Port of Astoria

Board of Commissioners

422 Gateway Ave, Suite 100
Astoria, OR 97103
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Regular Session

August 1, 2023 @ 4:00 PM
10 Pier 1, Suite 209, Astoria, OR*

The meeting location is accessible to persons with disabilities. A request for an interpreter for the hearing impaired or for other accommodations for persons with disabilities should be made at least 48 hours before the meeting by calling the Port of Astoria at (503) 741-3300.
*This meeting will also be accessible via Zoom. Please see page 2 for login instructions.

Agenda

1. CALL TO ORDER
2. ROLL CALL
3. PLEDGE OF ALLEGIANCE
4. COMMISSION REPORTS
5. CHANGES/ADDITIONS TO THE AGENDA
6. PUBLIC COMMENT – for items on the agenda, when not covered by a public hearing
   This is an opportunity to speak to the Commission for 3 minutes regarding any item on the agenda.
7. CONSENT CALENDAR:
   a. Meeting Minutes –
      - Regular Session 06/06/23 3
      - Finance Committee Meeting 06/21/23 9
      - Special Session 06/27/23 13
   b. Financials – June 2023 Estimated 15
   c. Event Calendar – August 2023 19
8. ACTION:
   a. Pier 2 West - Engineering Services 20
   b. Popkin Professional Services Agreement 118
   c. New Lewis & Clark Bank Account for AOC4 Funds
   d. Commission Committee Assignments 2023-2024 124
9. PUBLIC COMMENT – for non-agenda items
   This is an opportunity to speak to the Commission for 3 minutes regarding Port concerns not on the agenda.
10. EXECUTIVE DIRECTOR COMMENTS
11. UPCOMING MEETING DATES:
    a. Workshop Session – August 15, 2023 at 4:00 PM
    b. Regular Session – September 5, 2023 at 4:00 PM
12. ADJOURN

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Port of Astoria

Board of Commissioners

HOW TO JOIN THE ZOOM MEETING:

Online: Direct link: https://us02web.zoom.us/j/86905881635?pwd=amhtTTBFcE9NUElxNy9hYTFPQTIzQT09
Or go to Zoom.us/join and enter Meeting ID: 869 0588 1635, Passcode: 422

Dial In: (669) 900-6833, Meeting ID: 869 0588 1635, Passcode: 422

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MEETING MINUTES
JUNE 06, 2023

PORT OF ASTORIA
BUDGET ADOPTION HEARING
AND WORKSHOP SESSION
PIER ONE BUILDING
#10 PIER 1, SUITE 209
ASTORIA, OR 97103

BUDGET ADOPTION HEARING

Call to Order
Chairman Rohne called the Budget Adoption Hearing to order at 4:00 pm.

Roll Call
Commissioners Present: Dirk Rohne; *Robert Stevens; Frank Spence; Jim Campbell; and Scott McClaine. Robert Stevens joined the meeting via Zoom at 4:03pm.
Staff Present: Executive Director Will Isom; Deputy Director Matt McGrath; Finance, HR & Business Services Manager Melanie Howard; and Executive Assistant / Administrative Coordinator Stacy Bandy.
Port Counsel: Eileen Eakins was not present for this session.
Also Attending: Angela Archibeque and Krista Couch of Mead & Hunt and Seth Otto of Maul Foster Alongi.

Pledge of Allegiance

Presentation of Proposed Budget for Fiscal Year 2023-2024
Executive Director Isom introduced the budget appropriations for fiscal year 2023-2024, as noted on page 69 of the packet. This hearing is a chance for the public to give comments before the Commission considers budget adoption. The General Fund appropriated amounts for fiscal year 2023-2024 consist of $2,994.266 for Personnel Services, $4,483,128 for Materials & Services, $3,489,034 for Capital Outlay, and $1,655,627 for Debt Service for a General Fund total of $12,622,055. The Special Revenue Fund Interfund Transfer consists of $189,164. The total presented budget for consideration for fiscal year 2023-2024 is $13,862,259. Resolution 2023-02 imposes and categorized taxes at a rate of $.1256 per $1,000 of assessed value. This is the maximum permanent tax rate allowed.
*Commissioner Stevens joined the call during Executive Director Isom's budget explanation.

Call for Public Comment on Proposed Budget
There were no requests for public comment.

Adjourned
Commissioner Rohne adjourned the Budget Adoption Hearing at 4:04 pm.

Port of Astoria

WORKSHOP SESSION

Call to Order
Chairman Rohne called the Regular Session to order at 4:04 pm, immediately following the adjournment of the Budget Adoption Hearing.

Changes/Additions to the Agenda:
There were no changes or additions to the agenda.

Public Comment:
There were no requests for public comment.

Consent Calendar:
The consent calendar consisted of the following:

- Meeting Minutes – 03/21/23 Workshop Session; 04/04/23 Regular Session; 04/18/23 Workshop Session; Regular Meeting 05/02/23
- Financials – April 2023
- Event Calendar – June 2023

Commissioner Spence moved to approve the consent calendar as presented. Commissioner Campbell seconded. The motion carried unanimously 5-0 amongst the commissioners present.

Advisory/Discussion:

11a. Airport Master Plan Update – Mead & Hunt

Deputy Director McGrath introduces Project Manager Angela Archibeque and Lead Planner Krista Couch to give an update on the Airport Master Plan Update in progress. McGrath notes that the second public advisory meeting will be held tomorrow at the airport FBO. The presentation includes plan progress addressing environmental assessment, aviation forecast, facility assessment and requirements, revenue generation goals, and future steps for the airport, including a brief overview of completed work, ongoing work, and future tasks.
Presentation highlights include:

- The goal is to make the airport more sustainable by generating revenue through user fees, fuel sales, hangar rentals, and infrastructure improvement.
- Future facility needs include identifying hotspots on taxiways, improving direct access issues, expanding FBO facilities, adding parking spaces and hangars, and preparing for electric aircraft control.
- Additional hanger development is necessary due to increased demand in the next 20 years.
- Non-aeronautical development opportunities exist in industrial parks located west and south of the airport.
- Market analysis was conducted to determine lease rates for non-aeronautical parcels based on economics, demographics, industry projections, and comparable sales data.
- Automobile parking improvements may include paving and delineating parking spaces as well as enhancing wayfinding signage within the airport premises.
- Alternative projects, such as relocating a runway crossing area or developing electric aircraft facilities, are being considered for future funding requests from the Federal Aviation Administration (FAA).

- Future facility needs include identifying taxiway hotspots, alleviating access issues, updating and expanding FBO, additional parking and hangers, and exploring electric aircraft control.
- The third and final public advisory meeting will be in October to present an implementation plan, land use plan, and a financial feasibility plan.

The Commission thanks Archibeque and Couch for their presentation.

Action Items:

12a. Integrated Planning Grant Scope of Work

Deputy Director McGrath explains that this item is a follow-up to the Business Oregon Integrated Planning Grant that was brought to the Commission at the last meeting. The Port is looking to blend the Area of Contamination (AOC) 4 cleanup and the Pier 2 West rehabilitation projects. The proposal is to extend the seawall to the dock line and over to the Boatyard to encapsulate the environmental contamination. Seth Otto, Principal Civil Engineer with engineering firm Maul Foster Alongi discusses the project overview.

- The integrated planning grant is an investment from the state for strategic and comprehensive planning and programming for the port to lay out schedules and key milestones, primary activities, and areas of investment for the waterfront and the various overlapping projects that will be in progress over the next few years. The work plan for the integrated planning grant focuses on organizing and facilitating a critical path scheduling and programming for these projects.
- Key milestones have been identified, permitting processes are identified, timelines are established, and areas of integration and synergy are identified to avoid redundancy and potential conflict which can occur in complex waterfront projects.
- The first task will include a comprehensive waterfront improvement plan, which is a summary of those various projects with an overall project schedule.
- The second task will include a funding strategy that identifies primary components and links them up with available state and federal funding programs in relation to environmental remediation, infrastructure development, planning, and transportation that tie into waterfront revitalization. This will position the Port to be successful in applications and in other funding positioning, whether through grant applications or direct allocation from the state.
- Community engagement strategies will begin early in the process. Extensive community engagement will ensure that the port is positioned well for project funding.

Otto thanks the Commission and inquires if there are any questions. Executive Director Isom notes that Maul Foster Alongi is the project consultant for AOC 4. The idea to integrate the Pier 2 West rehabilitation and AOC 4 cleanup was originally introduced by Jim Maul; rather than creating a change order or addendum to their contract, Isom thought it would be best to draft a separate scope of work.

- Commissioner Campbell inquires if the Department of Environmental Quality (DEQ) is favorable to this project approach. Commissioner Rohne explains that the DEQ must recommend the least cost, viable option. McGrath comments that the DEQ is open to the idea of integrated planning. The Port has held meetings with the DEQ, Business Oregon and the Department of State Lands (DSL), and all agencies are open to this concept. With the projects combined, the Port has more opportunities to seek further grant funding. Commissioner Campbell comments that it makes a lot of sense to combine these projects.

Commissioner Spence moved to approve the Integrated Planning Scope of Work with Maul Foster Alongi. Commissioner McClaine seconded. The motion carried unanimously 5-0 amongst the Commissioners present.

12b. Resolution 2023-01 Adopting the Budget 2023-2024

Executive Director Isom directs the Commissioners to Resolution 2023-01 on page 69 of the packet. The next step for budget adoption is formal adoption from the Commission.

Commissioner Spence moved to approve Resolution 2023-01 Adopt Budget and Make Appropriations for Fiscal Year 2023-2024 as written. Commissioner McClaine seconded the motion. The motion carried unanimously 5-0 amongst the Commissioners present.

12c. Resolution 2023-02 Imposing and Categorizing Taxes 2023-2024

Commissioner Rohne notes Resolution 2023-02 Imposing and Categorizing Taxes 2023-2024 imposes a tax rate of $.1256 per $1,000 of assessed value. Isom thanks Budget Committee citizen members for their participation. It can be difficult finding members of the public to volunteer for committees, and the Port is fortunate to have Budget Committee chair Bill Young and committee members Tad Peterson, Steve Kraske, John Lansing, and Walt Postlewait serving on the committee.

Commissioner Spence moved to approve Resolution 2023-02 Resolution Imposing and Categorizing Taxes. Commissioner Campbell seconded the motion. The motion carried unanimously 5-0 amongst the Commissioners present.

12d. Request for Expenditure #0144 Airport FBO Roof

Deputy Director McGrath refers to the Request for Expenditure on page 71 in the packet. The FBO roof has needed repair for some time. The current shingle roof will be replaced with a metal roof. The work will be completed before the Fly-In event this August.

Commissioner Campbell moved to approve the Request for Expenditure #0144 Airport FBO Roof with Northwest Roofing & Construction in the amount of $32,178. Commissioner Spence seconded. The motion carried unanimously 5-0 amongst the Commissioners present.

12e. Request for Expenditure #0147 Central Waterfront Sediment Sampling

Deputy Director McGrath refers to the Request for Expenditure on page 81 in the packet. McGrath explains that depending on the level of risk, sediment sampling is required in either three, five, or seven-year increments. The year sampling is needed for all levels of risk. McGrath refers to the analytical services quote on page 85, which is an example of the most expensive sampling. On page 90, there is a pricing list showing the cost for each type of sample. Once sampling is complete, the Port will not need to sample for five years.

- Commissioner Campbell inquires if the permit calls for clamshell or bottom down. McGrath answers that the way the permit is written, the Port can choose either option.

Commissioner Spence moved to approve the Request for Expenditure #0147 Central Waterfront Sediment Sampling with Northwest Roofing & Construction in the amount of $85,127. Commissioner McClaine seconded. The motion carried unanimously 5-0 amongst the Commissioners present.

12f. Approval of America's Phone Guys Contract

Executive Director Isom explains that the proposed agreement on page 91 of the packet is for a new monthly service contract with America's Phone Guys as well as the installation of 17 new telephone units. Commissioner Stevens inquires if staff are looking at the design of the phone system. Executive Assistant/Administrative Coordinator Stacy Bandy explains that staff have

revised the phone tree to streamline the options available. The new phone system has several new features and will enable staff to use a phone application to monitor lines.
Commissioner McClaine moved to approve the contract with America's Phone Guys. Commissioner Spence seconded the motion. The motion carried unanimously 5-0 amongst the Commissioners present.

Public Comment
There were no requests for public comment.

Commission Reports:
Commissioner Campbell commented on the following:

- Brush cutting at the airport is going well. It would be nice to get ahead of grounds maintenance.

Commissioner Stevens did not have any comments.
Commissioner McClaine commented on the following:

- Will be attending the Navy Rose Festival reception tomorrow evening.

Commissioner Spence commented on the following:

- Last night, the Astoria City Council sitting as the Astoria Development Commission, approved their budget for the forthcoming year. The West Astoria Urban Renewal District approved its budget of $5,236,000. This fund has helped the Port previously and is a source of potential for future planning. It was a productive meeting with a lot of information presented.
- The Marina presentation at the 04/18/2023 Workshop Session by Marina manager Janice Burk was an excellent source of information. Burk did an excellent job presenting information at that meeting and encourages members to review the presentation. Recommends for Burk to send out a letter to all Marina tenants advising that we are soliciting applications for serving on the Marina Advisory Board.
- At the 04/18/2023 Workshop Session, Commissioner Campbell comments that the Port should look into charging guide boats and tours to capture revenue. Tom Browson agreed and commented that the City of Astoria is also pursuing the same idea and mentioned that there are currently many guide boats that are not getting licenses from the city. Spence urges the administration to get together with the Astoria City Manager and move forward with the creation of an ordinance to require licensing of these boats and set a fee that will benefit the City and the Port.
- Commissioner Rohne adds that Marina tenants were invited to speak at the last Commission Meeting, where Burk gave the Marina presentation. There was a limited number of tenants who came to the meeting, and the conversations were positive; additional meetings are not warranted.

Commissioner Rohne did not have any comments.

Executive Director Comments:

- Has been spending considerable time recently working with Port counsel, Eileen Eakins, to draft leases and contracts with prospective tenants as well as current tenants.
- Received an email yesterday from Business Oregon Regional Solutions Project Manager Becky Bryant informing us that the Port has been awarded $60,000 to help fund the Boatyard Master Plan.
- The Oregon Department of Fish and Wildlife is holding a series of public open houses concerning the reintroduction of Sea Otters to the Pacific coast. The letter has been forwarded to the Commission.
- Met with Kate Mickelson, the Executive Director of the Columbia River Steamship Operators' Association (CRSOA). The Port was a member of CRSOA before the Harbor Fee litigation; there

is a mutual benefit in rejoining the association. Overall, the meeting was productive, and Michelson was receptive to Port concerns.

- Has reached out to Commissioners individually to meet to discuss Port operations.
- The July regular meeting will fall on the Fourth of July this year. The Commission can meet on July 11th or July 18th. Isom will contact Sherriff Matt Phillips and see when he is available to perform the swear-in ceremony.

Upcoming Meeting Dates

- Workshop Session – June 20, 2023 at 4:00 pm
- Finance Advisory Committee – June 21, 2023 at 12:00 pm

Adjourned

Chairman Rohne adjourned the meeting at 5:21 pm.

APPROVED: **ATTEST:**

_____ _____

Robert Stevens, Board Chairman
Board of Commissioners

Tim Hill, Secretary
Board of Commissioners

Respectfully submitted by:
Stacy Bandy
Executive Assistant / Administrative Coordinator

August 1, 2023
Date Approved by Commission

MEETING MINUTES
JUNE 21, 2023

PORT OF ASTORIA
FINANCE ADVISORY COMMITTEE MEETING
PIER ONE BUILDING
#10 PIER 1, SUITE 209
ASTORIA, OR 97103

Call to Order:
The meeting was called to order at 12:07 PM by John Lansing, Finance Committee Chairman.

Roll Call:
Committee Members Present: John Lansing; Cliff Fick; David Oser; and Finance, HR & Business Services Manager Melanie Howard. Commissioner James Campbell and Mindy Landwehr were not present for this meeting.
Commissioners Present: Dirk Rohne; Robert Stevens; and Frank Spence. Scott McClaine was not present for this meeting.
Staff Present: Deputy Director Matt McGrath.
Also Attending: Grant Writer Shane Jensen.

Lansing opens the meeting by inquiring if any of the committee members have additional topics to address. Chairman Lansing thanks Finance, HR, and Business Services Manager Melanie Howard for the report included in the meeting packet.

Grant Update – Shane Jensen
Port Grant Writer Shane Jensen discusses the following grant updates:

- The Port submitted the Port Infrastructure Development Grant (PIDP) in April for the rehabilitation of Pier 2 West. The request was for approximately $25,000,000 and has yet to be awarded.
- A grant was submitted under the Rebuilding American Infrastructure with Sustainability and Equity grant program (RAISE), in February of this year, for roughly $25,000,000; it has yet to be announced. Jensen adds that the PIDP and RAISE grant programs both administered under the Oregon Department of Transportation.
- The Port may be submitting a request for the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) grant in August. This grant is administered under the Federal Highway Administration.
- Smaller direct requests for Pier 2 West preconstruction expenses have been made to the Oregon State Legislature through Senator Weber and Representative Javadi's office. A direct spending request was also submitted to Senator Merkley, Senator Wyden, and Representative Bonamici's offices.
- David Oser inquires if the Port can move forward without the pre-development grant money and do the grants need to be coordinated to be used. Jensen explains that earmark requests are often solicited at the last minute. The requests are crafted within the restraints of the programs; receiving smaller grant requests would reduce the amount needed through the RAISE or PIDP grant.
- Deputy Director Matt McGrath comments that at last night's Port Commission meeting the Commission approved a Business Oregon grant award in the amount of $617,000 for pre-construction costs for the Pier 2 West rehabilitation. This morning Executive Director Isom

received a call from Melanie Olson with Business Oregon with news that Business Oregon can now fund $1,200,000 with the caveat that the agreement will need to be adopted before the end of the 2023 fiscal year. McGrath adds that the Port is looking to combine the Pier 2 West rehabilitation and Area of Contamination (AOC) 4 cleanup projects. The Port has submitted a Technical Assistance grant through Business Oregon. This is to push the establishment of a mitigation bank on the Skipanon Peninsula. It allows the establishment of a bank for the usage of the Port as well as potentially other entities in the area. McGrath adds that Port has been given $25,000 from Northwest Oregon Works for the Boatyard Master Plan. Business Oregon has also promised $60,000 to help fund the Boatyard Master Plan.

- Jensen continues, projects under the Port security grant are underway. The Port is soliciting bids for various small projects, including new security cameras.
- Lansing inquires as to the status of the Airport Master Plan. McGrath answers that McGrath met with the Seaside airport staff recently and will be attending their advisory meetings in the future. McGrath has received input from Warrenton and Seaside. The Port has hosted two advisory committee meetings and an open house.

The committee thanks Jensen for his presentation. For the complete discussion, please see meeting audio.

Update on Zoning Changes with the City of Astoria – Matt McGrath

Deputy Director McGrath explains that the Waterfront Master Plan was finalized last year with planning consultants Walker Macy. One item that was left outstanding was the zoning code amendments by the City of Astoria. Due to the different overlay districts, planning consultant Walker Macy drafted code amendments to be more practical. The Port and City came to an agreement at the end of last year on what amendments were going to be proposed. Astoria Community Development Director Meg Leatherman was going to be working through the amendments at the end of last year and the beginning of this year. Since that time, Leatherman left her position with the City. Now there is a re-education period where the Port is trying to inform current City staff of what the agreement was and what the understanding was at the end of last year. A new consultant was brought in by the City after the City and the Port of Astoria had worked on the zoning language with Walker Macy. Isom has been working with City staff intensely to understand why the zoning language has been changed without the Port's input. Isom and McGrath will be meeting with City staff next week.

- Commissioner Rohne notes that the City Manager and several City Councilors, and planning staff have changed. Some City staff have taken liberties and made adjustments to what was agreed upon in the first place.
- Commissioner Stevens comments that the plan was not made in a vacuum. It was a long process of studying issues and taking public input; roughly 140 community members commented on the Waterfront Master Plan.
- The City of Astoria Planning Commission will be meeting next Tuesday at 5:30 pm.
- Postelwait inquires what the next step is for the Port if the zoning amendments are approved. McGrath answers that the new hotel will be the first project to look at. McGrath would like to issue a Request for Proposal by the end of the calendar year for prospective developers.

Update on audit FY 22-23 – Melanie Howard

Finance, HR & Business Services Manager Melanie Howard gives an update for the FY 2022-23 audit.

- The fiscal year will end on June 30th. The interim audit with our audit firm Talbot, Korvola, & Warwick (TKW) will be the first week of August this year. This year the schedule will be different to account for Howard's maternity leave; the auditors will have a first final audit in September and return at the end of the calendar year for the final audit.
- Last year, there was a new requirement from the Governmental Accounting Standards Board (GASB), called GASB 87. This change was complicated and had to do with accounting for receivables from lease agreements and payables for our Department of State Lands (DSL) leases.

That took a lot of extra time, but the groundwork for that is laid. This year there's a new requirement, GASB 96. Fortunately, the port is not subject to that requirement.

Howard inquires if there are any questions about the audit for this year. No questions were presented.

Cashflow Projections Report – Melanie Howard

Finance, HR & Business Services Manager Melanie Howard refers to the Cashflows Summary on page two of the packet. The condensed summarized version is on page two and page three is the long-form version. Presentation highlights include:

- The cashflows detail report is structured with the March and April estimates that were presented at the last Finance Committee meeting in the first column. Next are actuals for the months of March and April. The last two columns are May and June, which are estimates for projected cash flows through the end of this fiscal year.
- Howard points out that the total debt service for the month of June is close to half a million dollars. Part of that is a quarterly payment for the Bornstein facility, which is reimbursed by the tenant. The first three items listed under debt service are payoffs for Business Oregon loans as part of the modified deferment agreement we had for this fiscal year. The good news is that the Port is paying off three loans, though this means there's a large cash outlay.
- Under the capital project section, you'll see that there was a lot of anticipated activity for March and April, but the actual activity was a lot less. That is mostly due to the way in which we compensate for cash flow by looking at the timing of large expenditures for capital projects. What we've done over the last couple of months is to try to stay in tune with this upcoming large expenditure and restrain some of our big spending items.
- For the June estimates, if you look at days cash on hand, which is a worst-case scenario projection for if we assume there's no revenue, how long can we support our regular operating expenditures? We're down to roughly 37 days for June, which is not ideal. We do expect that will unthrottle over the next few months.
- David Oser inquires if the Port has a benchmark in terms of cash reserves. Howard answers that the Port does not have a firm benchmark, but internally 45 days is the policy.
- David Oser inquires as to the adjustments to reconcile net income to cash listed under modifications on page three. Howard answers that the adjustments are mostly related to accounts receivable. This speaks to how difficult it is to anticipate cash flow when using an accrual profit and loss, recognizing income and expense when incurred rather than cash outflow and inflow. Cruise lines can take several months to pay invoices.
- Walt Postelwait notes that both in March and April, the actuals were short of the estimate on the revenue side, but so were expenses. Postelwait inquires as to what has caused the March and April actuals to be under the estimate and how much is related to cruise ships. Howard explains that the estimates are based on the budget. The activity levels for cruise ships are what was expected, though re-billed fees such as water and sewer can vary to a large extent. Non-cruise dockage activity for March was lower than what was expected. There are a lot of operational items that can be difficult to project. Cruise activity levels, most of the lease and rental income, and some of the bigger items were on par with what was anticipated and budgeted.

Confirm agenda for next meeting

Lansing inquires if any committee members have any additional comments.

- Commissioner Rohne notes that he was not aware of the location of the tide gate issues at the airport.
- Commissioner Stevens notes that there are cycles in business when revenues catch up. A more difficult subject is staffing. The Port has a small, but capable staff. The danger is that when

executives are focusing on daily forest fires, they will lose a little focus on the big picture. This is not a criticism, as the leadership team is doing an excellent job.

- Commissioner Spence thanks the Finance Committee for their work. Spence notes that he is proud that he has appointed the first permanent Finance Committee. The advantage of an outside professional Finance Committee is to receive input from stakeholders. The Port has come a long way since the Finance Committee was instituted in 2019.
- Cliff Flick inquires if the Marina has a waiting list for annual slips. McGrath answers that there are roughly 75 vessels on the list. Fick notes that this is unrealized revenue and expresses his disappointment in the state of the East Basin.
- Fick comments that in relation to cruise ships, there is a new market of west coast cruise ships that start earlier in the spring.
- David Oser notes that with each meeting, he is more optimistic for the Port. As activities ramp up there is concern that the Port may not be staffed appropriately.
- Walt Postelwait notes that the Finance Committee was formed to strategize for the future. Suggests for a conversation at the next Finance Committee meeting to discuss strategies with Salem. It will be well into 2025 before things are less volatile. In losing Senator Johnson, the Port lost a champion for the Port.
- Postelwait adds that as the Port progresses with the Waterfront Master Plan, the Finance Committee can be a tool to help the master plan succeed.

Adjourn

Chairman Lansing adjourned the meeting at 1:36 PM.

APPROVED:

_____

Robert Stevens, Board Chairman
Board of Commissioners

ATTEST:

_____

Tim Hill, Secretary
Board of Commissioners

Respectfully submitted by:
Stacy Bandy
Executive Assistant/Administrative Coordinator

August 1, 2023
Date Approved by Commission

MEETING MINUTES
JUNE 27, 2023

PORT OF ASTORIA
SPECIAL SESSION
PIER ONE BUILDING
#10 PIER 1, SUITE 209
ASTORIA, OR 97103

Call to Order:
Chairman Rohne called the Special Session to order at 4:00 PM.

Roll Call:
Commissioners Present: Dirk Rohne; Robert Stevens; Frank Spence; and Jim Campbell*. Commissioner Scott McClaine was absent. *Commissioner Jim Campbell joined the meeting via teleconference.
Staff Present: Executive Director Will Isom; Deputy Director Matt McGrath; and Executive Assistant/Administrative Coordinator Stacy Bandy.
Port Counsel: Eileen Eakins was not present at this session.

Pledge of Allegiance

Changes/Additions to the Agenda:
There were no changes or additions to the agenda.

Public Comment:
There were no requests for public comment.

Consent Calendar:
The Consent Calendar consisted of the following:

- Meeting Minutes – 06/20/2023 Workshop Session Minutes

Commissioner Spence moved to approve the meeting minutes of the 06/20/2023 Workshop Session meeting minutes as presented. Commissioner Stevens seconded. The motion carried 4-0 amongst the Commissioners present.

Action Items:
7a. Business Oregon Pier 2 West Grant Agreement
Executive Director Isom refers to the Business Oregon Pier 2 West grant agreement amendment on page seven of the packet. The Commission approved the grant agreement at the last meeting. Business Oregon has additional funds available and can now fund the full $1,200,000 that the Port originally requested with the caveat that the agreement needed to be approved before the end of the fiscal year 2023. Commissioner Rohne thanks Melanie Olson with Business Oregon and former Senator Betsy Johnson for their efforts for the Port.
Commissioner Spence moved to approve the Business Oregon Pier 2 West Amendment Number 1 grant agreement in the amount of $1,200,000. Commissioner Stevens seconded. The motion carried

4-0 amongst the Commissioners present.

Commission Comments:

Commissioner Spence commented on the following:

- The City of Astoria will be meeting today at 5:30 pm to consider the zoning amendments for the Waterfront Master Plan.

Commissioner Stevens commented on the following:

- Attended the Fish & Wildlife open forum concerning the reintroduction of sea otters and submitted a comment card. Kurt England of Englund Marine and the Executive Director of the West Coast Seafood Operators Association, Lori Steele, were in attendance. The forum allowed for public comment from attendees.

Commissioner Campbell did not have any comments.
Commissioner Rohne did not have any comments.

Executive Director Comments:

- Has received the presentation from Walker Macy for the City of Astoria Planning Commission meeting tonight and will share it with the Commission if they are unable to attend the meeting. After tonight's meeting, the Port, the City, and planning consultant Walker Macy will discuss next steps in the process.

Upcoming Meeting Dates:

- Regular Session – July 18, 2023 at 4:00 PM
- Regular Session – August 1, 2023 at 4:00 PM

Adjourned:

Chairman Rohne adjourned the meeting at 4:12 PM.

APPROVED: **ATTEST:**

_____ _____

Robert Stevens, Board Chairman
Board of Commissioners

Tim Hill, Secretary
Board of Commissioners

Respectfully submitted by:
Stacy Bandy
Executive Assistant – Administrative Coordinator

August 01, 2023
Date Approved by Commission

PORT OF ASTORIA

JUNE 2023 ESTIMATES * FINANCIALS NARRATIVE

For July 2022 through June 2023, the Port is showing an operating gain of $1,181,621. This operating gain is ahead of prior-year profits by $182,076 but is $960,857 below budget projections. Operating revenue YTD is at 90% and operating expenses are at 100% of seasonally trended budget. Non-operating income is at 98% and non-operating expenses are 85% of budget. Total net loss YTD is $(453,368), which is $425,462 behind budget expectations.

The budget and prior-year deficits for dockage are $(449,121) and $(369,460), respectively. For the year-to-date budget, $380,000 had been included for estimated Harbor Fee income, none of which was collected. Looking at the prior-year differences, for July 2021 through June of 2022 the Port had billed for $345,600 of Harbor Fee income.

Lease and rental income was $335,087 less than budgeted, primarily as a result of a partial deferment of the Bornstein warehouse loan; the decrease in income will be offset by a decrease to debt service.

Gross Marina revenues were at 96% of budget with Boatyard gross revenues at 99% of budget. Net profits from airport fuel sales were up $101,597 from the prior year, while net profits from marina fuel sales were down $7,284 from FY22.

Personnel services came in under budget by $79,584, while materials and services were over budgeted amounts by $110,044.

Looking at non-operating totals, debt service expense was $564,958 below budget as a result of the amended debt agreements with Business Oregon. Capital spending in June was primarily for the airport master plan update, West Basin paving project, Airport terminal upgrades, and Port Security Grant project.

Fuel Sales Summary:

Marina Fuel	Unleaded Sales $	Unleaded Sales Gal	Unleaded COGS	Unleaded Profit	Diesel Sales $	Diesel Sales Gal	Diesel COGS	Diesel Profit
Jul - Jun 2023	$ 484,919	71,361	$ 343,202	$ 141,717	$ 272,947	46,397	$ 181,600	$ 91,347
Jul - Jun 2022	$ 453,924	81,335	$ 299,142	$ 154,782	$ 249,363	57,193	$ 163,797	$ 85,566

Airport Fuel	Jet A Sales $	Jet A Sales Gal	Jet A COGS	Jet A Profit	100LL Sales $	100LL Sales Gal	100LL COGS	100LL Profit
Jul - Jun 2023	$ 857,254	149,103	$ 572,932	$ 284,322	$ 175,478	26,642	$ 135,941	$ 39,537
Jul - Jun 2022	$ 698,617	141,369	$ 496,015	$ 202,602	$ 111,855	19,278	$ 92,195	$ 19,660

*This narrative references estimated financials. A final narrative will be presented in September.

Port of Astoria

Profit & Loss Actual vs. Budget

June 2023 ESTIMATES*

	Actuals Jul 2022 - Jun 2023 EST	Actuals Jul 2021 - Jun 2022	Budget Jul 2022 - Jun 2023	Budget Variance Through Jun	% of Budget Through Jun	Full '22-'23 Budget
Operating Revenues						
Dockage & Vessel Service	777,536	1,146,995	1,226,657	-449,121	63%	1,226,657
Lease & Rental Income	2,783,212	2,134,531	3,118,224	-335,012	89%	3,118,224
Rebilled Expenses	1,766,024	1,503,776	1,713,380	52,644	103%	1,713,380
Boat Haulout	660,068	617,760	665,527	-5,459	99%	665,527
Marina Revenues	650,650	673,293	680,780	-30,130	96%	680,780
Fuel Sales	1,790,598	1,513,761	1,882,280	-91,682	95%	1,882,280
Ticket Revenues	2,320	6,495	9,540	-7,220	24%	9,540
Other Income	71,387	89,082	148,266	-76,879	48%	148,266
Total Operating Revenues	8,501,795	7,685,694	9,444,654	-942,859	90%	9,444,654
Operating Expenses						
Personnel Services	2,740,906	2,596,572	2,820,490	-79,584	97%	2,820,490
Materials and Services	4,579,267	4,089,576	4,481,686	97,581	102%	4,481,686
Total Operating Expenses	7,320,174	6,686,148	7,302,176	17,998	100%	7,302,176
Income from Operations	1,181,621	999,546	2,142,478	-960,857	55%	2,142,478
Non-Operating Revenues						
Property Tax Revenues-Genl Fund	876,101	856,144	890,248	-14,147	98%	890,248
Timber Tax Revenues	156,362	165,508	156,362	0	100%	198,811
Other County Revenues	36,091	36,258	39,500	-3,409	91%	39,500
Grants*	511,788	2,289,817	511,788	0	100%	1,940,763
Interest Income	6,296	4,319	18,303	-12,007	34%	18,303
Total Non-Operating Revenues	1,586,637	3,352,046	1,616,200	-29,563	98%	3,087,625
Total Non-Operating Expenses						
Capital Outlay**	2,175,920	3,436,582	2,175,920	0	100%	3,959,368
Interest Expense	248,782	84,210	474,936	-226,154	52%	474,936
Principal Expense	796,924	206,962	1,135,728	-338,804	70%	1,135,728
Total Non-Operating Expenses	3,221,626	3,727,754	3,786,584	-564,958	85%	5,570,032
Net Income (Loss)	-453,368	623,839	-27,906	-425,462		-339,929

***Financials are presented as estimates as accounting works through year-end close-out process. Updated financials will be presented in September**

****Capital Outlay/Grants year-to-date budget set to match Revenue/Expense, not seasonally adjusted.**

Prepared by: Melanie Howard

Port of Astoria

Balance Sheet

as of June 2023

	June 29, 2023 ESTIMATES
ASSETS	
Current Assets	
Cash & Cash Equivalents	
Cash Funds	745
Operating Account #1442	469,390
Payroll Account #5344	38,081
Bornstein MMA #0004	63,451
Money Market #1259	263,122
Total Lewis & Clark Bank	834,043
Total Cash & Cash Equivalents	834,788
Accounts Receivable	957,419
Other Current Assets	2,633,864
Total Current Assets	4,426,070
Fixed Assets	35,731,756
Other Assets	
Long-term Receivables	18,011,898
TOTAL ASSETS	**58,169,725**
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Accounts Payable	662,139
Other Current Liabilities	15,968,308
Total Current Liabilities	16,630,447
Long Term Liabilities	
Accrued Vacation Payable	142,253
Accrued Sick Leave	158,204
Notes Payable	13,785,573
Net Pension Liability	829,427
Lease Liability	725,809
OPEB Liability	85,017
Pollution Remediation AOC 4 Liability	2,966,175
Less Current Portion LT Debt	-963,782
Total Long Term Liabilities	17,728,678
Total Liabilities	34,359,125
Equity	
Retained Earnings	24,263,967
Net Income	-453,368
Total Equity	23,810,599
TOTAL LIABILITIES & EQUITY	**58,169,725**

Prepared by: Melanie Howard

PORT OF ASTORIA

Capital Projects
June 2023 ESTIMATES
Budget to Actual

DEPARTMENT AND PROJECT		CAPITAL PROJECTS & GRANTS As Budgeted			CAPITAL PROJECTS & GRANTS Actual Spending To-Date			REMAINDER & PRIORITY	
Department	Description	Adopted Capital Expenditure	Adopted Grant Funding	Adopted POA Expense	Expenses through 6/29/2023	Grants Received through 6/29/2023	Expenses through 6/29/2023 NET OF GRANTS	Budgetary Estimate of Remaining POA Expense	Priority (1-10) 9=Comp 10=Remvd
WFW	P2 West PS&E Documents; CM/GC work to 100% Design	250,000	-	250,000	4,302	-	4,302	245,698	1
Airport	Airport Master Plan	389,253	361,163	28,090	431,422	417,730	13,691	14,399	2
Administration	2022-23 IT Upgrades	30,000	-	30,000	20,499	-	20,499	9,501	3
Airport	Backfill and Site Prep Behind Overbay	30,000	-	30,000	2,678	-	2,678	27,322	3
WFW	Security Upgrades: Trident equipment; Pier 1 Generator; Pier 1 Booth; Cyber Security	200,000	150,000	50,000	20,179	14,938	5,241	44,759	3
Airport	Hangar Maintenance	50,000	-	50,000	-	-	-	50,000	4
WFW	Pier 2 East - Repairs based on ODOT reports	50,000	-	50,000	1,762	-	1,762	48,238	4
Airport	Vegetation Management	30,000	-	30,000	70,583	-	70,583	(40,583)	4
Airport	T-Hangar Fencing	50,000	37,500	12,500	38,089	28,567	9,522	2,978	4
Airport	Industrial Park	250,000	225,000	25,000	525	-	525	24,475	5
Airport	Terminal Building Upgrades	150,000	142,500	7,500	12,421	-	12,421	(4,921)	5
Airport	Tide Gate Feasibility Study	99,600	99,600	-	5,094	3,830	1,264	(1,264)	5
WFW	Fire suppression/system upgrades - Pier 2	20,000	-	20,000	7,225	-	7,225	12,775	5
WFW	Repave Gateway Avenue / Restripe	110,000	110,000	-	-	-	-	-	5
WFW - Boatyard	Boatyard Upgrades	650,000	455,000	195,000	4,986	-	4,986	190,014	5
Airport	Backfill and Site Prep Behind Recology	55,000	-	55,000	23,929	-	23,929	31,071	8
WFE - Marinas	West Marina Dredging	496,250	-	496,250	487,036	-	487,036	9,214	9
WFW - Boatyard	Boatyard Electrical Upgrades	10,000	-	10,000	58,494	-	58,494	(48,494)	9
Airport	Gator Utility Vehicle	15,000	-	15,000	19,599	-	19,599	(4,599)	9
Airport	Airport Generator	20,000	10,000	10,000	6,195	832	5,363	4,637	9
WFE - Marinas	West Marina Piling Replacement (25)	133,500	-	133,500	190,397	-	190,397	(56,897)	9
WFW	Fender Pile Replacement (25) Pier 1 West, Pier 2 East, Pier 2 West	221,875	-	221,875	195,019	-	195,019	26,856	9
WFW	Pier 1 Face Chip Seal	15,000	-	15,000	13,760	-	13,760	1,240	9
WFW	Repave Pier 2 Entrance to Gateway	50,000	-	50,000	41,500	-	41,500	8,500	9
WFW - Boatyard	Boatyard Stands	16,390	-	16,390	14,587	-	14,587	1,803	9
WFW	Replace Cruise Ship Gangway Decking	15,000	-	15,000	-	-	-	15,000	10
Airport	Utility Trailer	7,500	-	7,500	-	-	-	7,500	10
WFE	Maintenance - Flatbed Truck	13,500		13,500	-	-	-	13,500	10
WFE - Marinas	East Mooring Basin Causeway Design & Repairs	500,000	350,000	150,000	-	-	-	150,000	10
WFW	Maintenance - Flatbed Truck	31,500	-	31,500	-	-	-	31,500	10
	Misc				505,641	25,000	480,641	(480,641)	
	TOTALS	**3,959,368**	**1,940,763**	**2,018,605**	**2,175,920**	**490,897**	**1,685,023**	**333,582**	

Prepared by Melanie Howard

Rev 7/26/2023

August 2023

August 2023

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

September 2023

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jul 30	31	Aug 1 4PM Regular Session 6PM CB City Council Mtg	2 7PM Gearhart City Council Mtg & Public Hearing	3	4	5
6	7 6PM Astoria City Council Mtg	8 6PM CB City Council Work Mtg 6PM Warrenton City Council Mtg	9 5PM Clatsop Cnty Commission	10	11	12
13	14 6PM Seaside City Council Mtg	15 4PM Regular Workshop Session	16	17	18	19 Airport Fly-In
20	21 6PM Astoria City Council Mtg	22 530PM Astoria Planning Commission 6PM Warrenton City Council Mtg	23 5PM Clatsop Cnty Commission	24	25	26
27	28 6PM Seaside City Council Mtg	29 7:45AM AWACC Breakfast Mtg	30	31	Sep 1	2

Port of Astoria

COMMISSION MEETING

BRIEFING DATE/TIME:	August 1, 2023	
DEPARTMENT:	Operations	
STAFF CONTACT:	Matt McGrath	
TOPIC:	Pier 2 West Engineering Services	
PURPOSE:		Information only
Check all that apply	X	Decision needed
		Follow up from previous briefing

BACKGROUND & OVERVIEW OF SURROUNDING ISSUES**:**

Pursuant to executing a Construction Manager / General Contractor (CM/GC) agreement with Bergerson Construction, the Port issued a request for engineering proposals (RFP) for Pier 2 West rehabilitation. The RFP was issued on June 1, 2023 with a proposal deadline of June 30, 2023. The Port received proposals from two firms:

PND Engineers
KPFF Engineers

Selection criteria was based on the four categories outlined in Addendum RA.1 of the RFP:

20% - Project History
20% - Staffing and Staff Qualifications
45% - Project Approach
15% - Project Schedule

Project History: to include a list of the firms completed pier, dock or other marine related projects within the last ten years. A minimum of five and maximum of ten projects were to be listed. Evaluation criteria also included the total number of seawall constructions projects completed, which components were utilized, total length and height of seawalls, maximum embedment depths and backfill, and seismic considerations.

