

**SLEEPY HOLLOW FORD REMOVAL AND
BRIDGE REPLACEMENT PROJECT
CARMEL RIVER, MONTEREY COUNTY, CALIFORNIA
2010 FRGP
BUDGET REVISION
Revised February 8, 2011**

Section 6: Qualifications and experience of applicant and professionals:

1. **Applicant's qualifications and experience:** The Monterey Peninsula Water Management District (MPWMD) has carried out a stream restoration program along the Carmel River since 1984 that includes design and construction of more than four miles of in-stream channel restoration.

2. **Previous projects funded by FRGP:** Instream Habitat Restoration (installation of large wood at deDampierre), 2000.

3. **Professionals qualifications and experience**

MPWMD professionals:

Larry Hampson, Senior Water Resources Engineer – R.C.E. 45763 with more than 25 years of experience in analysis, design, and construction related to river projects.

Thomas Christensen, Riparian Projects Coordinator – MS in hydrology with more than 10 years experience with riparian restoration projects including planting, maintenance and monitoring.

Kevan Urquhart, Senior Fisheries Biologist – Certified Fisheries Professional, member American Institute of Fishery Research Biologists with 26 years experience in fisheries management, including 21 years with the California Department of Fish and Game.

Consultants:

Geotechnical investigation – Elizabeth Mitchell, P.E. Civil 58578 and Geotechnical 2718, Associate Geotechnical Engineer, Pacific Crest Engineering, Inc.; Eric N. Zinn, Registered Geologist, State of California #6854, Certified Engineering Geologist, State of California #2139.

Scour/hydraulic analysis - Cathy Crossett Avila, P.E., Lic. No. 48947, Avila and Associates Consulting Engineers, Inc.

Surveying and Engineering – Richard P. Weber, PE PLS, California Registered Civil Engineer #55219, California Licensed Land Surveyor, Whitson Engineers

Structural Engineer – Todd M. Goolkasian, S.E., Principal-in-Charge, California Structural Engineer, License No. S3543, California Civil Engineer, License No. C43661, Cornerstone Structural Engineering Group

4. Examples of similar work:

Pacific Crest Engineering, Inc. has been in business since 2001 serving the Monterey Bay and Silicon Valley and completed a geotechnical analysis for MPWMD in 2009. See attached proposal and additional information.

Zinn Geology – see attached Statement of Qualifications

Cathy Avila served as a bridge design engineer for 15 years with CALTRANS before opening a consulting business. Her experience includes design recommendations for rebuilding the Highway 1 bridge over the Carmel River in 1995. See attached proposal for additional information.

Whitson Engineers – see attached Proposal and Statement of Qualifications

Cornerstone Structural Engineering Group – see attached Proposal and Statement of Qualifications

Section 8: Project Budget

DETAILED PROJECT BUDGET - Revised February 18, 2011										
PROJECT NAME: Sleepy Hollow Ford Removal and Bridge Replacement Project										
	Hours or Units of Amount Requested	Hours or Units of Applicant Cost Share	Hours or units of Partner Cost Share	Hourly Rate or Unit Price	Amount Requested	Applicant Amt. of Cost Share	Partner Amt. of Cost Share	Total Project Cost		
A. PERSONNEL SERVICES										
Level of MPWMD Staff										
District Engineer		8		66.48		531.84		531.84		
Senior Water Resources Engineer		120		49.22		5,906.40		5,906.40		
Senior Fisheries Biologist		40		44.77		1,790.80		1,790.80		
Riparian Projects Coordinator		40		43.72		1,748.80		1,748.80		
River Maintenance Specialist		40		28.70		1,148.00		1,148.00		
GIS Specialist		8		36.21		289.68		289.68		
Subtotal Personnel Services						-	11,415.52		11,415.52	
Staff Benefits @ 31% (max funded 31%)						-	3,538.81		3,538.81	
TOTAL PERSONNEL SERVICES					\$	-	\$ 14,954.33	\$	-	\$ 14,954.33

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BUDGET REVISION - SLEEPY HOLLOW FORD REMOVAL AND BRIDGE REPLACEMENT PROJECT
CARMEL RIVER, MONTEREY COUNTY, CALIFORNIA

