

July 29, 2013

PND 122023

Mr. Chris Cotta
Assistant Public Works Director
Petersburg Borough
P.O. Box 329
Petersburg, Alaska 99833

Re: Rasmussen Enge Memorial Bridge – Final Design and Construction
Engineering Services Fee Proposal

Dear Mr. Cotta:

PND Engineers, Inc. (PND) appreciates the opportunity to continue to assist the Petersburg Borough (Borough) on the replacement of the Rasmussen-Engel Bridge. The Borough has permits to replace the existing deteriorating bridge with a timber-framed structure that maintains the historical character of the bridge. You have asked PND to provide engineering services to complete the design, assist with the bid process and provide engineering services during construction.

Anticipated Construction

Anticipated construction of this project includes:

- Approximately 75 pressure treated timber piles
- Approximately 25 pressure treated timber pile caps connected to piles with galvanized connectors
- Pressure treated timber longitudinal bracing
- Pressure treated glued laminated timber stringers
- Pressure treated glued laminated timber deck panels
- Untreated timber wear deck planks
- Timber railing that meets modern standards and has historic appearance
- Replacement of insulated pressure sewer that is supported by the bridge framing
- Replacement of electrical and communication conduit, cables and appurtenances
- Repair or retrofit of existing concrete abutments

Scope of Services

Services to develop construction documents include the following:

- Topographic survey. PND plans to retain Rick Braun, L.S. to perform the necessary field surveys and development of site mapping.
- Geotechnical investigation. PND plans to retain Denali Drilling to drill two holes to obtain information for the design of piles. A PND geotech technician will log the holes, take and test

- samples, analyze the findings, and prepare a report for design and as a reference for bidders.
- Development of demolition plans.
 - Structural calculations including load rating for Alaska Department of Transportation Bridge Design Section submittal.
 - Development of framing plans and details of bridge and rails.
 - Development of utility plans. These will include sewer plans and sewer services. We understand that the water main in this area is underground and that services to adjacent lots are underground. Any re-design of water line and services are outside of this proposal and if need be performed on a time and expenses basis.
 - Development of project manual including bid forms, information to bidders, the construction contract with any supplementary conditions, and technical specifications.
 - Construction cost estimating
 - 65% design review submittal.
 - A plans in hand site visit performed after development of the 65% review package to ensure that the design is considering all the site conditions that can be observed in a site visit.
 - Final review submittal and meeting with Petersburg Borough
 - Bid phase support including running a prebid meeting, responding to bidder questions, issuing addenda and assisting in evaluation of bids.
 - Construction phase services including attending the pre-construction meeting, reviewing submittals, responding to contractor requests for information, reviewing pay requests, attending progress meetings, and inspecting construction.

Fees

PND proposes to provide engineering services as follows:

- | | |
|---|-----------|
| • Field investigations, time and expenses basis not to exceed | \$ 59,789 |
| • Design and Bid Phase Services, fixed fee | \$158,113 |
| • Construction Phase Services, time and expenses basis, not to exceed | \$168,134 |

Detailed breakdowns of these estimates are attached. We will invoice our services monthly with time invoiced in accordance with the attached rate schedule and expenses at cost plus 10 percent. For fixed fee services we will monthly invoice our services on the percentage of services complete.

Schedule:

PND can begin field services in September 2013. We anticipate that following schedule, should funding be available:

| | |
|---|------------------|
| Survey complete: | October 1 2013 |
| Geotechnical Investigation and Report Complete: | November 1, 2013 |
| 65% Design Submittal to Petersburg Borough | January 6, 2014 |
| Borough Review Complete | January 20, 2014 |
| 95% Submittal to Petersburg Borough | March 17, 2014 |

Rasmussen Enge Memorial Bridge
Final Design and Construction
Engineering Services Fee Proposal
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Design Final Completion and Advertisement for Bids
Bid Opening
Award and NTP to Contractor
Construction Complete

April 15, 2014
May 15, 2014
Early July 2014
Spring 2015

PND appreciates the opportunity to provide engineering services on this important project. Please let us know if we have perceived your needs appropriately for this proposal and feel free to contact us if you have any questions.

Sincerely,
PND Engineers, Inc. | Juneau Office

A handwritten signature in black ink, appearing to read "Chris Gianotti", with a long horizontal flourish extending to the right.

