

AGREEMENT FOR ENGINEERING SERVICES
FOR
REPAIR OF SOCRATES MINE ROAD LANDSLIDES
IN LAKE COUNTY, CALIFORNIA

This Agreement is made and entered into this _____ day of _____, 2018, by and between the COUNTY of Lake, hereinafter referred to as "COUNTY", and Cal Engineering & Geology, Inc., hereinafter referred to as "CONSULTANT".

WHEREAS, COUNTY will be utilizing Federal Emergency Management Agency (FEMA) funding, administered by the California Office of Emergency Services (Cal OES), to repair the landslides on Socrates Mine Road, hereinafter referred to as "PROJECT"; and

WHEREAS, preliminary design, final design, right of way, bidding and construction assistance services will be required for the PROJECT; and

WHEREAS, CONSULTANT is a licensed professional Civil Engineer in the State of California and is qualified and willing to provide said services.

NOW, THEREFORE, it is mutually agreed by the parties as follows:

**I.
SCOPE OF SERVICES**

- A. CONSULTANT shall perform the services described in Exhibit "A", attached hereto and incorporated herein by this reference hereinafter called Scope of Work. In the event of a conflict between this Agreement and Exhibit "A", the provisions of this Agreement shall control.
- B. Time of Beginning and Completion of Services: Work on the PROJECT shall begin no later than five (5) calendar days after CONSULTANT's receipt of a COUNTY issued Notice to Proceed. CONSULTANT shall perform services within the times or by the dates provided in Exhibit "A", which by reference is made a part hereof, except that, if applicable, the schedule may be adjusted to reflect any delay in issuance of the Notice to Proceed, or other delay factors not subject to CONSULTANT control.

**II.
COUNTY'S RESPONSIBILITIES**

The COUNTY's responsibilities will include the payment for the CONSULTANT's services and the time period within which payment must be made. Additionally, the COUNTY may agree to provide certain information, documents, work space, and/or materials.

- A. COUNTY Furnished Data: COUNTY will provide to CONSULTANT all data in COUNTY's possession relating to CONSULTANT's services on the PROJECT.
- B. Access to Facilities and Property: COUNTY will make its facilities accessible to CONSULTANT as required for CONSULTANT's performance of its services. COUNTY will be responsible for all acts of COUNTY's personnel.
- C. Advertisements, Permits, and Access: Unless otherwise agreed to in the Scope of Services, COUNTY will obtain, arrange and pay for all advertisements for bids; permits and licenses required by local, state, or federal authorities; and land, easements, rights-of-way, and access necessary for CONSULTANT's services.

- D. Timely Review: COUNTY will examine CONSULTANT's studies, reports, sketches, drawings, specifications, proposals, and other documents; obtain advice of an attorney, insurance counselor, accountant, auditor, bond and financial advisors, and other consultants as COUNTY deems appropriate; and render in writing decisions required by COUNTY in a timely manner.
- E. Prompt Notice: COUNTY will give prompt written notice to CONSULTANT whenever COUNTY observes or becomes aware of any development that affects the scope or timing of CONSULTANT's services, or of any defect in the work of CONSULTANT.
- F. Environmental Clearances: COUNTY will be responsible for all environmental clearances.
- G. Asbestos or Hazardous Substances and Indemnification: If asbestos or hazardous substances in any form are encountered or suspected, CONSULTANT will stop its own work in the affected portions of the PROJECT to permit testing and evaluation.

If asbestos is suspected, CONSULTANT will if requested, manage the asbestos remediation activities using a qualified subcontractor at an additional fee and contract terms to be negotiated.

To the maximum extent permitted by law, COUNTY will indemnify CONSULTANT and CONSULTANT's officers, employees, subcontractors, and affiliated corporations from all claims, damages, losses, and costs, including, but not limited to, attorney's fees and litigation or dispute resolution expenses arising out of or relating to the presence, discharge, release, or escape of hazardous substances, contaminants, or asbestos on, under, or from the PROJECT.

III. CONSULTANT'S REPORT AND/OR MEETINGS

- A. The CONSULTANT shall submit progress reports at least once a month. The report should be sufficiently detailed for the COUNTY's Project Manager to determine if the CONSULTANT is performing to expectations or is on schedule, to provide communication of interim findings and to afford occasions for airing difficulties or special problems encountered so remedies can be developed.
- B. The CONSULTANT's Project Manager shall meet with the COUNTY's Project Manager as needed to discuss progress on the project(s).

IV. SUBCONTRACTOR/DBE PARTICIPATION

A. Subcontractors

- 1. Nothing contained in this Agreement or otherwise, shall create any contractual relation between the Agency and any subcontractors, and no subcontract shall relieve the Contractor of his/her responsibilities and obligations hereunder. The Contractor agrees to be as fully responsible to the Agency for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the Contractor. The Contractor's obligation to pay its subcontractors is an independent obligation from the Agency's obligation to make payments to the Contractor.
- 2. Any subcontract in excess of \$25,000, entered into as a result of this Agreement, shall contain all the provisions stipulated in this Agreement to be applicable to subcontractors.
- 3. Contractor shall pay its subcontractors within ten (10) calendar days from receipt of each payment made to the Contractor by the Agency.

4. Any substitution of subcontractors must be approved in writing by the Agency's Contract Manager in advance of assigning work to a substitute subcontractor.

B. Participation by Disadvantaged Business Enterprise (DBE), Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms

1. This Agreement is subject to 49 CFR, Part 26 entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs" and 2 CFR 200.312 entitled "Contracting with Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms."
2. If the contract has a DBE goal, the Consultant must meet the DBE goal by committing DBE participation or document a good faith effort to meet the goal. If a DBE subconsultant is unable to perform, the Consultant must make a good faith effort to replace him/her with another DBE subconsultant, if the goal is not otherwise met.
3. DBEs and other small businesses, as defined in 49 CFR, Part 26 are encouraged to participate in the performance of agreements financed in whole or in part with federal funds. The Consultant or subconsultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. The Consultant shall carry out applicable requirements of 49 CFR, Part 26 in the award and administration of US DOT- assisted agreements. Failure by the Consultant to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy as the local agency deems appropriate.
4. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this section.

C. Performance of DBE Consultant and other DBE Subconsultants/Suppliers

1. A DBE performs a commercially useful function when it is responsible for execution of the work of the Agreement and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible with respect to materials and supplies used on the Agreement, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, evaluate the amount of work subcontracted, industry practices; whether the amount the firm is to be paid under the Agreement is commensurate with the work it is actually performing; and other relevant factors.
2. A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, Agreement, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, examine similar transactions, particularly those in which DBEs do not participate.
3. If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its Agreement with its own work force, or the DBE subcontracts a greater portion of the work of the Agreement than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that it is not performing a commercially useful function.

D. Prompt Payment of Funds Withheld to Subcontractors

1. The Agency shall hold retainage from the prime consultant and shall make prompt and regular incremental acceptances of portions, as determined by the Agency, of the contract work, and pay retainage to the prime contractor based on these acceptances. The prime consultant, or subconsultant, shall return all monies withheld in retention from a subconsultant within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the agency. Federal law (49 CFR 26.29) requires that any delay or postponement of payment over 30 days may take place only for good cause and

with the agency's prior written approval. Any violation of this provision shall subject the violating prime consultant or subconsultant to the penalties, sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies, otherwise available to the prime consultant or subconsultant in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subconsultant performance, or noncompliance by a subcontractor. This provision applies to both DBE and non-DBE prime consultant and subconsultants.

2. Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this section.

E. DBE Records

1. The Consultant shall maintain records of materials purchased and/or supplied from all subcontracts entered into with certified DBEs. The records shall show the name and business address of each DBE or vendor and the total dollar amount actually paid each DBE or vendor, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all firms. DBE prime consultants shall also show the date of work performed by their own forces along with the corresponding dollar value of the work.
2. Upon completion of the Agreement, a summary of these records shall be prepared and submitted on the form entitled, "Final Report-Utilization of Disadvantaged Business Enterprise (DBE), First-Tier Subcontractors," CEM-2402F (Exhibit 17-F, Chapter 17, of the LAPM), certified correct by the Consultant or the Consultant's authorized representative and shall be furnished to the Contract Manager with the final invoice. Failure to provide the summary of DBE payments with the final invoice will result in 25% of the dollar value of the invoice being withheld from payment until the form is submitted. The amount will be returned to the Consultant when a satisfactory "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors" is submitted to the Contract Manager.

F. DBE Certification and Decertification Status:

If a DBE sub-consultant is decertified during the life of the Agreement, the decertified sub-consultant shall notify the Consultant in writing with the date of decertification. If a sub-consultant becomes a certified DBE during the life of the Agreement, the sub-consultant shall notify the Consultant in writing with the date of certification. Any changes should be reported to the Agency's Contract Manager within 30 days.

V.

PREVAILING WAGE

- A. The CONSULTANT shall comply with the State of California's General Prevailing Wage Rate requirements in accordance with California Labor Code, Section 1770, and all federal, state, and local laws and ordinances applicable to the work.
- B. Any subcontract entered into as a result of this contract if for more than \$25,000 for public works construction or more than \$15,000 for the alteration, demolition, repair, or maintenance of public works, shall contain all of the provisions of this Article.

VI.

COMPENSATION AND TERMS OF PAYMENT

Payment to CONSULTANT will be made as follows:

- A. **Invoices and Time of Payment:** Monthly invoices will be issued by CONSULTANT for all services performed under this Agreement. Invoices shall reference the project title and include a detailed breakdown of work items and unit costs by task and project site with a summary of all work completed to

date and the cost of work remaining. Undisputed invoices shall be paid within 30 days of receipt. Each invoice will include a 5% retention amount.

Invoices shall be mailed to the Contract Manager, Fred Pezeshk, at the following address:

County of Lake
Public Works Department
255 N. Forbes Street, Room 309
Lakeport, California 95453
Attn: Fred Pezeshk

Upon satisfactory completion of services enumerated in ARTICLE I herein, the final payment of any balance will be due upon receipt of the final invoice. The final invoice should be submitted within 60-calendar days after completion of the CONSULTANT's work.

- B. **Interest:** Interest at the rate of 1-1/2% per month, or that permitted by law if lesser, will be charged on all past-due amounts starting thirty (30) days after receipt of invoice and required documentation. Payments will first be credited to interest and then to principal.

In the event of a disputed or contested billing, only that portion so contested will be withheld from payment, and the undisputed portion will be paid. COUNTY will exercise reasonableness in contesting any bill or portion thereof. No interest will accrue on any contested portion of the billing until mutually resolved.

If COUNTY fails to make payment in full to CONSULTANT for services within sixty (60) days of the date due for any uncontested billing, CONSULTANT may, after giving seven (7) days written notice to COUNTY, suspend services under this Agreement until paid in full, including interest. In the event of suspension of services, CONSULTANT will have no liability to COUNTY for delays or damages caused COUNTY because of such suspension of services.

- C. **Compensation:** The method of payment for this contract will be based on actual cost plus a fixed fee. COUNTY will reimburse CONSULTANT for actual costs (including labor costs, employee benefits, travel, equipment rental costs, overhead and other direct costs) incurred by CONSULTANT in performance of the work set forth in Exhibit "A". Direct Costs for Sub Consultants will be billed as actual costs. No payment will be made prior to approval of any work, nor for any work performed prior to approval of this Agreement.

CONSULTANT will not be reimbursed for actual costs that exceed the estimated wage rates, employee benefits, travel, equipment rental, overhead, and other estimated costs set forth in the approved CONSULTANT'S Cost Proposal, unless additional reimbursement is provided for by contract amendment. In no event, will CONSULTANT be reimbursed for overhead costs at a rate that exceeds COUNTY's approved overhead rate set forth in the Cost Proposal. In the event, that COUNTY determines that a change to the work from that specified in the Cost Proposal and contract is required, the contract time or actual costs reimbursable by COUNTY shall be adjusted by contract amendment to accommodate the changed work.

For all services CONSULTANT shall be paid in accordance with the budget set forth in Exhibit "B", provided however that the total payments to CONSULTANT shall not exceed \$232,297.02 without prior written authorization by COUNTY and formal Amendment to this Agreement.

