



ENGINEERS, INC.

September 1, 2022

PND 192080.02

Mr. Karl Hagerman
Utility Director, Petersburg Borough
P.O. Box 329
11 S. Nordic Drive
Petersburg, Alaska 99833

Re: Pump Station No. 4 and Force Main Replacement
PND Proposal – Task 2 Site Investigation and Cost Estimate

Dear Mr. Hagerman,

PND Engineers, Inc. (PND) is pleased to provide this proposal for site investigation and cost estimating services for the Pump Station No. 4 and Force Main Replacement project. We understand that the Petersburg Borough (Borough) wishes to generally pursue Alternative 1A as presented in PND's Design Study Report prepared for this project and dated May 15, 2020. Alternative 1A involves the complete replacement of the pump station, and installing a replacement force main along a new alignment through a generally undeveloped area.

Scope of Services

The current scope of services consists of various site investigation components as follows:

Pump Station Assessment: PND and our electrical subconsultant will travel to Petersburg and assess the existing Pump Station No. 4. We will examine the existing equipment, record pump cycle times, and take draw-down measurements to better understand the flow requirements. We will also evaluate the associated electrical infrastructure, including backup generator, to determine if any electrical upgrades are required. Deliverables will include a technical memorandum summarizing the investigation findings.

Topographic Survey: PND's surveying subconsultant will perform a topographic survey of the area around the pump station, along the proposed new force main alignment, and around the discharge manhole. Deliverables will include an existing conditions base map that the design team can use in other parts of this task and subsequent project phases.

Geotechnical Investigation: A PND geologist will travel to Petersburg and conduct a peat probing investigation in the undeveloped area of the proposed alignment. The goal of this investigation is to identify the approximate depth of peat and develop an appropriate trench detail. This method of investigation has limitations, including depth and sampling ability, but is adequate for the current project scope. Deliverables will include a site map with probe locations, total probe depth, and refusal depth if encountered.

Cost Estimate: Upon completion of the site investigation components, PND will prepare a rough order of magnitude (ROM) cost estimate for replacing the pump station, force main, and electrical infrastructure (if necessary) based on the data collected. We understand that this estimate will be used for obtaining additional project funding and Borough planning. The estimate will be itemized and include sufficient detail to pursue loan funding from the Alaska Department of Environmental Conservation (ADEC).

All task documents (pump station assessment technical memorandum, topographic survey, peat probe map, and cost estimate) will be compiled into a single project deliverable. We will review the deliverable with you via teleconference and make any necessary adjustments prior to submitting the final deliverable.

No effort for project permitting has been included in the proposed scope and budget at this time. The proposed

force main alignment appears to traverse through jurisdictional wetlands which will require permitting through the U.S. Army Corps of Engineers (USACE). The anticipated level of disturbance likely qualifies the project for a Nationwide Permit (NWP) which could require mitigation and a field delineation. Other anticipated permits include an ADEC Approval to Construct and Approval to Operate. We will provide a proposal for permitting efforts, if requested, once the project scope has been finalized.

We understand that this project may expand and dovetail into a separate subdivision project, which may affect the force main alignment and sewer system requirements. The proposed budget and scope do not include effort for incorporating the subdivision project into the force main project.

Fee Proposal

We propose to provide the services described herein under a single task (Task 2 – Site Investigation and Cost Estimate). PND will retain subconsultants Morris Engineering Group (MEG) for electrical engineering services, and Central Southeast Surveyors (CSS) for topographic surveying services. We recommend proceeding with Task 2 on a time and expenses basis due to the uncertainties associated with the investigation and potential findings. A budget of **\$53,919** is recommended for the anticipated scope. We will invoice monthly in accordance with our standard billing rates at the time of services. Subconsultants and third-party expenses will be invoiced at cost plus 10% administrative markup. The proposed budget will not be exceeded without prior written authorization from the Borough.

Schedule

PND and our subconsultants are ready to commence immediately upon receiving written Notice to Proceed. We expect that the field work can be completed by early October and the compiled task deliverable will be provided by the end of October, provided that authorization is received by mid-September.

Closing

PND appreciates the opportunity to continue assisting the Petersburg Borough on this important infrastructure project. Please review this proposal at your earliest convenience. If you find this proposal acceptable, please let us know and we will prepare a contact amendment authorizing this work. We look forward to advancing this project with you.

Sincerely,

PND Engineers, Inc. | Juneau Office



Dick Somerville, P.E.
Vice President



Sean Sjostedt, P.E.
Senior Engineer

Enclosures: PND Fee Proposal
PND Standard Billing Rates
MEG Fee Proposal
CSS Fee Proposal



PND Engineers, Inc.
Petersburg Pump Station No. 4 and Force Main Replacement
Task 2 - Site Investigation and Cost Estimate - September 1, 2022
PND Project No. 192080.02