Chris Gianotti, P.E.
Senior Engineer, Vice President
Enclosures

Rasmussen Enge Bridge Replacement Field Investigations Engineering Fee Proposal

**Engineering Services
LABOR**

| Task | Hourly Rate | Professional | | | | Technical | | Administrative | Task Costs | Phase Subtotal |
|-------------------------------------|-------------|------------------------|---------------------|-------------------|--------------------|---------------|--|----------------|------------|----------------|
| | | Struct. Eng. Principal | Senior Engineer III | Staff Engineer IV | Staff Engineer III | CADD Tech. IV | | Tech IV | | |
| | | \$180.00 | \$130.00 | \$95.00 | \$90.00 | \$90.00 | | \$90.00 | | |
| A Site Survey | | | | | | | | | | |
| Coordination of Surveyor | | 4 | | | | | | | \$720 | \$720 |
| B Geotechnical Investigation | | | | | | | | | | |
| Mobilization and Preparation | | 2 | | | | 12 | | | \$1,440 | |
| Site Investigation | | 8 | | | | 32 | | 1 | \$4,410 | |
| Geotechnical Sample Handling | | | | | | 8 | | | \$720 | |
| Soil Boring Logs | | 2 | | | | 12 | | | \$1,440 | |
| Analysis | | 16 | | | | 8 | | | \$3,600 | |
| Geotechnical Report | | 26 | | | | 40 | | | \$8,280 | \$19,890 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Total Labor | | 58 | | | | 112 | | 1 | \$20,610 | \$20,610 |

EXPENSES

| | | | |
|--|---------------------------|---------|----------|
| Geotechnical Investigation Drilling Mobilization | 1 Lump Sum | \$9,975 | \$9,975 |
| Geotechnical Investigation Drilling | 3 days at \$3,650 per day | | \$10,950 |
| Drilling Contractor Standby | 1 days at \$2,650 per day | | \$2,650 |
| Geotechnical Investigation Airfare | 1 RT @ \$370 | | \$370 |
| Geotechnical Investigation Perdiem | 3 days at \$220 per day | | \$660 |
| Geotechnical Investigation Rental Car | 3 days at \$90 per day | | \$270 |
| Geotechnical Investigation Airport Parking | 3 days at \$14 per day | | \$42 |
| Soil Testing | | | \$1,500 |
| Surveyor: Rick Braun Proposal | | | \$9,200 |
| | | | |
| Expense Markup | 10.0% of sum of expenses | | \$3,562 |
| | | | |
| Total Expenses | | | \$39,179 |

Total Field Investigation Engineering Services **\$59,789**

**Rasmussen Enge Bridge Replacement
Structural and Civil Engineering Design Fee Proposal**

**Engineering Services
LABOR**

| Task | Hourly Rate | Professional | | | Technical | | Administrative | | Task Costs | Phase Subtotal |
|--|-------------|------------------------|---------------------|-------------------|--------------------|---------------|----------------|---------|------------|----------------|
| | | Struct. Eng. Principal | Senior Engineer III | Staff Engineer IV | Staff Engineer III | CADD Tech. IV | | Tech IV | | |
| | | \$180.00 | \$130.00 | \$95.00 | \$90.00 | \$90.00 | | \$90.00 | | |
| A 65% Design | | | | | | | | | | |
| Structural Calculations | | 16 | 32 | | | | | | \$7,040 | |
| Development of Site Base Map | | 2 | | | | 12 | | | \$1,440 | |
| Development of Demolition Plans and Notes | | 8 | 16 | | | 32 | | | \$6,400 | |
| Framing Plans | | 2 | 8 | | | 16 | | | \$2,840 | |
| Framing Details | | 4 | 8 | | | 16 | | | \$3,200 | |
| Deck Panel Layout Plans | | 4 | 12 | | | 24 | | | \$4,440 | |
| Bracing Elevations | | 4 | 8 | | | 12 | | | \$2,840 | |
| Bracing Details | | 2 | 4 | | | 8 | | | \$1,600 | |
| Rail Elevations | | 4 | 8 | | | 12 | | | \$2,840 | |
| Rail Details | | 4 | 8 | | | 12 | | | \$2,840 | |
| Utility Plan Views | | 12 | | 24 | | 40 | | | \$8,040 | |
| Utility Relocation Details | | 16 | | 32 | | 48 | | | \$10,240 | |
| Cost Estimate | | 4 | 8 | | | | | | \$1,760 | |
| General Notes | | 1 | 2 | | | 2 | | | \$620 | |
| Submittal and Review with Petersburg Borough | | 8 | 12 | | | 8 | | | \$3,720 | \$59,860 |
| D 95% Design | | | | | | | | | | |
| Additional Calculations | | 8 | 24 | | | | | | \$4,560 | |
| Load Rating Calculations | | 8 | 24 | | | | | | \$4,560 | |
| Plans in Hand Site Visit | | 2 | 16 | | | | | | \$2,440 | |
| Refinement of Plans and Details | | 24 | 60 | | | 72 | | | \$18,600 | |
| Construction Phasing Plans | | 12 | 16 | | | 16 | | | \$5,680 | |
| Cost Estimate | | 4 | 8 | | | | | | \$1,760 | |
| Development of Specifications and Project Manual | | 12 | 24 | | | | | 24 | \$7,440 | |
| Submittal and Review with Petersburg Borough in Petersburg | | 16 | 24 | | | 8 | | | \$6,720 | \$51,760 |
| E Bid Phase | | | | | | | | | | |
| Pre-Bid Meeting in Petersburg | | 2 | 12 | | | | | | \$1,920 | |
| Respond to Bidder Questions | | 8 | 16 | | | | | | \$3,520 | |
| Addenda | | 4 | 8 | | | 16 | | | \$3,200 | \$8,640 |
| Total Labor | | 191 | 358 | 56 | | 354 | | 24 | \$120,260 | \$120,260 |

