

CITY OF UNALASKA  
UNALASKA, ALASKA

RESOLUTION 2024-23

A RESOLUTION OF THE UNALASKA CITY COUNCIL AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT WITH PND ENGINEERS FOR THE LAND SURVEYING, ENVIRONMENTAL PERMITTING, DESIGN ENGINEERING FOR DESIGN BUILD FLOAT SYSTEM AND FOR UPLAND DEVELOPMENT AT ROBERT STORRS HARBOR IN THE AMOUNT OF \$856,000

WHEREAS, Robert Storrs Harbor is a system of aging floats granted to the City by the State of Alaska with deferred maintenance; and

WHEREAS, the City of Unalaska went through an extensive public process for design and layout; and

WHEREAS, the City of Unalaska applied for the Harbor Matching Grant Program through the State of Alaska to replace the floats; and

WHEREAS, the grant awarded only replaced part of the Float system at Robert Storrs; and

WHEREAS, the City completed a bathymetry study and geotechnical data collection for the entire harbor; and

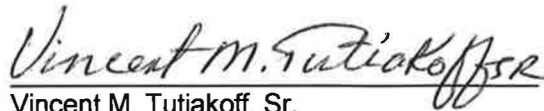
WHEREAS, The City retained PND for the scoping of the replacement float layout for the unfunded A and B floats at Robert Storrs Harbor; and

WHEREAS, the proposal from PND is an extension of the existing services and completes the necessary design for a competitive design/build project; and

WHEREAS, the City negotiated a fair and reasonable price for the surveying, environmental permitting, design engineering and uplands development

NOW THEREFORE BE IT RESOLVED that Unalaska City Council authorizes the City Manager to enter into an agreement with PND Engineers for the surveying, permitting, upland development, and 50% float design at Robert Storrs A and B Float in an amount not to exceed \$856,000

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on June 11, 2024.



Vincent M. Tutiakoff, Sr.  
Mayor

ATTEST:

  
Estkarlen P. Magdaong  
City Clerk



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## MEMORANDUM TO COUNCIL

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To: Mayor and City Council Members  
From: Scott Brown, Public Works Director  
Peggy McLaughlin, Port Director  
Through: William Homka, City Manager  
Date: June 11, 2024  
Re: Resolution 2024-23 Authorizing the City Manager to enter into an agreement with PND Engineers for the land surveying, environmental permitting, design engineering, for Design Build Float system and for upland development at Robert Storrs Harbor in the amount of \$856,000

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**SUMMARY:** The approval of Resolution 2024-23 authorizes the City Manager to enter into an agreement with PND Engineers for design, permitting and survey work of Robert Storrs Harbor A and B floats. The scope of work will cover the necessary of environmental permitting, civil design work for the uplands and performance specs for Design/Build construction of the floats and their supporting systems. This is not to exceed \$856,000.

**PREVIOUS COUNCIL ACTION:**

- Resolution 2010-40, in support of the FY2012 application for funding through the State of Alaska Department of Transportation and Public Facility Grant Program in the amount of \$3,325,126 for the Robert Storrs International Small Boat Harbor Improvement Project.
- Resolution 2012-26, adopting the City of Unalaska FY13-FY17 Capital Major and Maintenance Plan.
- Ordinance 2012-04, adopting the City of Unalaska FY13 Capital Budget, appropriating \$123,719 for the design of the Robert Storrs International Small Boat Harbor Float Replacement Project.
- Resolution 2013-08, authorizing the City Manager to enter into a contract with PND Engineers for the Robert Storrs Boat Harbor Float Replacement scoping services in the amount of \$22,016.
- Resolution 2013-77 awarding the design of C Float to PND.
- Ordinance 2014-08 adopting the FY15 Capital Budget, which included funding for the Robert Storrs C Float Replacement Project.
- Resolution 2014-81: Authorizing the City Manager to enter into an agreement with Turnagain Marine Construction for an amount not to exceed \$4,357,470 for the Robert Storrs Harbor C Float Replacement Project.
- Resolution 2014-91: Authorizing the City Manager to enter into an agreement with PND Engineers for Construction Administration Services in the amount of \$264,396.
- Council has adopted Roberts Storrs Float Replacement as State Legislative priority 2014-2023