DETAILED PROJECT BUDGET - Revised February 24, 2011

PROJECT NAME: Sleepy Hollow Ford Removal and Bridge Replacement Project

	Hours or Units of Amount Requested	Hours or Units of Applicant Cost Share	Hours or units of Partner Cost Share	Hourly Rate or Unit Price	Amount Requested	Applicant Amt. of Cost Share	Partner Amt. of Cost Share	Total Project Cost
Description (indicate type of units)	# of Units Amount Requested	# of Units Applicant Cost Share	# of units of Partner Cost Share	Unit Price	Amount Requested	Applicant Amt. of Cost Share	Partner Amt. of Cost Share	Total Project Cost
Subcontractors (indicate type of units)								
Geotechnical Investigation								
<i>TASK 1 - SITE RECONNAISSANCE & PROJECT COORDINATION</i>								
ASSOCIATE ENGINEER	8			165.00	1,320.00			1,320.00
STAFF ENGINEER 1GEOLOGIST II (CARA)	4			140.00	560.00			560.00
<i>TASK 2 - UTILITY LOCATING</i>								
STAFF ENGINEER 1GEOLOGIST II	4			140.00	560.00			560.00
NORCAL UNDERGROUND LOCATING	4			120.00	480.00			480.00
<i>TASK 3- TEST BORINGS</i>								
DRILL RIG- DAILY RATE	3			5,800.00	17,400.00			17,400.00
STAFF ENGINEER 1GEOLOGIST II	27			140.00	3,780.00			3,780.00
<i>TASK 4 - LABORATORY ANALYSIS</i>								
	1			1,950.00	1,950.00			1,950.00
<i>TASK 5 - ENGINEERING ANALYSIS AND CALCULATIONS</i>								
ASSOCIATE ENGINEER/GEOLOGIST	12			165.00	1,980.00			1,980.00
STAFF ENGINEER 1GEOLOGIST II	2			140.00	280.00			280.00
STAFF ENGINEER 1GEOLOGIST I	4			130.00	520.00			520.00
<i>TASK 6 - SEISMIC SHAKING ANALYSIS</i>								
6.1 Review literature and develop geologic and seismotectonic models (Principal Geologist)	12			175.00	2,100.00			2,100.00
6.2 Deterministic analysis for ground motion (Principal Geologist)	2			175.00	350.00			350.00
6.3 Probabilistic calculations (Principal Geologist)	12			175.00	2,100.00			2,100.00
6.4 Develop site-specific elastic design response spectrum (Principal Geologist)	12			175.00	2,100.00			2,100.00
6.5 Report writing (Staff Geologist)	8			130.00	1,040.00			1,040.00
6.6 Drafting (CAD Operator)	4			95.00	380.00			380.00
6.7 Review (Principal Geologist)	2			175.00	350.00			350.00
6.8 Report production (Administrative Staff)	2			80.00	160.00			160.00
<i>TASK 7 - REPORT PREPARATION</i>								
ASSOCIATE ENGINEER/GEOLOGIST	10			165.00	1,650.00			1,650.00
STAFF ENGINEER 1GEOLOGIST II	4			140.00	560.00			560.00
DRAFTING	2			90.00	180.00			180.00
CLERICAL	1			75.00	75.00			75.00
ZINN GEOLOGY QUOTE	1			8,580.00				-
Subtotal Geotechnical Analysis					\$ 39,875.00	\$ -	-	\$ 39,875.00

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BUDGET REVISION - SLEEPY HOLLOW FORD REMOVAL AND BRIDGE REPLACEMENT PROJECT
CARMEL RIVER, MONTEREY COUNTY, CALIFORNIA

	Hours or Units of Amount Requested	Hours or Units of Applicant Cost Share	Hours or units of Partner Cost Share	Hourly Rate or Unit Price	Amount Requested	Applicant Amt. of Cost Share	Partner Amt. of Cost Share	Total Project Cost
Scour Analysis								
Note: all tasks performed by the Principal Engineer								
<i>Task 1 – Field Review</i>	6			165.00	990.00			990.00
<i>Task 2 – Hydraulic Analysis</i>	32			165	5,280.00			5,280
<i>Task 3 – Estimate Local Scour</i>	6			165.00	990.00			990.00
<i>Task 4 – Estimate Bank Protection for Bridge</i>	6			165.00	990.00			990.00
<i>Task 5 – Draft Technical Memorandum</i>	16			165.00	2,640.00			2,640.00
<i>Task 6 – Project Management</i>	4			165.00	660.00			660.00
<i>Other Direct Costs at \$250</i>					250.00			250.00
Subtotal Scour Analysis					\$ 11,800.00	\$ -	-	\$ 11,800.00

