

# TOWN OF FAIRFAX STAFF REPORT October 2, 2013

TO: Mayor and Town Council

FROM: Garrett Toy, Town Manager &

SUBJECT: Approve contract amendment with the California Infrastructure Consultancy for

preliminary engineering, community outreach, environmental, and design work for the

Meadow Way Bridge.

# **RECOMMENDATION**

Authorize the Town Manager to execute an amendment to the agreement with California Infrastructure Consultancy (CIC) for preliminary engineering, environmental, community outreach, and design work for the Meadow Way Bridge in an amount not to exceed \$140,000.

# **DISCUSSION**

On August 7<sup>th</sup> the Council considered the award of the contract to CIC. However, based on community input, the Council continued the item to September 2013 to consider a revised scope of work. At the September 2013 meeting, the Council agreed to continue the discussion regarding the Meadow Way Bridge to October, but approved the agreement with CIC to begin the scope of work for the Creek, Marin, Spruce, and Canyon Road bridges.

The revised Phase I scope of work for the Meadow Way Bridge (Bridge) indicates that a community workshop will be held before any assessments/studies are performed on the Bridge. The objective of the workshop will be to answer questions, gather input regarding assessment reports and studies to be conducted, and explore options for the repair or replacement of the Meadow Way Bridge. One of the residents submitted a list of alternatives and questions, on behalf of a group of neighbors (group), that they would like addressed at the workshop and by the Assessment Report to be completed. Staff also received emails from Meadow Way residents not part of that group of neighbors.

The group wants CIC to explore 10 alternative options and answer questions for every option. Staff does not believe this is an efficient use of CIC's time as some options and questions are just slight variations of one another. For example, exploring whether the existing bridge can be widened is the same both for vehicles and pedestrian access. However, staff has tried to summarize the alternatives and questions so that it can be addressed efficiently within the scope of work. Staff believes the core options are: 1) repair the existing wooden bridge, 2) replace the bridge with a one-lane wooden bridge, and 3) replace the bridge with a one lane concrete/steel bridge. CIC indicates it will do its best to explore options and answer questions with minimal field inspections (e.g., no structural testing or geotechnical studies). However, many of the responses may be general in nature because CIC is unable to collect the data necessary to prepare more specific answers.

For your reference, attached are the staff reports from August and September discussing the scope of work and process. It is important to consider that this contract only funds the Phase I scope of work. The objective of the Phase I work is to provide sufficient information and data, including input from the affected neighborhood, for the Council to decide how to proceed with Phase II. The information and data from Phase I is needed for the Council and community to make an informed decision regarding the Bridge.

AGENDA ITEM # 19

# **FISCAL IMPACT**

The project costs are included in the FY13-14 capital improvement budget.

# **ATTACHMENTS:**

Staff summary of alternatives and questions from neighborhood group
List of alternatives and questions from neighborhood group
Contract amendment and scope of work

# Summary of Meadow Way Neighborhood issues for the Community Workshop for the Meadow Way Bridge Project

# **ALTERNATIVE OPTIONS**

1. Retaining a wooden bridge

Evaluate repairs needed to maintain structural integrity in its current form and width including cost estimates, life cycle costs, and funding sources.

Explore if viable to replace portions of the existing structure with other materials such as replacing deck with concrete.

Evaluate ability to widen bridge using current structure including potential width.

2. Replace with a one-lane bridge that meets State/Federal bridge standards and reflects the character of the area.

Explore feasibility of replacing the current bridge with a wooden bridge.

Explore feasibility of replacing the current bridge with a concrete/steel bridge.

# **QUESTIONS TO BE ADDRESSED**

- A. Impacts to vegetation such as which trees will probably need to be removed.
- B. Compare options to one another.
- C. Impact to Meadow Way roadway approach to the bridge including potential impact to adjacent properties and parking.
- D. Estimated time of construction for above options and temporary bridge including the time period to work in the creek and proposed construction hours during the day.
- E. Construction impacts to residents for the above options including a temporary bridge.
- F. Measures to mitigate construction impacts.
- G. Need and location for a temporary bridge including size and length of time needed.
- H. Process for removing current creosote-laden bridge piles and other potential environmental issues.
- I. Material questions: For wooden structures, are materials available such that pressure-treated wood (or wood containing or coated with other toxic materials) will not be needed? Can pervious concrete on the deck be used?
- J. Describe level of bank stabilization work included as part of the project and impact to the creek.

From: abinik@comcast.net [mailto:abinik@comcast.net]

Sent: Wednesday, September 04, 2013 3:06 PM

To: Garrett Toy; Renee Goddard; Council Member Barbara Coler; Council Member David Weinsoff;

Council Member Larry Bragman; Mayor John Reed

Cc: nader tamannaie

Subject: feedback from Meadow Way neighbors re Meadow Way Bridge proposed contract

Dear Town Manager Toy:

Since the last regular Town Council meeting--as I promised--the Meadow Way neighbors have had one meeting amongst ourselves, as well as an ongoing flurry of exchanges of views via email. As a product of these discussions, we have come up with a list of 10 options (within 3 major categories) that appear to constitute the significant alternatives with regard to the future of the Meadow Way bridge. The scope of work for Phase 1 public outreach includes public "open house meeting 1"; its focus on the Meadow Way bridge will supposedly (according to the Scope document) "discuss the need for the project, its schedule, and construction measures minimizing inconvenience. Data assessing the condition of the bridge as well as design concepts will be presented to solicit public comment. The real benefits of the project to the neighbors, structural safety, reliability and creek stability, will be emphasized."

We neighbors believe that this upcoming meeting will be tremendously more fruitful if the consulting team is ready to discuss the above issues for all 10 options at that meeting, and further to answer-to the degree possible in advance of an engineering and environmental study having been done-the following questions that have already come up. We neighbors have been proactively "doing our homework" and thinking about these questions even before the study has begun; and the sooner we can receive even partial answers to our questions, the more we will be able to help direct the study toward those issues that are of most importance to our community. We hope-and anticipate-that this will provide a win/win/win outcome for the neighbors, the Town and the consultant.

We respectfully request assurances that the study's assessments and analysis of alternatives include each of those 10 alternative options (listed, in the attachment to this email, in order from options involving the least construction to those requiring the most construction), and request that the contract specifically require study of each of those options. In addition, we request that the contract specify that the CIC study is to answer-with as much specificity as possible-the list of questions that have arisen so far: (Perhaps both such lists-see attachment--can be made an Exhibit to the revised CIC Phase 1 contract.)

We would appreciate it if all available preliminary information from CIC regarding these 10 options and responses to our related questions be made available to us neighbors in written form and in layperson's language for our preliminary viewing at least 3 weeks prior to Open House Meeting! This will give us sufficient time to prepare our further questions and comments in advance of that meeting.

We would like to thank you, the Town Council and CIC for all of your anticipated patience and cooperation in providing us with the requested information within the suggested time frame.

Sincerely,

Alexander Binik (7 Meadow), on behalf of the Meadow Way Neighbors

- D. Residents have commented that the Canyon Rd bridge was built very quickly, with only a very-brief road closure. In the case of the Meadow Way bridge, for each option above, what length of construction time is anticipated (and will it be done entirely during one dry season, or might it stretch over into a second year)? Since the existence of listed endangered or threatened species (such as Coho salmon, steelhead and red legged frogs, with the occasional mountain lion) traveling the creek allows only limited work in the creek area, what are the months allowed for work in the creek?
- E. Likewise, how will the options differ re the likely amount and intensity of noise and/or vibration impacts? How are the different options likely to differ re construction measures needed to minimize inconvenience?
- F. For each option, will a temporary bridge be necessary during part or all of the construction? For how long? How long and how wide is this temporary bridge estimated to be? What is the <u>total width</u> for both the temporary bridge and the new permanent bridge being built?
- G. For each option, is it anticipated that some or all of the current creosote-laden bridge piles will need to be removed? If so, how can that be done so that the process of their removal prevents pollution of the air by heavy metals or other toxic substances?
- H. For those options involving additional wooden structures—at the surface and/or below—are materials available such that pressure-treated wood (or wood containing or coated with other toxic materials) will not be needed?
- I. For options 2(a) through 3(c), could *colored* concrete be used for all or part of the construction? What about pervious concrete (with the pavement surface ground down about ½\* to prevent surface raveling)?
- J. Re the criteria that might qualify as "exceptions", to permit a <u>one-lane</u> bridge—whether a variation of the current one or a new one (and whether all-concrete or part-wooden)—rather than a two-lane concrete bridge, is it correct that such things as impacts of the (construction) activity on the natural environment, as well as scenic, aesthetic, community and preservation impacts and the historical nature of the present bridge all may have bearing on what size and type of bridge may ultimately be allowed by CalTrans and the Federal government?
- K. The Project Scope of Services recognizes that the project will create <u>particularly</u> powerful impacts for those stakeholders who reside in the properties adjacent to the bridge. With regard to all these properties (and particularly #7, the living space of which is closer to the current bridge than any other and which has a very-steep creek embankment next to the house), how much difference in overall noise, construction dust and debris, congestion caused by construction vehicles, equipment and personnel, etc—will be entailed under each of these 10 options? In each case, what will be done to mitigate these impacts for the affected residents? What time of day is it anticipated that construction activities will begin and when will they end? What can be done to ensure that bank stabilization is not reduced? If, despite any efforts to prevent destabilization of the creek banks and/or private retaining walls, such negative impacts <u>do</u> occur (even if they do not manifest themselves overtly for 5 years or more), how is it proposed that the Town insure itself financially against the liability that would be incurred and propose to indemnify the property owners?

We neighbors realize that this is a rather extensive list of questions, but we believe your attention to them in the design of the study will provide us with the tools that would be most helpful in discerning just what kind of bridge most of us would prefer.

# AMENDMENT NO. 1 TO DESIGN PROFESSIONAL SERVICES AGREEMENT

T	his Amendme	nt No. 1 to Person	nal Services Ag	greement (this	"Amendment	t No. 1") is
entered in	nto as of	, 2013, by and	l between the T	OWN OF FA	IRFAX (the '	'Town'') and
<b>CALIFO</b>	RNIA INFRA	STRUCTURE C	ONSULTANC	Y (the "Consu	iltant"), with	reference to
the follow	wing facts:			•	•	

#### RECITALS

- A. Town and Consultant previously entered into that certain Design Professional Services Agreement dated as of September 4, 2013 (the "Agreement"). Capitalized terms used in this Amendment No. 1 shall have the meanings assigned to them in the Agreement.
  - B. The parties wish to modify the Agreement as provided more particularly below.

#### AGREEMENT

NOW THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, Town and Consultant hereby agree as follows:

- 1. The Agreement shall be increased by \$140,000.00 to a total not to exceed \$479,000 (Four Hundred Seventy Nine Thousand Dollars) for the work related the Meadow Way Bridge contained in Exhibit A to the Agreement.
- 2. Exhibit A to the Agreement shall include the attached Exhibit 1-A which will be the bridge options to be explored for the Meadow Way Bridge and the questions to be answered prior to the community workshop. If needed, the Consultant may conduct limited field inspections to collect data to develop responses to the questions.
- 3. Except as specifically modified herein, all of the other remaining provisions of the Contract shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, Town and Consultant have executed this Amendment No. 1 as of the date first written above.

"TOWN" TOWN OF FAIRFAX	"CONSULTANT" CALIFORNIA CONSULTANCY	INFRASTRUCTURE
By:	Ву:	
Name:	Name:	
Title:	Title:	

# Attachment AGENDA ITEM # 19

#### **EXHIBIT 1-A**

# Summary of Meadow Way Neighborhood issues for the Community Workshop for the Meadow Way Bridge Project

# **ALTERNATIVE OPTIONS**

1. Retaining a wooden bridge

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- I. Material questions: For wooden structures, are materials available such that pressure-treated wood (or wood containing or coated with other toxic materials) will not be needed? Can pervious concrete on the deck be used?
- J. Describe level of bank stabilization work included as part of the project and impact to the creek.

# TOWN OF FAIRFAX DESIGN PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT ("Agreement") is made and entered into this 4th day of Sept., 2013, by and between the Town of Fairfax (hereinafter referred to as the "TOWN") and California Infrastructure Consultancy, Inc. (hereafter referred to as "CONSULTANT").

IN CONSIDERATION of the covenants hereinafter set forth, the parties hereto agree as follows:

# ARTICLE 1 SCOPE OF SERVICES

# 1.1 Project Description

The Project is described as follows:

Preliminary engineering, environmental, community outreach, and design services for five bridges in Town as described in the attached CONSULTANT scope of work for Phase I. <u>CONSULTANT shall not provide the proposed services for the Meadow Way Bridge until receipt of a written notice to proceed and amendment to this Agreement to provide compensation for the services.</u>

# 1.2 Description of Services

CONSULTANT shall: Provide preliminary engineering, environmental, community outreach, and design services for five bridges as described in the TOWN's Request For Proposals, which is attached hereto as Exhibit "A" and incorporated herein by this reference, and in CONSULTANT's Proposal, which is attached hereto as Exhibit "B" and incorporated herein by this reference. In the event of any conflict between the terms of this Agreement and incorporated documents, the terms of this Agreement shall control. In the event of any conflict between Exhibits "A" and "B," the terms of Exhibit A shall control, except for the Phase I work described in Exhibit B. The proposed scope of work for the Meadow Way Bridge is included in the event the Agreement is amended to provide funding for work related to the Meadow Way Bridge.

# 1.3 Schedule of Work

Upon receipt of written Notice to Proceed from the TOWN, CONSULTANT shall perform with due diligence the services requested by the TOWN. CONSULTANT shall only proceed with the scope of work for the Creek Road Bridge and Marin, Spuce and

Canyon Road bridges. CONSULTANT shall not conduct any work for the Meadow Way Bridge until receipt of written notice to proceed and amendment to the Agreement to provide compensation for the services. Time is of the essence in this Agreement. CONSULTANT shall not be responsible for delay, nor shall CONSULTANT be responsible for damages or be in default or deemed to be in default by reason of strikes, lockouts, accidents, or acts of God, or the failure of TOWN to furnish timely information or to approve or disapprove CONSULTANT's work promptly, or delay or faulty performance by TOWN, other consultants/contractors, or governmental agencies, or any other delays beyond CONSULTANT's control or without CONSULTANT's fault.

# ARTICLE 2 COMPENSATION

# 2.1 Fee

TOWN agrees to compensate CONSULTANT an amount not to exceed Three Hundred Thirty Nine Thousand dollars (\$339,000) for services as described in Article 1. The compensation for the Meadow Way Bridge is not included in the fee.

# 2.2 Terms of Compensation

CONSULTANT shall submit monthly invoices for the percentage of work completed in the previous month. TOWN agrees to authorize payment for all undisputed invoice amounts within thirty (30) days of receipt of each invoice. TOWN agrees to use its best efforts to notify CONSULTANT of any disputed invoice amounts or claimed completion percentages within ten (10) days of the receipt of each invoice. However, TOWN's failure to timely notify CONSULTANT of a disputed amount or claimed completion percentage shall not be deemed a waiver of TOWN's right to challenge such amount or percentage.

Additionally, in the event TOWN fails to pay any undisputed amounts due CONSULTANT within forty-five (45) days after invoices are received by TOWN then TOWN agrees that CONSULTANT shall have the right to consider said default a total breach of this Agreement and be terminated by CONSULTANT without liability to CONSULTANT upon ten (10) working days advance written notice.

# 2.3 Additional Services

TOWN may request additional specified work under this Agreement. All such work must be authorized in writing by the Town's Director of Public Works or Town Manager prior to commencement. CONSULTANT shall perform such services, and TOWN shall pay for such additional services in accordance with CONSULTANT's Schedule of Hourly Rates, which is within Exhibit "B." The rates in Exhibit "B" shall be in effect through the end of this Agreement.

# 2.4 Term of Agreement

This Agreement shall commence on September 1, 2013 and shall terminate on September 1, 2014 unless sooner terminated pursuant to Article 4 of this Agreement. Additionally, there shall be an one (1)-year option to renew the Agreement with the mutual written consent of both parties.