**BACKGROUND:** Robert Storrs Harbor received the 50% Harbor Matching Grant from the State of Alaska for the replacement of C float, now known as Discovery Float. The grant did not award enough funding for the A and B Float replacement. PND is the Engineer of record for Robert Storrs Harbor and PND performed preliminary work for scoping, geotechnical data, bathymetry

scoping or A, B and C Floats, and an extensive public meeting process to determine layout and design. PND completed the design for C (Discovery Float) and the C Float was constructed in 2014. Funding for preliminary scoping and design remained on the books for A and B Floats and this resolution allows for an extension of that contract.

**DISCUSSION:** To date the project has undergone several critical phases including a comprehensive bathymetry and geotechnical survey gathering- essential data for project planning and site assessment; as well as, the completion of Discovery Float with Harbor Matching Grant Funds, and the extension of existing contract with PND for Scoping Services. This contract award to PND Engineers is an extension of our existing partnership. PND has provided scoping services, laying the groundwork for the successful execution of this project, and provided initial survey work for the newly acquired submerged tidelands.

1. Land Surveying: PND Engineers will conduct thorough land surveys to gather precise data essential for the project's planning and execution.
2. Environmental Permitting: The firm will navigate the complex landscape of environmental regulations and secure the necessary permits to ensure compliance and environmental sustainability throughout the project lifecycle.
3. 50% Preliminary Design with Design Build Performance Specifications for Moorage Floats: PND Engineers will develop preliminary designs for moorage floats, incorporating design build performance specifications to ensure functionality, durability, and adherence to project goals.
4. 95% Design Final Plans for Civil Work: Building upon the preliminary designs, PND Engineers will progress to 95% design final plans for all civil works, ensuring meticulous attention to detail and engineering precision.
5. Design Build Performance Specs: Throughout the design process, PND Engineers will integrate design build performance specifications to guide the construction phase, fostering efficiency and quality in execution.
6. Cost Estimates: The firm will provide accurate and comprehensive cost estimates for all aspects of the project, facilitating informed decision-making and budgetary planning.
7. Preparation of Bid Documents: PND Engineers will prepare detailed bid documents to streamline the procurement process and attract qualified contractors capable of delivering on project objectives.

This scope allows the City to utilize services that have already been contracted and complete the required design and documents to competitively bid the remaining design and installation of the floats and their systems.

In the past year, The City has achieved a significant milestone in its development plans by acquiring the submerged tidelands essential for expansion. This crucial step sets the stage for design and construction.

Looking ahead, the city is poised to take the next decisive step in its development trajectory. With the support of PND and a solid foundation of planning, preliminary design, and cost estimates the city will pursue a Matching Grant application through the State of Alaska in August 2024.

The Robert Storrs Harbor A and B Floats are at the end of their useful life. This contract will put the City on pace for construction of the new float system next spring. Robert Storrs Harbor continues to deteriorate and is at risk of being closed to the public.

**ALTERNATIVES:** Council could choose vote down this resolution essentially halting the design and permitting process; City Council could choose to authorize this contract as outlined, The City Council could choose to have this reviewed and bid out for a completely different concept and design package

**FINANCIAL IMPLICATIONS:** This scope of aligns with the budget approved by Council

**LEGAL:** No legal concerns

**STAFF RECOMMENDATION:** Staff recommends approval

**PROPOSED MOTION:**

I move to adopt Resolution 2024-23

**CITY MANAGER COMMENTS:** I support the staff's recommendation.

**ATTACHMENTS:** PND Proposal



December 11, 2023

23J069

Peggy McLaughlin  
Port Director  
City of Unalaska  
P.O. Box 610  
Unalaska, AK 99685

**SUBJECT:** Robert Storrs Harbor Floats A&B Replacement

Dear Ms. McLaughlin:

PND Engineers, Inc. (PND) appreciates the opportunity to provide this revised proposal for engineering services on the Robert Storrs Harbor Floats A&B Replacement project. The scope of services under this proposal includes several tasks intended to move the project through land surveying, environmental permitting, final engineering design for all improvements except the moorage floats which will be developed as a Design/Build (D/B) performance specification, preparation of bid ready contract documents and bid phase assistance. Construction phase engineering services are not included in this proposal however can be added at a future date following successful completion of the bid phase.