	Hours or Units of Amount Requested	Hours or Units of Applicant Cost Share	Hours or units of Partner Cost Share	Hourly Rate or Unit Price	Amount Requested	Applicant Amt. of Cost Share	Partner Amt. of Cost Share	Total Project Cost
B. OPERATING EXPENSES								
Engineering and Surveying Services (see detail sheet for description of personnel, hours and rates)								
1. Topographic Survey								
1.1 Attend Kick-Off Meeting					1,005.00			1,005.00
1.2 Locate and Tie into Survey Control					1,640.00			1,640.00
1.3 Stream Profile Field Survey					2,340.00			2,340.00
1.4 Five Cross Section Field Surveys					2,340.00			2,340.00
1.5 Bridge Abutment Field Survey					2,340.00			2,340.00
1.6 Update Topographic Data and Prepare Base Map					1,080.00			1,080.00
1.7 Install Two Permanent Survey Points					1,340.00			1,340.00
1.8 Project Team Coordination					1,340.00			1,340.00
Reimbursables					200.00			200.00
2. Type Selection								
2.1 Perform Field Review of Project Area					2,390.00			2,390.00
2.2 Prepare Bridge Alternatives					1,900.00			1,900.00
2.3 Coordinate with Baily Bridge Supplier					800.00			800.00
2.4 Coordinate with Geotechnical/Hydraulic Engineer					1,360.00			1,360.00
2.5 Prepare Type Selection Memorandum					2,005.00			2,005.00
2.6 Prepare Type Selection General Plan					4,715.00			4,715.00
2.7 Evaluate Vehicle Turning Movements					840.00			840.00
2.8 Type Selection Meeting					1,340.00			1,340.00
Reimbursables					500.00			500.00
3. Plans, Specifications, and Estimates								
3.1 Prepare Demolition Plan					2,720.00			2,720.00
3.2 Prepare Grading Plan					4,080.00			4,080.00
3.3 Prepare Structural Calculations & Design of Abutments					2,930.00			2,930.00
3.4 Prepare Structural Drawings					4,835.00			4,835.00
3.5 Prepare Sheet Specifications					3,655.00			3,655.00
3.6 Estimate of Probable Cost					4,650.00			4,650.00
3.7 Quality Control Check					3,030.00			3,030.00
3.8 Meet with Project Team to Review Documents					1,340.00			1,340.00
3.9 Respond to Plan Check Comments					3,145.00			3,145.00
3.10 Meet with CDFG (if necessary)					1,005.00			1,005.00
3.11 Project Team Coordination					1,060.00			1,060.00
Reimbursables					700.00			700.00
Subtotal Engineering and Survey Services					\$ 62,625.00	\$ -	-	\$ 62,625.00

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BUDGET REVISION - SLEEPY HOLLOW FORD REMOVAL AND BRIDGE REPLACEMENT PROJECT
CARMEL RIVER, MONTEREY COUNTY, CALIFORNIA

DETAILED PROJECT BUDGET - Revised February 24, 2011

PROJECT NAME: Sleepy Hollow Ford Removal and Bridge Replacement Project

	Hours or Units of Amount Requested	Hours or Units of Applicant Cost Share	Hours or units of Partner Cost Share	Hourly Rate or Unit Price	Amount Requested	Applicant Amt. of Cost Share	Partner Amt. of Cost Share	Total Project Cost
TOTAL OPERATING EXPENSES					\$ 114,300.00	\$ 14,954.33	\$ -	\$ 129,254.33
C. SUBTOTALS & ADMIN								
Subtotal A + B (Personnel + Operating)					\$ 114,300.00	\$ 14,954.33	\$ -	\$ 129,254.33
Administrative Overhead (max. 15%) @ 15%					\$ -	\$ -	\$ -	\$ -
D. GRAND TOTAL								
SOFT COST SHARE PERCENTAGE _____								
HARD COST SHARE PERCENTAGE _____								
SOURCE AND AMOUNT OF COST SHARE :						Applicant =	\$ 14,954.33	
						Partners (State) =	\$ -	
						Partners (Federal) =	\$ -	

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444 Airport Blvd, Suite 106
Watsonville, CA 95076
Phone: 831-722-9446
Fax: 831-722-9158

February 9, 2011

Proposal No. PR013

Mr. Larry Hampson
Monterey Peninsula Water Management District
P.O. Box 85
Monterey, CA 93942

Subject: **Proposal for Geotechnical Investigation – Design Phase**
Sleepy Hollow Ford Removal and Bridge Replacement Project
Monterey County, California

Dear Mr. Hampson,

Pacific Crest Engineering Inc. (PCE) is pleased to present our proposed scope of work and fee to prepare a Geotechnical Investigation for the above referenced project located at the Sleepy Hollow Ford crossing on the Carmel River in Monterey County, California.

