

**PORT OF BREMERTON**  
**BOARD OF COMMISSIONERS**  
**REGULAR BUSINESS MEETING**

**REVISED AGENDA**

September 8, 2020  
10:00 AM

**Remote Access Only**  
**Zoom Meeting ID: 335 903 0010**  
**Zoom Call-In: (253) 215-8782**  
**BKAT Live Stream**

**Call to Order**

**Pledge of Allegiance**

**Approval of Agenda**

**Consent Items**

All matters listed under Consent Items have been distributed to each member of the Commission for reading and study, are considered to be routine, and will be enacted by one motion of the Commission with no separate discussion. If separate discussion is desired, that item may be removed from the Consent Items and placed under Action Items by request.

- A. Minutes of the regular business meeting of August 25, 2020.
- B. Payment of checks #81529 through #81554 and #E00203 through #E00209 and #901216 and #901217 and #81555 through #81556 and #81561 through #81569 and #E00211 through #E00216 and #901218 through #901220 from the General Fund for \$140,383.39; #81528 and #E00210 and #81557 through #81560 from the Construction Fund for \$470,794.91.

**Information Items**

- 1. Puget Sound Regional Council (PSRC) Airport Study – Executive Director Josh Brown

**Citizen Comments:** *Open to the public for comment. Speakers are asked to keep their comments to less than 3 minutes. Please feel free to submit further comments in writing to the Clerk of the Board.*

**Action Items**

- 1. Final Acceptance of the Olympic View Industrial Park (OVIP) Influent Pump Station Upgrades Project with Correct Equipment, Inc.
- 2. Port Orchard Marina Breakwater Design/Engineering Services Consultant Agreement with PND Engineers, Inc.

**Staff Reports**

**Commission Reports / New Business**

**Executive Session** *(if necessary)*

**Adjournment**

*Regular business and other meetings that may be attended by members of the Board*

<u><i>Date</i></u>	<u><i>Time</i></u>	<u><i>Meeting</i></u>
<i>09/08</i>	<i>10:00 am</i>	<i>*Commission Regular Meeting via ZOOM</i>
<i>09/15</i>	<i>11:00 am</i>	<i>Kitsap Regional Coordinating Council Executive Committee</i>
<i>09/22</i>	<i>1:30 pm</i>	<i>Kitsap Aerospace &amp; Defense Alliance (KADA) Steering Committee</i>
<i>09/22</i>	<i>6:00 pm</i>	<i>*Commission Regular Meeting via ZOOM</i>

***PLEASE NOTE: ALL MEETINGS BEING HELD REMOTELY***

*Meetings are subject to change or cancellation*

*\*Denotes events in which two (2) or more Commissioners may attend*

**PORT OF BREMERTON**  
**BOARD OF COMMISSIONERS**  
**REGULAR BUSINESS MEETING**

August 25, 2020  
6:00 PM

**Remote Access Only**  
**Zoom Meeting ID: 335 903 0010**  
**Zoom Call-In: (253) 215-8782**

**Commissioners and Staff Present**

Commissioners

Cary Bozeman  
Axel Strakeljahn  
Gary Anderson

Staff Members

Jim Rothlin  
Fred Salisbury  
Sherman Hu  
Arne Bakker  
James Weaver  
Warren Hendrickson  
Ginger Waye  
Taylor Korizon  
Anne Montgomery, Atty

**Call to Order**

President Bozeman called the meeting to order at 6:00 p.m.

**Approval of Agenda**

**It was moved by STRAKELJAHN, seconded by ANDERSON to:**

Approve the Agenda as presented.

**MOTION CARRIES, 3-0**

**Consent Items**

- A. Minutes of the regular business meeting and executive session of August 11, 2020.
- B. Payment of checks #81490 through #81505 and #E00185 through #E00192 and #81506 and #901209 through #901211 and #81509 through #81527 and #E00193 through #E00202 and #901212 through #901215 from the General Fund for \$190,149.06; #81489 and #81507 through #81508 from the Construction Fund for \$71,046.78.

**It was moved by ANDERSON, seconded by STRAKELJAHN to:**

Approve the Consent Items as presented.

**MOTION CARRIES, 3-0**

## Information Items

### 1. MagniX Presentation on Electric Propulsion Systems – Roei Ganzarski, CEO

After introduction by CEO Jim Rothlin, Mr. Ganzarski led a PowerPoint presentation related to the electric aviation industry. The presentation provided detail on the following:

- Convergence of on-demand economy, environmental awareness, and most recently, Covid-19
- Middle-mile aviation not working
- MagniX purpose of connecting communities by enabling every person in the world to fly and their vision of becoming the world's most recognized and trusted company that powers on-demand, affordable and clean air travel. Highlighted that small electric airplanes do not need TSA and can fly from smaller airports like Bremerton.
- MagniX technology keys
- Abilities of the electric aircraft to fly out of the 176 airports in Washington state.
- The differences in operating costs per hour between electric and fuel which makes electric flight affordable.

Mr. Ganzarski responded to questions from the board and CEO related to market demand; how Bremerton can help with the growth of this technology (become part of trials, install battery charging sources, find another airport that would make attractive pairing); and the interest of pilots for this type of flying.

### 2. Six-Month Financial Review – Sherman Hu, Chief Financial Officer

Mr. Hu led the 2020 budget mid-year financial status review presentation which included the following for all facilities: Airport; Industrial; Port Orchard Marina; Bremerton Marina; and General/Admin:

- Year-to-date (YTD) capital projects by facility including potential revisions due to Covid-19. Department heads provided status updates on the projects and responded to Board questions
- YTD actual-to-budget for:
  - Operating revenue
  - Operating expenses

CEO Rothlin provided detail and responded to Board questions throughout the presentation.

## Work Study Session

### 1. Port Orchard Marina Breakwater Replacement Design – Scope of Work

James Weaver, Director of Marine Facilities, introduced a PowerPoint to provide preliminary review of the scope of work and detail on the following:

- Breakwater project timeline up to the design/engineering contract with PND Engineers, Inc. being brought before the Board at the next meeting, September 8, 2020. Jon Keiser, Principal, provided PND's familiarity with the Port Orchard Marina facility and other floating breakwaters.
- Scope of work elements and tasks. The breakout in project costs for design, engineering, and permitting were discussed.
- Discussed the capital budget appropriation being used for the design and the upcoming application for further appropriations for construction.

The Board noted the Port is fortunate to have Mr. Weaver leading this project and that we need to plan carefully what, if any, capital projects are done besides this.

**Citizen Comments** - None

## Action Items

### 1. Short Term Use Agreement with Port Orchard Sea Scouts for Temporary Moorage at Port Orchard Marina (*Tabled on August 11, 2020*)

*Presented by James Weaver, Director of Marine Facilities*

Removed from Table.

Following presentation and discussion including Port Attorney comments;

**It was moved by STRAKELJAHN, seconded by ANDERSON to:**

Approve the agreement with the Port Orchard Sea Scouts for provision of temporary moorage on the Port Orchard Marina north breakwater and to authorize the CEO to execute the agreement.

**MOTION CARRIES, 3-0**

### 2. Authorization to Bid for WRG Fire Training Simulation Systems Entry Improvements Project

*Presented by Arne Bakker, Director of Business Development*

Following presentation and full discussion;

**It was moved by STRAKELJAHN, seconded by ANDERSON to:**

Authorize Port staff to go out to bid for the entryway improvements to the WRG Fire Training site.