Staffing and Staff Qualifications: to include staff assigned to the project, education, experience and involvement in projects listed within Project History listed above.

Project Approach: a narrative description of firm's approach to the following:

- Value Engineering – based upon the 30% design completed by KPFF, proposal of any alternative design approaches that may maximize the quality, longevity and utility of the rehabilitated pier and an explanation of said approach(es).
- Seismic – for each design alternative, a detailed description of how the alternative solves the potential seismic issues including:

A. Creative strategies employed in past projects to address seismic codes while maintaining cost-effective design solutions.
B. How firm's past project experience with securing permits will be employed in this project in order to secure permits in the shortest time frame possible.
C. How firm will address any potential constructability issues (technical structural, phasing to minimize tenant impacts) and/or procurement challenges.
D. How firm's proposed seismic solution will impact project costs.

Project Schedule: a proposed project schedule that represents the shortest feasible time under which the firm would be able to complete the remaining design work for Pier 2 West.

The proposals received the following scores:

	KPFF			PND		
	Rev 1	**Rev 2**	**Rev 3**	**Rev 1**	**Rev 2**	**Rev 3**
Project History	79	63	66	83	88	96
Staffing	110	115	94	99	92	66
Project Approach	176	90	173	250	265	265
Project Schedule	68	90	90	72	90	80
Totals:	433	358	423	504	535	507
	KPFF Avg	**405**		**PND Avg**	**515**	

DOCUMENTS ATTACHED:

Request for Proposals
PND Proposal
KPFF Proposal

SUMMARY & FINANCIAL IMPACT:

Evaluators unanimously agree that PND provided a superior proposal and a better potential solution to the construction challenges posed by the Pier 2 West Rehabilitation project.

NEXT STEPS/TIMEFRAME: *Based on the Commission's recommendation, describe the next steps required in order to bring this item to conclusion. Include the time frame for each step.*

1. Select PND as engineer for Pier 2 West project; authorize staff to enter contract negotiations.
2. Issue Intent to Award.
3. Execute Agreement.

STAFF RECOMMENDATION:

Select PND as engineer for Pier 2 West Rehabilitation project.

Request for Proposals ("RFP")

Port of Astoria

Engineering Services for
Pier 2 West Rehabilitation

ISSUE DATE: June 1, 2023

Proposal DEADLINE: June 30, 2023, 5:00 P.M. PDT

ISSUING PARTY:

Port of Astoria
Will Isom, Executive Director
422 Gateway Avenue, Suite 100
Astoria, OR 97103

(503) 741-3300 General Number

Direct all inquiries or requests for clarification to:

CONTACT (Project Manager) Matt McGrath, Deputy Director
422 Gateway Ave, Suite 100
Astoria, OR 97103

Phone: 503-741-3336
Fax: 503-741-3345
mmcgrath@portofastoria.com

1 Project Overview & Background

1.1 Pier 2 West Structure

Originally built in the 1940s, Pier 2 West is an elevated timber dock fronting a finger of land and retained by a vertical steel bulkhead wall. The steel bulkhead wall extends along the back (east) edge of the timber dock and runs the full length of the dock along Pier 2 West. A long, pre-engineered steel framed warehouse and multiple building additions are located on the fill behind the bulkhead wall. The last major renovation work is believed to have been completed in the 1960s. The current configuration of the pier generally consists of cedar piling, sill plates, posts, caps, girders, and decking (see Exhibit RE.2).

When first constructed, the cedar piling - some pieces more than 90 feet long - directly supported the deck of the pier. Over time, the upper portions of the piling decayed, necessitating the removal of a short section of the upper, non-buried portion of the piling. A mud sill must then be installed on top of the cut-off piling and the intervening space fitted with a post to take the place of the previously decayed piling.

1.2 Pier 2 West Condition

The dock and the seawall are in poor to critical condition. In 2017 the Oregon Department of Transportation rated sixty-two percent (62%) of the bents as "Urgent" or "Critical." Eight hundred and forty (840) discrete areas of the dock have suffered bearing loss, requiring weight restrictions to be imposed and sections of the dock to be cordoned off and prohibited from use. Thirty-one percent (31%) of the posts need to be replaced. Localized seawall failures have caused sudden, catastrophic subsidence (very similar to a sinkhole) on the west side of the warehouse, damaging capital infrastructure, interrupting production, and necessitating immediate, expensive repairs. Together, the ground subsidence and deteriorating dock are negatively impacting tenant operations and pose increasing risk to users and to the warehouse structures in the vicinity.

1.3 Project Purpose

The purpose of the project is to rehabilitate Pier 2 West based on a design that optimally combines structural integrity and functionality with the lowest cost. Partial design work has been completed (see existing design documents, Exhibit RE.3). KPFF Engineering Consultants identified five (5) rehabilitation options, all based on the two basic variables of a) seawall location, and b) timber vs steel piling. These options are briefly summarized as follows: 1a) new seawall near existing seawall location and existing [timber] dock repaired with timber components; 1b) new seawall near existing seawall location and dock replaced with new steel and concrete elevated dock; 2) new seawall installed at existing face of dock and back-filled and paved; 3a) new seawall installed half-way between existing seawall and existing face of dock and remaining elevated dock repaired with timber components; 3b) new seawall installed half-way between existing seawall and existing face of dock and remaining dock replaced with steel and concrete. Although the Port has already tentatively selected its preferred rehabilitation option, the non-preferred options are summarized here to facilitate the Proposer's review of the alternatives analysis (see KPFF, 2021a). Part of the Proposing Firm's responsibility will be to identify the most cost-effective solution.

2 General Announcement

2.1 Services Requested

2.1.1 Overview

The Port of Astoria (Port) requests Proposals from qualified professional engineering firms with specific expertise in marine design and engineering to complete the design and engineering work necessary to rehabilitate Pier 2 West.

In addition to design and engineering services, the scope of work under this RFP also includes engineer oversight during the construction phase of the project, consistent with industry standards.

The estimated construction cost of the project is approximately $20 million.

KPFF Consulting Engineers has completed 30% design documents on Option 2 (see Exhibit RE.3, Construction Documents).

The Port has procured the services of a Construction Manager/General Contractor (Bergerson Construction, Inc.), which is under contract for preconstruction services and preparation of a Guaranteed Maximum Price (GMP) for construction. The selected Proposer will be working with both the Port of Astoria and Bergerson Construction on this Project.

Estimated dates for major milestones are included in Exhibit RE.7.

2.1.2 Engineering Fees

The successful Proposer will be selected based on desired qualifications as outlined in Section 3.2. Fee information is not required as part of the Proposal and will not be considered in the selection process, but will be considered in contract negotiations with the selected Proposer under the provisions of OAR 137-048-0220(4)(e).

2.2 Submission Deadline

The deadline for submissions (Closing) is provided in the Selection Schedule (Addendum RA.2), attached hereto. Proposals received after Closing will be returned unopened and will not be considered. Proposals will be accepted in the manner described in this RFP during the Port's normal business hours of 8 a.m. to 5 p.m. Pacific Time (legal holidays excepted). Each Proposer is solely responsible for ensuring its Proposal is received in accordance with RFP requirements. The Port of Astoria is not responsible for delays in mail or by common carriers, transmission errors, or mistaken delivery. A Proposal submitted by any means not authorized will be rejected. Proposals will be publicly opened shortly after Closing, and the names of all Proposers will be disclosed at that time. Submitted Proposals will be available for public inspection only after the Notice of Selection has been issued. Proposal preparation costs are the responsibility of the proposing firm.

The Port reserves the right to reject any Proposal not in compliance with all prescribed requirements. The Port may reject for good cause any or all Proposals if, in the Port's sole discretion, it is in the public interest to do so.

2.3 Sample Contract

If a contract is awarded, the Port will negotiate a contract based upon the successful Proposer's standard agreement, provided that substantial additions and/or other modifications may be necessary to comply with state and federal contracting requirements. Proposers must submit their standard form of contract with their Proposal (see § 3.1.5). The contract is for reference only and will not be part of the scoring criteria.

2.4 Reservation of Rights

The Port of Astoria reserves the right to i) seek clarification of Proposals and to request any information the Port deems reasonably necessary to permit the Port to evaluate, rank and select the most qualified Proposer to perform the services described in this RFP, ii) negotiate a contract that is in the best interest of the Port, and iii) reject any or all Proposals and/or to terminate the solicitation process at any time if doing either would be in the public interest as determined by the Port.

3 Proposal Requirements

3.1 Procedural Provisions

3.1.1 Pre-Proposal Meeting

A Pre-Proposal Meeting will not be held. However, it is highly recommended that Proposers visit the site to familiarize themselves with existing conditions of the site. All site visits must be scheduled with Matt McGrath at the Port of Astoria at least 48 hours in advance. In addition, all questions and clarifications should be directed as soon as possible to Matt McGrath.

3.1.2 Deadline & Proposal Opening

The deadline (Closing) for Proposal submission is no later than 5:00 p.m. (PDT) on the date specified in the Selection Schedule (Addendum RA.2). *Sealed* Proposals (including the electronic copy – see below) may be mailed or personally delivered to Port offices at the address indicated on page one (1) of this RFP document. No facsimile (fax) will be accepted. Regardless of method, Proposals received after the deadline will be rejected. All Proposals will be publicly opened at Port offices on the date specified in the Selection Schedule.

3.1.3 Form of Submission

The Proposal must be the original work of the Proposer and bear the Proposer's authorized representative's signature. Three (3) paper copies must be submitted, as well as an electronic copy on an electronic medium such as thumb drive or CD. The electronic copy of the Proposal may only include files with the following formats: .pdf (Adobe Acrobat, Foxit, etc.), .doc or .docx (Microsoft Word), .xls or .xlsx (Microsoft Excel), or ODF files (Apache Open Office: .odt or .ods). Proposals must be received at the address listed on page one (1) of this RFP document. All written materials must be 8-1/2" x 11" format, bound vertically (11" side) in a type no smaller than 11 point. No other material may be submitted. Proposals must not include extensive artwork, unusual printing or other materials not essential to the utility and clarity of the Proposal.

3.1.4 Proposal Certification Statement.

The Proposal Certification Statement (Addendum RA.4) must be completed, signed and included with the Proposal. Failure to submit a signed Proposal Certification Statement will result in disqualification of the proposing firm.

3.1.5 Engineer Contract

Proposers must submit their standard form of contract with the Proposal. This is for reference purposes only and will not be considered as part of the ranking of Proposals.

3.1.6 Modification or Withdrawal of Proposal

Any Proposal may be modified or withdrawn by providing notice to the Port in a signed writing delivered on or before the date and time of Closing.

3.1.7 Written Questions and Addenda

A Proposer may submit written questions, file a written protest, or make a written request for changes (collectively hereinafter referred to as "Questions") to any part of the RFP package. All Questions must be delivered in writing to Matt McGrath on or before the 'RFP Questions Deadline' as defined on Addendum RA.2 (Selection Schedule).

All Questions must be submitted in writing; no oral Questions will be accepted. All Questions received, the response to which materially affects this RFP, will be answered by Amendment issued to all Proposers. The Port reserves the right to notify potential Proposers of any Amendments to this RFP by publication on the Port's website only. The existence of, and contents within, any such amendment will not be advertised by newspaper or trade journal. Proposers must check the Port's website regularly to ensure timely notice of any Amendments issued under this RFP.

No amendment to this RFP shall be effective unless made in writing and issued by means of posting on the Port's website.

3.1.8 Insurance Requirements

If a contract is awarded pursuant to this RFP, the successful Proposer must maintain professional liability and worker's compensation insurance during the term of the agreement. A contract will not be executed, and the Port will not issue a Notice to Proceed, until acceptable proof of coverage is received.

3.1.9 Public Records & Confidentiality

Proposals submitted to the Port are public records open to public inspection. If a Proposer believes any of its Proposal is exempt from disclosure under Oregon law, the Proposer must 1) clearly identify those portions of the Proposal it believes to be exempt from disclosure, and 2) draft the Proposal in such a manner as to separate the exempt material from the non-exempt portions of the Proposal, clearly marked as follows: "This data constitutes a trade secret under ORS 192.345(2) and shall not be disclosed except in accordance with the Oregon Public Records Law, ORS Chapter 192."

Failure to identify a portion of the Proposal as a trade secret shall be deemed a waiver of any future claim of that information as a trade secret. The Port will take reasonable steps to protect information claimed to be confidential but makes no guarantee of confidentiality if disclosure is required by law or ordered by the court or other authorized body.

3.2 Substantive Proposal Requirements

The Proposal must respond to each numbered question/subject listed below, in the same sequence as presented, with each numbered item contained in its own section to facilitate side-by-side comparison of Proposals. Direct, concise answers are encouraged. The Port seeks the most qualified Proposer with the highest-ranked Proposal. See Addendum RA.1 (Selection Criteria).

3.2.1 Project Experience

Proposers are advised to pay close attention to where the information requested in Section 3.2.1 should be located within the Proposal (i.e., the Narrative or Exhibit RE.6).

3.2.1.1 Project History

I. *Within the narrative of the Proposal itself*, provide the following:

a. a list, in temporal order, of your firm's completed pier, dock, or other marine-related projects [at least five (5) but no more than ten (10)], within the last ten (10) years.

b. a brief project description for each listed project that includes all major project components

c. if the project included a back-filled seawall/bulkhead wall, include a description of the seawall, using technical engineering terms that includes the major seawall components; also include the total length and height of the seawall, maximum insertion/buried depth, and total volume of backfill on the project.

d. whether the project included seismic improvements and/or seismic considerations in the design; if so, provide the following details: i) the type of improvements employed, ii) extent (i.e., quantities); iii) name of the government entity that issued the permit and reviewed the seismic component of the project, and iv) industry standard source for the seismic design.

e. whether, and to what degree, your firm was involved in the environmental permitting process for the project (i.e., USACE, DSL, DEQ permits)

II. *On the form provided as Exhibit RE.6 only,* provide the specified additional information *on the same projects* listed under 3.2.1.1(I) above.

3.2.1.2 Project Schedule, Costs, Other Items

On the form provided as Exhibit RE.6 only, provide all requested information. The Port reserves the right to contact any or all of the References provided at any time during the review and selection process.

3.2.1.3 Change Orders

Within the narrative of the Proposal, discuss change orders for each listed project, to include number of change orders, total amount of all change orders, and a *brief* explanation of the reason for the change orders.

3.2.1.4 Claims

Within the narrative of the Proposal, provide an explanation of any project claims that went to litigation and/or arbitration and their disposition.

3.2.1.5 CM/GC

On the form provided as Exhibit RE.6 only, specify projects completed under the Construction Manager /General Contractor form of contracting.

3.2.1.6 Key Staff Involvement

Within the narrative of the Proposal, identify those staff members (see § 3.2.2) who were involved in the project and will also be involved in this project should the Proposer be selected.

3.2.2 Staffing & Staff Qualifications

Identify key staff members (including anticipated Subcontractor-consultants, if applicable), specify their primary roles (i.e., Project lead, Associate, Support staff member, etc.) and, if applicable, the particular expertise each member provides (i.e., civil, structural, marine, etc.). Include resumés for each key staff that includes, at minimum, each individual's education, outline of work history, length of tenure with the firm, and prior work experience with similar projects.

3.2.3 Project Approach

Include a narrative description of your firm's approach to the following questions and/or issues with respect to Pier 2 West:

3.2.3.1 Value Engineering

Based on the basic infrastructure requirements of the new pier (i.e., size, purpose, etc.), propose any alternative design approaches that may maximize the quality, longevity, and utility of the rehabilitated pier, and explain why. If Option 2 (see Construction Documents, Exhibit RE.3) – or a variant thereof - is an alternative (or one of them), explain why Option 2 so maximizes.

3.2.3.2 Seismic

Your firm's response to below questions should be based on your proposed design solution(s) presented above in § 3.2.3.1.

For each design alternative, describe in detail your firm's proposal to solve the potential seismic issues: I) Describe your firm's proposed approach to seismic issues raised by your proposed design solution, including a) creative strategies employed in the past to address seismic codes while maintaining cost-effective design solutions, and b) identification of the Code, as well as the particular Standard within that Code, your firm reasonably anticipates to employ as the basis for the seismic elements and considerations of the design, as well as justification for such a choice; II) Describe how your firm's past experience with securing building permits will be employed in this Project to secure the needed permits in as short a time as possible, including a) any strategies/approaches your firm has employed in negotiating any challenges with smaller municipal building permitting/planning departments, and b) any unique approaches you may employ for this project to expedite the building permit plan review and permit issuance; III) discuss whether your firm has any experience working with the city of Astoria specifically; IV) discuss any potential constructability (i.e., technical structural issues; phasing issues to allow tenant operations to continue throughout construction; etc.) and/or procurement issues that your firm's proposed seismic solution raises and how your firm would address these issues; V) discuss in broad terms the cost implications of your firm's proposed seismic solution (i.e., rough order-of-magnitude cost increase accompanied by narrative/descriptive support).

3.2.3.3 Synthesis

Discuss whether and to what degree your firm's design approach/alternative (§ 3.2.3.1) addresses the questions and issues raised in § 3.2.3.2. Stated alternatively, how does the proposed design solution meet governing seismic code while minimizing cost, facilitating the successful and efficient procurement of building permits, and allowing tenant operations to continue to the maximum extent possible during construction?

3.2.4 Project Timeline

Include a project schedule that demonstrates the shortest feasible time under which your firm would be able to complete the remaining design work on the pier. The Port is aware that the selected design solution may differ from that contained with the Construction Documents; nevertheless, for purposes of this particular requirement only (§ 3.2.4), ***assume*** that the Port elects to proceed with Option 2 of the Alternatives Analysis (KPFF, 2021a). For purposes of this subsection only, therefore, base your time estimate on the hypothetical situation under which the Proposer must advance the [already completed] 30% design work to 100% completion.

In addition, discuss the feasibility of your firm's capability to meet or beat the engineering-related milestones in Exhibit RE.7 (i.e., only those milestones over which your firm would have greatest control).

4 Interview Information

At the Port's discretion, the Port may conduct interviews of the top-ranked proposer(s). Firms to be interviewed will be notified of the exact time and place for the interviews. The format of the interview will start with the firm's presentation, followed by a question-and-answer period. If invited, the Proposing Firm's key personnel (see Section 3.2.2) must be present at the interview.

The information obtained through the interviews will be evaluated as discussed in Section 6.3 below.

5 Evaluation Criteria

Proposals will be evaluated in accordance with the Oregon Attorney General's Model Public Contracting Rules and the criteria outlined in Addendum RA.1 (Selection Criteria).

6 Selection Process

6.1 Selection Timeline & Process

Addendum RA.2 (Selection Schedule) outlines the estimated schedule for the Selection Process. The Selection Schedule is a reasonable estimate of the time necessary to complete the selection process; however, the Port reserves the right to adjust the Selection Schedule as needed. Any adjustments will be posted on the Port's website; Proposers will not be individually notified.

6.2 Preliminary Competitive Range

Supplemented by any Clarifications requested by the Port, all Proposals will be evaluated in accordance with Addendum RA.1 (Selection Criteria) and assigned a relative rank based on the resulting score.

6.3 Interview and Competitive Range Finalization

Based on the initial ranking, top firms may be invited for an interview. If employed, the interview process will be used to supplement and clarify the information contained in the Proposal (but not to modify the Proposal). Initial rankings may be adjusted based on information obtained during the interview. Final ranking will be based on preliminary ranking, information obtained during the interviews, and results of reference checks.

6.4 Negotiation

Upon final ranking of Proposers, the Port reserves the right to either issue a Notice of Intent to Award, enter into serial negotiations (starting with the top-ranked Proposer), or enter into competitive simultaneous negotiations (see Addendum RA.3).

If at any time during negotiations, the Port, in its sole discretion, determines that negotiations are likely to be unsuccessful, the Port reserves the right to terminate negotiations with that particular Proposer.

6.5 Intent to Award and Protest

The Port will notify all Proposers in writing of its intent to award a contract to the selected Proposer. An affected Proposer shall have three (3) calendar days (see Addendum RA.2) from the date of the Notice of Intent to Award to file a written protest and specify the grounds for the protest. Protests must be delivered to the Port of Astoria via regular mail, hand-delivery, or email. The protest must contain, at a minimum, the following: Proposer's name and contact information; signature by an authorized representative; and the specific basis for the protest. The Port will respond to all timely submitted protests within a reasonable time and will issue a written decision to the respective Proposer.

7 Other Provisions

7.1 Proposer Own Expense

Proposers responding to this RFP do so solely at their own expense; the Port of Astoria is not responsible for any Proposer expenses that are in any way associated with this RFP.

7.2 Protests

Protest procedures will substantially conform to the procedures in OAR 137-048-0240.

7.3 Other Enterprises

The successful Proposer will be required to document good faith efforts in the solicitation of Disadvantaged, Minority-Owned, Women-Owned, Emerging Small Businesses, and Service-Disabled Veterans Business Enterprises (D/M/W/ESB/SDVBE), where applicable.

8 Addendum RA.1 Selection Criteria

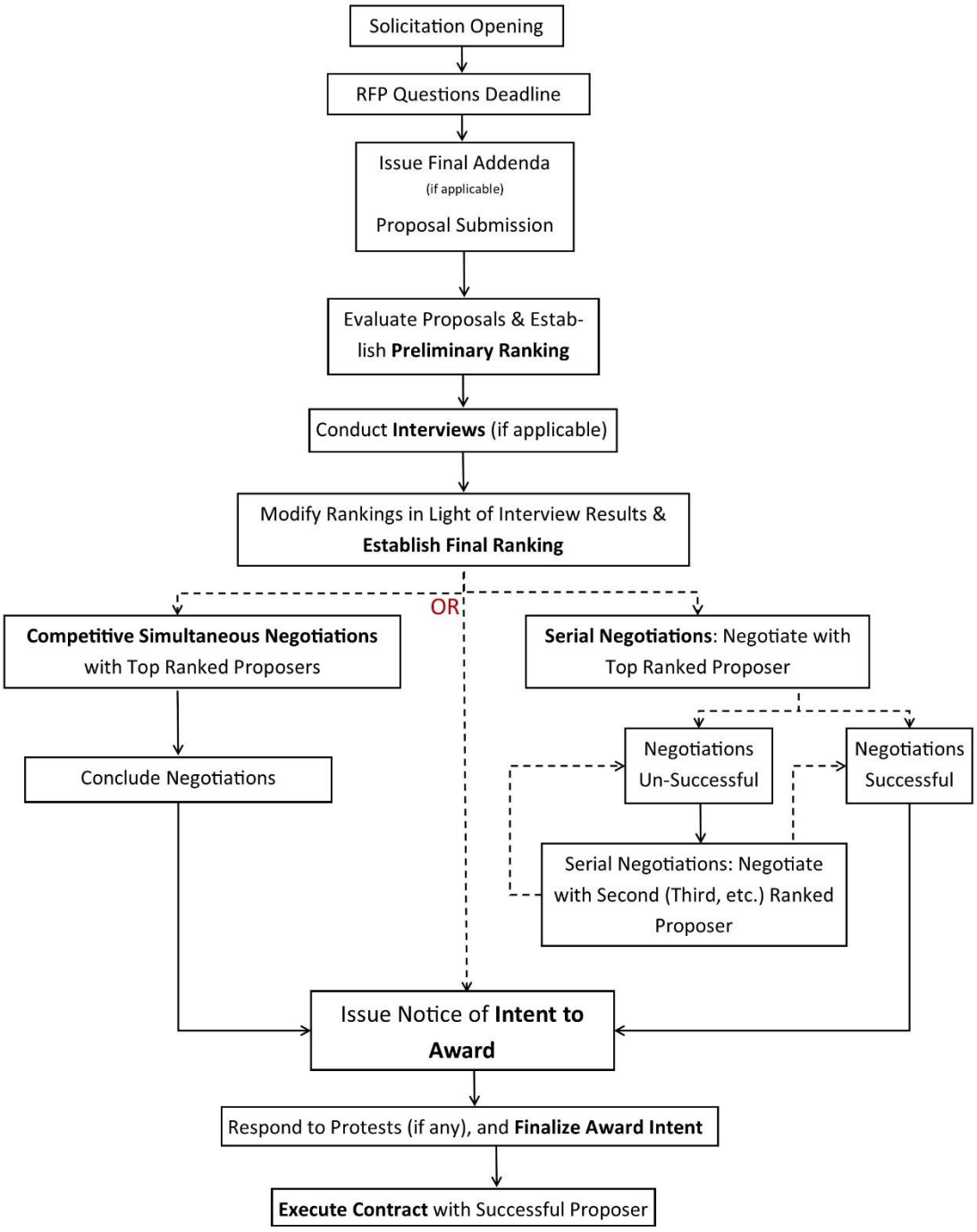
Request for Proposals	
Pier 2 West Rehabilitation Engineering	
Addendum RA.1 - Selection Criteria	
Project History	20%
Staffing and Staff Qualifications	20%
Project Approach	45%
Project Schedule	15%

9 Addendum RA.2 Selection Schedule

Request for Proposals - Port of Astoria Pier 2 West Rehabilitation Design & Engineering	
Addendum RA.2- Selection Schedule	
Milestone	**Estimated Date of Completion**
Issue RFP	6/2/2023
RFP Questions Deadline	6/16/2023
Proposal Submission Deadline	6/30/2023
Review Proposals & Determine Initial Ranking	7/7/2023
Interviews (if applicable)	7/14/2023
Update Firm Rankings based on Interview Results	7/17/2023
Issue Selection Notice	7/20/2023
Negotiate with Selected Firm	7/20/2023
Selection Protest Deadline	7/24/2023
Execute Agreement with Engineering Firm	7/26/2023

10 Addendum RA.3 Selection Process

Request for Proposals - Port of Astoria - Pier 2 West Rehabilitation - Engineering Services
ADDENDUM RA.3 - SELECTION PROCESS



11 Addendum RA.4

PROPOSER INFORMATION AND CERTIFICATION STATEMENT

The undersigned hereby acknowledges she/he has read and understands all requirements and specifications of the Request for Proposals (RFP), including all attachments of whatever type.

OFFICIAL CONTACT: The Port requests that the Proposer designate one person as authorized to receive, on behalf of the Proposer, all communication from the Port of Astoria regarding the attached Proposal. Identify the Contact name and fill in the information below. Please print clearly.

Legal Name of Proposer	
Address	
City, State, Zip	
State of Entity Registration	
Entity Type	
Contact Name	
Phone	
Email	
OR Business Registry No. (if applicable)	
Professional License / Certificate No. / Info	

By its submission of this Proposal and authorized signature below, Proposer certifies to the following:

1. (a) The above information is true and correct and Proposer grants permission to the Port of Astoria to contact the above-named person (Contact Name) to verify the information contained therein and for all other purposes in connection with the Proposal. (b) The information contained within the Proposal is true and accurate.

2. (a) The Proposal has been developed independently, without consultation, communication or agreement with any employee, agent, or consultant to the Port. (b) The Proposal has been developed independently, without consultation, communication or agreement with any other Proposer or other parties for the purpose of restricting competition or any other illicit purpose. (c) No attempt has been made or will be made by the Proposer to induce any other Proposer to submit or not to submit a Proposal for the purpose of restricting competition. (d) No relationship exists or will exist during the contract period between Proposer and the Port or any other State agency that interferes with fair competition or constitutes a conflict of interest.

3. (a) Proposer acknowledges receipt of any and all addenda, exhibits, or other attachments to this RFP. (b) Proposer understands and accepts the procedures, evaluation criteria, and other requirements of this RFP. (c) If selected for award of the contract, Proposer agrees to the contract terms contained within the Construction Manager/General Contractor Services Agreement (Exhibit RE.1), except for those terms and conditions that Port has reserved for negotiation.

4. (a) Proposal is a Firm Offer for 180 days following the Closing. (b) If selected for award of the contract, Proposer agrees to be bound by the rates and fees submitted with this Proposal, including but not limited to the Preconstruction Fee and Construction Fee Rate.

5. Proposer is not in violation of any tax laws of the state or a political subdivision of the state that are itemized in ORS 305.380(4).

6.
   (a) Proposer does not discriminate in its employment practices with regard to race, creed, age, religious affiliation, gender, disability, sexual orientation, national origin. When awarding subcontracts, Proposer does not discriminate against any business certified under ORS 200.055 as a disadvantaged business enterprise, a minority-owned business, a woman-owned business, a business that a service-disabled veteran owns or an emerging small business. If applicable, Proposer has, or will have prior to contract execution, a written policy and practice, that meets the requirements described in ORS 279A.112 (formerly HB 3060), of preventing sexual harassment, sexual assault and discrimination against employees who are members of a protected class. Agency may not enter into a contract with an anticipated contract price of $150,000 or more with a Proposer that does not certify it has such a policy and practice. See https://www.oregon.gov/DAS/Procurement/Pages/hb3060.aspx for additional information and sample policy template.
   (b) Proposer complies with ORS 652.220. If selected for award under this RFP, Proposer's continuing compliance with ORS 652.220 constitutes a material element of the contract entered into between Owner and Proposing Firm ("Agreement") and failure to comply constitutes a breach that entitles The Port to terminate the Agreement for cause.
   (c) The Proposing Firm may not prohibit any of Proposing Firm's employees from discussing the employee's rate of wage, salary, benefits, or other compensation with another employee or another person. Proposing Firm may not retaliate against an employee who discusses the employee's rate of wage, salary, benefits, or other compensation with another employee or another person.

7. Proposer and Proposer's employees, agents, and subcontractors are not included on:
   A. the "Specially Designated Nationals and Blocked Persons" list maintained by the Office of Foreign Assets Control of the United States Department of the Treasury found at: https://www.treasury.gov/ofac/downloads/sdnlist.pdf., or
   B. the government wide exclusions lists in the System for Award Management found at: https://www.sam.gov/portal/

8. Proposer certifies that, to the best of its knowledge, there exists no actual or potential conflict between the business or economic interests of Proposer, its employees, or its agents, on the one hand, and the business or economic interests of the Port, on the other hand, arising out of, or relating in any way to, the subject matter of the RFP. If any changes occur with respect to Proposer's status regarding conflict of interest, Proposer shall promptly notify the Port in writing.

9. Proposer understands that any statement or representation it makes, in response to this RFP, if determined to be false or fraudulent, a misrepresentation, or inaccurate because of the omission of material information could result in a "claim" {as defined by the Oregon False Claims Act, ORS 180.750(1)}, subject to the Oregon False Claims Act, ORS 180.750 to 180.785, and to any liabilities or penalties associated with the making of a false claim under that Act.

10. Proposer certifies that neither it, nor any of its principals, (a) have been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by a Federal Agency or State Agency; (b) have within a three year period preceding this Proposal been convicted of, or had a civil judgment rendered against them for commission of fraud, a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction, violation of antitrust statutes; commission of embezzlement, theft, forgery, falsification or destruction of records, making false statements, or receiving stolen property; (c) are presently indicted for or criminally or civilly charged by a government entity (federal, state, or local) with the commission of any of the offenses enumerated in this certification; and (d) have not within a three year period preceding this Proposal had one or more public transactions (federal, state, or local) terminated for cause. This certification is a material representation of fact upon which the Port will rely in entering into any contract with the Proposer ("Agreement"). If it is later determined that Proposer knowingly rendered an erroneous certification, in addition to other remedies available, the Port may pursue available remedies including suspension, debarment, or termination of the Agreement.

