



Phone: (707) 459-4518 Email: info@shn-engr.com Web: shn-engr.com  
335 S. Main Street, Willits, CA 95490-3977

Reference: 419000.038

June 25, 2019

Scott De Leon, Public Works Director  
Lake County Department of Public Works  
255 N. Forbes Street, Room 309  
Lakeport, CA 95453

**Subject: Proposal for Materials Testing Services for the Clark Drive Pavement Repair Project, Lake County, CA**

Dear Mr. De Leon:

Thank you for this opportunity for SHN Engineers & Geologists (SHN) to offer the following proposal to the County of Lake Public Works Department (County) to provide Materials Testing Services for the Clark Drive Pavement Repair Project (Project). The County is a very important client for us and we appreciate the opportunity to again work for you.

## Qualifications

SHN employs the qualified and experienced staff necessary to perform the requested third party construction materials testing and offers ICC, ACI, NICET, Caltrans, and AASHTO certified technical staff and AASHTO R18 accredited testing laboratories in our Willits and Eureka offices. Additionally, the project will be overseen by our registered California Geotechnical Engineer, John Dailey. SHN proposes to staff the project from the Willits office and testing laboratory. However, in the event of scheduling conflicts, we can draw on the resources of our Eureka office and testing laboratory at no additional travel expense. We do not have minimum time charges per site visit, and we will invoice only for time spent performing the required services.

## Project Understanding

Our understanding of the project is based upon our review of the Request For Proposal (RFP). We understand that the project consists of a 3-inch deep dig-out pavement repair at select locations followed by a 5/16-inch single layer chip seal with PMRE emulsion and fog seal.

Our scope of work will include the following:

- **Compaction Testing of HMA dig-out sections** – SHN testing technicians to provide compaction testing of HMA material at a testing frequency of one test per dig-out for 3 days using Caltrans Test Method CT 375
- **Chip Seal Sampling & Testing** – SHN testing technicians to provide sampling of chip seal aggregates and perform emulsion distributor spread rate per Caltrans Test Method CT 339

Mr. Scott De Leon  
Proposal for Materials Testing Services, Clark Drive Pavement Repair Project, Lake Co  
June 25, 2019  
Page 2

- **Laboratory Testing** - As outlined in the County of Lake QAP, all testing required will be performed on the proposed HMA for the dig-outs, chip seal aggregates, & PMRE emulsion.

## **Fees \$17,224.35 based on 4 site visits and the above-stated scope of work**

Attached is the itemized laboratory testing fee estimate and a 10H-1 cost proposal form.

All services will be invoiced on a time and expenses basis, based upon current prevailing wage rates and lab fees. If a change in the scope and associated cost is warranted, a modified cost estimate and scope will be negotiated at that time.

Again, thank you for this opportunity and please do not hesitate to call if you have any questions.

Sincerely,

SHN



Stephen James  
Laboratory Manager

SPJ/amg

- Attachments:
1. Laboratory Testing Fee Estimate
  2. 10H-1 Cost Proposal Form



**EXHIBIT 10-H1 COST PROPOSAL** Page 1 OF 3  
**ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS**  
(DESIGN, ENGINEERING AND ENVIRONMENTAL STUDIES)

Note: Mark-ups are Not Allowed  
 Consultant SHN Consulting Engineers & Geologists, Inc.  
 Project No. Clark Drive Pavement Repair Project Contract No. \_\_\_\_\_ Date 6/25/2019  
 Prime Consultant Subconsultant 2nd Tier Subconsultant

**DIRECT LABOR**

Classification/Title	Name	hours	Actual Hourly Rate	Total
Materials Testing* PW	Rygg Larsen	14	\$72.15	\$1,010.10
Non field Technician	Rygg Larsen	8	\$20.00	\$160.00
Materials Testing* PW	Stephen James	14	\$60.81	\$851.34
Non field Technician	Stephen James	14	\$35.10	\$491.40
Materials Testing* PW OT	Rygg Larsen	4	\$94.02	\$376.08
Materials Testing* PW OT	Stephen James	4	\$82.68	\$330.72
				\$0.00
				\$0.00
				\$0.00
				\$0.00

**LABOR COSTS**

a) Subtotal Direct Labor Costs \$3,219.64  
 b) Anticipated Salary Increases (see page 2 for calculation) \$0.00  
**c) TOTAL DIRECT LABOR COSTS [(a) + (b)]** \$3,219.64

**INDIRECT COSTS**

d) Fringe Benefits (Rate: 72.48%) e) Total Fringe Benefits [(c) x (d)] \$2,333.60  
 f) Overhead (Rate: 64.36%) g) Overhead [(c) x (f)] \$2,072.16  
 h) General and Administrative (Rate: 33.33%) i) Gen & Admin [(c) x (h)] \$1,073.11  
**j) TOTAL INDIRECT COSTS [(e) + (g) + (i)]** \$5,478.86

**FIXED FEE** 10.00% **k) TOTAL FIXED FEE [(c) + (j)] x (q)** \$869.85

**l) CONSULTANT'S OTHER DIRECT COSTS (ODC) - ITEMIZE (Add additional pages if necessary)**

Description of Item	Quantity	Unit	Unit Cost	Total
Mileage Costs	400	400	0.54	\$ 216.00
Laboratory Charges		1	7440	\$ 7,440.00
Per Diem				\$ -
Plan Sheets			0	\$ -
Test			0	\$ -
<b>l) TOTAL OTHER DIRECT COSTS</b>				<b>\$ 7,656.00</b>

**m) SUBCONSULTANTS' COSTS (Add additional pages if necessary)**

_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
<b>m) TOTAL SUBCONSULTANTS' COSTS</b>	
	<b>\$ -</b>

**n) TOTAL OTHER DIRECT COSTS INCLUDING SUBCONSULTANTS [(l)+(m)]** \$7,656.00

**TOTAL COST [(c) + (j) + (k) + (n)]** \$17,224.35

NOTES:

1. Key personnel must be marked with an asterisk (\*) and employees that are subject to prevailing wage requirements must be marked with two asterisks (\*\*). All costs must comply with the Federal cost principles. Subconsultants will provide their own cost proposals.

