

AMENDMENT TO AGREEMENT FOR PROFESSIONAL SERVICES

Design Engineering and Project Development

For

Pine Hill Road Bridge (04C-0173)

Over Swain Slough

Project Number: 594020

This Amendment to the Agreement for Professional Services dated April 3, 2012, by and between the COUNTY OF HUMBOLDT, a political subdivision of the State of California, hereinafter called "COUNTY," and Quincy Engineering a California corporation, hereinafter called CONSULTANT is entered into this 4 day of AUGUST, 2015.

WHEREAS, on April 3, 2012, COUNTY and CONSULTANT entered into an Agreement for engineering services to prepare plans and specification for a bridge replacement; and

WHEREAS, such additional services are required to perform subsurface investigation required for seismic analyses promulgated by the California Department of Transportation since the initial contract execution and therefore not included in that agreement; and

WHEREAS, CONSULTANT is able and willing to assist the County with these additional services.

WHEREAS, the parties desire to amend the Agreement to increase the services and compensation amount by \$14,000 accordingly;

NOW, THEREFORE, it is mutually agreed as follows:

1. **EXHIBIT B – SCOPE OF SERVICES**, is hereby amended to include additional scope items contained herein as attachment A.
2. **ARTICLE V – subsection 5.02**, is amended to read:
"It is mutually agreed between COUNTY and CONSULTANT that payments to CONSULTANT including the total amount of salaries and expenses shall not exceed \$412,170, inclusive of all agreements to date, for the work set forth in Article II, as Described in Exhibit "B" of the original Agreement and as amended in ATTACHMENT "A" PROJECT UNDERSTANDING AND SCOPE OF WORK."
3. In all other respects the Agreement for Professional Services between the parties entered into on April 3, 2012 shall remain in full force and effect.

[Signatures on following page]

Design of Pine Hill Bridge, 594020

IN WITNESS WHEREOF, the parties hereto have executed this Amendment to the Agreement for Professional Services dated April 3, 2012, on the date indicated above.

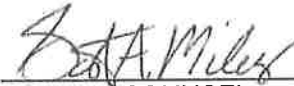
APPROVED AND EXECUTED:

County Of Humboldt

By: 
CHAIRMAN, Board of Supervisors

Attest:  7-21-2015
CLERK OF THE BOARD DATE

APPROVED AS TO FORM:

 7/21/15
COUNTY COUNSEL DATE

RISK MANAGER DATE

CONSULTANT – Quincy Engineering, Inc.

BY:  President
Name – Title (If Corporation: Chairman, President or Vice President)

DATE: 8/4/15

BY: _____
Name – Title (If Corporation: Secretary, Assistant Secretary, CFO or Assistant Treasurer)

DATE: _____

ATTACHMENT "A"

PROJECT UNDERSTANDING AND SCOPE OF WORK



CONSULTING ENGINEERS & GEOLOGISTS, INC.

812 W. Wabash • Eureka, CA 95501-2138 • 707-441-8855 • FAX: 707-441-8877 • shninfo@shn-engr.com

Reference: 012163

February 12, 2015

Mr. Jason Jurrens, PE
Quincy Engineering
11017 Cobblerock Drive, Suite 100
Rancho Cordova, CA 95670

Subject: Cost and Justification for Additional Boring, Geotechnical Assessment of the Pine Hill Bridge, Humboldt County

Dear Jason:

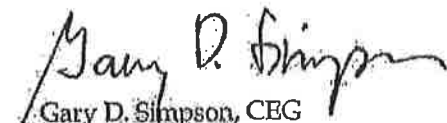
At your request, SHN is providing this letter to outline the need for additional subsurface investigation, and the cost of the proposed supplemental investigation. As we are all aware, the assessment of the Pine Hill Bridge has been a complex, iterative process due to the presence of a deep section of soft estuarine soils at the site. Completion of the site-specific seismic response spectra, and the subsequent ground response analysis, have provided additional data that have led to a preliminary design incorporating pile tip depths at or near the maximum depth of previous borings and cone penetration tests. In order to reduce uncertainties (and therefore risk) associated with foundation design and construction, it would be prudent to drill a single additional deeper boring to provide supplemental design data.