11. Proposer acknowledges these certifications are in addition to any certifications required under the Contract.

_____ _____

Authorized Signature Date

_____

(Printed Name and Title)

12 Addendum RE.2 Photos & Diagrams

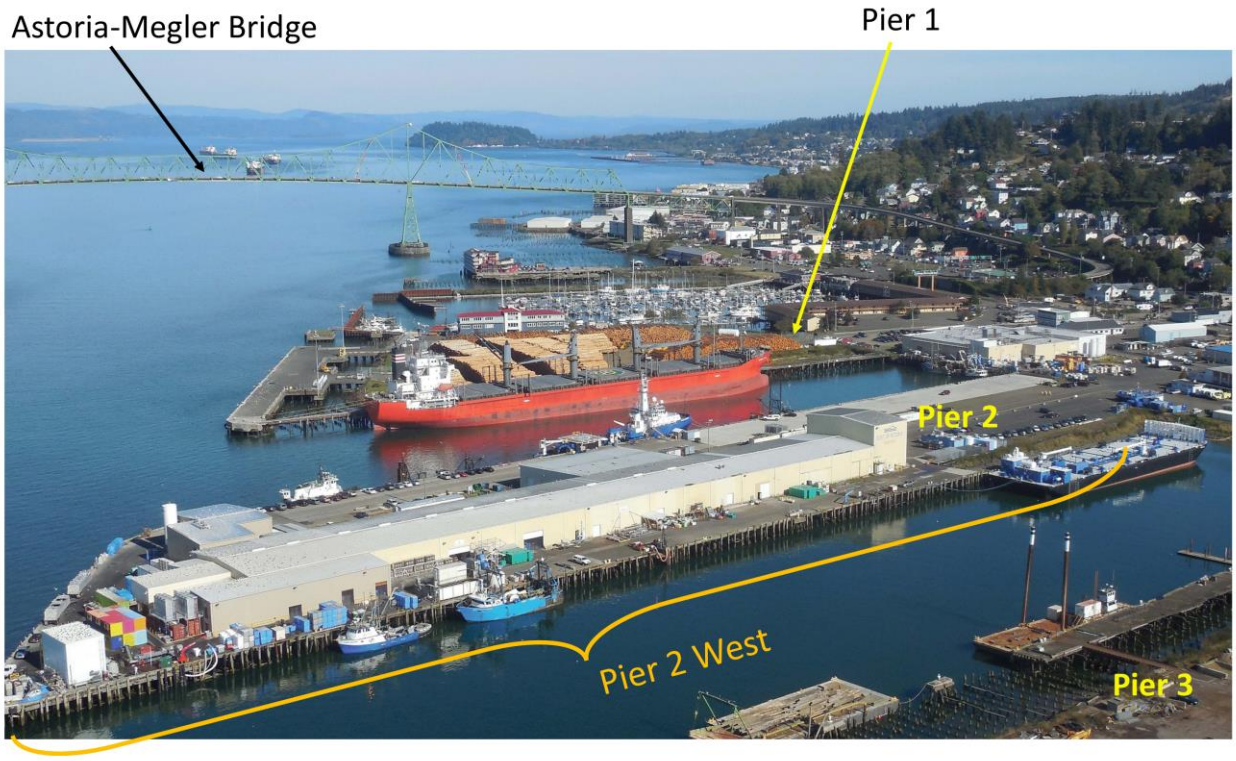


Diagram 1: Aerial View of Pier 2 West

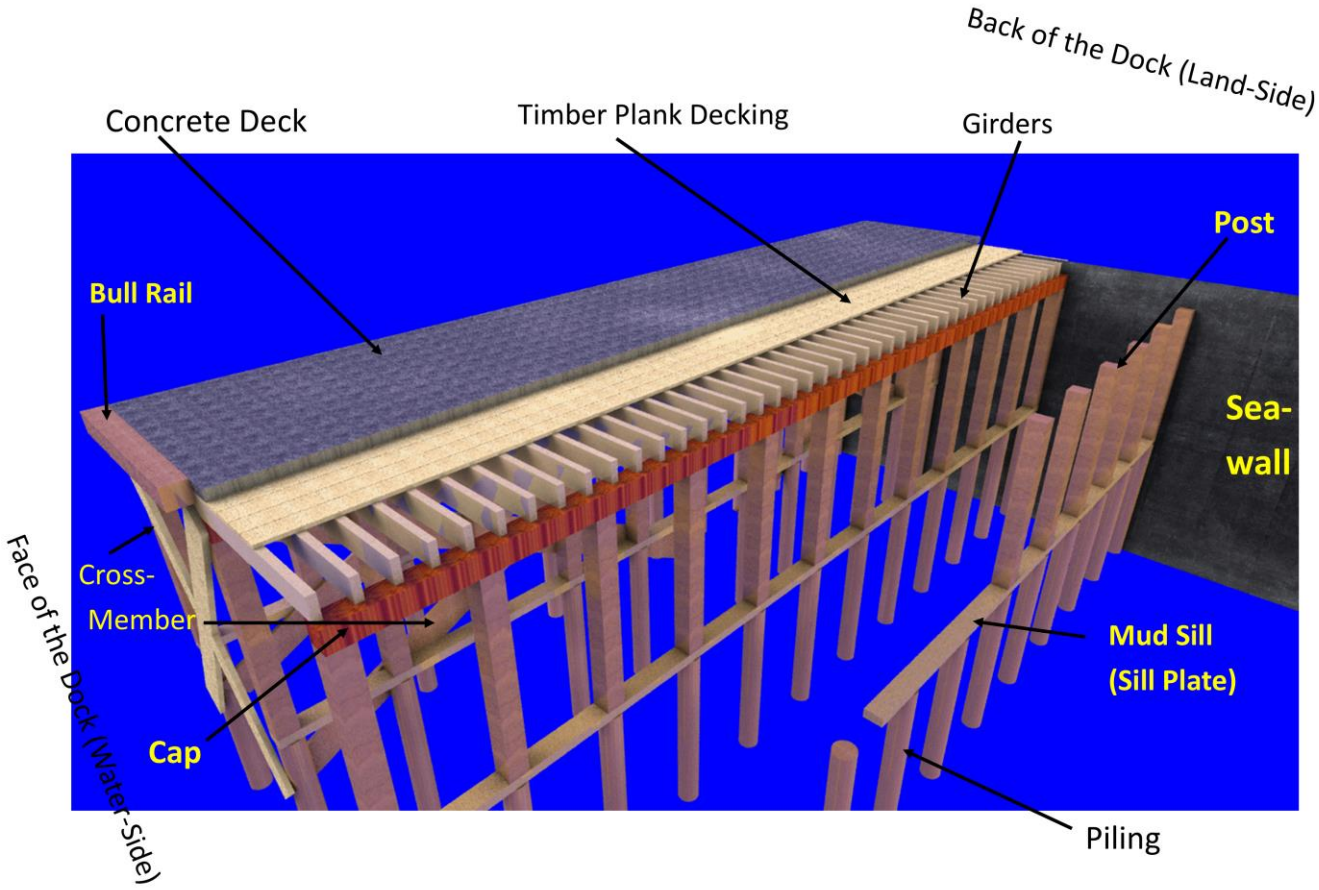


Diagram 2: Cut-Away View of Pier 2

This diagram is intended only to impart a general understanding of the Pier 2 West structure.
It is not to scale and is not based on engineering drawings.

13 Exhibit RE.3 Construction Documents

[files are located on the Port website]

RFP - Engineering - Pier 2 West Rehab - Construction Documents
Below Documents are Included in Exhibit RE.3
KPFF. (2021a). *Port of Astoria Pier 2 West Rehabilitation Alternatives Analysis Report.* KPFF Consulting Engineers, Inc. April 7, 2021.
KPFF. (2021e). *30% Design Drawings for Port of Astoria Pier 2 West Improvements Project* . KPFF Consulting Engineers, Inc. November 19, 2021.
KPFF. (2021g). *30% Design Narrative for Port of Astoria Pier 2 West Improvements Project* . KPFF Consulting Engineers, Inc. November 19, 2021.
Whittington, S. & Hoffman, M. (2019). *Structural Assessment of Port of Astoria Facility Pier 2 West.* KPFF Consulting Engineers, Inc. December 18, 2019.

14 Exhibit RE.6 Past Performance Table

[Located on the Port Website as a separate .xlsx file]

15 Exhibit RE.7 Project Schedule

Pier 2 West Rehabilitation	
Exhibit RE.7 - Major Project Milestones	
Milestone	**Estimated Date of Completion**
Issue RFP for Engineer	June-23
Proposal Preparation & Submission Deadline	June-23
Engineer Selection & Contract Execution	July-23
Determination of Major Design Elements	September-23
Design & Engineering - 30% (if necessary)	December-23
Completion of Mitigation Plan	January-24
Env. Permit Plan & Draft; Submit JPA	August-24
Design & Engineering - 60%	February-24
Design & Engineering - 90%	April-24
Permit Review; Secure Permits (inc. NEPA Review)	June-25
Phase 1 Completion	July-26
Phase 2 Completion	June-27
Phase 3 Completion	July-28
Final Project Completion	August-28

PORT OF ASTORIA
Engineering Services for Pier 2 Rehabilitation

June 30, 2023

Prepared For:

PORT OF ASTORIA

Port of Astoria
422 Gateway Ave., Suite 100
Astoria, OR 97103

Prepared By:

PND
ENGINEERS, INC.

3240 Eastlake Avenue E
Seattle, WA 98102

In Association With:
GeoEngineers
Appledore Marine
Harbor Power Engineers

P | N | D
ENGINEERS, INC.

Mr. Matt McGrath, Deputy Director
Port of Astoria
422 Gateway Ave., Suite 100
Astoria, OR 97103

June 30, 2023

Subject: **Engineering Services for the Pier 2 West Rehabilitation Statement of Qualifications**

Dear Mr. McGrath,

Pier 2 West is the Port of Astoria's first priority for capital investment for the short- and long-term economic health of your tenants and business interests.

PND Engineers, Inc. (PND) has over 40 years of port development experience including: facility planning, geotechnical and coastal engineering, mooring systems and analysis, structural analysis of docks and terminal buildings, site civil and utility design, and design of deep foundations and marine construction engineering. We would like to partner with the Port of Astoria to design a new Pier 2 West capable of supporting your current seafood production tenants and accommodating and expanding future uses while decreasing the overall amount of time and money you spend on maintenance.

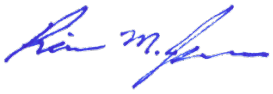
Our staff incorporates field experience and planning experience from concept design to project close-out, aligning port facility projects with cost effective solutions, meeting user demands both now and in the future. PND's planning services maximize each site's potential, provide innovative out-of-the-box solutions, and integrate features that reduce annual facility maintenance and impacts on the aquatic environment. Other related services include agency coordination, bid support, and construction administration.

Our project team is experienced with work on the Columbia River, in Astoria, and with a variety of marine facilities in various ecological and site conditions, including seismic resistance facilities. PND recently completed the Taiheiyo Berth 1-3 project which is very similar to your Pier 2 West Rehabilitation.

If you have any questions regarding our submittal, please contact me at 206.624.1387 or: rjohnson@pndengineers.com

Sincerely,

PND Engineers, Inc. | Seattle Office



Rian Johnson, P.E.*, S.E.**, Vice President | Principal-in-Charge

*Licensed Professional Engineer in Oregon
**Licensed Structural Engineer in Washington State, California, Massuchusetts, and Illinois.

3.2.1 PROJECT EXPERIENCE

3.2.1.1 PROJECT HISTORY

a. Relevant PND Marine-Related Projects from the Past 10 Years:

2023	Segment E, Waterfront Place Central, Port of Everett, WA
2022	Columbia River Carbonates, Spin Fin™ Piles, Tongue Point, OR
2021	Hyak Maritime, Astoria, OR
2019	Mill A Site, Waterfront Place Central, Port of Everett, WA
2018	Taiheiyo Cement, San Fernando, Philippines
2017	Mitchell Bay Bulkhead, Baytown, TX
2017	Foss Maritime Rainier Terminal, Rainier, OR
2017	Kotzebue Dock Repairs, Kotzebue, OR
2016	Alameda Open Cell Waste Isolation Barrier, Alameda, CA
2016	Jordan Cove LNG Marine Facilities, Coos Bay, OR

b. Project Descriptions

Segment E, Waterfront Place Central, Port of Everett | Everett, WA

SEAWALL / BULKHEAD
- YES

SEISMIC CONSIDERATIONS
- YES

PERMITTING PROCESS
- NO

OWNER
Port of Everett

COMPLETION DATE
TBD

PND STAFF
Jon Keiser, PE – PIC
Chris Wiest, PE – PM
Chris Fornace, PE – Structural Engineer

PND is leading a mutli-faceted design team (civil/ structural [PND], Geotechnical, and electrical) for redevelopment of the Segment E bulkhead wall- and pile-supported wharf at Port of Everett's Waterfront Place Central. The purpose of the project is to replace the deteriorating timber bulkhead and wharf while also bringing improved seismic performance to the site. As the site is adjacent to WSDOT SR 529, the bulkhead wall will be designed to AASHTO standards.

The proposed bulkhead wall is 165 feet long. The wall will be constructed in front of the existing timber bulkhead. The area 30 feet behind the new bulkhead face will have rigid inclusion ground improvements to limit the liquefied soil forces which are imparted on the bulkhead and seismic displacements at the site.

The proposed wharf will be approximately 3200 square feet. The wharf will consist of cantilevered steel pipe piles, steel pile caps, timber glulam stringers and timber decking. The wharf will be designed for pedestrian traffic and capable of supporting an AASHTO H10 Truck.

c. Wall Extent: Project is ongoing and in the design phase. Quantities are estimates and are a snapshot based on the current design:

Project includes a 165-foot-long cantilevered z-sheet bulkhead wall. Bulkhead wall will consist of 55-foot-long AZ 36-700 sheet piles. Piles will be driven 30-35 feet into the ground with an exposed height of approximately 21 feet. Bulkhead will be backfilled with gravel borrow; total volume of backfill is approximately 820 cubic yards.

d. **Seismic forces considered in the design of this project:** Permits are not in hand yet and the project is currently in the design phase. The bulkhead wall is being designed to AASHTO standards. Ground improvements will consist of approximately 4500 linear feet of rigid inclusions. Rigid inclusions are 2 feet in diameter and will be installed in an approximately 5000 square foot area behind the new bulkhead wall.

e. **PND's involvement in permitting:** PND provided JARPA drawings for the permitting efforts. Permitting efforts were handled by the client and their expert permitting consultants.

Columbia River Carbonates, Spin Fin™ Piles | Woodland, OR

SEAWALL / BULKHEAD
- NO

SEISMIC CONSIDERATIONS
- YES

PERMITTING PROCESS
- NO

OWNER
Columbia River Carbonates

COMPLETION DATE
Marine structures completed in Q1 of 2023

PND STAFF
Rian Johnson, PE – PIC
Brian Porter, PE – PM
Michael Merrill, EIT – Civil Engineer, Inspector

PND teamed with Advanced American Construction (AAC) to provide value engineering foundation solutions to the marine structures supporting the Columbia River Carbonates (CRC) facility on the Columbia River in Woodland, WA The original design of the dolphins was a drilled and tension anchored pile design by the prime engineer. The facility consisted of four (4) dolphins and a hoist tower, each on a steel pipe pile foundation. The hoist tower is supported by eight (8) piles, each of the two (2) breasting dolphins are supported by seven (7) piles each, and the two (2) mooring dolphins are supported by six (6) piles each, for a total of thirty-four (34) piles. PND was able to reduce the overall cost and schedule of the project by including SPIN FIN™ Pile Tips in the project design. This eliminated the need for traditional drilled and rock anchoring pile tips and saved the project significant time and allowed in-water work to be completed in one work season in the river.

c. **Wall Extent:** PND did not design a seawall/bulkhead wall for this project.

d. **Seismic forces considered in the design of this project:** No seismic improvements were necessary for the dolphin piles. The piles were

designed to resist seismic, liquefaction, and lateral spreading forces by engaging the underlying dense soil layers with a helical pile tip.

e. **PND's involvement in permitting:** PND was not involved in the permitting process for this project. However, PND's SPIN FIN pile tip design resulted in a much lower impact the environment than the drilled rock anchor design and helped streamline the permitting process for the marine structures.

Hyak Tongue Point Boat Hoist Facility | Astoria, OR

SEAWALL / BULKHEAD
- YES

SEISMIC CONSIDERATIONS
- YES

PERMITTING PROCESS
- NO

OWNER
Hyak Maritime, LLC

COMPLETION DATE
Early 2024

PND STAFF
Rian Johnson, PE – PIC
Chris Wiest, PE – PM
Chris Fornace, P.E. – Structural PM
Michael Merrill, E.I.T. – Structural Engineer

PND is the lead engineer on the design of the Hyak Mobile Boat Hoist Facility in Astoria, Oregon. The project is being developed as a design-build project with Bergerson Construction Incorporated (BCI) for Hyak Maritime, LLC. The project includes a 1500 metric ton, electrically-powered mobile boat hoist: the largest hoist of its kind in the U.S. The two-pile supported haul out piers are 230 feet long and 13 feet-width composed of steel pipe piles, steel girders, and a reinforced concrete deck. The shoreline abutment incorporates an OPEN CELL SHEET PILE™ Bulkhead to support the heavy-loads along the shoreline. The upland work area includes a heavy-lift pavement zone to support vessels and the large hoist, electrical upgrades, and stormwater improvements including bioswales which eliminate the need for mechanical treatment system for the stormwater.

c. **Wall Extent:** The project will include an OPEN CELL SHEET PILE™ bulkhead. The bulkhead is approximately 90 feet wide and 31 feet tall and is designed to resist to support the heavy hoist and seismic and liquefaction forces.

d. **Seismic forces considered in the design of this project:** The pile-supported finger piers and bulkheads were designed to resist seismic forces and seismic liquefaction and lateral spreading. PND utilized vibracompaction in the design of the OPEN CELL bulkhead to densify the soil behind the bulkhead.

e. PND's involvement in permitting: Marine permitting was coordinated by Campbell Environmental, LLC and PND provided permit drawings in support of their work.

Mill A Site, Waterfront Place Central, Port of Everett | Everett, WA

SEAWALL / BULKHEAD
- YES

SEISMIC CONSIDERATIONS
- YES

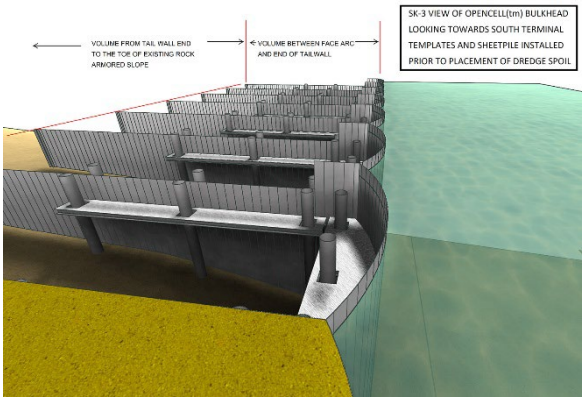
PERMITTING PROCESS
- NO

OWNER
Port of Everett

COMPLETION DATE
10/2016

PND STAFF
Mike Huggins, PE – PIC/PM
Jim Campbell, PE – Concept Development
Jon Keiser, PE – Planning
Ogetsu Terao, PE – Preliminary Engineering

SUBCONSULTANTS
GeoEngineers, Inc. – Geotechnical Investigation



PND provided preliminary design and cost estimates for the Port of Everett Mill-A cleanup/containment system bulkhead analysis. The goal of the project was to complete the initial effort to configure the bulkhead to meet the environmental objectives and provide a high-capacity marine terminal at conclusion of the work.

PND designed a preliminary layout for an OPEN CELL™ bulkhead and provided a detailed description of how this alternative would meet the functional environmental and operational project requirements identified by the Port or as identified in the project Basis of Design.

Work also included a summary of basic structural engineering design criteria and limitations for the alternative. PND summarized the pros, cons, and risks for design, construction, longevity, and maintenance of an OPEN CELL bulkhead based on anticipated terminal operations. PND also estimated the construction costs for the alternative, including inflation, direct and indirect costs, Washington State Sales Tax, and recommended contingency to reflect potential changes arising during construction.

GeoEngineers provided geotechnical engineering to assess slope stability and ground stabilization for all structural types. The assessment was made for the condition of a Controlling Level Event (CLE) earthquake, with corresponding Basis of Design (BOD) factors of safety. Work included identification of geotechnical uncertainty given the presence of wood waste and how this might affect design, construction, and operation of the bulkhead.

c. Wall Extent: The current project involves preliminary design of a bulkhead to be used as a Confined Disposal Facility of dredge spoils from the East Waterway at Port of Everett. The retained earth height is 60-feet of which the top 25 feet will be used as dredge disposal volume. The dredge elevation at the wall toe is -42, with top of work surface at +18.

The flatweb sheetpile elements of the Confined Disposal Facility bulkhead extend from the ground surface at elevation +18, and penetrate to elevation -65, in the local deposit known as Unit 4 / Dense sand. The retained face is anchored by a series of flatweb sheetpile "tailwalls"

extending inshore (into the retained side) a distance of roughly 80 feet. Approximately 120,000 cubic yards of contaminated dredge spoil will be disposed of within the capture area of the bulkhead.

d. Seismic forces considered in the design of this project: Seismic forces were considered in the design of this project:

GeoEngineers provided geotechnical engineering to assess slope stability and ground stabilization for all structural types. The assessment was made for the condition of a Controlling Level Event (CLE) earthquake, with corresponding Basis of Design (BOD) factors of safety. Work included identification of geotechnical uncertainty given the presence of wood waste and how this might affect design, construction, and operation of the bulkhead.

i) The type of improvements employed

Given the high seismicity of the Pacific Northwest, a portion of the soil in the capture area behind the bulkhead will be treated with ground improvement techniques (similar to stone columns) to stabilize soil layers and prevent liquefaction. Upper surface layers of disposed dredge sediment will not be subject to ground improvement.

i) Extent of work (i.e., quantities);

The considerations for ground improvement will require treatment of 100,000 to 120,000 cubic yards of liquefaction susceptible soils. The steel quantities for the bulkhead can be expressed as roughly 5,950 tons of flatweb sheetpile classic to cellular construction. The noted tonnage equates to roughly 3,500 sheetpile and connecting elements to be driven into the sea-bed.

ii) Name of the government entity that issued the permit and reviewed the seismic component of the project,

Final permits for the project and design review are pending from the Port of Everett, and the City of Everett.

iv) industry standard source for the seismic design.

The seismic design will be governed by the guidance from the American Society of Civil Engineers Standard, ASCE 61-23 for design of marine/ waterfront structures.

e. PND's involvement in permitting: Environmental permitting for this project is being provided by the prime consultant (GeoEngineers) on behalf of the Port of Everett, and the stakeholder parties as part of the EPA Agreed Order for Environmental Clean-up.

Taiheiyo Cement | Cebu Island, San Fernando, Philippines

SEAWALL / BULKHEAD
- YES

SEISMIC CONSIDERATIONS
- YES

PERMITTING PROCESS
- NO

OWNER
Taiheiyo Cement

COMPLETION DATE
TBD

PND STAFF
Rian Johnson, PE – PIC
Chris Fornace, PE – PM
Ogetsu Terao, PE – Structural Design & Construction Support
Brian Porter, PE – Structural Design

SUBCONSULTANTS
GeoEngineers, Inc. – Geotechnical Evaluation

PND designed a 220-meter-long OPEN CELL SHEET PILE™ (OCSP) bulkhead along the alignment of Berths 1, 2, 3, and 4 to reinforce the existing quay. The bulkhead creates a vertical face at the berthing face of the cement dock. The top elevation of the dock is +3.2 m MLLW to match the existing dock, and the bulkhead's exposed face extends to a maximum depth of -8.0 m MLLW to allow ample underkeel clearance for the design vessels. PND also provided construction support for the bulkhead project, which was completed in August 2020.

PND is also designing a new 21-meter by 150-meter-long pile-supported jetty platform with dolphins. The jetty will include a trestle foundation and an access bridge between the jetty platform and existing quay.

Work also included a value engineering concept design for the Echo Beach Modification project, which will reinforce the existing Echo Beach concrete pier for seismic stability and add a new a barge ramp using an OPEN OCSP bulkhead. Echo Beach is an expansion jetty in front of the existing quay. The OCSP with the selected alternative after comparing costs and construction methods with tied-back z-sheet wall with an A-frame deadman anchor support.

c. Wall Extent: OCSP Seawall

1. Lengths: Berths 1-3 = 220m, Alpha Beach = 40m, Echo Beach = 90m
2. Design Heights: Berths 1-4 = 11.5m, Alpha Beach = 7m, Echo Beach = 13.5m
3. Backfill: Berths 1-4 = 10,000m^3, Alpha Beach =2,000m^3, Echo Beach = 7,000m^3

d. Seismic forces considered in the design of this project: PND incorporated the seismic design for the facility based on a site-specific seismic analysis.

i. The granular soils behind the bulkhead were vibrocompacted to densify the soils to prevent seismic liquefaction within the capture area of the bulkhead.

ii. Total new wall length: 350m (1,100 feet)

iii. Philippines Port Authority (PPA)

iv.
- Engineering Standards for Port and Harbor Structures March 2009
- Design Manual for Port and Harbour Facilities in the Philippine Ports Authority 1995
- National Structural Code of the Philippines 2015, Volume 1

e. PND's involvement in permitting: All permits were handled by the owner.

Mitchell Bay Bulkhead | Baytown, TX

SEAWALL / BULKHEAD
- YES

SEISMIC CONSIDERATIONS
- NO

PERMITTING PROCESS
- NO

OWNER
ExxonMobil

COMPLETION DATE
2019

PND STAFF
Wade Lundberg, PE – PIC/PM

PND led the design of sediment containment bulkhead located in Mitchell Bay in support of a larger sediment remediation project. PND was a subcontractor to Tetra Tech who is managed the overall project for ExxonMobil. The Mitchell Bay bulkhead supports dredging of contaminated soils to a depth of 22 feet while allowing on-site containment of the stabilized dredged material.

The design selected for this bulkhead facilitated the placement of the material by eliminating horizontal bracing and tie rods. Future use may include using the bulkhead for barge loading activities.

Construction was completed in early December 2019. This project demonstrates PND's ability to design coastal structures in challenging soil conditions while addressing stringent environment requirements. Careful consideration of the project progress through completion, including portions to be completed by others and in the future, also allowed for project savings and reduced risk. PND completed this design on time and on budget.

c. Wall Extent: The Mitchell Bay Bulkhead design used PND's patented OPEN CELL SHEET PILE technology, which is a cellular sheet pile type structure. The bulkhead is approximately 670 feet long. The exposed face height of the bulkhead from mudline to the top-of-wall is approximately 30 feet, with the top 11.5 feet being above MLLW. 87% of the maximum sheet pile tip elevations are at -38' MLLW, and 13% are at -53' MLLW. The 23,000 CY of fill is a mixture of stabilized dredge spoils and sand fill.

d. Seismic forces considered in the design of this project: The location of the Mitchell Bay Bulkhead is not considered a seismically active area.

e. PND's involvement in permitting: The owner (ExxonMobil) managed and completed the permitting process.

Foss Maritime Rainier Terminal | Rainier, OR

SEAWALL / BULKHEAD
- YES

SEISMIC CONSIDERATIONS
- YES

PERMITTING PROCESS
- NO

OWNER
Foss Maritime

COMPLETION DATE
05/2014

PND STAFF
Todd Belsick, PE – PM
John Olson, PE – Structural Engineer
Gary Watters, PE – Civil Engineer

SUBCONSULTANTS
Harbor Power Engineers – Electrical Engineering

PND provided project management, geotechnical review, final design, and construction support for a new OPEN CELL™ load-out bulk-head at the Foss Maritime Rainier Shipyard in Oregon. The new bulkhead expanded the crowded ship-yard into the Columbia River by 80 feet and increased the size of the shipyard by approximately 12,000 square feet. The bulkhead utilizes PND's patented OPEN CELL bulkhead system, featuring a robust design and simple installation. The new bulkhead will be used for fabrication of ships and load-out of large vessels. Construction of the bulkhead was completed in 2013, and the site paved in 2014.

PND initially provided design and inspection services for development of an upland site at the shipyard. The project included filling and paving a previously undeveloped portion of the property along the Columbia River and installing utilities and a stormwater treatment system. Due to unfavorable natural topography below flood levels, PND designed a 250-foot-long lock-block retaining wall around the entire site and raised the grade.

c. Wall Extent:
Wall length = 150 ft
Wall height = 35 ft
Max sheetpile driven depth = 55 ft
Volume of backfill = 9,000 cu yds

d. Seismic forces were considered in the design of this project:

i. Seismic criteria included an OLE (operating level earthquake) with peak ground acceleration of 0.1g, and a CLE (contingency level earthquake) with peak ground acceleration of 0.16g

ii. Columbia County, OR was the jurisdiction who reviewed the permit for seismic criteria.

The American Association of Highway and Traffic Officials Standard Bridge Design Specification was used to develop the seismic forces at the facility.

e. PND's involvement in permitting: PND supported the permitting process for the sheet pile wall by developing the JARPA drawings and supporting the permitting process with technical information on the design and construction methods.

Kotzebue Dock Repairs | Kotzebue, AK

SEAWALL / BULKHEAD
- YES

SEISMIC CONSIDERATIONS
- YES

PERMITTING PROCESS
- YES

OWNER
Crowley Fuels LLC

COMPLETION DATE
October 2020

PND STAFF
Dempsey Thieman, PE – PIC
Chip Courtright, PE – PM

PND provided emergency repair services to Crowley Maritime Corporation in 2017 to replace Crowley Fuels' dock in Kotzebue, Alaska. Scour at the dock was undermining the existing tied-back sheet pile bulkhead, and numerous areas of sheet pile were failing from corrosion and historical damage. PND assessed conditions, determined erosion mechanisms, and implemented an emergency repair that allowed Crowley to continue using the bulkhead and complete the very short season with minimal interruption to operations.

For the permanent repair, PND developed an alternatives analysis for repairing or replacing the existing bulkhead. A new PND-proprietary OPEN CELL SHEET PILE™ bulkhead was determined to be the lowest cost alternative while providing deeper draft and increased dock space for safe handling and storage, among other benefits. New sheet pile was installed seaward of the existing dock, enveloping the old dock and eliminating the need for costly demolition or disturbance of the existing dock. Work was sequenced such that dock operations would not be affected. A number of other improvements were made to potable water, shore power, dock lighting, fendering, and mooring. The project was recently completed within planned budget and schedule.

c. Wall Extent: The project included a new OCSP bulkhead that was designed to encapsulate an existing failing tied-back z-sheet wall. The new bulkhead is nominally 650-ft in length, constructed with 40-ft length face flat web sheet pile embedded approximately 20-ft into the seabed. OCSP structures consist of interconnected curved face cells restrained by vertical tailwall anchors. The new cells were offset from the existing structure with sufficient distance to allow installation of the restraining tailwalls. Approximately 12,500 cubic yards of fill were required to backfill the new structure.

d. Seismic forces were considered in the design of this project: The new dock was designed for anticipated seismic hazards and performance requirements per USACE EM-1110-2-2503 "Design of Sheet Pile Cellular Structures Cofferdams and Retaining Structures". Seismic forces are resisted by the length and embedment of the vertical tailwalls which were sized to provide internal and global stability. No additional seismic improvements were employed or necessary. There was no government entity responsible for reviewing the design or issuing construction permits outside of environmental permits.

e. PND's involvement in permitting: PND was responsible for comprehensive permitting for the project including USACE Section 10/404 permits with interagency consultations, NOAA/NMFS MMPA Incidental Harassment

Authorization, Alaska Department of Fish and Game permits, USFWS Section 7 ESA consultation, and ADEC Section 401 and drinking water permits.

Alameda Open Cell Waste Isolation Bulkhead | Alameda, CA

SEAWALL / BULKHEAD
- YES

SEISMIC CONSIDERATIONS
- YES

PERMITTING PROCESS
- NO

OWNER
Naval Facilities Engineering Command, Southwest Division

COMPLETION DATE
2014

PND STAFF
Bill Gunderson, PE – PIC
Mike Huggins, PE – PM
John Olson, PE – Structural Engineer

PND provided preliminary design, geotechnical engineering, final design, and construction support services for a Waste Isolation Bulkhead (WIB) at the former Naval air station at Alameda Point on San Francisco Bay. The WIB is an approximately 1,240-foot OPEN CELL™ Confined Disposal Facility located on the western shoreline. The bulkhead serves to contain contaminated ash and burn waste material that was bulldozed into the bay around 60 years ago and was covered in silt. PND provided engineering services to AMEC Environment & Infrastructure, who has a contract with the Navy for base cleanup at this contaminated Superfund site.

Preliminary design included a liquefaction and lateral spreading analysis, cathodic protection design, cost estimates for materials and construction, and engineering support for preparation of the feasibility study report. PND also provided an assessment of sheet pile permeability for the report, which evaluated the hydraulics and provided recommendations for input to the groundwater flow numerical model.

Design services included preparation of a Design Document Report (DDR), coating specifications, and final design. PND also provided on-site observation of fabrication and construction of the OPEN CELL WIB, review of contractor submittals, and engineering support during construction. Construction was completed in December 2014.

The project won the 2014 Chief of Naval Operations Environmental Award for Naval Air Station Alameda Environmental Restoration. The formerly contaminated site is now suitable for passive recreational use.

c. Wall Extent: The United States Navy and their consultant Foster Wheeler made the determination that the remedial action objective for the isolation and restoration effort at the site would be to “prevent release of waste into San Francisco Bay”.

The remedial action objective recognized that, based on the seismic geotechnical conditions at the site, the magnitude of lateral spread as a result of soil liquefaction under the captured waste would be on the order of 20 feet.

As a result, the PND proposed solution of a Waste Isolation bulkhead was developed with specific analysis of lateral spreading at the site, and anchoring the bulkhead in the stable sand merit sand deposits underneath the ubiquitous By Mud. The total length of the bulkhead to capture the identified waste is 800 liner feet along the North west corner of the previous runway at the Naval Air Station.

The flatweb sheetpile elements of the isolation bulkhead extend from the ground surface at elevation +10, to elevation -35, in the local deposit

known as Merit Sand. The retained height of contaminated material is a maximum of 12-feet, and approximately 3,000 cubic yards of rubblized (contaminated) concrete used to fill behind the retaining face.

d. **Seismic forces were considered in the design of this project:** The PND bulkhead type is configured using a series of connected retaining arcs like a classic cellular sheetpile structure. Anchoring of the retaining face arc is achieved by virtue of large area sheetpile "tailwalls" (like mechanical stabilized earth fabric) withing the capture volume of retained soil.

   i. No ground improvement was necessary, in spite of extensive lateral spreading risk, given that the provided retaining structure is capable of enduring substantial movement and distortion without loss of structural integrity.

   ii. The structure is comprised of 670 individual flatweb sheetpile, and 40 bespoke elements necessary to connect the retaining arc and tail wall assemblies.

   iii. The design was reviewed internally by Foster Wheeler, the environmental consultant to the United States Navy

   iv. The seismic design was based on application of the United States Army Corps "Design of Cellular Sheet Pile Structures, Cofferdams and Retaining Structures" EM_1110-2-2503, with factors of safety in accordance with the EM standard, and/or guidance from the Remedial Action Objectives established by the Foster Wheeler Geotechnical Feasibility Report.

e. **PND's involvement in permitting:** Environmental assessment/permitting for the Waste Isolation Bulkhead was provided by Foster Wheeler Company as a subconsultant to the United States Navy.

Jordan Cove LNG Marine Facilities | Coos Bay, OR

SEAWALL / BULKHEAD
YES

SEISMIC CONSIDERATIONS
- YES

PERMITTING PROCESS
- NO

OWNER
KBJ

COMPLETION DATE
04/2019

PND STAFF
Jon Keiser, PE – PIC
Carl McNabb, PE – PM
Jim Campbell, PE – Geotech/Coordination
Design: John Olson, PE; Brian Porter, PE; Chris Fornace, PE; Chase Castona, PE

SUBCONSULTANTS
GeoEngineers, Inc. – Seismic

PND initially provided preliminary design for OPEN CELL™ bulkhead wall structures at a proposed LNG export facility in North America. The proposed bulkhead structures for the LNG Berth, West Berth, and Barge Berth would be up to 80 feet tall and approximately 4,000 feet in combined length. PND also provided coordination with other designers for the dredging, fender and mooring systems, and unloading platform. Preliminary design was completed in 2014.