**MOTION CARRIES, 3-0**

3. Change Order #5 for the SR3 Frontage Development Project  
*Presented by Arne Bakker, Director of Business Development*

Following presentation and full discussion;

**It was moved by ANDERSON, seconded by BOZEMAN to:**

Approve Change Order #5 in the amount of \$139,566.91 for the replacement of the sewer line and relocation of the water main for the SR3 Frontage Development project and authorize the CEO to execute the change order.

**MOTION CARRIES, 3-0**

## **Staff Reports**

*Jim Rothlin, Chief Executive Officer*

- Thanked Commissioner Strakeljahn for recommending the MagniX presentation by Mr. Ganzarski; appreciated the ideas the Port can use to market to this area.
- Capital projects moving forward with everything on schedule.
- Had a temporary power outage at the airport recently but the good news was the generator worked beautifully as Port staff wasn't even aware we had lost power to the terminal building.
- Continuing to work the Covid-19 issues. We need to remain mindful that it can be a time of anxiety. Received a briefing from the State on the process for distribution of the vaccine which may be available as early as this fall.

## **Commission Reports / New Business**

*Commissioner Strakeljahn*

- Reported on the following meetings:
  - Kitsap Regional Coordinating Council (KRCC) TransPOL
  - Kitsap Aerospace and Defense Alliance (KADA) which was the last meeting for retiring Executive Director John Powers.

*Commissioner Anderson*

- Appreciate everyone and what they are doing through these extraordinary times.

*Commissioner Bozeman*

- Stay safe; wear your masks; and wash your hands

**Executive Session - None**

## **Adjournment**

There being no further business before the Board, the meeting was adjourned at 7:23 p.m.

Submitted,

Approved,

Jim Rothlin  
Chief Executive Officer  
September 3, 2020

Gary Anderson  
Commission Secretary  
September 8, 2020

DRAFT

**PORT OF BREMERTON**  
**AGENDA SUMMARY**

Agenda Item No:    Action Item #1  
Subject:            Final Acceptance, Correct Equipment, Inc., OVIP Influent Pump Station  
                      Upgrades  
Exhibits:           None  
Prepared By:       Fred Salisbury, COO  
Meeting Date:       September 8, 2020

**Summary:**

On February 10, 2020, the Port Commission awarded the OVIP Influent Pump Station Upgrade project to Correct Equipment, Inc. This project consisted of the removal of the existing two pump system and installation of new pumps, electrical wiring, level sensing equipment, and control panels for the new pumps. The project also converted the existing 28-year-old single phase pump system to a more energy efficient 480 volt, 3-phase system. On July 20<sup>th</sup>, the project was inspected and determined to be substantially complete. Completion of all punch list items, and receipt and approval of the maintenance and operation manuals was reached on August 22<sup>nd</sup>. The awarded project cost, including permits and WA State sales tax was \$185,620.46. The Port installed and maintained the by-pass pump system which lead to a savings of approximately \$14,147. The final adjusted project cost was \$164,176.48.

**Fiscal Impact:**

Funding for this project was identified in the 2020 Airport Capital Facilities Budget.

**Strategic Purpose:**

Goal No. 6: Develop and fund a 20-year asset replacement and major maintenance schedule.

**Recommendation:**

Accept as final the contract with Correct Equipment, Inc. in the amount of \$164,176.48. The Port will release retainage once all applicable documentation is received.

**Motion for Consideration:**

**Move to approve as final the contract with Correct Equipment, Inc.**

## **PORT OF BREMERTON** **AGENDA SUMMARY**

Agenda Item No: Action Item #2  
Subject: Port Orchard Breakwater Replacement Design/ Engineering Contract  
Exhibits: Contract for Services – PND Engineers  
Prepared By: James Weaver, Director of Marine Facilities  
Meeting Date: September 8, 2020

### Summary:

This contract is a multi-year contract to design, engineer, and permit the Port Orchard Marina Breakwater Replacement project.

The existing north and east breakwaters have protected vessels moored at the Port Orchard Marina for more than 46 years and now have far outlived their original design life. Replacement of this essential breakwater is the primary Marine Facilities capital project for the Port of Bremerton.

A preliminary engineering analysis and project cost estimate was prepared by Art Anderson Associates and presented in January 14, 2020 to the Port of Bremerton Commission. A preferred alternative and engineers project cost estimate were presented to the Commissioners on March 24, 2020.

The Request for Qualifications was issued on May 27, 2020 for the Port Orchard Marina Breakwater Replacement Design, Engineering, and Permitting services and four submittals were received.

A review committee was convened that included Port Commissioner Gary Anderson, citizen Roger Gay, and Port staff which collectively reviewed the four statement of qualifications received, interviewed the top firms, and after deliberation of the best qualities needed for this important project, unanimously selected PND Engineers for the Port to begin the contract process.

PND Engineers has provided a scope of work for the Port Orchard Marina Breakwater Replacement Design project that was discussed with the Port Commissioners at the August 25<sup>th</sup> regular meeting. The contract scope of work includes multiple components related to survey, design, engineering, permitting, final construction documents, bid assistance, and construction management that will support a successful project to meet all regulatory requirements, ensure strength and longevity of design, and maximize the investment value of this facility to the Port and citizens for decades to come.

The Port staff have worked closely with the consultant team to refine the scope of this contract and ensure the Port is well positioned for an efficient and successful project.

The Port Attorney has reviewed the contract language, and the insurance provisions have been reviewed by the Port Chief Financial Officer.

Fiscal Impact:

Total contract amount for services over multiple years is \$ 1,521,000, with \$ 808,430 allocated for this project from the approved 2020 Capital Budget and \$ 712,570 proposed for this portion of the project in the 2021 Capital Budget.

The existing \$ 808,430 in 2020 Capital funds are derived from the granted 2018 Washington State Capital Appropriation funds intended to be utilized for this project.

The March 24, 2020 engineers cost estimate for this design and engineering fee component of the project was originally \$ 1,686,580, with the PND Engineers contract amount now providing an initial project savings of \$ 165,570 from that preliminary engineers estimate.

Strategic Purpose:

Goal 6. Develop and fund a 20-year asset replacement/major maintenance schedule.

Recommendation:

Port staff recommends the approval of the Port Orchard Marina Breakwater Replacement project design, engineering, and permitting contract with PND Engineers, Inc.

Motion for Consideration:

**Move to approve the Port Orchard Marina Breakwater Replacement project design, engineering, and permitting contract with PND Engineers, Inc. and authorize the CEO to execute the contract.**

## CONSULTANT AGREEMENT

This agreement is made this 8th day of September, 2020, between the PORT OF BREMERTON (hereinafter referred to as "Port"), a municipal corporation organized under the laws of the state of Washington, and PND ENGINEERS, INC., a Washington corporation, (hereinafter referred to as "Consultant"), for the furnishing of professional services for the PORT ORCHARD MARINA BREAKWATER PROJECT, Port Orchard, Washington (#03-15-0224) hereinafter referred to as the "Project".

The Port and the Consultant agree as set forth below:

### I. SCOPE:

The Consultant shall provide all necessary professional services for this project to accomplish the work specified in Attachment A hereto or which may hereafter be required by the Port.

### II. COMPENSATION:

The Port shall compensate the Consultant for work described in Attachment A in accordance with the mutually agreed upon "Fee Proposal" as set forth in Attachment A. Payment of compensation specified shall be made monthly. Consultant should forward requests for payment within 10 days after the end of the month. Payment shall be made 30 days from date invoice is received by the Port.

