

AMENDMENT TO CONTRACT

6

The County of San Benito (“COUNTY”) and Bengal Engineering, Inc. (“CONTRACTOR”) enter into this agreement on the date stated next to the signatures below. In consideration of the mutual promises set forth herein, the parties agree as follows:

1. Existing Contract.

a. Initial Contract.

COUNTY and CONTRACTOR acknowledge that the parties entered into a contract, dated August 10, 2010.

b. Prior Amendments. (Check one.)

The initial contract previously has not been amended.

The initial contract previously has been amended. The date(s) of prior amendments are as follows: June 19, 2012, February 18, 2014, September 28, 2015, December 12, 2017 and June 12, 2018

c. Incorporation of Original Contract.

The initial contract and any prior amendments to the initial contract (hereafter collectively referred to as the “original contract”) are attached to this amendment as Exhibit 1 and made a part of this amended contract.

2. Purpose of this Amendment.

The purpose of this amendment is to change the agreement between the parties in the following particulars:

a. Term of the Contract. (Check one.)

The term of the original contract is not modified.

The term of the original contract (Exhibit 1) is extended from the current expiration date of June 30, 2019, to a new expiration date of June 30, 2021.

b. Scope of Services. (Check one.)

The services specified in the original contract (Exhibit 1) are not modified.

The services specified in the original contract (Exhibit 1) are modified as specified below: (Check one.)

The services specified in the original contract are modified only as specified below:

Modified Scope of Services:

The Scope of Services in Attachment A of Amendment to Contract #6 are in addition to the Original Contract Scope of Services and all subsequent Amendments to the Original Scope of Services.

(Please see Attachment A to this Amendment to Contract #6.)

The services specified in the original contract are deleted in their entirety and replaced with the following services:

New Scope of Services:

(Please see Attachment A to this Amendment to Contract #6.)

c. Payment Terms. (Check one.)

- The payment terms in the original contract (Exhibit 1) are not modified.
- The payment terms in the original contract (Exhibit 1) are modified as specified below: (Check one.)

The payment terms are modified only as specified below:

Modified Payment Terms:

The payment terms are deleted in their entirety and replaced with the following payment terms:

New Payment Terms:

(Please see Attachment B to this Amendment to Contract #6.)

B-1. BILLING

Charges for services rendered pursuant to the terms and conditions of this contract shall be invoiced on the following basis: (Check one.)

- One month in arrears.
- Upon the complete performance of the services specified in the original agreement (Exhibit 1) and this amendment.
- The basis specified in paragraph B-4.

B-2. PAYMENT

Payment shall be made by COUNTY to CONTRACTOR at the address specified in paragraph 8 of the original contract, net thirty (30) days from the invoice date.

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (Check one.)

- a total lump sum payment of \$ _____, or
 - a total sum not to exceed _____,
- for services rendered pursuant to the terms and conditions of the original contract (Exhibit 1) and this amendment, and pursuant to any special compensation terms specified in paragraph B-4.

B-4. SPECIAL COMPENSATION TERMS: (Check one.)

- There are no additional terms of compensation.
 The following specific terms of compensation shall apply:

d. Other Terms. (Check one.)

- There are no other terms of the original contract that are modified.
 Other terms of the original contract are modified only as specified below:

Other Modified or New Terms:

(Insert other modified or new terms.)

(Please see Attachment D to this Amendment to Contract #1.)

Should there be any conflicting provisions between Attachment C (County's General Terms) and Attachment D (Letter from Consultant), the County's General Terms shall prevail.

3. Other Terms.

All other terms and conditions of the original contract (Exhibit 1) which are not changed by this amendment shall remain the same.

CONTRACTOR:

Bengal Engineering, Inc.



By: Md Wahiduzzaman, MBA, PE CEO

04/01/19

Date

COUNTY:

San Benito County Board of Supervisors

By: Mark Medina, Chair

Date

APPROVED AS TO LEGAL FORM:

San Benito County Counsel's Office



By: G. Michael Ziman, Deputy County Counsel

April 3, 2019

Date

ATTACHMENT A
Additional Scope of Services
(Amendment to Contract #6)

Upon approval of this Amendment to Contract No. 6, Contractor, for County's benefit, shall provide the following services for the Hospital Road Bridge Project:

1. Project Administration

Contractor will actively manage the project providing the required scope of work. Project administration will oversee the project team and ensure the documents will be on time and on budget.

a) Project Management

Contractor will manage the project by tracking the budget and value of the products produced.

b) Project Meetings

We anticipate that this project will be completed in July, 2019 (starting in March).

For purposes of this proposal, we assume one phone conference every month (5 phone calls) and one face-to-face meeting at a time requested by the County.

These meetings will include discussion of the tasks relevant at the meeting time.

Deliverables - Task 1

- *Prepare for, attend, and lead project meetings.*

2. California Department of Fish and Wildlife (CDFW)

a) California Tiger Salamander (CTS) - Mortality Reduction and Relocation Plan

Per Condition 6.6 of the Incidental Take Permit, LSA will prepare a California tiger salamander Mortality Reduction and Relocation Plan for submittal and approval by the CDFW. LSA has budgeted 10 hours to respond to comments generated from CDFW.

b) Vegetation Restoration Plan

Per Condition 6.8, LSA will prepare a Vegetation Restoration Plan consistent with the Restoration Plan guidelines outlined in Condition

8.3 for submittal and approval by CDFW. LSA has budgeted 5 hours to respond to comments generated from CDFW.

Deliverables - Task 2

- *California Tiger Salamander Mortality Reduction and Relocation Plan*
- *Vegetation Restoration Plan*

3. Storm Water Management

The recent 401 Water Quality Certificate application by the State Water Resources Control Board's (Water Board) requires the project will meet the Water Board's NPDES General

Permit for municipal storm water discharges. This requires the proposed project to use storm water Best Management Practices (BMP).

a) Site Soil Infiltration Assessment

We will perform soil infiltration evaluation to design the post-construction BMP's.

b) Post-Construction Storm Water Design

The project entails new impervious surface area. The Water Board believes all new proposed projects will increase pollutant loading, increase the volume of storm water runoff generated at the site, and increase the peak runoff. In order to protect the watershed impacted by storm water runoff, it is required to quantify the amount of storm water retention, peak management, and pollutant load reduction that will be achieved by the proposed site design and post-construction BMPs. In order to recommend certification of this project, at a minimum, the Water Board will expect the project to achieve the following:

Water Quality Treatment

- Treat the runoff generated by the 85th percentile storm event or 0.2 inch hourly rainfall intensity (whichever is appropriate for the BMP proposed).
- Demonstrate that the BMPs will be effective for addressing the anticipated pollutants of concern. General BMP effectiveness for pollutant types can be obtained from the California Stormwater Quality Association post-construction handbook.

- Use BMPs in the below order of preference (highest to lowest) to achieve the numeric treatment requirement. For each of the below options, the applicant must provide justification if it cannot use the higher preferred BMP options.
 - o LID BMPs which include infiltration, harvesting and re-use, and evapotranspiration.
 - o Biofiltration if possible – Reference design specifications in the Central Coast Post-Construction Requirements: http://www.waterboards.ca.gov/centralcoast/water_issues/programs/stormwater/docs/lid/lid_hydromod_charette_index.shtml
 - o Natural system based (swales, etc.).

Retention

- Retain the runoff generated by the 85th percentile 24-hour storm event.
- If the applicant justifies it cannot achieve the above retention standard, the minimum expectation is the following: pre-project runoff volume for the 85th percentile 24-hour storm event should match to post-project runoff volume for the 85th percentile 24- hour storm event (retain the difference).

Peak Management

- Post-project peak flow rates for the 2-year storm shall not exceed pre-project peak flow rates for the 2-year storm.

Long-term Maintenance

- At a minimum, provide the following information about the long-term maintenance of the post-construction storm water control measures:
 - o Responsible party
 - o Mechanism to ensure adequate maintenance is conducted
 - o Funding source
 - o Manual (or equivalent documentation) to articulate frequency and type of maintenance. The manual must address how the responsible party will ensure that post-construction storm

water control measures continue to function as originally designed.

c) Storm Water Improvements Plans

Additional Plans / details will be added to the project to include the post-construction BMPs. We envision that these BMPs will be constructed on both sides of the river/ both sides of the roadway.

Deliverables - Task 3

- *Stormwater Calculations Memorandum*
- *Storm water post construction BMP Plan*

4. Update of the Contract Bid Documents

Contractor Engineering will update and finalize the contract bid documents. The update will include:

a) Update Plan References (2018 Standard Plans)

The plans will be updated to reference the 2018 Caltrans Standard Plans.

b) Update Bridge Plans

Bridge plans will be updated to reflect Caltrans Structures Local Assistance Engineer's comments issued February 13, 2019. Updates will include:

- Remove reference to fabric reinforced bearing pads.
- Widen bent caps on the upstream side of the bridge to accommodating bridge lateral movement in both directions.
- Add Scour Data Table (per MTD 16-1).
- Verify rock slope protection is compliant with HEC-23.

c) Update Special Provisions

The special provisions will be updated to reflect the 2018 Caltrans Standard Plans and Specifications. The County will assemble these special provisions to their boiler plate contract.

d) Update Engineers Estimate

Contractor will review and update the estimate to reflect the latest expectations of construction costs.

e) Bearing Pad Operations and Maintenance (O&M) Manual

The proposed Hospital Road Bridge is in the vicinity of the active Calaveras fault line. The faults location in relation to the bridge predicates that County staff be proactive in inspection and maintenance of the bearing pads as the fault experiences creep. Because of this regimented inspection, Contractor will prepare an O&M Manual for County staff.

f) Update Calculations

Contractor will compile resubmittal of the design calculations and independent design check.

Deliverables - Task 4

- *Electronic 24 x 36 drawing files of the plan sheets (pdf)*
- *Electronic Microsoft Excel file of construction cost estimate*
- *Electronic Microsoft Word file of technical specifications*
- *Bridge Design Calculation*
- *Bridge Independent Design Calculation*

END OF ATTACHMENT A.

ATTACHMENT B
Payment Schedule
(Amendment to Contract #6)

B-1. BILLING

Charges for services rendered pursuant to the terms and conditions of this contract shall be invoiced on the following basis: (check one)

- One month in arrears.
- Upon the complete performance of the services specified in Attachment A.
- The basis specified in paragraph B-4.

B-2. PAYMENT

Payment shall be made by COUNTY to CONTRACTOR at the address specified in paragraph 8 of this contract, net thirty (30) days from the invoice date.

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (check one)

- a total lump sum payment of \$ _____, or
- a total sum not to exceed \$ 508,853.29

to add additional compensation in an amount not to exceed \$158,837.00 to the Original Contract amount (as previously amended to date, \$350,016.29) for the additional services described in Attachment A (Additional Scope of Services) to Amendment to Contract #6; and pursuant to the special compensation terms specified in the Attachment B to Amendment to Contract #6.

B-4. SPECIAL COMPENSATION TERMS: (check one)

- There are no additional terms of compensation.
- The following specific terms of compensation shall apply: (Specify)

[continued on following page]

BENGAL ENGINEERING Task Summary, Resource Estimate & Fees									Hospital Rd Bridge Amendment		
ITEM DESCRIPTION	Bengal Engineering							BENGAL ENGINEERING FEE	LSA ASSOCIATES FEE	TOTAL FEE	
	PROJECT MANAGER \$150/HR	CIVIL ENGINEER \$150/HR	BRIDGE ENGINEER \$150/HR	ENGINEERING GEOLOGIST \$150/HR	TECHNICIAN \$85/HR	ADMIN / CLERICAL \$55/HR	TOTAL LABOR HOURS				
	HRS	HRS	HRS	HRS	HRS	HRS	HRS	\$	\$	\$	
Project Administration											
Project Management	14	42	16	12			12	96			
Project Meetings	13	18	13					44			
subtotal	27	60	29	12	0	12	140	\$ 19,860	\$ -	\$ 19,860	
California Department of Fish and Wildlife											
CTS – Mortality Reduction and Relocation Plan	2	4				4	4	14	\$ 8,536		
Vegetation Restoration Plan	2	4				4	4		\$ 5,691		
subtotal	4	8	0	0	8	8	28	\$ 2,920	\$ 14,227	\$ 17,147	
Storm Water Management											
Site Soil Infiltration Testing	4	16		48	8	8	8	84			
Post Construction Storm Water Design/ Memo	8	40		8	8			64			
Storm Water Improvement Plans	12	80	4	4	80	12		192			
subtotal	24	136	4	60	96	20	340	\$ 42,860	\$ -	\$ 42,860	
Update Contract Bid Documents											
Update Plan References (to 2018)		56			56			112			
Update Bridge Plans	4	16	60					90			
Update Special Provisions	12	60	12		16	16		116			
Update Estimate	2	12	2		12			28			
Bearing Pad O&M Manual	4	24	36					64			
Update Calculations	4	8	100					112			
subtotal	26	176	210	0	174	16	602	\$ 77,470	\$ -	\$ 77,470	
	81	380	243	72	278	56	1110	\$ 143,110	\$ 14,227	\$ 157,337	

Reimbursable Expenses	BENGAL	LSA	Total
Reproduction Services/Mailing	\$ 1,000		\$ -
Travel Expenses	\$ -	\$ -	\$ -
Title Report	\$ -	\$ -	\$ -
Infiltration Testing Eq./Water	\$ 500	\$ -	\$ -
Laboratory Tests	\$ -	\$ -	\$ -
Miscellaneous	\$ -	\$ -	\$ -
Sub total	\$ 1,500	\$ -	\$ 1,500
			Total \$ 158,837

END OF ATTACHMENT B.

**EXHIBIT 1
TO AMENDMENT # 6**

**ORIGINAL
CONTRACT**

(Please attach the initial contract and any prior amendments, from the most recent to the initial contract, in reverse chronological order.)

AMENDMENT TO CONTRACT

5

The County of San Benito ("COUNTY") and Bengal Engineering L.P. ("CONTRACTOR") enter into this agreement on the date stated next to the signatures below. In consideration of the mutual promises set forth herein, the parties agree as follows:

1. Existing Contract.

a. Initial Contract.

COUNTY and CONTRACTOR acknowledge that the parties entered into a contract, dated August 10, 2010.

b. Prior Amendments. (Check one.)

The initial contract previously has not been amended.

The initial contract previously has been amended. The date(s) of prior amendments are as follows: June 19, 2012; February 18, 2014; September 28, 2015; December 12, 2017

c. Incorporation of Original Contract.

The initial contract and any prior amendments to the initial contract (hereafter collectively referred to as the "original contract") are attached to this amendment as Exhibit 1 and made a part of this amended contract.

2. Purpose of this Amendment.

The purpose of this amendment is to change the agreement between the parties in the following particulars:

a. Term of the Contract. (Check one.)

The term of the original contract is not modified.

The term of the original contract (Exhibit 1) is extended from the current expiration date of June 30, 2018, to a new expiration date of June 30, 2019.

b. Scope of Services. (Check one.)

The services specified in the original contract (Exhibit 1) are not modified.

The services specified in the original contract (Exhibit 1) are modified as specified below: (Check one.)

The services specified in the original contract are modified only as specified below:

Modified or New Scope of Services:

The services specified in the original contract are deleted in their entirety and replaced with the following services:

New Scope of Services:

(Insert new services.)

c. Payment Terms. (Check one.)

The payment terms in the original contract (Exhibit 1) are not modified.

The payment terms in the original contract (Exhibit 1) are modified as specified below: (Check one.)

The payment terms are modified only as specified below:

Modified or New Payment Terms:

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (Check one.)

a total lump sum payment of \$ _____, or
 a total sum not to exceed \$ _____,
for services rendered pursuant to the terms and conditions of the original contract (Exhibit 1) and this amendment, and pursuant to any special compensation terms specified in paragraph B-4.

The payment terms are deleted in their entirety and replaced with the following payment terms:

New Payment Terms:

B-1. BILLING

Charges for services rendered pursuant to the terms and conditions of this contract shall be invoiced on the following basis: (Check one.)

- One month in arrears.
 Upon the complete performance of the services specified in the original agreement (Exhibit 1) and this amendment.
 The basis specified in paragraph B-4.

B-2. PAYMENT

Payment shall be made by COUNTY to CONTRACTOR at the address specified in paragraph 8 of the original contract, net thirty (30) days from the invoice date.

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (Check one.)

a total lump sum payment of \$ _____, or
 a total sum not to exceed \$ _____,
for services rendered pursuant to the terms and conditions of the original contract (Exhibit 1) and this amendment, and pursuant to any special compensation terms specified in paragraph B-4.

B-4. SPECIAL COMPENSATION TERMS: (Check one.)

- There are no additional terms of compensation.
 The following specific terms of compensation shall apply:
(Specify)

d. Other Terms. (Check one.)

There are no other terms of the original contract that are modified.

Other terms of the original contract are modified only as specified below:

Other Modified or New Terms:
(Insert other modified or new terms.)

3. Other Terms.

All other terms and conditions of the original contract (Exhibit 1) which are not changed by this amendment shall remain the same.

CONTRACTOR

Md. Wahiduzzaman
Name/Title: Md. Wahiduzzaman, CEO

5/15/18
Date

COUNTY

San Benito County Board of Supervisors
Anthony Botelho
Anthony Botelho, Chair

6/12/18
Date

APPROVED AS TO LEGAL FORM:

San Benito County Counsel's Office
Shirley L. Murphy
By: Shirley L. Murphy, Deputy County Counsel

June 4, 2018
Date

EXHIBIT 1
TO AMENDMENT # 5

ORIGINAL
CONTRACT

(Please attach the initial contract and any prior amendments, from the most recent to the initial contract, in reverse chronological order.)

AMENDMENT TO CONTRACT

4

The County of San Benito ("COUNTY") and Bengal Engineering L.P. ("CONTRACTOR") enter into this agreement on the date stated next to the signatures below. In consideration of the mutual promises set forth herein, the parties agree as follows:

1. Existing Contract.

a. Initial Contract.

COUNTY and CONTRACTOR acknowledge that the parties entered into a contract, dated August 10, 2010.

b. Prior Amendments. (Check one.)