PND subsequently provided FEED-level engineering services for the proposed LNG marine facilities, which will consist of OPEN CELL SHEET PILE™ bulkheads in a dredged harbor to create a berthing basin for a Qmax LNG carrier. The bulkheads are intended to retain surrounding soils and support a product-loading platform and also meet the stringent seismic design criteria.

An early-stage Material Offloading Facility (MOF) would be located adjacent to the proposed basin and used for bringing in heavy modules for gas conditioning, liquefaction trains, and other electrical equipment. The MOF design consists of an OPEN CELL SHEET PILE bulkhead that would support the weight of a 750-ton Liebherr crane with a 500-kip load. The face of the MOF would be 450 feet long and situated in 45 feet of water at low tide. The MOF would support both RO-RO and LO-LO trans-loading operations.

During FEED, PND developed a construction sequence, estimated material quantities, and prepared permit documents for the FERC application. PND also assisted with conducting a test-pile program in the field to demonstrate the drivability of pile installation in the dense in-situ soils. FEED engineering services were completed in 2017.

In 2018 PND updated the Basis of Design and FEED-level engineering for the LNG Berth, Material Offloading Facility (MOF), and West Layby Berth. The OPEN CELL™ bulkhead layout submitted in the FERC permit application was updated to a FEED level of detail. PND also updated the MOF design and confirmed the existing layout, fender system, and mooring system. The mooring procedure was analyzed for four arrangements of anticipated vessels and mooring configurations.

PND also prepared FEED design for a Temporary Material Barge Berth (TMBB), a modular concrete block bulkhead for RO-RO offloading. The TMBB was designed to provide feasible access and initial material off-loading. Mooring piles, fenders, bollards, and other aids for safe berthing were included. PND used Optimoor® software to perform a mooring analysis for the TMBB. In addition, PND prepared FEED design of the planned Tug Berth, a concrete,

pile-supported structure with an access trestle to the West Layby Berth. The planned Tug Berth will also have concrete floats with two boat houses to support six security vessels.

Work included review of the Dredge Material Management Plan (DMMP) and design for slope and scour protection. GeoEngineers provided verification that the sheet pile bulkheads met the ASCE 7-10 seismic design criteria. Glosten assisted PND with estimates of the water velocities from tidal action, currents, wind-generated waves, and prop wash from tugs.

FEED engineering updates and design were completed in April 2019.

c. **Wall Extent:** The project as proposed consisted of a sheet pile bulkhead with an exposed wall height of 80 feet, in which the finished grade was situated 34 feet above MLLW to withstand tsunami rise. The dredge depth was 46 feet below MLLW to accommodate ocean-going LNG carriers. The OPEN CELL structure was designed so that the equipment on the surface would withstand the maximum considered earthquake (MCE). Finite element analysis was performed to estimate the deformations that would occur during the MCE. The backfill material needed to build up the finished grade would be taken from the dredge basin excavation.

d. **Seismic forces were considered in the design of this project:** The project was required to be designed to the Seismic Design Guidelines promulgated by the Federal Energy Regulatory Commission (FERC). Other design criteria originated from ASCE 7 and USACE Design Manuals. The LNG bulkhead was 1300 feet long and required 6400 tons of steel. The bulkhead was reinforced by sheet pile tailwalls approximately 100 feet long.

e. **PND's involvement in permitting:** PND provided preliminary design drawings to the owner for permitting purposes.

3.2.1.2

SEE FORM RE.6: Page 14a

Exhibit RE.6 - Past Performance Table

PND Engineers Project Name	Contact Info / References			Project Location	Project Completion Date	Back Filled Seawall Metrics (if applicable)				Project Costs				Schedule		CM/GC Project?
	Owner (Entity) Name	Contact Person	Phone			Length	Overall Height	Volume of Backfill	Design Life (Years)	Project *Construction* Cost (Actual)	Pre-Construction Estimated *Construction* Cost	Pre-Construction Design & *Engineering* Cost Estimate	Post-Construction *Actual Design & Engineering Cost*	Pre-Engineering Estimate of Time	Actual Time	
Segment E, Waterfront Place Central	Port of Everett	Brandon Whitaker, Waterfront Place Project Manager	425.388.0613	Everett, WA	Ongoing	165 feet	21 feet	820 CY	50	N/A	$3.9MM	$373,960	N/A	Not defined	N/A	No
Spin Fin™ Pile Installation	Columbia River Carbonates	Evan Clemson, Vice President	503.445.9000	Woodland, WA	2023	N/A	N/A	N/A	Not Defined by Prime Consultant	N/A	N/A	$40,000	$90,000. Design on budget. Addition includes pile driving inspection	1 month	1 month	No, Design-Build
Tongue Point Travelift	Hyak Maritime	Greg Morrill, PM: Bergerson Construction	503.325.7130	Astoria, OR	Ongoing	90 feet	31 feet	None	50	N/A	$20MM	Time & Expenses	N/A	6 months	6 months	No Design-Build
Mill A Site, Contaminated Dredge Disposal	Port of Everett	Erik Gerking, Environmental Manager	425.388.0613	Everett, WA	Ongoing	1300 feet	54 feet	201,500 CY	80	N/A	$65MM	$71,000	In Development	28 months	12/2015-10/2016	No
Taiheiyo Cement Marine Facilities	Taiheiyo Engineering Corporation	Ryo Yamamoto, Project Manager	03.5639.6078	Cebu Island, Philippines	2021	720 feet	37 feet	9,200 CY	30	$12M	$12M	$330,000	$330,000	3 months	3 months	No
Mitchell Bay Bulkhead	ExxonMobil	Steve Delhomme, Project Manager	832.541.7714	Baytown, TX	2019	670 feet	30 feet	23000 CY	50	$4MM (est)	$3.7MM	$73,005	$113,185	16 weeks	8/2017-11/2018	No
Foss Maritime's Rainier Terminal	Foss Maritime	Gene Henley, Director of Shipyards	206.270.4888	Rainier, OR	2014	250 feet	35 feet	9,000 CY	50	$1,810,000	$1.85MM	$178,000	$298,671	9/2013-04/2014	09/2012-05/2014	No
Kotzebue Dock Repair & Replacement	Crowley Fuels LLC	Jed Dixon, Project Manager	907.317.0206	Kotzebue, AK	2020	650 feet	27 feet	12500 CY	30	$4.4MM	$4.2MM	5.0MM	$691,868	6/2019-9/2020	10/2019-10/2020	No
Alameda Open Cell Waste Isolation Bulkhead	Naval Facilities Engineering Command, Southwest Division	Peter Guerra, Senior Project Manager	505.796.7291	Alameda, CA	2014	1,240 feet	13 feet	3,000 CY	Indefine with monitoring and coating repairs	$8MM	$13.8MM	$917,376	$917,376	24 months	03/2012-12/2014	No
Jordan Cove LNG Marine Facilities	Jordan Cove LNG	Robert Elliott: Kiewit	913.458.7004	Coos Bay, OR	2019	4,000 feet	80 feet	N/A	75	N/A	Precontruction costs not finalized	Not constructed, Design & Engineering Cost: $1,967,435	N/A	Feed Design: 15 months 36 months 18 months	Multiple contracts: 03/2013 – 06/2014 03/2014 – 09/2017 10/2017 – 04/2019	No, Design-Build

3.2.1.3 CHANGE ORDERS

Year	Project	Change Orders
2023	Segment E, Waterfront Place Central, Port of Everett, WA	No, Design is ongoing
2022	Columbia River Carbonates, Spin Fin™ Piles, Tongue Point, OR	No
2021	Hyak Maritime, Astoria, OR	None to date
2019	Mill A Site, Waterfront Place Central, Port of Everett, WA	No, Design is ongoing
2018	Taiheiyo Cement, San Fernando, Philippines	No additional changes. The original design was extended to encapsulate the existing bulkhead after the original wall failed after Typhoon Rai.
2017	Mitchell Bay Bulkhead, Baytown, TX	PND had two change orders. The first was a $55,000 change order for additional fabrication inspection due to quality issues in owner-supplied material. The second was a $32,000 redesign change order for change of condition in as-found geotechnical data, from a prior geotechnical investigation
2017	Foss Maritime Rainier Terminal, Rainier, OR	No
2017	Kotzebue Dock Repairs, Kotzebue, AK	Two change orders were issued during construction for a total of $175,000. Both change orders were to mobilize and provide an additional crane for construction due to the Owner-provided crane being inoperable.
2016	Alameda Open Cell Waste Isolation Barrier, Alameda, CA	No
2016	Jordan Cove LNG Marine Facilities, Coos Bay, OR	No, FEED-level design developed only

3.2.1.4 CLAIMS

2023	Segment E, Waterfront Place Central, Port of Everett, WA	No, Design is ongoing
2022	Columbia River Carbonates, Spin Fin™ Piles, Tongue Point, OR	No
2021	Hyak Tongue Point Mobile Hoist Facility, Astoria, OR	No
2019	Mill A Site, Waterfront Place Central, Port of Everett, WA	No, Design is ongoing
2018	Taiheiyo Cement Berth 1-3, San Fernando, Philippines	No claims on OCSP. Contractor released from project after supplying undersized equipment on multiple occasions to support subsequent pile-supported phases of the work. All claims have resolved without implication to the design.

2017	Mitchell Bay Bulkhead, Baytown, TX	No
2017	Foss Maritime Rainier Terminal, Rainier, OR	No
2017	Kotzebue Dock Repairs, Kotzebue, AK	No
2016	Alameda Open Cell Waste Isolation Barrier, Alameda, CA	No
2016	Jordan Cove LNG Marine Facilities, Coos Bay, OR	No, FEED-level design developed only

3.2.1.6 KEY STAFF INVOLVEMENT

2023	Segment E, Waterfront Place Central, Port of Everett, WA	Jon Keiser, PE – PIC Chris Wiest, PE – PM Chris Fornace, PE – Structural Engineer
2022	Columbia River Carbonates, Spin Fin™ Piles, Tongue Point, OR	Rian Johnson, PE – PIC Brian Porter, PE – PM Michael Merrill, EIT – Civil Engineer
2021	Hyak Maritime, Astoria, OR	Rian Johnson, PE – PIC Chris Fornace, PE, PM Structural Will Thompson, EIT, PM Civil Engineer Chris Wiest, PE – Civil Engineer Michael Merrill, EIT – Structural Engineer
2019	Mill A Site, Waterfront Place Central, Port of Everett, WA	Mike Huggins, PE – PIC/PM Jim Campbell, PE – Concept Development Jon Keiser, PE – Planning Ogetsu Terao, PE – Preliminary Engineering
2018	Taiheiyo Cement, San Fernando, Philippines	Rian Johnson, PE – PIC Chris Fornace, PE – PM Structural Ogetsu Terao, PE – Structural Design & Construction Support Brian Porter, PE – Structural Design
2017	Mitchell Bay Bulkhead, Baytown, TX	Wade Lundberg, PE – PIC/PM
2017	Foss Maritime Rainier Terminal, Rainier, OR	Todd Belsick, PE – PM John Olson, PE – Structural Engineer Gary Watters, PE – Civil Engineer
2017	Kotzebue Dock Repairs, Kotzebue, AK	Dempsey Thieman, PE – PIC Chip Courtwright, PE – PM
2016	Alameda Open Cell Waste Isolation Barrier, Alameda, CA	Bill Gunderson, PE – PIC Mike Huggins, PE – PM John Olson, PE – Structural Engineer
2016	Jordan Cove LNG Marine Facilities, Coos Bay, OR	Jon Keiser, PE – PIC Carl McNabb, PE – PM Jim Campbell, PE – Geotech/Coordination Designer: John Olson, PE Brian Porter, PE Chris Fornace, PE Chase Castona, PE

3.2.2 STAFFING & STAFF QUALIFICATIONS

RIAN JOHNSON, P.E., S.E., LEED AP | PRINCIPAL STRUCTURAL ENGINEER

Project Role: **Principal in Charge**

Mr. Johnson is a structural engineer specializing in marine construction, design, engineering, and administration. He has 20 years of experience in various areas of the engineering industry, including engineering consulting and public works. His recent work includes project management, on-site construction administration, marine facility design, deep foundations analysis, and project management. Specialized skills include structural analysis and design, weld and pile driving inspection, and contract administration. He has worked on all aspects of engineering for ports, harbors, marine facilities, bridges, roadways, utilities, and temporary works projects. Mr. Johnson's recent projects have given him extensive working knowledge of applicable design and construction codes, including PIANC, AASHTO, ASCE, and USACE design guidelines.

EDUCATION

M.S., Civil Engineering, Stanford University, 2008

B.S. Civil Engineering, University of Washington, 2001

REGISTRATION

P.E., S.E. AK #141129
P.E., S.E. CA, C 87081, S 6598
P.E. CT, #0034814
P.E. FL, #83553
P.E. GA, #041915
P.E. IL #062.074160
P.E. LA, #40097
P.E. MA, #54352
P.E. NC, #051427
P.E. OR, #94651
P.E., S.E. WA, #42785
P.E. WV #025377
P.E. NCEES #62528
P.Eng. British Columbia, #201867

SELECTED RELEVANT PROJECT EXPERIENCE

Tongue Point Boat Haulout Piers, Astoria, OR. Principal-in-Charge. Leading this Design-Build project for Hyak Marine which includes a 1500 metric ton, electrically-powered boat haulout travel lift: the largest haulout in the U.S. The two haul out pile-supported piers are 230 feet-long and 12 feet-width composed of steel pipe piles, steel girders, and a reinforced concrete deck. The shoreline abutment incorporates an OPEN CELL SHEET PILE™ (OCSP) Bulkhead to support the heavy-loads along the shoreline. The upland work area includes a heavy-lift zone to support vessels and the large boat haulout travel lift, electrical upgrades, and stormwater improvements.

Depoe Bay Floats 2-4 Replacement, Depoe Bay, OR. Principal-in-Charge. Leading assessment and design for the replacement of three docks, piles and utilities located in Depoe Bay Harbor. Work includes community outreach, 100% design, construction bid documents, construction costs and bid assistance. A full metocean study was undertaken to gather and complete the baseline environmental design criteria.

Bandon Marina Redevelopment Design, Bandon, OR. Principal-in-Charge. Led design development to the Port of Bandon for upgrades to the 84-slip Bandon Marina, which was built in 1984 and has reached the end of its useful life. PND designed a new layout to replace the marina with new docks, piles, and utilities. Work included concept development, 30% design, and JARPA permit drawings. PND also performed a desktop evaluation of site geotechnical conditions and developed a pile analysis. Design development was completed in October 2021, including CAD graphics to support a grant application.

Taiheiyo Cement Marine Facilities, Cebu Island, Philippines. Principal in Charge. Providing design for bulkhead replacement and a new pile-supported jetty platform at the Taiheiyo Cement marine facilities, used for mooring and material offloading/ loading of cement carrier and general cargo vessels. PND designed a 220-meter-long OCSP bulkhead along the alignment of Berths 1, 2, and 3 to reinforce the existing quay wall. Work also included a value engineering concept design for the Echo Beach Modification project, which will reinforce the existing Echo Beach concrete pier for seismic stability and add a new a barge ramp using an OCSP bulkhead.

MIKE HUGGINS, P.E. | PRINCIPAL, SENIOR ENGINEER

Project Role: **Construction Engineer**

PND ENGINEERS, INC.

Mr. Huggins has over 30 years of construction-related design experience holding the positions of Chief Engineer, Project Field Engineer, and Estimator in a full range of marine heavy-civil construction. His technical capabilities include design/development and detailed estimating of broad-scope engineering systems, providing technical expertise and constructability review in design-build projects, and managing multi-discipline engineering work. Mr. Huggins served as the Chief Engineer/Senior Construction Engineer and as an Estimator for General Construction Company from 1996 to 2003. He continues works with national and regional contractors to solve construction engineering problems inherent while building complex marine structures.

EDUCATION

University of Washington, M.S., Civil Engineering, 1988

University of Washington; B.S., Civil Engineering, 1985;

Technical University of Denmark, Valle Scholar, Marine Engineering, 1987

REGISTRATION

Professional Civil Engineer:
WA # 26812;
AK #8097;
CA #47424;
OR #14461;
MT #20364;
LA #PE.0037973;
NY #092920-1.

SELECTED RELEVANT PROJECT EXPERIENCE

Mill A Site Open Cell Bulkhead, Port of Everett, WA. Principal in Charge/Project Manager. Led the preliminary design and cost estimating process for this bulkhead concept update. PND provided preliminary design and cost estimates for the Port of Everett Mill-A cleanup/containment system bulkhead analysis. The goal of the project was to complete the initial effort to configure the bulkhead to meet the environmental objectives and provide a high-capacity marine terminal at conclusion of the work.

CWB (Center for Wooden Boats) Float Reconfiguration, Seattle, WA. Principal in Charge. PND designed and assisted with the permitting of the renovation for The Center for Wooden Boats. The project included the following elements: Driving new steel float pile in and around existing structures; Modify existing site plan; Retrofit of aged timber floats; Design of a new gangway and access ramp structure to meet ADA standards; Retrofit and strengthening of existing Boathouse and Boat Shop; Provide assistance in permitting present and future use of the site.

Seiner Wharf Terminal Repair and Construction, Port of Everett, WA. Construction Engineer. Providing engineering support for design and construction of a new bulkhead and wharf at the Port of Everett. The bulkhead is a cantilevered Z-sheet wall with concrete cap. The wharf consists of steel pile piles, supporting steel pile caps with timber glue laminated stingers and timber deck. The project was completed in May 2017.

Port of Anacortes Engineering Support 2021, Anacortes, WA. Principal in Charge. Led multiple projects for this on-call contract including the evaluation and reconstruction design of wharf's bulkhead sinkhole, and apron tiedown improvements.

Baffinland - Milne Inlet Ore Dock, Baffin Island, Nunavut, Canada. Structural QA/QC. Provided structural review of engineering design for the construction of an OPEN CELL™ ore dock and for ship-loader and conveyor system pile foundations at Milne Port in Nunavut, Canada. PND also provided construction observation for the project, which was completed in July 2015.

CARL MCNABB, PE | SENIOR CIVIL ENGINEER

Project Role: **Project Manager**

PND ENGINEERS, INC.

Mr. McNabb is a senior civil engineer with 30 years of experience in project management and design of marine structures and upland facilities. His projects have included parks, marinas, and recreational facilities throughout Washington. He provides site civil engineering for utilities, storm water detention facilities, drainage, parking lots, and pedestrian facilities. Mr. McNabb also provides road design, including road realignment, slope stabilization, culvert replacement, drainage, channelization, and erosion repair. His abilities include geotechnical design applied to retaining wall designs and pile-supported structures. He is also experienced in preparing and administering public contracts and providing construction administration services.

EDUCATION

B.S., Civil Engineering, 1989, Seattle University

REGISTRATION

Civil Engineer, Washington, #32193

CERTIFICATION

Certified Welding Inspector (CWI), American Welding Society

SELECTED PROJECT EXPERIENCE

Jordan Cove LNG Terminal, Coos Bay, OR. Project Manager. Led FEED-level design for the proposed LNG terminal, including a Marine Off-Loading Facility, Temporary Material Barge Berth, LNG OPEN CELL Berth, West Layby Berth, and Tug Berth. Work included dredging design, slope and scour protection, numerical modeling, and mooring analysis. Design was completed in 2019. Mr. McNabb previously led preliminary design for OPEN CELL bulkhead wall structures for the LNG Berth, West Berth, and Barge Berth, designed to be up to 80 feet tall and approx. 4,000 feet in combined length.

Madison Harbor OPEN CELL Bulkhead, Granite City, IL. Project Manager. Led engineering and construction support to America's Central Port for design and construction of a new 400-foot-long OPEN CELL bulkhead as part of the South Harbor Basin project. The overall project involved dredging a new basin on the existing shore of the Mississippi River, followed by installation of the OPEN CELL bulkhead. PND also designed a pile-supported fendering system and mooring structures that include three closed cells and four mooring dolphins. Construction was completed in 2015.

DeKalb Pier and Streetscape Improvements, Port Orchard, WA. Project Manager. Led design and construction support for improvements to the DeKalb pier, floats, and streetscape for the City of Port Orchard. PND provided preliminary engineering, permitting, final design, bid support, and construction administration. Upland improvements included a new sidewalk and stormwater quality controls added to the existing catch basins along the 200-foot street front. The project was completed in 2016.

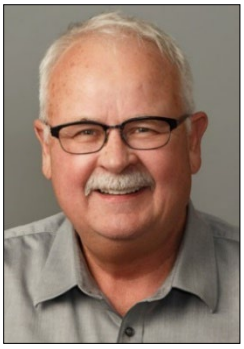
Waterfront Place Central, Everett, WA. Civil Engineer. Providing site civil engineering for design of public infrastructure for a planned 65-acre mixed-use development at the Port of Everett. Tasks include sidewalks, the entire utilities infrastructure, marine structures, roadways, parking, and buildings. Carl designed the fire sprinkler system for the new Seiner Wharf, as well as utilities in the upland area and for the marina floats.

Slackwater Harbor OPEN CELL Bulkhead, Little Rock, AR. Project Manager. Led design and construction support for a 200-foot-long barge dock to be used for transloading bulk cargo for the Port of Little Rock. The dock consists of an OPEN CELL bulkhead with a 34-foot-high wall face and deck positioned above the 100-year flood level and over four acres of new laydown space for storage. Construction was completed in 2020.

WILLIAM F. GUNDERSON, III, PE | SENIOR CIVIL ENGINEER

Project Role: **Technical Advisor**

PND ENGINEERS, INC.



Mr. Gunderson is a civil engineer with over 43 years of experience specializing in civil and marine design and inspection, coastal and construction engineering, and surface water protection system design. He has been responsible for the design of a wide variety of waterfront structures and water quality protection systems. His innovative solutions show a thorough understanding of the special conditions with water-related structures. His project experience ranges from planning, design, maintenance, and repair to marine development projects. Mr. Gunderson's work includes project and construction management; condition surveys of marine facilities; site reconnaissance for marine development; inner harbor facilities design; corrosion protection system design; and dock rehabilitation design. He is a 4th-generation commercial fisherman presently holding a seat on the Oregon Commercial Fishing Permit Board.

EDUCATION

B.S., General Engineering, 1980, Oregon State University

REGISTRATION

Civil Engineer, Alaska, 1987; Oregon, 1988; Washington, 1989; Texas, 2004

SELECTED PROJECT EXPERIENCE

Port of Astoria Pier 2 West Dock Inspection, Astoria, OR. Principal-in-Charge. Led a condition assessment of Pier 2 West Dock in 2013 and provided oversight for an inspection summary and list of action items. Portions of the pier were found to have safety hazards and warranted immediate attention. PND also recommended that repairs be made to the damaged structural components.

Alameda Point OPEN CELL WIB, Alameda, CA. Principal-in-Charge. Provided engineering management for preliminary design, final design, and construction support services for a Waste Isolation Bulkhead™ (WIB) at the former Navy base at Alameda Point on San Francisco Bay. The WIB is an approx. 1,240-foot OPEN CELL Confined Disposal Facility. PND provided engineering services to AMEC, who contracted with the Navy for base cleanup at this contaminated Superfund site. The project was completed in 2014.

Depoe Bay Harbor Master Plan, Depoe Bay, OR. Principal-in-Charge. Led development of the comprehensive Harbor Master Plan for the City of Depoe Bay, which was completed in June 2016. The goal of the master plan is to replace and/or improve harbor facilities to meet future demands; bring pedestrians to the harbor by creating ADA-compliant pedestrian access; improve vehicle access and circulation; improve public vessel access to the harbor by providing grant-eligible transient moorage slips; improve boat ramp parking and circulation; and maintain accommodations for commercial vessels. Services included condition assessment; concept design alternatives and cost estimates; and support identifying grant funding sources.

Pier 3 Bulkhead, Port of Astoria, OR. Principal-in-Charge. Providing oversight for preliminary design, surveying, geotechnical engineering, and permitting for a new material handling bulkhead at Pier 3 for bulk cargo ships and log carriers at the Port of Astoria. The project includes coordinating with permitting agencies and preparing a Joint Permit Application package. PND also analyzed dredge depths and dredge volume, and prepared preliminary dredge plans, including analysis of tides and water levels, concept level drawings, quantity calculations, and cost estimates.

JIM CAMPBELL, PE, MS | PRESIDENT

Project Role: **Geotechnical Engineering Review**

ENGINEERS, INC.

Jim Campbell has more than 30 years of project design and management experience in marine facilities, bulkheads, geotechnical investigations, environmental investigations, permitting, civil design, and planning. He has managed numerous marine and coastal facility projects, geotechnical and hydrological investigations, river and coastal erosion protection projects, and design projects for oil and mining, buildings, and roads. His geotechnical engineering experience includes geotechnical investigation, slope stability analysis, evaluation of soil conditions, and foundation design, as well as field geotechnical studies involving subsurface borings, cone-penetration testing, and laboratory soils analyses.

EDUCATION

M.S., Civil Engineering (water resources), University of Colorado Boulder

B.S., Civil Engineering, University of Colorado Boulder

REGISTRATION

Professional Civil Engineer: Alabama #33909; Alaska #9311; Colorado #29793; Indiana #11300386; Iowa #21730; Kansas #23201; Kentucky #29541; Mississippi #21319; Missouri #027935; North Carolina #015789; Oklahoma #26647; Pennsylvania #81388; Rhode Island #11213; Tennessee #116750; Washington #52609; Wisconsin #47351-6

SELECT RELEVANT PROJECT EXPERIENCE

Jordan Cove LNG Terminal, Coos Bay, OR. Geotechnical Engineer. Provided geotechnical exploration and analysis for the proposed LNG terminal, which included a Marine Off-Loading Facility, Temporary Material Barge Berth, LNG OPEN CELL Berth, West Layby Berth, and Tug Berth. Work included dredging design, slope and scour protection, numerical modeling, and mooring analysis. Design was completed in 2019.

Seiner Wharf Terminal Repair and Construction, Everett, WA. Geotechnical Engineer. Provided geotechnical investigation and engineering for design and construction of a new bulkhead and wharf adjacent to the bulkhead at the Port of Everett. The bulkhead is a cantilevered Z-sheet wall with concrete cap. The wharf consists of steel pile piles, supporting steel pile caps with timber glue laminated stingers, and timber deck. Design was completed June 2016, and the project is currently under construction.

Waterfront Place Central, Everett, WA. Geotechnical Engineer. Providing geotechnical assessment for design of infrastructure and utilities for a planned 65-acre mixed-use development at the Port of Everett. Services include design of the utilities infrastructure, roadways, sidewalks, and marine structures. Mr. Campbell also provided geotechnical engineering for the Seiner Wharf Terminal Repair task.

Owensboro Riverport OPEN CELL General Cargo Dock, Owensboro, KY. Principal-in-Charge. PND was a subconsultant to W.R. Coles & Associates for this port development project on the Ohio River. Jim led planning and design services for a new OCSP general cargo dock for the Owensboro Riverport Authority. PND provided geotechnical review, fabrication inspection, and bidding and construction support. The new cargo dock is more than 200 feet long, with four mooring cells and an upland operating area. PND designed the dock for mobile cranes, heavy bulk cargo, and heavy truck traffic.

KING CHIN, PE, PRINCIPAL GEOTECHNICAL ENGINEER

Education

M.S., Geotechnical Engineering, Washington State University, 2001

B.S., Civil Engineering, Washington State University, 1996

Registration/Certification

Professional Engineer: Washington, #38761; Alaska, #12801; Oregon, #85322PE; California, #C80359; Louisiana, #38473; South Carolina, #32617; Arkansas, #17742; Kentucky, #32732

Experience

King has been providing geotechnical engineering services in the Pacific Northwest, across the United States and around the world since 1998. His primary focus has been on geotechnical earthquake engineering, foundation design, site and material characterization, soil-structure interaction analysis and performance-based design. King has worked on waterfront projects that incorporates the tsunami hazard as part of the seismic design and has completed third-party peer review on tsunami evacuation structure per ASCE 41 and ASCE 7 requirements. He is GeoEngineers' technical expert in soil-structure interaction analysis for foundations and below grade walls, liquefaction induced ground failure evaluations, deformation based evaluation of embankments, earth retaining and embedded structures, and seismic hazards mitigation. King brings to the projects highly technical and innovative approaches that will help achieve the objectives of the project through construction. His representative project experience includes:

Jordan Cove Energy, Coos Bay LNG Marine Facilities; Coos Bay, Oregon

The Jordan Cove LNG Marine Facilities Development project includes construction of an approximately 1,400-foot long LNG Berth consisting of a bulkhead structure and pile supported loading platform, breasting and mooring dolphins. As geotechnical and seismic engineering lead, King reviewed the geotechnical data and engineering reports prepared for the project to develop seismic design criteria and design parameters for use in the seismic design of the LNG Berth and other marine structures. He completed 2D and 3D numerical modeling to evaluate the interactions between the bulkhead and the piles supporting other marine structures for both the static and seismic loading conditions.

Port of Everett, Former Weyerhaeuser Mill A Site Cleanup, Everett, Washington

GeoEngineers is providing environmental and geotechnical support for the Port of Everett's cleanup of former Weyerhaeuser Mill A site. We assist the Port in developing strategic solutions for this large scale in-water and upland cleanup that combine the Port's development needs to expand the existing South and Pacific Terminals. King leads a team of geotechnical engineers working on the RI/FS and remedial designs at the site and completed geotechnical investigations and review of existing data to develop preliminary ground improvement design concepts that will be used for each of the containment structures and systems considered, and the rough order of magnitude cost estimate for the ground improvement method considered. King also provided geotechnical support for the design of an interim action that was completed to expand navigation at the site. Work on the interim action included evaluation of slope stability and evaluation of potential impacts to structures at the site from dredging.

LYLE STONE, PE, GE, ASSOCIATE GEOTECHNICAL ENGINEER

Education

M.S., Civil Engineering, Michigan Technological University

B.S., Civil Engineering, California Polytechnic State University

Registration/Certification

Professional Engineer: Washington, #45765; California, #C72065; Idaho, #19197; Oregon, #100288PE; Colorado, #0062677

Geotechnical Engineer: California, GE3066; Oregon, #100288PE

40-hour OSHA Hazardous Waste Site Operations & Safety Training

Experience

Lyle has more than 18 years of geotechnical engineering and consultation experience with a focus on waterfront and municipal projects. He has project management experience with all phases of geotechnical design in support of waterfront, flood control, and development projects for Ports and municipalities, including the Port of Tacoma. He has provided design services for marine projects to include pile and shaft foundations; bulkhead structures including soldier piles, structural earth walls, and conventional retaining walls; marine slope stabilization; pavement design for concrete and asphalt sections as well as non-conventional methods such as soil-cement and reinforced subgrade sections; seismic analysis for piers and bulkheads; and construction support services. His representative project experience includes:

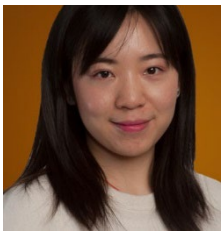
Port of Bremerton, Annapolis Pier Upgrade; Port Orchard, Washington

GeoEngineers worked with Kitsap Transit to permit improvements to the Annapolis Ferry Dock to provide American Disabilities Act (ADA) accessibility to the ferry service during a broad range of tidal conditions. GeoEngineers coordinated with Kitsap Transit and local, state and federal agencies to identify a project design that will reduce existing impacts, minimize potential future impacts and mitigate unavoidable effects of the project on the local environment. GeoEngineers was the lead editor and providing final QC for the environmental permitting documents as well as providing Kitsap Transit with long-term project strategy. Lyle provided geotechnical support including foundation options for limiting disturbance from pile driving.

Port of Tacoma, Pier 3 Upgrade; Tacoma, Washington

The purpose of the Pier 3 Upgrade project is to increase the vertical load carrying capacity of the pier to accommodate larger container cranes in anticipation of post-Panamax ships in the Port of Tacoma. Pier 3 is located at the north end of the Blair Waterway. The site has some of the more challenging soils conditions in the port including rapidly dipping bearing layers, old rock dike fills, and old filled ship slips. The existing pier is supported on concrete piles. Additional capacity for the pier needs to come from additional piles be installed between the existing bents. GeoEngineers evaluated the piles in the existing structure by reviewing available test pile data and pile installation records. By evaluating each pile individually, GeoEngineers was able to justifiably increase the allowable axial capacity of the existing structure. This limited the amount of additional piles needed for the upgrade and reduced total project costs. GeoEngineers also completed a site-specific seismic response analysis for three design levels and preliminary slope stability evaluations for future dredging that will be required to accommodate the larger ships.

MICHELLE DENG, PHD, PE, GEOTECHNICAL ENGINEER



Education

Ph.D. Civil Engineering: Geotechnical Engineering, Missouri University of Science and Technology
M.S. Civil Engineering: Geotechnical Engineering, Missouri University of Science and Technology
B.S. Civil Engineering: Structural Engineering, Tongji University, Shanghai, China

Registration

Professional Engineer: California, #89367

Experience

Michelle joined GeoEngineers in 2015 and specializes in seismic hazard analysis, performance-based engineering, and risk assessment. Michelle has provided seismic hazard analysis for multiple high rise building projects in Seattle, and various port, dam, design-build transportation, and liquefied natural gas (LNG) projects, including probabilistic (PSHA) and deterministic (DSHA) seismic hazard assessments and site response analysis. Her expertise includes seismic resiliency and strategic asset management by performing regional seismic hazard analysis and probabilistic liquefaction evaluation. She has provided seismic slope stability analysis and probability of breach evaluations for various dam safety projects. She also has provided numerical modeling for shoring-wall construction and foundation design projects. Michelle is well versed in code requirements for seismic, liquefaction and lateral spread evaluations, and ground improvement designs under seismic conditions. Her relevant project experience includes:

Jordan Cove Energy, Coos Bay LNG Marine Facilities; Coos Bay, Oregon

GeoEngineers provided geotechnical engineering services for the Jordan Cove LNG Marine Facilities Development project that includes an approximately 1,400-foot long LNG Berth consisting of a bulkhead structure and pile supported loading platform, breasting, and mooring dolphins in 2019. Developed seismic design criteria for CSZ and crustal fault sources and completed 2D and 3D numerical modeling to evaluate the interactions between the bulkhead and the piles supporting other marine structures for both the static and seismic loading conditions. Dynamic time history numerical analysis was also completed to evaluate the kinematic loadings from the liquefiable soils to demonstrate that the performance objectives specified by the owner and FERC are met. Michelle was involved in performing seismic hazard analysis (PSHA and DSHA), developing ground-motion time histories for use in the site-specific response analyses, and assisting with 1D and 2D FLAC (a finite-difference commercial software) modeling.

Port of Everett, Former Weyerhaeuser Mill A Site Cleanup, Everett, Washington

GeoEngineers is providing environmental and geotechnical support for the Port of Everett's cleanup of former Weyerhaeuser Mill A site. We assist the Port in developing strategic solutions for this large scale in-water and upland cleanup that combine the Port's development needs to expand the existing South and Pacific Terminals. Michelle is supporting the geotechnical engineering team working on the RI/FS and remedial designs at the site and completed geotechnical investigations and review of existing data to develop preliminary ground improvement design concepts that will be used for each of the containment structures and systems considered, and the rough order of magnitude cost estimate for the ground improvement method considered. She also provided geotechnical support for the design of an interim action that was completed to expand navigation at the site. Work on the interim action included evaluation of slope stability and evaluation of potential impacts to structures at the site from dredging.

NOAH J. ELWOOD, PE, D.PE, D.OE | SENIOR ENGINEER

Project Role: **Independent Technical Reviewer Marine Engineering**

Appledore Marine Engineering, LLC

Noah Elwood has 30 years of experience as the designer of record on complex marine infrastructure improvement projects with construction values exceeding $100 million, and leading teams on over 1,000 underwater inspections. He is an established industry leader, speaker, and author on structural engineering in marine environments. Noah has worked on all types of structures (piers, wharves, dry docks, towers, bridges, and specialty military structures) in a variety of marine environments. He served as an Officer of the ASCE committee that authored the engineering manual Waterfront Facilities Inspection and Assessment. Astute in his ability to harness the collective skills, knowledge, and experiences of the Appledore team, Noah is steadfast in helping clients to effectively manage their waterfront infrastructure and realize their visions.