# ARTICLE 3 INDEMNIFICATION AND INSURANCE

# 3.1 <u>Indemnification, Hold Harmless, and Duty to Defend</u>

- (a) Indemnity for Design Professional Services. In connection with its design professional services and to the maximum extent permitted by law, CONSULTANT shall hold harmless and indemnify TOWN, and its officials, officers, employees, agents and independent contractors serving in the role of TOWN officials, and designated volunteers (collectively, "Indemnitees"), with respect to any and all claims, demands, causes of action, damages, injuries, liabilities, losses, costs or expenses, including reimbursement of attorneys' fees and costs of defense (collectively, "Claims" hereinafter), including but not limited to Claims relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to in whole or in part to the negligence, recklessness, or willful misconduct of CONSULTANT or any of its officers, employees, subcontractors, or agents in the performance of its design professional services under this Agreement.
- (b) Other Indemnities. In connection with any and all claims, demands, causes of action, damages, injuries, liabilities, losses, costs or expenses, including attorneys' fees and costs of defense (collectively, "Damages" hereinafter) not covered by Section 3.1(a), and to the maximum extent permitted by law, CONSULTANT shall defend. hold harmless and indemnify the Indemnitees with respect to any and all Damages. including but not limited to, Damages relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to the acts or omissions of CONSULTANT or any of its officers, employees, subcontractors, or agents in the performance of this Agreement, except for such loss or damage arising from the sole negligence or willful misconduct of the TOWN, as determined by final arbitration or court decision or by the agreement of the parties. CONSULTANT shall defend Indemnitees in any action or actions filed in connection with any such Damages with counsel of TOWN's choice, and shall pay all costs and expenses, including all attorneys' fees and experts' costs actually incurred in connection with such defense. Consultant's duty to defend pursuant to this Section 3.1(b) shall apply independent of any prior, concurrent or subsequent misconduct, negligent acts, errors or omissions of Indemnitees.
- (c) All duties of CONSULTANT under Section 3.1 shall survive termination of this Agreement.

# 3.2 General Liability

CONSULTANT shall at all times during the term of the Agreement carry, maintain, and keep in full force and effect, a policy or policies of Commercial General Liability Insurance, with minimum limits of one million dollars (\$1,000,000) for each occurrence and two million dollars (\$2,000,000) general aggregate for bodily injury, death, loss or property damage for products or completed operations and any and all other activities undertaken by CONSULTANT in the performance of this Agreement. Said policy or policies shall be issued by an insurer admitted to do business in the State of California and rated in A.M. Best's Insurance Guide with a rating of A:VII or better.

# 3.3 Professional Liability

CONSULTANT shall at all times during the term of this Agreement, carry, maintain, and keep in full force and effect a policy or policies of professional liability insurance with a minimum limit of one million dollars (\$1,000,000) per claim and aggregate for errors and/or omissions of CONSULTANT in the performance of this Agreement. Said policy or policies shall be issued by an insurer admitted to do business in the State of California and rated in Best's Insurance Guide with a rating of A:VII or better. If a "claims made" policy is provided, such policy shall be maintained in effect from the date of performance of work or services on the TOWN's behalf until three (3) years after the date of work or services are accepted as completed. Coverage for the post-completion period may be provided by renewal or replacement of the policy for each of the three (3) years or by a three-year extended reporting period endorsement, which reinstates all limits for the extended reporting period. If any such policy and/or policies have a retroactive date, that date shall be no later than the date of first performance of work or services on behalf of the TOWN. Renewal or replacement policies shall not allow for any advancement of such retroactive date.

# 3.4 Automobile Liability

CONSULTANT shall at all times during the term of this Agreement obtain, maintain, and keep in full force and effect, a policy or policies of Automobile Liability Insurance, with minimum of one million dollars (\$1,000,000) per claim and occurrence and two million dollars (\$2,000,000) in the aggregate for bodily injuries or death of one person and five hundred thousand dollars (\$500,000) for property damage arising from one incident.

# 3.5 Worker's Compensation

CONSULTANT agrees to maintain in force at all times during the performance of work under this Agreement worker's compensation insurance as required by the law. CONSULTANT shall require any subcontractor similarly to provide such compensation insurance for their respective employees.

# 3.6 Notice of Cancellation

- (a) All insurance policies shall provide that the insurance coverage shall not be cancelled or modified by the insurance carrier without thirty (30) days prior written notice to TOWN, or ten (10) days notice if cancellation is due to nonpayment of premium. Additionally, CONSULTANT shall provide immediate notice to the TOWN if it receives a cancellation or policy revision notice from the insurer.
- (b) CONSULTANT agrees that it will not cancel or reduce any required insurance coverage. CONSULTANT agrees that if it does not keep the aforesaid insurance in full force and effect, TOWN may either immediately terminate this Agreement or, if insurance is available at a reasonable cost, TOWN may take out the necessary insurance and pay, at CONSULTANT's expense, the premium thereon.

# 3.7 Entire Policy and Certificate of Insurance

At all times during the term of this Agreement, CONSULTANT shall maintain on file with the Town Clerk both a copy of the entire policy and a certificate of insurance showing that the aforesaid policies are in effect in the required amounts. The commercial general liability policy shall contain endorsements naming the TOWN, its officers, agents and employees as additional insureds.

# 3.8 Primary Coverage

The insurance provided by CONSULTANT shall be primary to any coverage available to TOWN. The insurance policies (other than workers compensation and professional liability) shall include provisions for waiver of subrogation.

# ARTICLE 4 TERMINATION

# 4.1 Termination of Agreement

- (a) This Agreement may be terminated at any time, with or without cause, by the TOWN upon thirty (30) days prior written notice or by CONSULTANT upon ninety (90) days prior written notice. Notice shall be deemed served if completed in compliance with Section 6.14.
- (b) In the event of termination or cancellation of this Agreement by CONSULTANT or TOWN, due to no fault or failure of performance by CONSULTANT, CONSULTANT shall be paid compensation for all services performed by CONSULTANT, in an amount to be determined as follows: for work satisfactorily done in accordance with all of the terms and provisions of this Agreement as determined by the TOWN,

CONSULTANT shall be paid an amount equal to the percentage of services performed prior to the effective date of termination or cancellation in accordance with the work items; provided, in no event shall the amount of money paid under the foregoing provisions of this paragraph exceed the amount which would have been paid to CONSULTANT for the full performance of the services described in this Agreement.

# ARTICLE 5 OWNERSHIP OF DOCUMENTS

# 5.1 Ownership of Documents and Work Product

All final documents, plans, specifications, reports, information, data, exhibits, photographs, images, video files and media created or developed by CONSULTANT pursuant to this Agreement ("Written Products") shall be and remain the property of the TOWN without restriction or limitation upon its use, duplication or dissemination by the TOWN. All Written Products shall be considered "works made for hire," and all Written Products and any and all intellectual property rights arising from their creation, including, but not limited to, all copyrights and other proprietary rights, shall be and remain the property of the TOWN without restriction or limitation upon their use, duplication or dissemination by the TOWN. CONSULTANT shall not obtain or attempt to obtain copyright protection as to any Written Products.

CONSULTANT hereby assigns to the TOWN all ownership and any and all intellectual property rights to the Written Products that are not otherwise vested in the TOWN pursuant to the paragraph directly above this one.

CONSULTANT warrants and represents that it has secured all necessary licenses, consents or approvals to use any instrumentality, thing or component as to which any intellectual property right exists, including computer software, used in the rendering of the services and the production of all Written Products produced under this Agreement, and that the TOWN has full legal title to and the right to reproduce the Written Products. CONSULTANT shall defend, indemnify and hold the TOWN, and its elected officials, officers, employees, servants, attorneys, designated volunteers, and agents serving as independent contractors in the role of TOWN officials, harmless from any loss, claim or liability in any way related to a claim that TOWN's use of any of the Written Products is violating federal, state or local laws, or any contractual provisions, or any laws relating to trade names, licenses, franchises, copyrights, patents or other means of protecting intellectual property rights and/or interests in products or inventions. CONSULTANT shall bear all costs arising from the use of patented, copyrighted, trade secret or trademarked documents, materials, equipment, devices or processes in connection with its provision of the services and Written Products produced under this Agreement. In the event the use of any of the Written Products or other deliverables hereunder by the TOWN is held to constitute an infringement and the use of any of the same is enjoined, CONSULTANT, at its expense, shall: (a) secure for TOWN the right to continue using the Written Products

and other deliverables by suspension of any injunction, or by procuring a license or licenses for TOWN; or (b) modify the Written Products and other deliverables so that they become non-infringing while remaining in compliance with the requirements of this Agreement. This covenant shall survive the termination of this Agreement.

Upon termination, abandonment or suspension of the Project, the CONSULTANT shall deliver to the TOWN all Written Products and other deliverables related to the Project without additional cost or expense to the TOWN. If CONSULTANT prepares a document on a computer, CONSULTANT shall provide TOWN with said document both in a printed format and in an electronic format that is acceptable to the TOWN.

# ARTICLE 6 GENERAL PROVISIONS

# 6.1 Representation

The TOWN representative shall be the Director of Public Works or his or her designee, and CONSULTANT shall notify TOWN of CONSULTANT's designated representative. These individuals shall be the primary contact persons for the parties regarding performance of this Agreement.

# 6.2 Fair Employment Practices/Equal Opportunity Acts

In the performance of this Agreement, CONSULTANT shall comply with all applicable provisions of the California Fair Employment Practices Act (California Government Code Sections 12940-48), the applicable equal employment provisions of the Civil Rights Act of 1964 (42 U.S.C. 200e-217), and the Americans with Disabilities Act of 1990 (42 U.S.C. § 11200, et seq.).

# 6.3 Personnel

CONSULTANT represents that it has, or shall secure at its own expense, all personnel required to perform CONSULTANT's services under this Agreement. Any person who performs engineering services pursuant to this Agreement shall be licensed as a Civil Engineer by the State of California and in good standing. CONSULTANT shall make reasonable efforts to maintain the continuity of CONSULTANT's staff who are assigned to perform the services hereunder and shall obtain the approval of the Director of Public Works of all proposed staff members who will perform such services. CONSULTANT may associate with or employ associates or subcontractors in the performance of its services under this Agreement, but at all times shall CONSULTANT be responsible for its associates and subcontractors' services.

# 6.4 CONSULTANT's Representations

CONSULTANT represents, covenants and agrees that: a) CONSULTANT is licensed, qualified, and capable of furnishing the labor, materials, and expertise necessary to perform the services in accordance with the terms and conditions set forth in this Agreement; b) there are no obligations, commitments, or impediments of any kind that will limit or prevent CONSULTANT's full performance under this Agreement; c) to the extent required by the standard of practice, CONSULTANT has investigated and considered the scope of services performed, has carefully considered how the services should be performed, and understands the facilities, difficulties and restrictions attending performance of the services under this Agreement.

# 6.5 Conflicts of Interest

CONSULTANT agrees not to accept any employment or representation during the term of this Agreement or within twelve (12) months after completion of the work under this Agreement which is or may likely make CONSULTANT "financially interested" (as provided in California Government Code Sections 1090 and 87100) in any decisions made by TOWN on any matter in connection with which CONSULTANT has been retained pursuant to this Agreement.

# 6.6 Legal Action

- (a) Should either party to this Agreement bring legal action against the other, the validity, interpretation, and performance of this Agreement shall be controlled by and construed under the laws of the State of California, excluding California's choice of law rules. Venue for any such action relating to this Agreement shall be in the Los Angeles County Superior Court.
- (b) If any legal action or other proceeding, including action for declaratory relief, is brought for the enforcement of this Agreement or because of an alleged dispute, breach, default or misrepresentation in connection with this Agreement, the prevailing party shall be entitled to recover reasonable attorneys' fees, experts' fees, and other costs, in addition to any other relief to which the party may be entitled.
- (c) Should any legal action about a project between TOWN and a party other than CONSULTANT require the testimony of CONSULTANT when there is no allegation that CONSULTANT was negligent, TOWN shall compensate CONSULTANT for its testimony and preparation to testify at the hourly rates in effect at the time of such testimony.

# 6.7 Assignment

Neither this Agreement nor any part thereof shall be assigned by

CONSULTANT without the prior written consent of the TOWN. Any such purported assignment without written consent shall be null and void, and CONSULTANT shall hold harmless, defend and indemnify the TOWN and its officers, officials, employees, agents and representatives with respect to any claim, demand or action arising from any unauthorized assignment.

Notwithstanding the above, CONSULTANT may use the services of persons and entities not in CONSULTANT's direct employ, when it is appropriate and customary to do so. Such persons and entities include, but are not necessarily limited to, surveyors, specialized consultants, and testing laboratories. CONSULTANT's use of subcontractors for additional services shall not be unreasonably restricted by the TOWN provided CONSULTANT notifies the TOWN in advance.

# 6.8 Independent Contractor

CONSULTANT is and shall at all times remain, as to the TOWN, a wholly independent contractor. Neither the TOWN nor any of its agents shall have control over the conduct of CONSULTANT or any of the CONSULTANT's employees, except as herein set forth, and CONSULTANT is free to dispose of all portions of its time and activities which it is not obligated to devote to the TOWN in such a manner and to such persons. firms, or corporations as the CONSULTANT wishes except as expressly provided in this Agreement. CONSULTANT shall have no power to incur any debt, obligation, or liability on behalf of the TOWN or otherwise act on behalf of the TOWN as an agent. CONSULTANT shall not, at any time or in any manner, represent that it or any of its agents, servants or employees, are in any manner agents, servants or employees of TOWN. CONSULTANT agrees to pay all required taxes on amounts paid to CONSULTANT under this Agreement. and to indemnify and hold the TOWN harmless from any and all taxes, assessments, penalties, and interest asserted against the TOWN by reason of the independent contractor relationship created by this Agreement. CONSULTANT shall fully comply with the workers' compensation law regarding CONSULTANT and its employees. CONSULTANT further agrees to indemnify and hold the TOWN harmless from any failure of CONSULTANT to comply with applicable workers' compensation laws. The TOWN shall have the right to offset against the amount of any fees due to CONSULTANT under this Agreement any amount due to the TOWN from CONSULTANT as a result of its failure to promptly pay to the TOWN any reimbursement or indemnification arising under this Article.

# 6.9 Titles

The titles used in this Agreement are for general reference only and are not part of the Agreement.

# 6.10 Entire Agreement

This Agreement, including any other documents incorporated herein by

specific reference, represents the entire and integrated agreement between TOWN and CONSULTANT and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be modified or amended, or provisions or breach may be waived, only by subsequent written agreement signed by both parties.

# 6.11 Construction

In the event of any asserted ambiguity in, or dispute regarding the interpretation of any matter herein, the interpretation of this Agreement shall not be resolved by any rules of interpretation providing for interpretation against the party who causes the uncertainty to exist or against the party who drafted that portion of the Agreement.

# 6.12 Non-Waiver of Terms, Rights and Remedies

Waiver by either party of any one or more of the conditions of performance under this Agreement shall not be a waiver of any other condition of performance under this Agreement. In no event shall the making by the TOWN of any payment to CONSULTANT constitute or be construed as a waiver by the TOWN of any breach of covenant, or any default which may then exist on the part of CONSULTANT, and the making of any such payment by the TOWN shall in no way impair or prejudice any right or remedy available to the TOWN with regard to such breach or default.

# 6.13 <u>Severability</u>

If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement shall continue in full force and effect.

# 6.14 Notice

Except as otherwise required by law, any payment, notice or other communication authorized or required by this Agreement shall be in writing and shall be deemed received on (a) the day of delivery if delivered by hand or overnight courier service during CONSULTANT's or TOWN's regular business hours or (b) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or at such other address as one party may notify the other:

### To TOWN:

Responsible Person: Garrett Toy, Town Manager

Town of Fairfax 142 Bolinas Road . Fairfax, CA 94930

# To CONSULTANT:

Responsible Person: Address: Nader Tamannaie, principal 930 Alhambra Blvd, Suite 220

Sacramento, CA 95816

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date and year first above written.