Upper Landslide Site (Lat/Long 38.7752,-122.7304)	\$116,148.51
Lower Landslide Site (Lat/Long 38.7796,-122.7234)	\$116,148.51

In addition to the allowable incurred costs, COUNTY will pay CONSULTANT a fixed fee of \$4,459.79 per site, for a total of \$8,919.58. The fixed fee is nonadjustable for the term of the contract, except in the event of a significant change in the scope of work and such adjustment is made by contract amendment.

Reimbursement for transportation and subsistence costs shall not exceed the rates specified in the approved Cost Proposal.

VII.

TERM

This Agreement shall commence on the date hereinabove entered into and shall terminate on December 31, 2022, unless earlier terminated as hereinafter provided. This term may be extended an appropriate period of time in case of unavoidable delays and for consideration of corresponding warranted adjustments in payment by modification of this agreement as hereafter provided.

VIII.

DUE PERFORMANCE - DEFAULT

Each party to this Agreement undertakes the obligation that the other's expectation of receiving the performance due under the terms of this Agreement will not be impaired. Upon the occurrence of any default of the provisions of this Agreement, a party shall give written notice of said default to the party in default. If the party in default does not cure the default within ten (10) days of the date of that notice (i.e. the time to cure) then such party shall be in default. The time to cure may be extended at the discretion of the party giving notice. Any extension of time to cure shall be in writing executed by both parties and must specify the reason(s) for the extension and the date the extension of time to cure expires.

Notice given under this provision shall specify the alleged default and the applicable Agreement provision and shall demand that the party in default perform the provisions of this Agreement within the applicable time period. No such notice shall be deemed a termination of this Agreement, unless the party giving notice so elects in that notice, or so elects in a subsequent written notice after the time to cure has expired.

IX.

TERMINATION

This Agreement may be terminated as follows:

- A. By mutual written consent of the parties; or
- B. By COUNTY or Director of Public Works upon thirty (30) days written notice to CONSULTANT.

Upon termination prior to the full and satisfactory completion of CONSULTANT's performance under this Agreement, COUNTY shall not be liable to pay CONSULTANT the total compensation set forth in Article VI of this Agreement, but CONSULTANT shall be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of the CONSULTANT covered by this Agreement. Upon termination of this contract, ownership and title to all reports, documents, plans, specifications, and estimates produced as part of this contract will automatically be vested in the COUNTY, and no further agreement will be necessary to transfer ownership to the COUNTY.

X.

INSURANCE

CONSULTANT shall not commence work under this Agreement until he has obtained all the insurance required herein, certificates of insurance have been submitted to COUNTY, and said insurance has been approved by COUNTY. The certificates of insurance shall contain a provision that coverage afforded under the policies will not be cancelled until at least thirty (30) days prior written notice has been given to COUNTY, ten (10) days' notice if cancellation is due to nonpayment of premium.

CONSULTANT shall not allow any subcontractor to commence work on his subcontract until the

insurance required of the subcontractor has been obtained.

Any failure of CONSULTANT to maintain the insurance required by this provision, or to comply with any of the requirements of this provision, shall constitute a material breach of the entire Agreement. COUNTY shall not be responsible for any premiums or assessments on the policy.

Certificates evidencing the issuance of the following insurance shall be filed with COUNTY within ten (10) days after the date of execution of this Agreement by CONSULTANT and prior to commencement of work hereunder.

- A. **Compensation Insurance.** CONSULTANT shall procure and maintain, at CONSULTANT's own expense during the term hereof, Workers' Compensation Insurance and Employer's Liability Insurance as required by the State of California, for all employees to be engaged in work. In any case of such work sublet, CONSULTANT shall require subcontractor similarly to provide Employer's Liability Insurance and Workers' Compensation Insurance for all of the latter's employees to be engaged in such work, unless such employees are covered by the protection afforded by CONSULTANT's Workers' Compensation Insurance and Employer's Liability Insurance. Employer's Liability Insurance shall be in an amount not less than One Million Dollars (\$1,000,000.00) per occurrence.
- B. **Commercial General Liability.** CONSULTANT shall procure and maintain, at CONSULTANT's own expense during the term hereof, upon himself and his employees at all times during the course of this Agreement, Commercial General Liability Insurance (Occurrence Form CG 0001) for bodily injury, personal injury, and broad form property damage, in an amount of not less than One Million dollars (\$1,000,000.00) combined single limit coverage per occurrence, including but not limited to endorsements for the following coverages: Personal and advertising injury, Premises-operations, Products and completed operations, Blanket contractual, and Independent CONSULTANT's liability. If such policy includes an aggregate limit, such aggregate limit shall be at least double the per occurrence limit required herein.
- C. **Automobile Liability Insurance.** CONSULTANT shall procure and maintain, at CONSULTANT's own expense during the term hereof, Comprehensive Automobile Liability Insurance, both bodily injury and property damage, on owned, hired, leased, and non-owned vehicles used in connection with CONSULTANT's business in an amount not less than One Million Dollars (\$1,000,000.00) combined single limit coverage per occurrence.
- D. **Professional Liability Insurance.** CONSULTANT shall procure and maintain, at CONSULTANT's own expense during the term hereof, Professional Liability Insurance for protection against claims arising out of the performance of services under this Agreement caused by errors, omissions, or other acts for which CONSULTANT, its employees, subcontractors, and agents, are liable. Said insurance shall be written with limits of not less than One Million Dollars (\$1,000,000.00). If said insurance is written on a "claims made" form, insurance shall be maintained and evidence of insurance must be provided for at least one (1) year after completion of the work under this Agreement.
- E. **Subcontractors.** CONSULTANT shall include all subcontractors as insured under the aforesaid policies or shall furnish separate certificates and endorsements to the COUNTY for each subcontractor which shall be subject to review and approval by COUNTY. All insurance coverages for subcontractors shall be subject to each of the requirements hereinabove and contain the additional insured endorsements required of CONSULTANT described with particularity hereinbelow.
- F. **Additional Insured Endorsement.** The Commercial General Liability and Automobile Liability Insurance must each contain, or be endorsed to contain, the following provision:

The COUNTY, its officers, officials, employees, and designated agents are to be covered as additional insureds and shall be added in the form of an endorsement to CONSULTANT's insurance on Form CG 20 10 11 85. CONSULTANT shall not commence work under this Agreement until he has had delivered to COUNTY the Additional Insured Endorsements required herein. This provision is not intended to extend to construction contractors contracted by the COUNTY to perform the work

of improvement.

Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under subdivision (b) of California Civil Code Section 2782.

- G. **Other Insurance Provisions.** For any claims related to the work performed under this Agreement by CONSULTANT, the CONSULTANT's insurance coverage shall be primary insurance as to the COUNTY, its officers, officials, employees, designated agents and appointed volunteers. Any insurance or self-insurance maintained by COUNTY, its officers, officials, employees, designated agents or appointed volunteers shall be in excess of the CONSULTANT's insurance and shall not contribute with it.

Any deductibles or self-insured retentions must be declared to and approved by COUNTY. At the option of COUNTY, either CONSULTANT shall reduce or eliminate such deductibles or self-insurance retentions as they apply to COUNTY or CONSULTANT shall provide a financial guarantee satisfactory to COUNTY guaranteeing payment of losses and related investigations, claim administration, and defense and defense-related expenses.

Insurance coverage required of CONSULTANT under this Agreement shall be placed with insurers with a current A.M. Best rating of no less than A: VII.

Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve the CONSULTANT for liability in excess of such coverage, nor shall it preclude COUNTY from taking other action as is available to it under any other provision of this Agreement or applicable law. Failure of COUNTY to enforce in a timely manner any of the provisions of this section shall not act as a waiver to enforcement of any of these provisions at a later date.

If any insurance coverage required by this Agreement is provided on a "Claims Made", rather than "occurrence" form, CONSULTANT agrees to maintain required coverage for a period of three years after the expiration of this Agreement (hereinafter, "Post Agreement Coverage") and any extensions thereof. CONSULTANT may maintain the required Post Agreement Coverage by renewal or purchase of prior acts or tail coverage. This subprovision is contingent upon Post Agreement Coverage being both available and reasonably affordable in relation to the coverage provided during the term of this Agreement. For purposes of interpreting this requirement, a cost not exceeding 100% of the last annual policy premium during the term of this Agreement in order to purchase prior acts or tail coverage for Post Agreement Coverage shall be deemed to be reasonable.

COUNTY shall include a provision in its contract with the general contractor hired to perform the work of improvement a provision requiring that the general contractor and all of its subcontractors maintain general liability insurance of not less than \$1,000,000 and that such insurance include the COUNTY, its officers, officials, employees, designated agents, appointed volunteers and the CONSULTANT, as additional insureds.

XI.

INDEMNIFICATION - HOLD HARMLESS

Each Party shall indemnify and hold the other harmless against all actions, claims, demands, and liabilities and against all losses, damage, cost, expenses, and attorney's fees, that arise out of, pertain to, or relate to its own negligent acts and/or omissions, recklessness, or willful misconduct which caused said claim, demand, liability, loss, damage, cost expense, and/or attorney's fees. This provision shall not extend to any claim, demand, liability, loss, damage, cost, expenses, and/or attorney's fees covered by the insurance of either party. CONSULTANT's liability hereunder shall be limited by the COUNTY to the amount of the available coverage under CONSULTANT's insurance coverage as described in Section X. herein.

CONSULTANT's obligations under this Section shall survive the termination of the Agreement.

XII. CONSULTANT'S WARRANTIES

CONSULTANT hereby makes the following representations and warranties:

- A. **Standard of Care.** CONSULTANT represents that it is specially trained, licensed, experienced, and competent to perform all the services, responsibilities, and duties specified herein and that such services, responsibilities, and duties shall be performed, whether by CONSULTANT or designated subcontractors, in a manner according to generally accepted practices of the engineering profession.

If COUNTY determines that any of CONSULTANT's work is not in accordance with such level of competency and standard of care, COUNTY, in its sole discretion, shall have the right to do any or all of the following: (a) require CONSULTANT to meet with COUNTY to review the quality of the work and resolve matters of concern; (b) require CONSULTANT to correct the work at no additional charge to generally accepted standards and practices of the engineering profession; (c) terminate this Agreement pursuant to the provisions of Article IX; or (d) pursue any and all other remedies at law or in equity.

Assigned Personnel:

1. CONSULTANT shall assign only competent personnel to perform work hereunder. In the event that at any time COUNTY, in its sole discretion, desires the removal of any person or persons assigned by CONSULTANT to perform work hereunder, CONSULTANT shall remove such person or persons immediately upon receiving written notice from COUNTY.
 2. Any and all persons identified in this Agreement or any exhibit hereto as the project manager, project team, or other professional performing work hereunder are deemed by COUNTY to be key personnel whose services were a material inducement to COUNTY to enter into this Agreement. CONSULTANT shall not remove, replace, substitute, or otherwise change any key personnel without the prior written consent of COUNTY. With respect to performance under this Agreement, CONSULTANT shall employ the key personnel identified in Exhibit "A".
 3. In the event that any of CONSULTANT's personnel assigned to perform services under this Agreement become unavailable due to resignation, sickness or other factors outside of CONSULTANT's control, CONSULTANT shall be responsible for timely provision of adequately qualified replacements.
- B. **Non-Discrimination in Employment.** CONSULTANT shall, in all solicitations or advertisements for employees placed by or on behalf of the CONSULTANT, state that all qualified applicants will receive consideration for employment without regard to race, color, creed religion, sex, sexual orientation, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or age. During the performance of this Contract, Consultant and its sub-consultant shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g., cancer), age (over 40), marital status, and denial of family care leave. Consultant and sub-consultants shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Consultant and sub-consultants shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Contract by reference and made a part hereof as if set forth in full. Consultant and its sub-consultants shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

Consultant shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Contract.