EDUCATION

AS Civil Engineering Technology/ Vt Technical College

BS Civil Engineering Technology/ University Of MA
Fundamentals of Arctic Engineering/ University of AK

REGISTRATION

Civil PE: AK (AELC-12908); AL (30928-E); CA (79413); CT (23340); DE (17387); GA (PE034731); IN (PE11300576); MD (40075); ME (10772); NC (037603); NH (10534); NJ (24GE05138100); NY (0847011); OR (83401PE); PA (PE081948); RI (8990); VA (0402048811); WA (43855); WI (C-43248-6); Nova Scotia P.Eng. (10794); Puerto Rico (27741)
Structural PE: AK (125127SE); MA (47020); NH (10534)

SELECT RELEVANT PROJECT EXPERIENCE

University of Maine, Darling Marine Center Pier Replacement, Walpole, ME. Senior Engineer. Lead Review and Quality Control Engineer for design to replace the DMC waterfront facilities, including replacement of the fixed pier and floating docks, boat ramp repairs, and moving the location of the living laboratory seawater pump station to the shoreside. The design utilized an innovative approach that required evaluation of the existing structural elements as candidates for possible re-use. While the superstructure was entirely unusable and the substructure had severe deterioration, the team evaluated the existing deteriorated rock-filled cellular cofferdams as an asset due to their inherent mass and challenges to removal. This approach was further validated when considering the temporary environmental impacts that would result from their removal.

Portsmouth Fish Pier Bulkhead Replacement, Portsmouth, New Hampshire. Lead Engineer, Principal in Charge to complete design of a replacement bulkhead at a commercial fish pier facility. The bulkhead replaced an existing failed bulkhead utilizing reserve capacity of the existing buried tie-back system, as a result saving significant time, money, and disruption to the facility, which remained operational throughout construction.

FY21 Major ATON Structures Inspections, USCG -CEU Oakland, Various Cities in CA, OR, WA, AK. Lead Engineer, Principal in Charge. Completed topside and underwater waterfront inspections and structural condition assessments of the waterfront assets at multiple facilities throughout various cities in CA, OR, WA, and AK. The inspections were completed in order to recommend short- and long-term repairs and provide estimated costs for each asset.

US Navy Stillwater Basin, Pier 171 Rehabilitation and Replacement, Newport, Rhode Island. Lead Engineer, Principal in Charge. Rehabilitation and partial replacement of a WW-II era pier for the US Navy at the Naval Undersea Warfare Center in Newport, Rhode Island. The work included structural rehabilitation of existing piles, replacement of approximately 1600 SF of pier as well as all regulatory approvals, and electrical improvements. Design work is complete and the project is planned for construction in FY23-FY24.

JOHN W. GAYTHWAITE, PE, D.PE, D.CE | CHIEF MARINE ENGINEER

Project Role: **Independent Technical Reviewer Marine Engineering**

Appledore Marine Engineering, LLC

As Chief Engineer at AME with an impressive 50+ years of experience, John has been involved in the design of over $100 million in waterfront infrastructure improvements for the federal government as both project manager and peer reviewer. He has written numerous technical papers covering a diverse range of topics including floating breakwaters, coastal zone construction and shore protection, waterfront rehabilitation, design of an offshore research platform, and arctic port structure restoration. John is also an award-winning engineer as the 2010 recipient of the prestigious ASCE/COPRI; John G. Moffatt-Frank E. Nichol Harbor & Coastal Engineering Award. He was cited for his contributions to expanding the civil engineering community's knowledge of the marine environment, for producing the standard texts in the industry, and for his dedication to the civil engineering profession.

EDUCATION

BS Civil Engineering

REGISTRATION

Structural PE:
MA (28166)

NCEES Record

SELECT RELEVANT PROJECT EXPERIENCE

US Navy Stillwater Basin, Pier 171 Rehabilitation and Replacement, Newport, RI. Chief Marine Engineer. Rehabilitation and partial replacement of a WW-II era pier for the US Navy at the Naval Undersea Warfare Center in Newport, Rhode Island. The work included structural rehabilitation of existing piles, replacement of approximately 1600 SF of pier as well as all regulatory approvals, and electrical improvements. Design work is complete and the project is planned for construction in FY23-FY24.

Dry Dock 3 Caisson Replacement and Seat Repairs, Portsmouth Naval Shipyard, Kittery, ME. Chief Marine Engineer. Dry Dock and Caisson Gate. Cost: $3.2M (prof. services); $26.9M (construction). Direct liaison with NAVFAC and oversight of a multidiscipline team to complete design level field investigation and prepare DBB contract documents to replace a caisson gate and rehabilitate a dry dock. Exceptional and Very Good CPARS rating.

Berth 6 Repairs & Improvements, Portsmouth Naval Shipyard, Kittery, ME. Chief Marine Engineer. Provided oversight of design team for the task order to complete 100% design plans, technical specifications, cost estimate, construction schedule and basis of design. Scope: DBB construction package to upgrade Berth 6 infrastructure to create two outfitting berths to service Virginia Class and LA Class submarines simultaneously.

P310 Dry Dock 1 Superflood Basin, Portsmouth Naval Shipyard, Kittery, ME. Chief Marine Engineer. Design of over $150M worth of waterfront improvements for a first-of-its-kind superflood basin. The basin is designed to artificially raise the river elevation in front of a 100 year-old graving dock to support maintenance operations for fast attack submarines for the US Navy.

HARBOR POWER
ENGINEERS, INC.
ELECTRICAL ENGINEERING FOR COASTAL & WATERFRONT FACILITIES

USCG Covered Moorage
Coos Bay, OR

APL Container Cranes
Port of Oakland, Oakland CA

Port of Umm Qasr – Piers 1 & 2
Umm Qasr, Iraq

Education:

Electrical Engineering, CCAF
University of Maryland

Registration:

Electrical PE – Alaska, California
Oregon, Washington, Guam

Professional Affiliations:

Institute of Electrical & Electronic Engineers (IEEE)
American Boat and Yacht Council (ABYC)

Ed David, P.E.
Principal/Senior Electrical Engineer
Project Role: Electrical Engineering

Ed has over 35 years of applied electrical engineering, project management and design experience, specializing in electrical power system design for marine and port facilities. He has designed over 200 projects involving marinas, piers, wharfs, docks, dry-docks, waterfront buildings, and boat/shipyards. As a specialist Ed has an in depth understanding of the systems unique to this industry, including shore power/cold ironing, high mast lighting systems, and the supporting upland distribution systems.

Clients appreciate Ed's enthusiasm, clarity in communications, and pro-active management style.

Relevant Experience:

- Hyak Tongue Point – Mobile Boat Haulout Facility; Astoria, Oregon
- Port of Seattle – Terminal 91 Passenger Boarding Sys; Seattle, Washington
- Port of Seattle – Terminal 25/30 Matson Yard Imp; Seattle, Washington
- US Seafoods Homeport, Seattle, Washington
- Port of Kalama – Small Cruise Ship Dock; Kalama, Washington
- Port of Umm Qasr - Iraqi Naval Piers 1 & 2; Umm Qasr, Iraq
- Dakota Creek Shipyard; Anacortes, Washington
- Todd Shipyard; Electrical System Upgrade; Seattle, Washington
- Port of Oakland - APL Container Cranes; Oakland, California
- Port of Long Beach - Crane Turntable; Long Beach, California
- Renovation of Piers 3 and 5, Naval Air Station; Adak, Alaska
- Port of Port Angeles – Boat Haven Redev.; Port Angeles, Washington
- Port of Everett – 12th Street Marina Basin; Everett, Washington
- Northwest Maritime Center & Pier; Port Townsend, Washington
- Oak Harbor – Municipal Pier; Oak Harbor, Washington
- Port of Bellingham – Squalicum Harbor Gate 3 Exp; Bellingham, WA
- Seldovia Ferry Pier & Floating Dock; Seldovia, Alaska
- Homer Ferry Pier & Floating Dock; Homer, Alaska
- Hope Bay Mine Seaport, Nunavut, Canada (Arctic Circle)
- Adak Naval Operating Base - Piers 3 & 5 Utility Renovation; Adak, Alaska
- Adak Naval Operating Base – 12kV Electrical Dist. System; Adak, Alaska
- Tacoma Old Town Dock Reconstruction; Tacoma, Washington
- USCG Covered Moorage; Coos Bay, Oregon
- Kitsap Transit – Annapolis Pier Ferry Dock, Annapolis, Washington
- Port of Bellingham - Gate 3 Expansion Bellingham, Washington
- Port of S. Whidbey - Langley Harbor Redevelopment; Langley, Washington

3.2.3 PROJECT APPROACH

3.2.3.1 VALUE ENGINEERING

Overview Of the Existing Pier and Building:

Prior to the current RFP for the Pier 2 West Rehabilitation by the Port of Astoria, PND Engineers has inspected the existing Pier 2 West condition and carefully evaluated options for upgrading the facility to a safe and fully functioning facility.

Pier 2 West is the western edge of the Pier 2 against the Port of Astoria's Pier 2 building where Da Yang Seafood operates. Pier 2 West consists of a 760-foot-long x 65-foot-wide timber pile-supported pier with a concrete deck. The pier was originally constructed in 1915 with timber piles. During the life of the structure the timber piles were cut off and posted with a timber superstructure and timber bracing with a heavier concrete deck. Based on inspections and experience by PND Engineers in Astoria, this method of construction is typical on many overwater structures in the area. Given the age and exposure of the structure, a recent inspection of the structure by ODOT indicates that many of the members are in poor to critical condition and the structures is likely at the end of its service life and is no longer serviceable for vehicle load and many of the operating conditions on the pier. Given the operations at Da Yang Seafood it is paramount to rehabilitate the Pier to operating condition while protecting the adjacent processing facility.

Given the age and condition of the facility, the importance of the facility to the Port of Astoria and their tenants, and the exposure of Pier 2 West to the Columbia – PND Engineers recommends a full replacement of the timber pier structure with a new, modern pier. An alternative piecemeal replacement will continue to result in accrued costs to the Port due to ongoing maintenance and repair. Additionally, a pier repair will limit the operational capability of this facility for the Port. Finally, the structure as originally designed would not be able to withstand an earthquake to modern seismic performance standards.

To evaluate a replacement alternative for Pier 2 West, our Team understands the site constraints and site issues. The Pier 2 is constructed on a reclaimed fill area projecting into the river. The fill overlays loose alluvial fill which gets denser with depth. The loose natural soil deposits and alluvial fills are prone to liquefaction during a large seismic event. This liquefaction may result in the destabilization of the pier and settling of the building foundation. Additionally, the soft alluvial soils under Pier 2 West are prone to settlement from additional fill.

Considering Option 2

Generally, our Team concurs that Design Option 2 would maximize the overall project value of the Pier 2 West replacement. However, Option 2, as presented in the current 30% design, has a number of challenges that our Team's design may be able to resolve with a more efficient solution.

The reason Option 2 represents an optimal solution is that it moves the area of pier construction away from the existing processing building and encapsulates the existing slope of the west side of the pier. This will limit the disruption to the building and operations and allow easier access by the contractor to the new pier elements. Installing a sheet pile wall at the existing Pier 2 West Berth face also results in a single structure and method of construction rather than a combination of sheet pile wall and pile-supported structure. A hybrid pile-supported pier and sheet pile wall would not allow enough construction access to economize construction and provide a fully-land based operation after the sheet pile wall is installed.

The challenge with the existing Option 2 as a replacement to Pier 2 West is that it relies on ground support in the upper layers of soils which are loose and soft and subject to seismic liquefaction. The sequence of construction is also complex. It requires careful scheduling and management to ensure the wall is stable at each stage of construction. The sheet pile wall cannot be backfilled fully until the tie-backs are installed. Given the condition of the existing pier, the work would need to be installed from a work trestle or from floating construction equipment adding to the cost of installation.

The traditional tie-back sheet pile wall system is also sensitive to soil settlement which is expected to occur when the pier is backfilled. The system is also susceptible to destabilization during a large earthquake with soil liquefaction. The system will require extensive ground improvement in order to safely resist seismic liquefaction and lateral spreading. These ground improvements would need to extend from the dense layer at depth to the surface of the pier to ensure the tie-backs and wall are not overloaded.

Within the Option 2 alternative, there is the option to install the ground improvements at a later date after the system is installed and funding is available. This presents several issues including the requirement that future ground improvements work around the tight sheet pile tie-back spacing which will be buried after completion of the Pier 2 West structures. Additionally, future ground improvements such as jet grouting must be included in the design of the original wall in order to not overload the wall face.

Considering the Open Cell Sheet Pile™ System

To address these issues, PND proposes an alternate design approach to the structures initially evaluated in the 30% design. We propose that an OPEN CELL SHEET PILE™ System (OCSP) should be explored for site and operation issues outlined for Pier 2 West. OPEN CELL Systems have been designed and installed, and are successfully operating at waterfront facilities around the U.S. and the world including the Nygaard Logging Facility in Warrenton.

The OCSP does not use large steel sections like a combi-wall system. Rather, the system is composed of efficient, flat web sheet piles. This results in significant cost savings on the quantity of steel used in the design. Additionally, the system uses a 'tailwall' which acts like a large steel shear wall in the soil. This tailwall mobilizes the strength of the soil at depth and is able to overcome large lateral and seismic forces from the soil.

The OCSP is designed as a mechanically stabilized earth system and tolerates soil settlement within the tailwalls and behind the wall face. However, additional shoring of the building foundation columns is likely necessary in order avoid settlement damage to the building.

Additional evaluation of the OCSP to resist the forces seismic liquefaction will be required during the design phase. Our design team is experienced with the standards and processes for these engineering analyses.

The OCSP wall face provides a robust berthing line that can be outfitted and detailed with fenders, bollards, and other pier appurtenances to optimize operations to vessels calling on the berth.

Considering Option 2 with Open Cell Sheet Pile™ System

The PND team would evaluate Option 2 with the use of the OCSP in order to resolve the constructability issues and seismic issues. The OCSP system can be installed from land- or water-based construction equipment. The system requires a straightforward backfilling sequence such that the construction equipment could access the work with limited-to-no temporary crane trestle support. The OCSP also has a vertical wall that can accommodate soil settlement and compaction within the cells without special equipment or materials. Given the potential for obstructions at the site, the OCSP can be designed with flexibility to avoid obstructions nearby and under the building foundation.

Our team has extensive experience designing for seismic loading, liquefaction, and lateral spreading. The configuration of the OCSP engages the entire soil mass and allows the system to engage the denser soils at depth – transmitting the wall pressures to the non-liquefiable soil layers. Additional evaluation is necessary to confirm whether ground improvements can be completely eliminated or optimized and minimized using the OCSP System. If ground improvements are required, the fully-installed system provides wide-open lanes of operation for installation such as rigid inclusions to reduce the liquefaction potential at the site. The OCSP would be able to support this construction equipment in close proximity to the wall face without any restrictions or material.

The OCSP wall face can be installed with fender piles, energy-absorbing fenders, a robust pile cap, and bollards to create a sturdy, and straight-line berth face that is flexible to accommodate a wide variety of vessels calling on the facility.

It was noted in the background documents that Option 2 presents environmental and permitting challenges given required backfill along the river bank. The OCSP can function as a confined disposal facility (CDF) and has been tested by USACE and implemented by many clients for this function. One potential mitigation strategy in using the OCSP and Pier 2 West is to utilize CDF functionality to confine any ground contaminates under or near Pier 2 to prevent leaching into the river. This may result in a win-win for the Port of Astoria to rehabilitate Pier 2 West and to capture additional mitigation credit from confining any contaminates to the site.

3.2.3.2 SEISMIC

I) Describe your firm's proposed approach to seismic issues raised by your proposed design solution:

Our team has extensive experience in the seismic and lateral design of bulkheads and piers and have applied this experience on projects on the Oregon Coast and across the US. PND and GeoEngineers have worked closely on the design of both traditional steel sheet pile walls and OCSP systems in seismic regions and sites with the potential for seismic liquefaction and lateral spreading.

In order to provide a safe and cost-effective solution, our team would carefully evaluate the historical records, existing geotechnical data, and soil borings from the site. If the existing geotechnical data is sufficient for final design, our team would proceed with the information on hand. If additional sub-bottom profiling would result in a more economical solution, our team can provide this recommendation to the Port.

Based on past project experience, our team has found that the OCSP system is a cost-effective approach, safely resisting seismic forces and effects for tall bulkhead applications. The cellular structure is flexible and can resist high seismic loads and tolerate displacement larger than tradition steel sheet pile walls since it acts like a mechanically-stabilized earth system.

We would evaluate the factors of safety in the static, seismic, and post-seismic condition to determine whether the OCSP system is stable. Where factors of safety are less than the minimum requirements, we also have the capability to do a dynamic analysis using FLAC modeling to evaluate a displacement-based analysis. If additional stabilization is required to meet minimum factors of safety, then ground improvements may be considered. Generally, any ground improvements for the OCSP are less extensive than a tied-back sheet pile wall since there are no tie-backs in the upper layers of soil.

a) Creative strategies employed in the past to address seismic codes while maintaining cost-effective design solutions:

PND worked with GeoEngineers on several past projects to come up with creative and cost-effective solutions to address seismic codes for waterfront structures. For the Port of Everett's Mill A site, we worked with GeoEngineers to compare the OCSP system with a tie-back combi-wall system for a wall with a -42-foot toe elevation and a +20-foot surface elevation. Performing an apples-to-apples comparison using the same codes and factors of safety, the OCSP was determined to be the most cost-effective solution.

PND and GeoEngineers also teamed for the repair of the LaFarge Cement Bulkhead in Seattle, Washington. PND developed a driven batter pile tie-back design to stabilize short segments of sheet pile wall that have failed. The batter piles were equipped with SPIN FIN™ Pile Tips. These pile tips are equipped with plates arrayed in a helical pattern to develop additional tension that results from the wall pressure on the steel sheet pile face. The tension piles were evaluated using numerical modeling for the site to ensure the repair met the required minimum factors of safety for the City of Seattle building code. The project was successfully installed in 2007 and was found to still be in excellent condition during a recent assessment.

Finally, PND has performed dynamic analysis of OCSP bulkheads using Newmark analysis to take into account the displacement of the wall during a seismic event. This displacement analysis allows the flexible OCSP system to displace and dissipate energy in an earthquake resulting in a cost-efficient design versus a traditional pseudo-static seismic analysis.

b) Identification of the Code, as well as the particular Standard within that Code:

PND would utilize the Oregon 2019 Oregon Structural Specialty Code (OSSC) Building Code. This code references the International Building Code 2021 in the development of the seismic design parameters for the site-specific seismic analysis. For non-building structures the OSSC also references the ASCE 7-16.

ASCE 7-16 requires an analysis of the liquefaction potential using the full peak ground acceleration (PGA) value of the maximum considered earthquake (MCE), if the site is susceptible to liquefaction.

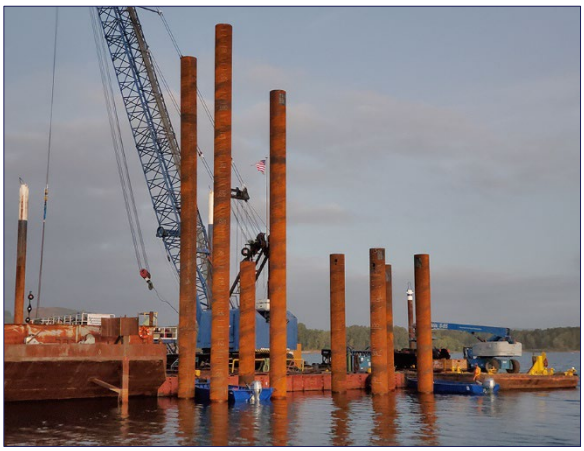
Inertial seismic forces on the structural components are computed using a pseudo-static analysis. The horizontal seismic coefficient is taken as 1/2 the PGA, according to American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge Design Specifications, Ninth Edition. Additionally, a dynamic flack analysis can be used to evaluate the bulkhead using displacement-based analysis.

PND would also use U.S. Army Corps of Engineer Standards of the evaluation of the specific seismic design of the structure. This specific standard is the EM 1110-2-2503, *Design of Sheet Pile Cellular Structures, Cofferdams, and Retaining Structures.*

II) Describe how your firm's past experience with securing building permits will be employed:

a) Any strategies/approaches with smaller municipal building permitting/planning departments:

Our Team's approach to working with the city is to be transparent in the design as it develops and clearly document the basis of design, design standards, and analysis so that the city's reviewer can quickly and easily review the design and offer comments. We take a teaming approach to the review and carefully evaluate any written comments from the city's reviewers and provide a timely response to close out any items of concern. This approach tends to move the project forward on schedule.



PND's dedicated permit staff have extensive water-related project experience, enabling them to provide permitting services on any project, but with a specialty in waterfront projects. We are proficient in the preparation of permit drawings and applications, submittal procedures, and responding to review comments. This knowledge allows us to respond to any level of permit support a project requires, from permit drawings only, to preparation of the overall package. We have an excellent understanding of the processes of the many permitting agencies, including the Army Corps of Engineers, Oregon Department of State Lands, Oregon Department of Land Conservation and Development, and Oregon Department of Environmental Quality.

PND understands the permitting implications resulting from shortened project schedules, and the need to maintain momentum and clear communication with the reviewing agencies. We have found that keeping city reviewers informed ahead of submittal often results in smooth review and comment periods following submittal of the review package. We anticipate PND's staff will act as an interface between the design and the city's reviewers, which simplifies the chain of communication for agency staff and facilitates the review process.

PND has dedicated staff that will be able coordinate between the technical design team, the Port's environmental consultant, and the agencies including the city building department to ensure the planning stays on schedule.

III) Discuss whether your firm has any experience working with the city of Astoria specifically:

PND has worked with the city of Astoria on two recent waterfront projects: the 17th Street Pier Expansion for American Cruise Lines and the Hyak Maritime Mobile Boat Hoist Facility at Tongue Point. The American Cruise Lines review and approval occurred during the late stages of the design development and occurred in early 2022. The Hyak Maritime Mobile Boat Hoist facility design was

split into two parts in order to fast-track the design. The structural design of the Boat Hoist Piers was approved in December 2022 with minimal revisions and comments on the design. The upland civil design is currently approaching the review stage. Our Team incorporated the city's design standards and specifications into the design and included an early pre-application meeting on the design so that we can resolve any comments prior to submittal.

IV) Discuss any potential constructability and/or procurement issues:

Our Team understands the need for the Port to maintain their tenant's operations at Pier 2 during construction. The current condition of Pier 2 West has disrupted operations and limited the use of this Pier in recent years. Our proposed solution is to limit disruption of operations as much as practical and to allow for phased construction enabling portions of Pier 2 West to be open for surface and vessel operations.

Taking the Option 2 fill structure using an OCSP as the selected approach, our team will evaluate the impact of ground settlement on the existing Pier 2 building foundations and slab. These elements may need to be shored and stabilized initially in order to allow sheet pile driving and Pier backfill to occur.

Concurrently, with the design of the building stabilization our team will investigate the phasing of work on Pier 2 West in order to install, fill, and complete a portion of the system in order for the port and tenant to occupy and operate in this space while the remainder of the project is constructed. This may occur over several seasons depending on the volume of in-water work that can be completed in a year. The OCSP system lends itself to phased construction and can be backfilled in sections to allow phased construction of the system.

If ground improvements are deemed necessary, the OCSP can be installed and backfilled prior to anything such as vibrocompaction. The geometry of the system does not create significant ground interferences to preclude this type of phasing.

The OCSP system also can serve as a confined disposal facility for contaminates occurring in the subsurface around Pier 2. If funding becomes available, the system can be extended at a later phase in order to enclose the slip and encapsulate any contaminates. PND has evaluated this opportunity at Pier 2 previously.

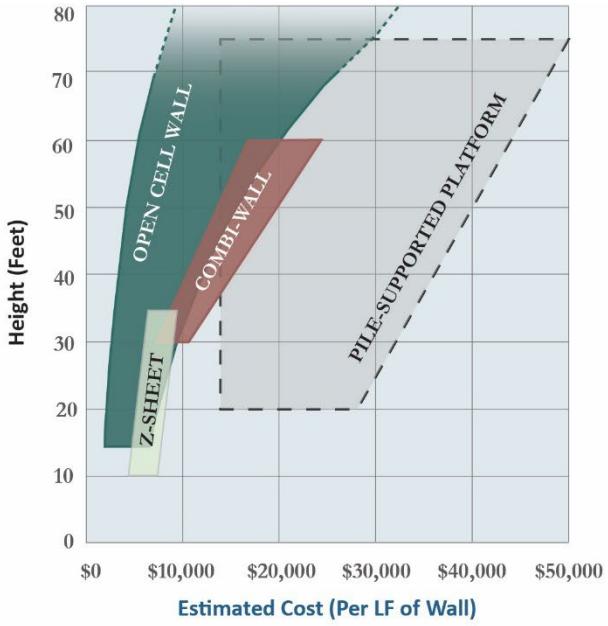
Due to current strains on the supply chain, our team understands the need to design and specify materials that are readily available for construction on the dates needed. The OCSP system is designed using materials that are rolled and fabricated in the U.S. and can be ordered and shipped to meet the construction dates required to complete the project on time. Long lead time items can

be identified in coordination with the CM/CG and early procurement packages can be developed to order these materials to maintain the project's construction schedule.

V) Discuss in broad terms the cost implications of your firm's proposed seismic solution:

PND has utilized the OCSP System as a cost saving alternative for steel sheet pile and pile supported structures across the U.S. and around the world. Generally, material cost savings using the OCSP versus a tie-back wall range from 10 to 40 percent. The system also results in a less complex construction sequence and the reduction or elimination of expensive ground improvements depending on the properties of the soil and depth and extent of liquefaction and/or lateral spreading.

These cost savings may be realized to move the project forward where sufficient funding is not available or, depending on funding, to extend the scope of improvements to Pier 2. An extended scope can include improved berthing features on the pier for large vessels and an expansion of the improvements further to the north and south along the pier line.



Average Costs

On average, the OPEN CELL wall is a lower-cost option to typical wall types including z-sheet pile walls and combi-walls. The overall cost per foot remains competitive in structures, particularly those over 30 feet tall, due to the distribution characteristics of OPEN CELL structures.

Note: Costs are in 2017 dollars, however, overall comparisons to other systems remain valid.

3.2.3.3 SYNTHESIS

The PND Team's alternative approach to design option 2 using the OCSP System provides a lower cost-of-construction alternative to the tie-back z-sheet wall with ground improvement currently proposed. If funding is available, the OCSP bulkhead can be expanded to captures additional length of Pier 2 West to maximize the operations at the facility. The expansion can also serve a dual purpose of containing underground contaminates at the site.

Based our past experience designing, testing, observing, and refining the OCSP System we are confident this approach is well adapted to the site based on the governing seismic criteria in the Oregon Special Structural Code. The system has been installed successfully by local contractors and is sought out by clients and contractors as a value engineering alternative.

Our team is comprised of experienced professionals with knowledge of the seismic criteria and experience in the analysis to predict bulkhead movements and forces associated with seismic events. Our team also includes experts in both field assessment and constructability to develop details that will withstand the harsh marine environment where Pier 2 West is situated. We also have the construction engineering expertise to work with your CM/CG contractor to evaluate constructability and phasing schemes to limit the impact of construction on your tenant.

3.2.4 PROJECT TIMELINE

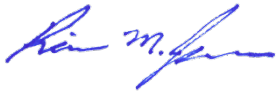
a. **SEE TIMELINE: Page 36a**

b. Our Team has developed a project timeline that includes an accelerated schedule to review the past project information that has been developed to date and generate the 30 percent, 60 percent, 90 percent, and final design packages. This schedule includes review time with the Port, the City, the CM/CG to incorporate constructability comments, and includes review time for our independent technical review team, Appledore Marine Engineers. This schedule assumes all necessary geotechnical assessments and site surveys have been completed prior to the notice to proceed.

This accelerated schedule is intended to demonstrate our team's approach to maintain a similar design schedule and coordinate the environmental permitting and mitigation process in starting in early 2024. By submitting permits at this time, our Team will support the Port and CG/CM in targeting in-water work at the end of 2025 and early 2026. Based on the limited number of sequence steps needed to install the proposed OCSP system, we have shown construction occurring over two in-water work seasons rather than three. Additionally, compaction/ground improvements may occur after the work window closes for each phase as well as upland utility work, drainage, paving, and final site work.

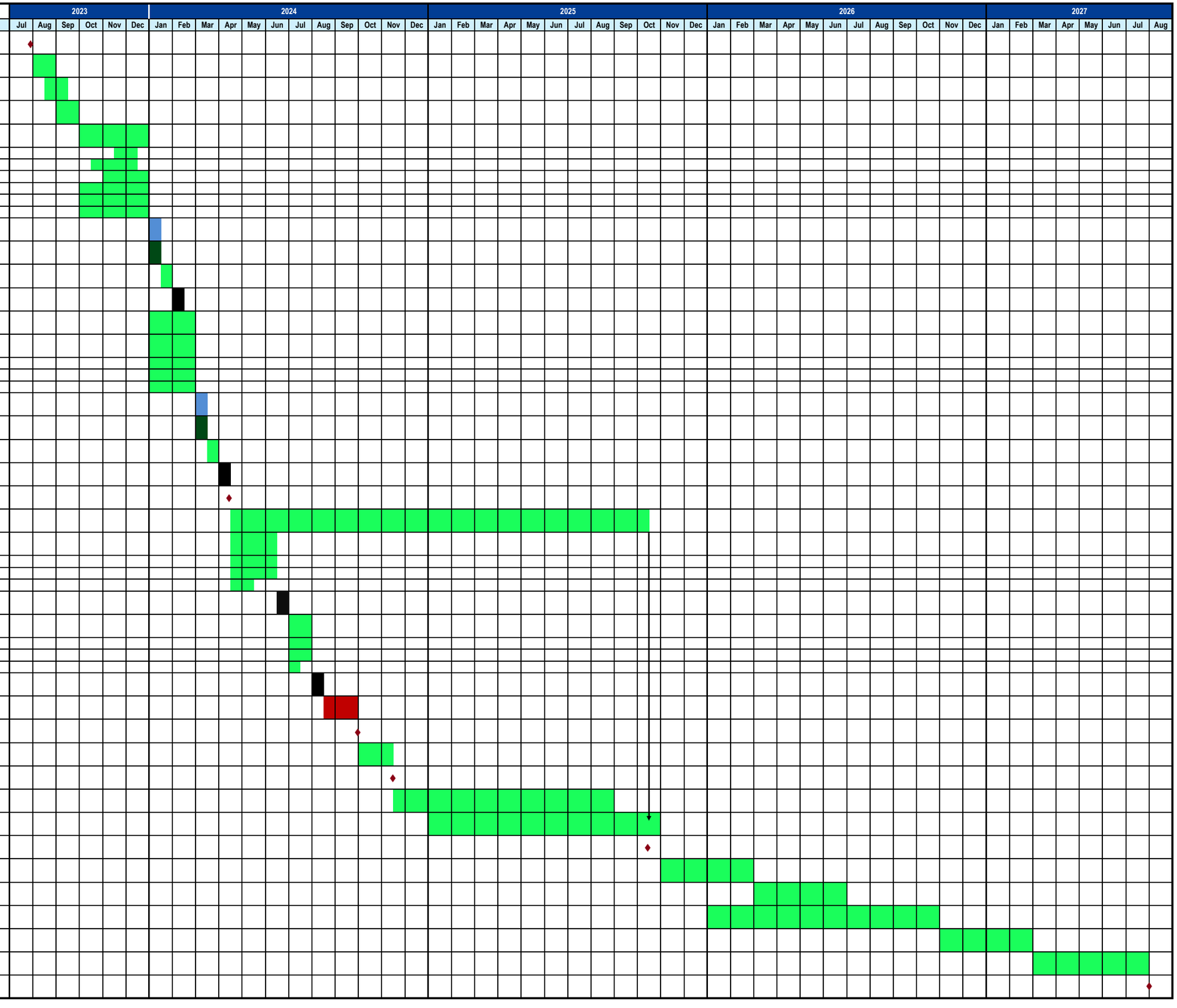
Thank you

Thank you for taking the time to share your needs and hopes for the future of Pier 2 West. We look forward to discussing the Port of Astoria's many opportunities for this project.



PIER 2 WEST DESIGN, PROCUREMENT, & CONSTRUCTION SCHEDULE

Task	Duration
Notice to Proceed - July 26, 2023	1 day
Project Scoping (Determine Major Elements)	30 days
Evaluate Existing Conditions and Background Information	30 days
Develop Basis of Design	30 days
Design and Engineering - 30% Design	90 days
Geotech Report	30 days
Numerical Modeling	60 days
Stability Analysis	60 days
Structural Design	90 days
Civil Design	90 days
Electrical Design	90 days
Independent Technical Review	14 days
30% CM/CG Review	14 days
Revise Design Based on Constructability Review	14 days
Port Review of 30% Design	14 days
Complete Mitigation Plan (Port's environmental consultant)	60 days
Design and Engineering - 60% Design	60 days
60% Structural Design	60 days
60% Civil Design	60 days
60% Electrical Design	60 days
Independent Technical Review	14 days
60% CM/CG Review	14 days
Revise Design Based on Constructability Review	14 days
Port Review of 60% Design	14 days
City Pre-Application Meeting with City	1 day
Environmental Permit Plan, Draft, & Submit Joint Permit Application	540 days
Design and Engineering - 90% Design	60 days
90% Structural Design	60 days
90% Civil Design	60 days
90% Electrical Design	60 days
Port Review of 90% Design	14 days
Design and Engineering - Final Design	30 days
Final Structural Design	30 days
Final Civil Design	30 days
Final Electrical Design	30 days
Port Review of Final Design	14 days
Submit Final Plans to City for Review	45 days
Issued for Construction Drawings and Specifications	1 day
Project Bidding	45 days
Pre-Construction Meeting(s)	1 day
Submittal Review and RFIs	285 days
Procure Sheet Piles, Materials, and Equipment (Phase 1)	300 days
Issue Project Permits	1 day
Phase 1 In-Water Work Window	120 days
Phase 1 Upland Work	120 days
Procure Sheet Piles, Materials, and Equipment (Phase 2)	300 days
Phase 2 In-Water Work Window	120 days
Phase 2 Upland Work	120 days
Final Project Completion	1 day



11 Addendum RA.4

PROPOSER INFORMATION AND CERTIFICATION STATEMENT

The undersigned hereby acknowledges she/he has read and understands all requirements and specifications of the Request for Proposals (RFP), including all attachments of whatever type.

OFFICIAL CONTACT: The Port requests that the Proposer designate one person as authorized to receive, on behalf of the Proposer, all communication from the Port of Astoria regarding the attached Proposal. Identify the Contact name and fill in the information below. Please print clearly.

Legal Name of Proposer	PND Engineers, Inc.
Address	3240 Eastlake Ave E
City, State, Zip	Seattle, WA 9810
State of Entity Registration	Washington
Entity Type	Corporation
Contact Name	Rian Johnson, PE, SE
Phone	206.624.1387
Email	rjohnson@pndengineers.com
OR Business Registry No. (if applicable)	
Professional License / Certificate No. / Info	Rian Johnson PE License #94651PE

By its submission of this Proposal and authorized signature below, Proposer certifies to the following:

1. (a) The above information is true and correct and Proposer grants permission to the Port of Astoria to contact the above-named person (Contact Name) to verify the information contained therein and for all other purposes in connection with the Proposal. (b) The information contained within the Proposal is true and accurate.

2. (a) The Proposal has been developed independently, without consultation, communication or agreement with any employee, agent, or consultant to the Port. (b) The Proposal has been developed independently, without consultation, communication or agreement with any other Proposer or other parties for the purpose of restricting competition or any other illicit purpose. (c) No attempt has been made or will be made by the Proposer to induce any other Proposer to submit or not to submit a Proposal for the purpose of restricting competition. (d) No relationship exists or will exist during the contract period between Proposer and the Port or any other State agency that interferes with fair competition or constitutes a conflict of interest.

3. (a) Proposer acknowledges receipt of any and all addenda, exhibits, or other attachments to this RFP. (b) Proposer understands and accepts the procedures, evaluation criteria, and other requirements of this RFP. (c) If selected for award of the contract, Proposer agrees to the contract terms contained within the Construction Manager/General Contractor Services Agreement (Exhibit RE.1), except for those terms and conditions that Port has reserved for negotiation.