Dated:	_ CALIFORNIA INFRASTRUCTURE CONSULTANCY
	("CONSULȚANT")
	By: Dul Dannie
	Printed Name: NAMER TAMANNAIE
	Title: PREIDENT
	Ву:
	Printed Name:
	Title:
Dated: ৭ 2 ১   13	TOWN OF FAIRFAX ("TOWN")
	By: Town Manager
APPROVED AS TO FORM:	T GWIT IVIAITAGG
By:	

# Exhibit "A": TOWN's Request For Proposals

# Exhibit "B": Consultant's Proposal and Schedule of Hourly Rates

The tasks in the overall Scope of Services, Exhibit 3, are modified for Phase 1 as follows.

#### TASK 1 - PROJECT MANAGEMENT AND ORGANIZATIONAL LOGISTICS

This will be the same as Tasks 1 in the overall Scope of Services (Exhibit 3), as it relates to the more limited Phase 1 services described below. While CIC does not intend to begin any field assessment work (Tasks 4-12) until after the first community workshop regarding the Meadow Way Bridge, the possibility exists that some field inspections will be needed to prepare for the workshop (e.g., pictures of the area, measurements). CIC intends to submit the overall project funding request for Meadow Way Bridge and BPMP early in the process in order to avoid delays at the end of Phase 1. However, CIC recognizes the evolving nature of the Meadow Way bridge project and that there may be a delay for funding between Phase I and Phase II as we work with the community and the Council to make a decision.

# **TASK 2 - ENVIRONMENTAL STUDIES AND PERMITS**

From Task 2 in Exhibit 3, attendance of the environmental leads at the Project Charter Meeting, Field Review meeting with Caltrans and the one public outreach workshop is included.

#### **TASK 3 - PUBLIC OUTREACH**

# Task 3.1 Targeted Communications and Small Group Meetings

Each bridge is likely to have a different list of key stakeholders depending on the work involved and the adjacent land uses. Meadow Way Bridge will be of interest to adjacent neighbors as well as Meadow Way residents for whom this is the only point of egress. Residents close to the bridges being rehabilitated will be informed of the nature of the work and their input will be requested to help identify mitigations to construction impacts. All bridges are likely to be of great interest to the bicycle and pedestrian advocates who would like to see safe crossings for non-motorized traffic integrated into the design.

In this task we will walk the area surrounding each of the bridges, making note of potentially affected businesses and residences, as well as identifying key stakeholders. The Fact Sheet (discussed below) will be sent to all residences and businesses within a half a mile of each of the Meadow Way Bridge and any of the three bridges in the BPMP project.

We will identify stakeholders and neighborhood groups around the Meadow Way Bridge as well as around the three bridges included in the BPMP. We will contact and meet with up to five of these groups, most likely at one of their regular meetings, explaining the projects, and gathering initial responses and concerns. This information will be brought back to the team in order to help shape the alternative designs, and to prepare responses for the Public Workshop and for the web site.

For the Meadow Way Bridge, we will implement a more intensive community outreach process. We will conduct a public outreach and workshop meeting will be held to solicit community feedback, questions, and input regarding assessment reports and studies to be conducted and the various options to explore regarding the repair or replacement of the Meadow Way bridge Based on input received from the public workshop, we will conduct an initial qualitative structural assessment of the bridge to collect information and data regarding the condition of the bridge both to answer questions raised at the workshop and develop options to address the bridge's condition. The conclusions of the Assessment Report will be used to evaluate options for the Meadow Way bridge including repair of the existing bridge, replacement of the bridge and lifecycle costs for both repair and replacement. The assessment will include cost estimates and available funding for options, including two replacement alternates. The

findings from the assessment reports and options will be discussed at another community workshop. Input received from that community meeting will be compiled in a report and presented to the Town Council along with findings from the assessment report and possible options to be considered.

#### Task 3.2 Public Information

Information for the general public will be developed in a number of formats and will be readily accessible to everyone in Fairfax, as well as to visitors and employees in Fairfax who may be interested in these bridges. It should be noted that these are general tasks which will be modified to best meet the needs of the specific project. For example, we may determine that the Fact Sheet for the Meadow Way Bridge would be best presented at the Community Workshop so we can answer questions or developed after the Workshop so we can address FAQ's. Our goal is to be flexible while keeping within budget. Our plan to reach people will include:

Web Site Development – We will develop and maintain a project website for the bridge program. All fact sheets and other information will be available for each bridge, as well as contact information and an opportunity to send immediate e-mail. Visitors to the website will be able to get on the mailing list for the project, get copies of all public documents, and make comments. To add interest to the site, we will add any historic photographs and other images we can find for the bridge projects. We will develop this as an independent site that is linked to the Town's webpage, using the same style and graphics to be a seamless as possible with the Fairfax web site. This technique minimizes the impact on the Town's web developers and allows the consulting team to make updates and get information on the site in real time:

Project Fact Sheets and Newsletters — We will prepare a project fact sheet for the Meadow Way Bridge and the BPMP early in the process, to be mailed to all addresses within a half mile of the projects. The Fact Sheet describes the history of the bridge, its current state of repair, the need for the project, and intended actions. A cover letter will provide information on the project, project funding, planned meetings, and an outline of the project schedule. Fact sheets will be updated and will be available at all project meetings, as well as on the web. Working with the Town, we will identify public sites such as libraries where fact sheets can be posted. We will also approach businesses that might have community postings to allow us to add project fact sheets to their bulletin boards.

Press Management – Our Outreach Coordinator will be the primary press contact for all comments on the project. However, we will work closely with the Town to ensure that the project message is correctly portrayed. As issues come up, we will work with the Town to refine the message that will be delivered through the press. We expect some press coverage of the public meeting for the Meadow Way Bridge project/BPMP. We will make certain that all visual material is developed with the level of clarity that can be presented in newspaper stories, etc. to make the job of reporting the facts as easy as possible.

Public Meetings – During this phase, we will conduct one Public Open House/Workshop, to present the BPMP to the public which may be combined with other planned meetings. The process for the Meadow Way Bridge is described in Task 3.1. The meeting is likely to include some type of presentation, with clear visual material, developed either on boards or in PowerPoint. There will be an opportunity for open house-style visiting to stations addressing individual issues on the project. These stations will be set up for interaction, making it easy for the public to voice concerns, understand trade-offs, and access the best person to address their question. There most likely will be a general session component of the meeting to allow all attendees to participate as a group as well as the potential for smaller break out groups. After the meeting, we will compile a list of "Frequently Asked Questions" which will be posted along with responses on the website.

The Bridge Preventive Maintenance Program (BPMP) will be the first part of the project to be addressed, then Meadow Way Bridge. Public input will be gathered, with multiple means of contact with the team provided, including written comments gathered on comment cards at the meetings, email, paper mail, and phone contacts. Meetings would be held in a convenient location in Fairfax, most likely the Fairfax Women's Club or a similarly suitable space.

We will develop an interactive meeting plan that will be designed to get meaningful public feedback about the alternatives in a workshop setting. Information gathered from the public meeting may be used to refine any of the initial designs and will be used to select a preferred alternative, which will be presented to the public at Commission and Council meetings in Phase 2 of the project. The preferred alternative will address the ideas and concerns raised by the public at the meeting, as well as feedback obtained throughout the outreach process.

# TASK 4 - TOPOGRAPHIC MAPPING, AERIAL PHOTOGRAMMETRY, SURVEYS AND ROW BASE MAPPING

Chaudhary will perform Task 4.1 (Field and Aerial Mapping), as well as Task 4.2 (Right-of-Way Base Maps) per the overall Scope of Services (Exhibit 3) for Meadow Way Bridge.

# TASK 5 - GEOTECHNICAL INVESTIGATION AND PAVEMENT DESIGN

Miller Pacific will perform Tasks 5.4 (Geotechnical Design Report for Meadow Way Bridge) in the overall Scope of Services (Exhibit 3) and provide a preliminary geotechnical memo for this bridge. Miller pacific will also perform Task 5.5 (Geotechnical Consultation for BPMP for Bridges on Canyon, Marin and Spruce Roads) and provide a letter report with recommendations.

### **TASK 6 - UTILITY INVESTIGATIONS AND COORDINATION**

CIC will begin inventorying the utilities in and around the structures at Meadow Way and Canyon, Marin and Spruce Roads and plan the improvements around them, whether they will be protected in place or relocated.

# **TASK 7 - STREAM HYDROLOGIC AND HYDRAULIC ANALYSIS**

This task is not applicable in this phase.

### **TASK 8 - STREAM GEOMORPHOLOGY**

This task is not applicable in this phase for Meadow Way. However, Geomorph will attend field meetings with the design team for the bridges in BPMP and perform Task 8.1 of Exhibit 3 (Design, Permitting, and Implementation Support for BPMP).

#### **TASK 9 - TRAFFIC ANALYSIS**

Parisi Transportation Services will attend the project Charter Meeting as well as one public outreach workshop as part of its overall scope in Exhibit 3 and provide input.

### **TASK 10 - CIVIL AND STRUCTURAL DESIGN**

For BPMP, Task 10-1.1 of Exhibit 3 (Phase 1 BPMP Design), except the preparation of APE Map, will be included.

For Meadow Way Bridge, produce a qualitative Structural Assessment Report, as well as portions of Task 10-2.1 (30% Design Submittal) from Exhibit 3, as follows. The Structural Assessment Report will evaluate the condition of the existing bridge, including its foundations, superstructure, seismic condition, bridge

scour and bank erosion, fire truck weight and other loading issues, and flood and fish passage. Instead of the 30% Design submittal in this task, the Phase 1 engineering deliverable target will be a 15%-20% product. The tasks from 10-2.1 will include: Preliminary APE Map and Field review, Preliminary Roadway Geometrics, Design Exceptions, Structural Aesthetic Features and Bridge Advance Planning Studies. If bridge replacement becomes the preferred alternate by the Town, MacDonald Architects will coordinate with the project's bridge engineers in conceptualizing the design of a new Meadow Way Bridge and all of its related architectural amenities. Design concepts will reflect input from the community workshops. Up to two viable bridge types will be presented and the most suitable bridge recommended. A combined meeting for Bridge Type Selection and Bridge Retrofit Strategy (Creek Road) will be held. If needed, MacDonald Architects can also provide design guidance for any bridge retrofit program.

#### **TASK 11 - BIDDING ASSISTANCE**

This task is not applicable in this phase.

#### TASK 12 - SERVICES DURING CONSTRUCTION

This task is not applicable in this phase.

Fees – The fees requested for the work outlined in this Scope of Services, the work for some of which references Exhibit 3, are \$140,000 and \$89,140 for Meadow Way Bridge and BPMP, respectively. It is noted that the cost of preparing the Structural Assessment Report for Meadow way Bridge, or \$10,520 has been deferred to the next phase of the project.



The tasks in the overall Scope of Services, Exhibit 3, are modified for Phase 1 as follows.

# TASK 1 - PROJECT MANAGEMENT AND ORGANIZATIONAL LOGISTICS

This will the same as Tasks 1 in the overall Scope of Services (Exhibit 3), as it relates to the more limited Phase 1 services described below. In addition, CIC will submit the overall project funding request for Creek Road Bridge early in the process in order to avoid delay and stoppage at the end of Phase 1.

#### **TASK 2 - ENVIRONMENTAL STUDIES AND PERMITS**

From Task 2 in Exhibit 3, attendance of the environmental leads at the Project Charter Meeting, Field Review meeting with Caltrans and the one public outreach workshop is included. In addition, Kelly Biological Consulting and WRA will be assisting the geotechnical engineering subconsultant, Miller Pacific, with acquiring a permit to drill an exploratory boring for the bridge in San Anselmo Creek. The scope and fees include separate biological studies by the two subconsultants and \$4,800 in permit fees to secure permits from the resource agencies.

#### **TASK 3 - PUBLIC OUTREACH**

# Task 3.1 Targeted Communications and Small Group Meetings

Creek Road Bridge, built in 1929, was closed for several years after a washout in 2005. Although reopened at present, the bridge is eligible for seismic retrofit, and may ultimately be eligible for replacement, should it be determined that it is more cost-effective. Through outreach such as community workshops we will collect the views of the nearby residents and other concerned groups, and then in combination with the engineering studies and determinations, will arrive at a recommended option for Council consideration

The retrofit of the Creek Road Bridge will concern neighbors directly adjacent, but will also affect those on Dominga Avenue and Forrest Avenue. Residents close to bridges being rehabilitated will be informed of the nature of the work and will be asked to help identify mitigations to construction impacts at the community workshop. All bridges are likely to be of great interest to bicycle and pedestrian advocates who would like to see safe crossings for non-motorized traffic integrated into the design.

Our work plan for Creek Road Bridge includes walking the area surrounding each of the bridges, making note of potentially affected businesses and residences, as well as identifying key stakeholders. The Fact Sheet (discussed below) will be sent to all residences and businesses within a half a mile of Creek Road Bridge.

We will identify stakeholders and neighborhood groups around the Creek Road Bridge. We will contact and meet with up to five of these groups, most likely at one of their regular meetings, explaining the project and gathering initial responses and concerns. This information will be brought back to the team in order to help shape the alternative designs, and to prepare responses for the Public Workshop and for the web site.

#### Task 3.2 Public Information

Information for the general public will be developed in a number of formats and will be readily accessible to everyone in Fairfax, as well as to visitors and employees in Fairfax who may be interested in these bridges. Our plan to reach people will include:



### EXHIBIT 2 - PHASE 1 CREEK ROAD SCOPE OF SERVICES

Web Site Development — We will develop and maintain a project website for the bridge program. All fact sheets and other information will be available for each bridge, as well as contact information and an opportunity to send immediate e-mail. Visitors to the website will be able to get on the mailing list for the project, get copies of all public documents, and make comments. To add interest to the site, we will add any historic photographs and other images we can find for the bridge projects. We will develop this as an independent site that is linked to the Town's webpage, using the same style and graphics to be a seamless as possible with the Fairfax web site. This technique minimizes the impact on the Town's web developers and allows the consulting team to make updates and get information on the site in real time.

Project Fact Sheets and Newsletters – We will prepare a project fact sheet for the Creek Road Bridge early in the process, to be mailed to all addresses within a half mile of the projects. The Fact Sheet describes the history of the bridge, its current state of repair, the need for the project, and intended actions. A cover letter will provide information on the project, project funding, planned meetings, and an outline of the project schedule. Fact sheets will be updated and will be available at all project meetings, as well as on the web. Working with the Town, we will identify public sites such as libraries where fact sheets can be posted. We will also approach businesses that might have community postings to allow us to add project fact sheets to their bulletin boards.

Press Management – Our Outreach Coordinator will be the primary press contact for all comments on the project. However, we will work closely with the Town to ensure that the project message is correctly portrayed. As issues come up, we will work with the Town to refine the message that will be delivered through the press. We expect some press coverage of the public meeting for the Creek Road Bridge project. We will make certain that all visual material is developed with the level of clarity that can be presented in newspaper stories, etc. to make the job of reporting the facts as easy as possible.

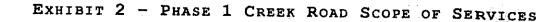
Public Meetings – During Phase 1, we will conduct one Public Open House/Workshop, to present the preliminary alternatives for the Creek Road Bridge. The meeting is likely to include some type of presentation, with clear visual material, developed either on boards or in PowerPoint. There will be an opportunity for open house-style visiting to stations addressing individual issues on the project. These stations will be set up for interaction, making it easy for the public to voice concerns, understand tradeoffs, and access the best person to address their question. After the meeting, we will compile a list of "Frequently Asked Questions" which will be posted along with responses on the website.

Public input will be gathered, with multiple means of contact with the team provided, including written comments gathered on comment cards at the meetings, email, paper mail, and phone contacts. Meetings would be held in a convenient location in Fairfax, most likely the Fairfax Women's Club or a similarly suitable space.

We will develop an interactive meeting plan that will be designed to get meaningful public feedback about the alternatives in a workshop setting. Information gathered from the public meeting may be used to refine any of the initial designs and will be used to select a preferred alternative, which will be presented to the public at Commission and Council meetings in Phase 2. The preferred alternative will address the ideas and concerns raised by the public at the meeting, as well as feedback obtained throughout the outreach process.