	PND Senior Engineer VII	PND Senior Engineer V	PND Senior Engineer II	PND Senior Engineer I	PND Staff Engineer V	PND Staff Engineer IV	PND Staff Engineer III	PND Tech VI	V	PND CAD Designer V	Line Item Costs	Task Subtotal Costs
Scope of Services	\$225.00	\$190.00	\$155.00	\$145.00	\$135.00	\$130.00	\$125.00	\$150.00	\$130.00	\$120.00		
Task 2 - Site Investigation and Cost Estimate												
1. Project Management	2	6							2		\$1,850	
2. Client coordination	2	12									\$2,730	
3. Site Investigation - Pump station assessment		20									\$3,800	
4. Site Investigation - Geotech investigation							20				\$3,000	
5. Site investigation deliverables - tech memo, probe map	2	24					4				\$5,610	
6. Prepare ROM cost estimate	1	6									\$1,365	
7. Prepare Task 2 deliverable package, client review meeting	4	8									\$2,420	
8. Address client review comments, prepare final Task 2 deliverable package	1	4									\$985	
Total Estimated Man-hours	12	80					24	2				\$21,760
Estimated Third Party Expenses												
Airfare	Round trip JNU-PSG for Engineer and Geologist										\$800	
Lodging	Hotel, 1 night/2 rooms @ \$150/room										\$300	
Vehicle	Rental car 2 days @ \$125/day										\$250	
Per diem	4 man days @ \$65/day										\$260	
Field Supplies	Geotech investigation tools										\$200	
Electrical Subconsultant	Morris Engineering Group										\$7,025	
Survey Subconsultant	Central Southeast Surveying										\$20,400	
Administrative Fee	10% Markup on third party expenses										\$2,924	\$32,159
TOTAL TASK FEE ESTIMATE (T&M)												\$53,919

**PND ENGINEERS, INC.
STANDARD RATE SCHEDULE
EFFECTIVE FEBRUARY 2022**

<u>Professional:</u>	Staff Engineer I	\$100.00
	Staff Engineer II	\$115.00
	Staff Engineer III	\$125.00
	Staff Engineer IV	\$130.00
	Staff Engineer V	\$135.00
	Staff Engineer VI	\$150.00
	Senior Engineer I	\$145.00
	Senior Engineer II	\$155.00
	Senior Engineer III	\$165.00
	Senior Engineer IV	\$175.00
	Senior Engineer V	\$190.00
	Senior Engineer VI	\$210.00
	Senior Engineer VII	\$225.00
	Environmental Scientist I	\$105.00
	Environmental Scientist II	\$125.00
	Environmental Scientist III	\$140.00
Environmental Scientist IV	\$155.00	
Environmental Scientist V	\$170.00	
Environmental Scientist VI	\$180.00	
<u>Surveyors:</u>	Senior Land Surveyor I	\$115.00
	Senior Land Surveyor II	\$125.00
	Senior Land Surveyor III	\$135.00
<u>Technicians:</u>	Technician I	\$60.00
	Technician II	\$85.00
	Technician III	\$95.00
	Technician IV	\$105.00
	Technician V	\$130.00
	Technician VI	\$150.00
	CAD Designer III	\$85.00
	CAD Designer IV	\$100.00
	CAD Designer V	\$120.00
	CAD Designer VI	\$130.00



PO Box 210049, Auke Bay, Alaska 99821, 907-789-3350,
 email: mark@morrisengineeringgroup.com

Fee Estimate

1-Sep-22

Petersburg Lift Station 4

Scope of Services: Preliminary Design for Lift Station. Consists of site visit, meeting with City of Petersburg Wastewater folks, witness draw down tests, run generator and operate lift station, determine any spare capacity in electrical system for larger pumps. Participate in discussion of pump/electrical system options with Petersburg and receive direction on what scope to design; reuse existing electrical system and provide new control panel for slightly larger new pumps up to complete replacement of electrical system to accommodate larger pumps and future growth. Once scope direction is received, develop a technical report of electrical work included with schematic site plan, and preliminary equipment layout. Provide construction cost estimate.

<u>Task</u>	<u>Engineer (Hrs)</u>	<u>Tech/CAD (Hrs)</u>	<u>Expenses</u>
Preliminary Design for Lift Station			
Site Visit	12		\$675.00
Technical Report	6		
Schematic Site Plan & Equipment Layout	4	4	
Review meeting with Client	2		
Coordination with PND	2		
Construction Cost Estimate	4		
Totals	30	4	
Hourly Rate	\$195	\$125	
Fees	\$ 5,850	\$ 500	\$675.00
Total Fee - Preliminary Design	\$ 7,025		

Central Southeast Surveyors
David C. Thynes, Alaska R.P.L.S. 10390, Owner
P.O. Box 533
Petersburg, Alaska
99833-0533



August 17, 2022

Sean Sjostedt, P.E. Senior Engineer
Tyler Bradshaw, P.E. Senior Engineer
Dick Somerville, P.E. P.N.D. Vice President

Re: Pump station 4 project topographic survey proposal

Greetings all,

The following represents our lump sum costs for performing the topographic survey for the Pump Station 4 force main replacement project, broken into a field work component and an office work component.

Field Work:

C.S.S. anticipates five, 8-hour field work days for the P.L.S. in charge with one crew person and one additional 8-hour day contingency for field checks to verify TIN surfaces, etc.

Total Lump Sum Field Component: \$14,400.00

Office/Admin. Work:

C.S.S. anticipates five 8-hour office days for the P.L.S. in charge; admin, computations, drafting and deliverables submission.

Total Lump Sum Office Component: \$6,000.00

Project Lump Sum Total: **\$20,400.00**

Note: This proposal is for a topographic survey & post wetlands delineation boundary demarcation only. If any property boundaries require marking/monumentation, a separate/revised cost proposal would be necessary.

Best Regards,

Dave Thynes R.P.L.S. #10390
Central Southeast Surveyors