EXPENSES

| | | |
|--|----------------------------|----------|
| Plans in Hand Site Visit Airfare | 2 RT @ \$370 | \$740 |
| Plans in Hand Site Visit Perdiem | 2 man days @ \$190 per day | \$380 |
| Plans in Hand Site Visit Rental Car | 1 day at \$90 per day | \$90 |
| Plans in Hand Site Visit Airport Parking | 1 day at \$14 per day | \$14 |
| Final Review Airfare | 2 RT @ \$370 | \$740 |
| Final Review Perdiem | 2 man days @ \$190 per day | \$380 |
| Final Review Rental Car | 1 day at \$90 per day | \$90 |
| Final Review Airport Parking | 1 day at \$14 per day | \$14 |
| Electrical Engineering | Haight and Associates | \$31,300 |
| Pre-Bid Meeting Airfare | 1 RT @ \$370 | \$370 |
| Pre-Bid Meeting Perdiem | 1 man day at \$190 per day | \$190 |
| Pre-Bid Meeting Rental Car | 1 day at \$90 per day | \$90 |
| Pre-Bid Meeting Rental Airport Parking | 1 day at \$14 per day | \$14 |
| Expense Markup | 10.0% of sum of expenses | \$3,441 |
| Total Expenses | | \$37,853 |

Total Structural and Civil Engineering Services **\$158,113**

Rasmussen Enge Bridge Replacement Construction Administration and Inspection

**Engineering Services
LABOR**

| Task | Hourly Rate | Professional | | | Technical | | Administrative | | Task Costs | Phase Subtotal |
|----------|---|------------------------|---------------------|-------------------|--------------------|---------------|----------------|---------|------------|----------------|
| | | Struct. Eng. Principal | Senior Engineer III | Staff Engineer IV | Staff Engineer III | CADD Tech. IV | | Tech IV | | |
| | | \$180.00 | \$130.00 | \$95.00 | \$90.00 | \$90.00 | | \$90.00 | | |
| A | Pre-Construction Meeting | 2 | 16 | 16 | | | | | \$3,960 | \$3,960 |
| B | Submittal Review | | | | | | | | | |
| | Pile Driving Submittal | 0.5 | 4 | | | | | 1 | \$700 | |
| | Piling Submittal | 0.5 | 2 | | | | | 1 | \$440 | |
| | Pile Caps and Stringer Submittal | 0.5 | 4 | | | | | 1 | \$700 | |
| | Glu Lam Deck Panel Submittal | 1 | 12 | | | | | 1 | \$1,830 | |
| | Rail, Wear Deck, Bracing Timber Submittals | 1 | 8 | | | | | 1 | \$1,310 | |
| | Hardware Submittals | 0.5 | 4 | | | | | 1 | \$700 | |
| | Stringer to Cap Steel Fabrication Drawings | 1 | 8 | | | | | 1 | \$1,310 | |
| | Utility Piping Submittals | 0.5 | 4 | | | | | 1 | \$700 | |
| | Utility Hanger Submittals | 0.5 | 4 | | | | | 1 | \$700 | |
| | | | | | | | | | | \$8,390 |
| C | Respond to Contractor RFIs | 16 | 32 | | | | | 2 | \$7,220 | \$7,220 |
| D | Progress Meetings | | | | | | | | | |
| | Weekly Meeting by 16 weeks | 16 | 16 | | | | | 2 | \$5,140 | \$5,140 |
| E | Pay Request Review | | | | | | | | | |
| | 8 pay requests | 8 | 16 | | | | | 2 | \$3,700 | \$3,700 |
| F | Construction Inspection | | | | | | | | | |
| | On Site Inspection - Pile Driving Through Final Completion (4 months) | 16 | 60 | 960 | | | | 16 | \$103,320 | |
| | Progress Inspection by Designer (2 Each) | 2 | 32 | | | | | | \$4,520 | |
| | Final Inspection | 2 | 16 | | | | | | \$2,440 | \$110,280 |
| | | | | | | | | | | |
| | Total Labor | 68 | 238 | 976 | | | | 31 | \$138,690 | \$138,690 |