# TASK 4 - TOPOGRAPHIC MAPPING, AERIAL PHOTOGRAMMETRY, SURVEYS AND ROW BASE MAPPING

Chaudhary will perform Task 4.1 (Field and Aerial Mapping), as well as Task 4.2 (Right-of-Way Base Maps) per the overall Scope of Services (Exhibit 3) for Creek Road Bridge.





# **TASK 5 - GEOTECHNICAL INVESTIGATION AND PAVEMENT DESIGN**

Miller Pacific will perform Tasks 5.5 (Geotechnical Design Report for Seismic Retrofit of Creek Road Bridge) in the overall Scope of Services (Exhibit 3) and provide a geotechnical memo for this bridge with preliminary foundation design recommendations.

# **TASK 6 - UTILITY INVESTIGATIONS AND COORDINATION**

CIC will begin inventorying the utilities in and around the structure at Creek Road and plan the improvements around them, whether they will be protected in place or relocated.

# TASK 7 - STREAM HYDROLOGIC AND HYDRAULIC ANALYSIS

This task is not applicable in this phase.

#### **TASK 8 - STREAM GEOMORPHOLOGY**

This task is not applicable in this phase.

#### **TASK 9 - TRAFFIC ANALYSIS**

Parisi Transportation Services will attend the project Charter Meeting as well as one public outreach workshop as part of its overall scope in Exhibit 3 and provide input.

#### TASK 10 - CIVIL AND STRUCTURAL DESIGN

All applicable activities for Creek Road Bridge in Task 10-2.1 (30% Design Submittal) of Exhibit 3 will be performed. A combined meeting for Bridge Retrofit Strategy and Bridge Type Selection (Meadow Way) will be held.

#### **TASK 11 - BIDDING ASSISTANCE**

This task is not applicable in this phase.

#### **TASK 12 - SERVICES DURING CONSTRUCTION**

This task is not applicable in this phase.

Fees – The fees requested for the work outlined in this Scope of Services, the work for some of which references Exhibit 3, is \$246,850.



#### TASK 1 - PROJECT MANAGEMENT AND ORGANIZATIONAL LOGISTICS

Task 1.1 Project Management and Organization — The Project, including a bridge to be replaced or repaired (this scope of work is based on the replacement scenario since that scope is more labor intensive, but CIC recognizes that the Town has yet to determine which option to pursue), one bridge seismically retrofitted, and three structures slated for preventive maintenance, will be begin concurrently. The scope of work below does not necessarily reflect the order of work. The schedule presented in this proposal shows the chronology of the events. We have divided the work scope for the PE phase into 10 major Tasks, with subtasks, essential to the running of the project. Services during bid and construction add two additional Tasks to this scope. The deliverables have been shown in a complete matrix at the end of this scope of services. CIC-MGE JV will provide a complete, turnkey handling of the project and will be available to not only fulfill its technical requirements, but assist the Town with its administrative tasks. At the outset, CIC-MGE will produce the Project Instructions Manual (PIM), spelling out the details of our proactive project management plan with activities that cover, but are not limited to, the following:

Project Charter Meeting. Hold a comprehensive project kick-off meeting, including a NEPA/CEQA Workshop

Project Team Meetings. Hold on a regular basis; provide agenda, to do list, issues, actions and deadlines

Project Delivery. Proceed with Project Manager as the single point of contact for delivery, schedule and budget

Correspondence. Maintain organized electronic and had copy files for turning over to Fairfax at the end

External Presentations. Strategize events with Fairfax, prepare, designate presenters and run events smoothly

Change Management. Anticipate project change in advance, evaluate its ramifications and adapt to it

Quality Assurance and Quality Control. Implement the independent check, Senior Review, constructability review, as well as QA/QC by subconsultants

Invoicing. Invoice monthly, regularly and accurately so that Fairfax can invoice Caltrans for proper cash flow

Turnkey Assistance of Fairfax with Project Administrative Tasks. Prepare supplemental funding applications; assist with Caltrans invoicing, Caltrans Status Reports, and utility and ROW certifications; and debrief Public Works on various issues.

Task 1.2 Initial Field Activities - Upon the Notice to Proceed, CIC-MGE will begin scheduling the initial field activities necessary to move forward, such as mapping, aerial photogrammetry, field surveys, ROW research and geotechnical investigations. These activities are described in detail in Task 10 of this scope of services.

Task 1.3 Site Review and Research Data – A site review of the five bridges in the Town's program will be an early order of business. Photos and notes will be taken. Items to be researched for use by the subconsultant are listed with the specific scope of their work in this proposal. Field observations include:

- Document all problems with the 4 bridges other than Meadow Way Bridge through notes and sketches and
  photographs. Elements inspected on the 4 bridges being repaired as preventive maintenance measures will
  include the primary structural systems, such as beams, decks and supports; distressed concrete; expansion
  joints; deck soffit; deck asphalt concrete (AC); bearings; piers and abutments; sidewalks and curbs; approach
  roadways and slabs; safe truck load signage; deck and approach road drainage; embankment erosion and
  other items not listed in Bridge Inspection Reports (BIRs), or the Town RFP. For Creek Road Bridge all
  dimensions will be field-measured.
- Inspect Meadow Way Bridge and the other four bridges in the project, for such issues as access, residential traffic patterns and utilities carried by each bridge.
- Look for birds' nests; document the animal species around the bridges; note schools, parks, historic sites, residences and businesses adjacent or close to each site.

### **TASK 2 - ENVIRONMENTAL STUDIES AND PERMITS**

In general, to maintain cost efficiency during the environmental studies, it is assumed that all three project components, Meadow Way, Creek Road and BPMP, will proceed concurrently. Economy of scale is reflected in the budget for Task 2. If the components became separate, additional budgets may need to be negotiated. We have



included the current permit application fees for the various agencies in our budget proposal submitted separately. The environmental staff will attend three public meetings and conduct a workshop at the Charter Meeting.

Task 2.1 Caltrans Field Review and Preliminary Environmental Study (PES) Form - Kelly Biological Consulting (Kelly) will prepare a separate PES form for each of the three separate project components (Creek Road Bridge, Meadow Way Bridge, and BPMP). Kelly will attend tow Field Review meetings with the Town, Caltrans, and other key personnel and up to a total of three additional meetings for the three project components.

Task 2.2 Biological Studies Including Wetlands - Kelly will prepare a Natural Environment Study (NES) report for Creek Road, Meadow Way, and the BPMP based on existing resource information and field surveys. The reports will include measures to avoid and minimize potential impacts to the biological resources and address the biological components of NEPA and the Migratory Bird Act requirements. The field studies to be conducted are Special-Status Plant Habitat Assessment, Plant Community Characterization and Mapping, Noxious Weed Survey, Wetland Delineation, Special-Status Wildlife Habitat Assessment, Fish Habitat Assessment and Biological Assessment, and Essential Fish Habitat Evaluation. Kelly will coordinate with California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), NOAA Fisheries (NMFS), and Caltrans biologists. Kelly will prepare one draft version of the studies for each project for review and revise and finalize the draft reports once, based on the comments received and provide the Town and Caltrans.

Wetland and Related Permitting - Kelly will assist Fairfax with obtaining the required resources agencies permits. Creek Road, Meadow Way, and the BPMP will each be permitted independently. Permits will also be obtained for the geotechnical engineer to perform drilling in the creek bed at Creek Road. Permit applications will be prepared in the Joint Aquatic Resource Permit Application (JARPA) format. Kelly will prepare a draft version of the permit applications for each project for one review by the Town and Caltrans and revise and finalize the draft plans once based on the comments received and provide the Town and Caltrans.

Section 404 of the Clean Water Act (CWA) Permit. Kelly will prepare one Pre-Construction Notification (PCN) for the CORPS authorization under Nationwide Permit 14 and 33 for each of the three projects and, if needed, for the Creek Road drilling. The PCNs will include a copy of the delineation of waters of the United States. It is assumed that a nationwide permit will be sufficient for each project, but if the CORP determines that an individual permit is needed, additional scope of work and budget will be necessary. The permits will likely require a conceptual mitigation (restoration) plan, which will be prepared in draft version for each project for one review by the Town and Caltrans. Kelly will finalize the draft plans once, based on the comments received.

Section 401 CWA Certification. A Section 401 Water Quality Certification application package, submitted to the San Francisco Bay RWQCB for the project, will be prepared for or each of the three projects and, if needed, for the Creek Road Bridge's geotechnical drilling. Based on the assumption that there will be less than 0.01 acres of impacts for each project, the current application fees of \$3,940 (\$985 each) is included in the budget. The RWQCB package will be submitted after the Town has completed an approved CEQA compliance document. It is anticipated that the CEQA document will be submitted with the application package.

Section 1600 Series California Fish and Wildlife Streambed Alteration Agreement. Kelly will prepare a Streambed Alteration Agreement application package for each of the three projects and, if needed, the Creek Road drilling, to be sent to CDFW. The currently enforced fees of \$10,867 (\$4,485 for Creek Road, \$4,485 for Meadow Way, \$1,673 for BPMP, and \$224 for the drilling) are included in the budget. Kelly will send a copy of the approved CEQA compliance document to CDFW.

2.3 CEQA/NEPA - WRA assumes that the PES forms will likely determine that the three projects qualify for NEPA Categorical Exclusions ("CatEx" or "CE") with technical reports. Given the proposed projects' potential impacts to wetlands/stream, special-status species, cultural resources, water quality and noise, CEQA Categorical Exemptions will not necessarily apply to all of the projects and that Initial Studies/Mitigated Negative Declarations (IS/MND) will likely be required instead. The Town of Fairfax, as the CEQA lead agency, will be responsible for determining the level of CEQA review required. WRA will complete the following tasks to ensure CEQA/NEPA compliance.



**Project Description Development** - The project descriptions will be developed as early in the process as possible. WRA will review the initial project descriptions and additional relevant materials provided by the team and help refine them to coordinate the workflow for the CEQA/NEPA process, if necessary.

**NEPA Categorical Exclusion (CatEx)** - Based on our understanding of the projects, a CatEx should be prepared for the project. WRA staff will prepare a CatEx for the project in conformance with Section 6.6 of the Local Assistance Procedures Manual (LAPM), Categorical Exclusion with Technical Studies. WRA will assist in the preparation of the required CatEx technical reports in accordance with the format and content requirements mandated by Caltrans.

WRA will forward technical reports to Caltrans District Local Assistance Engineer (DLAE) for review and comment. When completed and sufficient, District Senior Environmental Planner (SEP) will initiate informal/formal consultation with appropriate resource and regulatory agencies. WRA will then prepare the NEPA CatEx form and provide to Caltrans District SEP for signature and to and determine whether the action qualifies for the CatEx. Compliance with NEPA and project can commence with final design.

CEQA Initial Study/Mitigated Negative Declaration - WRA will kick off the environmental review process for the Project Charter Meeting with the team by: 1) collecting all relevant reports and drawings; 2) discussing the desired format of the IS/MND; 3) discussing the proposed project; 4) resolving issues regarding overall assumptions; 5) identifying other key Town contacts; and 6) discussing overall communication protocols. WRA will attend up to four meetings for the project. WRA staff will review all available project-related documentation, including but not limited to: site plans, applicable similar reports, and the Town's environmental review requirements.

Administrative Draft Initial Study/Mitigated Negative Declaration - WRA will prepare an Administrative Draft Initial Study for each project utilizing the current version of the State CEQA Guidelines, as well as any Townapproved Thresholds of Significance. The Initial Study will evaluate the potentially significant impacts as the project relates to the Environmental Checklist Form of the State CEQA Guidelines. The analysis in the Initial Study will consider information contained in existing technical reports as well as the PES and associated technical studies, relevant regulations and policies, and other applicable information obtained by WRA staff. This includes all of the technical studies to be prepared for the projects, including but not limited to: Air Quality, Biological Resources, Cultural Resources, Geotechnical, Geomorphology, Greenhouse Gas Emissions, Hydrology, and Traffic. WRA will address all of the Town's comments on the Administrative Draft IS/MND. It is assumed that the Town will only require one round of comments on the revised Administrative Draft IS/MND.

Upon approval of the Screencheck Draft IS/MND, WRA will reproduce up to fifteen hardcopies of the Draft IS/MND and Appendices for the public review circulation period and will assume responsibility of circulating the documents to applicable agencies and interested parties. Fifteen copies of the Summary Form, fifteen CDs of the entire IS/MND package, the Notice of Intent (NOI), as well as the Notice of Completion (NOC), will be sent to the State Clearinghouse. If required, the Town will be posting the NOI in the Marin Independent Journal. Additionally, WRA will coordinate with the Town in providing web-ready documents for publication on the Town's website, if needed.

Following completion of the 30-day public review period, WRA will respond to any agency and/or public comments submitted on the Draft IS/MND and prepare the Final IS/MND. The extent of work necessary to complete the Final IS/MND is contingent upon the number and nature of public comments received. WRA will circulate the Final IS/MND to all agencies that commented on the Draft IS/MND. WRA will also be responsible for the preparation and filing the Notification of Determination (NOD) with the Marin County Clerk within five days of project approval. This proposal also includes costs for all required filing fees, including the CDFW filing fee of \$2,156.25 and the \$50 filing fee with the County Clerk. In addition, this scope includes the preparation of Mitigation Monitoring and Reporting Program (MMRP) for the projects.

Air Quality and Greenhouse Gas Emissions Reporting - Illingworth and Rodkin (I&R) will take the lead on completing documentation for air quality and greenhouse gas emissions. The project sites are located in the San Francisco Bay Air Basin and are under the jurisdiction of the Bay Area Air Quality Management District. These types of projects are exempt from the requirement of an air quality conformity determination. Neither an air quality technical study nor a mobile source air toxics analysis is required. The following tasks will be completed:



Construction Air Quality Impacts. Construction air quality impacts will be addressed qualitatively, focusing on identifying appropriate control measures to reduce PM<sub>10</sub> from dust generation. Where necessary, the Roadway Construction model developed by the Sacramento Metropolitan Air Quality Management District will be utilized to predict exhaust emissions.

Climate Change (GHG). Following the Caltrans Guidelines, I&R will provide a discussion of the effects of the projects' operational and construction impacts on climate change.

**Prepare Air Quality Report.** An air quality technical report would not be required. A memo will be prepared using appropriate Caltrans format and will address the FHWA/Caltrans requirements and well as local CEQA criteria. WRA will incorporate this information into the environmental documents.

**Revegation Plans** - WRA will prepare schematic (30% Design) plans, cross sections and narratives for inclusion in the CEQA/NEPA documents and permit applications such as the CORPS and CDFW.

Cultural Resources Document Completion - JRP and Far Western will complete documentation for historic and archaeological resources. Compliance with Section 106 is being carried out with Caltrans' regulatory responsibilities. JRP will prepare documents for the projects following Caltrans' guidelines. None of the projects are anticipated to be considered screened (exempt) undertakings per the Caltrans Section 106 Programmatic Agreement (PA). Documentation will be used to support CEQA compliance and each bridge will require separate Section 106 documentation to be submitted to Caltrans. A Historic Property Survey Report (HPSR) will be required for each project and JRP will provide the appropriate reports and assist with Area of Potential Effects (APE) maps.

For Creek Road and Meadow Way Bridges, JRP will prepare Historical Resources Evaluation Reports (HRER) and will include appropriate Department of Parks and Recreation (DPR) 523 forms to survey and evaluate properties adjacent to the subject bridges. It is anticipated that up to two properties adjacent to each of these bridges will be included in the APEs. Far Western will prepare Archaeological Survey Reports (ASR) and assist JRP with preparation of the HPSRs. The HRERs and ASRs will be submitted with the HPSRs. The reports will develop environmental and cultural contexts for the region; document records search findings, consultation efforts with the Heritage Commission and local Native American groups/individuals, and field methods and results.