INTRODUCTION

Sleepy Hollow Ford is located within a relatively narrow reach of the Carmel River approximately one mile downstream of the San Clemente Dam. The District is proposing removal of an existing concrete crossing in an effort to improve upstream steelhead spawning and rearing habitat. The crossing will be replaced by a clear span bridge that will provide year-round access across the ford to the Sleepy Hollow Steelhead Rearing Facility. The new bridge will be approximately 180 feet in length with two concrete abutments and approaches at the stream margins. No bridge supports are planned in the river channel itself.

The purpose of the geotechnical investigation will be to explore the subsurface soil conditions at the two abutment locations and the center of the stream channel, perform site specific analyses pertaining to seismic response analysis, and develop geotechnical design parameters and recommendations for the bridge foundation, retaining structures, site grading and approach design.

The proposed bridge site is located within an area mapped as having a high potential for liquefaction (Dupre', 1990). The determination that a site has liquefiable soils would generally trigger a special Site Class F designation, per Table 1613.5.2 of the 2010 CBC. Note b for Site Class F refers to Section 11.4.7 of ASCE 7-05. This section states "*The site-specific ground motion procedures set forth in Chapter 21 are permitted to be used to determine ground motions for any structure. A site response analysis shall be performed in accordance with Section 21.1 for structures on Site Class F sites, unless the exception to Section 20.3.1 is applicable.*" Section 20.3.1.1 of ASCE 7-10 states the following under "Exception": "*For structures having fundamental periods of vibration equal to or less than 0.5 seconds, site-response analysis is not*

required to determine spectral accelerations for liquefiable soils. Rather, a site class is permitted to be determined in accordance with Section 20.3 and the corresponding values of F_a and F_v determined from Tables 11.4-1 and 11.4-2.” For the purpose of this proposal, we have assumed the bridge structure may have a fundamental period in excess of 0.5 seconds and have therefore provided fees for developing a site response spectrum to be used in the structural design of the bridge.

SCOPE OF WORK

Our scope of work for the Geotechnical Investigation will be limited to the following:

1. Site reconnaissance and review of available geologic and geotechnical information pertaining to the site. This will include review of prior geotechnical and/or geology studies provided by MPWMD for the project site.
2. We will submit a work plan outlining our approximate boring locations and proposed drilling methods to MPWMD for their use in obtaining any permits that may be required for our field exploration operations. **It is our understanding that permits for drilling are not being required at this time and we have not included any fees in our proposal for obtaining such permits.**
3. We will mark proposed test boring locations in white paint, and contact Underground Service Alert (USA) at least 72 hours prior to drilling our test borings. We will also subcontract a private underground utility locator to assist in clearing proposed test boring locations.
4. Exploration, sampling, and classification of surface and subsurface soils by drilling three (3) test borings. Two of the borings will be drilled at the proposed abutment locations and one boring will be drilled in the center of the stream channel. It is our intent to drill the channel boring at the center of the concrete barrier crossing. The borings will be drilled and/or cored to a depth of 45 feet, or ten feet into competent bedrock, whichever is less. The test borings will be backfilled with soil cuttings immediately upon completion of drilling.

We have assumed that the proposed drilling can be completed within three, 9-hour days.

5. Laboratory testing of selected soil samples to determine their relevant engineering properties.
6. Compilation and analysis of collected field and laboratory data.

7. A site-specific seismic shaking analysis will be performed by our subconsultant, Mr. Erik Zinn of Zinn Geology. Zinn Geology will utilize several design tools for use in establishing a design response spectrum. These tools include the following:

- Deterministic PGA map
- Preliminary spectral curves for several magnitudes and soil classes
- Spreadsheet with preliminary spectral curve data
- Recommended fault parameters for California faults
- Deterministic Response Spectrum spreadsheet
- Probabilistic Response Spectrum spreadsheet
- Caltrans ARS Online
- USGS Earthquake Hazards Program website

The net result of their analysis will be a Design Response Spectrum appropriately adjusted to the geological and geotechnical engineering setting of the bridge site.