The initial contract previously has not been amended.

The initial contract previously has been amended. The date(s) of prior amendments are as follows: June 19, 2012; February 18, 2014; September 28, 2015

c. Incorporation of Original Contract.

The initial contract and any prior amendments to the initial contract (hereafter collectively referred to as the "original contract") are attached to this amendment as Exhibit 1 and made a part of this amended contract.

2. Purpose of this Amendment.

The purpose of this amendment is to change the agreement between the parties in the following particulars:

a. Term of the Contract. (Check one.)

The term of the original contract is not modified.

The term of the original contract (Exhibit 1) is extended from the current expiration date of December 31, 2017, to a new expiration date of June 30, 2018.

b. Scope of Services. (Check one.)

The services specified in the original contract (Exhibit 1) are not modified.

The services specified in the original contract (Exhibit 1) are modified as specified below: (Check one.)

The services specified in the original contract are modified only as specified below:

Modified or New Scope of Services:

(Insert new services.)

The services specified in the original contract are deleted in their entirety and replaced with the following services:

New Scope of Services:

(Insert new services.)

c. Payment Terms. (Check one.)

The payment terms in the original contract (Exhibit 1) are not modified.

The payment terms in the original contract (Exhibit 1) are modified as specified below: (Check one.)

The payment terms are modified only as specified below:
Modified or New Payment Terms:

The payment terms are deleted in their entirety and replaced with the following payment terms:

New Payment Terms:

B-1. BILLING

Charges for services rendered pursuant to the terms and conditions of this contract shall be invoiced on the following basis: (Check one.)

- One month in arrears.
- Upon the complete performance of the services specified in the original agreement (Exhibit 1) and this amendment.
- The basis specified in paragraph B-4.

B-2. PAYMENT

Payment shall be made by COUNTY to CONTRACTOR at the address specified in paragraph 8 of the original contract, net thirty (30) days from the invoice date.

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (Check one.)

- a total lump sum payment of \$ _____, or
- a total sum not to exceed \$ _____,

for services rendered pursuant to the terms and conditions of the original contract (Exhibit 1) and this amendment, and pursuant to any special compensation terms specified in paragraph B-4.

B-4. SPECIAL COMPENSATION TERMS: (Check one.)

- There are no additional terms of compensation.
- The following specific terms of compensation shall apply:
(Specify)

d. Other Terms. (Check one.)

- There are no other terms of the original contract that are modified.
- Other terms of the original contract are modified only as specified below:

Other Modified or New Terms:
(Insert other modified or new terms.)

3. **Other Terms.**

All other terms and conditions of the original contract (Exhibit 1) which are not changed by this amendment shall remain the same.

CONTRACTOR

Md. Wahiduzzaman
Name/Title: Md. Wahiduzzaman / CEO

11/24/17
Date

COUNTY

San Benito County Board of Supervisors

Jaimé De La Cruz, Chair

12/12/17
Date

APPROVED AS TO LEGAL FORM:
San Benito County Counsel's Office

Shirley L. Murphy
By: Shirley L. Murphy, Deputy County Counsel
Sarah M. Dickinson

12/8/17
Date

EXHIBIT 1
TO AMENDMENT # 4

ORIGINAL
CONTRACT

(Please attach the initial contract and any prior amendments, from the most recent to the initial contract, in reverse chronological order.)

AMENDMENT TO CONTRACT

3

The County of San Benito ("COUNTY") and Bengal Engineering L.P. ("CONTRACTOR") enter into this agreement on the date stated next to the signatures below. In consideration of the mutual promises set forth herein, the parties agree as follows:

1. **Existing Contract.**

a. **Initial Contract.**

COUNTY and CONTRACTOR acknowledge that the parties entered into a contract, dated August 10, 2010.

b. **Prior Amendments. (Check one.)**

The initial contract previously has not been amended.

The initial contract previously has been amended. The date(s) of prior amendments are as follows: June 19, 2012, February 18, 2014

c. **Incorporation of Original Contract.**

The initial contract and any prior amendments to the initial contract (hereafter collectively referred to as the "original contract") are attached to this amendment as Exhibit 1 and made a part of this amended contract.

2. **Purpose of this Amendment.**

The purpose of this amendment is to change the agreement between the parties in the following particulars:

a. **Term of the Contract. (Check one.)**

The term of the original contract is not modified.

The term of the original contract (Exhibit 1) is extended from the current expiration date of December 31, 2015 to a new expiration date of December 31, 2017.

b. **Scope of Services. (Check one.)**

The services specified in the original contract (Exhibit 1) are not modified.

The services specified in the original contract (Exhibit 1) are modified as specified below: (Check one.)

The services specified in the original contract are modified only as specified below:

Modified or New Scope of Services:

Attachment A-1 of the original contract is amended to modify Task 2.8.4a, and to add Tasks 2.8.4b and 2.8.4c to the scope of services as follows:

2.8.4a. Section 404 Nationwide Permit Verification.

CONTRACTOR will obtain a new Section 404 Nationwide Permit Verification for the 2017 construction season prior to the March 18, 2017 expiration date. CONTRACTOR will prepare a

Preconstruction Notification (PCN) to submit to Army Corps of Engineer (ACOE) requesting verification that the project can be authorized using the specified Nationwide Permit NWP(s) pursuant to the 2017 NWP General Conditions.

2.8.4b. Section 1602 Stream Alteration Agreement.

CONTRACTOR will renew and obtain a new Section 1602 Stream Alteration Agreement prior to start of construction in July, 2016. CONTRACTOR will prepare an application package for submittal to CDFW. CONTRACTOR will ensure the most current project design information is included in the submittal. The COUNTY will provide the standard processing fee for the SAA based on the most current CDFW fee schedule.

2.8.4c. Section 401 Water Quality Certification.

CONTRACTOR will obtain a new Section 401 Water Quality Certification for the 2017 construction season concurrent with acquisition of a new 404 NWP. CONTRACTOR will prepare the application package for submittal to the Regional Quality Control Board (RWQCB) that references the 2017 NWPs. The COUNTY will be responsible to pay the standard processing fee for RWQCB based on the most recently adopted fee schedule.

- [] The services specified in the original contract are deleted in their entirety and replaced with the following services:

New Scope of Services:
(Insert new services.)

c. **Payment Terms. (Check one.)**

- The payment terms in the original contract (Exhibit 1) are not modified.
 The payment terms in the original contract (Exhibit 1) are modified as specified below: (Check one.)
 The payment terms are modified only as specified below:

Modified or New Payment Terms:

Paragraph B-3 of the original contract, as previously amended, is further amended to increase the compensation by an additional \$15,000.00 for services rendered pursuant to this amendment, as follows:

Original Contract	\$243,340.29
First Amendment:	(no additional compensation)
Second Amendment:	\$91,676.00
<u>Third Amendment:</u>	<u>\$15,000.00</u>
Total Not To Exceed:	\$350,016.29

Accordingly, Paragraph B-3 is hereby amended to read as follows:

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (Check one.)

- a total lump sum payment of \$ _____, or
 a total sum not to exceed \$350,016.29

for services rendered pursuant to the terms and conditions of the original contract as previously amended (Exhibit 1) and this third amendment, and pursuant to any special compensation terms specified in paragraph B-4. All work is to be performed on an hourly basis, in accordance with the original contract, as previously amended (Exhibit 1), and the adopted billing rates and expenses in place as of January 1, 2015.

- The payment terms are deleted in their entirety and replaced with the following payment terms:

New Payment Terms:

B-1. BILLING

Charges for services rendered pursuant to the terms and conditions of this contract shall be invoiced on the following basis: (Check one.)

- One month in arrears.
 Upon the complete performance of the services specified in the original agreement (Exhibit 1) and this amendment.
 The basis specified in paragraph B-4.

B-2. PAYMENT

Payment shall be made by COUNTY to CONTRACTOR at the address specified in paragraph 8 of the original contract, net thirty (30) days from the invoice date.

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (Check one.)

- a total lump sum payment of \$ _____, or
- a total sum not to exceed \$ _____,

for services rendered pursuant to the terms and conditions of the original contract (Exhibit 1) and this amendment, and pursuant to any special compensation terms specified in paragraph B-4.

B-4. SPECIAL COMPENSATION TERMS: (Check one.)

- There are no additional terms of compensation.
- The following specific terms of compensation shall apply:
(Specify)

d. Other Terms. (Check one.)

- There are no other terms of the original contract that are modified.
- Other terms of the original contract are modified only as specified below:

Other Modified or New Terms:
(Insert other modified or new terms.)

3. Other Terms.

All other terms and conditions of the original contract (Exhibit 1) which are not changed by this amendment shall remain the same.

CONTRACTOR

Md. Wahiduzzaman

Name/Title: Md. Wahiduzzaman/ CEO

9/15/15

Date

COUNTY

San Benito County Board of Supervisors

Margie Barrios

Margie Barrios, Chair

9/28/15

Date

APPROVED AS TO LEGAL FORM:

San Benito County Counsel's Office

Shirley L. Murphy

Shirley L. Murphy, Deputy County Counsel

Sept. 16, 2015

Date

EXHIBIT 1
TO AMENDMENT # 3

ORIGINAL
CONTRACT

(Please attach the initial contract and any prior amendments, from the most recent to the initial contract, in reverse chronological order.)

AMENDMENT TO CONTRACT

2

The County of San Benito ("COUNTY") and Bengal Engineering L.P. ("CONTRACTOR") enter into this agreement on the date stated next to the signatures below. In consideration of the mutual promises set forth herein, the parties agree as follows:

1. Existing Contract.

a. Initial Contract.

COUNTY and CONTRACTOR acknowledge that the parties entered into a contract, dated August 10, 2010.

b. Prior Amendments. (Check one.)

The initial contract previously has not been amended.

The initial contract previously has been amended. The date(s) of prior amendments are as follows: June 19, 2012

c. Incorporation of Original Contract.

The initial contract and any prior amendments to the initial contract (hereafter collectively referred to as the "original contract") are attached to this amendment as Exhibit 1 and made a part of this amended contract.

2. Purpose of this Amendment.

The purpose of this amendment is to change the agreement between the parties in the following particulars:

a. Term of the Contract. (Check one.)

The term of the original contract is not modified.

The term of the original contract (Exhibit 1) is extended from the current expiration date of June 30, 2014, to a new expiration date of December 31, 2015.

b. Scope of Services. (Check one.)

The services specified in the original contract (Exhibit 1) are not modified.

The services specified in the original contract (Exhibit 1) are modified as specified below: (Check one.)

The services specified in the original contract are modified only as specified below:

Modified or New Scope of Services:

Attachment A-1 of the original contract is amended to add Tasks 2.8.4a, 2.9.1, 2.12 and 2.13 to the scope of services as follows:

2.8.4a Section 404 Nationwide Permit

CONTRACTOR shall obtain a new Section 404 Nationwide Permit, for the COUNTY to mail to the USACE.

2.9.1 CONTRACTOR shall prepare Plans, Specifications and Estimate (PS&E) Checklist per latest Caltrans guidelines.

- CONTRACTOR shall compile the contract specifications and Invitation for Bids (IFB) package into the County's standard IFB format, which will include contract legal and procedural forms, and general provisions, to be provided by the COUNTY.
- CONTRACTOR shall prepare the Federal Provisions as required for complimenting Caltrans 2006 Standard Specifications.
- CONTRACTOR shall prepare the Technical Provisions and shall provide two (2) hard copies in addition to electronic format (pdf and doc format).
- CONTRACTOR shall assemble the applicable appendices, which will be provided by the COUNTY.
- CONTRACTOR shall prepare updated construction plans (if needed).
- Preparation of PS&E Documents shall not exceed three (3) months from the approval date of this amendment.

2.12 CONTRACTOR shall provide design support during construction.

2.13 CONTRACTOR shall create the "Record Drawings" [sometimes called "as built"], based on the "redlines" provided by the COUNTY.

[] The services specified in the original contract are deleted in their entirety and replaced with the following services:

c. **Payment Terms.** (Check one.)

- The payment terms in the original contract (Exhibit 1) are not modified.
 The payment terms in the original contract (Exhibit 1) are modified as specified below: (Check one.)
 The payment terms are modified only as specified below:

New Payment Terms:

Paragraph B-3 of the original contract is amended to increase the compensation by an additional \$91,676.00 for services rendered pursuant to this amendment. Paragraph B-3 is hereby amended to read as follows:

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (Check one.)

- a total lump sum payment of \$ _____, or
 a total sum not to exceed \$335,016.29,

for services rendered pursuant to the terms and conditions of the original contract (Exhibit 1) and this amendment, and pursuant to any special compensation terms specified in paragraph B-4.

Attachment B-1 of the original contract is amended to add the following breakdown of costs and fees for the additional services rendered pursuant to this amendment:

BENGAL ENGINEERING																	
Hospital Rd Bridge: Project Fee Estimate: Jan 27, 2014																	
ITEM DESCRIPTION	Bengal Engineering										BENGAL ENGINEERING FEE	USA ASSOCIATES FEE	TOTAL FEE				
	PROJECT MANAGER \$150/HR	CIVIL ENGINEER \$150/HR	BRIDGE ENGINEER \$150/HR	STRUCTURE ENGINEER \$100/HR	ENGINEERIN \$100/HR	GEOLOGIST \$150/HR	GEOTECHNICAL ENGINEER \$150/HR	TECHNICIAN \$45/HR	ADMIN./ CLERICAL \$55/HR	TOTAL LABOR HOURS							
Project Management, Administration & GC																	
Project Management and Quality Control	16	24	16			8	8		8	80							
subtotal	16	24	16	0	0	8	8	0	8	80	\$	11,240			\$	11,240	
Permitting Services																	
Permit Exhibits	2	8						24		34							
subtotal	2	8	0	0	0	0	0	24	0	34	\$	3,540	\$	3,195	\$	6,735	
Contract Documents																	
Update and Collate Contract Specifications	12	48							16	76							
Update Plans	6	16	24			16		36		100							
subtotal	20	64	24	0	0	16	0	36	16	176	\$	22,540			\$	22,540	
Bid Support																	
Respond to Inquiries	1	2	3							6							
Prepare Addenda	1	3						4	4	12							
subtotal	2	5	3	0	0	0	0	4	4	18	\$	2,060			\$	2,060	
Construction Support																	
Design Support during construction	40	84	60	24	20	32	48	32	320								
As Built Plan	4	8	4					16		32							
subtotal	44	92	64	24	20	32	64	32	372	\$	48,600			\$	48,600		
	84	183	107	24	44	40	128	64	630	\$	87,385	\$	3,195	\$	91,575		

Reimbursable Expenses	BENGAL	Total
Reproduction Services/Mailing	\$ 500	\$ 500
Travel Expenses	\$ -	\$ -
Title Report	\$ -	\$ -
Onsite Exploration		
Laboratory Tests		
Miscellaneous		
Subtotal	\$ 500	\$ 500
	Total	\$ 91,675

Project Management, Quality Control \$11,240
 Permitting Services \$6,735
 Contract Documents \$22,540
 Bid Support \$2,060
 Construction Support \$48,600
 Reimbursable Mailings: \$500
 Total Not to Exceed: \$91,676

All other provisions of Attachment B and Attachment B-1 to the original contract shall remain the same.

-] The payment terms are deleted in their entirety and replaced with the following payment terms:

New Payment Terms:

B-1. BILLING

Charges for services rendered pursuant to the terms and conditions of this contract shall be invoiced on the following basis: (Check one.)

-] One month in arrears.
] Upon the complete performance of the services specified in the original agreement (Exhibit 1) and this amendment.
] The basis specified in paragraph B-4.

B-2. PAYMENT

Payment shall be made by COUNTY to CONTRACTOR at the address specified in paragraph 8 of the original contract, net thirty (30) days from the invoice date.

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (Check one.)

-] a total lump sum payment of \$_____, or
] a total sum not to exceed _____,

for services rendered pursuant to the terms and conditions of the original contract (Exhibit 1) and this amendment, and pursuant to any special compensation terms specified in paragraph B-4.

B-4. SPECIAL COMPENSATION TERMS: (Check one.)

-] There are no additional terms of compensation.
] The following specific terms of compensation shall apply:
(Specify)

d. Other Terms. (Check one.)

-] There are no other terms of the original contract that are modified.
] Other terms of the original contract are modified only as specified below:

Other Modified or New Terms:
(Insert other modified or new terms.)

3. Other Terms.

All other terms and conditions of the original contract (Exhibit 1) which are not changed by this amendment shall remain the same.

CONTRACTOR

Md. Wahiduzzaman

Name/Title: Md. Wahiduzzaman/ CEO

02/07/14

Date

COUNTY

San Benito County Board of Supervisors

Jerry Muenzer

Jerry Muenzer, Chair

2/18/14

Date

APPROVED AS TO LEGAL FORM:

San Benito County Counsel's Office

Shirley L. Murphy

Shirley L. Murphy, Deputy County Counsel

Feb. 7, 2014

Date

EXHIBIT 1
TO AMENDMENT # 2

ORIGINAL
CONTRACT

(Please attach the initial contract and any prior amendments, from the most recent to the initial contract, in reverse chronological order.)

AMENDMENT TO CONTRACT

1

The County of San Benito ("COUNTY") and Bengal Engineering L.P. ("CONTRACTOR") enter into this agreement on the date stated next to the signatures below. In consideration of the mutual promises set forth herein, the parties agree as follows:

1. Existing Contract.

a. Initial Contract.

COUNTY and CONTRACTOR acknowledge that the parties entered into a contract, dated August 10, 2010.

b. Prior Amendments. (Check one.)

The initial contract previously has not been amended.

The initial contract previously has been amended. The date(s) of prior amendments are as follows: _____

c. Incorporation of Original Contract.

The initial contract and any prior amendments to the initial contract (hereafter collectively referred to as the "original contract") are attached to this amendment as Exhibit 1 and made a part of this amended contract.

2. Purpose of this Amendment.

The purpose of this amendment is to change the agreement between the parties in the following particulars:

a. Term of the Contract. (Check one.)

The term of the original contract is not modified.