For the Bridge Preventive Maintenance Program project, Far Western will prepare the HPSRs with JRP's assistance, summarizing the overall study findings, and prepare the ASRs for these projects. No HRERs are anticipated for these projects. Area of Potential Effect (APE) will be prepared to address cultural resources. JRP and Far Western will review previously prepared documentation, if any, regarding historic architectural resources in the APEs.

JRP will send out letters regarding the projects to parties interested in historic architectural resources and collect responses. Far Western will conduct all necessary consultation with the Native American Heritage Commission and all Native American groups/interested parties identified by the Commission.

If the project is in a high sensitivity area, a trenching program should be implemented for on-Site Inspection. JRP and Far Western will visually inspect and photograph the resources in the APEs. Surveys will cover all safely accessible sides of each bridge, the bridge approaches, construction lay-down areas, any potential roadway realignments, road detour areas, and all other areas which may encounter ground-disturbing activities. The crew will record any undocumented resources; revisit and, if necessary, update any previously recorded resources in the project area; and use GPS equipment for precise locational mapping.

Noise Report - I&R will take the lead on completing documentation for potential noise-related impacts. This proposal assumes that CEQA and NEPA assessments will be required for the Meadow Way Bridge and Creek Road Bridge projects but not for the BPMP project. The proposed bridge projects do not meet the definition of a Type I project, and a Noise Study Report would not be required. It is assumed that noise and vibration from project construction will need to be evaluated. The following scope of work is proposed to complete the NEPA and CEQA noise analysis. I&R will identify sensitive receptors; quantify noise and vibration from major construction activities including pile driving; establish appropriate significance thresholds and assess noise and vibration impacts; and recommend measures to mitigate the impacts.



The key component of the study will be an assessment of the noise and vibration resulting from pile driving or drilled piers and other noise generating activities during construction. Hydroacoustic sound levels will be submitted to Kelly to assess impacts to any protected biological resources potentially affected by noise. The impacts of vibration will be assessed against appropriate criteria for construction vibration established by Caltrans and other agencies. If significant noise or vibration impacts are identified, mitigation will be recommended.

Visual Resources Document Completion - The projects have yet to be completely evaluated according to Caltrans' Visual Impact Assessment (VIA) Guide, consisting of a checklist of 10 questions, each with a corresponding point value. The score indicates the potential for impact and the level of detail needed to adequately address visual impacts in the PES Form. However, given the low potential for the project to affect the visual or scenic resources, WRA will prepare a brief visual assessment in memo form, per Section 22 of the Local Assistance Procedures Manual, and assumes that a detailed Visual Impact Assessment is not required.

#### **TASK 3 - PUBLIC OUTREACH**

Task 3.1 Targeted Communications - Each bridge is likely to have a different list of key stakeholders depending on the work involved and the adjacent land uses. The work on the Meadow Way Bridge will be of interest to adjacent neighbors for whom this is the only point of ingress/egress and an old familiar relic. The retrofit of the Creek Road Bridge will concern neighbors directly adjacent, as well as those on Dominga Avenue and Forrest Avenue. Residents close to the three bridges being rehabilitated will appreciate being informed of the nature of the work and construction impacts. All are likely to be of great interest to the bicycle and pedestrian advocates.

We will walk the area surrounding each of the bridges, making note of potentially affected residences and identifying key stakeholders. The Fact Sheet discussed below will be delivered to all residences and businesses within a half-mile radius of the projects. We will develop independent lists of key stakeholders for the two capital projects as well as the BPMP and maintain contact with them, both individually and in smaller group meetings.

Personalized Public Outreach: Management by Walking Door to Door — Personal contact between the project management team and key stakeholders in the vicinity of the projects is the most effective way to address community concerns. Our plan will be to meet with these individuals and groups in the neighborhood to gather their input prior to the first set of public meetings for Meadow Way Bridge and Creek Road Bridge. This informal "door to door" approach brings out concerns early, resolving issues before becoming problematic.

Some key stakeholders prefer to be informed about aspects of the project impacting them without spending time at meetings. We will keep a detailed log of stakeholders' interests and develop targeted materials addressing their concerns. Walking door to door, we will bring information to individual stakeholders, working best when the outreach and technical teams are fully integrated. Individual stakeholders can be approached by an outreach coordinator working with a lead member of the engineering team.

Task 3.2 Public Information - Information for the general public will be developed in a number of formats and will be readily accessible to everyone in Fairfax, including Town staff. Our plan to reach the public will include:

Web Site Development – We will develop and maintain a project website for the bridge program that can be used for future Fairfax bridge projects as well. Fact sheets and other information will be available for each bridge, as well as contact information and an opportunity to send immediate email. Visitors to the website will be able to get on the mailing list for the project, get copies of all public documents, make comments and interact with the project team. We will add historic photographs and other images we can find relevant to the bridge projects. We will develop this as an independent but seamless site linked to the Town's webpage, minimizing the impact on the Town's IT staff and allowing us to make updates in real time.

Project Fact Sheets and Newsletters — We will prepare a project fact sheet for each of the three project components early in the process, to be mailed to all addresses within a set distance of the projects. The Fact Sheet will describe the bridge, its current condition, and the reasons for the intended actions. A cover letter will provide information on the project, its funding and an outline of its schedule. Fact sheets will be updated and available at all project meetings, as well as on the web. We will identify public sites, such as libraries, where fact sheets can be posted. We will also approach businesses that might have community postings to allow us to post them on their



bulletin boards. Newsletters will be prepared at key points in the project lifecycle. We anticipate three newsletters – one each for the Meadow Way and Creek Road Bridges, and one focused on the BPMP.

Press Management – Our Outreach Coordinator will be the primary press contact for all comments on the project. However, we will work closely with the Town to ensure that the project message is correctly portrayed. We will prepare up to three press releases and press oriented fact sheets at critical points in the project. As issues come up, we will work with the Town to refine the message that will be delivered through the press. We expect some press coverage of public meetings, particularly on the Meadow Way Bridge project. We will make certain that all visual material is developed with the level of clarity that can be presented in newspaper stories.

Public Open Houses—We will make the public open house meetings interactive and provide the public with direct access to the technical team. Each meeting may include a presentation with clear visual materials, developed either on boards or Power Point. There will also be an opportunity for stations addressing individual project issues. These stations will be set up for interaction, making it easy for the public to voice opinions and access the best person to address their question. Public input will be gathered, including those gathered on comment cards at the meetings, or from emails, paper mail, and phone contacts. After each meeting, we will compile a list of "Frequently Asked Questions" to post with responses on the website.

We anticipate four public open house meetings, timed in coordination with the engineering team to provide the best input on their work. Chronologically, BPMP will be the first part of the project to be ready to go to the public, then Meadow Way Bridge, and finally Creek Road Bridge. Meetings will most likely be held at the Fairfax Women's Club or a similarly suitable space. Following is the meeting logistics we propose:

Open House Meeting 1 for BPMP and Meadow Way Bridge (approximately 4 months into the project). During the first part of the meeting, we will introduce the BPMP to the public since it is a smaller project component and the least controversial. The need for the project and the general construction work will be described for each of the three bridges. Open-mike public comments will be taken. The second and main part of the meeting will focus on Meadow Way Bridge and discuss the need for the project, its schedule, and construction measures minimizing inconvenience. High-level bridge concepts will be presented to inspire public comment. The real benefits of the project to the neighbors, structural safety, reliability and creek stability, will be emphasized.

Open House Meeting 2 for BPMP and Creek Road Seismic Retrofit (approximately 6 months into the project). This meeting will review the progress of the BPMP project again first, including information presented at the first meeting, responses to questions and comments, and further project updates. The second and main part of the meeting will focus on Creek Road Bridge. Since the visible elements of the bridge are of less concern to the public, construction issues will be emphasized. The retrofit may cause construction inconveniences such as noise, dust, and traffic disruption or temporary bridge closure. The public's greatest concerns will be collected so these impacts can be mitigated. Open-mike public input will be gathered.

Open House Meetings 3 and 4 for Meadow Way Bridge and Creek Road Bridge (approximately 18 months into the project). A second set of meetings for each of these two bridges will be held once the design alternatives are much farther along. The purpose of these meetings will be to update the public on the status of the project and its schedule, inform residents of possible bridge closures during construction, and let them know of the mitigation measures planned. For Meadow Way Bridge the meeting will present the preferred design alternative through both a presentation and display stations. Open-mike public input will be gathered as time permits.

# TASK 4 - TOPOGRAPHIC MAPPING, AERIAL PHOTOGRAMMETRY, SURVEYS AND ROW BASE MAPPING

Chaudhary & Associates will support the design team by providing aerial mapping, supplemental field surveys, right of way engineering, and hydraulic cross sections. All work will be performed in accordance with the Caltrans Survey Manual, Code of Safe Surveys, Safety Manual, and Manual of Uniform Traffic Control Devices.

Meadow Way Bridge and Creek Road Bridge. These sites will be mapped using photogrammetric methods for the base map. The control will be referenced to the North American Datum (NAD) 83 for horizontal coordinates and to the North American Vertical Datum (NAVD) 88 for vertical values. A minimum of three control points will be clearly located outside the assumed construction area and field-tied to allow for ease of use during construction.



Topographic mapping will be prepared at a scale of 1" = 20' with one foot contour interval and spot grades meeting National Mapping Accuracy Standards. The estimated limits of the aerial mapping is 200' each side of the bridge along the road and 300' upstream and downstream of each bridge.

Due to tree and brush coverage and areas obscured by the existing bridge structure, supplemental field surveys will be necessary to support the design process. These supplemental design surveys will include existing visible surface utilities, USA utility markings and, for trees within 50' of the existing bridges, tree trunks over 6" diameter. Storm drain, sanitary sewer structures and inverts, all visible fire hydrants, water valves and PG&E vaults within the right-of-way (ROW) will be located. The design survey information will complement the aerial mapping and be incorporated into to provide one complete homogenous mapping base file for each location.

Right of Way Engineering will be conducted in conformance with Chapter 10 of the Caltrans Survey Manual. Title reports will be necessary for all parcels adjacent to the project area. A minimum of four parcels may have easement or right of way impacts at the two bridge locations that are being mapped and surveyed. Street right of way and adjacent property lines (Landnet) will be shown on the base map based on available public records. The base map will contain names of adjacent property owners as well as Assessor's Parcel Numbers (APN). Existing survey monuments within or adjacent to the ROW will be located, to be preserved during construction.

Chaudhary & Associates will prepare a Hybrid Map for each bridge. The Hybrid Map is consistent with Federal and Caltrans Local Assistance Manual requirements for meeting the certification of right of way and use by the right of way agent and will include base mapping, record boundary, control points, and easement information.

If requested, plats and legal descriptions for temporary construction easements, utility easements, drainage easements, or right of takes will be prepared as needed in support of the design process. These are optional tasks and are not budgeted for until the extent of this work in known, typically during the 65%-90% phase of design.

Surveys and ROW Tasks for BPMP – No surveys are needed for the BPMP portion. All construction work is anticipated to be within the existing ROW. Should easements be necessary, they will be added to the scope at the end of the Assessment Phase.

Surveys for the Hydraulic Analysis. Cross sections will be surveyed upstream and downstream of Meadow Way and Creek Road Bridges at approximately 300' to 500' intervals, on average. Based on the distance between the bridges of approximately 2,600' and a 500' spacing interval, it is anticipated that an estimated 6 locations will be surveyed between the bridges plus the 4 cross sections at each bridge (one upstream and one downstream at each bridge) for a total of 14 cross sections.

#### TASK 5 - GEOTECHNICAL INVESTIGATION AND PAVEMENT DESIGN

For both Meadow Way Bridge and Creek Road Bridge, the services will include subsurface exploration, laboratory testing and preparation of a Geotechnical Report geared for the project design. We will notify USA to mark utilities and obtain drilling permits from Marin County. We will obtain an encroachment permit from the Town and anticipate permit fees will be waived.

Task 5.1 Phase I Initial Site Assessments (ISA) - Along with geotechnical evaluation, Miller Pacific will prepare Phase 1 ISA for the Meadow Way and Creek Road Bridges as part of the Task 2, Environmental Studies and Permits. Miller Pacific will also perform some limited laboratory environmental tests to form an opinion regarding creek bed contamination from the Meadow Way creosote-laden piles. The purpose of the Phase 1 ISA at each site will be to form an opinion regarding the potential existence of hazardous materials, identify potential on-site contaminants, and recommend further investigation and testing, if necessary.

The ISA work will generally follow the guidelines described by ASFE and ASTM for Phase I ISAs, judged applicable for the site and conditions. These include a review of environmental records through a database search to screen for environmentally significant properties in the vicinity of the site; review of relevant and reasonably available public records on file with Marin County or other government agencies for sites identified in the database search; development of site history through interviews and review of current and historical aerial photographs, compilation of known site, subsurface, and groundwater conditions; on-site reconnaissance to examine features identified through the database search and aerial photo review to visually identify indicators of the existence of hazardous



materials; and preparation of a Phase I ISA report, including summary of activities, findings, and our opinion regarding the potential for on-site contaminated materials and recommendations regarding further investigation.

Typically, for Phase 1 ISAs, the potential presence of radon, methane, lead paint, wetlands and other items normally excluded are not specifically evaluated. We will prepare separate reports for the two sites with a summary of our observations and opinions.

Task 5.2 Limited Environmental Laboratory Testing for Meadow Way Bridge - With the creosote-treated piles at the Meadow Way Bridge, we will also perform some limited laboratory testing of creek bed soils to rule out the presence of contaminants. We will hand auger in 3 locations adjacent to and just downstream of the wood piles and take composite samples for test of hydrocarbons and CAM17 metals. We will prepare a brief letter report with a summary of the findings and recommendations for additional assessments, if significant contamination is found.

Task 5.3 Geotechnical Design Report for Meadow Way Bridge - We will explore subsurface conditions at the approximate location of each bridge abutment with augered borings (one at each abutment) to depths of about 50 feet. Given the existing, narrow roadway, we will use tight access equipment which will allow the roadway to remain open during our exploration. Our borings will be within 10 to 15 feet of the planned new bridge abutments. During the drilling, we will obtain representative samples for laboratory testing, measure the ground water table levels and backfill the borings upon completion. Laboratory testing will include moisture density, strength, R-value, corrosion and other pertinent tests.

Based on the steps noted above, Miller Pacific will develop geotechnical design criteria for foundations, including recommendations for cast-in-drilled-hole (CIDH) piles, which are judged as the most likely alternative at this time. Other foundation options will be discussed with the project bridge engineers, such as torque-down and driven piles and, if deemed practical, a discussion and design criteria for those options will be provided. A seismic acceleration response curve and other criteria will be selected based on the Caltrans Seismic Design Criteria (SDC) Version 1.6. Miller Pacific will discuss site grading, retaining wall lateral pressures, material qualities, backfill methods, compaction and paving thicknesses for various Traffic Indexes, and lime treatment as a method to "winterize" the site (if needed) and to decrease the pavement section. Miller Pacific will prepare a design report with Caltrans-format boring logs, our laboratory test data and recommendations for the items described above.

Task 5.4 Geotechnical Design Report for Seismic Retrofit of Creek Road Bridge — A total of three borings will be drilled. One boring will be on a gravel bar in the creek channel to provide information to the environmental staff or others regarding the necessary CORPS, Fish and Game or other permits. Utilizing portable hydraulic equipment to eliminate the need for a large drill rig in the channel, Miller Pacific will also drill a boring to determine the depth the rock with a maximum depth of 50 feet. Traffic control for the drilling, which will likely block one of the travel lanes, will be provided. Miller Pacific will also explore subsurface conditions at the approximate location of each bridge abutment with augered borings to depths of about 50 feet and obtain representative samples for laboratory testing and measure water levels and backfill the borings. Laboratory testing will include moisture density, strength, R-value, corrosion and other pertinent tests.

Based on the above preparations, Miller Pacific will develop bearing capacity criteria for the site soils and rock, and provide opinions on the materials under the foundations based on the existing plans for the structure. Geotechnical design criteria for deep foundations, including recommendations for piling, if needed for the retrofit, will be provided. Other foundation options, such as torque-down and driven piles, will be provided. A Caltrans seismic acceleration response curve will be selected. Lateral soil pressures for both static and seismic conditions will be provided. Miller Pacific will prepare a design report with Caltrans-formatted boring logs, laboratory test data and geotechnical recommendations.