8. Preparation of a written report presenting our findings and conclusions, and providing geotechnical recommendations for: site preparation, grading and compaction; foundations and allowable bearing capacities; backfill requirements for utility trenches; and surface drainage control. This report will include boring logs indicating the soil profile encountered and a site plan showing the test boring locations. *The report will be prepared and signed by a Registered Geotechnical Engineer with over 20 years of experience within the local area.*

FEE FOR SERVICES

We propose to perform the scope of work outlined herein on a fixed price basis according to the terms and conditions outlined in our Professional Subconsultant Agreement, enclosed. Our fee to perform the geotechnical services described in Tasks 1 through 8, inclusive will be Thirty Nine Thousand, Eight Hundred and Seventy Five Dollars (\$39,875.00).

Subject to variation among items, the following is a breakdown summary of tasks and fees proposed for this project:

PROPOSAL NAME: Sleepy Hollow Ford Bridge Replacement				
PROPOSAL DATE: 2/9/2011				
NUMBER OF BORINGS: 3				
DEPTH OF BORINGS: 35-45'				
PREVAILING WAGE PROJECT				
CATEGORY	PERSONNEL/ITEM	HOURS (FEET)	\$/HOUR (FEET)	COST/ITEM
SITE RECONNAISSANCE & PROJECT COORDINATION	PRINCIPAL ENGINEER		185	0
	ASSOCIATE ENGINEER	8	165	1320
	SENIOR ENGINEER / GEOLOGIST		155	0
	STAFF ENGINEER / GEOLOGIST II (CARA)	4	140	560
	STAFF ENGINEER / GEOLOGIST II (CARA)		140	0
UTILITY LOCATING	ASSOCIATE ENGINEER		165	0
	SENIOR ENGINEER / GEOLOGIST		155	0
	STAFF ENGINEER / GEOLOGIST II	4	140	560
	STAFF ENGINEER / GEOLOGIST I		130	0
	NORCAL UNDERGROUND LOCATING	4	120	480
TEST BORINGS PREV. WAGE RATES	DRILL RIG - DAILY RATE	3	5800	17400
	DRILL RIG - OVERTIME		305	0
	DRILL RIG - TRACK RIG		255	0
	DRILL RIG - TRACK RIG		305	0
	PRINCIPAL ENGINEER		185	0
	ASSOCIATE ENGINEER/GEOLOGIST		165	0
	SENIOR ENGINEER / GEOLOGIST		155	0
	STAFF ENGINEER / GEOLOGIST II	27	140	3780
	STAFF ENGINEER / GEOLOGIST I		130	0
	LABORATORY ANALYSIS	LUMP SUM FEE		
ENGINEERING ANALYSIS AND CALCULATIONS	PRINCIPAL ENGINEER		185	0
	ASSOCIATE ENGINEER/GEOLOGIST	12	165	1980
	SENIOR ENGINEER / GEOLOGIST		155	0
	STAFF ENGINEER / GEOLOGIST II	2	140	280
	STAFF ENGINEER / GEOLOGIST I	4	130	520
REPORT PREPARATION	PRINCIPAL ENGINEER		185	0
	ASSOCIATE ENGINEER/GEOLOGIST	10	165	1650
	SENIOR ENGINEER / GEOLOGIST		155	0
	STAFF ENGINEER / GEOLOGIST II	4	140	560
	STAFF ENGINEER / GEOLOGIST I		130	0
	DRAFTING	2	90	180
	CLERICAL	1	75	75
	ZINN GEOLOGY QUOTE			0
TOTAL OF COSTS FOR PROFESSIONAL SERVICES				39875

This offer is valid for a period of ninety (90) days.

SCHEDULE

We estimate the work proposed herein can be completed within 4 to 6 weeks after receiving a signed agreement, site access, scheduling of exploration equipment and laboratory analysis permitting. Preliminary information will be available to you and other design team members during the course of our investigation.