We are proposing to drill one additional boring to depth on the southwest corner of the existing bridge. The bore would be advanced to 80 feet, without sampling or penetration testing, so as not to duplicate the previous investigation. From 80 feet, the bore would be advanced to an estimated depth of 120 to 140 feet (the actual depth will be determined based on the results of penetration testing at the time of the field investigation). The cost estimate below includes the cost of the drilling subcontractor (over 60% of the budget), permit fees, additional focused lab testing, and modification to the Foundation Report and Log of Test Borings. The estimated cost is \$14,000. We are able to complete this supplemental investigation immediately, depending on driller availability.

Please contact myself or John Dailey should you have questions regarding this proposal. This has been a long process, and we look forward to completion of this important investigation.

Respectfully,

SHN Consulting Engineers & Geologists, Inc.


Gary D. Simpson, CEG
Geoscience Director

GDS:dla

SHN Cost Breakdown: Pine Hill Supplemental Boring 4/29/15

FIELD INVESTIGATION:

Vadurro (CEG):	10 hours @ \$120/hour	\$1,200
Staff (set-up/USA/permit)	2 hours @ \$100/hour	<u>\$200</u>
		\$1,400

ANALYSIS/REPORTING:

Dailey (GE)	8 hours @ \$145/hour	\$1,160
Simpson (CEG)	2 hours @ \$145/hour	\$290
Vadurro	2 hours @ \$120/hour	\$240
Drafter (log plot)	2 hours @ \$90/hour	\$180
Clerical	2 hours @ \$65/hour	<u>\$130</u>
		\$2000

OTHER DIRECT COSTS:

Drill subcontractor	\$9,500
Lab Testing (MD's, Unconf compr, Triax TXCU)	<u>\$1,100</u>
	\$10,600

TOTAL: \$14,000



Consulting Engineers & Geologists, Inc.

Fee Schedule January 1, 2015

When accurate definition of the proposed work is not possible, an hourly charge out rate for determining compensation shall be used. Hourly charge rates include payroll costs, overhead, and profit. Hourly services are billed portal to portal and are subject to a 2-hour minimum. Current rates are as follows:

Hourly Charge Rates		
Position ¹	Hourly Rates	
Principal Engineer	\$ 130.00	- \$175.00
Principal Engineering Geologist	\$ 120.00	- \$150.00
Principal Surveyor	\$ 120.00	- \$150.00
Project Manager	\$ 80.00	- \$150.00
Senior Planner	\$ 95.00	- \$135.00
Senior Engineer	\$ 110.00	- \$145.00
Senior Geotechnical Engineer	\$ 120.00	- \$150.00
Senior Geologist	\$ 110.00	- \$140.00
Senior Surveyor	\$ 100.00	- \$130.00
Engineer	\$ 80.00	- \$115.00
Traffic Engineer	\$ 80.00	- \$135.00
Geologist	\$ 80.00	- \$110.00
Certified Industrial Hygienist	\$ 90.00	- \$135.00
Environmental Specialist	\$ 70.00	- \$125.00
Environmental Planner	\$ 70.00	- \$110.00
Staff Surveyor ³	\$ 70.00	- \$100.00
Assistant Engineer	\$ 70.00	- \$115.00
Survey Party Chief ³	\$ 70.00	- \$100.00
Junior Engineer	\$ 60.00	- \$ 85.00
Engineering Technician/Draftsperson ³	\$ 60.00	- \$ 85.00
Lab/Field Technician ³	\$ 60.00	- \$ 95.00
Survey Technician ³	\$ 60.00	- \$ 85.00
Technical Writer	\$ 50.00	- \$ 65.00
Clerical	\$ 45.00	- \$ 65.00
Expert Witness ^{2,4}	\$150.00	- \$250.00

1 Incidental expenses, i.e., lodging, meals, airplane tickets, etc., are billed at cost plus 15%.
 2 Minimum daily charge is four hours.
 3 Rates depend on the specific personnel assigned and if prevailing wage rates are required in the area of work.
 4 Rates for Expert Witness are charged for preparation and testimony for both deposition(s) and trial(s).

Reimbursables

The following direct charges are charged in addition to the hourly charge rates set forth above.