4. (a) Proposal is a Firm Offer for 180 days following the Closing. (b) If selected for award of the contract, Proposer agrees to be bound by the rates and fees submitted with this Proposal, including but not limited to the Preconstruction Fee and Construction Fee Rate.

5. Proposer is not in violation of any tax laws of the state or a political subdivision of the state that are itemized in ORS 305.380(4).

6.
   (a) Proposer does not discriminate in its employment practices with regard to race, creed, age, religious affiliation, gender, disability, sexual orientation, national origin. When awarding subcontracts, Proposer does not discriminate against any business certified under ORS 200.055 as a disadvantaged business enterprise, a minority-owned business, a woman-owned business, a business that a service-disabled veteran owns or an emerging small business. If applicable, Proposer has, or will have prior to contract execution, a written policy and practice, that meets the requirements described in ORS 279A.112 (formerly HB 3060), of preventing sexual harassment, sexual assault and discrimination against employees who are members of a protected class. Agency may not enter into a contract with an anticipated contract price of $150,000 or more with a Proposer that does not certify it has such a policy and practice. See https://www.oregon.gov/DAS/Procurement/Pages/hb3060.aspx for additional information and sample policy template.
   (b) Proposer complies with ORS 652.220. If selected for award under this RFP, Proposer's continuing compliance with ORS 652.220 constitutes a material element of the contract entered into between Owner and Proposing Firm ("Agreement") and failure to comply constitutes a breach that entitles The Port to terminate the Agreement for cause.
   (c) The Proposing Firm may not prohibit any of Proposing Firm's employees from discussing the employee's rate of wage, salary, benefits, or other compensation with another employee or another person. Proposing Firm may not retaliate against an employee who discusses the employee's rate of wage, salary, benefits, or other compensation with another employee or another person.

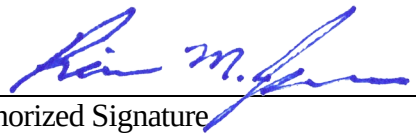
7. Proposer and Proposer's employees, agents, and subcontractors are not included on:
   A. the "Specially Designated Nationals and Blocked Persons" list maintained by the Office of Foreign Assets Control of the United States Department of the Treasury found at: https://www.treasury.gov/ofac/downloads/sdnlist.pdf., or
   B. the government wide exclusions lists in the System for Award Management found at: https://www.sam.gov/portal/

8. Proposer certifies that, to the best of its knowledge, there exists no actual or potential conflict between the business or economic interests of Proposer, its employees, or its agents, on the one hand, and the business or economic interests of the Port, on the other hand, arising out of, or relating in any way to, the subject matter of the RFP. If any changes occur with respect to Proposer's status regarding conflict of interest, Proposer shall promptly notify the Port in writing.

9. Proposer understands that any statement or representation it makes, in response to this RFP, if determined to be false or fraudulent, a misrepresentation, or inaccurate because of the omission of material information could result in a "claim" {as defined by the Oregon False Claims Act, ORS 180.750(1)}, subject to the Oregon False Claims Act, ORS 180.750 to 180.785, and to any liabilities or penalties associated with the making of a false claim under that Act.

10. Proposer certifies that neither it, nor any of its principals, (a) have been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by a Federal Agency or State Agency; (b) have within a three year period preceding this Proposal been convicted of, or had a civil judgment rendered against them for commission of fraud, a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction, violation of antitrust statutes; commission of embezzlement, theft, forgery, falsification or destruction of records, making false statements, or receiving stolen property; (c) are presently indicted for or criminally or civilly charged by a government entity (federal, state, or local) with the commission of any of the offenses enumerated in this certification; and (d) have not within a three year period preceding this Proposal had one or more public transactions (federal, state, or local) terminated for cause. This certification is a material representation of fact upon which the Port will rely in entering into any contract with the Proposer ("Agreement"). If it is later determined that Proposer knowingly rendered an erroneous certification, in addition to other remedies available, the Port may pursue available remedies including suspension, debarment, or termination of the Agreement.

11. Proposer acknowledges these certifications are in addition to any certifications required under the Contract.



Authorized Signature

June 30, 2023

Date

Rian M. Johnson, PE, SE
Vice President

(Printed Name and Title)

PND Engineers, Inc. (PND)

Standard Form of Agreement
For
Professional Engineering Services

This is an **Agreement** effective as of _____ ("**Effective Date**") by and between

CLIENT ("**Client**")	ENGINEER ("**Engineer**") PND Engineers, Inc. 1736 Fourth Ave S, Suite A Seattle, WA 98134
Phone: Fax: : E-mail:	Phone: 206-624-1387 Fax: 206-624-1388 E-mail: jcampbell@pndengineers.com

Engineer agrees to provide the services described below to **Client** for:

Project Name
("**Project**")

PND Project No. 15SXXX

The following is a brief description of **Engineer's** Services, which is more fully described in **Exhibit A:**
Design of sheet pile bulkhead for the Project.

Client and **Engineer** further agree as follows:

1.01 Basic Agreement
A. **Engineer** shall provide, or cause to be provided, the services set forth in this **Agreement**, and **Client** shall pay **Engineer** for such Services as set forth in Paragraph 2.01.

2.01 Payment
A. **Engineer** will prepare a monthly invoice in accordance with **Engineer's** standard invoicing practices and submit the invoice to **Client**.

B. Invoices are due and payable within 30 days of receipt. If **Client** fails to make any payment due **Engineer** for services and expenses within 30 days after receipt of **Engineer's** invoice, the amounts due **Engineer** will be increased at the rate of 1 ½ % per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day.

In addition, **Engineer** may, without liability, after giving seven days written notice to **Client**, suspend services under this **Agreement** until **Engineer** has been paid in full all amounts due for services, expenses, and other related charges. Payments will be credited first to interest and then to principal.

C. The **Engineer's** compensation is determined by and conditioned on the time to complete **Project** as described in **Exhibit A**. Should the time to complete the **Project** be extended beyond the described periods through no fault of the **Engineer**, the total compensation to the **Engineer** shall be appropriately adjusted.

3.01 Additional Services
A. If authorized by **Client** in writing, **Engineer** shall furnish services in addition to those set forth.

B. **Client** agrees to pay **Engineer** an amount equal to the **Engineer's** employees cumulative hours charged to the **Project** by each class of employee times standard hourly rates for each applicable billing class; plus reimbursable expenses and **Engineer's** consultants' charges, if any plus markup. Alternatively, the **Client** and **Engineer** may make additional compensation Agreements such as Lump Sum (LS) or Fixed Fee (FF) but only in writing.

4.01 Termination
A. Either party shall have the right to terminate this **Agreement** in whole or in part at any time and for reasonable cause, by delivery of 15 days' written notice, specifying the extent and effective date thereof. After receipt of such notice from **Client**, **Engineer** shall stop work hereunder to the extent and on the date specified in such notice, terminate all subcontracts and other commitments to the extent they relate to the work terminated, and deliver to the **Client** all completed deliverables in connection with the work terminated.

B. In the event of any termination by **Client** pursuant to this clause, and provided **Engineer** is not in default of a material obligation under the **Agreement**, **Engineer** shall be paid as follows.

B.1 Time and Material Contracts:
Client shall pay **Engineer** for all time and material costs incurred as of the date of Termination per **Engineer's** Standard Rate Schedule.

B.2 Fixed Fee or Lump Sum Contracts:
Client shall pay **Engineer** the percentage of the Fixed Fee or Lump sum equivalent to the percentage of work completed as of the date of Termination. Except as provided in this clause, any such termination shall not alter or affect the rights or obligations of the parties under this **Agreement**.

5.01 Controlling Law
A. This **Agreement** is to be governed by the law of the State of Alaska.

6.01 Successors, Assigns, and Beneficiaries
A. **Client** and **Engineer** each is hereby bound and the partners, successors, and executors of **Client** and **Engineer** (and to the extent permitted by paragraph 6.01.B the assigns of **Client** and **Engineer**) are hereby bound to the other party to this **Agreement** and to the partners, successors, and executors (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this **Agreement**..

B. Neither **Client** nor **Engineer** may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this **Agreement** without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this **Agreement**.

7.01 General Considerations
A. The standard of care for all professional engineering and related services performed or furnished by **Engineer** under this **Agreement** will be the care and skill ordinarily used by members of the

subject profession practicing under similar circumstances at the same time and in the same locality. **Engineer** makes no guarantees or warranties, express or implied, under this **Agreement** or otherwise, in connection with **Engineer's** services. **Engineer** and its consultants may use or rely upon the design services of others, including, but not limited to, contractors, manufacturers, and suppliers.

B. **Engineer** shall not at any time supervise, direct, or have control over any contractor's work, nor shall **Engineer** have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, for safety precautions and programs incident to a contractor's work progress, nor for any failure of any contractor to comply with laws and regulations applicable to contractor's work.

C. **Engineer** neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform its work in accordance with the contract between **Client** and such contractor.

D. **Engineer** shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any contractor's agents or employees or any other persons (except **Engineer's** own employees) at the **Project** site or otherwise furnishing or performing any of construction work; or for any interpretations or clarifications of the construction contract given by **Client** or contractor without consultation and advice of **Engineer**.

E. All design documents prepared or furnished by **Engineer** are instruments of service, and **Engineer** retains an ownership and property interest (including the copyright and the right of reuse) in such documents, whether or not the **Project** is completed. The **Client** shall not rely in any way on any document unless it is in printed final form signed and sealed by the **Engineer** or one of the **Engineer's** subconsultants.

F. To the fullest extent permitted by law, **Client** and **Engineer** (1) waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the **Project**, and (2) agree that **Engineer's** total liability to **Client** under this **Agreement** shall be limited to $50,000 or the total amount of compensation received by **Engineer.**

The **Client** shall immediately notify **Engineer** of any claim asserted in connection with the **Project** that relates to engineering services.

G. The parties acknowledge that **Engineer's** scope of services does not include any services related to a Hazardous Environmental Condition (the presence of asbestos, PCBs, petroleum, hazardous substances or waste, and radioactive materials). If **Engineer** or any other party encounters a Hazardous Environmental Condition, **Engineer** may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the **Project** affected thereby until **Client**: (i) retains appropriate specialist consultants or contractors to identify and, as appropriate, abate, remediate, or remove the Hazardous Environmental Condition; and (ii) warrants that the Site is in full compliance with applicable Laws and Regulations.

H. Changes to the design may be necessary as the work proceeds. The design is expected to change during construction which can result in increased cost to the **Client** for several reasons including:

H.1 Project Betterment – Items that are added to the work to improve the overall project that were not considered during design.

H.2 Unforeseen Conditions – Items of work added due to unknown conditions often associated with geotechnical variations and as-built conditions that could not be determined.

H.3 Design Additions – Items of work to add elements that are required for a functioning facility.

H.4 Design Revisions- Items of work needed to revise the design, including typographical items, changes due to conflicts or inconsistencies and conflicts or inconsistencies which may become apparent during construction.

The **Client** acknowledges that project betterment, unforeseen conditions and design additions and revisions can occur and that all cost associated with those items are part of the normal course of business and shall not be charged to the **Engineer**.

Design additions and revisions are expected and should be anticipated. The **Engineer** and **Client** agree to work together to correct these items to minimize cost. Potential for design additions and revisions are related to the type and complexity of work.

I. All documents, including Drawings and Specifications, furnished by **Engineer** pursuant to this **Agreement** are instruments of **Engineer's** services in

respect to the **Project**. They are not intended or represented to be suitable for reuse by **Client** or others on extensions of the **Project** or on any other project. Any reuse without specific written verification or adaptation by **Engineer** will be at **Client's** sole risk without liability or legal exposure to **Engineer**, and **Client** shall indemnify, defend, and hold harmless **Engineer** from all claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting there from. Any such verification or adoption will entitle **Engineer** to further compensation at rates to be agreed upon by **Client** and **Engineer**.

Engineer does not sell or convey any property interest in the design including drawings; **Engineer** only licenses the use for a particular **Project** and purpose for the duration of the **Project**. The **Client** shall not convey, sell or authorize any other party to use the design. The **Client** shall not reuse the design for any other purpose. The **Client** agrees to use reasonable measures to keep the information confidential and avoid any unauthorized reuse or dissemination. For any unauthorized use by the **Client** or breach of this **Agreement**, the **Client** agrees to pay the **Engineer** reasonable licensing fees and/or damages. **Client** agrees to indemnify, defend and hold **Engineer** harmless from any and all claims arising from or related to unauthorized use of the design.

J. Electronic files may be supplied for convenience. Use of this electronic information is at the risk of the end user, and **Engineer** can not take responsibility for any errors or misuse that may arise out of use of electronic information. AutoCAD files are only an electronic copy of the graphical representations of the plans and actual dimensions and locations as shown on the hard copy plans shall govern and as provided by **Engineer**.

8.01 Indemnification and Mutual Waiver

A. **Engineer**. To the fullest extent permitted by law, **Engineer** shall indemnifyand hold harmless **Client**, and **Client's** officers, directors, partners, agents, consultants, and employees from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the **Project**, but only to the extent that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property), and is caused by any negligent act or omission of **Engineer** or **Engineer's** officers, directors, partners, employees, or Consultants.

B. **Client**. To the fullest extent permitted by law, **Client** shall indemnify and hold harmless **Engineer**, **Engineer's** officers, directors, partners, agents, employees, and consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the **Project**, but only to the extent that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death or to injury to or destruction of tangible property, and is caused or alleged to be caused by any negligent act or omission of **Client** or **Client's** officers, directors, partners, agents, consultants, or employees, or others retained by or under contract to the **Client** with respect to this **Agreement** or to the **Project**.

C. **Percentage Share of Negligence**. To the fullest extent permitted by law, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of **Client**, **Engineer**, and all other negligent entities and individuals.

D. **Mutual Waiver**. To the fullest extent permitted by law, **Client** and **Engineer** waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the **Project**.

9.01 OPEN CELL™Licensing

A. In the course of the project, the **Engineer** may utilize the OPEN CELL™ technology relating to soil retaining systems on which the **Engineer** holds related patent rights. **Engineer** hereby grants to the **Client**, and its contractors, agents, employees, officers, and representatives, an irrevocable license for the construction and use of the design on the **Project** only, upon completion of final design by the Engineer. No fee or cost of any sort is or may be charged now or in the future for this license. This license grants the **Client**, and its contractors, agents, employees, officers and representatives, the right to utilize the design (including but not limited to the drawings and specifications) in the future for construction of this structure, and its subsequent use, maintenance, repair, restoration, renovation, and other similar uses.

B. **Engineer** has spent years testing, observing and refining the OPEN CELL™ System and holds this information proprietary. Disclosure by **Engineer** of OPEN CELL Technology or other information on the project shall be for use on this project only and shall not be divulged to others or used on any other project without **Engineers** prior written authorization. **Client** shall make these terms binding on all project participants including owners, employees, contractors and anyone else associated with the project.

10.01 Insurance

A. The **Engineer** shall maintain, at his own expense the minimum insurance coverage as outlined below. Upon request by **Client,** a current Certificate of insurance will be provided.

B. Workers' Compensation Insurance: **Engineer** shall provide and maintain, for all employees engaged in work under this contract, Workers' Compensation and Employers Liability Insurance as required by AS 23.30.045, to include:

1. Statutory coverage;
2. Employer's Liability Protection in the amount of $1,000,000.

C. Commercial Comprehensive General Liability Insurance with coverage limits of not less than $1,000,000 per occurrence and $2,000,000 aggregate for bodily injury, personal injury and property damage.

D. Automobile Liability Insurance: Such insurance shall cover all owned, hired and non-owned vehicles and provide coverage not less than $1,000,000 combined single limit per accident for bodily injury and property damage.

E. Professional Liability Insurance with limits of not less than $1,000,000 each claim and $1,000,000 aggregate.

11.01 Dispute Resolution

A. **Client** and **Engineer** agree to negotiate all disputes for a minimum period of thirty days from the date **Client** or **Engineer** provides notice of a dispute. If the dispute is not resolved by negotiation, the parties agree to mediate the disputes in good faith prior to filing of any lawsuit.

12.01 Total Agreement

A. This **Agreement** together with any expressly incorporated appendix constitutes the entire **Agreement** between **Client** and **Engineer** and supersedes all prior written or oral understandings. This **Agreement** may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

IN WITNESS WHEREOF, the parties hereto have executed this **Agreement**, the **Effective Date** of which is indicated on page 1.

Client: _____

Signature: _____

Print Name: _____

Title: _____

Date Signed: _____

Address for giving Notices:

Engineer: PND Engineers, Inc.

Signature: _____

Print Name: _____

Title: Vice President

Date Signed: _____

Address for giving Notices:

PND Engineers, Inc.
1736 Fourth Ave S, Suite A
Seattle, WA 98134
(206) 624-1387

Address for Payments:

PND Engineers, Inc.
1506 West 36th Ave.
Anchorage, AK 99503
(907) 561-1011

PND Engineers, Inc. (PND)
Standard Form of Agreement
For
Professional Engineering Services

Addendum A

TO THE TERMS AND CONDITIONS

SUPPLEMENT AND AMENDMENT TO THE TERMS AND CONDITIONS OF THE **Project**. This Addendum A supplements and amends of the terms and conditions of the **Project**, to include the following language:

This contractor and subcontractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, national origin, or for inquiring about, discussing, or disclosing information about compensation. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability. Contractor/subcontractor agrees to comply with all the provisions set forth in 29 CFR Part 471, Appendix A to Subpart A (Executive Order 13496).

INCORPORATION OF THIS ADDENDUM INTO THE ORIGINAL CONTRACTUAL AGREEMENT. The signing of this Addendum A shall incorporate Addendum A into the original contractual arrangement between the parties. It is further intended that in the event of any inconsistency between the agreement and its other attachments, that the terms of Addendum A be construed as final and binding.

END OF ADDENDUM A

PND Engineers, Inc. (PND)
Standard Form of Agreement
For
Professional Engineering Services

Exhibit A

(A) **Scope of Services:**

The **Project** consists of:

The following work items are included in this scope of work:

(B) **Subconsultants**: _____

(C) **Deliverables:** _____

(D) **Schedule**: _____

(E) **Fee Basis:** _____

(F) **Payments:** _____

3.2.1 Project Experience

3.2.1.1 Project History

1 – Port of Vancouver, Berth 2 Deck Repairs, Vancouver, WA

Deck condition assessments and structural repairs to a 600 ft long by 105 ft wide concrete cargo dock on steel pipe piles. The concrete deck was heavily abraded due to aggressive cargo handling and large portions of the deck had exposed reinforcing. KPFF prepared a condition survey report that identified deficiencies, developed repair solutions, and estimated probable construction costs. The preferred repairs consisted of 1 ½" thick microsilica concrete overlay and replacement of damaged reinforcing in isolated deeper pockets. KPFF completed final plans, specifications, and cost estimates to bid and construct the repairs. The project had to be staged carefully to minimize impacts to tenant operations and avoid frequent vessel calls.

The work will generally consisted of removing 2" to 6" of temporary asphalt pavement, repairing sections of damaged concrete deck, adjusting existing deck appurtenances, placing a 1 1/2" thick microsilica modified concrete overlay, and paving multiple lifts of a hot mix asphalt wearing surface.

- Construction Costs: $1.3M
- Bulkhead wall: None
- Quantity of backfill: None
- Design code: International Building Code
- Permitting authority: City of Vancouver, WA
- Seismic loading: None
- **3.2.1.3 Change Orders**: <2% of construction costs for design related change orders.
- **3.2.1.4 Claims**: The tenant and the Port were involved in legal action regarding who paid for the repair costs. KPFF was not informed on how the legal issues were settled.
- **3.2.1.6 Key Staff:** Craig Totten, Stephen Whittington, Matt Hoffman
- **Completed:** 2013

2 – NOAA Marine Operations Center – Pacific, Newport, OR

KPFF provided structural, civil, marine, and mechanical engineering and dredging design services for a new, award-winning homeport facility for NOAA's Pacific fleet. KPFF served as the prime design consultant for all in-water facilities and worked closely with the project's agency staff and consultants to facilitate timely review and approvals of required state and federal permits. The facility is on a 5-acre site, which includes a 1,300-foot-long by 35-foot-wide concrete wharf to provide berthage for up to 6 ships at any given time. In addition, there is a 200-foot-long by 10-foot-wide floating small boat dock. Land site

development included a 2-story, 18,000 sf office building, a single-story, 25,000 sf warehouse facility, a guard house, and a hazardous material storage building.

- Bulkhead wall length: None
- Quantity of backfill: None
- Design code: Oregon Structural Specialty Code,
- Permitting authority: City of Newport, OR; USACE
- Seismic loading: ASCE 61-14 Seismic Design of Piers and Wharves
- **3.2.1.3 Change Orders**: <5% of construction costs for design related change orders.
- **3.2.1.4 Claims**: There were no claims that went to litigation and/or arbitration.
- **3.2.1.6 Key Staff:** Craig Totten, Stephen Whittington, Tommi Rutherford
- **Completed:** 2013

3 – Port of Newport, International Terminal, Newport, OR

KPFF provided project management, civil and structural engineering, survey services, permit assistance and construction administration for this $20 million renovation of both the cargo and fishing docks totaling 900-LF at the Port of Newport in Yaquina Bay, Oregon. Both docks were constructed after World War II by scuttling two concrete Liberty-class cargo ships, adding sand as ballast, backfilling

from the land side to the vessels and building the docks across the decks. The first ship, the Pasley, was listing and breaking apart and the cargo dock had not been in use since 2000. The second ship, the Hennebique, comprised the fishing dock, Port Terminal Office building, additional small offices, a warehouse and a net manufacturing and repair business. All existing offices were demolished, and new offices were constructed in an upland area. The

fishing dock was a wooden pile-supported dock in advanced deterioration. The new cargo dock is precast concrete on steel pipe piles with a **tied-back sheet pile bulkhead wall. Ground improvement was required to stabilize the soil behind the new bulkhead against seismic liquefaction and lateral spread**. The replacement fishing dock is cast-in-place concrete on steel pile piles that used the existing wooden dock as falsework. The project also included 11 acres of upland improvements and the construction of an upland disposal site for approximately 8300 cubic yards of dredge spoils. Scope included project management, investigations, developing alternatives, soliciting, and responding to public input, **final design with the Construction Manager/General Contractor (CMGC)** and construction administration.

- Bulkhead wall length: Length 550ft, Height: 31ft, Embed: 35ft
- Quantity of backfill: None (Cut)
- Design code: Oregon Structural Specialty Code,
- Permitting authority: City of Newport, OR; USACE
- Seismic loading: ASCE 61-14 Seismic Design of Piers and Wharves
- **3.2.1.3 Change Orders**: <5% of construction costs for design related change orders.
- **3.2.1.4 Claims**: There were no claims that went to litigation and/or arbitration.
- **3.2.1.6 Key Staff:** Craig Totten, Stephen Whittington, Tommi Rutherford, Bob Riley
- **Completed:** 2014

4 – Ocean Terminals Bulkhead Wall, North Bend, OR

The Ocean Terminals Bulkhead Wall Project involved **the design of a new 59-foot tall tied-back bulkhead wall enclosing a 100' wide by 500' long area**. The bulkhead was built around an existing 1970's era timber dock that had passed its useful life. The site is an active log ship loading and unloading facility, and the new wall construction had to be phased to allow for continuous operations during construction. This was accomplished using a custom-fabricated steel king pile structural system comprised of cold-form JZ sheets welded to HP piles that were driven just outside of the timber dock perimeter. The use of this custom structural system required extensive iterative analyses as KPFF worked closely with the Owner to use materials that were available locally to shorten the construction schedule. After the wall was constructed, the timber dock was demolished in between ship loading operations, and the interior was backfilled. The site was not subject to liquefaction. Sand backfill was vibro-compacted during placement with a vibratory hammer and a 12 to 24-inch diameter pipe section.

- Bulkhead wall length: 700ft, height: 59ft, embedment: 45ft
- Quantity of backfill: 50,000 cubic yards
- Design code: Oregon Structural Specialty Code, USACE EM 1110-2-2504 – Design of Sheet Pile Walls
- Permitting authority: City of Newport, OR; USACE
- Seismic loading: ASCE 61-14 Seismic Design of Piers and Wharves
- **3.2.1.3 Change Orders**: <2% of construction costs for design-related change orders.
- **3.2.1.4 Claims**: There were no claims that went to litigation and/or arbitration.
- **3.2.1.6 Key Staff:** Craig Totten, Tommi Rutherford, Bob Riley, Ed Debroeck
- **Completed:** 2014

5 – Port of Bellingham, Shipping Terminal Bulkhead Repair & Replacement, Bellingham, WA

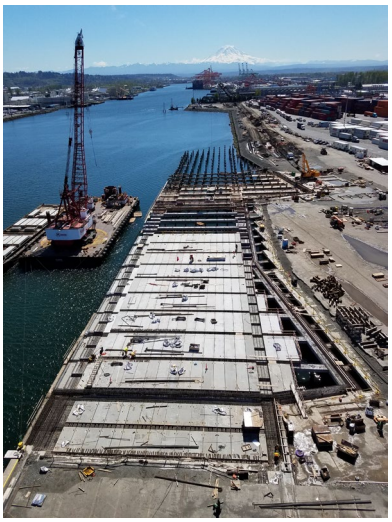
This project included many facets over three years, but the primary component was the rehabilitation of the North and Central Terminal bulkhead walls. The Central Terminal bulkhead wall is a concrete stem wall on a pile-supported footing situated to the southwest of Warehouse No. 1. Sink holes were developing behind the bulkhead due to undermining of the wall footing. The North Terminal bulkhead was a two-tiered timber bulkhead wall with timber tie-backs anchored to timber dead-man piles within the footprint of the adjacent warehouse. For the North Terminal bulkhead wall, multiple solutions including secant pile and cantilever sheet pile walls were evaluated in the concept stage. The project team arrived at the **solution of utilizing a tied-back steel king pile wall** to replace the unsalvageable timber wall. Permitting constraints required placing the new wall piles behind the existing timber wall which was only five feet from the warehouse. The dead-man was placed within the footprint of the warehouse. KPFF worked with the Port and Contractor to overcome these difficult site constraints including reviewing value engineering concepts by the Contractor and working through complicated field issues.

- Bulkhead wall length: 360ft, height: 15ft, embedment: 45ft

- Quantity of backfill: 50,000 cubic yards
- Design code: International Building Code, USACE EM 1110-2-2504 – Design of Sheet Pile Walls
- Permitting authority: City of Bellingham, WA; USACE
- Seismic loading: International Building Code
- **3.2.1.3 Change Orders**: <5% of construction costs for design related change orders.
- **3.2.1.4 Claims**: There were no claims that went to litigation and/or arbitration.
- **3.2.1.6 Key Staff:** Bob Riley
- **Completed:** 2014

6 – Port of Tacoma, Pier 4 Reconfiguration, Tacoma, WA

KPFF worked with the Port of Tacoma on this $120M project to remove and reconstruct an existing concrete pier to accommodate up to two Ultra Large Container Ships and eight 100-foot gauge, 24-box wide container cranes. Pier 4 historically served much smaller container ships and barges and was upgraded to handle 18,000 TEU vessels. An unusual kinked pierhead line configuration, a waterway width restriction, a 64-foot gauge crane rail system, and mooring and berthing components sized for smaller vessels required a complete reconfiguration of Pier 4. Combined with adjacent Pier 3, the facility now provides 3,000 feet of deep-draft berth length along the Blair Waterway. KPFF served as the Prime design consultant and provided project management, structural & civil engineering, surveying, and cost estimating services. KPFF also managed a number of subconsultants, including geotechnical, mechanical, and electrical engineering, and an architect. KPFF worked with the Port's in-house staff, terminal operators, and other stakeholders early in the project on the preliminary master planning of the site.



The reconfiguration concept for Pier 4 consisted of demolishing a majority of the existing wharf, cutting the slope back by dredging 550,000 cubic yards of sediment (50,000 cubic yards were contaminated), and constructing a new structure that aligns with existing Pier 3.

The project posed some unique challenges concerning environmental clean-up and terminal operations that required it to be separated into two phases that were designed in parallel. Phase 1 construction was completed in early 2016, and construction of Phase 2 started in mid-2016 and was completed in December 2018. Design scope included structural design (including the incorporation of a base-isolated seismic force-resisting system), operational analysis, dredging design and disposal, slope deepening to -55 MLLW, sheet pile bulkhead design, designing new terminal and crane power systems, and uplands improvements.

The new pier included an integrated bulkhead wall that was utilized to replace a row of concrete piles and was an integral part of the lateral resisting system. The 1,300 LF bulkhead wall runs along the landside edge of the wharf and consists of 5-ft. maximum exposure with a 68-ft high, 2:1 slope in front of the wall. Sheet piles for the bulkhead were embedded 65' and designed both to resist lateral earth pressure and provide vertical support to the back edge of the wharf's deck.

- Bulkhead wall length: 1,300 ft; exposed height: 5ft, embedment: 65ft
- Quantity of backfill: None
- Design code: Oregon Structural Specialty Code, USACE EM 1110-2-2504 – Design of Sheet Pile Walls
- Permitting authority: USACE

- Seismic loading: ASCE 61-14 Seismic Design of Piers and Wharves (Sheet pile wall was designed for additional lateral pressures due to design seismic event and evaluated for capacity against lateral spreading.)
- **3.2.1.3 Change Orders**: <2% of construction costs for design related change orders.
- **3.2.1.4 Claims**: There were no claims that went to litigation and/or arbitration.
- **3.2.1.6 Key Staff:** Bob Riley
- **Completed:** 2018

7 – Port of Vancouver, Terminal One Seismic Retrofit, Vancouver, WA

KPFF provided preliminary and final structural design of seismic upgrades to an existing 30 year old, 140 ft x 125 ft elevated concrete dock that was being repurposed into a new landscaped park facility as part of the Port's overall Terminal One redevelopment. The seismic retrofits consisted of two clusters of new steel battered piles and pile caps cast integrally with the existing dock, as well as strengthening and modifications to much of the existing dock's steel framing. The seismic retrofits were required so that the structure could accommodate a significant increase in mass added to the top deck from extensive new landscaping and other public features.

The shoreline is comprised of liquefiable soils which are expected to liquefy and slough down-slope through the dock's piling and into the Columbia River during a Code-level seismic event. Designing and constructing the dock modifications to resist these large kinematic soil loads would have been cost prohibitive. **KPFF, with the Port's full understanding and approval, successfully proposed an alternative design approach to the local jurisdiction which would not improve the existing shoreline liquefiable soils and save the project millions of dollars.** We obtained approval from the jurisdiction and were able to proceed with design and construction without having to arrest the significant potential soil movements from seismic loading.

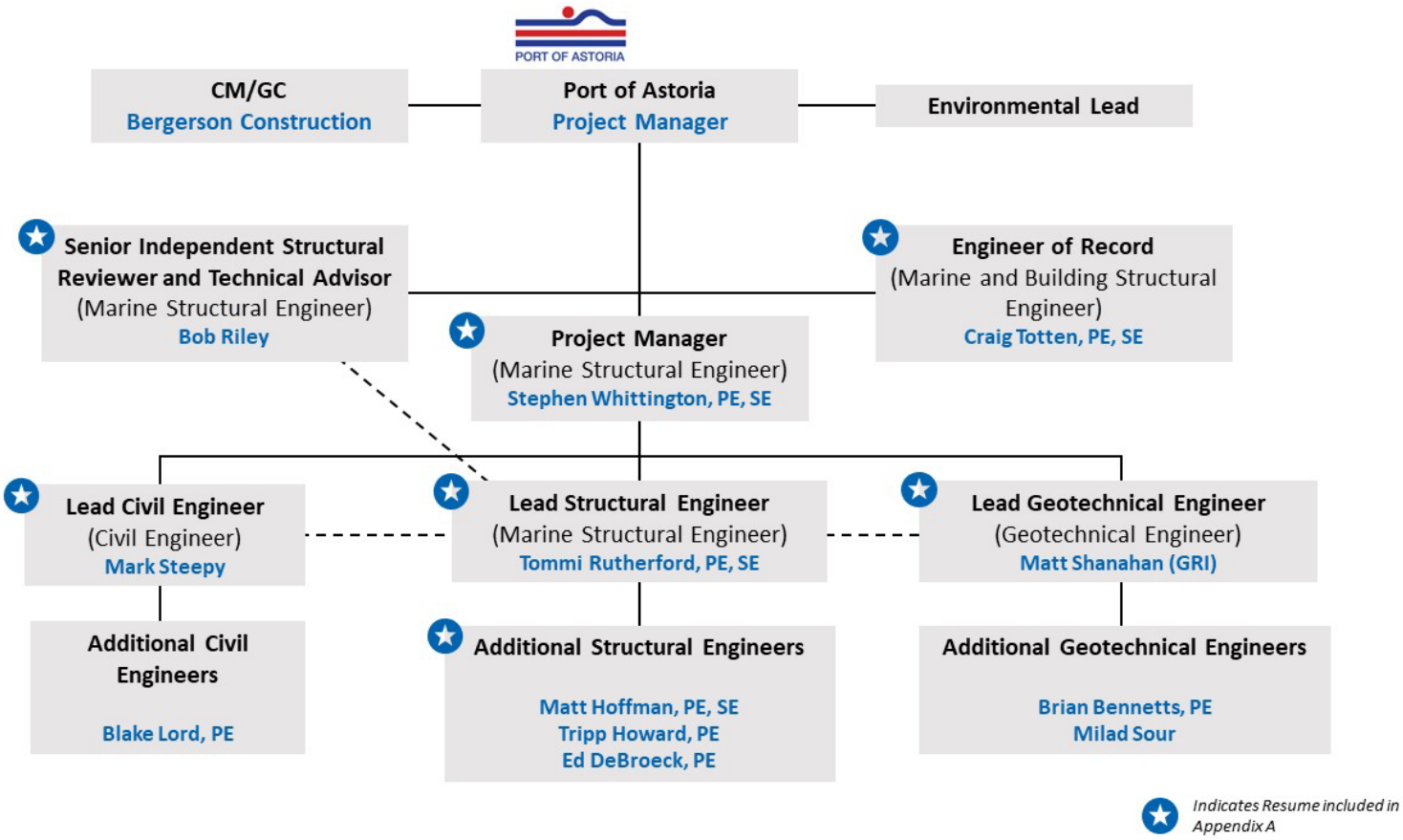
The design was completed on-time according to an aggressive schedule so that piles could be installed in the 2020 In-water work window. KPFF also provided Construction Design support throughout the field work from Fall 2020 to early Spring 2021.

- Bulkhead wall length: None
- Quantity of backfill: None
- Design code: International Building Code,
- Permitting authority: City of Vancouver, WA, USACE
- Seismic loading: ASCE 61-14 Seismic Design of Piers and Wharves
- **3.2.1.3 Change Orders**: <5% of construction costs for design related change orders.
- **3.2.1.4 Claims**: There were no claims that went to litigation and/or arbitration.
- **3.2.1.6 Key Staff:** Craig Totten, Stephen Whittington, Matt Hoffman, Ed Debroeck
- **Completed:** 2021

*Specified additional information on projects listed in 3.2.1.1 are provided in the attached **Exhibit RE.6.***

3.2.2 Staffing and Staff Qualifications Experience

Our team's key staff members are presented below in the **Organization Chart**. Resumes for the noted staff are included in **Appendix A**.



3.2.3 Project Approach

3.2.3.1 Value Engineering

It is our understanding that the Port desires to remove the elevated portion of Pier 2 West and fully replace it with embankment retained by a bulkhead located along the current face of dock. This desired result was discussed at length with the regulatory agency and with the Port's environmental permitting lead, Eric Campbell, during the lead up to KPFF's 30% design. It was our understanding that environmental permits would only be approved so long as the design approach was the **least environmentally impactful practicable solution**. As explained to us, from the environmental regulatory agencies' perspectives, constructing and backfilling a new bulkhead wall below ordinary high water is considered more environmentally impactful than constructing a new elevated dock in the same footprint. Therefore, the KPFF team sought to demonstrate how a backfilled bulkhead wall would be the only **practicable solution** by demonstrating it would be infeasible (i.e. impracticable) to construct a new elevated dock on the current site that could withstand the substantial soil liquefaction and lateral kinematic soil forces expected to occur during a Code-level earthquake. If these kinematic soil forces (meaning dynamic forces of flowing soil) were allowed to act on an elevated dock's pilings, the dock would likely collapse and not provide Code-requisite life safety performance. Improving Pier 2 West's in situ soils would likely require a wide and deep array of ground improvements – ground improvements that would need to extend considerable distance east to below the existing warehouse buildings. It is impracticable to install conventional ground improvements below these buildings. Thus, KPFF and our geotechnical subconsultant, GRI, Inc., asserted the elevated dock option was impracticable because the design could not provide a system that would secure the west dock against collapse and potential loss of life during a Code-level earthquake.