- A. Upon execution of this Agreement, the Consultant may submit requests for payment for professional services rendered from the date of execution of this Agreement. Consultant will be compensated for these services in accordance with the terms of this Agreement. All sums paid by the Port in this regard are a part of the maximum authorized compensation for the project.
- B. Compensation will only be made to the extent to which the Consultant has documented evidence of fees earned and provides supporting documentation for expenses incurred during the period for which payment is requested. All billings shall be to the Port of Bremerton, 8850 SW State Hwy 3, Bremerton, WA 98312.
- C. Reimbursable expenses in connection with the Agreement include, but are not limited to postage, fax, long distance calls, mileage, travel, reproductions, plots, and other fees expended on behalf of the project, etc. All reimbursable expenses will be at cost.

### III. MAXIMUM AUTHORIZED COMPENSATION:

The maximum authorized compensation for the services required to perform the work described in Attachment A is a maximum of \$ 1,521,000 and *shall not be exceeded without the written authorization of the Port*. The maximum authorized compensation during the 2020 fiscal year as a portion of the work for services identified in Attachment A shall not exceed \$808,430. Consultant shall insure that their services are allocated so as to complete all tasks of the work as described in Attachment A.

IV. CHANGES:

The Port may, at any time, make changes in the scope of the work specified in Attachment A. If, in the opinion of the Consultant, such changes will require the Consultant to exceed the maximum authorized compensation specified in paragraph III, the Consultant shall make a request, in writing, for an equitable adjustment in the maximum authorized compensation. Such requests shall be transmitted prior to incurring any item of fee or expense related to the change in scope. Retroactive requests for equitable adjustment shall not be considered by the Port. The amount of any equitable adjustment shall be negotiated by the parties, however, the inability of the parties to reach an agreement as to the amount of such equitable adjustment shall not delay the performance of work described by this Agreement or changes authorized by this paragraph.

V. ACCOUNTING RECORDS:

Records of fees or expenses incurred described in paragraphs II.A and B shall be kept on a generally recognized accounting basis acceptable to the Port. The Consultant agrees to make such records and supporting documentation available to authorized representatives of the Port and any Federal agency or agencies charged with the administration of grant money for this project, both during the project and for three (3) years following the final payment for services rendered or termination of Consultant's services under this Agreement.

VI. RESPONSIBILITIES OF THE PORT:

- A. The Port shall designate a project management team to coordinate and review the work of the Consultant and to coordinate the work of the Consultant with all agencies and individuals involved with the Project. Project Manager for the Port is James Weaver, Marine Facilities Director. The Consultant is expected to work closely with the Project Manager and team throughout the duration of this Agreement.
- B. All drawings for this project shall be made on a sheet size of 22" by 34", or half size 11 x 17 if agreed by the Port, using AutoCAD 2013 or a higher version. Adobe PDF electronic copies for all drawings are required.
- C. As an accommodation to the Consultant, the Port will, upon request, furnish without charge such structural, mechanical, soils, chemical and other laboratory tests, inspections and reports as it may have in its possession or hereafter obtain. Such

information shall be for general guidance only, and the Port in no way warrants its sufficiency, adequacy or correctness, or any interpretations, deductions or conclusions derived therefrom. The use of such information for any purpose shall be at the sole risk and responsibility of the Consultant who shall, prior to such use, have satisfied itself that such information is adequate for such use. Any testing needing to be conducted during construction or which should otherwise be done contemporaneously with the construction, shall be arranged by Consultant or their agents, and any such testing previously done and provided by the Port under this section shall be for comparative use only.

VII. DESIGNATION OF CONSULTANT PROJECT MANAGER:

The Consultant has designated John Olson, PE as Project Manager for this Project. This designation shall not be changed without the prior written approval of the Port.

VIII. OWNERSHIP OF DOCUMENTS:

The Consultant shall transmit to the Port the original of all final drawings, prints, plans, field notes, specifications, design computations, calculations and other project documents as requested by the Port. These documents will be maintained by the Port as a part of its contract file.

All drawings, prints, plans, field notes, specifications, design computations, calculations and other documents prepared or obtained for use in this project shall become the property of the Port and may be utilized by the Port, or its agents, for any purpose whatever without fee, royalty, or other payment to the Consultant.

No such document shall be the subject of any application or claim for copyright by or on behalf of the Consultant. Consultant shall not make any of the above documents available to any person, except as may be necessary to the performance of Consultant's services hereunder, without the prior written approval of the Port and shall take all necessary steps to keep secure those documents in their possession. All release of information to the public or news media will be the responsibility of the Port and Consultant shall not release any information to the public or news media without the prior written authorization from the Port.

IX. NON-DISCRIMINATION:

The Consultant covenants and agrees that in all matters pertaining to the performance or carrying out work under this Agreement, the Consultant shall at all times conduct its business in a manner which assures fair, equal, and non-discriminatory treatment of all persons without respect to race, color, religion, sex, national origin, age, handicap, or veteran status and, in particular:

- A. In the event federal funding is used for any portion of this contract, the Consultant will follow all federal affirmative action program requirements, will maintain open hiring and employment practices and will welcome applications for employment in all positions from qualified females and individuals who are members of racial or religious minorities. The following information shall be submitted according to project size.
  - 1. For agreements over \$10,000, the Consultant shall be prepared to submit, if requested by the Port:
    - a. A current personnel profile identifying all minority and female employees.
    - b. The company's Affirmative Action Officer's name and telephone number.
  - 2. For agreements less than \$10,000, the Consultant shall indicate their commitment to affirmative action and equal employment.
- B. The Consultant shall comply strictly with all requirements of applicable Federal, State, or local laws or regulations issued pursuant thereto relating to the establishment of non-discriminatory requirements in hiring and employment practices, and assuring the service of all patrons or customers without discrimination.
- C. The Consultant will act without discrimination when engaging subconsultants to perform work under this Agreement.

X. TERMINATION:

The Port may, by written notice to the Consultant, terminate this Contract in whole or in part at any time, either for the convenience of the Port or because of the failure of the Consultant to fulfill its contract obligations. Upon receipt of such notice, the Consultant shall immediately discontinue all services and deliver to the Port all documents as described in paragraph VIII.

XI. PERSONNEL:

Where applicable, all personnel employed by the Consultant, and all subcontractors retained by the Consultant and engaged in the work, shall be fully qualified and shall be authorized under State and local law to perform such services. For all subcontractors and subconsultants, this is including but is not limited to being in compliance with all Department of Labor and Industry regulations, and being current and in compliance with Employment Security for Washington state.

XII. INTEREST OF CONSULTANT:

The Consultant covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. The Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed.

XIII. COMPLIANCE WITH APPLICABLE LAWS:

The Consultant agrees to conduct and execute the Project in compliance with all applicable local, state, or Federal laws.

XIV. EXTENT OF AGREEMENT:

This Agreement represents the entire and integrated agreement between the Port and the Consultant and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Consultant and Port.

XV. GOVERNING LAW:

This Agreement shall be governed by the law of the State of Washington. Venue for any action between the Port and the Consultant, which action arises out of or in connection with this Agreement shall be in Kitsap County.

XVI. INDEMNIFICATION:

A. General Liability

To the fullest extent provided by law and with the exception of paragraph B and subparagraphs thereto of this Section XVI, the Consultant agrees to defend, indemnify, and save the Port of Bremerton harmless from all liability arising out of the consultant or his staff's negligent performance of the services under this Agreement.