The term of the original contract (Exhibit 1) is extended from the current expiration date of June 30, 2012, to a new expiration date of June 30, 2014.

b. Scope of Services. (Check one.)

- The services specified in the original contract (Exhibit 1) are not modified.
 The services specified in the original contract (Exhibit 1) are modified as specified below: (Check one.)
 The services specified in the original contract are modified only as specified below:

Modified or New Scope of Services:

(Insert modified or new services.)

- The services specified in the original contract are deleted in their entirety and replaced with the following services:
 The payment terms are deleted in their entirety and replaced with the following payment terms:

c. Payment Terms. (Check one.)

- The payment terms in the original contract (Exhibit 1) are not modified.
 The payment terms in the original contract (Exhibit 1) are modified as specified below: (Check one.)
 The payment terms are modified only as specified below:

New Payment Terms:

B-1. BILLING

Charges for services rendered pursuant to the terms and conditions of this contract shall be invoiced on the following basis: (Check one.)

- One month in arrears.
 Upon the complete performance of the services specified in the original agreement (Exhibit 1) and this amendment.
 The basis specified in paragraph B-4.

B-2. PAYMENT

Payment shall be made by COUNTY to CONTRACTOR at the address specified in paragraph 8 of the original contract, net thirty (30) days from the invoice date.

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (Check one.)

- a total lump sum payment of \$ _____, or
- a total sum not to exceed _____,

for services rendered pursuant to the terms and conditions of the original contract (Exhibit 1) and this amendment, and pursuant to any special compensation terms specified in paragraph B-4.

B-4. SPECIAL COMPENSATION TERMS: (Check one.)

- There are no additional terms of compensation.
- The following specific terms of compensation shall apply:
(Specify)

d. Other Terms. (Check one.)

- There are no other terms of the original contract that are modified.
- Other terms of the original contract are modified only as specified below:

Other Modified or New Terms:
(Insert other modified or new terms.)

3. Other Terms.

All other terms and conditions of the original contract (Exhibit 1) which are not changed by this amendment shall remain the same.

CONTRACTOR

Md. Wahiduzzaman

Name/Title: Md. Wahiduzzaman/CEO

06/01/12

Date

COUNTY

San Benito County Board of Supervisors

Jaime De La Cruz

Jaime De La Cruz, Chair

6/19/12

Date

APPROVED AS TO LEGAL FORM:

San Benito County Counsel's Office

Shirley L. Murphy

Shirley L. Murphy, Deputy County Counsel

June 11, 2012

Date

**EXHIBIT 1
TO AMENDMENT # 1**

**ORIGINAL
CONTRACT**

(Please attach the initial contract and any prior amendments, from the most recent to the initial contract, in reverse chronological order.)

CONTRACT

The COUNTY OF SAN BENITO ("COUNTY") and Bengal Engineering, LP ("CONTRACTOR") enter into this contract which shall be effective on the date stated in Paragraph 1.

1. **Duration of Contract.**

This contract shall commence on August 10, 2010, and end on June 30, 2012, unless sooner terminated as specified herein.

2. **Scope of Services.**

CONTRACTOR, for COUNTY's benefit shall perform the services specified on Attachment A to this contract. Attachment A is made a part of this contract.

3. **Compensation for Services.**

In consideration for CONTRACTOR's performance, COUNTY shall pay compensation to CONTRACTOR according to the terms specified in Attachment B. Attachment B is made a part of this contract.

4. **General Terms and Conditions.**

The rights and duties of the parties to this contract are governed by the general terms and conditions mutually agreed to and listed in Attachment C. Attachment C is made a part of this contract.

5. **Insurance Limits.**

CONTRACTOR shall maintain the following insurance policy limits of coverage consistent with the further insurance requirements specified in Attachment C.

- (a) Comprehensive general liability insurance: \$1,000,000
- (b) Professional liability insurance: \$1,000,000
- (c) Comprehensive motor vehicle liability insurance: \$1,000,000

6. **Termination.**

The number of days of advance written notice required for termination of this contract is 30.

7. **Specific Terms and Conditions** (check one)

- There are no additional provisions to this contract.
- The rights and duties of the parties to this contract are additionally governed by the specific, additional terms mutually agreed to and listed in Attachment D. Attachment D is made a part of this contract.

8. Information about Contract Administrators.

The following names, titles, addresses, and telephone numbers are the pertinent information for the respective contract administrators for the parties.

Contract Administrator for COUNTY:

Name: Steve Wittry

Title: Public Works Administrator

Address: 3220 Southside Road

Hollister, California 95023

Telephone No.: 831-636-4170

Fax No.: 831-636-4176

Contract Administrator for CONTRACTOR:

Name: Md. Wahiduzzaman

Title: CEO

Address: 250 Big Sur Drive

Goleta, CA 93117

Telephone No.: (805) 685-6511

Fax No.: (805) 685-7432

Signatures

APPROVED BY COUNTY:

Reb Monaco

Name: Reb Monaco

Reb Monaco, Chair

Date: 8/10/10

APPROVED BY CONTRACTOR:

Md. Wahiduzzaman

Name: Md. Wahiduzzaman

Title: CEO/President

Date: 08/04/10

APPROVED AS TO LEGAL FORM:

Terra Chaffee, Deputy County Counsel

Terra Chaffee

By: _____

Date: 8/4/10

ATTACHMENT A
Scope of Services

CONTRACTOR will provide subject management services, prepare plans, specifications, bid documents and obtain environmental clearance for the construction of a bridge at Hospital Road across the San Benito River in San Benito County as described in attachment A-1.

Pursuant to Public Contract Code Section 4107, CONTRACTOR shall retain the services of subcontractors and the subcontractors' subcontractors identified in Attachment A-1, B-1 and D-3 to perform the services identified in Attachment A-1. CONTRACTOR shall not allow substitution of any subcontractors of sub-contractors identified on Attachment A-1, B-1 or D-3, without County's prior written consent.

Attachment A-1



BENGAL ENGINEERING, Inc.

Civil, Bridge, Hydraulic, Structural, & Highway Engineers

July 29, 2010.

Arman Nazemi, PE, LS
Assistant Director of Public Works
San Benito County Department of Public Works
3220 Southside Road,
Hollister CA 95023

**RE: Hospital Road Bridge: Federal Aid Project No. BRLKS-NBIL(501) EA 05-927422L:
Request to Extend Contract Period**

Dear Mr. Nazemi,

This letter has been prepared to extend the period of time to complete the design for this project, as you requested.

As you know, the project is 95% complete (submitted to the County, June 16, 2010).

The work remaining includes approximately:

- Review of 95% comments
- Preparation of 100% PS&E package
- Preparation of Right-of-way sketches/descriptions for County's use
- Right of Way /Utility Coordination
- Submittal of 100% PS&E package
- Preparation and Submittal of Final Reports.

We anticipate that this work will be completed within the remaining budget, barring unforeseen circumstances.

We look forward to hearing from you,

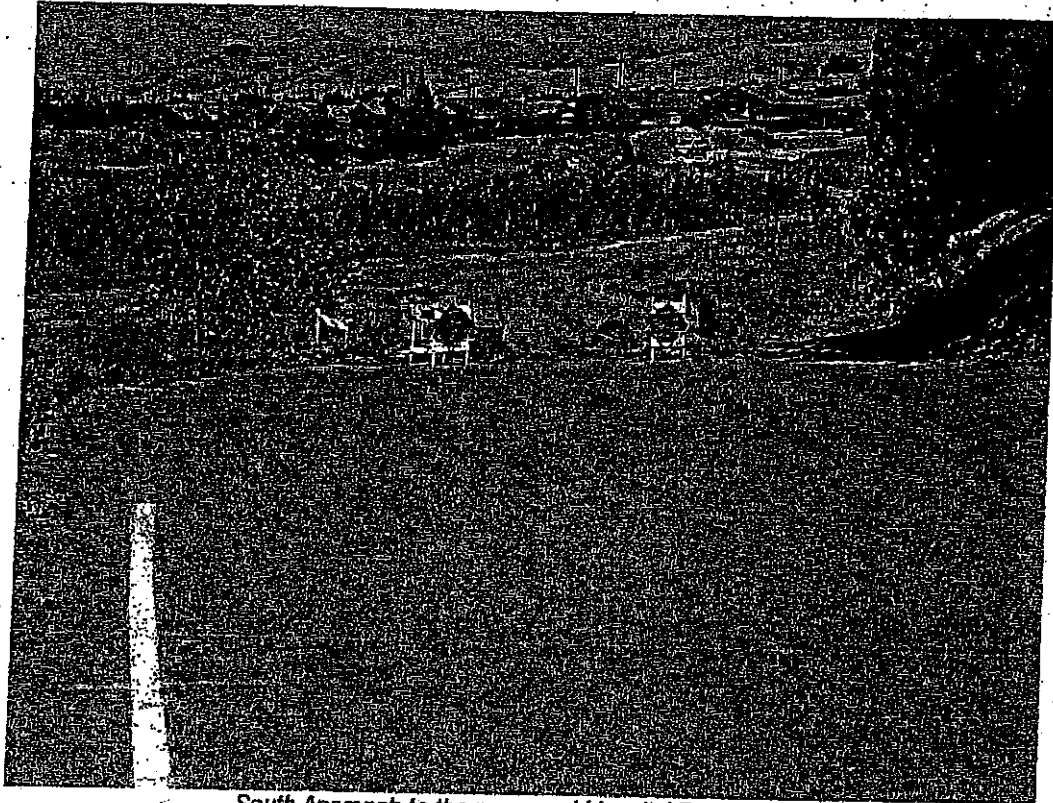
Thank you,

Md. Wahiduzzaman

Principal, CEO

Detailed Work Plan for Construction of the Hospital Road Bridge Over the San Benito River

Submitted to
Arman Nazemi, PE
Assistant Director of Public Works: San Benito County



South Approach to the proposed Hospital Road Bridge

Submitted September 20, 2004



Bengal Engineering, LP

Civil, Bridge, Structural, Hydraulics, & Highway Engineers

Bengal Engineering's Detailed Work Plan: Hospital Road Bridge
August 30, 2004

ATTACHMENT A-1



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Bengal Engineering, LP
Civil, Bridge, Structural, Hydraulic, & Highway Engineers

Bengal Engineering's Work Plan

San Benito has identified need for the new Construction of the Hospital Road Bridge over the San Benito River. The project is being funded with 80% HBRR and a 20% grant from the Office of Emergency Services (OES).

This scope of services includes project management, community involvement, surveys and topographic mapping, right of way engineering, geotechnical investigations, utility relocation assistance, preliminary and final design, quality control, and the preparation of plans, specifications and estimates for the construction of a new bridge and roadways to cross the river and connect to the existing roadway network.

This scope of services is divided into two phases:

- PHASE 1 - Preliminary Engineering & Environmental Documentation
- PHASE 2 - Detailed Engineering Design.

These phases conform to the typical phases of work used for the federal-aid HBRR program; the tasks within the phases are typical for HBRR project development procedures.

In accordance with Section 1221 of the Transportation Equity Act for the 21st Century (TEA-21), the FHWA is responsible for administering the contract through Caltrans.

UNDERSTANDING AND APPROACH TO PROJECT

The Bengal Team has thoroughly reviewed your Request for Qualifications and performed field reconnaissance at the project site.

We have observed the existing operational concerns and critical issues. Through this compilation of information, the Bengal Team has gained an extensive understanding of the technical aspects of each element of the project. Based on the background information our team has compiled, we have identified the following key objectives for the project:

- **Identify and address key technical issues** associated with utilization of the existing foundations, river scour and lateral bank erosions, roadway, drainage, access, and right-of-way, while balancing with the environmental constraints.
- **Maximize the use of available funds** by reducing project costs and implementing an aggressive value engineering plan.
- **Meet or exceed the proposed project schedule.**
- **Evaluate and implement aesthetic features** within the project limits.
- **Identify and address local agency, community concerns** and provide innovative and creative solutions for all parties involved with the project.

In this "Work Plan", we identify key technical issues for the project. We also discuss our technical approach by providing a comprehensive scope of work addressing each specific task for the project. This detailed scope of work includes sub-tasks to clearly delineate the methodology to accomplishing each of the specified tasks. Additionally, a schedule highlighting critical path tasks is presented.

The Bengal Team stands ready to provide the planning, engineering, and coordination necessary for the successful completion of the project.

The discussions herein demonstrate Bengal's commitment to identify key issues early, perform a detailed assessment of the various options, and then deliver a cost effective solution.



1 PHASE I- PRELIMINARY ENGINEERING & ENVIRONMENTAL DOCUMENTATION

1.1 PROJECT MANAGEMENT AND ADMINISTRATION / PHASE 1

BENGAL will manage the project by tracking the schedule, budget and value of the products produced.

Brief progress reports will be prepared and submitted to the County each month. The progress reports will identify work completed to date, work performed in the prior month, work anticipated for the next month, and action items necessary to keep the project on track and moving forward.

1.1.1 Kickoff Meeting

A kickoff meeting for the project team, including County and Caltrans representatives will be held in Hollister. Associated with the kick-off meeting will be a field review at the bridge site with Caltrans to freshen up the field review paperwork and PES form.

Deliverable:

- One copy of the project information binder including scope of services, schedule, fee, project contact list.

1.1.2 Quality Control

BENGAL will provide internal quality control on products submitted to the County. A senior level BENGAL engineer will provide independent quality control review. Quality control will be accounted for and shown on the project schedule.

1.2 ENVIRONMENTAL

BENGAL's review of the Preliminary Environmental Study (PES) form, site visits, and recent experience with federally funded bridge projects in creek environments has determined that the proposed project will likely qualify for a Categorical Exclusion (CE) with Special Studies under National Environmental Policy Act (NEPA), and a Mitigated Negative Declaration (MND) under CEQA.

Both BENGAL and our sub consultant LSA are very familiar with the environmental issues and technical studies required for this project. These issues/studies include Biology, Cultural Resources, Environmental Engineering (air, noise, water, hazardous waste, storm water); and Section 4(f) resources.

BENGAL is committed to early and ongoing coordination with the environmental consultant. From our experience with similar bridge projects, the environmental and design processes must work hand in hand to achieve the optimum result, in which all project goals and objectives are met or exceeded.



1.2.1 Environmental Work Plan Overview:

- **Data Collection and Field Review**
- **Review/Confirm Approved Preliminary Environmental Studies Form**
- **Prepare Technical Studies**
 - Hydrology/Water Quality
 - Biological Resources (California red-legged frogs, anadromous fish); delineation, early agency coordination
 - Cultural Resources (historic and pre-historic); APE Map; records search; NA consultation; surveys; HPSR/ASR
 - Noise (proximate to new sensitive receptors)
- **Mitigated Negative Declaration (CEQA):** Prepare and circulate documents; Assist County with processing; prepare Responses and final documents
- **Categorical Exclusion (NEPA):** Prepare documentation for Caltrans
- **Permits** (performed in Phase 2—"Detailed Design") (Corps of Engineers, CDFG, RWQCB)

1.2.2 Environmental Work Plan: Details

1.2.3 Data Collection/Field Review

Under this task, LSA will obtain and review all available documents that will provide environmental information for the Hospital Road Bridge. LSA will also conduct a field review to identify potential environmental issues and constraints.

1.2.4 Review Environmental Requirements

LSA will review the previously approved Preliminary Environmental Study (PES). The PES includes a checklist that establishes the basis for any needed technical studies, and is used to identify the likely environmental clearance. The PES is also used to identify environmental permits that will be needed for the project.

Under the National Environmental Policy Act (NEPA), the bridge construction project should qualify for a NEPA CE. Under the California Environmental Quality Act (CEQA), the bridge project is expected to be an Initial Study/Mitigated Negative Declaration (IS/MND) due to the replacement of a low water crossing and to accommodate the California Department of Fish and Game's subsequent CEQA review requirements for the Streambed Alteration Agreement.



1.2.5 Technical Studies

LSA proposes to conduct the following technical studies that we expect to be identified in the PES. Three (3) copies of each draft report, and two (2) copies of each final report will be submitted to the County for review.

Hydrology/Water Quality. LSA will conduct a Floodplain Report Summary/Water Quality Report in accordance with Caltrans guidelines and requirements. The Floodplain Report Summary will evaluate potential changes in hydrology due to bridge construction. Technical hydrological data will be provided by Bengal Engineering in accordance with the technical Hydraulic Study. In light of the probability that the bridge construction will likely not change the 100-year floodplain, nor cause an increase in the backwater flood elevations, the impacts will probably be insignificant. Nonetheless, the characteristics associated with the watershed, local hydrologic conditions, etc. will be documented for the summary. The Floodplain Report Summary will summarize the risks associated with the project, the impacts on natural and beneficial floodplain values, the support for incompatible development in the base floodplain caused by the project, and measures to minimize floodplain impacts and restore and preserve the natural and beneficial floodplain values. The Floodplain Report Summary requires response to seven (7) questions regarding potential effects of the project as described in the applicable hydraulic study. LSA will assist in addressing the environmental questions included on the form. Negative responses to these questions eliminate the need for any further floodplain studies. Caltrans and/or FHWA must approve the completed summary.

The report will also evaluate potential water quality impacts from constructing the proposed bridge and long term operations on the San Benito River. Potential project impacts associated with construction activities, maintenance activities, and roadway runoff will be evaluated. Potential causes of erosion, and siltation, and sources of pollutants and the effects of these substances on the quality of receiving waters will be evaluated. Mitigation measures, including Best Management Practices specified in Caltrans' *Storm Water Quality Handbook - Planning and Design Guide*, will be identified for any significant water quality impacts that may occur during construction and/or operation of the bridge structure.

Biology. A Natural Environment Study (NES) will be prepared in accordance with recent Caltrans' Guidance (April 30, 2002). A key objective of the NES is to identify any special status plants, fish, or wildlife, or sensitive habitats that may be affected by the project. While the project area corridor is somewhat disturbed, an evaluation of the biological resources is required to describe the habitat and resources present in the aquatic/riparian and grassland environments. This evaluation will consider the potential presence of important biological habitat and sensitive species. Special status species potentially impacted by the project include plants, songbirds, raptors, fish, amphibians, and reptiles.