- C. **Adherence to Applicable Disability Law.** CONSULTANT shall be responsible for knowing and adhering to the requirements of Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, (42 U.S.C. Sections 12101, et seq.). California Government Code Sections 12920 et seq., and all related state and local laws.
- D. **HIPAA Compliance.** CONSULTANT will adhere to Titles 9 and 22 and all other applicable Federal and State statutes and regulations, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and will make his best efforts to preserve data integrity and the confidentiality of protected health information.
- E. **Safety Responsibilities.** CONSULTANT will adhere to all applicable CalOSHA requirements in performing work pursuant to this Agreement. CONSULTANT agrees that in the performance of work under this Agreement, CONSULTANT will provide for the safety needs of its employees and will be responsible for maintaining the standards necessary to minimize health and safety hazards.
- F. **Interest of CONSULTANT.** CONSULTANT hereby covenants that he has, at the time of the execution of this Agreement, no interest, direct or indirect, and that he shall not acquire any interest in the future, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. CONSULTANT further covenants that in the performance of this work, no person having such interest shall be employed.
- G. **Covenant Against Contingent Fees.** The CONSULTANT warrants that he/she has not employed or retained any company or person, other than a bona fide employee working for the CONSULTANT, to solicit or secure this Agreement, and that he/she has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or formation of this Agreement. For breach or violation of this warranty, the COUNTY shall have the right to annul this Agreement without liability, or at its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.
- H. **Compliance with Federal Law, Regulations, and Executive Orders.** The CONSULTANT acknowledges that FEMA financial assistance will be used to fund the Agreement, and agrees to comply with all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.
- I. **Compliance with the Clean Air Act and the Federal Water Pollution Control Act.** The CONSULTANT agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. §§ 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. §§ 1251-1387).

Clean Air Act

- (1) The CONSULTANT agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- (2) The CONSULTANT agrees to report each violation to the (name of the state agency or local or Indian tribal government) and understands and agrees that the (name of the state agency or local or Indian tribal government) will, in turn, report each violation as required to assure notification to the (name of recipient), Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- (3) The CONSULTANT agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

Federal Water Pollution Control Act

- (1) The CONSULTANT agrees to comply with all applicable standards, orders or regulations

issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

- (2) The CONSULTANT agrees to report each violation to the (name of the state agency or local or Indian tribal government) and understands and agrees that the (name of the state agency or local or Indian tribal government) will, in turn, report each violation as required to assure notification to the (name of recipient), Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- (3) The CONSULTANT agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

J. **Program Fraud and False or Fraudulent Statements or Related Acts.** The CONSULTANT acknowledges that 31 U.S.C. Chapter 38 (Administrative Remedies for False Claims and Statements) applies to the CONSULTANT's actions pertaining to this contract.

K. **Laws to be observed.** CONSULTANT will comply with all laws, regulations, orders, and decrees applicable to the PROJECT. Indemnify and defend the COUNTY against any claim or liability arising from the violation of a law, regulation, order, or decree by CONSULTANT or your employees. Immediately report to the Contract Manager a discrepancy or inconsistency between the Contract and a law, regulation, order, or decree.

If the COUNTY incurs any fines or penalties because of CONSULTANT's failure to comply with a law, regulation, order, or decree, the COUNTY will deduct the amount of the fine or penalty.

Immediately notify the Contract Manager, if a regulatory agency requests access to the job site or to records. Submit a list of documents provided to the agency and issued enforcement actions.

XIII. ASSIGNMENT

CONSULTANT shall not assign any interest in this Agreement and shall not transfer any interest in the same without the prior written consent of COUNTY, except that claims for money due or to become due the CONSULTANT from COUNTY under this Agreement may be assigned by the CONSULTANT to a bank, a trust company, or other financial institution without such approval. Written notice of any such transfer shall be furnished promptly to the COUNTY. Any attempt at assignment of rights under this Agreement except for those specifically consented to by both parties or as stated above shall be void.

XIV. INDEPENDENT CONSULTANT

It is specifically understood and agreed that, in the making and performance of this Agreement, CONSULTANT is an independent CONSULTANT and is not an employee, agent or servant of COUNTY. CONSULTANT is not entitled to any employee benefits. COUNTY agrees that CONSULTANT shall have the right to control the manner and means of accomplishing the result contracted for herein.

CONSULTANT is solely responsible for the payment of all federal, state, and local taxes, charges, fees, or contributions required with respect to CONSULTANT and CONSULTANT's officers, employees, and agents who are engaged in the performance of this Agreement (including without limitation, unemployment insurance, social security, and payroll tax withholding).

XV. MODIFICATION

A. This Agreement may only be modified by a written amendment thereto, executed by both parties.

However, matters concerning scope of services which do not affect the agreed price may be modified by mutual written consent of CONSULTANT and COUNTY executed by Director of Public Works.

- B. CONSULTANT shall only commence work covered by an amendment after the amendment is executed and notification to proceed has been provided by the COUNTY's Project Manager.
- C. There shall be no change in the CONSULTANT's Project Manager or members of the project team, as listed in the Cost Proposal which is a part of this contract, without prior written approval by the COUNTY's Project Manager.

XVI. ATTORNEYS FEES AND COSTS

If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which such party may be entitled.

XVII. OWNERSHIP OF DATA

- A. Upon completion of all work under this contract, ownership and title to all reports, documents, plans, specifications, and estimates produced as part of this contract will automatically be vested in the COUNTY, and no further agreement will be necessary to transfer ownership to the COUNTY. The CONSULTANT shall furnish the COUNTY all necessary copies of data needed to complete the review and approval process.
- B. It is understood and agreed that all calculations, drawings and specifications, whether in hard copy or machine-readable form, are intended for one-time use in the construction of the project for which this contract has been entered into.
- C. The CONSULTANT is not liable for claims, liabilities, or losses arising out of, or connected with the modification, or misuse by the COUNTY of the machine-readable information and data provided by the CONSULTANT under this agreement; further, the CONSULTANT is not liable for claims, liabilities, or losses arising out of, or connected with, any use by the COUNTY of the project documentation on other projects, for additions to this project, or for the completion of this project by others, except only such use as many be authorized in writing by the CONSULTANT.
- D. Applicable patent rights provisions described in 37 CFR Part 401 entitled "Rights to Inventions Made by Non-Profit Organizations and Small Business Firms Under Government Grants, Contracts, and Cooperative Agreements" and any implementing regulations issued by FEMA, regarding rights to inventions, apply to this Agreement.
- E. The CONSULTANT may copyright reports or other agreement products. FEMA shall have the royalty-free nonexclusive and irrevocable right to reproduce, publish, or otherwise use; and to authorize others to use, the work for government purposes.
- F. Any subcontract in excess of \$25,000 entered into as a result of this contract, shall contain all of the provisions of this Article.

XVIII. RETENTION OF RECORDS / ACCESS / AUDIT

For the purpose of determining compliance with Public Contract Code 10115, et seq. and Title 21, California Code of Regulations, Chapter 21, Section 2500 et. Seq., when applicable, and other matters connected with the performance of the contract pursuant to Government Code 10532, the CONSULTANT, subcontractors and the COUNTY shall maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of the contract, including but not

limited to, the costs of administering the contract. All parties shall make such materials available at their respective offices at all reasonable times during the contract period and for three (3) years from the date of final payment under the contract. The FEMA Administrator, the Comptroller General of the United States, the State Auditor, the COUNTY, or any duly authorized representative of the federal government shall have access to any books, records, and documents of the CONSULTANT that are pertinent to the contract for audits, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested.

Subcontracts in excess of \$25,000 shall contain this provision.

XIX.
JURISDICTION AND VENUE

This Agreement shall be construed in accordance with the laws of the State of California and the parties hereto agree that venue of any action or proceeding regarding this Agreement or performance thereof shall be in Lake County, California. CONSULTANT waives any right of removal it might have under California Code of Civil Procedure Section 394.

XX.
NO THIRD-PARTY BENEFICIARIES

Nothing contained in this Agreement shall be construed to create, and the parties do not intend to create, any rights in or for the benefit of third parties.

XXI.
SEVERABILITY

If any provision of this Agreement is held to be unenforceable, the remainder of this Agreement shall be severable and not affected thereby.

XXII.
NON-APPROPRIATION

In the event COUNTY is unable to obtain funding at the end of each fiscal year for professional engineering services required during the next fiscal year, COUNTY shall have the right to terminate this Agreement, without incurring any damages or penalties, and shall not be obligated to continue performance under this Agreement. To the extent any remedy in this Agreement may conflict with Article XVI of the California Constitution or any other debt limitation provision of California law applicable to COUNTY, CONSULTANT hereby expressly and irrevocably waives its right to such remedy.

XXIII.
CLAIMS FILED BY COUNTY'S CONSTRUCTION CONTRACTOR

- A. If claims are filed by the COUNTY's construction contractor relating to work performed by CONSULTANT's personnel and additional information or assistance from the CONSULTANT's personnel is required in order to evaluate or defend against such claims, CONSULTANT agrees to make its personnel available for consultation with the COUNTY's construction contract administration and legal staff and for testimony, if necessary, at depositions and at trial or arbitration proceedings.
- B. CONSULTANT's personnel that the COUNTY considers essential to assist in defending against construction contractor claims will be made available on reasonable notice from the COUNTY. Consultation or testimony will be reimbursed at the same rates, including travel costs, that are being paid for the CONSULTANT's personnel services under this Agreement.

- C. Services of the CONSULTANT's personnel in connection with the COUNTY's construction contractor claims will be performed pursuant to a written supplement, if necessary, extending the termination date of this Agreement in order to finally resolve the claims.
- D. Any subcontract in excess of \$25,000, entered into as a result of this contract, shall contain all of the provisions of this Article.

XXIV.
CONFIDENTIALITY OF DATA

- A. All financial, statistical, personal, technical, or other data and information relative to the COUNTY's operations, which is designated confidential by the COUNTY and made available to the CONSULTANT in order to carry out this contract, shall be protected by the CONSULTANT from unauthorized use and disclosure.
- B. Permission to disclose information on one occasion or public hearing held by the COUNTY relating to the contract, shall not authorize the CONSULTANT to further disclose such information or disseminate the same on any other occasion.
- C. The CONSULTANT shall not comment publicly to the press or any other media regarding the contract or the COUNTY's actions on the same, except to the COUNTY's staff, CONSULTANT's own personnel involved in the performance of this contract, at public hearings, or in response to questions from a Legislative committee.
- D. The CONSULTANT shall not issue any news release or public relations item of any nature whatsoever regarding work performed or to be performed under this contract without prior review of the contents thereof by the COUNTY and receipt of the COUNTY's written permission.
- E. Any subcontract, entered into as a result of this contract, shall contain all of the provisions of this Article.
- F. All information related to the construction estimate is confidential and shall not be disclosed by the CONSULTANT to any entity, other than the COUNTY.

XXV.
NATIONAL LABOR RELATIONS BOARD CERTIFICATION

In accordance with Public Contract Code, Section 10296, the CONSULTANT hereby states under penalty of perjury that no more than one final unappealable finding of contempt of court by a Federal court has been issued against the CONSULTANT within the immediately preceding two-year period because of the CONSULTANT's failure to comply with an order of a Federal court that orders the CONSULTANT to comply with an order of the National Labor Relations Board.

XXVI.
INSPECTION OF WORK

The CONSULTANT and any subCONSULTANTS shall permit the COUNTY, State and FEMA to review and inspect the project activities at all reasonable times during the performance period of this contract including review and inspection on a daily basis.

XXVII.
NON-DISCRIMINATION

- A. During the performance of this Agreement, CONSULTANT and its subcontractors shall not unlawfully discriminate, harass or allow harassment, against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, nation origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave. CONSULTANTS and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination and harassment. CONSULTANTS and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code, Section 12900.0 et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990, set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this contract by reference and made a party hereof as if set forth in full. CONSULTANT and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
- B. The CONSULTANT shall include the non-discrimination and compliance provisions of this clause in all subcontracts to perform work under this contract.
- C. CONSULTANT shall comply with Title VI of the Civil Rights Act of 1964, as amended. Accordingly, 49 CFR 21 through Appendix C and 23 CFR 710.405(b) are applicable to this contract by reference.

XXVIII.
DISPUTES

- A. Any dispute, other than audit, concerning a question of fact arising under this contract that is not disposed of by agreement shall be decided by a committee consisting of the COUNTY's Contract Manager and Department Head, who may consider written or verbal information submitted by the CONSULTANT.
- B. Not later than 30 days after completion of all deliverables necessary to complete the plans, specifications and estimate, the CONSULTANT may request review by the COUNTY GOVERNING BOARD of unresolved claims or disputes, other than audit. The request for review will be submitted in writing.
- C. Neither the pendency of a dispute, nor its consideration by the committee will excuse the CONSULTANT from full and timely performance in accordance with the terms of this contract.