B. Errors and Omissions

The Consultant agrees to indemnify and save the Port harmless in the same manner and subject to the same conditions as provided in paragraph A of this Section XVI for any error or omission in design, maps, plans, reports, specifications, or in performing services under this Agreement, provided, however, that the Consultant shall not be required to indemnify any party for an amount exceeding \$5,000,000 on any one occurrence.

1. Neither the Port's review nor its approval of any service, design, maps, plans, reports, or specifications provided by Consultant under this Agreement shall in any way relieve Consultant of its obligations under this Section XVI.
2. Nothing contained in this Section XVI shall be construed as a waiver of, or any limitation upon, the right of any party to seek or employ any other remedy which may be available to it by law or under the terms of this Agreement.
3. In addition to any insurance coverage requirement recited in this Agreement or otherwise required by law, the Consultant shall provide insurance, or other coverage, which will protect against losses attributable to Consultant's errors or omissions in an amount of not less than \$5,000,000 on any one occurrence.
4. Neither review nor approval of the Consultant's work by the Port shall in any way relieve the Consultant from its duty to abide by the generally accepted standards of professional care in the performance of its duties nor will such review or approval in any way relieve the Consultant from liability to the Port.

DATED this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

PORT OF BREMERTON

PND Engineering, INC.

By \_\_\_\_\_  
Jim Rothlin, CEO

By \_\_\_\_\_  
Print Name \_\_\_\_\_

Attachments:

"A" Scope of Work & Fee Proposal

# EXHIBIT A - SCOPE OF WORK

## PORT OF BREMERTON PORT ORCHARD MARINA BREAKWATER REPLACEMENT

### (A) SCOPE OF SERVICES

#### INTRODUCTION

This scope of work describes a breakwater replacement to be performed by PND Engineers, Inc., at the Port Orchard Marina, in Port Orchard, Washington for the Port of Bremerton. The purpose of the breakwater replacement project is to replace the existing aging breakwater. The work will use the Revised Concept Design Report for the Replacement of Port Orchard Marina North and East Breakwaters dated October 30, 2019 as a design guidance document.

We understand the existing breakwaters have been protecting the marina for more than 46 years. The marina operates year-round and transient boaters use the breakwaters during the summer boating season. The breakwaters combined are approximately 1500 ft in length. The design vessels would be 100 ft vessels parked continuous on both sides.

The engineering work has been divided into tasks. Included in this scope of work are the anticipated schedule, exclusions, assumptions, and fee summary.

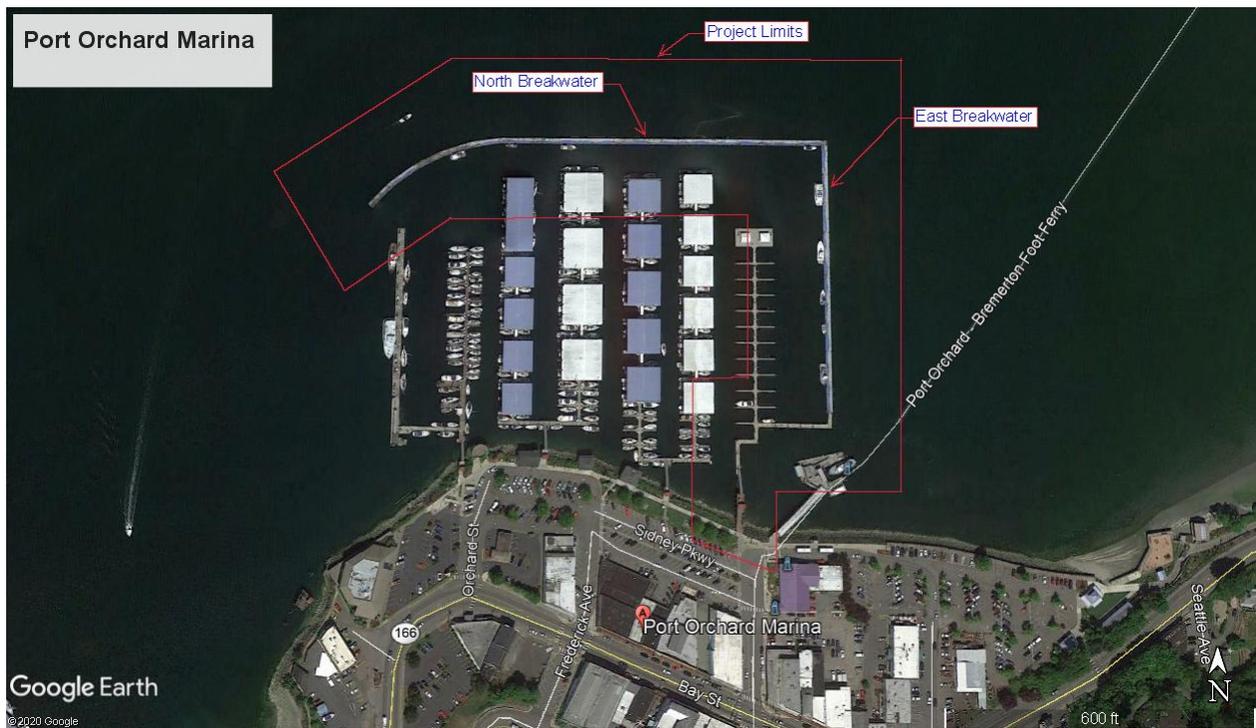


Figure 1. Port Orchard Marina – (Google Earth Aerial Photo May 2018)

**TASK 1. – Project Management**

1.0 Provide project management for this Scope of Work (24 months estimated) including:

- a. Scheduling engineering work.
- b. Provide monthly invoices
- c. Other Meetings: Additional meetings can be added by amendment as necessary.

**Deliverables:**

Monthly Progress Invoices

**Schedule:**

NTP	Day 1
Monthly Progress Invoices	NTP through completion of Permitting Phase

**Budget:**

Cost of the above outlined sub-task shall not exceed \$50,000.

**TASK 2. - Data Collection and Surveys**

2.0 This task generally consists of developing, reviewing and refining the design previously generated by the Revised Concept Design Report for the Replacement of Port Orchard Marina North and East Breakwaters. Sub-tasks under this work task will be the following:

2.1. Kick Off Meeting and Site Assessment:

2.2. PND's team will meet with the Port to review design tasks, deliverables, future meeting dates, permit implications, team member roles, and desired schedule.

2.3. Research and Coordination:

PND will review all existing information provided by the Port to refine this scope of work. The information will include existing surveys, geotechnical reports, as-built drawings, dive reports, project permits, environmental field studies, and DNR lease information.

2.4. Site Survey:

PND will contract with APS Surveying to perform a field survey of the approximate area shown in the project limits in Figure 1. This will include the floating portion of the Port Orchard – Bremerton Ferry Dock. The survey scope is described below.

Scope of Work:

- A. We propose establishing control points within the uplands expressed in NAD83/2011, Washington State Plane Coordinates, North Zone, expressed in US Survey Feet. We would also establish vertical control expressed in NAVD88/2012B or MLLW datum.
- B. We propose to survey the uplands adjacent to the breakwater uplands and shorelands for the full marina. The topographic survey will include as-built delineation of the footprint of the buildings on site and the apparent finish floor (we will not enter the buildings). We will also locate trees over 6 inches diameter, including driplines. We will

collect and map permanent and visible improvements such as docks, floats, visible pilings, gangways, breakwaters, ferry terminal, roadways, sidewalks, parking areas, fences, bulkheads, concrete slabs, equipment foundation, etc.

