANDING AND ABUTMENT DETAILS

NAME: BOULEVARD/CORNWALL OVERWATER PEDESTRIAN WALKWAY

ADJACENT PROPERTY OWNERS:

1 - CITY OF BELLINGHAM PARKS AND RECREATION DEPARTMENT
2 - BURLINGTON NORTHERN SANTA FE
3 - PORT OF BELLINGHAM
4 - WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

PROPOSED: OVERWATER WALKWAY

IN: BELLINGHAM BAY

NEAR/AT: BELLINGHAM

COUNTY OF: WHATCOM

STATE: WASHINGTON

DATE: JUNE 2010

SHEET: 9 OF 9

APPENDIX C

BOULEVARD/CORNWALL OVERWATER PEDESTRIAN WALKWAY PROJECT BMPS

General

- All applicable permits for the Project will be obtained prior to construction of the overwater walkway. All work will be performed according to the requirements and conditions of these permits.
- In-water work (not including mobilization) will occur during the U.S. Army Corps of Engineers (USACE) approved work window, or an approved extension of the work window for Bellingham Bay. The work window for listed/protected salmonids, bull trout, and forage fish is July 16 to January 21.
- Construction of the proposed Project will comply with water quality requirements imposed by the Washington State Department of Ecology (Ecology) (Chapter 173-201A Washington Administrative Code [WAC]), which specify a mixing zone beyond which water quality standards cannot be exceeded. Compliance with Ecology's standards is intended to ensure that fish and aquatic life are protected to the extent feasible and practical.
- The contractor will be responsible for the preparation and implementation of a Spill Prevention, Control, and Countermeasures (SPCC) plan to be used for the duration of the Project. The plan will be submitted to the project engineer prior to the commencement of any construction activities. A copy of the plan with any updates will be maintained at the work site by the contractor.
 - The SPCC plan will identify construction planning elements and recognize potential spill sources at the site. The plan will outline responsive actions in the event of a spill or release, and will identify notification and reporting procedures. The plan will also outline contractor management elements such as personnel responsibilities, project site security, site inspections, and training.
 - The SPCC plan will outline which measures the contractor will take to prevent the release or spread of hazardous materials, either found on site or encountered during construction but not identified in contract documents, or any hazardous materials that the contractor stores, uses, or generates on the construction site during construction activities. These items include, but are not limited to, gasoline, oils, and chemicals. Hazardous materials are defined in Revised Code of Washington (RCW) 70.105.010 under "hazardous substance."

- The contractor will maintain at the job site the applicable equipment and materials designated in the SPCC plan.
- The contractor will be required to ensure that fresh concrete will not come into contact with marine waters before it is set.
- Excess or waste materials will not be disposed of or abandoned waterward of ordinary high water (OHW) or allowed to enter waters of the State.
- Barges will not be allowed to ground out during construction.
- No petroleum products, fresh cement, lime or concrete, chemicals, or other toxic or deleterious materials will be allowed to enter surface waters.
- The contractor will be required to retrieve any floating debris generated during construction using a skiff and a net. Debris will be disposed of at an appropriate upland facility.
- Erosion control measures will be addressed in a Temporary Erosion and Sediment Control (TESC) plan prepared by the contractor and adhered to during construction activities.
- Demolition and construction materials will not be stored where high tides, wave action, or upland runoff can cause materials to enter surface waters.
- When practical, work will occur when tides are low enough to prevent incidental contact of material with marine waters during restoration and construction activities, including demolition and grading.

Pile Installation and Removal

- The Project will comply with guidance developed by the National Marine Fisheries Service (NMFS) for monitoring and/or attenuating sound pressures generated during steel pile driving. This will likely include use of a bubble curtain during impact pile driving of steel piles.
- The removal of the creosote-treated piles shall be consistent with conditions issued as part of the Derelict Creosote Pile Removal Project Hydraulic Project Approval (HPA), issued to the Washington Department of Natural Resources (WDNR) Northwest Region (Control Number 106389 – 3, Issued August 08, 2007).

Eelgrass

- The contractor will be advised that eelgrass beds are protected under both state and federal laws. The contractor will adhere to the following restrictions during the life of the contract. The contractor will not perform any of the following:
 - Place derrick spuds or anchors in the areas designated as “eelgrass”; or allow any chains or wires passing over the eelgrass areas to contact the eelgrass at any tidal stage
 - Shade the same area of the eelgrass beds for a period of time greater than 3 consecutive days during the growing season from March until August
 - Conduct activities that may cause scouring of sediments within the eelgrass beds or result in sediments transferring out of or into the eelgrass beds