XXIX.
SAFETY

- A. The CONSULTANT shall comply with OSHA regulations applicable to CONSULTANT regarding necessary safety equipment or procedures. The CONSULTANT shall comply with safety instructions issued by the COUNTY Safety Officer and other COUNTY representatives. CONSULTANT personnel shall wear hard hats and safety vests at all times while working on the construction project site.
- B. Pursuant to the authority contained in Section 591 of the Vehicle Code, the COUNTY has determined that such areas are within the limits of the project and are open to public traffic. The CONSULTANT shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the Vehicle Code. The CONSULTANT shall take all reasonably necessary precautions for safe operation of its vehicles and the protection of the traveling public from injury and damage from such vehicles.

- C. Any subcontract entered into as a result of this contract, shall contain all of the provisions of this Article.
- D. CONSULTANT must have a Division of Occupational Safety and Health (CAL-OSHA) permit(s), as outlined in California Labor Code Sections 6500 and 6705, prior to the initiation of any practices, work, method, operation, or process related to the construction or excavation of trenches which are five feet or deeper.
- E. CONSULTANT shall comply with the Contract Work Hours and Safety Standards Act.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section."

XXX. SUBCONTRACTING

- A. The CONSULTANT shall perform the work contemplated with resources available within its own organization; and no portion of the work pertinent to this contract shall be subcontracted without written authorization by the COUNTY's Contract Manager, except that, which is expressly identified in the approved Cost Proposal.
- B. Any subcontract in excess of \$25,000 entered into as a result of this contract, shall contain all the provisions stipulated in this contract to be applicable to subcontractors.
- C. Any substitution of subcontractors must be approved in writing by the COUNTY's Contract Manager.

XXXI.
STATEMENT OF COMPLIANCE

The CONSULTANT's signature affixed herein, and dated, shall constitute a certification under penalty of perjury under the laws of the State of California that the CONSULTANT has, unless exempt, complied with, the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Administrative Code, Section 8103.

XXXII.
DEBARMENT AND SUSPENSION CERTIFICATION

- A. This Agreement is a covered transaction for purposes of 2 CFR Part 180 and 2 CFR Part 3000. As such, CONSULTANT is required to verify that none of the CONSULTANT, its principals (defined at 2 CFR § 180.995), or its affiliates (defined at 2 CFR § 180.905) are excluded (defined at 2 CFR § 180.940) or disqualified (defined at 2 CFR § 180.935). The CONSULTANT further agrees to include a provision requiring such compliance in its lower tier covered transactions.
- B. The CONSULTANT must comply with 2 CFR Part 180, subpart C and 2 CFR Part 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
- C. This certification is a material representation of fact relied upon by the COUNTY. If it is later determined that the CONSULTANT did not comply with 2 CFR Part 180, subpart C and 2 CFR Part 3000, subpart C, in addition to remedies available to Cal OES and the COUNTY, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- D. Any exceptions to this certification must be disclosed to the COUNTY.
- E. Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining CONSULTANT responsibility. Disclosures must indicate to whom exceptions apply, initiating agency, and dates of action.

XXXIII.
CONFLICT OF INTEREST

- A. The CONSULTANT shall disclose any financial, business, or other relationship with COUNTY that may have an impact upon the outcome of this contract, or any ensuing COUNTY construction project. The CONSULTANT shall also list current clients who may have a financial interest in the outcome of this contract, or any ensuing COUNTY construction project, which will follow.
- B. The CONSULTANT hereby certifies that it does not now have, nor shall it acquire any financial or business interest that would conflict with the performance of services under this Agreement.
- C. Any subcontract in excess of \$25,000 entered into as a result of this contract, shall contain all of the provisions of this Article.
- D. The CONSULTANT hereby certifies that neither CONSULTANT, nor any firm affiliated with the CONSULTANT will bid on any construction contract, or on any contract to provide construction inspection for any construction project resulting from this contract. An affiliated firm is one, which is subject to the control of the same persons through joint-ownership, or otherwise.
- E. Except for subcontractors whose services are limited to providing surveying or materials testing information, no subcontractor who has provided design services in connection with this contract shall be eligible to bid on any construction contract, or on any contract to provide construction inspection for any construction project resulting from this contract.

XXXIV.
REBATES, KICKBACKS OR OTHER UNLAWFUL CONSIDERATION

The CONSULTANT warrants that this contract was not obtained or secured through rebates kickbacks or other unlawful consideration, either promised or paid to any COUNTY employee. For breach or violation of this warranty, COUNTY shall have the right in its discretion; to terminate the contract without liability; to pay only for the value of the work actually performed; or to deduct from the contract price; or otherwise recover the full amount of such rebate, kickback or other unlawful consideration.

XXXV.
PROHIBITION OF EXPENDING COUNTY STATE OR FEDERAL FUNDS FOR LOBBYING

- A. The CONSULTANT certifies to the best of his or her knowledge and belief that:
1. No state, federal or local agency appropriated funds have been paid, or will be paid by-or-on behalf of the CONSULTANT to any person for influencing or attempting to influence an officer or employee of any state or federal agency; a Member of the State Legislature or United States Congress; an officer or employee of the Legislature or Congress; or any employee of a Member of the Legislature or Congress, in connection with the awarding of any state or federal contract; the making of any state or federal grant; the making of any state or federal loan; the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any state or federal contract, grant, loan, or cooperative agreement.
 2. If any funds other than federal appropriated funds have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency; a Member of Congress; an officer or employee of Congress, or an employee of a Member of Congress; in connection with this federal contract, grant, loan, or cooperative agreement; the CONSULTANT shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- B. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, US. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- C. The CONSULTANT also agrees by signing this document that he or she shall require that the language of this certification be included in all lower-tier subcontracts, which exceed \$100,000, and that all such sub recipients shall certify and disclose accordingly.

XXXVI.
COST PRINCIPLES

- A. The CONSULTANT agrees that the Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq., shall be used to determine the allowability of cost individual items.
- B. The CONSULTANT also agrees to comply with federal procedures in accordance with 2 CFR, Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.
- C. Any costs for which payment has been made to CONSULTANT that are determined by subsequent audit to be unallowable under 2 CFR Part 200 and 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq. are subject to repayment by CONSULTANT to the COUNTY.

XXXVII
CONTINGENT FEE

The CONSULTANT warrants, by execution of this contract that no person or selling agency has been employed, or retained, to solicit or secure this contract upon an agreement or understanding, for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees, or bona fide established commercial or selling agencies maintained by the CONSULTANT for the purpose of securing business. For breach or violation of this warranty, the COUNTY has the right to annul this contract without liability; pay only for the value of the work actually performed, or in its discretion to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

XXXVIII.
AUDIT REVIEW PROCEDURES

- A. Any dispute concerning a question of fact arising under an interim or post audit of this contract that is not disposed of by agreement, shall be reviewed by the COUNTY's CHIEF FINANCIAL OFFICER.
- B. Not later than 30 days after issuance of the final audit report, the CONSULTANT may request a review by the COUNTY's CHIEF FINANCIAL OFFICER of unresolved audit issues. The request for review will be submitted in writing.
- C. Neither the pendency of a dispute nor its consideration by the COUNTY will excuse the CONSULTANT from full and timely performance, in accordance with the terms of this contract.
- D. CONSULTANT and subconsultants' contracts, including cost proposals and indirect cost rates (ICR), are subject to audits or reviews such as, but not limited to, a Contract Audit, an Incurred Cost Audit, an ICR Audit, or a certified public accountant (CPA) ICR Audit Workpaper Review. If selected for audit or review, the contract, cost proposal and ICR and related workpapers, if applicable, will be reviewed to verify compliance with 48 CFR, Part 31 and other related laws and regulations. In the instances of a CPA ICR Audit Workpaper Review it is CONSULTANT's responsibility to ensure federal, state, or local government officials are allowed full access to the CPA's workpapers. The contract, cost proposal, and ICR shall be adjusted by CONSULTANT and approved by LOCAL AGENCY contract manager to conform to the audit or review recommendations. CONSULTANT agrees that individual terms of costs identified in the audit report shall be incorporated into the contract by this reference if directed by LOCAL AGENCY at its sole discretion. Refusal by CONSULTANT to incorporate audit or review recommendations, or to ensure that the Federal, State, or local governments have access to CPA workpapers, will be considered a breach of contract terms and cause for termination of the contract and disallowance of prior reimbursed costs.

XXXIX.
EQUIPMENT PURCHASE

- A. Prior authorization in writing, by the COUNTY's Contract Manager shall be required before the CONSULTANT enters into any unbudgeted purchase order, or subcontract exceeding \$5,000 for supplies, equipment, or CONSULTANT services. The CONSULTANT shall provide an evaluation of the necessity or desirability of incurring such costs.
- B. For purchase of any item, service or consulting work not covered in the CONSULTANT's Cost Proposal and exceeding \$5,000 prior authorization by the COUNTY's Contract Manager; three competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.
- C. Any equipment purchased as a result of this contract is subject to the following: "The CONSULTANT shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two years and an acquisition cost of \$5,000 or more. If the purchased equipment needs replacement and is sold or traded in, the COUNTY shall receive a proper refund or

credit at the conclusion of the contract, or if the contract is terminated, the CONSULTANT may either keep the equipment and credit the COUNTY in an amount equal to its fair market value, or sell such equipment at the best price obtainable at a public or private sale, in accordance with established COUNTY procedures; and credit the COUNTY in an amount equal to the sales price. If the CONSULTANT elects to keep the equipment, fair market value shall be determined at the CONSULTANT's expense, on the basis of a competent independent appraisal of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable to by the COUNTY and the CONSULTANT, if it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by the COUNTY. 2 CFR, Part 200 requires a credit to Federal funds when participating equipment with a fair market value greater than \$5,000 is credited to the project.

- D. All subcontracts in excess \$25,000 shall contain the above provisions.

XL.

PROCUREMENT OF RECOVERED MATERIALS

- A. In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:
1. Competitively within a timeframe providing for compliance with the contract performance schedule;
 2. Meeting contract performance requirements; or
 3. At a reasonable price.
- B. Information about this requirement, along with the list of EPA-designate items, is available at EPA's Comprehensive Procurement Guidelines web site.

XLI.

DHS SEAL, LOGO, AND FLAGS

The CONSULTANT shall not use the Department of Homeland Security (DHS) seal(s), logos, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.

XLII.

NO OBLIGATION BY FEDERAL GOVERNMENT

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the COUNTY, the CONSULTANT, or any other party pertaining to any matter resulting from the contract.

XLIII.

EVALUATION OF CONSULTANT

The CONSULTANT's performance will be evaluated by the COUNTY. A copy of the evaluation will be sent to the CONSULTANT for comments. The evaluation together with the comments shall be retained as part of the contract record.

XLIV.

CONSULTANT'S ENDORSEMENT ON PS&E/OTHER DATA

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

**XLV.
NOTICES**

All notices that are required to be given by one party to the other under this Agreement shall be in writing and shall be deemed to have been given if delivered personally or enclosed in a properly addressed envelope and deposited with the United States Post Office for delivery by registered or certified mail addressed to the parties at the following addresses, unless such addresses are changed by notice, in writing, to the other party.

COUNTY OF LAKE
255 North Forbes Street
Lakeport, California 95453
Attn: Scott De Leon, Public Works Director

Cal Engineering & Geology
1870 Olympic Boulevard, Suite 100
Walnut Creek, CA 94596
Attn: Phillip Gregory, Senior Principal

**XLVI.
ADDITIONAL PROVISIONS**

This Agreement shall be governed by the laws of the State of California. It constitutes the entire Agreement between the parties regarding its subject matter. This Agreement supersedes all proposals, oral and written, and all negotiations, conversations or discussions heretofore and between the parties related to the subject matter of this Agreement.

COUNTY and CONSULTANT have executed this Agreement on the day and year first written above.