Task 5.5 Geotechnical Consultation for BPMP for Bridges on Canyon, Marin and Spruce Roads - The services will include consultation with the project team for bridge preventive maintenance but we do not anticipate subsurface exploration at this time. If minor new wingwalls or other new structural elements are planned, Miller Pacific will provide geotechnical design criteria for foundations and lateral pressures based on soil or bedrock exposures in the creek bed and prior experiences with similar and nearby projects. Miller Pacific will also consult with the



project team for alternatives to stabilize existing wingwalls in place and/or repair scour distress, and will prepare brief letters reports to support the preventive maintenance work.

Task 5.6 Consultation and Plan Review - As project plans advance to completion for all five project sites, the geotechnical engineer will review them to confirm the intent of the recommendations has been incorporated. Miller Pacific will be available for consultation if the project design changes or if additional data are required.

#### TASK 6 - UTILITY INVESTIGATIONS AND COORDINATION

Task 6.1 Utility Surveys, Notification and Coordination – A field review will be conducted to document all utilities in the area that are either attached to the bridges at Creek Road and Meadow Way or located in the anticipated construction zone of any of the five bridges. Project plans will be provided to utility agencies for identifying and marking locations of their existing facilities or new ones to be installed in the future Meadow Way Bridge.

Task 6.2 Utility Relocations - Coordination with the utility agencies for the relocation and/or protection of conflicting utilities and preparation of utility agreements will be continue. It is anticipated that a total of five meetings will be held during the course of the project with each of the various utility agencies.

#### TASK 7 - STREAM HYDROLOGIC AND HYDRAULIC ANALYSIS

Task 7.1 Hydrologic Analysis - Selecting an appropriate HEC-HMS method and estimating the parameters are critical steps in the model development. Stetson will compare its HEC-HMS model results with those of FEMA's model and use the most appropriate results to estimate the peak flows at both Meadow Way and Creek Road sites. Stetson personnel will attend two meetings with the project team and one presentation meeting with the Town of Fairfax. The following approach will be used to estimate the peak flows for different return intervals:

- Using the calibrated HEC-HMS model, calculate the flow ratio at the bridge sites by dividing the peak flows at the bridge sites by the peak flow at the Ross stream flow gage.
- Multiply the Flood Frequency Analysis peak discharges at the Ross stream flow gage by the flow ratio at the bridge sites to obtain the peak flows for the different recurrence intervals.

Task 7.2 Hydraulic Analysis - Stetson will perform hydraulic analysis by developing a new HEC-RAS model for the study reach to determine the design flow characteristics for the existing condition and the new bridge at Meadow Way and the seismic retrofit at Creek Road Bridge. Stetson will coordinate creek cross section survey requirements with Chaudhary & Associates for site survey data located between Meadow Way and Creek Road bridges as well as at the bridge sites. Stetson will integrate the site survey cross sections data from the surveyor into the models for the Meadow Way Bridge and Creek Road Bridge.

Task 7.3 Bridge Scour Analysis and Countermeasure Design - Stetson will perform a bridge scour analysis using HEC-RAS to determine the scour potential for Meadow Way and Creek Road Bridges. Stetson will coordinate with Geomorph and make design recommendations on the need for scour countermeasures at both bridge sites. The results from the scour analysis will be included in the Hydrology and Bridge Hydraulics Report.

Task 7.4 Hydrology and Bridge Hydraulics Report - Stetson with prepare a Hydrology and Bridge Hydraulics Report for Meadow Way Bridge and Creek Road Bridge. The report will summarize the recommendations and results from the hydrology, hydraulic and scour analyses. The report will include the detailed hydraulic model output results along with appropriate hydrology information used as the model input.

Task 7.5 Location Hydraulic Study Report - Stetson will prepare a Location Hydraulic Study Report for Meadow Way Bridge and Creek Road Bridge. The report will include a summary of the hydrology and hydraulics report and a write up supporting the information required on the Caltrans Location Hydraulic Study Form.

#### **TASK 8 - STREAM GEOMORPHOLOGY**

Geomorph will develop site specific design recommendations for bank erosion protection and stabilization structures, and for configuring bridge foundation components for best protecting aquatic resources at the site. Recommendations incorporating habitat enhancement elements, which may serve as mitigation measures for the



project, will be included. Geomorph will assist the project team to develop initial and final designs, obtain permits, and implement key measures of each project.

## Task 8.1 Design, Permitting, and Implementation Support for Meadow Way Bridge and Creek Road Bridge:

- Prepare sections of the project descriptions regarding bank stabilization, erosion protection, and habitat enhancement elements.
- Prepare sections of the alternatives analyses of bank stability and habitat protection and enhancement.
- Prepare plans and specifications for certain bank erosion protection and habitat protection elements.

Task 8.2 Design, Permitting, and Implementation Support for BPMP - Geomorph will conduct similar geomorphic assessments at the three BPMP sites (the bridges on Canyon Road, Marin Road, and Spruce Road). Geomorph will make recommendations for repair and maintenance measures at the sites to protect bank stability and the private properties adjacent to the sites in a manner that preserves and enhances aquatic and riparian habitat. Geomorph will assist the Project Team to design, permit, and implement the applicable measures.

#### **TASK 9 - TRAFFIC ANALYSIS**

Task 9.1 CEQA Input - Parisi Transportation Consulting (Parisi) will complete Section XVI of Appendix G of the CEQA Guidelines for Meadow Way Bridge and Creek Road Bridge. Parisi will conduct research and prepare draft and final written responses for the traffic related CEQA questions.

Task 9.2 Creek Road Traffic Handling - Parisi will conduct a study to assess Temporary Traffic Handling routes during construction of the Creek Road Bridge. The study will include an evaluation of alternative routings, traffic volumes, out-of-direction travel, and potential effects along the alternative route.

Task 9.3 Traffic Calming at Meadow Way - Parisi will review physical, traffic, pedestrian and bicycle conditions in the vicinity of the Meadow Way Bridge. Parisi will assess the potential applicability of specific traffic calming measures, including tools to minimize vehicle travel speeds and/or vehicle cut-through traffic, improve sight distance, and accommodate pedestrians and bicyclists. Parisi will recommend potential signing and pavement marking enhancements, as well as physical devices, as appropriate.

Task 9.4 Signing and Pavement Marking Plans - Parisi will prepare signing and pavement marking plans, specifications and cost estimates for the bridge projects. It is assumed that the detour plans and temporary traffic handling plans will be prepared by others. PS&E will be prepared at the 65%, 90%, and 100% levels.

Task 9.5 Meetings - Parisi will attend the Project Charter Meeting, up to four public outreach meetings (e.g., two for each bridge), and a combined presentation to the Town Council. Parisi will also attend the Field Review for the two capital projects and assist the project team in completing the draft Field Review and the PES forms for Meadow Way and Creek Road bridges. Parisi's input will be related to traffic, pedestrian, bicycle, and safety.

### **TASK 10 - CIVIL AND STRUCTURAL DESIGN**

Task 10-1 and its subtasks below describe the BPMP design activities, and 10-2 and its subtasks describe those for Meadow Way Bridge and Creek Road Bridge combined.

Task 10-1 Preliminary Engineering (PE) for the BPMP - The three bridges programmed for BPMP are on Marin, Canyon and Spruce Roads and have differing preventive maintenance and other long-term care needs. They require repairs to certain structural members such as their wingwalls, an abutment, a bridge deck surface and joint seals. The PE scope of work for BPMP, grouped into Phases 1 and 2in the RFP, appear in this scope as Task 10-1.1, the Assessment Phase, and 10-1.2, the Final Design Phase, the latter being completed after the approval of the appropriate environmental studies. The specific scopes of relevant environmental, public outreach, geotechnical and geomorphic services, not appearing below for BPMP, have been described earlier in the scope of services.

### Task 10-1.1 Phase 1 BPMP Design (Preliminary BPMP Design)

Preparatory Activities. Create a new bridge "as-built" General Plan (GP) for future reference and the Town's records with a simple, scaled drawing for each bridge. Prepare the drawings based on the measurements from the



Caltrans Bridge Inspection Reports (BIRs) and field measurements and observations. Show the bridge plan, elevation and cross section views on each GP. The bridge shapes, railings, sidewalks and piers will be depicted on the GPs. Additional useful information, such as the Caltrans bridge number and year constructed will be added.

Site Visit(s). Visit the three bridge sites with the geotechnical engineer, geomorphologist and the biologist to investigate the foundations, stream flows, erosions at the bridges and the potential environmental impacts of the work. Observe the foundation soils and the exposed or damaged elements at each bridge. Note the channel side slopes, general soil types and locations of rock outcroppings. Mark and place working notes on prints of the new bridge GPs and take photographs. Assess the preventive maintenance needs of the three bridges through the investigations and engineering evaluation. Identify the construction work to be done to address the preventive maintenance needs of the three bridges.

APE Maps & Field Review. CIC-MGE will prepare APE maps for use in conjunction with environmental and cultural resources studies. The Preliminary Environmental Scoping (PES) form will be prepared by WRA and Kelly staffs in conjunction with the APEs. The Team will participate in a Field Review with Caltrans within the first 2 months to fully assess the extent of the environmental studies for the BPMP.

BPMP Strategy and Preventive Maintenance Assessment Report (Preliminary BPMP Design). This report, constituting the 30% BPMP Design Completion, will present the initial findings. A strategy will be developed for addressing the needs of Fairfax BPMP with consideration of its benefits, environmental impacts, the Town's shortand long-term infrastructure goals, and the larger picture of the flood control improvements. Bound copies of the Bridge Preventive Maintenance Assessment Report will be prepared with separate chapters for each bridge, including site descriptions, the Bridge GPs, photos, the latest Caltrans BIRs and the specific field observations. The level of environmental permitting processes to be performed in Phase 2 (Task 10-1.2 below) will be described. Temporary traffic control, lane closures, street closures and detours, if needed, including temporary loss of parking spaces, will be discussed. Recommendations will be made for each bridge, based on the Town's current and future priorities, as well as the ease of obtaining the regulatory agency permits.

Task 10-1.2 Phase 2 BPMP Design (Final BPMP Design) - Perform the final design after the acceptance of the environmental studies, while the permit approvals are progress forward. To facilitate construction, we will group all of the Bridge GPs created in Task 10-1.1 above and any additional plan sheets, into one set of plans for the preventive maintenance repairs. The repair work will likely include concrete wingwalls repair, replacement and stabilization; polyester concrete deck overlay and joint seals replacement. Any additional preventive maintenance item found during the initial assessment phase will also be addressed. CIC-MGE will add a title sheet to the set to show the affected sites, mark each Bridge General Plan with the specifics of the problem areas and the repairs, and add appropriate details, notes and specifications on the plans.

Right-of-Way and Easements. No new right-of-way takes or easements are anticipated. All repair work will be confined to within the public rights-of-way. When temporary construction easements are required, CIC will identify the affected properties, prepare the description of the work, the extent of the easement and the duration of the work for the Town's legal staff to draft an agreement with the property owner.

**BPMP Traffic Handling Plans.** Traffic control plans will be prepared to include all temporary signing and striping, temporary railing, and other traffic control devices. A detour plan is not anticipated.

Storm Water Pollution Prevention Plans (SWPPP) and Best Management Practices (BMPs). SWPPPs will be developed based on best management practices for this type of construction work, especially for work around the waterways. Details and specifications will be presented for preventive measures and erosion control devices.

Hydraulic Studies and Location Hydraulic Study. These projects will not require new hydraulic studies. CIC-MGE's subconsultant, Geomorph, is fully familiar with the current conditions and will prepare a qualitative Location Hydraulic Study in Caltrans-compliant format for environmental studies.

Design Exceptions, Field Surveys, Hazardous Materials / Waste Studies, Testing of Materials, Geotechnical Borings and Utility Relocations. It is not anticipated that any of these items will be necessary, but the team



members will be on hand if needed. Should the removal of any yellow thermoplastic striping be necessary, CIC-MGE will specify its removal storage and disposal per the Caltrans Design Information Bulletin (DIB) 84.

60%, 95% Design and 100% BPMP PS&E. Submittals will be made at each of these completion levels and the Town's comments will be logged in and addressed. Quality control measures and reviews will be incorporated throughout the submittal processes. Design standards used will be the applicable Caltrans Standard Plans and Specification, Standards of the Cities and County of Marin, the "GREEN BOOK" (2009 Edition), and local Fairfax Standards. Pedestrian access modifications are not expected. The boilerplate specifications from the Town of Fairfax will be incorporated in the project specifications. The 95% submittal will include independently checked plans, specifications, quantity estimates and cost. A senior review will be implemented which, along with other comments, will be affected into the final, camera-ready final submittal (100% Design).

Bidding Assistance and Services During Construction. It is anticipated that the BPMP component will be completed and advertised ahead of the other two project components. The design team will be available to respond to construction-related questions from prospective bidders. These include: responding to written questions in a "General Response to Bidders Question," preparing addenda for the contract documents, if required, attending a Pre-Bid Meeting and bid analysis. During construction, the design team will be available for technical assistance, addressing changes and responding to Requests for information (RFIs).

Task 10-2 Design of Meadow Way Bridge Improvements and Seismic Retrofit of Creek Road Bridge – The activities defined as Tasks 1 and 2 in the RFP for Meadow Way and Creek Road Bridges have been described below. Again, the specific scope of relevant environmental, public outreach, mapping and surveying, geotechnical and geomorphic services not appearing below, have been presented earlier in the scope of services. The services are for both bridges, unless otherwise is noted.

Task 10-2.1 - 30% Design Submittal - This submittal will define the geometrics of the roadway at Meadow Way by developing layout plans, roadway typical sections, profile grades, a qualitative Existing Meadow Way Bridge Assessment Report, Bridge Advance Planning Studies (APS), Bridge General Plans, and Bridge Type Selection Report. It will also include the Retrofit Strategy Report for Creek Road Bridge, defining whether it is feasible to retrofit the bridge, how and for how much, or if it bridge should be replaced. The 30% Complete Design Submittal will include conceptual drawings for the following design plans for each bridge location.

**APE Maps and Field Review.** Please see the scope language from 10-1.1 C above for BPMP. It is anticipated the Field Review for the two bridges in project's schedule.

Preliminary Roadway Geometrics (Meadow Way only). Roadway layout, typical sections and profile plans will be developed. The project will be designed using imperial units and electronic plan preparation will be in the AutoCAD 2011 platform. The plans sheets for all design submittals will conform to the preferred Town of Fairfax border format. The reports, plans, and other documents for all design submittals will be planned for combined bidding and concurrent construction and tailored for separate processing and bid if the need arises.

**Design Exceptions (Meadow Way only).** Any design exceptions will be identified and presented to the Town and Caltrans with reasons why the exception is needed and what other alternatives were investigated. An anticipated Design Exception will be the narrow bridge width resulting from a single traffic lane.

Structural Aesthetic Features (Meadow Way only). MacDonald Architects will coordinate with the project's bridge engineers in conceptualizing the design of Meadow Way Bridge and all of its related architectural amenities. This work will be illustrated for the Town, stakeholders and community via the following modes: computer renderings, photo montages and sketches. After a thorough data research and analysis of the engineers' preliminary data, the bridge design team and MacDonald Architects will meet with the Town to brainstorm various design schemes. The next stage will involve generating hand drawn sketches/computer renderings of preliminary design alternatives. MacDonald Architects will prepare presentation materials for community group meetings as part of the public outreach program. MacDonald Architects design with a three scale system: 1) pedestrian movement; 2) bike movement; and 3) auto movement. Each movement requires details at different scales.



Bridge Advance Planning Studies (Meadow Way only). An Advance Planning Study (APS) will be prepared for Meadow Way to present the optimum bridge types. Up to three viable bridge types, minimizing disruptions and expediting construction, will be presented and the most suitable bridge recommended. The results of geotechnical investigations and hydraulic and geomorphic studies will be reflected in these studies. Conceptual design construction cost estimates will be prepared for each alternative. The APS package will be used to define the bridge work for the environmental process.