#### SCOPE OF IMPROVEMENTS & PROJECT BUDGET

The scope of improvements anticipated under this proposal is illustrated in the enclosed drawing entitled *Robert Storrs Harbor Concept #7 - Reconfigured, Sheet 8 of 20, dated May 2014*. The work generally consists of moorage and upland parking and access improvements. Specific improvement items are listed in the attached preliminary budget estimate dated August 8, 2023. We understand the upland parking improvements will require a land exchange between the City of Unalaska (COU) and Unisea and the details of that exchange have not yet been finalized.

The current project budget is approximately \$14 million including estimated construction costs for the items listed, 15% project contingency, and 15% indirect costs for environmental permitting, engineering designs, bid ready contract documents, contract administration and construction inspection costs. The budget will be updated routinely as the project designs are further developed.

#### SCOPE OF ENGINEERING SERVICES UNDER THIS PROPOSAL

##### **Task 1 Land Surveying**

Land surveying services will be provided in support of the State of Alaska, Department of Natural Resources (DNR), Division of Mining, Land and Water (DMLW), Land Conveyance Section (LCS) approval of the proposed conveyance of submerged tideland ADL 233975 to the COU. Our surveyors have reviewed the provided Final Finding and Decision (FFD), as well as available public information regarding the proposed conveyance. It is PND's understanding that survey instructions have not yet

been requested or received from DNR. It is our recommendation that we proceed with a survey approach consisting of two phases.

During the first phase, PND surveyors will meet with DNR staff to acknowledge their involvement with ADL 233975 and to confirm the processes required to complete the conveyance through patent issuance. PND will prepare the survey instruction application on behalf of the COU. The application will be transmitted to COU, and it will be COU's responsibility to sign and submit the application to DNR, along with the required \$2,000 survey instruction application fee. As part of Phase 1, our surveyors will review all available information regarding the adjoining properties, existing survey control, previous surveys of the site, and any other pertinent information. PND has been previously advised that survey instructions from the DNR tideland department currently take anywhere from nine to 24 months to receive. The cost for Phase 1 is estimated at \$6,000.

PND will commence the second phase upon receipt of survey instructions from DNR. Our surveyors will review the instructions and documentation provided by DNR. At that time, we can accurately develop a plan of survey and cost to complete a survey and final plat in accordance with the instructions. Although the details will depend on the contents of the survey instructions, the general process is outlined as follows:

1. Review survey instructions
2. Complete field survey in accordance with survey instructions
3. Prepare preliminary plat based on results of field survey and record information collected during phase one
4. Prepare preliminary plat application(s), checklists, and fees as required
5. Simultaneous submittal of preliminary plat to DNR and COU
6. Review period
7. Complete revisions required by DNR and COU
8. Submit final blackline for cursory review to DNR and COU
9. Complete final revisions, prepare final mylar and surveyor signs/stamps
10. Prepare final plat applications, checklists, and fees
11. Submit final mylar to COU for signing
12. Submit signed final mylar to DNR for last review, signing, and recording

The ATS platting process takes an average of two to three years to complete from receipt of the survey instructions. The estimated cost for Phase 2 is \$40,000, subject to change based on the contents of the survey instructions.

The upland parking improvements will require a land exchange between the COU and Unisea, the adjacent private landowner. The details of that exchange are currently being assessed by both parties. PND will address land surveying services for the land exchange under a subsequent proposal once the work is defined.

PND will utilize available topographic and bathymetric survey information collected by PND surveyors in 2014 for this project. We are unaware of any changes in existing site conditions, terrain, or utilities since that time. Please advise if the COU believes any site changes have been made since 2014 that would necessitate new field data collection and PND will prepare a subsequent proposal for that work.