COUNTY OF LAKE:

CONSULTANT:

Chair, Board of Supervisors

Phillip Gregory, Senior Principal & CEO

ATTEST: CAROL J. HUCHINGSON
Clerk of the Board
of Supervisors

APPROVED AS TO FORM:
ANITA L. GRANT
County Counsel

By: _____

By:  _____

EXHIBIT "A"

TO

AGREEMENT FOR ENGINEERING SERVICES

FOR

REPAIR OF SOCRATES MINE ROAD LANDSLIDES

IN LAKE COUNTY, CALIFORNIA

SCOPE OF WORK

INTRODUCTION

Cal Engineering & Geology (CE&G) will provide all professional services for the repair and reconstruction of the two failed sections of Socrates Mines Road at Lat/Long 38.7752, -122.7304 (Lower Slide) and Lat/Long 38.7796, -122.7234 (Upper Slide) near the Town of Middletown, California. In general, the required services for this project include project management; topographic survey; geotechnical investigations; development of repair alternatives; preparation of plans, specifications, and estimates; right of way services; right of way appraisal and acquisition services; coordination with the County's environmental consultants; bidding assistance; construction support; and preparation of record drawings.

CE&G has generated this scope based on the unique nature of the project and the specific elements required to complete successful design and construction of the two failed sections of road on Socrates Mine Road.

UNDERSTANDING

OVERVIEW

To fully understand Lake County's needs and the project site conditions, Cal Engineering & Geology has

- carefully reviewed the Request for Qualifications,
- checked the County GIS websites for right-of-way and property ownership, and
- visited and observed the conditions at the two landslides¹ along Socrates Mine Road.

Combined with a bit of research on the Calpine facilities that operate in the area, CE&G has a thorough understanding of the technical, operational, and administrative challenges that are faced by the County to effectively and efficiently repair the landslides.

PROJECT FUNDING

Services associated with the Lower Slide, which developed in early January 2017, will be funded with monies allocated for the FEMA-4301-DR-CA event. The Upper Slide, which occurred in February 2017, will be funded with monies allocated to the FEMA-4308-DR-CA. Because of the two separate funding sources, CE&G and the County will be required to separate project administration and accounting during both the design and construction of the repairs.

TECHNICAL CHALLENGES

Visual observations of the conditions at each site and along Socrates Mine Road revealed that from a technical perspective, the sites are moderately challenging but can be made to be relatively straightforward. Each of the sites appeared to us to be characterized by the failure of a steep road fill embankment over steep native weathered bedrock/residual soil along the outer edge of the road. The majority of the roadway in both locations appears to be situated on globally stable bedrock. The slope failures can likely both be characterized as failure of "sliver fill".

The development of the two landslides resulted from the extreme rainfall events which likely brought the fills to near saturation and the failure and erosion of the steep descending slope below the road fill. Each of

¹ The landslides identified in the RFQ by coordinates Lat/Long 38.7752, -122.7304 and Lat/Long 38.7796, -122.7234 are referred to herein as the "Lower Slide" and "Upper Slide".

the landslides developed at a location where a cross-road culvert discharges water out onto the steep, descending slope below the road. The extreme discharges that occurred during the 2017 winter appear to have severely eroded and/or displaced the native natural soil materials and weathered bedrock and effectively undermined the road embankment. These types of road embankment configurations and adverse drainage situations are common for remote hillside roads and each will need to be addressed in the development of the repair plans.



Additionally, the effective height of the unstable embankment (depth to stable material along the outer edge of the roadway) appears to be greater than 15 feet at least along portions of each landslide. Using conventional stabilization methods such as soldier beam retaining walls will result in the need for tiebacks at this design height. Creative earth retention methods will need to be used to limit the encroachment outside of the public right-of-way.

The trick to a successful project will be to figure out how to effectively provide road embankment stabilization and improved drainage conditions while limiting the need to permanently encroach on and either purchase or obtain easement(s) across private property adjacent to the public right-of-way occupied by the road.

OPERATIONAL CHALLENGES

While driving to the sites, it becomes clear that the stretch of Socrates Mine Road impacted by the two landslides provides critical access to much of Calpine's Geysers facilities in both Lake County and neighboring Sonoma County. There appears to be little opportunity for local detours around the stretch impacted by the landslides. We anticipate that extended complete closure of the road during repair work could be problematic operationally for Calpine and possibly present a fire-safety access issue. As a result, we believe that one of the key considerations in developing and evaluating repair alternatives will be to come up with a system that will limit the need for extended complete closure of the road during construction. Accordingly, preferred consideration will be given to stabilization systems and methods that can accomplish this.



ADMINISTRATIVE CHALLENGES

It is understood that the County has applied for and will be utilizing federal funding through FEMA's Hazard Mitigation Grant program to fund the design and construction of the two landslide repairs. The funding will likely be administered through CALOES. However, the funding for each site will come from different FEMA accounts. This presents a challenge. Work on the Lower Slide, which developed in early January 2017, will be funded with monies allocated for the FEMA-4301-DR-CA event. The Upper Slide, which occurred in February 2017, will be funded with monies allocated to the FEMA-4308-DR-CA.

The two sites are so close together and would typically be designed and bid together as a single project. However, it is understood that the two separate funding sources will require separate project administration and accounting during both the design and construction of the repairs. From a design services perspective this will simply require us to track time and allocate charges separately even though it is likely that both sites will be worked on concurrently.

More importantly, the fact that these are two separate projects will likely make it challenging for the County to decide how to bid the project. Preferably, the two projects would be bid together in a single contract package so that the County and the Resident Engineer would need to deal with a single contractor instead of possibly needing to deal with two different contractors in a short stretch of road with limited ingress and egress. A less desirable situation would be to bid two separate projects and end up with two contractor's battling for access. Solving this potential predicament will need to be one of the primary considerations in developing the project PS&E.

APPROACH

CONSTRAINT-DRIVEN DESIGN DEVELOPMENT

CE&G's design development approach to the Socrates Mine Road Landslides project will need to be constraints-driven. The focus will be on the constraints identified in the preceding "Understanding" section and other common issues to develop viable alternatives and a preferred alternative for each landslide that considers each constraint. Each alternative developed will also meet the primary objective of permanently stabilizing and rebuilding the road segments impacted by the landslides.

The approach to addressing each of the identified constraints during development of the design will be as follows:

Need for Work Outside of Right-of-Way

Due to the effective height of the anticipated walls, the emphasis will be on the use of a slope stabilization method which will avoid to the extent possible the need for the County to acquire land and/or temporary or permanent easements. This will be accomplished by evaluating the potential for using innovative technologies such as tiebacks (or possibly soil nails) that can be installed from the road and do not require the construction of an on-slope bench.

Similarly, the possibility will be explored of using light weight fill if a retaining wall configuration is used to decrease the lateral load on the wall in order to facilitate the use of a cantilevered wall without need for tiebacks. A pile-supported MSE wall to eliminate the need for tiebacks and encroachment onto adjacent properties will also be considered. CE&G has effectively used each of these approaches on past projects to limit the need for encroachment. Lightweight road embankment backfill was successfully used with a 16-foot tall cantilevered soldier beam and lagging retaining wall to stabilize a large landslide along the George Miller Trail in Martinez, California. Pile-supported MSE walls were previously used by CE&G to stabilize landslides along Calaveras Road and Stanley Boulevard in Alameda County for projects with similar constraints.

Constructability

The repair alternatives will reflect the anticipated need to limit complete shutdown of the road. We will review equipment, staging, and supply needs for each alternative considered to minimize the need for long-term road closure.

Cost Effectiveness

The cost effectiveness of potential repairs will be compared and considered. This will include the identification of local material sources and availability of materials and specialty contractors, if applicable.

Controlling Change Orders to Meet Schedule

The timely and successful completion of construction projects often depends on the number and extent of change orders and requests for information that take place during construction. CE&G will aim to limit this by providing well-developed and accurate site survey data and geotechnical data. As applicable, work will be completed in conformance with Caltrans guidelines so that the potential for changes is limited to the extent possible.

One or Two Construction Contracts?

CE&G will assist the County in working with CALOES to allow incorporating both projects into a single contract to streamline the work, reduce changes, and to complete the work as timely as possible.

ANTICIPATED REPAIR ALTERNATIVES

Based on the previously described site conditions and project constraints it is anticipated that the repairs alternatives considered for each site will consist of a roadside vertical retaining structure and an "elephant's trunk" style downdrain that extends from the road embankment down to an acceptable stable discharge point. This will result in the need to obtain drainage easements on the adjacent private properties downslope and outside of the County's right-of-way.

The types of retaining structures that will be considered as alternatives include:

- conventional soldier beam and lagging retaining wall with tiebacks
- soldier beam and lagging retaining wall with lightweight backfill and without tiebacks (if feasible)
- CIDH-pile supported MSE-type retaining wall with geosynthetically reinforced fill
- steel binwall or concrete cribwall
- hybrid combinations.



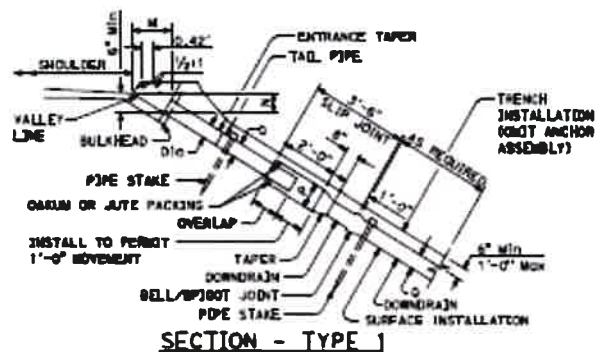
Soldier pile and lagging retaining wall w tiebacks designed by CE&G for landslide repair along Bailey Road in Contra Costa County.



CIDH pile-supported planted geocell-faced retaining wall designed by CE&G to repair a landslide along Calaveras Road in Alameda County.

It is believed to be unlikely that a standard Caltrans cantilever retaining wall could be used at either site.

The downdrains at each site are anticipated to consist of an outfall pipe (Caltrans standard CSP or PP) that is anchored to the descending slope using standard (or modified) Caltrans Downdrain Anchor Assembly (D87A or D87B) along with an energy dissipater.



PROJECT IMPLEMENTATION

CE&G's approach to implementing the project will be based on our experience with other similar FEMA-funded storm damage landslide projects we have worked on in 2017 and in previous years dating back to 1995.

Scope Refinement and Concurrent Tasks

The initial task will be to meet with the County to discuss potential repair alternatives and refine the scope of surveying and geotechnical investigation work that will need to be completed to facilitate meaningful and reasonably accurate alternative designs. With this information the design team will concurrently proceed with the development of alternatives and the preparation

of our geotechnical investigation and site surveying. Initial alternatives development work will be based on topographic and property information developed from the County's publicly available LiDAR orthophotos. Once the topographic maps are completed, the base maps will be replaced. Work will include the preparation of conceptual-level plan and typical cross-section for three different slope stabilization alternatives for each site. The alternatives will be sufficiently detailed to enable development of preliminary costs and a benefit-cost analysis for each alternative. The results will be presented in a draft

and then final Design Alternative Memorandum which reviews the relative pros and cons of each alternative.

Selection of Preferred Alternative for Each Slide

After a draft Design Alternatives Memorandum has been completed, the design team will meet with the County to review the alternatives and select a preferred alternative for each site. Following the meetings, we will finalize the draft Design Alternatives Memorandum and identify the Preferred Alternative for each site in the memorandum.

Right of Way Considerations

Right of Way Appraisals

AR/WS will prepare the necessary right of way appraisal for each location and will issue the necessary public acquisition informational brochure to all owners.

Appraisal Review

AR/WS will subcontract with a qualified certified review appraiser. The review appraiser will prepare independent written reviews of the reports prepared by the AR/WS real property appraisers.

Right of Way Acquisition

AR/WS Consultants will prepare acquisition documents and conduct personal field contacts. If an administrative settlement appears to be prudent, AR/WS will prepare a settlement memorandum reviewing the issues. This memorandum will require Client written approval before implementation of any settlement agreement. AR/WS will establish a process of coordinating escrow closings and reviewing escrow instructions. AR/WS will make every reasonable effort to acquire property expeditiously through agreement with its owner and to avoid litigation. This may necessitate greater levels of effort in the negotiations phase and, where appropriate, should continue after eminent domain has been initiated. Complete parcel file and other supporting documentation for condemnation parcels (if needed) will also be completed.