EXPENSES

| | | | |
|---|--------------------------|--------------------------|----------|
| Preconstruction Meeting Airfare | 2 RT at | \$370 | \$740 |
| Preconstruction Meeting Perdiem | 1 days for | 2 people @ \$220 per day | \$440 |
| Preconstruction Meeting Car Rental | 1 days for | \$90 per day | \$90 |
| Preconstruction Meeting Airport Parking | 1 days for | \$14 per day | \$14 |
| Inspection Airfare | 3 RT at | \$370 per trip | \$1,110 |
| Inspection Perdiem | 4 months at | \$3,600 per month | \$14,400 |
| Inspection Vehicle | 4 months at | \$1,000 per month | \$1,500 |
| Progress Inspection Airfare | 2 RT at | \$370 per trip | \$740 |
| Progress Inspection Perdiem | 1 days for | 1 people @ \$190 per day | \$190 |
| Progress Inspection Airport parking | 1 days for | \$14 per day | \$14 |
| Final Inspection Airfare | 4 RT at | \$370 per trip | \$1,480 |
| Final Inspection Perdiem | 2 days for | 1 people @ \$220 per day | \$440 |
| Final Inspection Airport Parking | 1 days for | \$14 per day | \$14 |
| Electrical Engineering | Haight and Associates | | \$5,595 |
| Expense Markup | 10.0% of sum of expenses | | \$2,677 |
| | | | |
| Total Expenses | | | \$29,444 |

Total Construction Administration and Construction Inspection Services **\$168,134**

526 Main Street
Juneau, Alaska
99801

Telephone
(907) 586-9788

Fax
(907) 586-5774

FEE ESTIMATE

PROJECT NAME: Petersburg Sing Lee Alley Bridge

CLIENT: PND

PROJECT NO.: 137-105

DATE: 26 July 2013

[illegible]

RICK G. BRAUN, LS

P.O. BOX 211

PETERSBURG, AK 99833

PH (907) 772-3986 email: rsbraun@gci.net

July 10, 2013

Peratrovich, Nottingham and Drage, Inc.
9360 Glacier Hwy., Ste. 100
Juneau, Alaska, 99901

Attn: Chris Giannotti

Re: Topographic Survey of Borough of Petersburg
Rasmus Enge Bridge

Dear Mr. Giannotti,

Thank you for the opportunity to present this proposal to provide land surveying services for the topographic survey of the Rasmus Enge Bridge. For a fee not to exceed the one quoted below, we will provide the following services:

1. We will perform land surveying fieldwork for the location of the following structures and ground features:
 - we will locate the bridge pile caps and edge of bridge railing.
 - we will locate the adjacent structure pile caps that are next to the bridge.
 - we will locate the base of the 141 timber pilings for the bridge and the pilings near the bridge for the six adjacent structures.
 - we will locate the electrical, communication cable, storm drain, gravity sewer and force main sewer utility structures that are suspended under the bridge and show the connections to adjacent buildings.
 - we will locate the underground water line under the bridge and show connections to adjacent buildings.
 - we will locate the concrete bridge head wall and approach roadway at each end of the bridge. We will show the underground utilities in the approach roadway.
 - we will get ground elevations shots at each piling, along the approach roadway and along the Hammer Slough stream.
 - we will locate any boundary corner monuments within the project area.
2. We will research existing Borough of Petersburg utility as-builts to make sure we have all underground utilities located. We will coordinate with Borough utility workers to use the inductive locator to find the underground water line and connections.