Bridge Type Selection (Meadow Way only). After the preferred bridge is selected for Meadow Way, CIC-MGE will proceed with the Bridge Type Selection process. A General Plan will be prepared for the preferred structure type showing the proposed structure, foundation type and typical section. A Preliminary Type Selection Memo, including updated bridge cost, will be prepared and distributed to Town, Caltrans and others, as needed.

Material Tests (Creek Road only). Wiss, Janney, Elstner (WJE) will perform limited close-up surveys to record typical deterioration conditions at representative locations; perform limited non-destructive surveys of the reinforcing using ground penetrating radar at representative locations to document rebar density and cover; make limited inspection openings to measure rebar sizes; perform concrete strength testing and compression modulus testing; prepare report summarizing the findings from the close-up survey and strength tests for the bridge designers' use.

Retrofit Strategy Repot (Creek Road only). Analysis of the seismic conditions of Creek Road Bridge will be performed using specialized bridge dynamic analysis software. If the bridge is found to be seismically vulnerable, conceptual seismic retrofit measures will be introduced. A Seismic Retrofit Strategy Report, describing the deficiencies and structural retrofit, along with a General Plan (GP), showing the repair concepts, will be submitted for this bridge. As an alternative to retrofitting, a replacement bridge for the site with its cost will also be explored and a GP prepared for cost comparison between replacement and retrofit. The design team will make recommendations to the Town based on the findings.

Combined Bridge Type Selection and Bridge Retrofit Strategy Meeting. CIC-MGE JV will coordinate and schedule a combined Type Section and Retrofit Strategy Meeting with the Town to discuss both bridges. Caltrans may also attend the meeting. The goal will be to obtain the approval of the bridge type and retrofit strategy at the meeting. The meeting minutes and final General Plan sheets will be submitted to the Town of Fairfax and Caltrans for approval.

Task 10.2.2 - 65% Plans, Specifications & Estimate (Intermediate PS&E) - This task will begin after the environmental document has reached a certain level of completion and there is confidence that the ensuing designs work will not be jeopardized by changes instigated by the environmental impacts analysis. For the purposes of this proposal, we are labeling the roadway, traffic control, signing and striping, utility, drainage, street lighting, landscape architecture (revegetation) and SWPPP plans as Civil Plans. One meeting will be held to review comments received on the 30% submittal and determine how each comment shall be addressed. The 65% submittal will further refine the 30% design and incorporate comments received from the review of the 30% Design Submittal package.

Traffic Control Plans. Traffic control plans will be prepared to include all temporary signing and striping, temporary railing, and other traffic control devices. Separate detour plans will be prepared when required. Based on the preliminary design concept, an initial study will be prepared identifying potentially significant impacts associated with traffic operations during construction as well as any increases in traffic during detours if closure is anticipated.

Signing and Striping Plans. Striping and Pavement Delineation plans will be prepared on skeleton of the base layout plan sheets and include final and temporary traffic lines, pavement markings, channelizers, delineators, object markers, etc. Signs will be shown on the same sheets to depict new and existing signs, as well as those to be removed, relocated, salvaged or modified.

**Utility Plans.** Preliminary Utility Layout sheets based on information gathered in Task 6 above will be developed including conceptual relocation plans. Conceptual design plans will be developed for any Town owned facilities that will require relocation.



Drainage Facilities Plans (Meadow Way only). An analysis will be done to determine the drainage needs for the proposed improvements at Meadow Way. Preliminary drainage plans will be developed using a 10-year storm as the design criteria. This analysis will determine catch basin locations and pipe sizing needs.

Street Lighting Plans (Meadow Way only). The need for street lighting at Meadow Way will be analyzed. Lighting, if necessary, will be serviced from existing circuits if adequate capacity is found available. Conduit and wiring will be spliced and extended from the existing service, with pull boxes included for pulling of cables and splices at new fixtures. If the existing service does not have the required ampacity, a new service from the serving electrical utility will be established. All street conduits, wiring and pull boxes will meet local standards and applicable codes. Light lamps will be the efficient LED type with daylight sensors. Light poles will be selected with consultation with the Town if a decorative pole is desired.

Right-of-Way Plans. The existing right-of way, as identified in Task 4, will be shown on the improvement plans. New right-of way takes are not anticipated. Construction easements will be also identified and shown.

Landscape Architecture. WRA will design the revegetation based on our assessment that vegetation along San Anselmo Creek will be removed to implement these two projects. WRA has concluded an 80-90 linear feet of vegetation removal at the Meadow Way Bridge and 30-50 linear feet at the Creek Road Bridge may be necessary during construction. As a result, revegetation will be required by the CDFW as mitigation for the removal of riparian trees along the creek. In addition, revegetation will be required to prevent bank erosion and for aesthetics. WRA will include provisions for a drip irrigation system for the newly planted plants.

Storm Water Pollution Prevention Plans (SWPPP) and Best Management Practices (BMPs). Please see the BPMP Task 10-1.2 above for the description of this scope of work.

Unchecked Bridge Plans. Plans for both Meadow Way and Creek Road Bridges will be developed based on the civil layout, staging, hydraulics, topography and the recommendations in the Bridge Type Selection and Retrofit Strategy Reports. Aesthetic features for Meadow Way Bridge, such as treatment of the railings, belvederes and light fixtures, will be incorporated into the design, where applicable. Upon the completion of this phase work, the bridge plans will be 100% designed and detailed (but not independently checked), ready for independent check.

Combined Intermediate Civil & Structural PS&E (65% Design). Preliminary bridge and civil PS&E for each bridge will be combined and reviewed in-house as one package for quality and consistency of the overall work. The cost estimate will be based on preliminary, unchecked quantities, with unit prices from the latest Caltrans Contract Cost Data publication. The Caltrans Standard Specifications will be the standard reference document for the bridge work. All other design work will use the Town's and County of Marin Standard Specifications as the standard reference document. The Intermediate PS&E package will be submitted to the Town for review. Project plans will include Title and Location Map; Layout; Profiles; Typical Cross Sections; Stage Construction; Traffic Handling Plans; Construction Details; Drainage Layouts; Drainage Profiles; Signing and Pavement Delineation Layouts; Storm Water Pollution Prevention Plans (SWPPP); Utility Layouts; Landscaping and Revegetation Plans; Electrical Lighting Plans; and the entire set of Bridge Plans.

#### Task 10.2.3 - 95% Plans Specifications & Estimate (Draft PS&E)

Civil Plans. One meeting will be held to review comments received on the 65% Submittal and determine how each comment shall be addressed. This submittal will fully develop the civil PS&E package based on the comments received from the 65% Submittal. All components of the design will be defined and shown on the plans. Quantity estimates and cost will be updated and independently checked as a QC measure.

Checked Bridge Plans. An independent check of each design will be performed as part of the QC process. CIC-MGE will also prepare two independent sets of bridge quantities take-offs. Bridge special provisions, specifications, Marginal Estimate of construction costs and Suggested Working Day Schedule will be prepared in Caltrans format. All documents will be signed and sealed by California registered engineers.

Combined 95% (Draft PS&E) Submittal. Checked bridge and civil plans, updated specifications and quantity estimate for the entire project will be combined once again, senior-reviewed as part of our quality control plan and



submitted to the Town. The project cost estimate will be based on the final checked quantities. A meeting will be scheduled with the Town to discuss the submittal and comments.

Task 10.2.4 - 100% Plans Specifications & Estimate (Final, "Camera-Ready" PS&E) - This task includes preparing the final submittal of the construction drawings and technical specifications to the Town upon addressing the comments received on the 95% submittal. This submittal will contain the final bid documents, signed by the designers and checkers, ready for advertising. The final QA/QC will be done before this submittal. Boilerplate specifications consisting of legal sections and General Conditions will be provided by the Town for incorporation into the construction documents. A Resident Engineer's Pending File, following Caltrans format, will be submitted. It is anticipated that both bridges will be advertised together, requiring one bid package. However, the package will be split if concurrent advertising and construction will not be viable.

#### TASK 11 - BIDDING ASSISTANCE

CIC-MGE JV will provide assistance with Right-of-Way and Utility Certifications as well as HBP Authorization to Proceed with Construction for each bridge. The design team will be available to respond to construction-related questions from prospective bidders. The activities may include responding to written questions in a "General Response to Bidders Question," preparing addenda for the contract documents, if required, attending a Pre-Bid Meeting and bid evaluation (if requested).

#### **TASK 12 - SERVICES DURING CONSTRUCTION**

The CIC-MGE JV team will be available for engineering services requested by the Resident Engineer (RE) during the construction. These services are:

Pre-construction conference—CIC-MGE-Project Manager will attend a meeting with the Town, the Contractor and others once the project has been awarded and prior to the start of work.

Review of Shop Drawings – The CIC-MGE staff will review shop plans for prestressing and joint seals, and will list any exceptions found for the Contractor's correction and resubmittal.

Responding to Requests For Information (RFIs) — CIC-MGE will respond to the Contractor's questions communicated to through the Resident Engineer with written memos addressed to the RE. Response to Cost Reduction Incentive Proposal (CRIP), for the benefit of the Contractor, is not included in the scope.

Field visits — We have scheduled two such visits per bridge during the construction period to consult with the Town and the Resident Engineer, as needed.

As-built plans corrections – The project plans will be revised, as necessary, for archiving at the end of construction period with field input from the RE to reflect the changes made. The corrections can be done either manually or electronically, as desired by the Town.



**Deliverables** - A consolidated list of deliverables for each of the 3 project components is presented based on the scope tasks. Numbers in brackets indicate hard copies submitted. Where the number is not shown, the requisite copies will be provided. Unless otherwise noted, deliverables are for all 5 bridges.

	PROJECT MANAGEMENT AND ORGANIZATION	
Task 1	Project Instructions Manual (10)	Minutes of various meetings (1)
I dok 1	Field observation notes (1)	Digital Photos (Electronic)
	Copies of external memos & letters (1)	, , , , , , , , , , , , , , , , , , , ,
	ENVIRONMENTAL STUDIES AND PERMITS	
	PES forms; Pre-Construction Notification (PCN) Wate	r Quality Study Reports & Natural Environment
	Study (NES) and Streambed Alteration Agreement	, , ,
Task 2	Mitigation Plans, Mitigation Monitoring and Reportin	g Program
I dSK Z	NEPA Categorical Exclusion with Technical Studies	
1	CEQA Initial Study/MND, Draft and Final Versions	
	Section 106 Documentation, including HPSR, ASR & H	IRER (Creek Road & Meadow Way)
	Visual Impact Assessment and Community Impact As	
Task 3	PUBLIC OUTREACH	
I dSR 3	Mailing list; Announcement flyers; Fact Sheets, Meet	ing exhibits; Newsletters & Press Releases
	MAPPING AND SURVEYING (Meadow Way & Creek	
	AutoCAD Base map & Digital Terrain Model (DTM).	Hybrid Map (24x36) for each site
Task 4	Updated base map with design survey data.	Copies of title reports and deeds
	Copies of field notes and utilities information	Plats & legal-descriptions-for-easements-
-	Cross-section survey data for Stetson Engineers	or right of way takes as-needed (optional)
	GEOTECHNICAL INVESTIGATION AND PAVEMENT DE	
	Environmental Site Assessments (ESA) for Meadow W	ay and Creek Road Bridges
Task 5	Preliminary and final Foundation Report for Meadow	Way & Creek Road (5)
	BPMP Geotechnical Memo for Canyon, Marin & Sprud	
	Bridge Log of Test Borings or Meadow Way & Creek R	oad (1 mylar, copies)
Task 6	UTILITY INVESTIGATION AND COORDINATION	
143K U	Utility Markups & Updates. (Utility Plans will be included)	led in civil plans.)
Task 7	Stream Hydrologic and Hydraulics (Creek Road & Me	adow Way)
IdSR /	Preliminary & Final Hydraulics Report (5)	Location Hydraulic Study Report (5)
	STREAM GEOMORPHOLOGY	
Task 8	Geomorphic Assessment and Erosion	Erosion Protection Memo for BPMP (5)
	Protection Report for Meadow & Creek (5)	Location Hydraulic Study Report (5)
Task 9	TRAFFIC ANALYSIS (Creek Road & Meadow Way)	
rask 9	CEQA Traffic Studies (included in ED)	Traffic Detour & Staging plans
	CIVIL AND STRUCTURAL DESIGN	3 3
	BPMP Assessment Report (3)	Bridge Design and check calculations (1)
	Meadow Way Bridge Assessment Report	Bridge independent check calculations (1)
	Bridge Advance Planning Studies and Bridge Type	Quantity Calculations & Check (1)
Task 10	Selection Report for Meadow Way (3)	Cost Estimates & Summary Forms (12)
	Bridge General Plans (3)	RE Pending File (1)
	Materials Test report for Creek Road (3)	Final Project Specifications (1)
	Seismic Retrofit Strategy Report, Creek Road (5)	Final Reproducible Plans (1)
	30%, 65%, 95% and Final Plans (5 sets each)	
Tack 11	BIDDING ASSISTANCE	
Task 11	Contract Addenda and Response to bidder questions (	if required)
	SERVICES DURING CONSTRUCTION	
Task 12	Shop Drawings Review Comments, Response to RFIs 8	As-huilt Drawings
	The state of the s	r wa. neur ni amitika

Town of Fairfax Highway Bridge Program Summary of Creek Road Bridge PE Phase Hours Costs Phase 1

CREEK ROAD BRIDGE SUMMARY		ä	MGE	WRA	Kelly	Paris	Miller	Nelson /	Chaudhary	Geomorph	WJE	MacDonald	Stetson	Total Project
Task 1 - Project Management and Organizational	Task Total Hours	802	-	4			4	16	0	0	28	0	0	264
Logistics	Task Cost	\$25,292	S	\$612	\$920	\$760	\$780	\$2,688	\$0	\$0	\$4,009	\$0	0\$	\$35,062
	Task Total Hours	28	80	32	140	0	0	0	0	0	0	0	0	208
Task 2 - Environmental Studies and Permits	Task Cost	\$5,600	\$1,901	\$4,116	\$16,100	90	\$0	\$0	\$0	\$0	0\$	S	0\$	\$27,717
	Task Total Hours	32	æ	Þ	0	9	0	120	0	0	0	0	٥	170
Fask 3 - Public Cudreach	Task Cost	\$5,088	\$1,901	\$612	\$0	\$1,140	\$0	\$14,169	\$0	\$0	S	S	S	\$22,910
Task 4 - Topographic Mapping, Aerial	Task Total Hours	4	0	0	0	0	0	0	135	0	0	O	٥	179
Photogrammetric Surveys, & ROW Mapping	Task Cost	\$8,000	ន	S	S	os	0\$	20	\$18,825	0\$	\$0	\$0	Ş	\$26,825
Task 5 - Geotechnical Investigation and	Task Total Hours	34	o	0	0	0	95	0	0	0	0	0	0	22
Pavement Design	Task Cost	\$2,300	æ	ន	S	0\$	\$6,103	\$0	O\$	0\$	\$0	\$0	S	\$8,403
	Task Total Hours	24	0			0	٥	٥	0	0	o	0	0	24
Task 6 - Utility Investigations and Coordination	Task Cost	\$4,000	S	8	옰	ŝ	8	S,	¢\$	\$0	ડડ	S	S	\$4,000
Tack 7 - Stream Hydrologic and Hydraulic	Task Total Hours	92	-			e.	0	0	٥	0	0	0	0	10
Analysis	Task Cost	\$1,700	ន	s	ŝ	S	\$0	જ	ŞO	\$0	\$0	S	S	\$1,700
	Task Total Hours	4	0	0	0	0	0	0	O	0	0	0	0	4
Task 8 - Stream Geomorphology	Task Cost	\$700	8	S	S	8	95	\$0	Ş	ŞO	S	S	S	\$700
	Task Total Hours	92	٥	٥	0	0	0	0	0	0	0	0	٥	26
Task 9 - Iratic Analysis	Task Cost	\$3,720	s	æ	8	ŝ	S\$	ŞO	20	\$0	જ	80	S	\$3,720
	Task Total Hours	350	80	0	0	0	0	0	0	0	195	٥	0	553
Task 10 - Civil and Structural Design	Task Cost	\$48,016	\$1,901	ន	S	S	95	S	\$0	ęş S	\$27,756	\$0	\$	\$77,183
	Task Total Hours	٥	0		0	0	0	0	0	0	0	0	0	0
Tesk 11 - Bidding Assistance	Task Cost	s	S	S	S	S	S	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Task Total Hours	0	0	o	0	0	0	0	0	0	0	0	٥	c
ask 17 - Services During Construction	Task Cost	S	0\$	\$0	80	0\$	S	\$0	\$0	Ş	\$	So	S	\$0
	Project Total Hours	732	77	40	148	10	99	136	135	0	223	0	0	1,508
Proje	Project Total Labor Cost	\$104,416	\$5,702	\$5,340	\$17,020	\$1,900	\$6,883	\$16,857	\$18,825	\$0	\$31,276	\$0	\$0	\$208,219
	Salary Escalation	Ş	ន	S	Ş	S	\$300	\$0	\$0	0\$	\$	\$0	\$0	\$300
	Subconsultants	\$130,749	S	ŝ	\$	95	\$5,600	\$0	\$3,470	\$0	\$6,500	S	\$0	\$15,570
qns	Sub Markup (10% Max)	\$9,806	S	S	\$0	S	\$560	0\$	\$347	\$0	\$650	S	ŝ	\$11,363
	Permit Fees	Ş	S	S	\$4,800	S	0\$	\$0	0\$	\$0	Ş	20	S	\$4,800
BO	Other Direct Expenses	\$1,880	ŝ	ŝ	돲	9	\$60	\$584	0\$	ŞO	\$4,075	\$0	Ş	\$6,599
	Total PE Phase Cost	\$246,852	\$5,702	\$5,340	\$21,820	\$1,900	\$13,403	\$17,441	\$22,642	\$0	\$42,501	æ	S	\$246,852