Preparation of PS&E

Preparation of plans, specifications, and engineer's estimates for the project will actually begin prior to the selection of a preferred alternative. Plans will be developed initially to a 35% level together with a preliminary estimate and outline of technical specifications.

At the 75% design level we will prepare plans, technical and front end specifications, and estimate for the entire scope of the project for each site. The cost estimate will include any and all costs associated with right of way needs and utility relocations.

We will proceed with final design and preparation of final PS&E upon FEMA's review and approval of the 75% PS&E. Quality control of the project will be the responsibility of CE&G Principal Engineer Chris Hockett, P.E., G.E. An independent check of the plans and specifications will be provided by Principal Engineer Christine Parks, P.E., PLS of subconsultant LCC.

During the design process and following the approval of the 75% plans, we will coordinate with the County to obtain the needed project permits. We will compile the required application documents and work with the County to complete the applications. Any filing fees will be the responsibility of the County. Required studies needed for environmental clearance other than those identified herein will be the responsibility of the County.

Bidding Assistance and Construction Support

Once funding has been authorized and the project goes out for bidding, CE&G will provide assistance to the County during bidding by attending pre-bid meetings and responding to pre-bid requests for information and preparing bid package addendum, if needed.

During construction we will be available to provide complete engineering services during construction (ESDC) including technical support to County staff and/or project resident engineer, review of submittals, review and response to RFIs, and review of any potential claims.

CE&G PROJECT TEAM

The CE&G Project Team will be led and managed by Project Manager and Senior Principal Engineer Phil Gregory. Mr. Gregory will manage several highly experienced professionals from CE&G and our subconsultants.

The majority of the design work for the two landslide repair projects will be completed by CE&G professional staff. Subconsultants LCC, Inc. and Associated Right of Way Services, Inc.. will provide surveying and right-of-way services, respectively. Subcontractor Woodward Drilling, Inc. will provide subcontracted subsurface exploration services.

Prime Consultant –

Cal Engineering & Geology, Inc. (CE&G)
1870 Olympic Boulevard, Suite 100
Walnut Creek, CA 94596
Contact: Phil Gregory
(925) 935 – 9771
pgregory@caleng.com

Subconsultants / Subcontractors

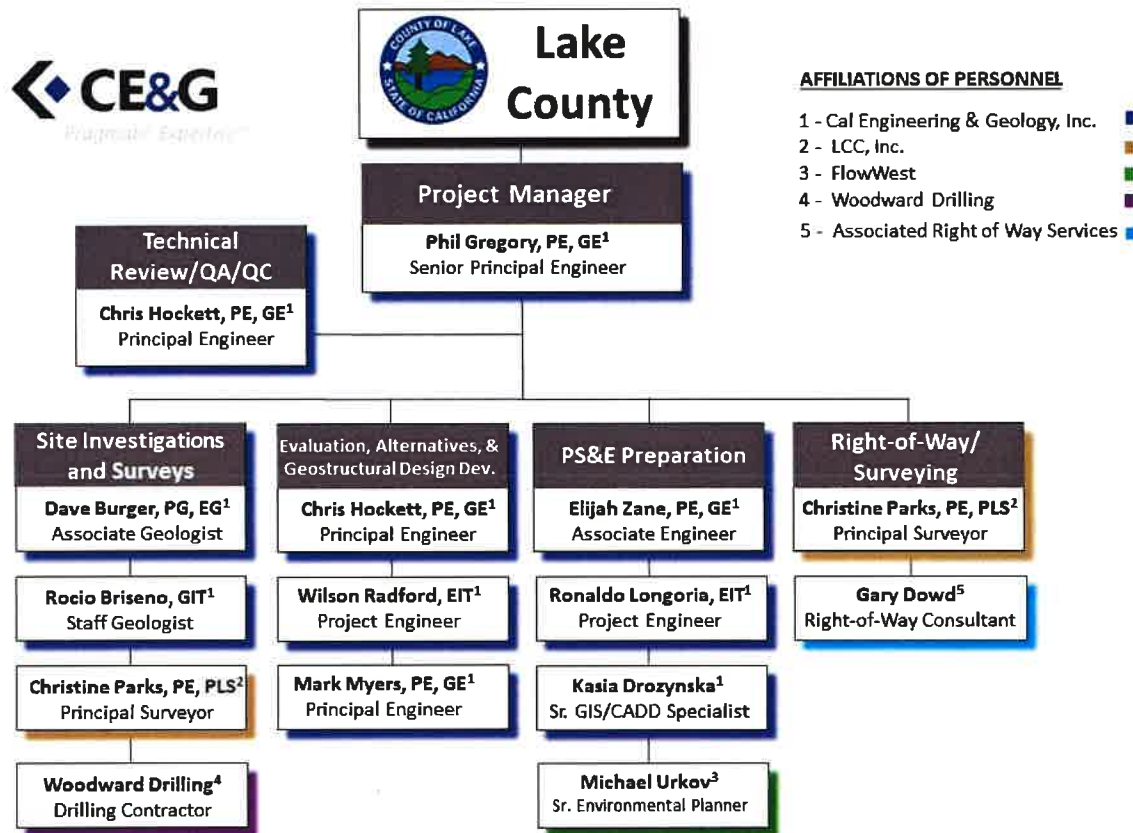
LCC, Inc.
930 Estudillo Street
Martinez, CA 94553
(925) 228-4218

Associated Right of Way Services, Inc. (AR/WS)
2300 Contra Costa Blvd., Suite #525
Pleasant Hill, California 94523
(925) 691-8500

FlowWest Consultants
1624 Franklin Street, Suite #901
Oakland, CA 94612
(510) 454-9378

Woodward Drilling Company, Inc.
550 River Road
Rio Vista, CA 94571
(707) 374 – 1410

The project organization chart follows. Summaries of professional experience and a one-page resume are provided for each key project member.



PROJECT MANAGER -

Phil Gregory, P.E., G.E./Sr. Principal Engineer

Mr. Gregory will serve as CE&G's Project Manager and Principal-in-Charge. He is an experienced geotechnical engineer and manager who has completed more than 150 transportation and water infrastructure improvement projects for public agencies over the past 20 years. Phil's expertise is in the analysis and design of earth embankments and slope stabilization measures including geosynthetic reinforced slopes and embankments, CIDH pile structures, segmental block retaining walls soldier pile and lagging walls, soil nail retaining structures, light weight fill, and slope dewatering systems. Mr. Gregory is an experienced Caltrans-based specification writer and estimator of earth construction costs. Mr. Gregory managed the majority of the federally-funded storm damage repair projects that were completed by CE&G

in 1993, 1998, and 2006. He is a registered civil engineer and geotechnical engineer with more than 33 years of professional experience.

TECHNICAL REVIEW AND QUALITY CONTROL-

Chris Hockett, P.E., G.E. /Principal Engineer

Mr. Hockett will serve as the lead technical reviewer for the project. He has expertise in managing investigation and design projects for the construction of municipal structures and in preparation of plans, specifications, and engineer's estimates (PS&E) for public works projects. He is currently CE&G's project manager and lead design engineer on several storm damage repair projects for Alameda County and Marin County. Chris has also managed numerous projects for many cities and other public agencies in the Bay Area. Mr. Hockett is a registered civil and geotechnical engineer with over 13 years of local experience.

KEY PROJECT STAFF -

Elijah Zane, P.E., G.E./Associate Engineer

Mr. Zane will serve as a lead design engineer. He typically serves as lead design engineer for retaining wall and landslide repair design projects. He has experience preparing PS&E and geotechnical design reports, and providing construction observations and testing. He has expertise in reinforced earth structures and retaining walls, monitoring of slope movement using inclinometers, and slope stability analysis. Eli's recent project experience includes the Emergency Prescott Road Repair project and the Soquel-San Jose Roadway Stabilization repair. He is a registered civil engineer and geotechnical engineer with 12 years of professional experience. Eli earned his Bachelor of Science degree in Civil Engineering from UC Berkeley.

Dave Burger, P.E., E.G./Associate Geologist

Mr. Burger will serve as CE&G's Geotechnical Exploration Manager. He has provided exploration management for geotechnical explorations throughout the Bay Area and California. Dave's expertise is in mapping and characterization of soils, managing subsurface explorations, and providing observations and testing during construction. Some of his recent project experience includes managing the subsurface exploration of seven different landslide repair projects for the Blackhawk Geologic Hazard Abatement District. He is a registered professional geologist and engineering geologist with 12 years of professional experience.

Christine Parks, P.L.S., P.E. / Lead Surveyor, Independent Reviewer

Ms. Parks will serve as the Lead Surveyor for the project. She is a registered land surveyor and civil engineer who has concentrated on municipal projects her entire career. Since 1999 she has been directly responsible for the preparation of plans, specifications and estimates for streets, parking lots, parks, utilities, storm drains, and wastewater facilities. Christine has been involved in most of LCC's major projects over the last twenty-one years, and in recent years has led design teams and survey teams as Project Manager. Recent projects include the City of Pleasant Hill – Old Quarry Road Roundabout and Golf Club Road Improvement Project and the City of Dublin's Dougherty Road Widening Improvement Project with base mapping and right-of-way surveys for over 2 miles of existing roadway.

Gary Dowd / Right of Way Consultant

Mr. Dowd will be the lead for all right of way work. Gary Dowd provides acquisition services; program management support; budget oversight; project coordination; and final delivery of projects for both private companies and public agencies. His duties typically involve all facets of property acquisition services. Mr. Dowd has worked extensively on transportation improvement projects, including several projects with federal funding. He is a licensed real estate agent and has extensive knowledge of both federal and state property acquisition guidelines.

Michael A. Urkov / Senior Environmental Planner

Mr. Urkov will serve as the permitting lead for the projects, He is an environmental planner and scientist with demonstrated success in California water resources, including leading environmental compliance and permitting for large -scale river and fisheries restoration. He recently led CEQA and NEPA compliance efforts for the successful implementation of the Red Bluff Diversion Dam Fish Passage Improvement Project. Mr. Urkov has over twenty years of experience in the watersheds of the Sacramento River valley, including Deer Creek.

EDUCATION

M.S., Civil Engineering (Geotechnical), University of California at Berkeley, 1984
B.S., Civil Engineering, University of California at Berkeley, 1983

ACCOMPLISHMENTS

Thirty-three years of professional geotechnical engineering experience
Managed more than 100 public works geotechnical investigation and geo-design projects for ten separate agencies
Former soil testing instructor at Chabot Junior College in Hayward
Invited lecturer on geosynthetics, slope stability, and erosion control
Former co-Chairman of the Slope Technology Committee of IECA
Project engineer for design and analysis of various embankment dams through western U.S.
Designer of over 150 geogrid reinforced slopes and retaining walls

PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers
International Erosion Control Association
American Public Works Association

International Association for Promoting Geoethics
California Geotechnical Engineers Association
East Bay Municipal Engineers

REPRESENTATIVE EXPERIENCE

Sir Francis Drake Boulevard

Embankment Repair

Lagunitas, CA

Principal geotechnical engineer for design of a retaining wall with tiebacks for stabilization of a 140 foot section of roadway along Sir Francis Drake Boulevard near M.P. 15.43 adjacent to Lagunitas Creek. Work included PS&E for design of the cast-in-drilled-hole piles (providing: length, size, depth, spacing, and location), design of the concrete facing for the wall, design of tieback loads, and design of reinforcing steel for the retaining wall.

McKillop Road Embankment

Stabilization

Oakland, CA

Project manager for the geotechnical investigation and design of a double retaining wall system used to stabilize McKillop Road from a landslide migrating toward the street. Project included design of a 160 linear foot inner soldier pile wall with two rows of tiebacks, and 190 linear feet outer soldier pile shoring wall connected to the inner wall using tie rods. Work consisted of preparing calculations and plans on an emergency basis.

Cowell Road Embankment Stabilization

Concord, CA

Project manager for stabilization of 500 foot long four lane roadway embankment using cast-in-place-drilled piers and tiebacks. Completed full PS&E for project and coordinated construction with the City of Concord.