C. Utilities

- 1. We will collect visible utilities within the topo limits as outlined on the Google Earth image shown on the last page of this proposal.
- 2. We will arrange and coordinate for a private subsurface utility locator to mark the site

D. We will show the boundary lines and easement of record, if furnished with a title report. However, we will not be staking parcel boundary corners.

E. We also propose to conduct a bathometric survey to determine the sea floor for approximately 20 acres as outlined on the google earth image shown on the last page of this proposal.

F. The mapping will be at a scale of 1"=40' and prepared on a 22"x34" sheet, signed and sealed by a Professional Land Surveyor.

G. We will map at 1-foot contours and show spot elevations as needed. All the mapping will be in AutoDESK Civil 3D 2018 format.

**Deliverables:**

Survey Drawing, Sealed (22x34) PDF

**Schedule:**

NIP	September 10, 2020
Kick off Meeting & Site Assessment	September 2020
Mobilize for Survey	Week of Oct 5, 2020
Survey Field Work	Oct 2-23, 2020
Survey Deliverable	Week of Nov 9 2020

**Budget:**

Cost of the above outlined task shall not exceed \$103,000.

**TASK 3 – Geotechnical Investigation and Recommendations**

3.0 This task involves the geotechnical evaluation for the breakwater replacement. GeoEngineers, under sub-contract to PND, will gather the existing geotechnical information. PND will use this information in the evaluation of anchor and pile requirements for the North and East breakwaters.

Project Approach

GeoEngineers will review the available geotechnical information at the site and site vicinity, which includes two 1970s geotechnical reports for the floating breakwater, covered moorage, and adjacent bulkhead at the site, and a test pile report for constructing new covered floats in 1997. Based on our review, we anticipate that the subsurface soils generally consist of recent marine

sediments underlain by glacially consolidated soils. In the southern portion of the site, the marine sediments consist of loose to moderately loose silty sand, sand, and gravel. These granular sediments are overlain by a very soft clayey silt in the northern deeper water portions of the site. The depths to hard material are anticipated vary significantly across the site and generally go deeper from south to north. Therefore, it is the key geotechnical design issue to have a better subsurface condition characterization to identify the bearing layer along the north and east breakwater so that the uncertainties can be reduced in foundation design and construction and be cost effective.

## Scope of Work

Our proposed scope for the geotechnical investigation and engineering services are presented below:

- 3.1. Project Management and Consultation** - Provide project management and consultation throughout the project, including regular communication of preliminary results to the project team and team meeting attendance.

Review existing geotechnical, geological and groundwater information for the site.

Provide exploration coordination with the subcontractors and the client prior to the commence of field exploration.

- 3.2. Overwater CPT** - Advance **five (5)** cone penetration tests (CPTs) along the north and east breakwater to characterize the subsurface conditions at the area of interest. The CPTs will be completed to depths of the top of the dense glacially consolidated soils to characterize the marine sediments and define the bearing layer elevation. The top of the dense glacially consolidated soils is anticipated to be at depths of **120 to 200 feet** below mudline. Shear wave velocity (Vs) measurement will be performed in each CPT to estimate soil strength parameters. Our proposal assumes that the five CPTs can be completed in **five (5)** days. GeoEngineers will be on site to observe the CPT work.

- 3.3. Add alternate:** Perform an offshore geophysical evaluation by doing a seismic refraction microtremor (ReMi) along the north and east breakwater in addition to the five CPTs. Seismic ReMi is a passive seismic refraction surface-performed geophysical survey method using an engineering seismograph, low to moderate frequency receivers (geophones) and straight-line array along the mudline to record passive ambient vibrations (background noise). The Vs profile that allows us to distinguish different geological boundaries will be developed by evaluating the refracted waves emitted from the ambient noise. The offshore geophones will be placed with a small watercraft. A two-dimensional (2D) Vs profile can be developed per this offshore geophysical survey and calibrated with the Vs measurements from CPTs to identify the bearing layer along the breakwater and develop soil strength parameters. The proposed geophysical survey can be completed in **5** days. GeoEngineers will be on site to observe the ReMi work.

## 3.4. Engineering Analysis

- 3.4.1. Complete simplified liquefaction analyses** using the site-specific subsurface soil information to assess the susceptibility of the site soils to liquefaction and the associated

- ground settlement during a small, moderate, and maximum-considered earthquake (MCE) event per American Society of Civil Engineers (ASCE) 61 code.
- 3.4.2. Complete slope stability and simplified Newmark analyses to evaluate the lateral ground deformation after the design earthquake event. We will complete the slope stability using Limit Equilibrium Method (LEM) with the commercial software, Slope/W, developed by GeoSlope International, Ltd. The Newmark analysis will be completed to estimate the earthquake-induced lateral ground deformation using the simplified displacement approach developed by Bray & Travasarou (2007) and Bray et al. (2018). The results of the Newmark analysis will be used to assess the potential impacts of the earthquake-induced movement to the planned foundations and structures.
- 3.4.3. Complete geotechnical foundation analyses to develop geotechnical recommendations for design of pile foundation and anchor system. Pile foundation recommendations include static and seismic axial capacity, lateral pile capacity, settlement, and drivability. We will complete lateral pile analyses using LPILE software and include the additional soil pressures induced by lateral spreading of the potential liquefiable soils anticipated at the site. We will complete pile drivability analyses for the selected pile section using GRLWEAP to evaluate if we can achieve the required tip elevation. We will also provide the anticipated passive pressure for the anchor system.
- 3.5. Draft Report - Prepare a draft geotechnical engineering report, presenting the results of our geotechnical engineering investigations that includes the descriptions of surface and subsurface conditions, a site plan showing exploration locations and other pertinent features, previous exploration logs, foundation design, and geotechnical engineering recommendations.
- 3.6. Final Report - Incorporate review comments by the project team and finalize our geotechnical engineering report.
- 3.7. Additive Test Pile Program – This task will be implemented if the design solution includes piles that need to be driven to penetrations beyond the CPT probe depths. This work will confirm pile drivability in the areas with shallow overburden over dense glacial till. A barge will be mobilized with a vibratory and impact hammer to confirm the required driving force to achieve design embedment's. The project permits will require the number of pile strikes necessary to achieve pile embedment. This test pile program would reduce the risk for contractor pile driving and any permit agency shutdowns or limitations during pile driving construction.

### Schedule:

NIP	September 10, 2020
Field Work Permit Approval	Dec 11, 2020
Field Work	Dec 2020
Engineering Analyses & Draft Report	Jan-Feb 2021
Draft Report	Week of Feb 21, 2021
Final Geotechnical Report	Week of Mar 29, 2021

**Deliverables:**

Geotechnical Report (one electronic copy in PDF format). The electronic shall be entirely contained in **one** PDF file which contains the cover, the report, divider pages, figures, borings, lab results, etc., such that the PDF file will essentially be an electronic photocopy of the hard copy report.

**Budget:**

Cost of the above outlined task shall not exceed \$252,000.

**Assumptions:**

- See GeoEngineers letter dated August 13, 2020

**TASK 4 - Preliminary Design**

**4.0** This task generally consists of developing and reviewing and refining the design previously generated by the Revised Concept Design Report for the Replacement of Port Orchard Marina North and East Breakwaters. Sub-tasks under this work task will be the following

**4.1. Design Criteria:**

Our design team will review the design criteria presented in the Concept Design Report and make recommendations for updates to the design criteria. This design criteria will be refined through the Design Workshops below. The design criteria also includes an option independent check of the wind/wave analysis provided in the for Sinclair Inlet.