## TASK 2 ENVIRONMENTAL PERMITTING

The proposed scope for permitting assistance is:

- A Department of Army Permit (DAP) application and associated drawings and quantities will be prepared. Following COU review and acceptance of the application, PND will submit it to USACE and respond to any information requests as required.
  - An Alternatives Assessment will be developed for this project in accordance with USACE guidelines. This document will be submitted to USACE with the DAP application.
- A Tier 1 Assessment of potential water quality impacts will be prepared to support ADEC Section 401 and Antidegradation Assessment. This application will be transferred to ADEC's new online portal and details will be supplemented as necessary. PND will coordinate with ADEC and respond to any information requests as required.
  - For this proposal, it is assumed that no site investigation is necessary for this review and that sufficient existing information is available.
- A Biological Assessment (BA) will be developed to evaluate potential impacts from the project on endangered species with ranges overlapping the construction impacts area and any vessel-related transit routes.
  - For this proposal, it is assumed that existing sufficient data already exists regarding species occurrence in the area and that no additional field studies are required.
- If impacts to marine mammals cannot be avoided, an IHA application will be developed to request take authorization during construction. This application will include the development of a protected species monitoring program and 4MP.
  - Development of an IHA Application typically requires the completion of 65% design plans in order to assess the impacts from daily construction operations. We will attempt to complete this work with 50% design plans to accelerate the project schedule however the agencies may object.
- EFH Assessment will be prepared for this project. Documentation will be submitted to NMFS and PND will respond to any information requests following the submittal.
- Multiple bald eagle nests are likely within range of the project impacts area. If pile-driving cannot be avoided during the nesting period, a take authorization may be required. PND will perform an eagle nest field survey and report. We will then develop the USFWS eagle take permit application and coordinate directly with the agency.
- Installation of drinking water and wastewater (sewer and storm water) systems will require plans review by ADEC. PND will prepare and submit the necessary documentation (engineer's letters, calculations, and drawings) for these systems and project engineers will respond to any requests for information. The estimate for this task includes permit fees based on the currently proposed project scope.
- Proposed ground disturbance exceeds the ADEC minimums requiring a SWPPP during construction. PND will prepare a draft SWPPP for completion by the construction contractor. Submittal fees are assumed to be the contractor's responsibility and are not included in this estimate.
- Fire Marshal plan review will be required for the construction of the restroom building and floats. PND will prepare and submit the necessary documentation and project engineers will respond to any requests for information.

- Permit application documents will be provided to the owner for review and comment, then updated as required before submission. Owner signatories will be required for the application submissions. Following submission, the permitting team will coordinate with the agencies to respond to any requests for additional information.

There are additional potential regulatory requirements that we do not anticipate for this project and are not included within the scope. However, should conditions require it, PND can provide these services, or procure them from a subcontractor, under a separate agreement.

- This proposal includes estimated permit application fees where explicitly identified. Additional fee amount estimates may be provided to the City as they become available, and all payments will be the owner's responsibility.
- National Environmental Policy Act (NEPA) assessment is not included in this scope. If federal funds are used, a project of this nature would likely require an Environmental Assessment (EA). Should the City utilize federal funds or if a nexus for NEPA assessment arise through other federal involvement, PND can provide a proposal for those tasks.
- A mitigation statement will be prepared that outlines the City's proposed impact avoidance, minimization, and mitigation measures. The plan will not include compensatory mitigation, which may be required. Should USACE require compensatory mitigation, PND can provide a proposal for mitigation plan preparation or bank coordination.
- Dredging and offshore disposal are not anticipated within this project scope. Should dredging be added, previous contamination or a lack of sufficient environmental data could necessitate sampling of dredge materials and additional permitting requirements. PND can provide a proposal for development of a site assessment and permitting program should that necessity arise.
- Regulatory authorizations and site assessments not explicitly listed within the scope described above are not included in this proposal. Additional minor permits may be required as a result of specific design or project requirements. Proposals for those services can be provided as needed.