Foothill Road Stabilization

Pleasanton, CA

Served as quality control manager on an emergency repair of Foothill Road in Pleasanton, CA. Approximately 320 linear feet of embankment failed as a result of one of the wettest winters recorded in California, which lead to an emergency shutdown of Foothill Road. Stabilization was achieved using CIDH concrete piles constructed along the top of the road, grade beam tying the piles together, and a concrete waler to serve as an anchor point for one row of tiebacks.

Roadway Slope Stabilization

Pleasant Hill, CA

Supervised a geotechnical investigation, stabilization design, and construction observation and testing for FHWA funded emergency repair of slopes above Taylor Boulevard, a major four lane road in Pleasant Hill.

Stanley Boulevard

Embankment Reconstruction

Alameda County, CA

Provided emergency investigation, design, and preparation of PS&E for a 15 meter high geocell faced, geogrid reinforced embankment reconstruction for the major arterial road between Pleasanton and Livermore. Project was FHWA-funded and received an outstanding achievement award from the local chapter of the American Public Works Association.

Roadway Slope Stabilizations

Lafayette, CA

Managed and undertook a geotechnical investigation, stabilization design, and construction observation and testing for ten separate FEMA or FHWA funded emergency repairs on roads throughout the city.

Sculpted Soil Nail Retaining Structure

Orinda, CA

Project manager for design and construction observation of soil nail retaining structure built to stabilize a failing cutslope along a city road. Project included geotechnical investigation, preparation of contractor qualifications package, PS&E, and construction observation and testing.

Camino Sobrante Retaining Wall/

Embankment Repair

Orinda, CA

Managed the geotechnical investigation of a failing 19 foot high retaining wall supporting a heavily trafficked residential street in Orinda. Prepared separate geotechnical investigation report, plans, technical specifications, and estimates using modified Caltrans format. Project also included bidding assistance and construction observation and testing.

EDUCATION

M.S., Civil Engineering, San Jose State University, December 2008

B.S., Civil Engineering, California Polytechnic State University, San Luis Obispo, 2004

ACCOMPLISHMENTS

Thirteen years of local professional experience

Preparation of plans, specifications, and engineer's estimates for public works projects

Development of geotechnical data and design reports and PS&E for trenchless pipelines

Caltrans foundation design reports for bridges

Three-dimensional modeling of roadway corridors, retaining walls, and earthwork operations

Invited lecturer to teach Alameda County staff CE&G's floodwall design process

Geogrid-reinforced earth embankments and segmental retaining wall designs

PROFESSIONAL ORGANIZATIONS

American Society of Civil Engineers

American Public Works Association

California Geotechnical Engineers Association

East Bay Municipal Engineers, Co-Chair, 2013

International Association for Promoting Geoethics

South Bay Engineers Club, Secretary/Treasurer, Current

North American Society for Trenchless Technology

REPRESENTATIVE EXPERIENCE

Foothill Road Stabilization

Pleasanton, CA

Served as the primary project manager on an emergency repair of Foothill Road in Pleasanton, CA. Approximately 320 linear feet of embankment failed as a result of one of the wettest winters recorded in California, which lead to an emergency shutdown of Foothill Road. Stabilization was achieved using CIDH concrete piles constructed along the top of the road, grade beam tying the piles together, and a concrete waler to serve as an anchor point for one row of tiebacks.

Golden Gate Bridge Toll Gantry

San Francisco, CA

Project Manager for the completion of a foundation report for a new Golden Gate Bridge toll gantry structure. The proposed gantry will be a single steel structure spanning over all lanes with two deep cast-in-drilled-hole concrete pile foundations.

Crothers Road

Stabilization

San Jose, Santa Clara County, CA

Project Manager for a geotechnical study to characterize a landslide, and complete a design alternatives study to evaluate potential stabilization systems for a roadway that was closed due to a landslide in 1998 that was 500 feet long and 310 feet wide into bedrock. Considerations included long-term stability, access, safety, aesthetics, environment, construction costs, and maintenance.

Rifle Range Road Stabilization

Richmond, CA

Project Manager retained to provide geotechnical engineering and structural design services for a roadway that was destabilized by landslide. CE&G performed geotechnical engineering services including subsurface exploration, geologic mapping, lab testing, analyses, foundation report, and PS&E for construction of a soldier pile and wood lagging retaining wall with multiple rows of tiebacks. Engineering services during construction include submittal review, responding to RFI's, and construction observations and testing.

SF Bay Trail Carquinez

Scenic Drive

Port Costa to Martinez, CA

Project manager for geotechnical investigation, geologic mapping, value engineering, and Caltrans geotechnical design and materials report for the construction of a 1.6 mile segment of the San Francisco Bay Trail. The work was completed as a subconsultant on behalf of the East Bay Regional Parks District. The geotechnical investigation included 47 borings using hollow stem auger and wireline rock coring techniques.

Environmental sampling was completed in one boring located near a known plume of contaminants from an abandoned Navy fueling facility. The project included over 40 remedial stabilization measures in areas of embankment creep, landslides, and upslope raveling consisting of soldier pile and wood lagging regaining walls, debris walls, stabilization piles, and geogrid-reinforced subgrade.

Claremont Avenue Slope Stabilization

Oakland, CA

Provided civil and geotechnical design services to stabilize Claremont Avenue after two landslides occurred below the roadway. The repair consisted of cast-in-drilled-hole concrete stabilization piles connected at the top with a concrete pile cap and curb.

Bailey Road Embankment Stabilization

Pittsburg, CA

Project engineer and lead designer for stabilizing the embankment below the north bound lane of Bailey Road adjacent to Lawlor Creek in Pittsburg, California. This was a privately funded job in cooperation with Contra Costa County. The embankment was stabilized with a steel beam and wood lagging retaining wall with tieback anchors. Due to overhead power line constraints, the cast-in-place concrete piles were constructed in two shorter pieces with a steel spiral cage in the lower portion, and the steel beam in the upper portion.

EDUCATION

B.S., Civil Engineering, University of California at Berkeley, 2005
International Erosion Control Association 2006 Conference
CPN Training Course on Radiation Safety and Use of Nuclear Gauge
TRI Course on Construction QA/QC geosynthetic installations and compacted clay liners

ACCOMPLISHMENTS

Twelve years of professional experience
Geotechnical-related structure design
Geogrid-reinforced soil slopes and segmental retaining wall designs
Preparation of plans and specifications for municipal agencies
Construction Quality Assurance for Landfill Liner Placement and Cell Development
Evaluation (static, seismic, rapid drawdown) of levees
Certified CQA geosynthetic materials and compacted clay liner inspector (GCI)

PROFESSIONAL ORGANIZATIONS

International Erosion Control Association
American Society of Civil Engineers

East Bay Municipal Engineers

REPRESENTATIVE EXPERIENCE

McKillop Road Embankment

Stabilization **Oakland, CA**
Project engineer for design of a double retaining wall system used to stabilize McKillop Road from a landslide migrating toward the street. Project included design of a 160 linear feet inner soldier pile wall with two rows of tiebacks, and 190 linear feet outer soldier pile shoring wall connected to the inner wall using tie rods.

Aitken Drive Landslide Stabilization **Oakland, CA**
Project manager for developing plans, specifications, and construction cost estimate to stabilize Aitken Drive in response to creeping slopes and failing concrete sack retaining wall supporting the road. Project included a geotechnical exploration, preparation of preferred alternatives report and geotechnical report, and preparation of PS&E for the preferred alternative. A soldier pile and wood lagging retaining wall and stabilization pile repair was selected to repair the road for the City of Oakland.

Peaceful Glen Road **Vacaville, CA**
Project engineer during a geotechnical investigation and design of stabilization measures for a 200 foot segment of Peaceful Glen Road adjacent to Sweeney Creek. The roadway was undermined by progressive lateral migration of the creek resulting in a lane closure. The project was included as an emergency repair to an already planned 800 foot long road widening project for Solano County. The project required geologic mapping, review of aerial photos, subsurface investigation, testing, and analysis to determine the limits of instability and design parameters.

Palomares Road **Alameda County, CA**
Project engineer for developing plans, specifications, and construction cost estimate for rock fall protection barrier above Palomares Road MP 8.70 in Alameda County. A wire mesh slope protection net was utilized to prevent future rock fall events from entering the roadway.

Zone 5 Line A Levee

Certification **Alameda County, CA**
Project engineer for subsurface exploration and testing for FEMA certification of a levee in Union City. Work included completion of cone penetration soundings and rotary wash borings along the levees and performing slope stability, seepage, and settlement analysis of the existing and proposed levee modifications. Project is being completed as part of a FEMA levee certification process for Alameda County Flood Control District.

Memorial Park Trail

Hayward, CA
Project engineer for two trail stabilization projects for the Hayward Area Recreation and Park District (HARD). The projects consisted of constructing a soldier pile and wood lagging retaining wall to support the trail adjacent to Ward Creek and constructing a segmental block retaining wall founded on piles and grade beam, and constructing stabilization piles. Work included preparation of a design memorandum, plans, specifications, and engineer's estimates for the trail stabilization projects.

Agua Fria Creek Improvements

Hayward, CA
Project engineer for geotechnical investigation and design of creek bank retaining wall systems as part of creek restoration project for Alameda County Flood Control and Water Conservation District. Work included preparation of plans, specifications, and engineer's estimate for log and concrete crib walls.

Alhambra Way Creek Bank

Stabilization **Martinez, CA**
Project engineer for creek bank stabilization project constructed along Alhambra Way in Martinez. Performed calculations and developed plans, specifications, and engineer's estimate for rock slope protection embankment with concrete retaining wall. Work also included performing construction observations during construction.

EDUCATION

B.S., Geology, University of California Davis, 2003

ACCOMPLISHMENTS

Thirteen years of professional experience
Geologic and geotechnical investigations for public agencies
Landslide repairs and geologic mapping projects
Foundation studies for residential and commercial development
Construction quality assurance for landfill liner placement and cell development
Radiation safety officer
American Concrete Institute-certified concrete field testing technician

PROFESSIONAL ORGANIZATIONS

Association of Engineering Geologists
International Erosion Control Association

East Bay Municipal Engineers
International Association for Promoting Geoethics

REPRESENTATIVE EXPERIENCE

Blackhawk Slope Stabilization **Danville, CA**

Project geologist representing the Blackhawk Geologic Hazard Abatement District for the subsurface investigation of an unstable engineered fill slope adjacent and below several single family residences and commercial properties. Duties included drilling and sampling 3 exploratory borings adjacent to existing slope indicator monitoring wells exhibiting movement at specific depths. Other duties included coordination with the property owners and local permitting agencies, development of cross sections and recommendations remediation methods.

Zander Drive Landslide **Orinda, CA**

Project geologist for the geologic and geotechnical characterization and stabilization alternatives and feasibility study for a 300 foot wide, 1,000 foot long and 105+ foot deep landslide below a city street and two city-owned parcels. Geotechnical investigations included the review of numerous previous reports and studies, completion of a subsurface exploration, instrumentation, monitoring, and testing program; preparation of a landslide characterization report and a design alternatives report, and cost estimating.

Bailey Road Stabilization **Pittsburg, CA**

Project geologist for the stabilization of a failure along a approximate 100 foot section of the road way in Pittsburg. Duties included performing 2 exploratory borings utilizing mud rotary wash system along the edge of an 1:2 (H:V) slope. The project included coordination with local permitting agencies, overseeing traffic control measures, disposal of drilling spoils at the local landfill facility, and coordination with lab testing. Other duties included mapping the geomorphic conditions of the site, creation of geologic cross section, and development of the geotechnical report.

McKillop Road Stabilization **Oakland, CA**

Project geologist for the geotechnical design of a double retaining wall system used to stabilize McKillop Road from a landslide migrating toward the street. Logged and sampled numerous borings as well as installed inclinometers and piezometers. Project included design of a 160 linear feet inner soldier pile wall with two rows of tiebacks, and 190 linear feet outer soldier pile shoring wall connected to the inner wall using tie rods.