LSA will request a list of special status species from the U.S. Fish and Wildlife Service (USFWS) and will query the California Natural Diversity Data Base (CNDDB) and California Native Plant Society (CNPS) online database. As part of this process, LSA biologists will informally coordinate with the California Department of Fish and Game (CDFG), NOAA Fisheries and USFWS regarding the potential presence of special status species on the project site. LSA will request a meeting with these agencies at the site to discuss the relevant issues and processes specific to this project.

A number of special status species, including State and federally listed species, may potentially be affected by the proposed project. It is expected that consultation with the USFWS and the NOAA Fisheries under Section 7 of the federal Endangered Species Act to address project-related impacts to federally listed species will be required. Based on prior projects in San Benito County and from



Bengal Engineering, LP
Civil, Bridge, Structural, Hydraulic & Highway Engineers

discussions with Caltrans, the NES will include a summary Biological Assessment (BA) for these listed species. Per Caltrans guidance, only one (1) BA will be prepared (separately) to address potential project effects to listed species. Consultation with the CDFG may also be required for special State-listed species under Section 2081 of the California Endangered Species Act. In many cases, Section 7 documentation can be used by CDFG in lieu of the Section 2081 process.

The project is located within the range of California red-legged frog (RLF). It has been our recent experience that the USFWS assumes RLF could be potentially present in any suitable habitat within their range unless it is shown otherwise. Consequently, we propose to prepare a RLF site assessment in accordance with the USFWS *Guidance on Site Assessment and Field Surveys for California Red-legged Frogs*, dated February 18, 1997. The assessment is required by the USFWS to evaluate the suitability of the habitat in terms of vegetative composition, surrounding land uses, and known occurrences within the vicinity. The site assessment is generally submitted to the USFWS for review and guidance. If the USFWS determines that RLF could potentially occur on the site, it may be necessary to conduct focused surveys in accordance with current USFWS protocol and initiate Endangered Species Act consultation with USEWS. This proposal assumes that surveys will be required (2 day-time and 2 night-time surveys) within all suitable habitat within a one mile radius of the project site. Property access/right-of-entry will be the County's responsibility to obtain. Other special status amphibians and reptiles will be surveyed for concurrently with surveys for RLF. Survey protocol is currently undergoing revision, and survey requirements for RLF may change. If so, our scope of work and budget may need to be amended.

LSA will conduct surveys for northwestern pond turtles prior to initiation of any work. Surveys for northwestern pond turtles will be combined with RLF surveys.

The NES will also include a jurisdictional delineation to determine the areas subject to regulation by the U.S. Army Corps of Engineers (Corps) and/or the CDFG (see also "Permitting" below). Impacts to jurisdictional areas resulting from the temporary and permanent bridge structures are expected to be minimal.

Cultural Resources. Section 106 documentation will be prepared in accordance with Caltrans' *Environmental Handbook (Volume 2) Cultural Resources, DRAFT (July 2001)*. LSA will be responsible for conducting a literature review; a field survey; contact with the Native American Heritage Commission (NAHC) and local and Native American groups, as well as contact with local historical societies, to ascertain any concerns they may have about the proposed project. LSA will prepare the appropriate Caltrans reports, including the Historical Property Survey Report (HPSR), Archaeological Survey Report (ASR), and any other required documentation.

LSA will coordinate the preparation of an Area of Potential Effects (APE) map with Bengal Engineering and Caltrans. LSA will assist Bengal Engineering in the development an APE map and provide the specific mapping requirements.

LSA will conduct an archaeological and historical records review and literature search through the North Central Information Center of the California Historical Resources Information System (CHRIS). The Information Center houses the pertinent archaeological site, survey, and excavation information necessary to determine whether recorded cultural resources exist within the APE. The records search will include a review of all official national, State, and local historical listings. All pertinent references will be reviewed and summarized in the appropriate reports for Caltrans.

Based on the records search and responses from historical resource inquiries, an intensive, systematic on-site pedestrian survey will be conducted to determine the presence of cultural resources. If previously recorded sites exist within the APE, these will be field checked, and existing



site records will be updated on site forms, consistent with the guidelines established by the State office of Historic Preservation.

The proposed level of effort is based upon negative findings for cultural (historic/prehistoric) resources. It is anticipated that the Historic Property Survey Report and Negative Archaeological Survey Report will be based on negative findings.

The cultural resources scope assumes the following:

- The project area contains no cultural resources or architectural resources and that no evaluations would be necessary; and
- The project survey area is limited to 100 feet in either direction of the bridge site.
- The total survey area is no greater than approximately 5 acres.

Noise. LSA will conduct an ambient noise monitoring to document existing noise levels in the project vicinity and model the traffic noise with calibration of the monitored noise levels. Traffic noise levels under a worst case scenario will also be predicted. LSA will prepare a noise impact study report for the proposed project and its potential noise impacts on residential uses adjacent to the project site. Applicable noise criteria established by the County in its noise ordinance and in the Noise Element of its General Plan will be used for the impact analysis. In addition, if determined necessary, Caltrans noise criteria will also be identified and evaluated. The noise study report will focus on the potential impacts of the traffic noise from the renewed use of Hospital Road. Mitigation measures that are identified in this noise impact and mitigation analysis will ensure traffic noise impacts have been adequately mitigated. The following describes LSA's proposed scope of work.

- **Noise Standards Review.** Applicable County of San Benito and Caltrans noise and land use compatibility criteria, including noise standards specified in the County's Noise Element and Caltrans Noise Abatement Criteria (NAC), will be identified.
- **Identify Potential Noise Sensitive Uses.** The areas in the project vicinity that have the potential for future noise impact concerns will be identified, including the residential areas along Hospital Road.
- **Document Existing Ambient Noise Levels.** LSA will conduct ambient noise monitoring at up to four representative receptor locations in the project vicinity to document existing noise levels.
- **Model Existing Traffic Noise Levels.** Noise impacts evaluated in terms of the hourly continuous equivalent noise level (L_{eq}) and 24-hour weighted community noise equivalent level (CNEL) along the existing Hospital Road will be evaluated based on the existing site plan and aerial photo map.
- **Model Long-Term Mobile Source Noise Impacts.** Noise impacts evaluated in terms of the hourly continuous equivalent noise level (L_{eq}) and 24-hour weighted community noise equivalent level (CNEL) will be evaluated for Hospital Road based on the bridge plan and aerial photo map. The County's 65 dBA CNEL noise criteria and/or Caltrans 67 dBA Leq NAC will be assessed for potential impacts on residential uses adjacent to Hospital Road.
- **Evaluate Mitigation Measures.** Mitigation measures, such as installing a sound wall along Hospital Road and/or building facade upgrades for dwelling units directly exposed to high traffic noise from the renewed use of Hospital Road, will be recommended to ensure that noise impacts from mobile sources have been adequately.
- **Report Preparation.** LSA will prepare a noise study report to provide findings of the noise impact and mitigation measures. This scope of work includes one submittal of the report.



1.2.6 Prepare NEPA Categorical Exclusion (CE)

For processing NEPA, LSA will prepare a CE determination form for approval by Caltrans and FHWA. A summary document (two to three pages) of the environmental issues and project findings will be prepared to attach to the CE. The completed form will be submitted to Caltrans with three (3) copies each of the final technical studies (revised per County and Caltrans comments) to support the findings of the CE.

1.2.7 Prepare Initial Study/Mitigated Negative Declaration (IS/MND)

Replacement of the existing low water crossing with a new bridge is not expected to have significant impacts that are unmitigable. Therefore, the project should be processed through the use of an MND for CEQA purposes. Technical Studies prepared for NEPA review will serve as the back-up for the CEQA MND.

Administrative Draft IS/MND. LSA will prepare an IS/MND for the County's review. The format will be based on the CEQA Initial Study checklist used by San Benito County and an expanded evaluation of each issue area. Included in the IS/MND will be a project description, discussion of the environmental review process, and project methodology. A total of three (3) copies will be printed for review.

Preliminary Draft IS/MND. Following review by the County, LSA will prepare a Preliminary Draft IS/MND. This second version will evaluate each of the County's comments on the Administrative Draft IS. Three (3) copies of the Preliminary Draft IS/MND will be submitted for review by the County.

Public Review Draft IS/MND. The purpose of this task will be to respond to the County's comments on the Preliminary Draft IS/MND, complete necessary revisions, submit the document for County approval, and publish for public review. Fifty (50) copies of the Draft IS/MND will be circulated for review by the County. The County will be responsible for publishing all legal notices and advertisements. LSA will assist the County in the preparation of notices including the notice of availability for public review, public notice of intent to adopt the MND, and the Notice of Completion for the State Clearinghouse.

Response to Comments on Preliminary Final MND. The purpose of this task will be to prepare written responses to comments received on the Draft IS/MND that raise significant environmental issues, and submit them for County staff review after the close of the public comment period. For budgeting purposes, a total of 16 hours has been allocated to prepare responses. LSA will also include a Mitigation Monitoring Program in the document that outlines timing and responsibility assignments for implementing each measure. Two (2) copies of the Mitigation Monitoring Program and final mitigation measures will be submitted separately to the County.

Final MND. LSA will incorporate the final comments and responses into the Final MND and will submit 30 copies of the approved document for distribution by the County to agencies that commented on the Draft IS/MND. Final adjustments to the Mitigation Monitoring Program will be made based on staff review and comment.

LSA will prepare an approval notice and CEQA findings, and Notice of Determination for the County's use in submitting to the State Clearinghouse following the Board's approval of the MND. LSA will provide the State Clearinghouse with the Final MND document.



In addition to these deliverables, LSA will provide general engineering and technical support as necessary in order to assist the environmental consultant toward approval of the environmental document and subsequent permit acquisition.

1.3 FIELD SURVEYS AND MAPPING

1.3.1 Surveys, mapping and topography

The BENGAL team will provide the surveying and mapping services as required for documentation of the project. The County will designate the existing horizontal and vertical control monuments to be used for the basis of all surveys. The performed surveys will be adjusted to the designated control monuments and their values. BENGAL worked closely with Reese Water and Land Surveying on many complicated projects over a period of many years. The team stands ready to work on the detailed design and environmental planning outlined herein.

1.3.2 Monumentation

Monuments established in the field can be marked with County furnished disks, plugs or tags, with the surveyor's license number if requested.

1.3.3 Prepare R/W Legal Descriptions and Exhibits

Based on the R/W take or easement limits needed, the BENGAL team will prepare the legal descriptions and exhibits needed for the COUNTY to prepare the appraisal and acquisition documents.

1.3.4 Identify and Map Existing Trees

The BENGAL team will identify the many trees on site during topographic mapping.

A tree exhibit at the same scale as the layouts will be prepared depicting each tree location by its respective station, offset from centerline, number label, trunk diameter at breast height (dbh), extents of the drip line and whether it is to be removed or protected due to impacts of construction operations. This exhibit will be used to document the impacts to the existing trees for the environmental document and to help convey the major landscape features of the project during the public meetings.

1.4 PRELIMINARY UTILITY COORDINATION

Utility verification and request letters will comply with Caltrans Policy on High Risk Utilities. BENGAL can provide for potholing of potential utility conflicts.

1.4.1 Utility Research and Information Request

BENGAL will prepare Utility Information Request letters to be sent to the various utility companies, along with the base plans, requesting the utility facility maps within the project limits. The base plans will consist of the completed topographic mapping and a project strip map

Deliverable:

- One (1) hardcopy of the Utility Information Request Letter and base plans for each utility company



1.5 GEOTECHNICAL ENGINEERING

1.5.1 Preliminary Geotechnical Reports and Soil Sampling

Parikh Consultants performed sub-soil investigation of the site for construction of a con-span bridge at this location. Parikh Consultants has performed the geotechnical investigation for a variety of other bridge projects including: Nash Road Bridge, Historical Park Bridge, Panoche Road Bridge and the Highway 25 bypass.

Parikh will provide preliminary comments and recommendations to aid in the Preliminary Engineering and Type Selection process. Data will be based on site reconnaissance available published information, the available LOTB, field exploration laboratory testing and preliminary engineering analysis. The R-value characteristics for the approach roadway will be specified. Information will be provided in a letter report—the Preliminary Foundation Report. The BENGAL team can obtain the necessary permits for the geotechnical fieldwork as an optional task.

The field exploration is anticipated to include:

- Provide work description for use in permit applications.
- Field site review meeting with representatives of the County
- Drill and sample 4 to 6 test borings (2 estimated to range in depth from 100-120 feet. Boring will be performed near the proposed east and west abutments and at least 2 of the piers. A shallower boring is anticipated for investigation of the scour protection measures on south roadway approach fill.
- Locate borings relative to project stationing and furnished site benchmark elevation.
- Anticipated field and laboratory tests including:
 - Standard Penetration Tests in conformance with ASTM D-1584.
 - In-place dry density and moisture content.
 - Direct shear tests in accordance with ASTM D-3080.
 - One-dimensional consolidation tests conforming to ASTM D-2435, on sediment susceptible to compression.
 - Grain-size distribution in accordance with CTM 202.
 - Concentration of soluble sulphates and chlorides in conformance with CTM 417 and CTM 422.
 - pH and resistivity of unsaturated foundation soil as indicated in CTM 643.
- The Preliminary Foundation Report will include:
 - Comments on alternative foundation types.
 - PBA and ARS curve based on Caltrans Seismic Design Criteria.
 - Comments on likely potential for liquefaction and associated consequences.



1.5.2 Geotechnical Materials and Foundation Reports

Parikh Consultants will provide the Draft Foundation Report, including the structural section data for the roadway.

The Draft Foundation Report will be prepared in general conformance with Caltrans guidelines. The Foundation Report is anticipated to address the following items:

- Field and laboratory test results of the soil samples.
- Comments on the regional geology and site engineering seismology, including the recommended peak bedrock acceleration and ARS curve based on Caltrans Seismic Design Criteria, version 1.3. The Caltrans standard ARS curves will be modified, as required, for fault proximity and mechanism. A digitized file for the ARS curve will be provided. Comments on the potential for liquefaction and seismically induced settlement will be included.
- Comments regarding design considerations for a seismic approach slab.
- Recommendations for vertical bearing of appropriate foundations types. Data for piles will include design loading, design tip elevations based on furnished nominal compressional, lateral and uplift loads, and the specified tip elevation. Data for spread footings (if required) will include the specified footing elevation and allowable and nominal design bearing based on Caltran's approach.
- Recommendations for allowable and nominal passive lateral bearing and frictional resistance for spread footings.
- Recommended Sheet Pile tip elevations and design parameters.
- Comments on soil stiffness at abutments and ultimate equivalent lateral pressure and associated strain for resisting dynamic loading.
- Comments on characteristics of on-site soil in relationship to geotechnical parameters utilized in Caltrans Standard Plans and Bridge Standard Detail Sheets, as appropriate.
- General comments on any apparent historic scour.
- Comments on the corrosion potential of foundation soil.
- Log of Test Boring drawing, based on Caltrans criteria, suitable for inclusion into the contract drawings.
- Site plan with subgrade test boring locations.
- Subgrade test boring logs in Caltrans format.
- Recommendations for subgrade preparation and embankment construction, as appropriate.
- Recommended flexible pavement sections based on furnished design traffic index.
- Comments on the stability of embankment slopes, as appropriate.
- Comments on estimated settlement of approach embankments, as appropriate.



1.6 BRIDGE HYDRAULIC STUDIES AND REPORTS

Background

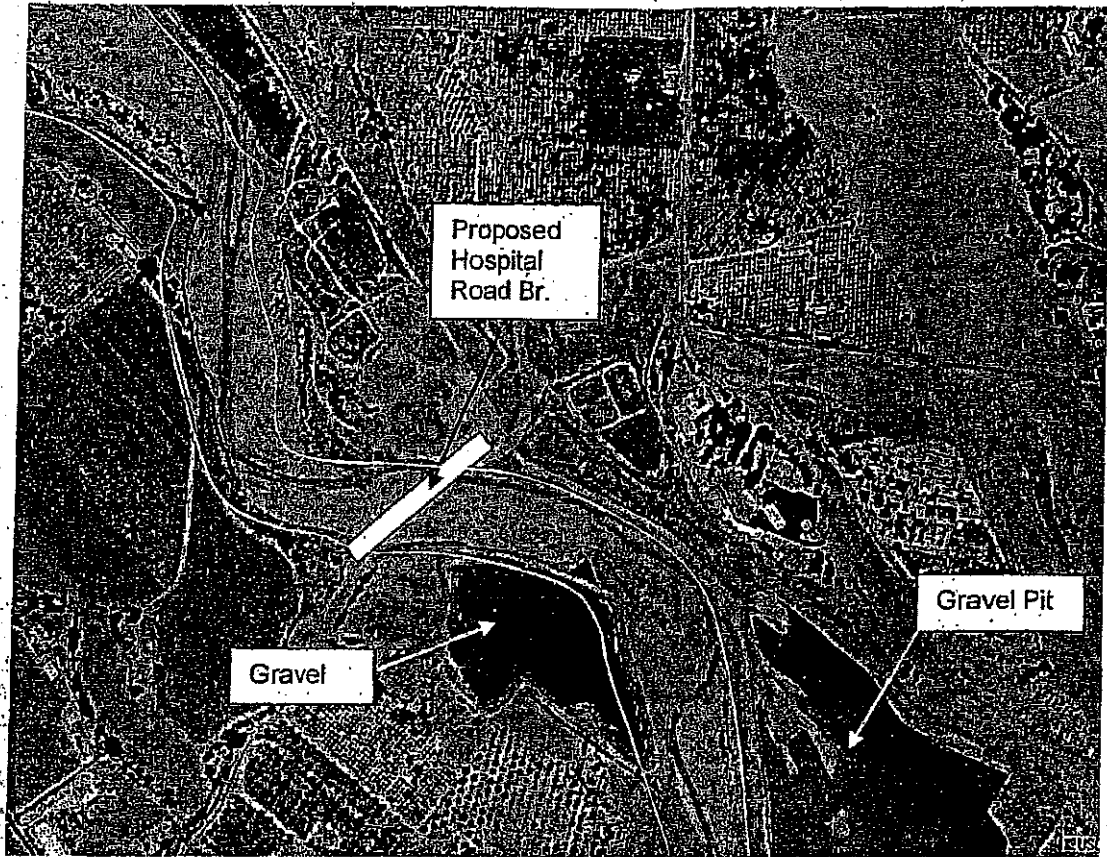
Hospital Road crosses the San Benito River in a "low water" crossing. It currently consists of a series of 6-36" diameter corrugated plastic pipes. The "structure" is approximately 22 feet long and 20 feet wide. There is an "abutment wall" at each end of the pipes. There are no Caltrans maintenance records because the crossing does not meet the criteria for a "bridge" as defined by the Federal Highway Administration.