Conversely, the backfilled bulkhead wall option could be secured against life safety and complete collapse by constructing seismic ground improvements within the widened area between the back of wall and the face of the existing buildings. Thus, because this approach would be the only alternative which a design that prevented collapse was constructable, by default it would satisfy the regulatory agencies' requirements and could be permitted. The environmental agencies are still expected to require substantial mitigations to offset the fill materials below OHW, but the Port was confident it could secure an acceptable mitigation solution.

Therefore, our approach to value engineering is as follows:

- Step through the current design and its construction challenges with the Port's CM/GC.
- Identify a list of constructability and cost concerns from the CM/GC.
- Engage another senior KPFF marine engineer not already involved in the project to take a fresh review of the current 30% design scheme and to seek Value Engineered alternative solutions that cost less and save time. This reviewer will be **Bob Riley** from our Special Projects Marine Group.
- Include Bob in design and constructability working sessions with our project team, the CM/GC, and the Port.
- Cooperate with CM/GC on design details to facilitate their assessment and costing for the current design and potential Value Engineering alternatives.
- Track VE ideas and their cost / schedule implications.
- Work with CM/GC and the Port to select preferred VE solutions.
- Culminate the VE process with a memorandum to document the process and decisions made. Use

the VE Memorandum to guide final design along the most preferred path.

3.2.3.2 Seismic

Approach: The project is faced with a conundrum. It is our understanding it is very likely infeasible to expect the environmental regulatory agencies to grant a permit to fill in the Pier 2 West slope without the Port also providing a code-compliant earthquake resisting system that prevents the bulkhead from collapsing into the slip. The basis of design is predicated on the understanding that the site's in situ liquefiable soils would produce such large deformations (~tens of feet) and high lateral forces that a bulkhead wall (alone) with the proposed height of backfill could not be made strong enough to sustain these forces and the wall would essentially collapse into the slip. We have been working under the basis of design that collapse of the wall is an unacceptable level of performance. Therefore, the wall needs help to avoid collapse under these seismic conditions.

Some form of ground improvements appears to be required to serve as a seismic buttress and reduce these seismic forces to acceptable levels. Unfortunately, the ground improvements are forecasted to be a very high cost item and may pose formidable constructability challenges, as we described in KPFF's 30% Design Narrative dated 11/19/21. Our plan in the next phase of design would be to collect more complete soil information (Current explorations leading up to 30% were not extensive and were focused on the area around the existing top of slope timber bulkhead region and by the areas that have been subsiding) and brainstorm with GRI and your CM/GC on other possible solutions. Other potential options we see as feasible include: Devising a bulkhead wall that can sustain, or rotate with, the soil movements but not collapse; anchoring the bulkhead wall with a different tieback system that the CM/GC sees as more cost efficient; backfilling the wall with lightweight cellular concrete or other lightweight materials to reduce lateral earth pressures on the wall, which would reduce the size of the wall and/or ground improvement systems and save cost.

Design Code: We propose to use the ASCE 61-14 Seismic Design of Piers and Wharves for our reference code. It is the industry standard for seismic design of waterfront structures like your Pier 2 West.

Firm's Past Experience Securing Building Permits: We have a long history of securing building permits with all types of jurisdictions across the Pacific Northwest shorelines. To succeed here, we will base our design analyses and calculations on industry standard codes, provide complete calculations demonstrating resolution of load paths, and accompany the calculations with complete and well-detailed drawings. For complex projects, we have learned that it is effective to meet with the permit agency early in design to explain our approach and obtain their buy-in. We also prepare design narratives to address their likely questions or concerns, facilitate their understanding, and streamline their reviews and approvals. We recommend employing both of these strategies for permitting this project.

Working with the City of Astoria: Our core team for this project has minimal experience working with the City of Astoria. However, other structural engineers in our local Portland office have worked with the City before. Our approach will be to draw out their experience and use them to help us connect with the right people in the best manner at the City. Furthermore, it has been our experience that small municipalities like the City of Astoria have a very small staff for reviewing building permits, and that they may rely more on our professional recommendations than much larger public agencies. Therefore, it will be

important for us to establish a high level of trust between our design team and their reviewers.

Phasing for tenants: The conceptual 3-phase scheme we developed for 30% would be our starting point moving into final design. However, our seismic design approach would be to interview each of the tenants and to gain a more complete understanding of the facility and operational objectives and functions and cross check these with seismic construction. We would also offer access options to the tenants to gauge their preferences and objectives. The CM/GC and Port representatives should join us in these tenant / design meetings and offer their input and experience. Maintaining a temporary access driveway between the existing bulkhead wall and the warehouse appears to be an effective location for temporary access, but the route may need to be temporarily strengthened for heavy traffic. Relocating tenants' outside storage materials to another stable area on Pier 2 West will also be planned for. We would also plan for temporary vessel mooring and include temporary modifications to the front face of the dock and bitts.

Cost implications for Seismic Design: Our current proposed seismic design is costed as part of the 30% design package. We will focus on the largest cost items (ground improvements and bulkhead wall systems) with our team and the CM/GC to seek cost savings ideas, as discussed in Value Engineering earlier in the section.

3.2.3.3 Synthesis

We provided our preferred design approach at the time with the previously delivered 30% design. However, we are open-minded and ready to brainstorm with your CM/GC and our independent Technical Reviewers to find alternative solutions that save cost and time, streamline permitting, reduce impacts to your tenants, or reduce risks for the Port. We are problem-solvers and commit our full effort and resources to optimizing the design and construction of a state-of-the art facility at Pier 2 West that will greatly benefit your business now and give you maximum flexibility and security to succeed over the long future ahead.

3.2.4 Project Timeline

Our proposed project timeline is provided on the following page.

Capability to meet or beat the RFP's engineer related milestones:

30% Design December 2023: This is a feasible milestone date for our team to **beat**. We expect there will be several months of value engineering of the current 30% design and validating the Basis of Design with your CM/GC and the Port. We forecast that effort completing by early October. Afterwards, we would update our current 30% design package and deliver it to you by Thanksgiving.

60% Design February 2024: This target milestone date in the RFP may not be feasible to meet. It would be feasible for structural and civil to advance our design from 30% to 60% in 3 months if all design criteria had been established and your site was stable for seismic ground motions. However, the site's soils are not favorable and instead are highly susceptible to large amounts of ground deformations from liquefaction and lateral spreading. Capturing the behavior and magnitude of these deformations will require significant geotechnical analyses and will require substantial geotechnical and structural effort to resolve. These design issues need to be resolved so they can inform our 60% design.

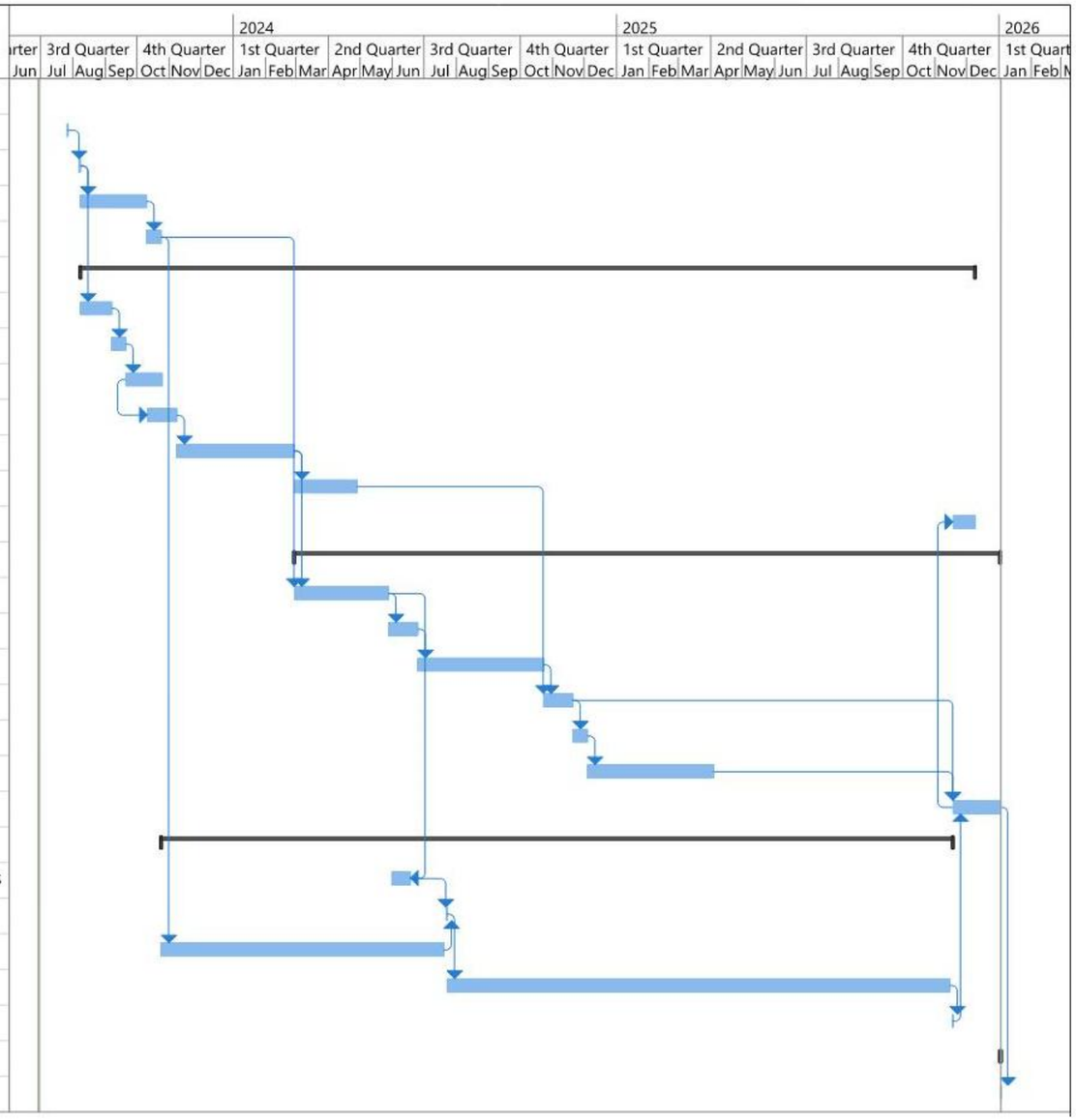
We expect there will need to be more geotechnical field explorations and in-depth geotechnical analyses of the site's liquefiable soils for our team to design and optimize (i.e. reduce the cost of) the bulkhead wall and ground improvements systems to withstand a Code-level seismic event. This additional effort is discussed in KPFF's 30% Design Narrative for the Pier 2 West Improvements dated 11/19/21. This more rigorous than typical geotechnical analysis is identified on Line #11 of our attached project schedule. Much of the structural wall design cannot be advanced from 30% until these slope and site soil modeling results have been determined. Therefore, we believe a more feasible milestone date for 60% Design is June 2024. If the project receives an exemption to the governing code for seismic design, then we would be able to meet the RFP's target date for 60% of February 2024.

We understand this is a critical schedule milestone because the environmental permit applications are typically based on the 60% design package. Thus, we will prioritize reaching the 60% level of design completion along the swiftest path so the permit applications can be submitted in to review as soon as possible.

90% Design April 2024: Assuming the challenges noted above in the 60% Design milestone are resolved with that submittal, then our team will be capable of advancing our analysis and design to 90% within three months of receiving Port and CM/GC comments on the 60% Design package. We suggest pausing the engineering design at 90% until the permits are obtained in case the agencies impart conditions that require adjustment in the design. Upon receiving the approved permits, we can deliver final bid documents to you within six weeks.

3.2.4 Project Timeline

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
1						
2		Notice to Proceed	1 day	Wed 7/26/23	Wed 7/26/23	
3		Kickoff Meeting	1 day	Mon 8/7/23	Mon 8/7/23	2FS+7 days
4		Vaule Engineering of Design Approach	9 wks	Tue 8/8/23	Mon 10/9/23	3
5		Validate and Document Basis of Design	2 wks	Tue 10/10/23	Mon 10/23/23	4
6		**Geotechnical**	**610 days**	**Mon 8/7/23**	**Mon 12/8/25**	
7		Arrange Drilling and Drilling Permits	1 emon	Mon 8/7/23	Wed 9/6/23	3
8		Geotechnical Explorations	9 days	Thu 9/7/23	Tue 9/19/23	7
9		Lab Testing	5 wks	Wed 9/20/23	Tue 10/24/23	8
10		Soils Analyses	4 wks	Wed 10/11/23	Tue 11/7/23	9SS+15 days
11		Ground & Slope Modeling for Liquefaction	4 mons	Wed 11/8/23	Tue 2/27/24	10
12		Draft Geotechnical Report	2 emons	Tue 2/27/24	Sat 4/27/24	11
13		Final Geotechnical Report	3 wks	Tue 11/18/25	Mon 12/8/25	21SS
14		**Structural & Civil**	**482 days**	**Tue 2/27/24**	**Thu 1/1/26**	
15		**MILESTONE: Analysis and Design, 30% to 60%**	3 emons	Tue 2/27/24	Mon 5/27/24	5,11
16		Port & CM/GC Review and CM/GC Pricing 60%	4 wks	Tue 5/28/24	Mon 6/24/24	15
17		**MILESTONE: Analysis and Design, 60% to 90%**	4 emons	Mon 6/24/24	Tue 10/22/24	16
18		Port & CM/GC Review 90%	4 wks	Wed 10/23/24	Tue 11/19/24	17,12
19		Prepare and Submit Building Permits	2 wks	Wed 11/20/24	Tue 12/3/24	18
20		Obtain Building Permits	4 emons	Tue 12/3/24	Wed 4/2/25	19
21		Adavance Plans & Specs to Final	1.5 emons	Mon 11/17/25	Thu 1/1/26	20,18,27
22		**Environmental**	**540 days**	**Mon 10/23/23**	**Mon 11/17/25**	
23		Support Enviro Permits Applications	12 days	Fri 5/31/24	Mon 6/17/24	15FF+15 days
24		Submit Enviro Permit Applications (Others)	1 day	Mon 7/22/24	Mon 7/22/24	23,25
25		Mitigation Design (Others)	9 emons	Mon 10/23/23	Fri 7/19/24	5
26		Environmental Permits Reviews and Processing	16 emons	Mon 7/22/24	Fri 11/14/25	24
27		Obtain Environmental Permits	1 day	Mon 11/17/25	Mon 11/17/25	26
28		**Construction**	**1 day**	**Fri 1/2/26**	**Fri 1/2/26**	
29		**MILESTONE: Ready for Bidding Phase 1**	1 day	Fri 1/2/26	Fri 1/2/26	21



Firm: KPFF CONSULTING ENGINEERS
Project: PORT OF ASTORIA - ENGINEERING SERVICES PIER 2 WEST REHABILITATION

Exhibit RE.6 - Past Performance Table

		Contact Info / References					Back Filled Seawall Metrics (if applicable)				Project Costs				Schedule		
Project # Referenced in Proposal	Project Name	Owner (Entity) Name	Contact Person	Phone	Project Location	Project Completion Date	Length (FT)	Overall Height (FT)	Volume of Backfill (CY)	Design Life (Years)	Project *Construction* Cost (Actual)	Pre-Construction Estimated *Construction* Cost	Pre-Construction Design & *Engineering* Cost Estimate	Post-Construction *Actual Design & Engineering Cost*	Pre-Engineering Estimate of Time	Actual Time	CM/GC Project?
1	Port of Vancouver Berth 2 Deck Repairs	Port of Vancouver	Monty Edberg	360-693-3611	Vancouver, WA	2013	N/A	N/A	N/A	N/A	$1.3M	$1.4M	Unavailable	Unavailable	Unavailable	Unavailable	No
2	NOAA Marine Operations Center – Pacific	Port of Newport; National Oceanic and Atmospheric Administration	Don Mann	541-374-2406	Newport, OR	2013	None	N/A	N/A	N/A	$44M	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Yes
3	Port of Newport International Terminal	Port of Newport	Don Mann	541-374-2406	Newport, OR	2014	550	31	N/A	50	$19.8M	$19.8M	Unavailable	Unavailable	Unavailable	Unavailable	Yes
4	Ocean Terminals Bulkhead Wall	Ocean Terminals Co	Jim Lyons	541-756-5187	North Bend, OR	2014	500	59	50,000	50	unknown	Unavailable	$135,000	Unavailable	Unavailable	Unavailable	No
5	Port of Bellingham Shipping Terminal Bulkhead Repair & Replaceme	Port of Bellingham	Fred Seeger (ret)	Unknown	Bellingham, WA	2014	360	15	n/a	n/a	$3.6M	Unavailable	$122,000	Unavailable	20 months	Unavailable	No
6	Port of Tacoma Pier 4 Reconfiguration	Port of Tacoma	Trevor Thornsley	253-383-9408	Tacoma, WA	2018	1300	5	n/a	50	$120M	$136M	Unavailable	$7.5M	Unavailable	Unavailable	No
7	Port of Vancouver Terminal One Seismic Retrofit	Port of Vancouver	Monty Edberg	360-693-3611	Vancouver, WA	2021	None	N/A	N/A	N/A	$2.7M (for Structural)	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	No

Additional Requirements

Craig Totten

PE, SE

Engineer-of-Record

years of experience
in industry: 31 years
with KPFF: 28 years

education
MS, Civil Engineering,
University of Kansas
BEng, Civil Engineering,
Strathclyde University, Scotland

registrations
Professional Structural Engineer
OR

Professional Engineer
CA, ID, IA, KS, MI, NY, OR, VA, WA, WY

ATC-20
OR

affiliations
Structural Engineers Association of Oregon
American Council of Engineering Companies of Oregon

Craig joined KPFF in 1995 and was promoted to principal in 2006. He is recognized within the industry as an exceptional structural engineer and trusted advisor to his clients on issues related to structural engineering. He has a passion for finding innovative and sustainable structural solutions that can be implemented practically and efficiently. His design and project management experience includes countless marine and port facilities and understands the unique challenges and opportunities with these types of buildings relative to program, performance requirements, materials, stakeholders and climate.

Port of Astoria, Pier 2 West (30% design), Astoria, OR
Engineer-of-Record. Under a prime contract with the Port of Astoria, KPFF provided structural and civil engineering services for design of an 800 ft long backfilled bulkhead wall to replace the existing elevated timber dock which is nearing its useful design life. GRI provided geotechnical engineering services as a subconsultant to KPFF. The design included a new fender pile system, mooring bitts, tied-back steel king pile wall, seismic ground improvements, and utilities. The construction work will be staged to maintain tenants access to the existing adjacent warehouse and access to the dock frontage.

Port of Newport, Marine Operations Center - Pacific, Newport, OR
Engineer-of-Record. 1,300-foot-long by 35-foot-wide concrete wharf to provide berthage for up to 6 ships at any given time. In addition, there is a 200-foot-long by 10-foot-wide floating small boat dock. Land site development included a 2-story,18,000sf office building, a single-story, 25,000sf warehouse facility, a guard house, and a hazardous material storage building.

Ocean Terminals Co., Ocean Terminals Dock Facility Expansion, North Bend, OR
Engineer-of-Record. The Ocean Terminals Bulkhead Wall Project involved the design of a new 59-foot-tall tied back bulkhead wall covering a 100' wide by 500' long area. The bulkhead was built around an existing 1970's era timber dock that had passed its useful life. The site is an active log ship loading and unloading facility and the new wall construction had to be phased to allow for continuous operations during construction. This was accomplished using a custom-fabricated steel king pile structural system comprised of cold-form JZ sheets welded to HP piles that were driven just outside of the timber dock perimeter. The use of this custom structural system required extensive iterative analyses as KPFF worked closely with the Owner to use materials that were available locally to shorten the construction schedule. After the wall was constructed, the dock was demolished in between ship loading operations and the interior was backfilled with 50,000 cubic yards of fill.

Port of Vancouver, Terminal 2 Reconstruction, Phase 2, Vancouver, WA
Engineer-of-Record. 782-foot by 135-foot general cargo wharf and a 370-foot by 100-foot replacement wharf. The main structure consists of a 2-foot-thick, cast-in-place concrete deck supported by 2-foot in diameter steel pipe piles on a 14-foot by 16-foot grid. The replacement wharf includes a 370-foot-long by 15-foot-high sheet pile retaining wall with tie-back anchors.

Port of Newport, International Terminal Renovation, Newport, OR
Engineer-of-Record. $20 million renovation of both the cargo and fishing docks totaling 900-LF at the Port of Newport in Yaquina Bay, Oregon. Both docks were constructed after World War II by scuttling two concrete Liberty-class cargo ships, adding sand as ballast, backfilling from the land side to the vessels and building the docks across the decks.

Bob Riley

PE, SE

Senior Independent Reviewer and Technical Advisor

years of experience
in industry: 31 years
with KPFF: 26 years

education
BS, Architectural Engineering, University of Colorado at Boulder

registration
Professional Structural Engineer
WA, CA; P. Eng in BC, Canada

Professional Engineer
WA, AK, OR, CA, MA, TX, FL

TWIC

affiliations
American Institute of Steel Construction (AISC) American Society of Civil Engineers (ASCE); Coasts, Oceans, Ports, and Rivers Institute (COPRI); Association of Professional Engineers and Geoscientists of BC (APEGBC)

Bob Riley's position as co-leader of the marine structural group within KPFF's Special Projects Division reflects his breadth of engineering experience. During his 31-year career, he has served as a civil engineer, structural engineer, and project as well as contractors. Bob has worked on many projects that require daily out-of-the-box thinking, and he is especially skilled at developing creative solutions to obstacles. These strengths have served him well in his extensive work designing marine and mooring structures, including piers, floating structures, bulkheads and fendering systems. Over his career Bob has been involved in more than a dozen separate marine float projects in various sizes and industries supporting marinas, ferry vessels, cruise ships and other industrial facilities.

Port of Tacoma Pier 4 Reconfiguration, Tacoma, WA
Senior QA/QC Manager. KPFF worked with the Port of Tacoma to evaluate options to remove and replace an existing concrete pier to accommodate up to two Ultra Large Container Ships. Work included structural wharf design, including seismic design using ASCE 61, navigation analysis, operational analysis, dredging design and disposal.

Ocean Terminals, Coos Bay, OR
Senior Structural Engineer. Ocean Terminals Bulkhead Wall Project in Coos Bay, Oregon. The Owner was able to obtain a permit to infill 50,000 square feet of shoreline. A new bulkhead was constructed that allowed for log load out operations to continue. The project involved the design of a new 59' tall tied back king pile bulkhead wall covering a 100' wide by 500' long area. The bulkhead was built around an existing 1970's era timber dock that had surpassed its useful life.

Port of Bellingham Shipping Terminal Bulkhead Rehabilitation, Bellingham, WA
Project Manager and Engineer of Record. Replaced an existing timber bulkhead and concrete wall with a new tied-back steel king pile wall. Wall installation was particularly challenging as there was only 6 feet of clearance between the building and the existing bulkhead. The slope in front of the wall is subject to lateral spreading in a seismic event. This was mitigated by designing the wall to have an increased unbalanced height in a post-seismic event condition, requiring the use of tie-backs and a deadman anchor buried within the footprint of the adjacent warehouse.

USCG Base Seattle Pier 36 Berth Modernization & Slip Clean Up, Seattle, WA
Structural Engineering Lead and Engineer of Record. Supporting the US Coast Guard with reconstruction of waterfront wharf facilities, along with dredging of contaminated sediment within the berthing slip. Pier 36A has an existing 30 foot tall cantilevered toe wall at the face of the berth. KPFF's role is to analyze the existing toe wall for temporary and permanent impacts due to berth deepening, working closely with geotechnical engineers to perform soil structure interaction analysis on the wall and under-wharf slope to understand impacts due to berth deepening and make recommendations to the Coast Guard for stabilizing the toe wall, the under wharf slope and the new wharf structure.

Foss Maritime Float Replacement, Portland, OR
Engineer of Record. Design and construction support for removal 2,000 square feet of old out of date floats, and installation of nearly 4,000 square feet of new float system. Design includes fire suppression system, potable water system and float appurtenances. Float system was designed to integrate into the existing network of floats and barges that Foss currently maintains on site, and to upgrade utilities to meet current needs and standards, which were not being met with the existing system.

Stephen's 27 years of structural and waterfront engineering experience has equipped him to be a skilled and effective leader for complex and long-term projects. Having worked as a construction contractor before joining KPFF and knowing potential issues that can arise, he strives to make his designs practical, easy to understand and efficient to construct. Stephen values his client relationships and finds the development of a true partnership during the course of a contract to be particularly rewarding. His design of civic structures, like the Congressman Earl Blumenauer Bike and Pedestrian Bridge, is the work he most enjoys as it will benefit the local community and serve as a Portland landmark-type structure.

Stephen Whittington

PE, SE

Project Manager

years of experience
in industry: 29 years
with KPFF: 19 years

education
MS, Construction Engineering/Project Management,
University of Texas, Austin
BS, Civil Engineering,
Auburn University

registrations
Professional Structural Engineer
ID, OR, WA

Professional Engineer
FL, OR, WA

affiliations
Structural Engineers Association of Washington
American Council of Engineering Companies of Oregon

Port of Astoria, Pier 2 West (30% design), Astoria, OR
Lead Structural Engineer. Under a prime contract with the Port of Astoria, KPFF provided structural and civil engineering services for design of an 800 ft long backfilled bulkhead wall to replace the existing elevated timber dock which is nearing its useful design life. GRI provided geotechnical engineering services as a subconsultant to KPFF. The design included a new fender pile system, mooring bitts, tied-back steel king pile wall, seismic ground improvements, and utilities. The construction work will be staged to maintain tenants' access to the existing adjacent warehouse and access to the dock frontage.

Port of Vancouver, Berth 17 Rehabilitation, Vancouver, WA
Project Manager for multi-discipline design and permitting team to convert Berth 17 into a state-of-the-industry layberth facility: Work includes re-fendering, select demolition, dolphins, catwalks, shore power, and on-berth wet utilities.

Port of Vancouver, Terminal 1 Dock Removal and Replacement, Vancouver, WA
Project Manager for demolishing an existing 530' long timber dock and bulkhead wall and replacing with a same-sized new, modern dock and new steel king pile bulkhead wall. Project also included substantial ground improvements behind the bulkhead wall to buttress against soil liquefaction and lateral spreading.

City of Portland, Portland Harbor Superfund Site Cleanup, Dock and Seawall Analyses, Portland, OR
Lead Structural Engineer. KPFF completed conceptual designs and feasibility recommendations for strengthening and retrofits to the existing waterfront structures to allow the dredging and/or capping of contaminated soils along this industrialized ½ mile stretch of the river. Potential impacts to existing waterfront structures and structural strengthening techniques were analyzed across a range of potential remedial options. Analyses included large bulkhead walls and new docks and dolphins.

Port of Newport, International Terminal Renovation, Newport, OR
Structural Engineer. $20 million renovation of both the cargo and fishing docks totaling 900-LF at the Port of Newport in Yaquina Bay, Oregon. Both docks were constructed after World War II by scuttling two concrete Liberty-class cargo ships, adding sand as ballast, backfilling from the land side to the vessels and building the docks across the decks. Work also included the design of a large bulkhead wall.

Port of Newport, NOAA Marine Operations Center - Pacific, Newport, OR
Structural Engineer for the award-winning homeport facility for NOAA's Pacific fleet: KPFF designed the ship dock and upland buildings and led the permitting.

Mark has been practicing civil engineering planning, permitting, design and construction administration for 30 years. He has a multitude of experience providing civil engineering design, PS&E documentation, and management services for a variety of infrastructure projects. Marks experience is diverse, ranging from infrastructure rehabilitation, design of utilities, large earthwork projects, roadways, and drainage.

Mark Steepy

PE

Civil Lead

years of experience
in industry: 30 years
with KPFF: 30 years

education
BS, Civil Engineering, University of Washington

registration
Professional Civil Engineer
WA, OR

Port of Astoria, Storm Damage Assessment, Astoria OR
Project Manager. As prime consultant to the Port, KPFF and a small team of consultants managed by Mark reviewed FEMA project worksheets for repair and costs at over a dozen locations at various port facilities. During a series of sever storm events in late 2015, a number of facilities were damaged and in need of repair. The storm events did result in a declared disaster by FEMA and therefore subject to federal funding for repair. KPFF assessed the damage, reviewed FEMA's conclusions, and funding for 'in-kind' repair, and prepared a report seeking outlining additional repair scope and funding. Ultimately, FEMA was not able to provide additional funding as they only can provide funding to repair the 'in-kind' work for replacement of the pre-damaged facility. Code compliance to repair the aged facilities did not support an 'in-kind' repair.

Port of Astoria, Pier 2 West, Astoria, OR
Project Manager. Mark, acting as prime consultant to the port, and other KPFF staff assembled a team of civil, structural, and geotechnical engineers, as well as an environmental permitting consultant to support the port assess a permanent replacement of the failing dock and pier at Pier 2 West (P2W). The team assessed multiple structural alternatives, coordinated with various local and state permitting agencies to determine required mitigation for in-water work, as well as structural building permits, worked with port staff to determine a preferred alternative and ultimately completed a 30% design and estimate of construction costs. The project site has complications given the quality of fill material between P2W and P2E, and the age and stability of P2E, which has not been evaluated relative to the alternatives looked at for P2W. In addition to the structural alternatives to P2W, civil design was completed for the utilities that support the business operations within the buildings, as well as pavement and drainage considerations.

Other Related Projects:

Port of Tacoma. Terminal 3 Pavement Repair, Tacoma WA

Port of Tacoma. Slip One, Tacoma WA

Port of Olympia. Budd Inlet Mast Plan, Olympia WA

Pier 50 Floating Dock Replacement, Seattle WA

Port of Seattle Terminal 5 Expansion, Seattle WA

Tommi Rutherford

PE, SE

Lead Structural Engineer

years of experience
in industry: 28 years
with KPFF: 28 years

education
MS, Civil Engineering,
Portland State University
BS, Civil Engineering,
Portland State University

registrations
Professional Structural Engineer
OR

Professional Engineer
CA, OR, WA

ATC-20
OR

affiliations
Structural Engineers Association of Oregon

For Tommi, structural engineering is an essential, exciting piece of each project puzzle. By considering all project perspectives – from the owner to the construction contractor and other disciplines – Tommi devises efficient, functional solutions to make a design work. Since starting at KPFF in 1995, Tommi has worked on all types of marine structures, bridges, tunnels, culverts, retaining walls, and other transportation infrastructure projects. She excels at delivering public infrastructure projects and utilizes her broad perspective to ensure goals are met while upholding safe and efficient structures. As the lead structural engineer, Tommi enjoys making sure the overall project runs smoothly, while still taking the time to run calculations and get into nitty-gritty details when needed.

Port of Newport, Marine Operations Center - Pacific, Newport, OR
Structural Engineer. 1,300-foot-long by 35-foot-wide concrete wharf to provide berthage for up to 6 ships at any given time. In addition, there is a 200-foot-long by 10-foot-wide floating small boat dock. Land site development included a 2-story,18,000sf office building, a single-story, 25,000sf warehouse facility, a guard house, and a hazardous material storage building.

Port of Vancouver, Terminal 2 Reconstruction, Phase 2, Vancouver, WA
Structural Engineer. 782-foot by 135-foot general cargo wharf and a 370-foot by 100-foot replacement wharf. The main structure consists of a 2-foot-thick, cast-in-place concrete deck supported by 2-foot in diameter steel pipe piles on a 14-foot by 16-foot grid. The replacement wharf includes a 370-foot-long by 15-foot-high sheet pile retaining wall with tie-back anchors.

Port of Newport, International Terminal Renovation, Newport, OR
Lead Structural Engineer. $20 million renovation of both the cargo and fishing docks totaling 900-LF at the Port of Newport in Yaquina Bay, Oregon. Both docks were constructed after World War II by scuttling two concrete Liberty-class cargo ships, adding sand as ballast, backfilling from the land side to the vessels and building the docks across the decks.

Port of Vancouver, Structural Engineering Services On-Call 2012-Present, Vancouver, WA
Structural Engineer. KPFF has provided structural engineering services through an on-call contract with the Port of Vancouver since 2012 for their waterfront and upland structures and facilities. The range of services provided by KPFF has included structural assessments of existing docks and bulkhead walls, dock and dolphin replacements, new bulkhead walls, fender pile systems, dock seismic upgrades, and dock load ratings.

Ocean Terminals Co., Ocean Terminals Dock Facility Expansion, North Bend, OR
Structural Engineer. Design of a new 59-foot-tall tied back bulkhead wall covering a 100’ wide by 500’ long area. The bulkhead was built around an existing 1970’s era timber dock that had passed its useful life. The site is an active log ship loading and unloading facility and the new wall construction had to be phased to allow for continuous operations during construction. This was accomplished using a custom-fabricated steel king pile structural system comprised of cold-form JZ sheets welded to HP piles that were driven just outside of the timber dock perimeter. The use of this custom structural system required extensive iterative analyses as KPFF worked closely with the Owner to use materials that were available locally to shorten the construction schedule. After the wall was constructed, the dock was demolished in between ship loading operations and the interior was backfilled with 50,000 cubic yards of fill.

Matt has over eleven years of experience working on marine and waterfront structures, including seawalls, fender systems, mooring dolphins, elevated dock structures, and support buildings He comes from a construction background which provides him a unique perspective of both constructability, cost estimating, and structural integrity. Matt has worked on projects for multiple Port clients in Oregon and Washington, including the Port of Vancouver and the Port of Astoria.

Matt Hoffman

PE, SE

Structural Engineer

years of experience
in industry: 11 years
with KPFF: 11 years

education
BS, Civil Engineering,
Portland State University

registrations
Professional Structural Engineer
OR

Professional Engineer
OR, CA

affiliations
Structural Engineers Association of Oregon
American Council of Engineering Companies of Oregon

Port of Astoria, Pier 2 West (30% design), Astoria, OR
Structural Engineer. Under a prime contract with the Port of Astoria, KPFF provided structural and civil engineering services for design of an 800 ft long backfilled bulkhead wall to replace the existing elevated timber dock which is nearing its useful design life. GRI provided geotechnical engineering services as a subconsultant to KPFF. The design included a new fender pile system, mooring bitts, tied-back steel king pile wall, seismic ground improvements, and utilities. The construction work will be staged to maintain tenants' access to the existing adjacent warehouse and access to the dock frontage.

Port of Vancouver, Structural Engineering Services On-Call 2012-Present, Vancouver, WA
Structural Engineer. KPFF has provided structural engineering services through an on-call contract with the Port of Vancouver since 2012 for their waterfront and upland structures and facilities. The range of services provided by KPFF has included structural assessments of existing docks and bulkhead walls, dock and dolphin replacements, new bulkhead walls, fender pile systems, dock seismic upgrades, and dock load ratings.

Port of Vancouver, Terminal 2 Berth 2 Long Term Deck Repairs, Vancouver, WA
Structural Engineer. KPFF provided structural engineering design services for long term repairs to a 600 ft long by 105 ft wide dock. The structure consists of a reinforced concrete deck slab supported by steel piles. The repair consists of a microsilica concrete overlay. An asphalt concrete overlay was placed over the microsilica concrete to serve as a sacrificial wearing surface.

Port of Vancouver, Berth 17 Rehabilitation Final Design, Vancouver, WA
Structural Engineer. Under a prime contract, KPFF is providing structural services to rehabilitate the existing Terminal 5, Berth 17. This is a multi-discipline project requiring structural, civil, geotechnical, and electrical engineering as well as marine and shoreline permitting. The berth was rehabilitated to serve as a long-duration lay berth facility for large MARAD vessels and to also potentially handle bulk cargo barges. KPFF completed the design and permits for the berth rehabilitations. Scope of work included demolition of existing berth, construction of new berth to support large vessels, and assisting in the solicitation of vessels for long-term visitation.