Town of Fairfax Highway Bridge Program Summary of Meadow Way Bridge PE Phase Hours Costs Phase 1

MEADOW WAT BRIDGE SUMMARY	<b>.</b>	CIC	MGE	WRA	Kelly	Parisi	Pacific	Nygaard Nygaard	Chaudhary	Geomorph	W.IE	MacDonald	Stetson	Total Project
Task 1 - Project Management and Organizational	Task Total Hours	164	0	4	ac.	4	4	22		٥	ŀ	20	ے	316
Logistics	Task Cost	\$24,584	\$0	\$612	\$920	\$760	\$780	\$2,016	S	S S	SS	\$2,763	, 5	217 APA
Task 2 - Environmental Studies and Permits	Task Total Hours		0	12	12	0	٥	o	0	0	0	0	30	44
	Task Cost	ᆲ	S	\$1,836	\$1,380	\$0	S	S	8	ន	S	0\$	S	\$7.216
Task 3 - Public Outreach	Task Total Hours	_	٥	4	0	9	0	2	o	0	0	56	ŀ	178
	Task Cost		S	\$612	જ	\$1,140	0\$	\$8,121	S	S	S	\$6,788	S	524 949
Task 4 - Topographic Mapping, Aeriai	Task Total Hours	32	0	0	0	0	0	٥	135	0	-	O	-	167
Photogrammetric Surveys, & ROW Mapping	Task Cost	_1	S	\$	S	\$	\$0	S	\$18,825	S	æ	\$0	SS	524.425
Task 5 - Geotechnical Investigation and	Task Total Hours	_1	0	0	٥	0	47	o	0	0		o	٥	80
ravement Design	Task Cost	5550	SS	8	ន	8	\$5,254	S	0\$	SS	ŝ	905	S	\$5,804
Task 6 - Utility investigations and Coordination	Task Total Hours	12		٥	٥	0	٥	0	0	0	٥	0	٥	12
	Task Cost	21,80	8	S	S	8	S	S	0\$	\$0	ŝ	S,	æ	\$1,800
A - Line - Sire and Hyprologic and Hypraulic	I ask lotal Hours	0	٥	٥	0	•	٥	0	0	0	o	0	0	٥
Attalysis	Task Cost	SS	8	S	S	S	ŞQ	ŞQ	\$0	\$0	æ	05	S	S
Task 8 - Stream Geomorphology	Task Total Hours	2	•	٥	0	0	0	0	0	0	٥	0	0	2
	Task Cost	888	S	S	S	S	જ	Ş	\$0	\$0	S	95	S	\$400
Task 9 - Traffic Analysis	Task Total Hours	- 1	0	٥	0	0	0	0	0	0	0	0	٥	2
	Task Cost		S	SS	8	S	S	જ	\$0	0\$	\$	Q\$	S	\$400
Task 10 - Civil and Structural Design	Task Total Hours	156	0	٥	٥	0	0	0	0	0	0	95	0	212
	Task Cost	\$20,456	ន	ន	S	Ş	S	\$	0\$	\$0	Ş	\$6,195	S	\$26,651
Task 11 - Bidding Assistance	lask lotal Hours	0	٥	٥	٥	•	٩	٥	0	0	0	0	٥	0
	lask Cost	9	S	S	S	ន	S	S	ŝ	S	\$0	\$0	S	S
Task 12 - Services During Construction	I ask lotal Hours		٠	0	٥	0	٩	٥	0	٥	0	0	a	٥
	lask Cost	8	8	S	S	S	S	S	\$	SO	\$0	0\$	Ş	S
	Project Total Hours		٥	8	R	2	25	26	135	0	0	132	0	883
RIOL .	Project lotal Labor Cost	566,078	S	\$3,060	\$2,300	\$1,900	\$6,034	\$10,137	\$18,825	\$	S	\$15,747	S	\$124,081
This is a second of the second	Salary Escalation	S	S	S	Ş	S	\$302	\$65	oş.	\$0	જ	Ş	S	\$367
THE PARTY AND TH	Subconsuitants	\$67,651	S	S	જ	S	\$3,622	<b>\$</b>	\$3,470	\$0	જ	S	S	\$7,092
u ONC	SUD MARKUP (10% Max)	55,074	S	SS	Ş	S	\$362	S	\$347	\$0	ફ	Ş	S	\$5,783
The state of the s	Permit Fees	S	S	S	\$	\$0	\$0	çç	\$0	çş	왌	ŝ	S	S
ES .	Other Direct Expenses \$1,200	\$1,200	S,	ន	S	S	\$80	\$600	\$0	\$0	S	\$800	S	\$2,680
1	Total PE Phase Cost \$140,00	\$140,003	\$	\$3,060	\$2,300	\$1,900	\$10,400	\$10,802	\$22.642	Ş	\$	516.547	ç	\$140.003

Town of Fairfax Highway Bridge Program Summary of BPMP PE Phase Hours Costs Phase 1

BPMP SUMMARY		꿈	MGE	WRA	Kelly	ising d	Miller	Neison \	Chaudhary	Gеотогрh	WJE	MacDonald	Stetson	Total Project
Task 1 - Project Management and Organizational	Task Total Hours	82	4		22			22	•	ŀ		o	0	122
Logistics	Task Cost	\$14,160	\$950	\$1,224	\$1,380	જ	S	\$2,688	\$0	\$0	\$0	SS SS	S	\$20,403
	Task Total Hours	92	0	12	12	0	0	0	0	0	0	0	0	44
Task 2 - Environmental Studies and Permits	Task Cost	\$3,600	S	\$1,836	\$1,380	S	ŝ	8	\$0	O\$	ŝ	ŝ	S	\$6,816
	Task Total Hours	æ	4	4	0	0	0	7.9	0	0	0	0	0	120
Task 3 - Public Outreach	Task Cost	\$6,400	\$950	\$612	S	S	S	\$9,701	\$0	\$0	Ş	\$	0\$	\$17,663
Task 4 - Topographic Mapping, Aerial	Task Total Hours	٥	0	0	0	0	0	0	0	0	0	0	o	O
Photogrammetric Surveys, & ROW Mapping	Task Cost	æ	S	\$0	\$0	80	\$0	ŞO	\$0	S	S	ŞO	S	S
Task 5 - Geotechnical Investigation and	Task Total Hours	4	0	0	0	0	16	0	0	0	0	0	٥	22
Pavement Design	Task Cost	88	ន	S	S	&	\$2,666	S	\$0	05	95	\$0	Ş	53,466
	Task Total Hours	88	0	0	٥	0	0	o	0	0	0	0	0	28
Task 6 - Utility investigations and Coordination	Task Cost	\$4,400	S	ន	S	80	\$	\$	\$0	\$	Ş	S	S	54,400
Task 7 - Stream Hydrologic and Hydraulic	Task Total Hours		0	0	0	0	0	0	0	0	0	0	o	80
Analysis	Task Cost	\$1,350	S	S	S	S	\$0	0\$	\$0	05	0\$	\$0	ŝ	\$1,350
	Task Total Hours	4	0	0	0	0	0	0	0	16	0	٥	0	20
Task 8 - Stream Geomorphology	Task Cost	\$800	ŝ	S	S	S	ន	\$0	0\$	\$2,560	Ş	\$0	\$	\$3,360
	Task Total Hours	2	0	0	0	0	0	0	0	0	0	0	0	2
Task 9 - Traffic Analysis	Task Cost	\$400	S	S	S	S	S	\$0	Q\$	\$0	0\$	\$	\$0	\$400
	Task Total Hours	140	8	0	0	0	0	0	0	16	0	0	0	164
Task 10 - Civil and Structural Design	Task Cost	\$19,208	\$1,901	S	s	S	S	SO	0\$	\$2,560	Ş	\$0	\$0	\$23,669
	Task Total Hours	0	٥		0	٥	0		0	o	0	0	0	0
Task 11 - Bidding Assistance	Task Cost	S	ន	S.	ន	S	S	0\$	0\$	O\$	0\$	os	S	\$0
	Task Total Hours	٥			0	0	0	٥	o	0	0	0	0	0
Task 12 - Services During Construction	Task Cost	S	S	S	S	\$0	S	S	0\$	0\$	\$	\$	\$	S
	Project Total Hours	321	16	77	*	0	16	95	0	32	0	0	0	528
Proje	Project Total Labor Cost	\$51,118	\$3,802	\$3,672	\$2,760	ន	\$2,666	\$12,389	S,	\$5,120	S\$	0\$	S	\$81,526
	Salary Escalation	S	ន	S	s	S	\$333	S	8	s,	S	çç	85	\$333
	Subconsultants	\$31,656	s	8	S	S	8	S	æ	\$0	Q\$	\$	0\$	\$0
qns	Sub Markup (10% Max)	\$3,166	S	8	S	S	8	ŝ	0\$	0\$	os S	\$0	\$	\$3,166
THE PROPERTY OF THE PROPERTY O	Permit Fees	S	S	s	8	ន	S	옸	SS.	oş	Ş	S	S	S
450	Other Direct Expenses	\$3,200	8	8	æ	ŝ	<b>2</b> ¥	\$875	0\$	\$0	\$0	\$0	S	\$4,115
	Total PE Phase Cost	\$89,140	\$3,802	\$3,672	\$2,760	8	\$3,039	\$13,264	\$	\$5,120	ŝ	8	S	\$89,140

Town or Fairfax Highway Bridge Program Summary of Total Project PE Phase Hours Costs

TOTAL PROJECT SUMMARY		Cic	MGE	WRA	Kelly	Parisi	Miller	Nelson \	Chaudhary	Geomorph	ΑVE	MacDonald	Stetson	Total Project
Task 1 - Project Management and Organizational	Task Total Hours	446	4	16	28	50	80	3	•	0	28	20	-	69
Logistics	Task Cost	\$64,036	\$950	\$2,448	\$3,220	\$1,520	\$1,560	\$7,392	S	os	200	\$7.753	, 5	487 DAY
Task 2 - Environmental Studies and Permits	Task Total Hours	38	80	56	152	0	0		•	0	٥	0	3 0	395
	Task Cost	\$13,200	\$1,901	\$7,788	\$18,860	\$0	\$	S	S	જ	ន	OS OS	Ş	541 749
Task 3 - Public Outreach	Task Total Hours	113	2	12	0	12	0	263	o	٥	0	55	-	468
	Task Cost	\$19,776	\$2,851	\$1,836	\$0	\$2,280	S	\$31,990	Şo	Ş	Ş	\$6.788	s	<b>CEE 533</b>
Task 4 - Topographic Mapping, Aerial	Task Total Hours	76	0	0	0	٥			270	0	•	0	3 0	245
Photogrammetric Surveys, & ROW Mapping	Task Cost	\$13,600	\$	\$	S	ន	S	S	\$37,651	S	\$	Ş	, 5	\$51.351
Task 5 - Geotechnical Investigation and	Task Total Hours	21	0	0	٥	0	119	0	0	٥	0	0	3	140
ravement Design	Task Cost	\$3,650	S	옸	S	\$	\$14,023	\$0	\$	S	ŝ	S	S	\$17,673
Task 6 - Utility Investigations and Coordination	Task Total Hours	3	٥	0	٥	0	0	0	0	0	٥	0		2
T	Task Cost	\$10,200	જ	S	S	S	S	S	\$	os	જ	S	S	\$10,200
Lask / - Stream Hydrologic and Hydraulic	Task Total Hours	18	0	0	٥	٥	٥	0	0	0	0	0	0	18
Analysis	Task Cost	\$3,050	S	Ş	ŞQ	S	S	S	\$	S	S	S	S	\$3.050
Task 8 - Stream Geomorphology	Task Total Hours	2	0	٥	0	٥	0	0	0	16	0	0	0	52
	Task Cost	\$1,900	S	ន	S	æ	ន	S	જ	\$2,560	જ	SS	ន	\$4,460
Task 9 - Traffic Analysis	Task Total Hours	œ,	٥	٥		٥	۰	٥	0	0	٥	0		30
	Task Cost	\$4,520	ន	S	S	S	S	S	Ş	os	S	8	S	\$4,520
Task 10 - Civil and Structural Design	lask Total Hours	246	16	٥		0	٥	0	0	91	195	55		929
	Task Cost	\$87,680	53,802	8	S	S	S	\$	\$0	\$2,560	\$27,756	\$6,195	8	\$127,503
Task 11 - Bidding Assistance	Task Total Hours	٥	0	٥	9	0	0	0	0	0	0	٥		0
The state of the s	Task Cost	8	S	S	8	S	S	S	\$	\$0	ŝ	S	8	Ş
Task 12 - Services During Construction	ask lotal Hours		٥	٥	٥.	-	-	0	٥	0	0	0	0	0
	lask Cost	7	3	8	S	S	ន	S	S	&	Ş	\$0	ŝ	So
	rioject jotal nours	1,492	\$	2	61	-	127	ĕ	270	32	223	132	0	2,919
	rroject fotal Labor Cost	\$221,612	59,504	\$12,072	222,080	٥	\$15,583	\$39,383	\$37,651	\$5,120	\$31,276	\$15,747	જ	\$413,827
	Salary Escalation	S	8	S,	S	S	\$935	\$65	S	S	\$0	\$0	S	\$1,000
	Supconsuitants	\$230,057	8	S	S	S	\$9,222	ዴ	\$6,940	\$0	005'9\$	S	S	\$22,662
1005	Sub-Markup (10% Max)	518,046	S.	S	S	S	\$922	ន	\$694	\$0	059\$	\$0	S	\$20,312
100	rermit rees	S	ន	S	\$, 800	S	Ş	S	ŝ	S	0\$	S	ន	\$4,800
	Total of others of	26,280	3	ន	8	-	┪	\$2,059	S	S	\$4,075	\$800	જ	\$13,394
	iotal re roase cost	74/5,934	\$9,504	\$12,072	526,880	23,800	\$26,842	\$41,507	\$45,285	\$5,120	\$42,501	\$16,547	\$	\$475,994

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