Because it is a low water crossing, it requires reconstruction each year following significant discharges, according to the Public Works Department. In about 1999, the Resource Agencies increased enforcement necessitating removal of the crossing annually prior to November 15th, and delaying its annual installation until May 15th of each year. Due to budget constraints, the San Benito County Board of Supervisors voted to discontinue installation of the temporary crossing this year.

Hydraulics

The major hydraulic issues include:

- Channel bed degradation and lateral channel migration are the major hydraulic issues affecting the bridge design. Numerous recent studies have held past gravel mining operations responsible for damage to adjacent infrastructure. There are no known studies which estimate degradation at the Hospital Road Bridge caused by all the existing and potential future gravel mining operations. Conservative assumptions regarding future degradation will be made.
- There are some existing bridge hydrology and hydraulic studies including the downstream Route 156 bypass bridge (completed by Caltrans in 1993) and the Nash Road Bridge report (Completed by Schaff & Wheeler, 2002). The studies will be helpful developing the hydrology and hydraulics studies at the project site.
- The channel bed and banks appears to be subject to significant degradation and lateral channel erosion. The study will evaluate potential local pier and contraction scour, channel bed degradation, bank protection and abutment conditions.



Aerial Photo showing the proposed bridge.

- Note approximate location of the existing bank lines shown in yellow.
- Note existing reclaimed gravel pits upstream of the bridge.

The aerial photo shows two gravel pits in close proximity, upstream of the bridge. These two pits (depending upon their depth) may have an impact on the degradation analysis. The pits may also "destabilize" the river if breached, causing the river to change course and approach the new bridge at a different angle than it currently flows.

The river has degraded about 10-15 feet throughout this reach (Mike Harvey and Tom Smith, ASCE), in the last 40 years.

Future degradation will depend on the existing gravel pits and gravel mining activity in the reach that will decrease sediment supply.

Determining bridge length and establishing the abutment locations will require careful and thorough evaluation of the lateral stability of the reach. Historic aerial photographs, observations of riverbanks, and review of the geotechnical borings will provide critical data for the evaluation of lateral stability. Some simple and relatively non-invasive (environmentally friendly) measures may be implemented for the protection of the approach road.



Hydrologic Analysis:

Caltrans and FHWA recommend that the bridge design flood(s) be estimated using at least two independent hydrologic methodologies. In addition to consideration of the FEMA estimate (as one methodology), we will identify the appropriate design flood, base flood, flood of record and the overtopping flood (as appropriate) to meet the recommended requirements of Caltrans and FHWA using at least one additional methodology. The additional methodology may include translation from nearby representative gauged basins, application of regional regression equations and other methods. If reasonably supported by an independent methodology the FEMA estimates of the most probable 50- and 100-year flood will be selected for bridge design. A flood frequency curve for the project site will be prepared.

Existing Condition Hydraulic Analysis:

Set up an existing condition backwater model at the project site and calibrate to known high water marks if available (this may include the Base Flood profile published by FEMA). Prepare an existing condition stage discharge curve and flood profile at the project site. The Corps of Engineer's HEC-RAS backwater program will be used for this analysis. Identify the existing condition water surface profiles for the most probable 100-year flood, flood of record and identify the flow of the overtopping flood and other floods as appropriate.

Preliminary Project Hydraulic Analysis:

Set up backwater models at the project site representing up to two candidate replacement structures. Identify the water surface elevations of the floods of concern to design of the candidate replacement bridges and the impacts, if any, of the candidate structures on the water surface elevations of floods. This information along with other hydraulic information which may be of concern to project design, will be provided to the bridge design team by memorandum.

Preferred Project Hydraulic Analysis:

After confirmation of a preferred replacement bridge configuration, prepare a final backwater model representing the preferred bridge and including additional project details. Identify the water surface profiles of the Design Flood, Base Flood and other floods of significance to design of the preferred bridge. Identify the minimum appropriate soffit elevation to meet currently recommended design standards of Caltrans and FHWA and other agencies as appropriate. Identify the minimum required conveyance County of the preferred project and identify the effects of the preferred project on risk of flood damage to other structures in the floodplains. Prepare figures showing flood profiles and stage-discharge curves as appropriate.

Scour and Erosion Analysis:

Lateral bank erosion and creek degradation are very important design parameters for the proposed bridge project. The overall project plan will be based on minimizing the need for bridge maintenance to repair scour at the bridge site. The proposed project scour protection measures should be in harmony with the sensitive environment of the site. Estimate the potential local scour using methods presented in FHWA HEC-18. Determine the potential for channel instability considering historic changes in channel geometry and land use using the Type 1 qualitative analysis described in FHWA HEC-20.



1.6.1 Bridge Hydraulic Report

Prepare three copies of a final DHS report for the preferred project. The report will be prepared in a semi-tabular format with sections including: Executive Summary, Introduction, Description of basin, Description of stream and site, Hydrologic analysis, Hydraulic analysis, Scour and erosion, Other considerations, and Conclusions and Recommendations. The DHS report will address the appropriate concerns presented in the Caltrans Local Programs Manual.

The Location Hydraulic Study form will be completed and signed by the hydraulics engineer as required by the Caltrans and FHWA.

1.7 PRELIMINARY ENGINEERING

1.7.1 Preliminary Roadway Engineering

Geometric Approval Drawings (GAD)

BENGAL will prepare geometric approval drawings (GAD), based on the layout sheets. The GAD will be prepared over topographic mapping, and will include existing and new right-of-way lines. Roadway sections at the bridge approaches will be shown.

BENGAL will use the GAD's as the basis for identification of permanent and temporary construction easements. New R/W lines will be identified and R/W take areas calculated.

BENGAL will prepare the roadway drainage layout. The existing drainage features will be field reviewed and evaluated, and recommendations made for improvements within the project limits for rehabilitation of the drainage facilities, if needed.

Deliverable:

- Layout Sheet
- Profile Sheet
- Typical Section Sheet

1.7.2 Bridge Type Selection

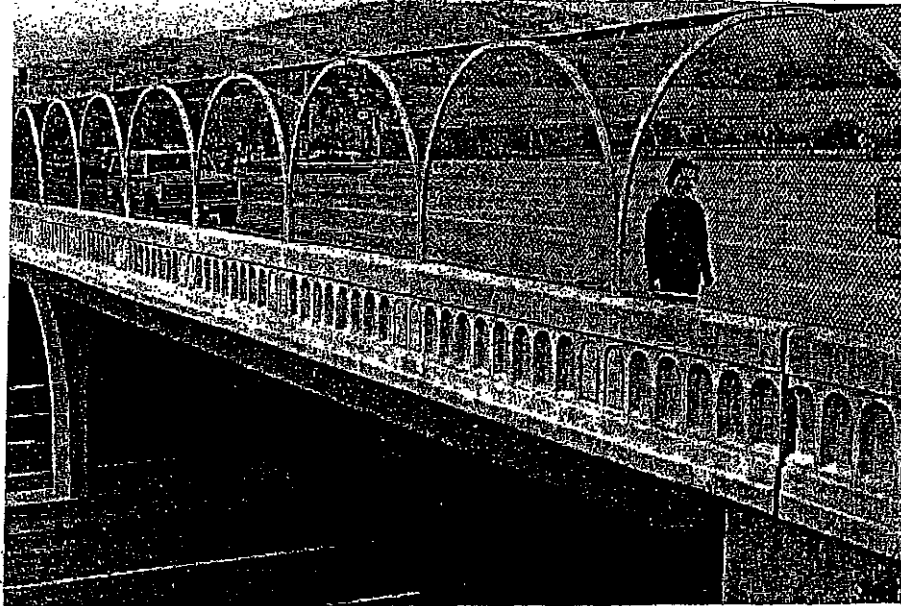
Prepare bridge General Plan & Structure Type Selection Report

BENGAL will prepare the bridge General Plan and Type Selection Report. The Type Selection Report will be developed to present design features of the bridge in a format similar to Caltrans Memo to Designers Section 1-29.

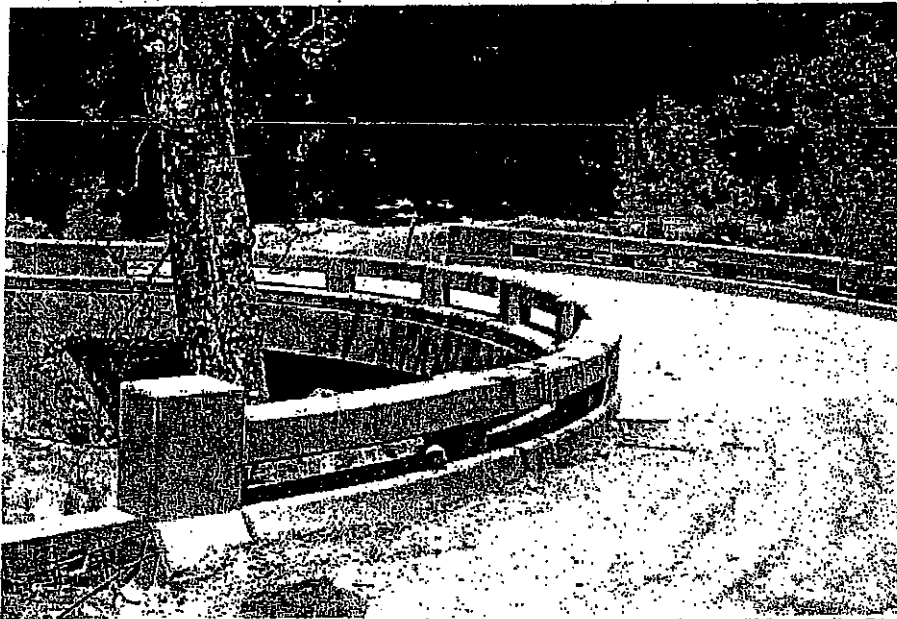
Bengal will specifically tailor the bridge appearance to coincide with the wishes of the County (and community) while ensuring the selected design is "Participating" according to HBRR guidelines. Bengal's team has successfully designed many beautiful bridges with different and creative railings, and looks forward to working with County Staff as directed to develop the right look for the Bridge.



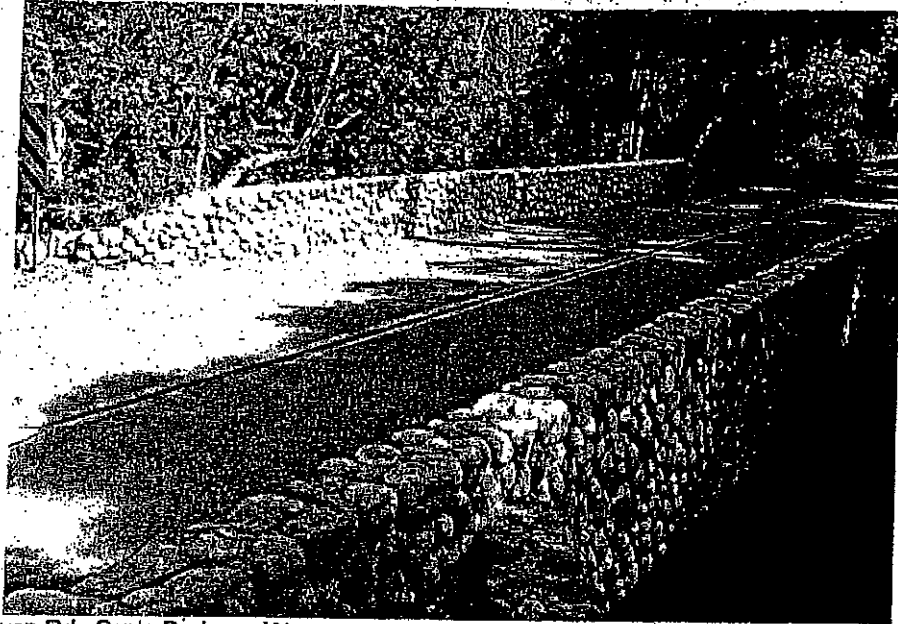
Examples of Bridges & Bridge Rails



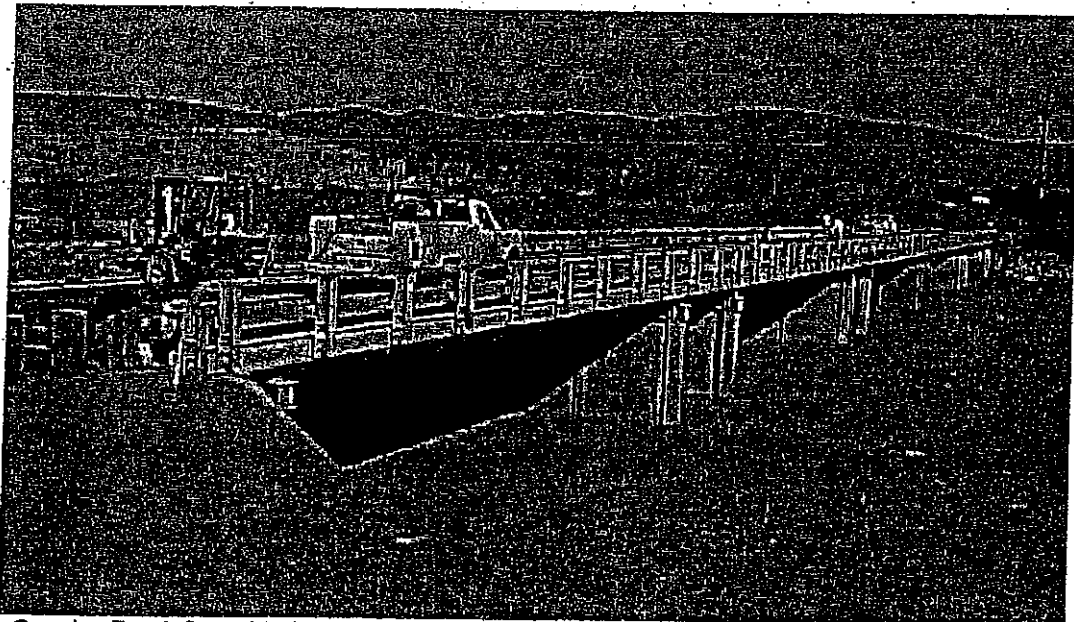
Storke Road at Hwy 101, Goleta, CA. We developed the outside of this bridge rail for visual interest to the standard Caltrans bridge rail. It has been so successful that it is now the basis for all bridge rails on Highway 101 in Santa Barbara.



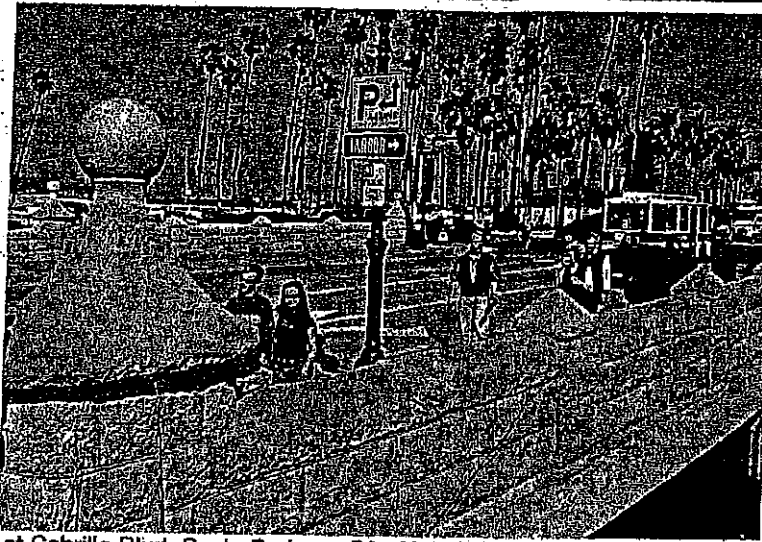
Oak Creek Bridge, Montecito, CA. This rail combines the open feel of the old-time "Montecito Style" timber bridge rail with the safety and longevity of reinforced concrete. The horizontal members will be stained to look like wood, when the structure is complete.



Mission Canyon Rd., Santa Barbara. We encapsulated a reinforced concrete bridge-rail with faux stone to preserve the cobble look of the old bridge. The entire structure is new, but looks like it has been there for 100 years.



Suey Crossing Road, Santa Maria, CA Metal-tube bridge rail with steel bridge superstructure to provide a "country style" bridge.



State Street Bridge at Cabrillo Blvd, Santa Barbara, CA. Note hand cut sandstone and pronounced bollards gracing this bridge. Extensive public review and comment went into the development of this unusual rail.

Main Street Bridge at Santa Rosa Creek. (ARC-0337 Replaces)
03-SLD-B-CR BRLO 3949(065), E1 01-927220
p. 3

Structure Type Selection Report
Updated July 8, 2004

Discussion of the Alternative Structure Types Considered

The County proposes to replace the existing bridge with a 150-foot-long single-span, CIP/PS RC Box with a total width of 37'-0" (two 12-foot lanes, two 5'-1" shoulders and two 1'-5" wide Type 722 barrier rails).

Other structure types including a two-span reinforced concrete box girder bridge (RC Box), or a three-span reinforced concrete T-Beam bridge are also appropriate for the 150-foot-long overall bridge length, and were considered.