**4.2. Design Workshops:**

Meet with Port and other interested parties regarding the design criteria of the breakwaters. PND shall conduct the workshops, gather input, evaluate ideas and opinions, and incorporate information into the design as appropriate. For the purposes of this task, it is assumed that two (2) workshops will be conducted at the Port Orchard Marina.

**4.3. Confirm Breakwater Layouts and Phasing Analysis:**

Confirm layout of the North and East Breakwater. Include considerations for fairway widths for existing floats. This task also looks at appropriate phasing of the reconfiguration of the breakwaters to meet most aggressive construction schedule. The phasing analysis will also look at options for constructing the new breakwater with the existing breakwater in place for protection of the marina.

**4.4. Confirm Anchoring Loads:**

PND will work with Glosten Inc. to refine anchoring layout and loads. The anticipated scope for Glosten Inc. is to complete a numerical modelling effort to determine the anchor line, or pile lateral forces arising from the design storm seas-state. PND will generate a preliminary cross section for the breakwater float(s) and provide these to Glosten Inc., who will then complete their analysis.

The modelling is most often completed using two pieces of industry standard software. The first is known as WAMIT (TM) Wave Modelling MIT, and Orcaflex(TM). The former is used

to generate wave force values against a breakwater/hull section given known meteorological and wave data for the project site. The latter is then used to determine the motions, and forces applied to the anchor the hull under the influence of the wave forces.

The deliverable from the numerical modeling is a report of the primary forces, with a narrative to explain the process/results. PND will utilize the force-in-time results to assemble structural models of the breakwater spine to complete the final design. Alternatively, these modelling results can be issued to float vendors as a set of criteria under which they will develop a stand-alone vendor designed floating structure/module.

A second necessary task is to complete a fatigue study to determine the number of stress cycles arising from prevailing storm events at the 5, 10 and 50 year limit, with potentially further analysis for the 100-year storm. The fatigue study will inform the decision regarding the maximum stress to be tolerated by the float and foundation system to limit fatigue damage. With lower stresses there can be a substantial saving in long-term maintenance costs for a marine structure. The fatigue study is known in the marine industry as S/N Analysis (Stress and Number of Cycles). The deliverable from this study is a report that identifies the yearly occurrence/probability for a specific design event, the duration, and the likely number of stress cycles that will arise over the design life of a marine structure.

#### 4.5. Float Procurement and Construction Contracting Methodologies

Research various float and procurement methodologies and construction contracting methodologies. Consider Design/Bid/Build, Design/Build, Best Bid, or other methodologies that may be available to the Port. Make recommendations to the Port.

#### 4.6. Preliminary Site Layout and Breakwater Design Drawings

This task will develop the base drawings and layout of the facility including anchors or piles. This task would also include gangways and other major infrastructure. This layout would be the basis for the overlay of the utility design in the following task.

#### 4.7. Preliminary Utility Design Drawings

This task includes the preliminary design for the fire system, water line system, sewage pumpout, and electrical including lighting. The fire system will follow typical NFPA guidelines including fire extinguisher cabinets. The water system would provide hose-bibbs at electrical utility locations. The sewage pumpout system would include a pumpout station and porta-potty dump station.

The electrical system would include the following elements.

- A. Electrical Shore Power - floating breakwater: for this linear dock we understand the Port wants (2) 30A-120V & 50A-120/240V shore power pedestals spaced at 60-feet on center on the inboard sides of the breakwater. The outboard side should only have 100A-120/240V outlet for pedestals on 120-foot centers. Dock mounted unit substations will step 480-volt supply circuits from shore down to 120/240-volts for the connection of the shore power pedestals. Substations have an approx. 3' x 5' footprint and weight 1,800lbs. Substations should be centered on float section - offset to the inboard side. Substations will include switch gear / distribution panels to avoid separate utility panel for disconnects / pedestal power. Substations are designed in groups of three.

- B. Upland Work: the increase in shore power loads will require a new electrical service upland. Due to the distances involved, the service should be 480-volt/3-phase with unit substations (transformers/panels) on the floating dock. The upland work will likely require a PUD pad mounted transformer (4' x 4' – plus clearances) and service switchboard (approximately 4' x 8'). Considerations are:
1. Space will be needed for the noted equipment. A disconnecting means (or service switchboard) is required within 50-feet of the shoreline abutment serving the breakwater and will be located in the upland space available near the existing Gate 4 Landing.
  2. Trenching and pad prep will most likely be necessary to access the existing vault at Gate 4. City water and fire hydrant and are located at the head of Gate 4 landing. Kitsap Transit recently reworked the feeders to the ferry landing and should be able to provide a recent survey of utilities.
  3. Conduit penetrations through the bulkhead exist below the approach pier near the vault at Gate 4. Excavation and restorative work likely necessary for utility work.
- C. Gangway replacement: replacement of the existing gangway will require the feeders to F-Dock (installed below the gangway) to be removed and replaced. L&I has ruled that when a feeder serving a dock is replaced the services electrically downstream must be brought up to current code. Costs for selectively making an existing system code compliant is not financially viable as the aggregated costs quickly exceed complete replacement. Replacing the F-dock system could be avoided if the feeder can remain in place untouched during and after construction. The Port will request variance initially and have a plan ready if not successful. Upgrade work for F-Dock is excluded from this scope but can be added if necessary.
- D. Lighting (all fixtures LED):
1. Step lights are often integrated into a new gangway structure. Lights are provided on 10-foot centers and are mounted at 18 to 24-inches above the walking surface. The fixtures are recessed to avoid damage from pedestrians and dock carts.
  2. For the floating breakwater, Full cutoff (dark-sky compliant) pole mounted LED luminaires providing 1 foot-candle along length of dock. Luminaires on 10 to 12-foot tall poles are recommended. Generally speaking, lights are spaced at 5-times their mounting height. Using a 12-foot pole will require a pole located every sixty feet along the linear dock. This works well for most marinas as it keeps the quantity of light fixtures low and it fits well with the spacing of other dock appurtenances. Light poles are located behind piles when possible to protect them from vessels.

**4.8. Cost Estimating:**

Provide construction cost estimate for the reconfigured existing breakwaters at the end of the preliminary design phase. Reflect recommended construction phasing approach.

**4.9. Design Progress Meetings:**

Periodic meetings with Port and others to confirm design progress, review issues, discuss options and alternatives, seek input from other team members, etc. Assume 3 meetings via video conference.

**4.10. Design Reserve:**

This task shows a design reserve of \$20,000 to address potential items like additional work for the approach pier or F-Dock.

**Deliverables:**

Breakwater Basis of Design Tech Memo  
 Breakwater Layout Alternative Study and Phasing Analysis  
 Glosten Numerical Modeling Report  
 Glosten Stress and Number of Cycles Fatigue Report  
 Float Selection and Procurement Tech Memo  
 Preliminary Site Layout and Breakwater Design Drawings  
 Preliminary Utility Design Drawings  
 Preliminary Design Cost Estimate

**Schedule:**

NTP	September 10, 2020
Breakwater Basis of Design Tech Memo	4 wks from NTP
Geotech Hold Point	Week of Feb 21, 2021
Breakwater Layout Alternative Study and Phasing Analysis	March 2021
Glosten Numerical Modeling Report	Mar-April 2021
Glosten Stress and Number of Cycles Fatigue Report	Mar-April 2021
Float Selection and Procurement Tech Memo	Mar-April 2021
Preliminary Site Layout and Breakwater Design Drawings	April-May 2021
Preliminary Utility Design Drawings	April-May 2021
Preliminary Design Cost Estimate	May-June 2021

**Budget:**

Cost of the above outlined task shall not exceed \$303,000.