Port of Vancouver, Terminal 1 Dock Demo & Replacement, Vancouver, WA
Structural Engineer. for demolishing an existing 530' long timber dock and bulkhead wall and replacing with a same-sized new, modern dock and new steel king pile bulkhead wall. Project also included substantial ground improvements behind the bulkhead wall to buttress against soil liquefaction and lateral spreading.

Tripp Howard

PE

Structural Engineer

years of experience
in industry: 25 years
with KPFF: 13 years

education
BS Civil Engineering, Structural Emphasis,
Georgia Institute of Technology

registrations
Professional Engineer
WA

TWIC

affliliations
American Society of Civil Engineers

Tripp Howard has 25 years of experience in waterfront engineering and project management. His experience ranges from piers, wharves, and bulkheads cruise ship terminals, container terminals, dredging, environmental cleanup, bridges, buildings, bulk handling, and floating structures. He has worked as the lead structural engineer and project manager for many multi-discipline projects as the prime consultant with multiple stakeholders and complex environmental permitting. His wide range of experience in following a project from conceptual alternatives through permitting, design, and construction gives him a whole project thinking approach to tackle this project.

Port of Tacoma Pier 4 Reconfiguration, Tacoma, WA
Lead Structural Engineer. Redevelopment of the existing Pier 4 container terminal to accommodate two Ultra Large Container Ships. Tripp's role included management of the structural design of the project as well as the management of construction support services. The design included detailing the demolition of the majority of the existing Pier 4 structure. The design included nearly 170,000 square feet of pre-cast concrete deck panels on cast-in-place concrete pile caps supported by over 1,200 pre-cast concrete piles. The unique seismic design of the irregular pier structure was done using a performance-based design approach in accordance with ASCE 61-14, and included the use of lead-rubber bearing isolators to provide a ductile response at the batter pile supported northern end of the pier.

North American Stainless Bulkhead, Ghent, KY
Project Manager and Lead Structural Engineer. North American Stainless (NAS) contacted KPFF to review potential failure mechanisms, to develop and analyze repair concepts, and to develop construction documents for the selected repair, in response to a bulkhead failure. The failure resulted due to fracture of tie-rods and presented itself with the subsequent bulging of the upstream portion of the bulkhead. After the upstream wall repairs were completed, KPFF evaluated the remainder of the dock and determined that additional repairs were required. Scouring had significantly reduced the wall embedment along the length of the main dock face and the existing high-strength steel tie-rods were overstressed and inadequately protected against corrosion. KPFF evaluated repair options and provided repair designs to address these deficiencies. The repairs included the placement of a 38-foot-wide riprap mat along the face of wall and the installation of 115 double-corrosion-protected grouted tie-back anchors anchored through a new waler system installed on the outboard face of the sheets.

Ocean Terminals Co., Ocean Terminals Dock Facility Expansion, North Bend, OR
Lead Structural Engineer. The Ocean Terminals Bulkhead Wall Project involved the design of a new 59-foot-tall tied back bulkhead wall covering a 100' wide by 500' long area. The bulkhead was built around an existing 1970's era timber dock that had passed its useful life. The site is an active log ship loading and unloading facility and the new wall construction had to be phased to allow for continuous operations during construction. This was accomplished using a custom-fabricated steel king pile structural system comprised of cold-form JZ sheets welded to HP piles that were driven just outside of the timber dock perimeter. The use of this custom structural system required extensive iterative analyses as KPFF worked closely with the Owner to use materials that were available locally to shorten the construction schedule. After the wall was constructed, the dock was demolished in between ship loading operations and the interior was backfilled with 50,000 cubic yards of fill.

Port of Bellingham Shipping Terminal Bulkhead, Bellingham, WA
Senior Structural Engineer. KPFF provided structural engineering consulting services to rehabilitate the North and Central Terminal bulkhead walls. Sinkholes were developing behind the bulkhead due to undermining of the wall footing. The North Terminal bulkhead was a two-tiered timber bulkhead wall with timber tie-backs anchored to timber dead-man piles within the footprint of the adjacent warehouse. For the North Terminal bulkhead wall, multiple solutions including secant pile and cantilever sheet pile walls were evaluated in the concept stage. The project team arrived at the solution of utilizing a tied-back steel king pile wall to replace the unsalvageable timber wall.

Ed DeBroeck

PE, DBIA

Structural Engineer

years of experience
in industry: 16 years
with KPFF: 16 years

education
BS, Civil Engineering Seattle University

registration
Professional Engineer
WA

TWIC

Design Build Institute of America (DBIA)
Certification

Ed has 16 years of experience in waterfront engineering and project management. His experience ranges from working on small and large industrial piers, wharves and bulkheads cruise ship terminals, container terminals, dredging, environmental cleanup, bridges, buildings, master planning, bulk handling and floating structures. He has also worked as an effective construction manager for building projects and marine projects alike. Ed's Design Build Institute of America certification brings a long experience with working with contractors to find innovative solutions when it comes to difficult projects where construability is a key issue. He has worked as lead structural engineer and project manager for many multi-discipline projects as the prime consultant with multiple stake holders and complex environmental permitting. His wide range of experience in following a project from conceptual alternatives through permitting, design and construction gives him a whole project thinking approach to tackle any task that is anticipated under this project.

Port of Tacoma Pier 4 Reconfiguration, Tacoma, WA
Structural Engineer. A 1,750-foot long new wharf structure to berth ultra- large container ships (ULCS). The new pier included an integrated bulkhead wall that was utilized to replace vertical concrete piles and was an integral part of the lateral resisting system. Ed also conducted a detailed conditions assessment of the existing Pier 4 structure, parts of which were included in the final configuration.

Ocean Terminals, Coos Bay, OR
Structural Engineer. Design a new 59' tall composite sheet pile wall to make a 500' berth in Coos Bay. Ed led the design of the sheet pile bulkhead structure complete with concrete pile cap, new mooring bollards and fendering. KPFF designed a new composite sheet pile out of HP sections and cold rolled sheets to better meet the owner's needs.

Port of Vancouver, Vancouver Landing & Dock Replacement Terminal One, Vancouver, WA
Lead Structural Engineer. KPFF was the engineer of record for an upgrade of the existing public use dock used as a gathering place and amphitheater for the public. The renovation required modification of the 1990's dock structure and triggered code required seismic upgrades. KPFF is progressing through the 60% pier, ground improvements, utility design and fendering. Ed is working as lead structural engineer on the project.

GMA Americas, Timber Dock Repairs, Dredging & Mooring Analysis, Coos Bay OR
Project Manager and Lead Structural Engineer. KPFF has assisted GMA with several projects to prepare the dock for use. KPFF has helped guide GMA through the process to assess the structure's structural integrity for deck loadings and vessel mooring & berthing. KPFF then designed repairs for the dock and facilitated the repairs to be completed, designed a new fender system for the aging dock, and assessed the mooring capacity. This project involves in-water work and environmental permitting that KPFF is leading with subject matter expert sub-consultants.

Port of Everett Norton Terminal Development Dock and Float Analysis, Everett WA
Lead Structural Engineer. KPFF conducted a conditions assessment of a timber wharf, bulkhead and two large floating structures. KPFF assessed the structures, performed analysis and usability studies to determine future uses and the repairs needed.

Wharf Conditions Assessment, Alternatives Analysis & Preliminary Design, Pasco WA
Lead Structural Engineer and Task Lead. KPFF performed a conditions assessment of the existing Port of Pasco wharf on the Columbia River. KPFF conducted an Alternatives Analysis to assess the multiple ways of rehabilitating the existing structure to be used as a public gathering space. KPFF delivered the 30% design in February of 2021 and is assisting in studying the potential temporary moorage of cruise vessels at the site.

Matthew Shanahan, PE

Principal – Geotechnical Lead

Matt Shanahan has 30 years of experience with waterfront, docks, rail, bridges, and trails, and vertical structure development, including foundation design, ground improvement, pavements, earthquake engineering, retaining structures, deep and shallow foundations, temporary shoring systems, geologic hazard evaluations, landslide investigation and stabilization, and utilities. Matt is an experienced geotechnical engineer with over 500 projects where he has supported over a dozen port authorities throughout Oregon and Washington to deliver their infrastructure projects.

REPRESENTATIVE EXPERIENCE

Port of Astoria, Pier 2 West Storm Damage Rehabilitation, Astoria, OR with kpff. Pier 2 West at the Port of Astoria has experienced significant damage in the last several decades due to storm events, deferred maintenance, and ground movement. GRI completed a geotechnical investigation and helped facilitate the completion of a survey monitoring program to investigate the source of apparent movement. GRI helped the design team develop preliminary design alternatives for repair and/or replacement of Pier 2 West and evaluate potential seismic considerations. Matt was the geotechnical lead.

Port of Vancouver, USA, Berth 17 Rehabilitation, Vancouver, WA with kpff. The Port is rehabilitating Berth 17 as a layberth facility. As part of the rehabilitation, the existing in-water mooring dolphins were replaced with two new dolphins. Four new mooring dolphins were also constructed in the upland area. Other project improvements include new dockworkers support building, new upland utilities, asphalt-paved parking areas, and gravel-surfaced access roads. The geotechnical investigation consisted of a review of readily available geotechnical information collected by GRI and others, subsurface explorations, geotechnical laboratory testing, and engineering analysis. GRI provided construction observation services during the installation of the mooring dolphin piles. Matt was the principal geotechnical engineer.

City of Vancouver Waterfront Park and Grant Street Pier, Vancouver, WA. The award-winning, 7.3-acre park occupies a former paper mill site and includes about 2,500 feet of Columbia River shoreline. Waterfront improvements include a cable-stay, overwater dock structure, large MSE retaining walls on the banks of the Columbia River, a fountain feature, and paved trails and plaza. Matt directed GRI's phased geotechnical design and construction services to address foundations, including drilled shaft and micropile support of the Grant Street Pier, site grading; retaining walls; pavement design; seismic considerations, and riverbank stability. GRI observed drilled shaft and micropile installation and earthwork for wall foundations and paved trails. The project was recognized with several national and local awards from ACEC, COPRI, and APWA.

Port of Vancouver USA, Terminal 1 Dock, Vancouver, WA with kpff. The Port is planning to demolish and replace the Terminal 1 dock and bulkhead, which will support a new public marketplace building. Ground improvement is being designed to reduce seismic lateral spreading deformations and associated loads on the new dock. Matt directed GRI's preliminary geotechnical investigation to characterize subsurface conditions and develop preliminary geotechnical design recommendations for deep foundations, ground improvement, and lateral earth pressures for bulkhead walls. He is currently managing GRI's final design services, which includes advanced seismic design, numerical modeling of the ground improvement system, and final ground improvement.

REGISTRATION

Professional Engineer: WA, OR
Professional Geotechnical Engineer: OR

EDUCATION

BS Civil Engineering, Portland State University
M Engr Geotechnical Engineering, University of Idaho

ADDITIONAL EXPERIENCE

- Port of Vancouver, USA, Terminal 1 East Portal, Vancouver, WA
- Port of Vancouver, USA, West Vancouver Freight Access Improvements, Vancouver, WA
- Wolf Bay and Aldrich Point Railroad Bridges, Astoria, OR
- Agency Creek/Warren Slough Railroad Bridge, Clatsop County, OR
- Lower Columbia River Estuary Partnership, Pile Structure Program, Clatsop County, OR

11 Addendum RA.4

PROPOSER INFORMATION AND CERTIFICATION STATEMENT

The undersigned hereby acknowledges she/he has read and understands all requirements and specifications of the Request for Proposals (RFP), including all attachments of whatever type.

OFFICIAL CONTACT: The Port requests that the Proposer designate one person as authorized to receive, on behalf of the Proposer, all communication from the Port of Astoria regarding the attached Proposal. Identify the Contact name and fill in the information below. Please print clearly.

Legal Name of Proposer	KPFF Consulting Engineers
Address	111 SW Fifth Avenue, Suite 2600
City, State, Zip	Portland, OR 97204
State of Entity Registration	Oregon
Entity Type	FBC
Contact Name	Stephen Whittington
Phone	503.764.0548
Email	stephen.whittington@kpff.com
OR Business Registry No. (if applicable)	012631-28
Professional License / Certificate No. / Info	78771PE

By its submission of this Proposal and authorized signature below, Proposer certifies to the following:

1. (a) The above information is true and correct and Proposer grants permission to the Port of Astoria to contact the above-named person (Contact Name) to verify the information contained therein and for all other purposes in connection with the Proposal. (b) The information contained within the Proposal is true and accurate.

2. (a) The Proposal has been developed independently, without consultation, communication or agreement with any employee, agent, or consultant to the Port. (b) The Proposal has been developed independently, without consultation, communication or agreement with any other Proposer or other parties for the purpose of restricting competition or any other illicit purpose. (c) No attempt has been made or will be made by the Proposer to induce any other Proposer to submit or not to submit a Proposal for the purpose of restricting competition. (d) No relationship exists or will exist during the contract period between Proposer and the Port or any other State agency that interferes with fair competition or constitutes a conflict of interest.

3. (a) Proposer acknowledges receipt of any and all addenda, exhibits, or other attachments to this RFP. (b) Proposer understands and accepts the procedures, evaluation criteria, and other requirements of this RFP. (c) If selected for award of the contract, Proposer agrees to the contract terms contained within the Construction Manager/General Contractor Services Agreement (Exhibit RE.1), except for those terms and conditions that Port has reserved for negotiation.

4. (a) Proposal is a Firm Offer for 180 days following the Closing. (b) If selected for award of the contract, Proposer agrees to be bound by the rates and fees submitted with this Proposal, including but not limited to the Preconstruction Fee and Construction Fee Rate.

5. Proposer is not in violation of any tax laws of the state or a political subdivision of the state that are itemized in ORS 305.380(4).

6.
   (a) Proposer does not discriminate in its employment practices with regard to race, creed, age, religious affiliation, gender, disability, sexual orientation, national origin. When awarding subcontracts, Proposer does not discriminate against any business certified under ORS 200.055 as a disadvantaged business enterprise, a minority-owned business, a woman-owned business, a business that a service-disabled veteran owns or an emerging small business. If applicable, Proposer has, or will have prior to contract execution, a written policy and practice, that meets the requirements described in ORS 279A.112 (formerly HB 3060), of preventing sexual harassment, sexual assault and discrimination against employees who are members of a protected class. Agency may not enter into a contract with an anticipated contract price of $150,000 or more with a Proposer that does not certify it has such a policy and practice. See https://www.oregon.gov/DAS/Procurement/Pages/hb3060.aspx for additional information and sample policy template.
   (b) Proposer complies with ORS 652.220. If selected for award under this RFP, Proposer's continuing compliance with ORS 652.220 constitutes a material element of the contract entered into between Owner and Proposing Firm ("Agreement") and failure to comply constitutes a breach that entitles The Port to terminate the Agreement for cause.
   (c) The Proposing Firm may not prohibit any of Proposing Firm's employees from discussing the employee's rate of wage, salary, benefits, or other compensation with another employee or another person. Proposing Firm may not retaliate against an employee who discusses the employee's rate of wage, salary, benefits, or other compensation with another employee or another person.

7. Proposer and Proposer's employees, agents, and subcontractors are not included on:
   A. the "Specially Designated Nationals and Blocked Persons" list maintained by the Office of Foreign Assets Control of the United States Department of the Treasury found at: https://www.treasury.gov/ofac/downloads/sdnlist.pdf., or
   B. the government wide exclusions lists in the System for Award Management found at: https://www.sam.gov/portal/

8. Proposer certifies that, to the best of its knowledge, there exists no actual or potential conflict between the business or economic interests of Proposer, its employees, or its agents, on the one hand, and the business or economic interests of the Port, on the other hand, arising out of, or relating in any way to, the subject matter of the RFP. If any changes occur with respect to Proposer's status regarding conflict of interest, Proposer shall promptly notify the Port in writing.

9. Proposer understands that any statement or representation it makes, in response to this RFP, if determined to be false or fraudulent, a misrepresentation, or inaccurate because of the omission of material information could result in a "claim" {as defined by the Oregon False Claims Act, ORS 180.750(1)}, subject to the Oregon False Claims Act, ORS 180.750 to 180.785, and to any liabilities or penalties associated with the making of a false claim under that Act.

10. Proposer certifies that neither it, nor any of its principals, (a) have been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by a Federal Agency or State Agency; (b) have within a three year period preceding this Proposal been convicted of, or had a civil judgment rendered against them for commission of fraud, a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction, violation of antitrust statutes; commission of embezzlement, theft, forgery, falsification or destruction of records, making false statements, or receiving stolen property; (c) are presently indicted for or criminally or civilly charged by a government entity (federal, state, or local) with the commission of any of the offenses enumerated in this certification; and (d) have not within a three year period preceding this Proposal had one or more public transactions (federal, state, or local) terminated for cause. This certification is a material representation of fact upon which the Port will rely in entering into any contract with the Proposer ("Agreement"). If it is later determined that Proposer knowingly rendered an erroneous certification, in addition to other remedies available, the Port may pursue available remedies including suspension, debarment, or termination of the Agreement.

11. Proposer acknowledges these certifications are in addition to any certifications required under the Contract.

6/30/2023

Authorized Signature | Date

Stephen Whittington

(Printed Name and Title)

Agreement for Professional Services

Date: Click or tap to enter a date. **Project Number:** Click or tap.

Client: Click or tap here to enter text.

Project Name: [Subject]

Location: [Company Address]

Scope of Service: Click or tap here to enter text.

Special Conditions: Click or tap here to enter text.

Fee: Click or tap here to enter text.

KPFF Hourly Rates:

Principal	$260	Structural Designer	$155
Project Manager/Associate	$210	CAD/BIM Modeler	$135
Senior Engineer	$180	Administrative	$115
Special Inspector	$135	Testing Technician	$175

Offered By KPFF, Inc.

(Signature)

(Printed Name and Title)

Accepted By (Client)

(Signature)

(Printed Name and Title)

Please sign in the space provided and return to our office for our signature. We will return a fully executed copy of the Agreement to you for your records.

This Agreement includes Terms and Conditions as attached on Page 2.

TERMS AND CONDITIONS

KPFF, Inc. ("KPFF") shall perform the services outlined in this agreement pursuant to the stated fee arrangement.

1. Additional Services – Should the Scope of Services change from those set forth in the Agreement for Professional Services, the fee for such additional services will be negotiated between Client and KPFF and agreed to in a written amendment.

2. Limitation of Liability – To the greatest extent allowed by law, the aggregate liability of KPFF for any and all injuries, claims, demands, losses, expenses or damages, of whatever kind, arising out of or in any way related to this Agreement or the services provided by KPFF on this project, shall be limited to $50,000 or the total fee received by KPFF pursuant to this Agreement, whichever is greater. Further, no officer, director, shareholder or employee of KPFF shall bear any personal liability to Client for any and all injuries, claims, demands, losses, expenses or damages, of whatever kind or character, arising out of or in any way related to this Agreement or the services provided by KPFF on this project.

3. Mediation – All disputes between Client and KPFF arising out of or relating to this Agreement shall be submitted to nonbinding mediation as a condition precedent to commencement of any other dispute resolution proceeding.

4. Suspension of Services – If Client fails to make payments to KPFF in accordance with this Agreement, such failure shall provide KPFF the option to suspend performance of services under this Agreement upon seven (7) days' written notice to Client. In the event of a suspension of services, KPFF shall have no liability for any delays or damages caused because of such suspension. Before resuming services, KPFF shall be paid all sums due prior to suspension and any expenses incurred by KPFF in the interruption and resumption of its services. KPFF's fees for the remaining services and time schedules shall be equitably adjusted. If any invoice is in dispute, Client shall pay under written protest and KPFF shall continue to provide services in a mutual effort to keep the project on schedule and the Parties shall resolve the payment dispute after substantial completion.

5. Termination – This Agreement may be terminated by either party with seven (7) days written notice to the other in the event of a substantial failure of performance by the other party through no fault of the terminating party. If this Agreement is terminated, KPFF shall be paid for services performed to the termination notice date, including reimbursable expenses due.

6. Ownership of Instruments of Service – KPFF's drawings, calculations and specifications are KPFF's Instruments of Service and are, and shall remain, the property of KPFF as the author and owner, whether the project for which they are made is executed or not. So long as Client performs all of its obligations under this Agreement, including, without limitation, payment of all sums owed to KPFF and its consultants, KPFF grants a revocable, royalty-free license to Client to use the Instruments of Service for the limited purpose of facilitating the design, construction, or maintenance of the Project. The Instruments of Service are not to be used on other projects or extensions to this project except by agreement in writing. Any unauthorized use or modifications to the Instruments of Services absent KPFF's written approval shall be at Client's sole risk and without liability to KPFF. Client shall indemnify, immediately defend, and hold KPFF harmless from and against any and all losses, claims, or damages arising out of or related to such subsequent use or modification, other than to the extent such losses arise out of the sole negligence or willful misconduct of KPFF.

7. Contract & Construction Administration – KPFF's review of contractor's shop drawings shall be for the limited purpose of checking general conformance with the Contract Documents. KPFF expressly disclaims any responsibility for contractor or subcontractor construction means and methods and Client acknowledges contractor's ultimate responsibility for constructing the Project in conformance with the Contract Documents. KPFF's presence on the site is for the limited purpose of providing observation and does not include responsibility for supervision or direction of the actual work of the contractor, its employees or agents, nor under any circumstances shall Consultant be responsible for the means and methods of construction, or site safety, which is solely within the purview of others.

8. No Third-Party Beneficiary – Nothing in this Agreement shall create a contractual relationship with or a cause of action in favor of any third party against KPFF or Client.

9. No Assignments – Neither party to this Agreement shall transfer, sublet or assign any rights under or interest in this Agreement (including but not limited to monies that are due or monies that may be due) without the prior written consent of the other party.

10. Payments – KPFF will submit monthly invoices. Payment is due on the date of the invoice and becomes delinquent one month thereafter. A late charge will be added to delinquent amounts at the rate of one-and-one-half percent (1 ½ %) for each one month of delinquency (or the maximum allowable by law, whichever is lower).

11. Waiver of Consequential Damages – To the fullest extent permitted by law, the Parties waive any entitlement to recovery of consequential damages for any act, error, or omission arising out of or related to this Agreement.

PORT OF ASTORIA

PROFESSIONAL SERVICES CONTRACT

Real Estate Services

THIS AGREEMENT is made and entered into by and between the PORT OF ASTORIA ("Port"), an Oregon special district formed and authorized by ORS chapter 777, and POPKIN REAL ESTATE, LLC ("Contractor").

RECITALS

WHEREAS, the Port owns and manages a combination of marine, marina, industrial, and aviation facilities, located primarily located in the City of Astoria (Port waterfront properties and infrastructure) and the City of Warrenton (airport and industrial properties); and

WHEREAS, the Port has industrial and commercial leasing opportunities on its properties at the Astoria/Warrenton Regional Airport, Skipanon Peninsula, and waterfront locations; and

WHEREAS, the Port's Board of Commissioners recently approved an ambitious Waterfront Master Plan that contemplates a variety of expansions and improvements to Port facilities to benefit and promote the local economy, commercial interests, and tourism; and

WHEREAS, the Port requires the services of experienced real estate professionals familiar with the Port's service area to assist with identifying potential buyers, sellers, and lessees to assist with the Port's real estate activities consistent with the Master Plan to benefit of the Port and the communities it serves ("the Services"); and

WHEREAS, through a competitive proposal process the Port selected Contractor to provide the Services to the Port, and the Contractor has accepted such engagement.

AGREEMENT

1. Services Description. As specifically directed by the Port's Executive Director, Contractor will assist the Port in identifying properties for sale to the Port; locating prospective buyers or lessees for Port properties; representing the Port in sales and purchases of real property; and acting as a leasing agent in procuring and negotiating commercial leases on behalf of the Port. Contractor shall be responsible for obtaining, preparing, and delivering to the Port all required documentation for the Services, including but not limited to written reports on available properties; current market data; written appraisals; purchase and sale agreements; lease agreements; and supporting documentation required to facilitate the transaction.

Contractor shall not represent nor purport to represent the Port in any transaction except as specifically authorized by the Executive Director.

2. Compensation. Contractor will be compensated on a commission basis as follows:

For all closed sale transactions, five percent (5%) of final sales price split 50/50 between the listing and buying brokerages.

For all leases, eight percent (8%) of the annual value of the lease for up to five (5) years of the original lease term, or for the duration of a lease with an original term of less than five (5) years If Contractor successfully secures an extension of any Port lease beyond its then-current term, Contractor shall be entitled to compensation in the amount of four percent (4%) of the annual value of the renewed lease for a maximum of five (5) years of the renewed term.

Contractor shall not be entitled to compensation for any transaction not specifically authorized by the Executive Director.

3. Expenses. Necessary vehicle mileage and meal and lodging expenses incurred in the performance of the contract will be reimbursed at actual cost.

4. Contract Term. This Agreement shall commence upon signing by both parties hereto and shall remain in effect through June 30, 2024. This Agreement shall automatically renew for four (4) additional one-year terms unless one party provides written notice of termination to the other party at least thirty (30) days prior to the expiration of the then-current annual term, or unless earlier terminated for cause as provided in Section 18 herein. Contractor shall be compensated for completed work performed up to and including the date of termination.

5. Non-Exclusive Agreement. This Agreement is non-exclusive. Contractor may provide similar services to other parties provided such other parties' interests are not directly adverse to those of the Port. The Port may engage the services of other contractors for the same or similar services described herein. Contractor shall have no right of first refusal or finder's fee on any transaction nor be entitled to any other superior rights to any other party except as specifically set forth in this Agreement.

6. Compliance with Laws. In the performance of its obligations under this Agreement, Contractor shall comply with all federal, state, and local laws and regulations, and Port rules and regulations applicable to this Agreement, including but not limited to the following:

A. Licensing. Contractor shall at all times be properly licensed under Oregon law to perform the Services herein described.

B. Prompt Payment. Pursuant to ORS 279B.220:

- Make payment promptly, as due, to all persons supplying labor or material for the performance of the work provided for in the Agreement.
- Pay all contributions or amounts due the Industrial Accident Fund from Contractor or any subcontractor of Contractor incurred in the performance of the Agreement.
- Not permit any lien or claim to be filed or prosecuted against the Port on account of any labor or material furnished.

C. Tax Withholding. Pay to the Department of Revenue all sums withheld from employees under ORS 316.167.

D. Medical Care. Pursuant to ORS 279B.230(1), promptly, as due, make payment to any person, co-partnership, association or corporation furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of Contractor of all sums that Contractor agrees to pay for the services and all moneys and sums that Contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services.

E. Worker's Compensation. Pursuant to ORS 279B.230(2), comply with ORS 656.017 regarding payment of worker's compensation.

F. Overtime. Pursuant to ORS 279B.235, any employee providing services under this Agreement shall be paid at least time and a half for all overtime worked in excess of 40 hours in any one week, except for individuals who are excluded under ORS 653.010 to 653.261 from receiving overtime. All persons employed under this Agreement shall receive at least time and a half pay for work performed on the legal holidays specified in ORS 279B.020 (1)(b)(B) to (G) and for all time worked in excess of 10 hours in any one day or in excess of 40 hours in any one week, whichever is greater.

G. Equal Opportunities. Contractor shall comply with ORS Chapter 659A regarding equal opportunities in employment and non-discrimination.

H. Minority, Disadvantaged, Women-Owned Businesses. Contractor shall cooperate with the Port and any affected landowner(s) to meet the Port's and landowner's commitments and goals regarding utilization of minority, disadvantaged, and women-owned business enterprises.

7. Ownership of Work Products. All work products of Contractor arising or resulting from this Agreement are "works for hire" and shall be the property of the Port. This Agreement, and any and all records or other documents pertaining to this Agreement, including Contractor's work products, are public records and may be subject to public disclosure according to state or federal law.

8. Independent Contractor. In performing the services, Contractor shall be an independent contractor for all purposes. Although the work is subject to the Port's general right of review and supervision, the manner and means of performing the Services are under the control of Contractor. Nothing in this Agreement shall be interpreted to create an employer-employee relationship between the Port and Contractor. No agent or employee of Contractor shall be deemed to be the employee or agent of the Port. Contractor is responsible for paying payroll taxes, including state and federal withholding taxes and Social Security taxes, and providing workers' compensation and tort liability coverage to Contractor's employees.

9. Insurance. Contractor will carry, at minimum, the insurance coverages described below. The Port shall be named as an additional insured on each policy. Before commencing the Services,

Contractor shall provide to Port certificates of insurance evidencing the date, amount, and type of insurance required by this contract. All policies will provide for not less than thirty (30) days' written notice to Port before they may be cancelled.

A. Worker's Compensation. If Contractor employs one or more workers as defined in ORS 656.027 and such workers are subject to the provisions of ORS Chapter 656, Contractor shall maintain currently valid worker's compensation insurance for all such workers. Contractor shall maintain this insurance throughout the period of this contract.

B. Professional Liability. Professional liability coverage of not less than $1,000,000 each occurrence and not less than $2,000,000 aggregate. Contractor's policy shall include contractual liability coverage for the indemnity provided under this contract, and shall provide that Port and its agents, officers and employees are additional insureds with respect to the Services to be provided.

C. Automobile Liability. Comprehensive automobile and vehicle liability insurance covering claims for injuries to members of the public and/or damages to property of others arising from use of motor vehicles, including on-site and off-site operations, and owned, non-owned, or hired vehicles, with $1,000,000 combined single limits.

10. Professional Standards.

A. Standard of Care. Contractor shall meet the standard of care, skill, and diligence normally provided by a professional practitioner providing similar services at the same time and in the same locality.

B. Notification of Errors. If Contractor becomes aware of any error, fault, or defect in its work, Contractor shall give Port prompt written or verbal notice to the Port's Executive Director or designee.

C. Confidentiality. To the fullest extent possible, Contractor shall maintain confidentiality at all times with respect to the Services performed pursuant to this Agreement. Except as otherwise required by law or by court order, Contractor will keep confidential all information it obtains in connection with the Services provided under this Agreement and shall not disclose it without the written consent of Port unless it is otherwise generally available to the public.

11. Miscellaneous.

A. Entire Agreement. This Agreement, including any attachments or documents incorporated herein, contains the entire agreement between Contractor and Port, and no previous statements, promises or inducement made by either party which are not contained in this Agreement shall be valid or binding.

B. Severability. If any term or provision of this Agreement is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations

of the parties shall be construed and enforced as if the agreement did not contain the particular term or provision held to be invalid.

C. Waiver. Failure of either party to enforce any provision of the Agreement does not constitute a waiver of any other provision.

D. No Third-Party Beneficiaries. This Agreement shall be solely between Port and Contractor. No benefits are intended for, nor shall any benefits accrue to, any third party as a result of this Agreement.

E. Ambiguity. Any ambiguity shall be deemed to be the result of drafting by all parties and shall not be construed against the drafter.

12. Amendments. This Agreement may be amended by mutual agreement of the parties. To be effective, all amendments shall be in writing and signed by an authorized representative of each party.

13. Remedies For Breach. If a conflict arises between the parties in the implementation of this Agreement, the party claiming a breach shall provide written notice thereof to the other party. If such breach is not remedied, or if the breaching party has not taken substantial steps toward such remedy to the other party's satisfaction, within thirty (30) days of written notice from the other party, the party not in breach shall have all remedies available at law to compel compliance by the other party and to recover monetary damages necessary to make the non-breaching party whole.

In addition to any other remedy available at law or equity, failure of Contractor to meet the obligations set forth herein shall allow the Port to require the disgorgement, return or repayment of funds received under this Agreement promptly, but in any case no later than sixty (60) days after written demand.

14. Indemnification. Subject to the limitations of the Oregon Tort Claims act and the Oregon Constitution, each party agrees to indemnify, defend and save harmless the other party, its officers, agents, and representatives, from and against any and all suits, actions, legal or administrative proceedings, claims, debts, demands, damages, losses, penalties, liabilities, interest, attorneys' fees, costs and expenses, arising from or related to the Services and attributable to either a breach by that party of its obligations hereunder or any negligent act, error, or omission, or willful misconduct of the party, its partners, officers, directors, members, managers, agents, employees, representatives and/or anyone acting under the breaching party's direction or control or any of that party's contractors or subcontractors; or arising from or related to any breach or inaccuracy of any representation of that party made in this Agreement.

15. Governing Law, Jurisdiction, Venue. This Agreement and the rights and obligations of the parties hereto are governed by and interpreted in accordance with the laws of the State of Oregon without regard to principles of conflicts of law. If suit or action is authorized herein to resolve any dispute or claim arising out of or related to this Agreement or the interpretation or breach hereof, jurisdiction shall be exclusively in the State of Oregon with venue in Clatsop County Circuit Court.

16. No Assignment. Neither this Agreement nor any of the rights, interests or obligations provided in this Agreement may be assigned, subcontracted or otherwise transferred by one party without the prior written consent of the other party. Failure of one party to obtain such prior written consent of the other party shall render the attempted assignment, subcontract, or other transfer null and void. In the event the other party approves an assignment, subcontract, or other transfer, such assignment, subcontract or other transfer will contain terms and protections for that party substantially similar to those in this Agreement and shall name that party as an intended beneficiary of such assignment, subcontract, or transfer.

17. Successors And Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors, and to the extent otherwise assignable or transferrable pursuant to the terms of this Agreement, permitted assigns and transferees.

18. Termination for Cause. If either Contractor or Port violates or fails to fulfill in a timely manner any part of the Agreement, after complying with Section 13 herein and in addition to any other remedies available at law and at equity, the other party may terminate the Agreement by giving at least ten (10) days' written notice of intent to terminate, specifying the reason and effective termination date. Contractor shall be compensated for completed and accepted work performed up to and including the date of termination.

19. Prevailing Party Fees. In the event that a suit, action, arbitration, or other proceeding of any nature whatsoever is instituted to interpret or enforce the provisions of this Agreement, including, without limitation, any proceeding under the U.S. Bankruptcy Code and involving issues peculiar to federal bankruptcy law or any action, suit, arbitration, or proceeding seeking a declaration of rights or rescission, the prevailing party shall be entitled to recover from the losing party its reasonable attorney fees, paralegal fees, expert fees, and all other fees, costs, and expenses actually incurred and reasonably necessary in connection with the preparation, prosecution or defense of such suit, action, arbitration or other proceeding, as determined by the judge or arbitrator at trial, arbitration, or other proceeding, or on any appeal or review, in addition to all other amounts provided by law.

20. Authorization to Sign. By signing below, each party to this Agreement represents and warrants that it has full right and authority to enter into this Agreement under applicable law.

IN WITNESS WHEREOF, the parties hereby execute this Agreement:

PORT OF ASTORIA	**POPKIN REAL ESTATE, LLC**
_____	_____
Print name and title	*Print name and title*
_____	_____
Signature	*Signature*
_____	_____
Date	*Date*

Port of Astoria

COMMITTEE ASSIGNMENTS

Fiscal Year 2023 – 2024

ORGANIZATION	COMMISSION
Airport Advisory Committee	Jim Campbell & Tim Hill
Budget Committee	All Commissioners
CEDR Clatsop Economic Development Resources	Tim Hill
Clatsop Cruise Committee/ Cruise Hosts	Frank Spence
Col-Pac EDD/ NOEA Columbia-Pacific Economic Development District/ Northwest Oregon Economic Alliance	Frank Spence
Columbia River Salmon Advisory	Dirk Rohne
Finance Advisory Committee	All Commissioners
Fish Expo	Robert Stevens & Tim Hill
LCSG Lower Columbia Solutions Group	Dirk Rohne
Marina Advisory Committee	Robert Stevens & Jim Campbell
NWACT Northwest Area Committee on Transportation	Frank Spence
OCZMA Oregon Coastal Management Association	Robert Stevens
OPPA Oregon Public Ports Association	Jim Campbell
Regional Solutions Group	Dirk Rohne
WFOA Western Fishboat Owners Association	Tim Hill
PNWA Pacific Northwest Waterways Association	All Commissioners
City of Astoria	As Needed Basis: Staff/Commissioner
City of Cannon Beach	As Needed Basis: Staff/Commissioner
City of Gearhart	As Needed Basis: Staff/Commissioner
City of Seaside	As Needed Basis: Staff/Commissioner
City of Warrenton	As Needed Basis: Staff/Commissioner
Clatsop County	As Needed Basis: Staff/Commissioner