### **TASK 3 50% PRELIMINARY DESIGN WITH DESIGN BUILD PERFORMANCE SPECIFICATIONS FOR MOORAGE FLOATS**

Preliminary designs will be developed to an approximate 50% level of design completion for all upland and moorage improvements including associated water, sewer, power and lighting utilities. PND will subcontract electrical engineering services through Morris Engineering Group (MEG). We will rely on available topographic and bathymetric surveys, prior geotechnical investigations and COU utility as-builts as the basis of existing conditions at the site. The COU shall provide reliable utility as-built information in electronic format for PND's use and incorporation into the design. Fees have not been included in this proposal for additional field surveys required to collect additional utility as-built information. Anticipated construction improvements included in this proposal consist of:

- Demolition of existing moorage system, piles and gangway
- Moorage floats with HDPE pipe floatation and grated deck per Design Build float manufacturer
- Steel pipe piles and bedrock sockets
- ADA compliant open aluminum gangway with concrete abutment and gangway landing float
- Potable water system



- Dry fire line system
- Electrical power pedestals and float lighting
- Life safety and signage equipment
- Parking lot embankment with slope protection armor rock
- Curb & gutter and seawalk,
- Site paving
- Storm drains
- Premanufactured 400 SF restroom building
- Water and sewer services
- Area lighting

Preliminary designs, technical specifications and cost estimates will be prepared for the described scope of improvements for COU review. PND will develop the overall float layout and pile plan for the moorage system in close coordination with the COU. We will also develop the float utility designs for water, power and lighting along with the fixture layout and deck locations on the floats. We will prepare generic typical sections for the mainwalk floats and finger floats to illustrate the COU's preferred vendor supplied float design to be provided under a D/B performance specification. The final design for the moorage floats will be provided by the D/B float manufacturer.

#### **TASK 4 95% FINAL DESIGN**

PND's team will prepare 95% Final Design plans, specifications and updated cost estimates based on the input received from the COU under Task 3. Likewise, the D/B performance specifications for the moorage floats will be advanced to 95% completion for final review by the COU. The intent is to develop float specifications that can be competitively bid by several D/B float manufacturers.

#### **TASK 5 100% CONSTRUCTION READY DOCUMENTS**

The PND team will prepare final construction ready documents following final COU review of Task 4 deliverables. All final bid ready deliverables will be stamped by Alaska registered engineers.

#### **TASK 6 BID PHASE ASSISTANCE**

The PND team will assist the COU during contractor bid solicitation by answering bidder questions, attending the prebid conference via videoconference and assisting with preparation of any addenda documents.

### **Fee Proposal Summary**

PND will provide engineering services under six tasks. A summary of the tasks and proposed fees follows.

Task	Task Description	Contract Method	Fee \$
1	Land Surveying	T&E	\$46,000
2	Environmental Permitting	T&E	\$185,000
3	50% Prelim Design with D/B Performance Spec Floats	FF	\$365,000
4	95% Final Design with D/B Performance Spec Floats	FF	\$215,000
5	100% Bid Ready Documents	FF	\$30,000
6	Bid Phase Assistance	T&E	\$15,000
All	All Work Listed Above	As Shown	\$856,000

Due to the inherent uncertainties in the level of service required to complete Tasks 1, 2 and 6, PND proposes to perform these tasks on a time and expenses reimbursable basis utilizing standard billing rates at time of service. The fees indicated will not be exceeded without prior written authorization from the COU. 10% administrative markup shall be included on all third party and reimbursable expenses under T&M Tasks 1, 2 and 6. PND proposes to complete Tasks 3 through 5 on a Fixed Fee basis for the scope of improvements described herein and outlined in the Concept No. 7 Site Plan and budget estimate.

**Optional Task 7: Final Design of Moorage Float System**

PND is prepared to provide 100% final design documents for the moorage floats instead of D/B performance specifications, should the COU decide it is in its interest to do so. PND proposes a Fixed Fee of \$129,000 for this optional final design task.

We appreciate the opportunity to provide professional services to the City of Unalaska on this important harbor replacement project. Thank you for reviewing the proposed scope, project budget and professional fees we have provided. Please let me know if we have perceived your needs appropriately for this project or if you wish to make any modifications to better serve COU. We are available to commence following formal authorization and look forward to working with you towards the successful completion of the Robert Storrs Harbor Floats A&B Replacement project.