Multi-span structures will require constructing pier foundation(s) in the floodway, subjecting them to large debris loads. At this location, a center pier is not desirable. The existing bridge (see photos) has a center pier, which has a history of catching debris during flood events. As debris accumulates on the existing pier, the flood water is constricted and the creek backwater rises contributing flooding, pier scour and bank erosion.

The preferred CIP/PS RC Box alternative allows Santa Rosa Creek to be bridged in a single span without the intermediate piers which require extensive (and costly) scour protection. The single span also provides the best hydraulic conveyance and avoids the debris loading on the intermediate pier which currently threatens the existing bridge.

We also considered a PC/PS Box girder bridge option, but discarded because it will be expensive and difficult to construct.

Because of the required span length, temporary construction falsework will be required within the channel for any of the structure types, regardless of the alternative that is selected.

Costs for the alternative structures are compared as follows:

Alt.	Structure Type	Description	\$/sq.ft
1	Single Span - CIP/PS Box	Spans Cr. without an intermediate pier. Convey Q ₁₀ with 3' Freeboard Str. Depth=6'-8"	\$317
2	2-Span R.C. Box	Intermediate Support Req'd, which could catch debris, raise backwater, & add to bank erosion Str. Depth=4'-3"	\$321
3	3-Span T-Girder or RC Slab/Box/Slab	Intermediate Support Req'd, which could catch debris, raise backwater, & add to bank erosion Str. Depth=4'-0"	\$324
4	PC/PS BOX	Spans Creek without an intermediate pier. Convey Q ₁₀ with 1' Freeboard Str. Depth=9'-0"	\$378

With all these considerations the CIP/PS RC Box option is proposed for the structure type.

Example of Discussion contained in a BENGAL Type Selection Report



Deliverable:

Structure Type Selection Memo, Update and Finalize bridge General Plan

Based on the comments received from the Type Selection submittal, BENGAL will update and finalize the bridge General Plan.

1.7.3 Design Exception Request and Fact Sheets

BENGAL can prepare design exception requests and fact sheets based on the deficiencies discovered during design.

1.7.4 Project Report

The results of the Preliminary Engineering studies and reports will be summarized in a report to the County. The report will include the comments from the first public meeting, and will be suitable as a reference guide for the second public meeting to document the development of the project throughout the environmental and preliminary engineering process.

1.8 RIGHT-OF-WAY

1.8.1 Prepare R/W requirements

BENGAL will prepare the maps and descriptions needed by the County to proceed with the R/W acquisition process. County Staff will perform R/W appraisals and acquisition.

BENGAL'S stand-by team member, Bob Tarvin and Associates, is ready to help with this service if required.

1.9 PUBLIC PARTICIPATION

BENGAL will assist the County with public or committee meetings to present the project. The County should schedule the meeting to occur during the environmental process so that we have opportunity to incorporate public comments into our preliminary design. This meeting will present a conceptual bridge type and construction staging scheme.

1.10 SCHEDULE

The design baseline schedule will be updated for the final design phase and to set an accurate advertise date following approval of the environmental documents.



2 PHASE II: DETAILED ENGINEERING DESIGN (PLANS, SPECIFICATIONS & ESTIMATE)

2.1 PROJECT MANAGEMENT AND ADMINISTRATION /PHASE 2

This is a continuation of the Phase 1 Project Management and Administration tasks.

2.2 PREPARE 65% PLANS

Roadway Design

The roadway will be designed in accordance with AASHTO's "A Policy on Geometric Design of Highways and Streets", the Caltrans "Highway Design Manual", the Caltrans "Standard Specifications", and San Benito County Standards.

Bridge Design

The bridge will be designed in accordance with Caltrans standards including the "Memo to Designers", and "Bridge Design Standards".

The design loading for the bridge will be HS-20-44 (including alternatives) and normal "permit" loads which will likely cross the bridge.

Seismic design loading will be evaluated as outlined in Section 3.21 of the Caltrans "Bridge Design Specifications", the Caltrans "Seismic Design Criteria" (version 1.3 2004), and the latest available Caltrans earthquake information.

Environmental Mitigation

All environmental mitigation plans will be included in the final PS&E.

Utility Openings

BENGAL will communicate with affected utilities as outlined in the "Caltrans Right of Way Manual" and "Policy on High Risk Underground Utilities". Openings for future utilities will be included in the bridge design.

2.2.1 Prepare 65% Roadway Plans

Typically, the roadway plans will include the following sheets:

Title Sheet	Construction Staging
Typical Cross Sections	Construction Area Signs
Standard Plan Sheet	Traffic Handling
Layouts	Pavement Delineation
Profiles	Signs
Utility (if necessary)	Landscape Plan
Construction Details	Erosion control plan
Slope Protection Details	Quantities
Drainage Plans	Roadway Cross Sections and Earthwork Qtys
Drainage Profiles	
Drainage Qtys	



2.2.2 Prepare 65% Bridge Plans

Typically, the bridge plans will include the following sheets:

General Plan
Deck Contours
Foundation Plan
Abutment Details
Pier Details
Typical Section

Girder Layout
Girder Reinforcement
Bridge Railing Details
Approach Slab Details
Log-of-Test-Borings (Parikh)

2.3 SUBMIT 65% (UNCHECKED) PLANS

This submittal is progress submittal for County review. Caltrans typically will not review an HBRR project PS&E until the draft (checked) submittal. These plans will also be used internally for use in preparing the final specifications and final reports.

2.4 R/W & UTILITY COORDINATION

This task is a continuation of the utility notifications made in Phase 1.

2.4.1 Utility Verification Letters and Conflict Identification

BENGAL will write Utility Verification letters requesting final verification to clearly identify conflicts with the proposed design.

Deliverable:

- Bengal will provide reduced 65% plans to each Utility companies and coordinate utility relocation.

2.4.2 Utility Relocation Request

Bengal Engineering will coordinate any utility relocation to build the bridge and roadway approaches. The new bridge will have a variety of utility openings for existing or future utilities to cross the San Benito River at this location. Each company will be responsible for their utility relocation design.

2.4.3 Prepare R/W Appraisal (County task)

County Staff will perform valuation in accordance with the Uniform Standards of Professional Appraisal Practice and State and Federal Guidelines. County Appraisers will consider, as required, the partial taking nature (permanent and temporary easements) of the proposed acquisition, including affected improvements and address before and after taking concerns (severance damages, cost to cure, etc.) including:

- Review Right of Way Maps, Title Reports, Deed descriptions.
- Prepare and Mail "Notice of Decision to Appraise" as required.
- Meet with property owners and tenants as required.
- Perform market survey and analysis.
- Prepare Valuation Studies/Reports for project parcels.
- Field review appraisals with Prime Consultant representatives and Agency staff (if required).
- Provide Prime Consultant and Agency with copies of all appraisal reports.
- Liaison with project engineers and Agency staff as necessary.



2.5 PREPARE DRAFT PS&E

2.5.1 Prepare Final Bridge Plans

Perform bridge independent check

An engineer not otherwise involved in the original design of the bridge will independently check the bridge. The independent check will result in a set of calculations back checked and reconciled with the designer.

Incorporate comments from 65% review and independent check

The designer will reconcile with the checker, and incorporate design changes into the contract plans.

2.5.2 Prepare Final Roadway Plans

BENGAL will respond to, and incorporate where appropriate, comments from the 65% submittal review. The final plans will be prepared for use in estimating, specifications and permit applications.

2.5.3 Develop Erosion Control Plan

BENGAL will prepare a conceptual Erosion Control Plan based on current Caltrans requirements. The plan will include a discussion of erosion and sediment control measures to be used during construction and for post construction conditions. Best management practices for construction activities will also be addressed.

Deliverable:

- One (1) full size reproducible set (vellum) of the conceptual Erosion Control Plan
- BENGAL can assist the County in filing the Notice of Intent (NOI) for coverage under the State Water Resources Control Board general construction permit. Please let us know if you would like us to include this in our scope.

2.5.4 Prepare Construction Schedule

BENGAL will prepare the construction working day schedule. This schedule will be used for programming the construction phase of the project and for preparing the project special provisions.

2.5.5 Specifications / Special Provisions

BENGAL will prepare "Section 10" of the special provisions for the project, in Caltrans format. Standard County contract language will be incorporated into the special provisions. County will provide electronic "boilerplate" files for our use.

2.5.6 Perform Quantity Takeoffs and Calculations

BENGAL will prepare a set of quantity calculations for the bridge items. The roadway quantities will be calculated and summarized on Excel spreadsheets. The Engineers Estimate of cost will be developed from the bridge and roadway quantities.

2.6 SUBMIT DRAFT PS&E

The draft plans, specifications and estimate will be submitted to the County for review and comment. This set of PS&E can also be sent to Caltrans for their review and comments.



2.7 PREPARE FINAL PS&E

2.7.1 Update Contract Plans

BENGAL will update the project plans for appropriate comments from the draft PS&E review. BENGAL will prepare a memorandum to address the comments from the draft PS&E review.

2.7.2 Update Contract Specifications

BENGAL will incorporate appropriate comments from the draft PS&E review into the contract specifications.

2.7.3 Update Quantities and Estimate

BENGAL will update the quantities and estimate for appropriate comments from the draft PS&E review.

2.8 PREPARE FINAL REPORTS

2.8.1 Update Final Foundation Report

The BENGAL geotechnical engineer will finalize the Foundation Report and Log of Test Boring drawings, based on review comments from the bridge designer and the County. The geotechnical engineer will review and provide geotechnical sign-off of the Foundation Plan.

2.8.2 Finalize Record Monumentation Maps (if necessary)

The BENGAL team can record the monumentation maps and descriptions with the County.

2.8.3 R/W Acquisition (County Task)

TARVIN & Associates is available to assist the County during acquisition. The approach used during the negotiation and acquisition phase will be patterned after the methods and policies as employed by CALTRANS and other public agencies and will include the following activities.

- Field Review Appraisals
- Prepare Right of Way Contracts using formats approved in advance by the Agency
- Prepare Appraisal Summary Statements
- Review Deeds
- Submit Contracts and Offers to Owners/Attorneys using formats approved in advance by the Agency
- Meet with Owners/Tenants as required
- Prepare Parcel Settlement Memorandums
- Provide Project Progress Reports
- Clear Tenant/Lessee Interests as necessary
- Assist with Escrow Closure
- Liaison with Agency staff as required



2.8.4 Finalize Environmental Permitting

The bridge construction may affect wetlands or other jurisdictional waters that are under the jurisdiction of the Corps, Central Coast Region of the Regional Water Quality Control Board (RWQCB) and CDFG. Impacts to jurisdictional waters may require permits from the regulatory agencies, as described below (LSA will obtain the necessary permits including):

Nationwide Permit Verification (Clean Water Act, Section 404) The bridge construction will likely result in discharge of material into waters of the U.S. In the event this occurs, the project will require authorization from the Corps. It is likely that any discharge resulting from this project can be authorized using one or more Nationwide Permits (NWP). LSA will prepare a Preconstruction Notification (PCN) to submit to the Corps requesting verification that the project can be authorized using the specified NWP(s). The PCN includes a project description and other relevant information used by the Corps to evaluate the project. As part of the PCN submittal, LSA will also prepare a brief mitigation proposal to describe how the project will offset impacts to waters of the U.S. Detailed mitigation plans involving revegetation or restoration of habitat have not been included in this scope.

Water Quality Certification (Clean Water Act, Section 401) A Water Quality Certification may be required from the RWQCB for the bridge construction. LSA will prepare an application for Water Quality Certification that will include a project location map, design plans, and evidence of local CEQA approval (i.e., Mitigated Negative Declaration). A must be submitted with the application (to be provided by the County, amount to be determined).

Streambed Alteration Agreement (Fish and Game Code, Section 1601) The bridge construction will require notification of proposed streambed alteration to the CDFG. LSA will prepare a Notification of Streambed Alteration and Project Questionnaire, and include a project location map, design plans, and evidence of CEQA approval (i.e., Mitigated Negative Declaration) for submittal to CDFG. In addition, a processing fee (to be provided by the County, amount to be determined) must be included with the submittal. LSA will attend one field meeting with the CDFG biologist or warden, if necessary. Detailed mitigation plans involving revegetation or restoration of habitat have not been included in this scope. This task involves one (1) field meeting with agency staff to review permitting issues, etc.

2.8.5 Prepare RE PENDING File

BENGAL will assemble the RE Pending File with the 4-scale deck contours, the quantity calculations, engineers estimate, and designer notes to RE.

2.8.6 Prepare Surveyor's File

BENGAL will prepare the construction staking notes for the Surveyor's File.

2.9 SUBMIT FINAL PS&E

BENGAL will submit the final PS&E and support documents, reports and permits for advertisement, award and administration of the construction contract.

2.10 BID SUPPORT

The BENGAL Project Manager will attend a pre-bid meeting.

2.10.1 Respond to Inquiries

BENGAL will respond to bidder inquiries by phone or email.



2.10.2 Prepare Addenda

BENGAL will prepare addenda as requested by County.

2.10.3 Review/Recommend Award

BENGAL will assist in recommendation for award.

2.11 ASSUMPTIONS & EXCLUSIONS

Our cost proposal is based on the following:

1. Encroachment permits will be issued at no cost.
2. Habitat mitigation, Restoration, Public "Interpretation", SWPPP and all other plans not specifically named are excluded from our proposal.
3. Title reports will be provided by the County.
4. Proposed Surveying fees are aerial mapping and control.
5. Right of way appraisal and acquisition will be performed by the County.
6. We will have permission and adequate access to enter private lands, if necessary, to perform our work, and all permission will be obtained by County.
7. Construction management or our service during construction is excluded from this proposal.
8. Landscaping and special effort for architectural treatment are excluded from this proposal.
9. Roadway Alignment: Bengal Engineering will investigate 2-3 alignments in the level of effort necessary for CEQA. A single preferred alignment will be selected in the Geometric Approval Report, and will be developed in detailed design.



Bengal Engineering, LP
Civil, Bridge, Structural, Hydraulics, & Highway Engineers

3 TASK BREAKDOWN SUMMARY & RATES

3.1 TASK, RESOURCE ESTIMATE & FEE SUMMARY SPREADSHEETS

ATTACHMENT B
Payment Schedule

B-1. BILLING

Charges for services rendered pursuant to the terms and conditions of this contract shall be invoiced on the following basis: (check one)

- One month in arrears.
- Upon the complete performance of the services specified in Attachment A.
- The basis specified in paragraph B-4.

B-2. PAYMENT

Payment shall be made by COUNTY to CONTRACTOR at the address specified in paragraph 8 of this contract, net thirty (30) days from the invoice date.

B-3. COMPENSATION

COUNTY shall pay to CONTRACTOR: (check one)

- a total lump sum payment of \$ _____, or
- a total sum not to exceed \$ 243,340.29

for services rendered pursuant to the terms and conditions of this contract and pursuant to any special compensation terms specified in this attachment, Attachment B.

B-4. SPECIAL COMPENSATION TERMS: (check one)

- There are no additional terms of compensation.
- The following specific terms of compensation shall apply: (Specify)

The Contractor will submit requests for progress payments on a monthly basis. The County will review these requests, comparing them by task against estimated costs and percentage of the project that is completed as identified in Attachment B-1, which is attached hereto and incorporated herein by reference, and authorize payment consistent with the provisions of Attachment B-1.

Notwithstanding anything to the contrary in this agreement, and amount equal to ten (10%) of each monthly invoice submitted by the Contractor shall be withheld pending completion of all tasks set forth in Attachment B-1 and in a manner that is acceptable to the County. Upon such delivery and if Contractor is otherwise in full compliance with the terms of this agreement, the County shall promptly remit all withheld monies to the Contractor. If the Contractor completes and delivers all necessary environmental clearances in a manner satisfactory to the County, the County shall remit to the Consultant all monies retained for related tasks. The 10% withholding on all other tasks will not be released until full compliance with remaining tasks in a manner satisfactory to the County or upon issuance of construction authorization by Caltrans, whichever occurs first.

Attachment B-1



Bengal Engineering, LP
Civil, Bridge, Structural, Mechanical, & Highway Engineers

3.2 WAGE RATES

November, 2004

Bengal Engineering's Wage rates and Classification of Personnel

<u>Classification</u>	<u>Rate</u>
Project Manager	\$125/hr
Bridge Engineer	\$125/hr
Structural Engineer	\$125/hr
Geotechnical Engineer	\$125/hr
Civil Engineer	\$125/hr
Environmental Specialist	\$125/hr
Drafter/Technician	\$ 65/hr
Clerical	\$ 45/hr

Hourly rates will be increased 5% annually over the next two years.

Direct Costs

Travel	cost
Vehicle	\$ 0.35/mile
Reproduction/ Postage/	cost
Reimbursable Expenses	cost

PARIKH CONSULTANTS, INC.

FOUNDATION REPORT

8/13/04

Job No. 2396.04
 Client: San Benito County
 Task: Foundation Report
 Location: Hospital Road at San Benito River
 Project: Hospital Road Bridge

Permitting	Field	Laboratory	Analysis	Preliminary	Foundation	Design Review/
Unit Clear	Exploration	Testing		Recommendation Report	Report	Consultation

TYPE SELECTION RPT.