Direct Charges:

CADD plots (black & white)	\$ 4.00/ea.
CADD plots (color)	\$ 20.00/ea.
Copies	\$.15/ea.
Equipment and other expenditures (required for projects)	Cost + 15%
FAX	\$ 2.00/sheet
Field office	Cost + 15%
Filing fees, telephone expense, etc.	Cost + 15%
Iron pipe, monuments, flagging, etc.	Cost + 15%
Mylars	\$ 2.50/sq. ft.
Services of other consultants	Cost + 15%
Stakes, hubs, lath, etc.	Cost + 15%
Subsistence, air travel, etc.	Cost + 15%
Vehicles	\$ 12.00/day plus \$ 0.80/mile

Field Testing and Equipment:

Anchor bolt tension testing	\$ 80.00/day plus operator
CO ₂ Meter	\$ 10.00/day
Concrete Compression Impact Hammer	\$ 25.00/day*+
Core Drilling Machine	\$ 75.00/day + \$3.00/inch cored
Dissolved Oxygen Meter	\$ 53.00/day*+
Expendable Supplies	\$ 40.00/day*+
Fyrite Meter	\$ 33.00/day*+
Generator	\$ 53.00/day*+
Geophysical Equipment	By Quotation
Grundfos Controller & Pump	\$275.00/day
Hand Auger	\$ 33.00/day
Health & Safety Level D	\$ 35.00/day*+
Health & Safety Level C	\$ 60.00/day*+
High Pressure Controller	\$ 60.00/day*+
Inclinometer	\$200.00/day*
LEL Meter	\$ 66.00/day*+
Nuclear Density Testing	\$ 25.00/hour plus operator
Other equipment including drill rigs, backhoes, etc.	Cost + 15%
ORP Meter	\$ 15.00/day
OVA	\$132.00/day*+
Ozone Sparge Trailer	\$2,000.00/day
Peristaltic Pump	\$ 50.00/day*+
pH/Conductivity Meter	\$ 53.00/day*+
Power Auger	\$100.00/day*+
Pumps	\$ 45.00/day*+
Quad (ATV)	\$150.00/day
Rebar Locating Device	\$ 40.00/day plus operator

* 1/2 Day Minimum Charge.

+ 25% Weekly Discount, 40% Monthly Discount.

(1) If concrete is sampled and delivered to SHN lab by outside contractor, add \$5.00/ea. for processing and curing per ASTM C-31.

Reimbursables, Continued

Field Testing and Equipment, Continued:

Roto-hammer	\$ 50.00/day*+
Skidmore-Wilhelm Bolt Tension Calibration	\$ 50.00/day
Soil/Gas Purge Pumps	\$ 30.00/day*+
Soil Gas Probes	\$200.00/day*+
Torque Wrench (0 to 250 ft lbs)	\$ 25.00/day
Torque Wrench (250 to 1,000 ft lbs)	\$ 50.00/day
Turbidity Meter	\$ 26.00/day*+
Ultrasonic Test Device	\$ 20.00/hour plus operator
Vapor Extraction System	\$500.00/day*+
Water Level Data Logger	\$ 60.00/day*+
Water Level Meter	\$ 33.00/day*+
Well Point	\$ 50.00/day
Well Wizard	\$100.00/day*+

Survey Equipment:

Data Collector	\$ 5.00/hour
GPS Station	\$300.00/day*
Level	\$ 25.00/day*
Robotic Total Station	\$ 200.00/day
Total Station	\$ 7.50/hour
Total Station w/Data Collector	\$ 12.50/hour

Laboratory Tests:

Asphalt Briquette Compaction	\$ 50.00/ea. ⁽¹⁾
Asphalt Bulk Specific Gravity	\$ 30.00/ea.
Asphalt Content by Nuclear Method	\$ 75.00/test
Asphalt Content Gauge Calibration	\$190.00/ea.
Asphalt Extraction (% Bitumen)	On Request
Asphalt (Hveem) Mix Design	On Request
Brass Tube (Liner)	\$ 5.00/ea.
Cleanness Value (CT 227)	\$ 75.00/ea.
Compaction Curves (ASTM D 1557 or Caltrans CT216):	
4-inch Mold	\$150.00/ea.
6-inch Mold	\$150.00/ea.
Check Point	\$ 50.00/ea.
Concrete Compressive Strength (CT 521 or ASTM C39)	\$ 25.00/ea. ⁽²⁾
Concrete Linear Shrinkage (3 Bars)	\$200.00
Concrete Moisture	\$ 25.00/test (floor test)
Consolidation Test	\$300.00/ea.
Direct Shear, per point: (ASTM D3080)	
Consolidated-Drained (CD)	\$130.00/point
Unconsolidated-Undrained (UU) (Modified ASTM)	\$100.00/point
Consolidated-Undrained (CU) (Modified ASTM)	\$115.00/point
Additional cycles (each)	\$ 50.00/ea.
Disposable Concrete Molds	\$ 2.00/ea.

* 1/2 Day Minimum Charge.

+ 25% Weekly Discount, 40% Monthly Discount.

(1) If asphalt is delivered to SHN lab unmixed, add \$75.00/ea. for processing and mixing per Caltrans CT304.

(2) If concrete is sampled and delivered to SHN lab by outside contractor, add \$5.00/ea. for processing and curing per ASTM C-31.

Reimbursables, Continued

Laboratory Tests, Continued:

Durability Index	\$ 75.00/ea.
Expansion Index	\$150.00/test
Fireproofing Density	\$ 50.00/ea.
Grout Compressive Strength	\$ 40.00/ea.
LA Rattler (abrasion resistance)	\$150.00/test
Liquid Limit	\$ 75.00/ea.
Masonry Block Compressive Strength	\$ 65.00/ea.
Masonry Block Absorption & Moisture	\$ 50.00/ea.
Masonry Block Linear Shrinkage	\$ 85.00/ea.
Masonry Block Prism Compressive Strength	\$125.00/ea.
Masonry Core Shear Test	\$ 50.00/core
Moisture Content	\$ 15.00/ea.
Moisture-Density Test	\$ 25.00/ea.
Particle Size Analysis (ASTM 422)	\$100.00/ea.
Percent Crushed Particles	\$125.00/ea.
Percent Entrained Air In Concrete	\$ 10.00/ea.
Percent Organics	\$ 50.00/ea.
Plastic Limit	\$ 50.00/ea.
Plasticity Index	\$125.00/ea.
R-Value	\$250.00/ea.
Rice Specific Gravity of Asphalt (ASTM D2041)	\$ 70.00/ea.
Sample Preparation	\$ 40.00/hour
Sand Equivalent	\$ 50.00/ea.
Sawing Rocks and Concrete Cores	\$ 30.00/unit
Sieve Analysis--Coarse	\$ 45.00/ea.
Sieve Analysis--Fine	\$ 55.00/ea.
Sieve Analysis--Passing 200	\$ 45.00/ea.
Specific Gravity, Rock	\$ 45.00/ea.
Stabilometer of Premixed AC	\$ 75.00/ea.
Sulfate Soundness	\$ 80.00/cycle
Swell Test	\$ 55.00/point
Triaxial Compression	
Unconsolidated Undrained (TXUU) (ASTM D2850)	\$115.00/point
Consolidated Undrained (TXCU) (ASTM D4767)	\$385.00/point
Consolidated Drained (TXCD) (ACOE)	\$500.00/point
Consolidated Undrained (TXCU-3 stage) (ASTM D4767)	\$810.00/test
Consolidated Drained (TXCD-3 stage) (ACOE)	\$860.00/test
USDA Bulk Density Test	\$ 20.00/ea.
USDA Textural Suitability Test	\$ 50.00/ea.
Unconfined Compression	\$ 50.00/ea.
Unit Weight of Lightweight Concrete	\$ 50.00/unit

Notes:

All samples of soil or rock from physical testing are discarded 30 days after submission of final report unless prior arrangements are made. Samples of soil or rock submitted for testing for hazardous substances will be returned to the Client, who is responsible for proper disposal.

This fee schedule is subject to review and adjustment, as required.

Certain services may require prevailing wages or overtime at premium pay to SHN employees. In such circumstances, fees will be adjusted to reflect increased labor costs.