Sincerely,

PND Engineers, Inc. | Juneau Office



Dick Somerville, P.E  
Principal/Vice President



John DeMuth, P.E., S.E.  
Principal/Vice President

**PND ENGINEERS, INC.**  
**ALASKA STANDARD RATE SCHEDULE**  
**EFFECTIVE JANUARY 2024**

<u>Professional:</u>	Staff Engineer I	\$110.00	
	Staff Engineer II	\$126.00	
	Staff Engineer III	\$137.00	
	Staff Engineer IV	\$144.00	
	Staff Engineer V	\$150.00	
	Staff Engineer VI	\$168.00	
	Senior Engineer I	\$163.00	
	Senior Engineer II	\$173.00	
	Senior Engineer III	\$184.00	
	Senior Engineer IV	\$198.00	
	Senior Engineer V	\$214.00	
	Senior Engineer VI	\$235.00	
	Senior Engineer VII	\$251.00	
	Environmental Scientist I	\$116.00	
	Environmental Scientist II	\$137.00	
	Environmental Scientist III	\$152.00	
Environmental Scientist IV	\$168.00		
Environmental Scientist V	\$189.00		
Environmental Scientist VI	\$200.00		
<u>Surveyors:</u>	Senior Land Surveyor I	\$126.00	
	Senior Land Surveyor II	\$137.00	
	Senior Land Surveyor III	\$150.00	
<u>Technicians:</u>	Technician I	\$66.00	
	Technician II	\$95.00	
	Technician III	\$105.00	
	Technician IV	\$116.00	
	Technician V	\$144.00	
	Technician VI	\$165.00	
	CAD Designer III	\$95.00	
	CAD Designer IV	\$110.00	
	CAD Designer V	\$131.00	
	CAD Designer VI	\$144.00	

**ROBERT STORRS FLOATS A&B REPLACEMENT  
ENGINEERS BUDGET ESTIMATE**

**CONCEPT NO. 7 RECONFIGURATION**

PND ENGINEERS, INC.

August 8, 2023

PND No. 132021.01

 Unalaska, Alaska

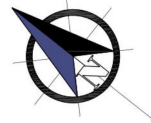


**10' WIDE FLOATS A & B - TIMBER & POLYTUBS W/ TIMBER DECK, 30/50 A POWER**

Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization/Demobilization	LS	All Req'd	12%	\$912,024
2060.1	Demolition and Disposal	LS	All Req'd	\$300,000	\$300,000
2601.1	Domestic Water System	LS	All Req'd	\$275,000	\$275,000
2603.1	Fire Hydrant	LS	All Req'd	\$15,000	\$15,000
2611.1	Dry Fire Line System	LS	All Req'd	\$200,000	\$200,000
2702.1	Construction Survey Measurement	LS	All Req'd	\$40,000	\$40,000
2718.1	Sign Assembly	LS	All Req'd	\$5,000	\$5,000
2894.1	Aluminum Gangway, 6' x 80'	LS	All Req'd	\$180,000	\$180,000
2895.1	Gangway Landing Float, 20' x 20'	SF	400	\$300	\$120,000
2895.2	Headwalk Float, 10' x 260'	SF	2,600	\$300	\$780,000
2895.3	Mainwalk Float A, 10' x 284'	SF	2,840	\$300	\$852,000
2895.4	Mainwalk Float B, 10' x 202'	SF	2,020	\$300	\$606,000
2895.5	Finger Float, 6' x 42'	EA	4	\$85,000	\$340,000
2895.6	Finger Float, 4' x 32'	EA	6	\$45,000	\$270,000
2895.7	Finger Float, 4' x 26'	EA	11	\$35,000	\$385,000
2895.8	Tee Float B, 12' x 112'	SF	1,344	\$300	\$403,200
2896.1	Furnish & Install Steel Pipe Pile, 16" Dia. x .500" thick	EA	45	\$20,000	\$900,000
2896.2	Pile Socket	EA	45	\$10,000	\$450,000
2896.3	Pile Strut	EA	5	\$12,000	\$60,000
2899.1	Life Ring and Fire Cabinets	EA	10	\$2,000	\$20,000
2899.2	Self Rescue Ladders	EA	12	\$2,000	\$24,000
3301.1	Gangway Abutment	LS	All Req'd	\$100,000	\$100,000
5120.1	Electrical Support Assemblies	LS	All Req'd	\$75,000	\$75,000
16000.1	Electrical & Lighting System (Dual 30 & 50 Amp Pedestals)	LS	All Req'd	\$1,200,000	\$1,200,000
<b>ESTIMATED CONSTRUCTION BID PRICE</b>					<b>\$8,512,224</b>
<b>CONTINGENCY (15%)</b>					<b>\$1,276,834</b>
<b>INDIRECT COSTS (15%)</b>					<b>\$1,276,834</b>
<b>RECOMMENDED PROJECT BUDGET FLOATS A &amp; B</b>					<b>\$11,065,891</b>