PERSONNEL	UNIT RATE	HOURS	TASK COSTS														
			Task 1.1	Task 1.2	Task 1.3	Task 1.4	Task 1.5	Task 1.6	Task 1.7	Task 1.8	Task 1.9	Task 1.10	Task 1.11				
1. Project Manager	66.49	37.0	1.0	66.49	1.0	66.49	1.0	66.49	8.0	531.92	12.0	797.88	12.0	797.88	2.0	132.98	
2. Proj. Sols Engineer	45.86	124.0	0.0	0.00	0.0	0.00	0.0	0.00	60.0	2750.00	24.0	1117.44	48.0	2234.88	2.0	91.72	
3. Staff Engineer	26.42	92.0	2.0	242.96	72.0	2186.54	0.0	0.00	42.0	1109.64	12.0	317.04	36.0	951.12			
4. Field Engineer	30.37	80.0	2.0	242.96	72.0	2186.54	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00			
5. Technician	33.65	72.0	2.0	242.96	72.0	2186.54	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00			
6. Drafter	26.42	44.0	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00			
DIRECT LABOR		449.0	16,679.09	9.0	309.45	73.0	2253.13	67.0	2272.53	100.0	3969.56	83.0	3167.06	113.0	4489.86	4.0	226.10

OVERHEAD + FRINGES: (130.00% of direct labor) 21,682.82

FIXED FEE (10% of labor + overhead + fringes) 3,836.19

OTHER DIRECT COSTS

1. Travel Mileage	\$0.320	500.0	160.00	100.0	32.00	400.0	128.00										
2. Mobil/Demob	\$208.00	4.0	832.00			4.0	832.00										
3. Drilling Costs (@ 100' 1@68KZ@5)	\$208.00	70.0	14560.00			70.0	14560.00										
4. Grouting of holes *	\$5.00	450	2300.00			450	2300.00										
5. Cone Penetration Tests	\$10.00	0.0	0.00			0	0.00										
6. Reproduction	100.00	1.0	200.00														
7. County Drilling Permits**	\$1.00	0.00	0.00			0.00											
8. Traffic Control/Barriers	\$500.00	0.0	0.00			0	0.00										
9. Handling charge 70%			1805.20				1282.00										

ML ESTONE SUBTOTALS

Total Through Type Selection Only	\$818.11	\$25,502.42	\$5,750.81	\$10,042.99	\$5,097.26	\$11,471.58	\$972.03
TOTAL THROUGH FINAL REPORT	\$80,011.39	\$2,055.30					

* The estimate for cement grout is about \$5.00 per foot of boring depth on the average.
 ** Includes Type Selection meeting in Sacramento.
 Drilling includes 4 borings to 100', 1 boring to 60' (wall) @ 5' (R-value). Due to sand/gravel material the borings take twice the time of normal drilling.

Avila & Associates Consulting Engineers, Inc.

Hospital Creek proposed bridge

	Estimated Hours	Cost
Task 1.0 Obtain and Review Project Documentation Review the following project information: a. Available degradation studies (Ayres, Golder and Mussetter) b. Available Floodplain studies (FEMA, 1991) c. Gravel mining operations (from San Benito County Planning Department) d. Hydrology Studies (FEMA, RMC, bridge studies - Nash Road, New 156, Union Road) <i>Assumptions:</i> Reports are public information and available <i>Deliverable:</i> None	4	\$620
Task 2.0 Field Review Bridge Reach Conduct one field review of the proposed bridge reach <i>Assumptions:</i> Access to the proposed bridge reach available <i>Deliverable:</i> None	8	\$1,240
Task 3.0 Estimate Hydrology Estimate discharge for Flood of Record, 50-year and 100-year <i>Assumptions:</i> Significant independent analysis unnecessary, past studies are adequate. <i>Deliverable:</i> Estimate of discharge to be incorporated in Technical memorandum to be provided under Task 11.0	6	\$930
Task 4.0 Provide Survey Request and Set up Hydraulic Model Shortly after a notice to proceed, provide Bengal Engineers with a survey request delineating the upstream and downstream limits of survey information as well as approximate lateral extent of required survey information necessary to create HEC-RAS hydraulic model. Set up HEC-RAS model from Survey Information. <i>Assumptions:</i> Survey information provided is adequate to model the reach. <i>Deliverable:</i> Model results incorporated in Technical memorandum to be provided under Task 11.0	18	\$2,790
Task 5.0 Run Hydraulic Model Run HEC-RAS model for 50-year, 100-year and flood of record discharges through the existing site and two alternative bridge lengths. <i>Assumptions:</i> None <i>Deliverable:</i> Water Surface Elevation and velocity estimates will be incorporated in Technical memorandum to be provided under Task 11.0	18	\$2,790
Task 6.0 Calibrate/Validate Hydraulic Model Calibrate/validate HEC-RAS model to known high water marks and discharge data <i>Assumptions:</i> Calibration/validation data available (high water marks) <i>Deliverable:</i> None	6	\$930
Task 7.0 Estimate Local Scour and Degradation Using the HEC-RAS output data, estimate local pier and contraction scour for up to two alternative bridge lengths. Estimate degradation caused by adjacent gravel mining operations. <i>Assumptions:</i> Degradation estimates will be straight line extrapolation using best available data if no numeric sediment transport models are available. <i>Deliverable:</i> Scour estimates will be incorporated in Technical memorandum to be provided under Task 11.0	20	\$3,100
Task 8.0 Estimate Lateral Channel Migration Using aerial photographs taken during different time periods, determine where the channel banks have been in the past and predict future channel migration. <i>Assumptions:</i> Lateral channel migration will use techniques established in NCHRP project 24-16, Methodology for predicting channel migration; aerial photographs for at least three time periods are available. <i>Deliverable:</i> Scour estimates will be incorporated in Technical memorandum to be provided under Task 11.0	18	\$2,790
Task 9.0 Location Hydraulic Study Using the HEC-RAS output data, complete items 3, 4, 5, 7 and 9 of the Floodplain Evaluation report <i>Assumptions:</i> No significant floodplain encroachment; if a significant encroachment into the floodplain is found, a separate task order will be necessary; No Letter of Map Revision (LOMR) will be required; if a LOMR is required, a separate task order will be necessary. <i>Deliverable:</i> Location Hydraulic Study to be included as an appendix in Technical memorandum to be provided under Task 11.0	12	\$1,860
Task 10.0 Prepare Draft Technical Report for comment Prepare draft technical Hydrology, Hydraulics and Scour Report <i>Assumptions:</i> One review of draft final report by Martin, Rivett and Olson; One telephone Conference Call <i>Deliverable:</i> 3 copies of Draft technical Memorandum (approximately 20 to 35 pages)	14	\$2,170
Task 11.0 Prepare Final Technical Report Prepare final technical Hydrology, Hydraulics and Scour Report <i>Assumptions:</i> One telephone Conference Call <i>Deliverable:</i> 6 copies of Final technical Memorandum (approximately 20 to 35 pages)	8	\$1,240
	132	\$20,460

Fee Summary	
Principal at	\$155 per hour
Direct cost markup	10 %
Direct Cost Estimated at	\$1,000
Total Cost	\$21,460

Hospital Road Bridge - List of Sub-consultants:

Sub Consultants	Specialty	Estimated Fee
Bill Mayer, Principal LSA Associates, Inc. 4200 Rocklin Road, Suite 11B Rocklin, CA 95677 Ph 916.630.4600 / Fax 916.630.4603 Bill.Mayer@lsa-assoc.com	Environmental	\$74,210.00
Ms. Cathy Avila, President Avila and Associates Consulting Engineers, Inc. 712 Bancroft Road #333 Walnut Creek, CA 94598 Tel: (925) 673-0549 Fax: (925) 673-0509 cavila@avilaassociates.com	Hydraulics/Hydrology	\$21,460.00
Gary Parikh Parikh Consultants Inc. 356 S. Milpitas Blvd. Milpitas, CA 95035 (408) 945-1011 gparikh@parikhnet.com	Geotechnical Engineering	\$62,055.30
Robert J. Reese, Owner REESE Water & Land Surveying Services Robert Reese 1970 Partridge Drive Santa Luis Obispo, CA 93405 Tel: (805) 543-5375 robertreese@sbcglobal.net	Surveying	\$5,000.00
Sundarash Begur Begur Consulting. 6350 Green Field Drive Gilroy, CA 95020 Tel: (408) 846-0616 gsundaresh@yahoo.com	Local Liaison	\$3,400.00
C&C Aerial Mapping 710 Fiero Ln. #24 San Luis Obispo, CA 93401 (805) 543-4307 aerial@best1.net	Aerial Mapping	\$17,800.00

(B)

ATTACHMENT C

General Terms and Conditions

C-1. INDEMNIFICATION.

CONTRACTOR and COUNTY each agree to indemnify, defend and save harmless the other party and the other party's officers and employees, from and against any and all claims and losses whatsoever arising out of, or in any way related to, the indemnifying party's performance under this contract, including, but not limited to, claims for property damage, personal injury, death, and any legal expenses (such as attorneys' fees, court costs, investigation costs, and experts' fees) incurred by the indemnitee in connection with such claims or losses. A party's "performance" includes the party's action or inaction and the action or inaction of that party's officers and employees.

C-2. GENERAL INSURANCE REQUIREMENTS.

Without limiting CONTRACTOR's duty to indemnify COUNTY, CONTRACTOR shall comply with the insurance coverage requirements set forth in the contract and in this attachment. Those insurance policies mandated by Paragraph C-3 shall satisfy the following requirements:

- (a) Each policy shall be issued by a company authorized by law to transact business in the State of California.
- (b) Each policy shall provide that COUNTY shall be given notice in writing at least thirty (30) days in advance of any change, cancellation, or nonrenewal thereof.
- (c) The comprehensive motor vehicle and comprehensive general liability policies shall each provide an endorsement naming the County of San Benito and its officers, agents and employees as additional insureds.
- (d) The required coverage shall be maintained in effect throughout the term of this contract.

CONTRACTOR shall require all subcontractors performing work under this contract to obtain substantially the identical insurance coverage required of CONTRACTOR pursuant to this agreement.

C-3. INSURANCE COVERAGE REQUIREMENTS.

If required by paragraph 5 of the contract, CONTRACTOR shall maintain the following insurance policies in full force and effect during the term of this contract:

- (a) Comprehensive general liability insurance. CONTRACTOR shall maintain comprehensive general liability insurance, covering all of CONTRACTOR's operations with a combined single limit of not less than the amount set out in paragraph 5 of this contract.
- (b) Professional liability insurance. CONTRACTOR shall maintain professional liability insurance with liability limits of not less than the amount set out in paragraph 5 of this contract.

- (c) Comprehensive motor vehicle liability insurance. CONTRACTOR shall maintain comprehensive motor vehicle insurance covering all motor vehicles (including owned, non-owned and hired) used in providing services under this contract, with a combined single limit of not less than the amount set out in Paragraph 5 of this contract.
- (d) Workers' compensation insurance. CONTRACTOR shall maintain a workers' compensation plan covering all of its employees as required by California Labor Code Section 3700, either through workers' compensation insurance issued by an insurance company or through a plan of self-insurance certified by the State Director of Industrial Relations. If CONTRACTOR elects to be self-insured, the certificate of insurance otherwise required by this contract shall be replaced with a consent to self-insure issued by the State Director of Industrial Relations.

C-4. CERTIFICATE OF INSURANCE.

Prior to the commencement of performance of services by CONTRACTOR and prior to any obligations of COUNTY, CONTRACTOR shall file certificates of insurance with COUNTY, showing that CONTRACTOR has in effect the insurance required by this contract. CONTRACTOR shall file a new or amended certificate promptly after any change is made in any insurance policy which would alter the information on the certificate then on file. In lieu of providing proof of insurance, CONTRACTOR may provide proof of self-insurance meeting requirements equivalent to those imposed herein. CONTRACTOR warrants that CONTRACTOR's self-insurance provides substantially the same protection to COUNTY as the insurance required herein. CONTRACTOR further agrees to notify COUNTY in the event any change in self-insurance occurs that would alter the obligations undertaken in this contract within thirty (30) days of such change.

C-5. RECORDS TO BE MAINTAINED.

CONTRACTOR shall keep and maintain accurate records of all costs incurred and all time expended for work under this contract. CONTRACTOR shall contractually require that all of CONTRACTOR's subcontractors performing work called for under this contract also keep and maintain such records. All such records, whether kept by CONTRACTOR or any subcontractor, shall be made available to COUNTY or its authorized representative, or officials of the State of California for review or audit during normal business hours, upon reasonable advance notice given by COUNTY, its authorized representative, or officials of the State of California.

C-6. RETENTION OF RECORDS.

CONTRACTOR shall maintain and preserve all records related to this contract for a period of three years from the close of the fiscal year in which final payment under this contract is made. CONTRACTOR shall also contractually require the maintenance of such records in the possession of any third party performing work related to this contract for the same period of time. Such records shall be retained beyond the three-year period, if any audit involving such records is then pending, until the audit findings are resolved. The obligation to insure the maintenance of the records beyond the initial three year period shall arise only if the COUNTY notifies CONTRACTOR of the commencement of an audit prior to the expiration of the three year period.

C-7. TITLE TO DOCUMENTS; COPYRIGHT.

All reports and other materials collected or produced by the CONTRACTOR or any subcontractor of CONTRACTOR shall, after completion and acceptance of the contract, become the property of COUNTY, and shall not be subject to any copyright claimed by the CONTRACTOR, subcontractor, or their agents or employees. CONTRACTOR may retain copies of all such materials exclusively for administrative purposes. Any use of completed or uncompleted documents for other projects by CONTRACTOR, any subcontractor, or any of their agents or employees, without the prior written consent of COUNTY is prohibited.

C-8. INDEPENDENT CONTRACTOR.

CONTRACTOR and its officers and employees, in the performance of this contract, are independent contractors in relation to COUNTY and not officers or employees of COUNTY. Nothing in this contract shall create any of the rights, powers, privileges or immunities of any officer or employee of COUNTY. CONTRACTOR shall be solely liable for all applicable taxes or benefits, including, but not limited to, federal and state income taxes, Social Security taxes, or ERISA retirement benefits, which taxes or benefits arise out of the performance of this contract. CONTRACTOR further represents to COUNTY that CONTRACTOR has no expectation of receiving any benefits incidental to employment.

C-9. CONFLICT OF INTEREST.

CONTRACTOR covenants that it presently has no interest and shall not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the services hereunder. CONTRACTOR further covenants that, in the performance of this contract, no subcontractor or person having such an interest shall be used or employed.

C-10. COMPLIANCE WITH APPLICABLE LAWS.

CONTRACTOR shall comply with all applicable federal, state and local laws now, or hereafter, in force, and with any applicable regulations, in performing the work and providing the services specified in this contract. This obligation includes, without limitation, the acquisition, and maintenance of any permits, licenses, or other entitlements necessary to perform the duties imposed expressly or impliedly under this contract.

C-11. NONDISCRIMINATION.

CONTRACTOR shall not discriminate in the employment of persons necessary to perform this contract on any legally impermissible basis, including on the basis of the race, color, national origin, ancestry, religion, age, sex, or disability of such person.

C-12. BANKRUPTCY.

CONTRACTOR shall immediately notify COUNTY in the event that CONTRACTOR ceases conducting business in the normal manner, becomes insolvent, makes a general assignment for the benefit of creditors, suffers or permits the appointment of a receiver for its business or assets, or avails itself of, or becomes subject to, any proceeding under the Federal Bankruptcy Act or any other statute of any state relating to insolvency or protection of the rights of creditors.

C-13. PROHIBITION AGAINST ASSIGNMENT AND DELEGATION OF DUTIES.

Except as specifically authorized herein, no rights under this contract may be assigned and no duties under this contract may be delegated by CONTRACTOR without the prior written consent of COUNTY, and any attempted assignment or delegation without such consent shall be void.

C-14. NEGOTIATED CONTRACT.

This contract has been arrived at through negotiation between the parties. Neither party is to be deemed the party which prepared this contract within the meaning of California Civil Code Section 1654.

C-15. SEVERABILITY.

Should any provision herein be found or deemed to be invalid, this contract shall be construed as not containing such provision, and all other provisions which are otherwise lawful shall remain in full force and effect. To this end, the provisions of this contract are declared to be severable.

C-16. ENTIRE CONTRACT.

This contract is the entire agreement of the parties. There are no understandings or agreements pertaining to this contract except as are expressly stated in writing in this contract or in any document attached hereto or incorporated herein by reference.

C-17. TIME IS OF THE ESSENCE.

Time is of the essence in the performance of this contract.

C-18. TERMINATION.

Either party may terminate this contract, with or without cause, at any time. In order to terminate this contract, the terminating party shall give advance written notice to the other party. The termination shall be effective no earlier than the expiration of the number of days specified in paragraph 6 of this contract. The termination notice shall be made as specified in paragraph C-19, below. In the event of termination, COUNTY shall pay CONTRACTOR for all work satisfactorily performed prior to the effective date of the termination.

C-19. NOTICES.

Notices to the parties in connection with the administration of this contract shall be given to the parties' contract administrator personally, by regular mail, or by facsimile transmission as more particularly specified in this paragraph. Notices will be deemed given on:

- (a) The day the notice is personally delivered to the contract administrator or the office of the party's contract administrator; or
- (b) Five days after the date the notice is deposited in the United States mail, addressed to a party's contract administrator as indicated in this contract, with first-class postage fully prepaid; or

- (c) On the day that the notice is transmitted by facsimile to a party's facsimile number specified in paragraph 8 of this contract, provided that an original of such notice is deposited in the United States mail, addressed to a party's contract administrator as indicated in this contract, on the same day as the facsimile transmission is made.

C-20. RESPONSIBILITY OF CONTRACT ADMINISTRATORS.

All matters concerning this contract which are within the responsibility of the parties shall be under the direction of, or shall be submitted to, the respective contract administrators or to the party's employee specified, in writing, by the contract administrator. A party may, in its sole discretion, change its designation of its contract administrator and shall promptly give written notice to the other party of any such change.

C-21. MATERIALITY.

The parties consider each and every term, covenant, and provision of this contract to be material and reasonable.

C-22. WAIVER.

Waiver by either party of a breach of any covenant of this contract will not be construed to be a continuing waiver of any subsequent breach. COUNTY's receipt of consideration with knowledge of CONTRACTOR's violation of a covenant does not waive its right to enforce any covenant of this contract. The parties shall not waive any provisions of this contract unless the waiver is in writing and signed by all parties.

C-23. AUTHORITY AND CAPACITY.

CONTRACTOR and CONTRACTOR's signatory each warrant and represent that each has full authority and capacity to enter into this contract.

C-24. BINDING ON SUCCESSORS.

All of the conditions, covenants and terms herein contained shall apply to, and bind, the heirs, successors, executors, administrators and assigns of CONTRACTOR. CONTRACTOR and all of CONTRACTOR's heirs, successors, executors, administrators, and assigns shall be jointly and severally liable under this contract.

C-25. CUMULATION OF REMEDIES.