2. The cost proposal format shall not be amended. Indirect cost rates shall be updated on an annual basis in accordance with the consultant's annual accounting period and established by a cognizant agency or accepted by Caltrans.
3. Anticipated salary increases calculation (page 2) must accompany.

**EXHIBIT 10-H1 COST PROPOSAL** Page 2 of 3  
**ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS**  
(CALCULATIONS FOR ANTICIPATED SALARY INCREASES)

**1. Calculate Average Hourly Rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)**

Direct Labor <u>Subtotal</u> per Cost Proposal	Total Hours per Cost Proposal	=	Avg Hourly Rate	5 Year Contract Duration
\$3,219.64	58	=	\$55.51	Year 1 Avg Hourly Rate

**2. Calculate hourly rate for all years (Increase the Average Hourly Rate for a year by proposed escalation %)**

	Avg Hourly Rate		Proposed Escalation			
Year 1	\$55.51	+	3.5%	=	\$57.45	Year 2 Avg Hourly Rate
Year 2	\$57.45	+	3.5%	=	\$59.46	Year 3 Avg Hourly Rate
Year 3	\$59.46	+	3.5%	=	\$61.55	Year 4 Avg Hourly Rate
Year 4	\$61.55	+	3.5%	=	\$63.70	Year 5 Avg Hourly Rate
Year 5	\$63.70	+	3.5%	=	\$65.93	Year 6 Avg Hourly Rate
Year 6	\$65.93	+	3.5%	=	\$68.24	Year 7 Avg Hourly Rate

**3. Calculate estimated hours per year (Multiply estimate % each year by total hours)**

	Estimated % Completed Each Year		Total Hours per Cost Proposal		Total Hours per Year	
Year 1	100.00%	*	58.0	=	58.0	Estimated Hours Year 1
Year 2	0.00%	*	58.0	=	0.0	Estimated Hours Year 2
Year 3	0.00%	*	58.0	=	0.0	Estimated Hours Year 3
Year 4	0.00%	*	58.0	=	0.0	Estimated Hours Year 4
Year 5	0.00%	*	58.0	=	0.0	Estimated Hours Year 5
Year 6	0.00%	*	58.0	=	0.0	Estimated Hours Year 6
Total	100%		Total	=	58.0	

**4. Calculate Total Costs including Escalation (Multiply Average Hourly Rate by the number of hours)**

	Avg Hourly Rate (calculated above)		Estimated hours (calculated above)		Cost per Year	
Year 1	\$55.51	*	58.0	=	\$3,219.64	Estimated Hours Year 1
Year 2	\$57.45	*	0.0	=	\$0.00	Estimated Hours Year 2
Year 3	\$59.46	*	0.0	=	\$0.00	Estimated Hours Year 3
Year 4	\$61.55	*	0.0	=	\$0.00	Estimated Hours Year 4
Year 5	\$63.70	*	0.0	=	\$0.00	Estimated Hours Year 5
Year 6	\$65.93	*	0.0	=	\$0.00	Estimated Hours Year 6
	Total Direct Labor Cost with Escalation			=	\$3,219.64	
	Direct Labor Subtotal before Escalation			=	\$3,219.64	
	Estimated total of Direct Labor Salary Increase			=	<b>\$0.00</b>	Transfer to Page 1

**NOTES:**

1. This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year.
2. An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable. (i.e. \$250,000 x 2% x 5 yrs = \$25,000 is not an acceptable methodology)
3. This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted.
4. Calculations for anticipated salary escalation must be provided.



**Lake County Clark Drive Pavement Repair Project 2019**  
**Other Direct Costs Estimate (Construction Materials Testing)**

**Materials Testing Estimate**

**Asphalt Compaction Testing** (*CT 375 testing for dig-outs*)

a) Nuclear Gauge Hourly	24 hrs at \$25/each	600
b) Core Drill/ Core Samples	10 cores for gauge Correlation	1,550
<b>Asphalt Paving Subtotal:</b>		<b><u>\$2,150</u></b>

**Asphalt Startup & Production Sampling & Testing** (*laboratory testing*)

a) 2 Combined Gradation	2 x \$110	220
b) Sand Equivalent	2 x \$50	100
c) Maximum Specific Gravity	3 x \$75	225
d) Asphalt Binder Content Correction Factor	1 x \$350	350
e) Asphalt Binder Content Ignition Method	2 x \$125	250
f) HMA Moisture Content	2 x \$20	40
g) Air Voids	2 x \$250	500
h) Aggregate Quality Testing (T335,T96,CT235, T304)	1 round of tests	425
i) VMA, Moisture Susceptibility, Dust Proportion, Hamburg Wheel Track	1 round of tests	1255
<b>HMA Testing Subtotal:</b>		<b><u>\$3,365</u></b>

**Chip Seal Aggregates & PMRE Emulsion Testing** (*Aggregates tested in-house, emulsion sent to APART Inc.*)

a) APART Inc. Emulsion Testing	1 round of tests per QAP	1,140
b) Laboratory Charges	(CT 202, CT 211, T 335, ASTM D4791, CT 227, CT 229)	785

**Chip Seal Subtotal:** **1,925**

**Estimated Materials Testing Total** **\$7,440**

**Estimated Total Mileage Cost (400 miles @ \$0.54/mile)** **\$216**