**UPLAND IMPROVEMENTS**

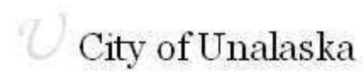
Item	Item Description	Units	Quantity	Unit Cost	Amount
1505.1	Mobilization/Demobilization	LS	All Req'd	25%	\$463,188
2060.1	Demolition and Disposal	LS	All Req'd	\$50,000	\$50,000
2201.1	Shot Rock Borrow, Class A	CY	600	\$90	\$54,000
2201.2	Shot Rock Borrow, Class B	CY	3,500	\$75	\$262,500
2202.1	Base Course, Grading C-1	CY	350	\$125	\$43,750
2401.1	Sewer Service	LS	All Req'd	\$80,000	\$80,000
2501.1	Storm Drain System	LS	All Req'd	\$150,000	\$150,000
2502.1	Armor Rock	CY	1,800	\$150	\$270,000
2601.1	Water Service	LS	All Req'd	\$80,000	\$80,000
2702.1	Construction Survey Measurement	LS	All Req'd	\$40,000	\$40,000
2710.1	Painted Traffic Markings	LS	All Req'd	\$30,000	\$30,000
2718.1	Sign Assembly	LS	All Req'd	\$10,000	\$10,000
2801.1	Asphalt Concrete Pavement	TON	350	\$350	\$122,500
3301.1	Curb & Gutter	LF	400	\$100	\$40,000
3302.1	Concrete Seawalk	SY	500	\$200	\$100,000
13100.1	Restroom	SF	400	\$800	\$320,000
16000.1	Area Lighting	LS	All Req'd	\$200,000	\$200,000
<b>ESTIMATED CONSTRUCTION BID PRICE</b>					<b>\$2,315,938</b>
<b>CONTINGENCY (15%)</b>					<b>\$347,391</b>
<b>INDIRECT COSTS (15%)*</b>					<b>\$347,391</b>
<b>RECOMMENDED PROJECT BUDGET UPLANDS</b>					<b>\$3,010,719</b>



**EXISTING CONDITIONS**

EXISTING MOORAGE SUMMARY	
STALL LENGTH	EXISTING SLIPS
42'	6
60'	6
<b>SIDE TIE</b>	<b>643'</b>

**PRELIMINARY**

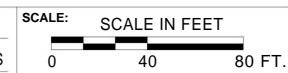


REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.