**Assumptions:**

- The existing approach pier and security gate will be used for this project.

**Exclusions:**

- Any sediment transport studies.
- Work on other docks including F-dock electrical that may be necessary due to breakwater float replacement.
- Any upgrades to the existing utilities.
- Cruise ship mooring or power; shore power for vessels exceeding 150-linear feet.
- Fire alarm system design.
- Upland work, except for new electrical service equipment.
- Low voltage systems, including telephone, data, cable TV. Low voltage raceways provided as requested by Port.
- Documentation of existing electrical systems. This includes adjacent areas, site/street lighting, and other circuits. We are assuming that record drawings, surveys, and site backgrounds will be provided by Port and utility locates from Survey.
- Any task not specifically included in this scope of work.

**TASK 5 – Permit Support**

**5.0** The following scope and budget assume a US Army Corps of Engineers (USACE) standard individual permit pathway due to the potential reconfiguration of the structure and the use of large piles (24-48 inch in diameter) as well as the standard in-water permitting pathway for State and Local agencies. An additional Nationwide permit along with State and Local permissions will also be needed for geotechnical explorations needed to inform the project design.

**5.1** Coordination

PND will lead and serve as the point of contact for various regulatory agencies and stakeholders during the permit process. This includes initiating consultation with the federal services and coordinating state agencies such as WDFW and Ecology as well as with City agents. The permitting team will also plan and meet with the Tribe as well as respond to questions/requests from Tribal interests during the Federal review process. This time assumes a moderate effort that is often associated with nearshore projects in Puget Sound. Our level of effort for this task assumes the final design will require mitigation along with the effort needed to negotiate the terms of mitigation with local, state and federal agencies as well as the Tribe.

The permitting team will also coordinate with the WA Department of Natural Resources (DNR) on the modifications to the Port Management Agreement (PMA). Since there will be modifications to a large component of the marina, there will likely be documentation required by DNR to satisfy the agreement. DNR may request a baseline condition survey to determine what habitat is associated with the parcel and if that habitat has been adversely altered or if contaminants have been introduced into the lease lands. The proposed permitting documents (and associated site visit) will likely provide the baseline habitat information required by DNR. Sediment characterization has not been included in this scope and can be added at a later date should it be necessary.

**5.2** Habitat/Macrovegetation Survey

With the proposed replacement of the breakwater and its associated elements, it is important to precisely identify the extent of the existing kelp and eelgrass habitat as well as other regulated habitat resources. A comprehensive boat-based survey of those habitats using a drop camera and a Differential Global Positioning Systems (DGPS) would provide the necessary information to incorporate into design drawings and the forthcoming BE. A boat-based survey would allow coverage of the survey to be expanded beyond the current footprint of the breakwater to accommodate future design elements. Because of the existing information compiled by The Washington Department of Natural Resources (DNR) Submerged Vegetation Monitoring Program, there is a reasonable expectation that eelgrass habitat occurs within vicinity but likely not the project area, however there is a high probability of large kelp growing on or near the existing breakwater. Updating this information on eelgrass and kelp areal coverage in the project area will inform the final design with the least amount of impact on existing habitat and is required by both the USACE and WDFW as part of the project submittal. We are proposing a single site visit to gather this information. Our expectation is that all eelgrass habitat impacts can be avoided at this point and that impacts to kelp habitat can be minimized.

**Key Dates:** Our goal is to complete the Habitat/Macrovegetation Survey no later than September 30, 2020. The next window for surveys will be in 2021. Early completion of this survey report is necessary for the remaining permit applications.)

### 5.3 Permitting for Breakwater Replacement

PND team will prepare Federal, State and local permit documentation and provide draft documents to permitting team and the Port for review. A single site visit will be required to gather site specific information for this task and is included in this proposal. Below is a summary of permit services to be provided. Permit services, in addition to what is outlined below (i.e. compliance monitoring, monitoring plans) can be provided, but would require a contract amendment and additional budget.

#### 5.3.1 *SEPA Checklist.*

The permitting team will review and provide input on the State Environmental Policy Act (SEPA) Checklist to be coordinated with the Port.

#### 5.3.2 *JARPA/HPA.*

The permitting team will produce the Joint Aquatic Resource Permits Application (JARPA). This includes drafting the threatened and endangered species section as well as habitat sections which will also be used and expanded on in the Biological Assessment (BA). The permitting team will develop a list of standard Best Management Practices to avoid or minimize impacts to those species and the habitat they rely on. We have budgeted time for one internal review cycle and one cycle of responding to comments from agencies. We will draft a project description and develop project sequencing.

#### 5.3.3 *Shoreline Substantial Development*

The permitting team will develop materials for the Shoreline Substantial Development submittal to the City of Port Orchard (and Ecology). We assume the project will require a shoreline variance due to the size of the structure and size of piles required for the project. We will prepare a shoreline narrative, master application and attend the Shoreline Hearing. We will also apply for the building permit after completion of the

Shoreline permit. We have budgeted time for one internal review cycle of both the Shoreline Permit and Building Permit.

### 5.3.4 *Biological Assessment (ESA/EFH/MMPA Consultation)*

The permitting team will produce a Biological Assessment (BA) for submittal with permit applications, including figures. For the purpose of developing this proposal, we assumed that nearshore impacts would be minimized where possible but may still have impacts on listed species. PND will provide an analysis to determine the High Tide Line (HTL) which provides the upper jurisdictional line for federal review. We assume that pile driving would occur as part of this project and require consultation under the Marine Mammal Protection Act. We assume that impacts to marine mammals can be avoided through observation and implementing shutdowns while they are present. We will prepare a Draft BA along with a marine mammal monitoring plan and Essential Fish Habitat Analysis for submittal to the Corps of Engineers.

This scope includes addressing agency (e.g., Corps, NMFS or USFWS) comments on the BA. We have budgeted time for one review cycle in addition to the above effort to address comments from federal agencies and incorporate those changes into the BA. In addition, PND assumes the project will follow a formal consultation process with the services. If additional project impacts are identified after consultation is completed, additional effort will be needed to maintain project compliance (e.g. mitigation planning, construction oversight). PND will provide a contract amendment should additional services be required.

### 5.3.5 *Mitigation Planning*

The primary project impacts that may require mitigation include shading (increase in net overwater coverage by permanent structures or increase in height of the proposed breakwater) and possible loss of shallow-water habitat. The permitting team will coordinate mitigation planning efforts required for the permitting process and develop a standalone mitigation plan if necessary. This could include but is not limited to interpreting regulatory agency requests that could potentially affect design elements, and to develop additional BMP's or conservation measures to ensure species/habitat protection, responding to agency requests for additional environmental consideration as the conceptual design elements develop, and providing an impact/mitigation analysis to identify if mitigation actions completely offset potential impacts from the project. Should mitigation be required for unavoidable impacts, mitigation opportunities and associated costs will be discussed with the client during a site visit/team meeting once project elements have been developed conceptually. To complete the mitigation plan, adequate mitigation needs to be available on lands under client control. The draft plan will be reviewed by the client before being circulated to the agencies. A mitigation plan will require the project proponent to commit to a restoration action and monitor its performance for up to 10 years post construction. Mitigation monitoring has not been scoped as part of this effort.