Our scope of work and fee does not include the following:

1. Our scope of work and fee assumes that no application or permit fees of any kind are required for this effort. We also do not intend to prepare any “stamped” design drawings as part of this effort. Additional time and expense beyond those stated above will be billed on a “time and materials” fee basis in accordance with our Standard Fee Schedule.
2. Our scope of work and fee does not include time spent on follow-up project meetings, phone conferences, etc. after the report is complete. These services are typically billed on a “time and materials” fee basis in accordance with our latest fee schedule.

INSURANCE

PCE maintains professional liability insurance in the amount of \$1,000,000 per occurrence, and \$2,000,000 aggregate. We maintain general liability insurance in the amount of \$2,000,000 per occurrence, and \$4,000,000 aggregate. We also maintain Workers Compensation insurance as required by State law. A copy of our insurance certificates can be provided upon request.

Pacific Crest Engineering Inc. appreciates the opportunity to provide our services, and would be pleased to answer any questions you may have about our proposed scope of work and fee.

We can be reached at (831) 722-9446.

Sincerely,

PACIFIC CREST ENGINEERING INC.

Elizabeth M. Mitchell, GE
Vice-President, Geotechnical Engineering
GE 2718
Expires 12/31/12

PRINCIPALS
CATHERINE M.C. AVILA, P.E.
ERNESTO A. AVILA, P.E.

AVILA AND ASSOCIATES
CONSULTING ENGINEERS, INC.
712 BANCROFT ROAD, SUITE NO. 333
WALNUT CREEK, CALIFORNIA 94598

TELEPHONE
(925) 673-0549
FACSIMILE
(925) 673-0509

February 8, 2011

Larry Hampson
Monterey Peninsula Water Management District
P.O. Box 85
Monterey, CA 93942

Subject: Proposal for Hydraulic and Scour Analysis for the Replacement of the Low Water Crossing with a Single Span Bridge at Sleepy Hollow Ford in Monterey County, California.

Dear Mr. Hampson:

Avila and Associates Consulting Engineers, Inc. (Avila and Associates) appreciates the opportunity to provide you with this letter proposal. Avila and Associates has developed the following scope of work to provide hydraulic and scour analysis for the proposed bridge at Sleepy Hollow ford.

Task 1 – Field Review (6 hours). Field review the bridge reach with the Monterey Peninsula Water Management District (MPWMD).

Task 2 – Hydraulic Analysis (32 hours): Obtain the Federal Emergency Management Agency (FEMA) HEC-RAS model from the MPWMD. Supplement the model with three to five additional cross sections surveyed by the MPWMD. This will be the existing conditions model. Add proposed bridge to the HEC-RAS model to obtain the proposed bridge model. Up to four alternative bridge configurations will be modeled. Compare the results between existing conditions and the three proposed bridge configurations. Based on the analysis results, revise the bridge for the final proposed configuration.

Assumptions: Scope does not include preparation of a Conditional Letter of Map Revision (CLOMR) or coordination with FEMA or Monterey County Water Resources Department.

Task 3 – Estimate Local Scour at the Proposed Bridge Utilizing Hydraulic Modeling Results from Above (6 hours). Based on the results obtained from Task 2 above, utilize HEC-18 to estimate local scour for the existing trestle bridge.

Task 4 – Estimate Bank Protection at the Proposed Bridge (6 hours). Based on the results obtained from Task 2 above, calculations will be completed to determine the need for bank protection. If bank protection is required, parameters will be provided according to the Bank and Shore Protection Manual using a layered Caltrans Design. Review draft plans from MPWMD for bank protection design.

Task 5 – Draft and Final Technical Memorandum (16 hours): Provide a concise technical memorandum (TM) documenting the results of the analysis. Provide the TM in an Adobe Acrobat format to MPWMD. Revise the technical memorandum (TM) based on comments received from MPWMD. Four paper copies of the TM will be provided to MPWMD.

Task 6 – Project Management (4 hours): Provide project management support.

We estimate that 70 hours at our hourly rate of \$165 and Other Direct Costs at \$250 would be required to complete Tasks 1 through 6 for a total cost of \$11,800.

Should you have any questions regarding the proposal and work plan, please feel free to contact me at (925) 673-0549 or e-mail at cavila@avilaassociates.com.

Very truly yours,

Avila and Associates Consulting Engineers, Inc.

A handwritten signature in cursive script that reads "Catherine M.C. Avila".