9360 Glacier Highway, Ste. 100  
Juneau, Alaska 99801  
Phone: 907-586-2093  
Fax: 907-586-2099  
www.pndengineers.com

DESIGN: CRS    CHECKED: CRS  
DRAWN: LRG    APPROVED: CRS

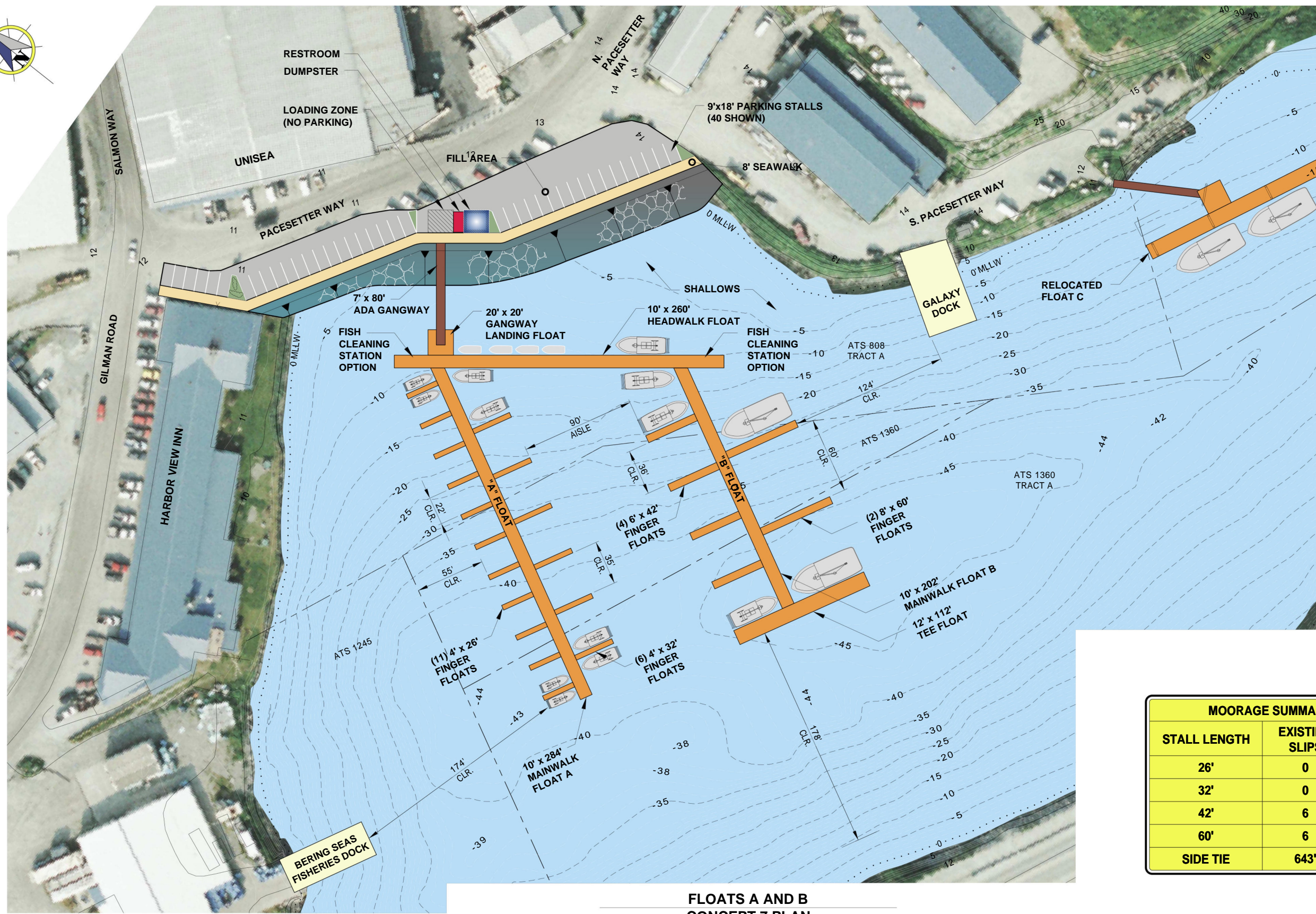
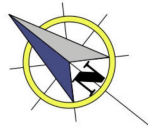


**CITY OF UNALASKA  
ROBERT STORRS HARBOR**

SHEET TITLE: **FLOATS A AND B  
EXISTING CONDITIONS**

PN&D PROJECT NO.: 132021    DWG. FILE:

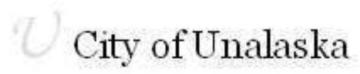
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SHEET  
OF 20



**FLOATS A AND B  
CONCEPT 7 PLAN**

MOORAGE SUMMARY		
STALL LENGTH	EXISTING SLIPS	PROPOSED SLIPS
26'	0	22
32'	0	13
42'	6	10
60'	6	5
<b>SIDE TIE</b>	<b>643'</b>	<b>350'</b>

**PRELIMINARY**



REVISIONS					
REV.	DATE	DESCRIPTION	DWN.	CKD.	APP.



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DESIGN: CRS    CHECKED: CRS    SCALE: SCALE IN FEET  
DRAWN: PJD    APPROVED: CRS    0    40    80 FT.



**CITY OF UNALASKA  
ROBERT STORRS HARBOR**

SHEET TITLE: **FLOATS A AND B  
CONCEPT #7 - RECONFIGURED**

PN&D PROJECT NO.: 132021    DWG. FILE:

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SHEET  
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