Giannotti
7/10/13
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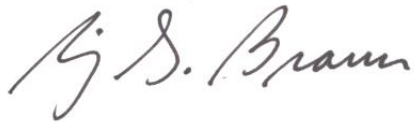
3. We will prepare a topographic map showing all the located improvements, utilities and ground features of the surveyed area. We will also show any property boundary and lease lines that may affect the project area. The map will be submitted in AutoDesk format with contour lines and 3D faces for the ground elevations.

COST PROPOSAL

| | |
|--|-------------------|
| Land Surveying Field Work – 2 man crew | |
| - 20 hrs @ \$220/hr = | \$4,400.00 |
| Office Work – Registered Land Surveyor | |
| administration, research, computations, drafting, submittals | |
| – 40 hrs @ \$120/hr = | <u>\$4,800.00</u> |
| Total | \$9,200.00 |

If you require additional information, please call me any time.

Sincerely,



Rick G. Braun, L.S.



Denali Drilling

RECEIVED

JUN 26 2013

PND Engineers Inc.
Juneau Office

June 21, 2013

PND Engineers, Inc.
Attn: Chris Gianotti
9360 Glacier Highway, Suite 100
Juneau, AK 99801

Ref: Sing Lee Alley Bridge
Petersburg, Alaska

Dear Chris,

Denali Drilling, Inc. is pleased to have this opportunity to offer you the following proposal for the project referenced above.

Due to the concern of equipment weight while working on this bridge we may want to use our lighter CME-55 on tracks which weighs approximately 25,000#. The CME-75 on the truck weighs approximately 38,000#. Pricing for drilling and sampling an estimated two x 80' deep test borings is:

| | |
|---|------------|
| Mob/demob - Lump Sum | \$9,975.00 |
| This lump sum cost includes all transportation of crew and equipment. | |

| | |
|---|------------|
| Drilling - Per 12 Hour Day | \$3,650.00 |
| This day rate includes two-man crew, drilling equipment, hollow stem auger tooling, support truck, expendables, fuel, and room & board. | |

| | |
|-------------------|------------|
| Standby - Per Day | \$2,650.00 |
|-------------------|------------|

If there is good access we estimate three days to complete.

Client is to provide clear access to drilling area, utility locates, and any permits required to complete the project. Pricing is based on our in-house wage rates with no provisions for Davis Bacon wages.

If you have any questions concerning this proposal, or if we can be of service in any other regard, please do not hesitate to contact our office.

Sincerely,
DENALI DRILLING, INC.

Ron L. Pichler
President
RLP:kh



PND ENGINEERS, INC
STANDARD RATE SCHEDULE
EFFECTIVE MAY 2013

| | | |
|----------------------|--------------------------------|----------|
| <u>Professional:</u> | Senior Engineer VII | \$180.00 |
| | Senior Engineer VI | \$165.00 |
| | Senior Engineer V | \$150.00 |
| | Senior Engineer IV | \$140.00 |
| | Senior Engineer III | \$130.00 |
| | Senior Engineer II | \$120.00 |
| | Senior Engineer I | \$110.00 |
| | | |
| | Staff Engineer V | \$105.00 |
| | Staff Engineer IV | \$100.00 |
| | Staff Engineer III | \$95.00 |
| | Staff Engineer II | \$90.00 |
| | Staff Engineer I | \$85.00 |
| | | |
| | Senior Scientist | \$110.00 |
| | Senior Environmental Scientist | \$105.00 |
| | Environmental Scientist | \$90.00 |
| | GIS Specialist | \$90.00 |
| <u>Surveyors:</u> | Senior Land Surveyor | \$105.00 |
| | Land Surveyor I | \$95.00 |
| <u>Technicians:</u> | | |
| | Technician VI | \$125.00 |
| | Technician V | \$105.00 |
| | Technician IV | \$90.00 |
| | Technician III | \$80.00 |
| | Technician II | \$70.00 |
| | Technician I | \$45.00 |
| | | |
| | CAD Designer V | \$95.00 |
| | CAD Designer IV | \$85.00 |
| | CAD Designer III | \$70.00 |