All of the various rights, options, elections, powers and remedies of the parties shall be construed as cumulative, and no one of them exclusive of any other or of any other legal or equitable remedy which a party might otherwise have in the event of a breach or default of any condition, covenant or term by the other party. The exercise of any single right, option, election, power or remedy shall not, in any way, impair any other right, option, election, power or remedy until all duties and obligations imposed shall have been fully performed.

C-26. INDEPENDENT ADVICE.

Each party hereby represents and warrants that in executing this contract it does so with full knowledge of the rights and duties it may have with respect to the other. Each party also

represents and warrants that it has received independent legal advice from its attorney with respect to the matters set forth in this contract and the rights and duties arising out of this contract, or that such party willingly foregoes any such consultation.

C-27. NO RELIANCE ON REPRESENTATIONS.

Each party hereby represents and warrants that it is not relying, and has not relied, upon any representation or statement made by the other party with respect to the facts involved or its rights or duties. Each party understands and agrees that the facts relevant, or believed to be relevant to this contract may hereunder turn out to be other than, or different from the facts now known to such party as true, or believed by such party to be true. The parties expressly assume the risk of the facts turning out to be different and agree that this contract shall be effective in all respects and shall not be subject to rescission by reason of any such difference in facts.

C-28. REDUCTION OF CONSIDERATION.

CONTRACTOR agrees that COUNTY shall have the right to deduct from any payments specified in Attachment B any amount owed to COUNTY by CONTRACTOR as a result of any obligation arising prior to, or after, the execution of this contract. For purposes of this paragraph, obligations arising prior to, or after, the execution of this contract may include, without limitation, any property tax, secured or unsecured, which tax is in arrears. If COUNTY exercises the right to reduce the consideration specified in Attachment B, COUNTY, at the time of making a reduced payment, shall give CONTRACTOR notice of the amount of any off-set and the reason for the reduction.

C-29. COUNTERPARTS.

This contract may be executed in any number of counterparts, each of which so executed shall be deemed to be an original. The counterparts shall together constitute one contract.

END OF ATTACHMENT C.

ATTACHMENT D

Specific Terms and Conditions

D-1 State Labor Requirements.

Contractor shall comply with all state labor requirements that apply to public works projects, including, but not limited to, Labor Code Section 1770 et seq.

D-2 Cost Principles

The Contractor agrees that the Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq., and 49 CFR, Part 18 shall be used to determine the allowableness of individual items of cost.

D-3 Covenant Against Contingent Fees

- (a) The Contractor warrants that he/she has not employed or retained any company or person, other than a bona fide employee working for the Contractor, to solicit or secure this agreement, and that he/she has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or formation of this agreement. For breach or violation of this warranty, the County shall have the right to annul this agreement without liability, or at its discretion to deduct from the agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
- (b) A Covenant Against Contingent Fees/Contractor Certification, executed by a principal or authorized corporate official of the Contractor, is attached hereto and incorporated herein by reference as Attachment D-1.
- (c) A-Covenant-Against Contingent Fees/Local Agency Certification, executed by a principal administrative official of the County, is attached hereto and incorporated herein by reference as Attachment D-2.

D-4 Ownership of Documents

Tracings, plans, specifications, and maps prepared or obtained under the terms of this contract will be delivered to and become the property of the County, and basic survey notes and sketches, charts, computations, and other data prepared or obtained under this contract shall be made available to the County, upon request, without restriction or limitation on their use.

D-5 Subcontractors, Assignment and Transfer

- (a) The Contractor shall perform the work contemplated with resources available within its own organization and no portion of the work pertinent to the Agreement shall be subcontracted, assigned or transferred without written authorization by the County's

Contract Administrator, except that which is expressly identified in Attachment A and B to this contract, as depicted in the organizational chart attached hereto and incorporated herein by reference as Attachment D-3.

- (b) Any subcontract exceeding \$25,000 in cost, which is entered pursuant to this contract, shall contain all the provisions stipulated herein.
- (c) Any substitution of subcontractor must be approved in writing by the County's Contract Administrator.

D-6 Contractor's Endorsement on PS&E/Other Data

CONTRACTOR's responsible engineer shall sign all plans, specifications, estimates (PS&E) and engineering data furnished by him/her and where appropriate, indicate his/her registration number.

D-7 Disadvantaged Business Enterprise Considerations

Contractors must give consideration to DBE firms as specified in 23 CFR 172.5(e) and Appendix A to Part 26 of 49 CFR, in Exhibit 10-I. Evidence must be presented of "good faith" effort, when applicable.

D-8 Changes in Work

County reserves the right to direct changes in the scope of work reflected in Attachment A to this contract if such changes become desirable or necessary as the work progresses. Changes resulting in a significant increase in the scope of work will require amendment of this contract, with additional compensation based on County's acceptance of a proposal submitted by the Contractor that estimates the cost of the directed change. Credit for changes that result in a significant reduction in the scope of work shall be determined based on the costs itemized on Attachment B-1 to this contract and County's acceptance of a proposal submitted by the Contractor, that estimates the reduced cost of the directed change, and the total contract value shall be reduced by that amount.

D-9 Delays and Extensions

Contractor shall adhere to the schedule of work reflected in Attachment A-1 to this contract. Contractor shall not be responsible for delays in the schedule beyond its reasonable control. Upon notice by Contractor to County of such a delay, the schedule shall be extended for such period as County determines is reasonably necessary to overcome the effects of its delay. An extension in the schedule shall be the sole remedy for any such delay; Contractor shall not be entitled to additional compensation for any such delay.

D-10 Termination or Abandonment

Paragraph C-18 of Attachment C to this contract is void. The right to terminate this contract under this provision is in addition to and may be exercised without prejudice to any other right or remedy to which the terminating party may be entitled at law or under this contract.

- (a) Without Cause: County shall have the right to terminate this Contract without cause by giving 30 days prior written notice of intention to terminate pursuant to this provision, specifying the date of termination. In the event of termination under this paragraph, County shall pay to the Contractor that compensation earned to the date of termination. The payment of such compensation is subject to the restrictions on payment of compensation otherwise provided in this contract, and is conditioned upon receipt from the Contractor of any and all plans, specifications and estimates, and other documents, or drafts thereof, prepared by Contractor pursuant to this contract.
- (b) With Cause: This Agreement may be terminated by either party should the other party:
- (1) be adjudged a bankrupt, or
 - (2) become insolvent or have a receiver appointed, or
 - (3) make a general assignment for the benefit of creditors, or
 - (4) suffer any judgment which remains unsatisfied for 30 days, and which would substantively impair the ability of the judgment debtor to perform under this contract, or
 - (5) material breach of this contract.

For any of the occurrences except item (5), termination may be effected upon written notice by the terminating party specifying the date of the termination. Upon a material breach of the contract, the contract may be terminated following the failure of the defaulting party to remedy or take steps to remedy the breach to the satisfaction of the non-defaulting party within five days of written notice specifying the breach. If the breach is not remedied within that five day period, or, as to a breach that cannot reasonably be remedied within five days, if steps to remedy the breach are not taken within the five day period and thereafter diligently pursued to completion, the non-defaulting party may terminate the contract on further written notice specifying the date of termination.

D-11 Remedies

In the event Contractor is found to be in breach of this contract, Contractor shall reimburse County for all payments to date for work performed under this contract. Contractor shall be given credit for any and all completed, stamped and sealed plans, reports, specifications and estimates, and other documents which could be incorporated and used and not which do need to be recreated by any subsequent Contractor hired to complete the scope of work as defined in Attachment A. Credit shall be computed based upon estimated costs for tasks as identified in Attachment B-1..

D-12 Disputes

Disputes concerning a question of fact in connection with the work not settled by agreement between the parties shall be referred to a third party engineer at the discretion of the County. Contractor shall submit a detailed explanation of the basis of the dispute to County who shall forward it to a third party engineer of its choosing for review and comment. County shall consider the results of the third party review and notify Contractor of its findings in the dispute. Nothing in this clause shall impair the right of

Contractor to exercise any other remedy in the event Contractor disputes the findings of County regarding any disputes.

D-13 DISADVANTAGE BUSINESS ENTERPRISES PARTICIPATION REQUIREMENTS

A. Disadvantage Business Enterprise Participation Requirements and Regulations General

The DBE participation for this contract is 12 percent.

The Contractor shall carry out applicable requirements of 49 CFR, Part 26, of the Code of Federal Regulations, entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs," in the award and administration of DOT-assisted contracts. The regulations in their entirety are incorporated herein by reference. The Contractor shall not discriminate on the basis of race color, national origin or sex in the performance of this contract.

Noncompliance by the Contractor with the requirements of the regulations is a material breach of this contract and may result in termination of the contract or other such appropriate remedy as the [Local Agency] deems appropriate.

The Contractor shall include the following in each subcontract the Contractor signs with a subcontractor:

- (1) A subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract.
- (2) The subcontractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this contract.
- (3) Contractors shall include in their subcontracts, language providing the use of appropriate alternative dispute resolution mechanisms to resolve payment disputes.

B. Prompt Payment to DBE and NonDBE Contractors

The Contractor shall not be entitled to any payment for the work or material, unless it is performed or supplied by the listed subcontractors (DBE or nonDBE), or by the Contractor's own forces, pursuant to prior written authorization of the Contract Manager. This is the case even if other contract work is not completed and has not been accepted in conformance with the terms of the contract by the State.

C. Prompt Payment Progress Pay Retention to DBE and NonDBE Subcontractors

The Contractor shall return all moneys withheld in retention from the subcontractor within 30 days after receiving payment for work satisfactorily completed, even if other contract work is not completed and has not been accepted in conformance with the terms of the contract. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or subcontractor in the vent of a dispute involving

late payment or nonpayment to the Contractor or deficient subcontract performance or noncompliance by a subcontractor.

D. DBE and NonDBE Subcontractor Payment Record

The Contractor in addition to maintaining records showing the name and business address of each first tier subcontractor, shall also show the name and business address of every DBE subcontractor, DBE vendor of materials and if applicable, DBE trucking company, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all DBE firms. DBE prime contractors shall also show the date of work performed by their own forces along with the corresponding dollar value of work.

Upon completion of the contract, a summary of these records shall be prepared on Exhibit 17-F, "Final Report Utilization of Disadvantaged Businesses" of the LAPM and certified correct by the Contractor or the Contractor's authorized representative, and shall be furnished to the Contract Manager. The Exhibit shall be furnished to the Contract Manager with the final invoice. Failure to provide the summary of DBE payments with the final invoice will result in the invoice being in dispute until the report is received.

E. Penalty Assessed for Failure to Provide Subcontractor Payment Records

Ten Thousand Dollars (\$10,000) will be withheld from payment if Exhibit 17-F, "Final Report Utilization of Disadvantaged Businesses" of the LAPM is not submitted. The amount will be paid to the Contractor when the form is submitted.

F. DBE Substitutions or Additions

The Contractor may not substitute, or terminate for convenience a subcontractor, a supplier or--if applicable—a trucking company, listed in the original bid/proposal without the prior written approval of the Contract Manager. However, the Contractor may add a firm to perform work originally planned to be done by the Contractor's own forces.

The Contractor must make an adequate good faith effort to find another certified DBE subcontractor to substitute for the original DBE. The Contractor will be required to make good faith efforts to replace the original DBE subcontractor with another DBE subcontractor to the extend needed to meet the contract goal.

The requirement that DBEs must be certified by the bid opening date does not apply to DBE substitutions or additions after award of the contract. DBEs must be certified at the time of the substitution or addition.

Contractors shall submit requests for substitution in writing to the Contract Manager. Authorization to use other subcontractors or suppliers may be requested for the following reasons:

- (1) The listed DBE, after having has a reasonable opportunity to do so, fails or refuses to execute a written contract, when such written contract, based upon the general terms, conditions for this contract or on the terms of such subcontractor's or supplier's written bid, is presented by the Contractor.
- (2) The listed DBE becomes bankrupt or insolvent.
- (3) The listed DBE fails or refuses to perform the subcontract or furnish the listed materials.
- (4) The Contractor stipulated that a bond was a condition of executing a subcontract and the listed DBE subcontractor failed or refuses to meet the bond requirements of the contract.
- (5) The listed DBE was the result of an inadvertent clerical error. The Contractor must have asserted a claim of inadvertent clerical error in listing the subcontractor within two working days after the bid opening and copies of that notice to both the subcontractor he or she claims to have listed in error and intended subcontractor who had bid to the Contractor prior to bid/proposal opening.
- (6) The listed DBE was not licensed as required by the State of California Contractor's Licensing Board or failed to have the required permits or licenses as required by Federal, State or Local governmental jurisdictions.
- (7) The work performed by the listed subcontractor is substantially unsatisfactory and is not in substantial conformance with the scope of work to be performed, or the subcontractor is substantially delaying or disrupting the progress of the work.
- (8) When the listed DBE is ineligible to work on a public works project pursuant to Section 1777.1 or 1777.7 of the Labor Code.
- (9) When it is in the best interest of the Local Agency.

Prior to approval of the Contractor's request for substitution to the Contract Manager, the Contractor shall give notice in writing to the listed DBE subcontractor of the Contractor's request to substitute and the reasons for the request. The notice shall be served by certified or registered mail to the last known address of the subcontractor. The listed subcontractor who has been so notified, shall have five working days within which to submit written objections to the substitution to the Contract Manager. Failure to respond to a written objection shall constitute the listed subcontractor's consent to the substitution.

G. Termination of a DBE

In conformance with Federal DBE regulation Sections 26.53(f)(1) and 26.53(f)(2), Part 26, 49 CFR, the Contractor shall not:

- (1) Terminate for convenience a listed DBE subcontractor and then perform that work with its own forces (personnel), or those of an affiliate, unless the Contractor has received prior written authorization from the Contract Manager to perform work with other forces or to obtain materials from other sources.
- (2) If a DBE subcontractor is terminated or fails to complete its work for any reason, the Contractor will be required to make good faith efforts to replace the original DBE subcontractor with another DBE subcontractor to the extent needed to meet the contract goal.

H. **DBE Certification Status**

If a DBE subcontractor is decertified during the life of the contract, the decertified subcontractor shall notify the Contractor in writing with the date of decertification. If a subcontractor becomes a certified DBE during the life of the contract, the subcontractor shall notify the Contractor in writing with the date of certification.

I. **DBE Eligibility Toward Goal**

The dollar value of work performed by a DBE is credited/counted toward the goal only after the DBE has been paid.

Credit for Material or Supplies

Credit for materials or supplies purchased from DBEs will be as follows:

If the materials or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materials or supplies will count toward the DBE goal.

If the materials or supplies purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies will count toward the DBE goal.

Packagers, brokers, manufacturer's representatives, or other persons who arrange or expedite transactions are not DBE regular dealers within the meaning of this paragraph.

Credit for materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer will be limited to the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies, provided the fees are reasonable and not excessive as compared with fees charged for similar services.

D-14 Professional Standards

By submitting final designs, plans, specifications or estimates for approval by County, Contractor expressly represents that the designs, plans, specifications or estimates will be prepared by Contractor using due professional skill and care so that they will be accurate and adequate for construction of the

Project by an appropriately qualified contractor. Contractor shall be responsible to the County for the professional quality, adequacy, and completeness of the services, designs, plans and specifications provided, and guarantees the fitness and completeness of such services, designs, plans, specifications, and estimates for the purposes described in this Agreement. In addition to and without prejudice to other remedies available to the County, to the extent that one or more change orders are required under the construction contract or any subcontract for the Project due to the willful or negligent errors or omissions of Contractor, Contractor shall provide without further cost or charge to County additional services in connection with such change orders. Contractor shall perform the services provided in this Agreement in a manner consistent with the professional skill and care ordinarily exercised by members of the profession practicing in California under similar conditions and for similar purposes.

D-15 Indemnification

Paragraph C-1 of Attachment C to this contract is void. The following indemnification clause shall apply to this contract: CONTRACTOR and COUNTY each agree to indemnify, defend and save harmless the other party and the other party's officers and employees, from and against any and all claims and losses whatsoever arising out of, or in any way related to, the indemnifying party's performance under this contract, including, but not limited to, claims for property damage, personal injury, death and any legal expenses (such as attorneys' fees, court costs, investigation costs, and experts' fees) incurred by the indemnitee in connection with such claims or losses. A party's "performance" includes the party's negligence, errors, omissions, or intentional wrongdoing involving the party's action or inaction and the action or inaction of that party's officers and employees.

D-16 Records to be Maintained

In addition to requirements of paragraph C-5, CONTRACTOR shall make all records available to any duly authorized representative of the Federal Highway Administration.

COVENANT AGAINST CONTINGENT FEES:

CERTIFICATION OF CONSULTANT

I HEREBY CERTIFY that I am the MD WAHIDUZZAMAN and duly authorized representative of the firm of BENGL ENGINEERING whose address is 250 BIG SUR DR, CLETA, and that, except as hereby expressly stated, neither I nor the above firm that I represent have:

- (a) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above consultant) to solicit or secure this agreement; nor
- (b) agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the agreement; nor
- (c) paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above consultant) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out this agreement.

I acknowledge that this Certificate is to be made available to the California Department of Transportation (Caltrans) in connection with this agreement involving participation of Federal-aid Highway funds, and is subject to applicable State and Federal laws, both criminal and civil.

9/25/06

(Date)

Md. Wahiduzzaman

(Signature)

COVENANT AGAINST CONTINGENT FEES:

CERTIFICATION OF LOCAL AGENCY

I HEREBY CERTIFY that I am the _____ of the _____, and that the consulting firm of _____ or its representatives has not been required (except at herein expressly stated), directly or indirectly, as an express or implied condition in connection with obtaining or carrying out this Agreement to:

- (a) employ, retain, agree to employ or retain, any firm or person; or
- (b) pay or agree to pay, to any firm, person or organization, any fee, contribution, donation, or consideration of any kind.

I acknowledge that this Certificate is to be made available to the California Department of Transportation (Caltrans) in connection with this Agreement involving participation of Federal-aid Highway funds, and is subject to applicable State and Federal laws, both criminal and civil.

(Date)

(Signature)