Catherine M.C. Avila, P. E.
Principal

Hourly Summary - Whitson Engineers
Sleepy Hollow Ford Removal and Bridge Replacement Project
Carmel Valley, CA

Task 1 - Topographic Survey												
DESCRIPTION	PE	SCE	CE	LS	AE	AE2	ET	1M	2M	HOURS	COST	
1.1 Attend Kick-Off Meeting	3		3							6	\$	1,005
1.2 Locate and Tie into Survey Control				4					4	8	\$	1,640
1.3 Stream Profile Field Survey					2				8	10	\$	2,340
1.4 Five Cross Section Field Surveys					2				8	10	\$	2,340
1.5 Bridge Abutment Field Survey					2				8	10	\$	2,340
1.6 Update Topographic Data and Prepare Base Map			2				8			10	\$	1,080
1.7 Install Two Permanent Survey Points				2					4	6	\$	1,340
1.8 Project Management Services	4		4							8	\$	1,340
Subtotal	7	0	9	6	6	0	8	0	32	68	\$	13,425
Rate \$	195	\$ 160	\$ 140	\$ 150	\$ 130	\$ 110	\$ 100	\$ 160	\$ 260			
Cost \$	1,365	\$ -	\$ 1,260	\$ 900	\$ 780	\$ -	\$ 800	\$ -	\$ 8,320			
Subtotal											\$	13,425
Reimbursable Expenses												\$ 200
Total Task 1												\$ 13,625

Task 2 - Type Selection												
DESCRIPTION	PE	SCE	CE	AE2	ET	PE(CSEGE)	CE(CSEGE)	SD(CSEGE)	D(CSEGE)	HOURS	COST	
2.1 Perform Field Review of Project Area	4		4					10		18	\$	2,390
2.2 Prepare Bridge Alternatives	4		8							12	\$	1,900
2.3 Coordinate with Baily Bridge Supplier						2	4			6	\$	800
2.4 Coordinate with Pacific Crest Engineering			4			2	4			10	\$	1,360
2.5 Prepare Type Selection Memorandum	1					4	10			15	\$	2,005
2.6 Prepare Type Selection General Plan	1					4	12	12	17	46	\$	4,715
2.7 Evaluate Vehicle Turning Movements			6							6	\$	840
2.8 Type Selection Meeting	4		4							8	\$	1,340
Subtotal	14	0	26	0	0	12	40	12	17	121	\$	15,350
Rate \$	195	\$ 160	\$ 140	\$ 110	\$ 100	\$ 190	\$ 105	\$ 95	\$ 80			
Cost \$	2,730	\$ -	\$ 3,640	\$ -	\$ -	\$ 2,280	\$ 4,200	\$ 1,140	\$ 1,360			
Subtotal											\$	15,350
Reimbursable Expenses												\$ 500
Total Task 2												\$ 15,850

Task 3 - Plans, Specifications, and Estimates												
DESCRIPTION	PE	SCE	CE	AE2	ET	PE(CSEGE)	CE(CSEGE)	SD(CSEGE)	D(CSEGE)	HOURS	COST	
3.1 Prepare Demolition Plan			8		16					24	\$	2,720
3.2 Prepare Grading Plan			12		24					36	\$	4,080
3.3 Structural Calculations & Design of Abutments						2	8	18		28	\$	2,930
3.4 Prepare Structural Drawings	1		2			4	16		24	47	\$	4,835
3.5 Prepare Sheet Specifications	1		16			2	8			27	\$	3,655
3.6 Estimate of Probable Construction Cost			8		10	2	6	16		42	\$	4,650
3.7 Quality Control Check						6	18			24	\$	3,030
3.8 Meet with Project Team to Review Documents	4		4							8	\$	1,340
3.9 Respond to Plan Check Comments			8		8	2	5		4	27	\$	3,145
3.10 Meet with CDFG (if necessary)	3		3							6	\$	1,005
3.11 Project Management Services	4		2							6	\$	1,060
Subtotal	13	0	63	0	58	18	61	34	28	275	\$	32,450
Rate \$	195	\$ 160	\$ 140	\$ 110	\$ 100	\$ 190	\$ 105	\$ 95	\$ 80			
Cost \$	2,535	\$ -	\$ 8,820	\$ -	\$ 5,800	\$ 3,420	\$ 6,405	\$ 3,230	\$ 2,240			
Subtotal											\$	32,450
Reimbursable Expenses												\$ 700
Total Task 3												\$ 33,150

Grand Total \$ 62,625