## 5.4 Permitting for Geotechnical Investigations

Prior to the above project permitting effort, there will be an additional permitting effort for any proposed geotechnical investigations. Prior to sampling, appropriate permits and approvals for the characterization effort will be obtained including:

Port of Bremerton SEPA Exemption  
 City of Port Orchard Shoreline Exemption  
 Washington State Department of Fish and Wildlife Hydraulic Project Approval  
 U.S. Army Corps of Engineers Nationwide 6 permit for scientific sampling

Note: There is a fish window time constraint for the Geotech Surveys goal is to begin permitting as soon as possible. The typical window for bull trout is now through February 15 and for herring through January 14.

### **Assumptions:**

Below is a list of assumptions that guided our level of effort. Any changes to the project that affect these would require a contract amendment to address changes to the budget.

- Federal consultation/Permitting pathway is assumed through the standard individual permit process with at least 18 months of lead time.
- A single site visit and boat based macrovegetation survey will be necessary to provide site specific information for various permitting documents.
- It is likely that the Shorelines and/or SEPA processes could result in public meetings and/or a Hearing. We will attend one public meeting and one shoreline hearing as part of this scope. We assume development of presentation materials will be led by PND with support from GeoEngineers.
- Client will be responsible for paying for all permit fees. Consultant will notify client at appropriate times during the permitting process.
- Scope includes a modest effort for mitigation planning. Should project impacts be significant and unavoidable, additional scope may be necessary to address increased mitigation planning.
- This scope assumes no take on marine mammals and does not include effort for developing an Incidental Harassment Authorization (IHA).
- We assume that in water work will be conducted inside of the existing DNR Aquatic Land Lease authorized under the PMA.
- No compliance monitoring has been included with this effort.
- We assume that F dock work is not necessary regarding gangway and marginal / approach floats, pile and is not included in the initial design proposal.

### **Schedule:**

NTP  
 Permit Support & Coordination

September 10, 2020  
 NTP to 2yrs

### **Budget:**

Cost of the above outlined task shall not exceed \$130,000.

## **TASK 6 – Final Design**

**6.0** This task includes design services for preparation of construction drawings and specifications showing the character and extent of the North and East Breakwater replacement. Design

submittals for the breakwaters will be provided at 60%, 90% and 100%. An outline of the specifications will be provided at 60% and full specifications will be provided at 90% and 100% reviews. Probable construction cost estimates will be revised at 60%, 90% and 100% submittals. Specific elements in this Scope of Work will include final design for the following items:

- North Breakwater
- East Breakwater

PND will complete this work in two (2) sub-tasks.

#### 6.1. Breakwater Floats, Gangways, Approach Pier, and Abutments

This sub-task includes development of performance specifications for the Breakwater Floats and associated gangways. The breakwater anchoring system/piles and utilities will be fully designed. Utilities for these floats include fire standpipes and domestic water service, and electrical including shore power, lighting, and security gates.

#### 6.2. Contract Documents

This task combines the plans, specifications, and construction contract information into a photocopy ready set of documents. Calculations will also be provided as required for building department approval. A full-size, half size, and electronic PDF set of plans, AutoCAD files, and specifications will be provided for the Port.

#### 6.3. Engineering Reserve

This task shows a design reserve of \$40,000 to address potential items like additional work for the approach pier or F-Dock.

### **Deliverables:**

Plan reviews at 60%, 90% and 100%

Specification reviews at 90% and 100%

Cost estimates reviews at 60%, 90%, 100%

Stamped calculations for building department at 100%

A full-size, half size, CD copy of AutoCAD drawing files, and electronic PDF set of the bid plans and specifications.

### **Schedule:**

NTP	September 10, 2020
60% reviews	August 2021
90% reviews	October 2021
Permit Hold Point	October 2022
100% reviews	January 2023

### **Budget:**

Cost of the above outlined task shall not exceed \$333,000.

**Assumptions:**

- The existing approach pier and security gate will be used for this project.
- The Port's General Conditions will be used.

**Exclusions:**

- Any sediment transport studies.
- Work on other docks including F-dock electrical that may be necessary due to breakwater float replacement.
- Any upgrades to the existing utilities.
- Cruise ship mooring or power; shore power for vessels exceeding 150-linear feet.
- Fire alarm system design.
- Upland work, except for new electrical service equipment.
- Low voltage systems, including telephone, data, cable TV. Low voltage raceways provided as requested by Port.
- Documentation of existing electrical systems. This includes adjacent areas, site/street lighting, and other circuits. We are assuming that record drawings, surveys, and site backgrounds will be provided by the Port and survey utility locate.
- Any task not specifically included in this scope of work.

**TASK 7 – Bidding Support**

7.0 PND will be available to provide bid support from the office and on-site throughout the bidding process. The following tasks are included in this scope of work: Provide support services, including but not limited to attending pre-bid meeting, responding to bid questions, review of bid submittals, etc.

**Schedule:**

NTP

TBD

**Budget:**

Cost of the above outlined task shall not exceed \$17,000.

**Assumptions:**

- The Port is the primary contact for all bid support and questions.
- The Port will coordinate all bid related meetings.

**TASK 8 – Construction Administration**

8.0 PND will be available to provide support from the office and on-site throughout the construction. The following tasks are included in this scope of work:

- 8.1. Attend a preconstruction conference;
- 8.2. Observation and reports for the fabrication of construction components as required (i.e., pile splicing, welding, caps, floats, etc.) (This scope of work assumes 10 trips within 200 miles of Seattle, WA);
- 8.3. Review and respond to all submittals and RFI's in a timely manner;
- 8.4. Provide office support during construction;
- 8.5. Full-time quality assurance observation including pile driving/installation, including inspection of all field welds by a certified welding inspector (CWI). (This scope of work assumes 3 months for construction at 30 hours / week) (30 trips);
- 8.6. Up to five additional site visits at key points in the construction process to confirm design intent is achieved
- 8.7. Final review of completed facility and punchlist.
- 8.8. As-built drawings of completed facility generated from construction Contractor's redlines.

**Schedule:**

NTP

TBD

**Budget:**

Cost of the above outlined task shall not exceed \$332,000.

**Assumptions:**

- The Port is our full-time QA construction inspection and will provide daily reports of construction activities. PND to be onsite and provide daily reports as required.
- The Port will provide independent materials testing and special inspection and provide reports of results.

**Exclusions:**

- Any upgrades to the existing utilities or associated utility fees.
- Any material and compaction testing.
- As-Built surveys.
- Any additional requirements as a result of encountering hazardous material within the project work limits.

- Any additional tasks not identified in the above scopes of work.

**(B) SCHEDULE**

Following confirmation of this agreement by the Port, PND agrees to perform the above-described services and to diligently pursue the project and make every reasonable effort to finish all items in a timely manner. This schedule assume Covid-19 work restrictions will not affect work. Additional Covid-19 work restrictions will delay the schedule. Please review the proposed schedules in the above tasks and let us know if there is a need for changes.

**(C) FEE BASIS Summary**

PND will provide these services on a time and materials basis for a total of \$1,520,000 with the estimated breakdown as shown below. Final amounts may vary from what is shown below but they shall remain under the contract total. Any additional work can be negotiated with the Port using the standard rate schedule.

1.	Project Management.....	\$50,000
2.	Data Collection and Surveys .....	\$103,000
3.	Geotechnical Investigation and Recommendations .....	\$252,000
4.	Preliminary Design .....	\$303,000
5.	Permitting Support .....	\$130,000
6.	Final Design .....	\$333,000
7.	Bidding Support .....	\$17,000
8.	Construction Administration .....	\$332,000
	<b>Total:</b>	<b>\$1,520,000</b>