Norton-Rettig Landslide **Oakland, CA**

Project geologist for large landslide repair effecting 6 residential properties and a city street. The landslide was located on a steep slope and resulted in a road closure and red tagging of the upslope residence. Repair included drilling of approximately 30 large diameter 45 foot plus deep soldier piles, tieback installation, subgrade approval for keyway excavations, mapping of subsurface features, construction observations and testing services for the installation of multiple tiers of geogrid reinforced keystone block retaining walls, subdrains and material backfilling.

Zone 2, 3A, & 6

Levee Certification Hayward/Fremont/Union City, CA

Project geologist for subsurface exploration and testing for certification purposes along 26 miles of levee segments ranging in length between 500 and 10,000 feet. The levee segments span 3 zones within Alameda county. Project responsibilities include coordination with the drillers, the Alameda County permitting agencies including the Alameda County Flood Control District and Alameda County Public Works Agency, as well as coordination with, Clearwater Environmental, and the East Bay Regional Park District and Department of Fish and Wildlife. Duties included drilling and sampling using ASTM logging and testing methods. Drilling was performed using Hollowstem and Rotary wash methods. Other duties included coordinating and directing Cone Penetration Soundings, collection, testing, and disposal of bulk environmental samples, traffic control measures, and directing laboratory testing.

Christine M. Leptien-Parks, P.E., P.L.S. LCC Engineering & Surveying, Inc.



EDUCATION – REGISTRATION

SAN JOSE STATE UNIVERSITY - SAN JOSE, CA
Bachelor of Science in Civil Engineering (May 1996)

REGISTERED PROFESSIONAL ENGINEER IN CALIFORNIA
CE 59061

LICENSED PROFESSIONAL LAND SURVEYOR IN CALIFORNIA
LS 7893



EXPERIENCE

Christine began working part-time for LCC in 1992, and joined the firm full-time in May of 1996 upon completion of her undergraduate education. She obtained her license to practice civil engineering in February 1999. Since then, she has been directly responsible for the preparation of plans, specifications and estimates for streets, parking lots, parks, utilities, storm drains, and wastewater facilities. Christine has also had extensive field experience as both a Chainman and a Party Chief on our survey crews over the years, leading her to obtain a license to practice land surveying in August 2003. Christine became a Principal in the firm in February 2008. Christine has been involved in most of LCC's major projects over the last twenty-one years, and in recent years has led design teams and survey teams as Project Manager on numerous projects including the following:

REPRESENTATIVE PROJECTS

Daly City – Pipeline Alignment Survey for Feasibility of Expanded Tertiary Recycled Water Facilities Project (Surveyed Summer/Fall 2016), Surveyed over 10 miles of future recycled waterlines for alignment study purposes.

City of Pleasant Hill – Old Quarry Road Roundabout and Golf Club Road Improvement Project (2015-2016) AND On-going Street Rehabilitation Monument Preservation Projects (2009-Present) AND Pleasant Hill Police Station Security Fencing Project (2014) AND Belle Avenue Storm Drain Improvements (2014)

City of Dublin – Dougherty Road Widening Improvement Project – Base mapping and right-of-way surveys for over 2 miles of existing roadway in Dublin, CA. (2012-2014)

City of Martinez – Pacheco Blvd Improvements Survey and Study (2016) AND Susana St Park / Mountain View Park Projects (Spring 2015), Hidden Valley Park Renovation Project (Spring 2014) AND Berrellesa Street Bay Trails Project (Summer 2013) AND Intermodal Phase III Parking Lot – Surveys and Mapping (2012-2014)

City of Lafayette – Olympic Blvd/Pleasant Hill Road Roundabout Construction Staking Project (2016) AND Annual Lafayette Base Mapping for Roadway Improvement Projects (2012 to Present) AND Mt. Diablo Streetscape Project (2012) AND Street Rehabilitation Topographic and Monument Surveys (2013)

Contra Costa Water District – On-Call Surveyor (2014 to Present) AND Victoria Island Alternative Intake Project Surveys (2004-10) AND Rock Slough Surveys (2005 to Present)

Martinez Unified School District (MUSD) – Alhambra High School Building J Addition (2015 to Present) AND Vicente Briones Classroom and Parking Lot Project (Spring 2014) AND Las Juntas Elementary School (Summer 2013) AND Martinez Junior High School Bldg D Settlement Monitoring (2012) AND Alhambra High School Campus Mapping (2012)

Contra Costa Community College District (CCCCD) – Diablo Valley College (DVC) Viking Dr / Stubbs Road Pathway Project AND DVC Various ADA Parking Lot Improvements (2010, 2012 & 2013) AND DVC/LMC/CCC Campus Wide Topographic and Utility Mapping Projects (2010-2012) AND Contra Costa College Seismic Zones & Fault Mapping (2010-12)

TECHNICAL SKILLS

Christine has over twenty (20) years experience working with AutoCAD (a computer aided drafting program) and Civil 3D programs. She is experienced in using a TDS Survey Data Collection and Topcon Data Collection programs along with Topcon Total Stations. Christine also has extensively used Topcon RTK GPS equipment for various survey and mapping applications.

AFFILIATIONS

California Land Surveyors Association (CLSA)
East Bay Municipal Engineers (EBME)

American Society of Civil Engineers (ASCE)
American Council of Engineering Companies (ACEC)

GARY DOWD

Industry experience since 1988



CURRENT RESPONSIBILITIES

Gary Dowd joined **Associated Right of Way Services, Inc.**, in early 2013 as a **Right of Way Consultant** providing acquisition services; program management support; budget oversight; project coordination; and final delivery of projects for both private companies and public agencies. Mr. Dowd has provided acquisition and project support to Pacific Gas & Electric Company's Land Acquisition Department (PG&E). In addition to project-specific assignments, he has delivered on-site services to the PG&E San Francisco office as well as field services throughout the San Francisco Bay Area and beyond. His duties typically involve all facets of property acquisition services for PG&E system upgrades, maintenance, and expansion of both their gas and electric transmission lines. Mr. Dowd has also worked extensively on transportation improvement projects, including several projects with federal funding. He has extensive knowledge of both federal and state property acquisition guidelines. His work is performed in conformance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, Housing and Community Development Department applying Caltrans standards while following state and federal guidelines.

PRIOR EXPERIENCE

Prior to joining the AR/WS team, Mr. Dowd worked for the San Francisco Public Utilities Commission (SFPUC) as both Assistant Director and Director of the SFPUC Real Estate Services Division (February 1996 – September 2012). In his roll at the SFPUC, Mr. Dowd was responsible for all property acquisition, sales, leasing, property management, facilities management, and property development activities of the SFPUC's vast land holdings. These land holdings included more than 60,000 acres of watershed lands, 250 miles of pipeline and power line rights of way, 900 miles of sewer lines, numerous pump stations, reservoirs, power plants, and waste water treatment facilities. During his tenure the SFPUC leased and owned approximately 300,000 square feet of office facilities occupied by approximately 2500 SFPUC staff and the SFPUC's lease portfolio held approximately 420 rental accounts generating \$10 million dollars annually. Mr. Dowd began his eighteen year career with the SFPUC in November 1994 when he was hired as a Senior Real Property Officer.

Prior to his work with the SFPUC, Mr. Dowd was a Right of Way Agent with **Caltrans, District 4**, in Oakland, CA, from August 1988–November 1994. In that capacity, Mr. Dowd was responsible for acquisition, appraisal, property management, local agency oversight, planning and management, and he served as the railroad liaison between Caltrans and all railroads operating in the San Francisco Bay Area. As an Associate Right of Way Agent with Caltrans his duties included training and supervising new agents and the preparation of numerous documents including appraisals, property purchase contracts, and lease agreements to name a few. Highlights of his achievements with Caltrans include major work on the post-Loma Prieta earthquake Cypress Freeway reconstruction including acquisition and relocation of a U.S. Postal Service parking lot and project oversight for the construction of a multi-million dollar parking garage. He also oversaw the relocation and rebuild of a City of Oakland fire station.

EDUCATION

University of California, Berkeley,
BA, Mass Communications

LICENSES AND CERTIFICATES

State of California, Department
Real Estate Broker's License No.
01753694

State of California Notary Public
Commission No. 2036252

Member, International Right of
Way Association

Michael A. Urkov

Senior Environmental Planner

Mr. Urkov is an environmental planner and scientist with demonstrated success in California water resources, including leading environmental compliance and permitting for large-scale river and fisheries restoration. He recently led CEQA and NEPA compliance efforts for the successful implementation of the Red Bluff Diversion Dam Fish Passage Improvement Project. Mr. Urkov has over twenty years of experience in the watersheds of the Sacramento River valley, including Deer Creek.

Education

M.A., Water Resources Administration, University of New Mexico, 1996

B.S., Political Economy of Natural Resources, University of California, Berkeley, 1993

Professional Registrations

Extensive CEQA and NEPA compliance expertise

Data-driven endangered species consultation

California water system operations and water rights expert

Representative Projects

Fish Passage Improvement Project at Red Bluff Diversion Dam (RBDD) EIS/EIR, Tehama-Colusa Canal Authority Red Bluff, California. Environmental project manager for fish passage improvements. The project evaluated alternatives to prior operations, which impeded endangered runs of chinook salmon. Final construction costs were approximately \$175 million.

Dennett Dam Removal - Environmental Permitting; Tuolumne River Trust. Modesto, California. Led efforts to acquire environmental approvals and permits. Requirements included compliance with compliance / permitting under CEQA, California Department of Fish and Wildlife, Regional Water Quality Control Board, State Lands Commission, San Joaquin Valley Unified Air Pollution Control District, Army Corps of Engineers, NOAA-Fisheries, US Fish and Wildlife Service, and the Central Valley Flood Protection Board.

Dry Creek Rancheria Water Enhancement Project - Environmental Documentation; Dry Creek Rancheria. Geyersville, California. Led efforts to acquire environmental approvals and permits for water enhancement and restoration project on tributary to Russian River. Managed fast-track environmental compliance effort to support grant application for restoration effort on Dry Creek, a tributary to the Russian River. Project includes flow stabilization efforts, riparian restoration, and channel stabilization.

Saeltzer Dam Fish Passage and Flow Protection Project EA/IS, California. Project manager for environmental documentation and permitting for removal of Saeltzer Dam on Clear Creek, an important spawning tributary for Sacramento Valley Chinook salmon. The project required fast-track environmental documentation to comply with endangered species habitat requirements.

ACID Fish Passage Improvement Project EA/IS, Redding, California. Project manager for environmental documentation and permitting for the Anderson-Cottonwood Irrigation District fish passage facility. The \$12 million construction effort aimed at improving fish passage at the ACID diversion dam on the Sacramento River in Redding.

CE&G SCOPE OF WORK

TASK 1 - PROJECT INITIATION & MANAGEMENT

Task 1.1 - Kick-Off Meeting

CE&G project manager Phil Gregory will coordinate a kick-off meeting with the County, FEMA, the consultant team and any other project stakeholders, to discuss the project background, scope, concepts, schedule, project management, and issues identified by the participants.

Potential repair alternatives will be discussed and refinement will be made to the scope of surveying and geotechnical investigation work that will need to be completed to facilitate meaningful and reasonably accurate alternative designs. With this information the CE&G Team will concurrently proceed with the development of alternatives and the preparation of the geotechnical investigation and site surveying. Initial alternatives development work will be based on topographic and property information developed from the County's publicly available LiDar orthophotos. Once the topographic maps are completed, the base maps will be replaced. Work will include the preparation of conceptual-level plan and typical cross-section for three different slope stabilization alternatives for each site. The alternatives will be sufficiently detailed to enable development of preliminary costs and a benefit-cost analysis for each alternative. The results will be presented in a draft and then final Design Alternative Memorandum which reviews the relative pros and cons of each alternative.

Task 1.2 - Project Management

Project manager Phil Gregory and the rest of the CE&G Team will actively manage the project and all subconsultants to ensure that the project is completed successfully, on budget, and on schedule. The project management will include semi-weekly phone conference calls and intermittent site meetings, as needed. During the meetings, project status and future work will be discussed and reviewed. Project schedule will be reviewed and modified as appropriate. CE&G will then notify the County immediately of any problems that could adversely impact the project schedule. Minutes of the meetings will be prepared and provided to the County and to any key stakeholders as requested by the County.

TASK 2- PRELIMINARY ENGINEERING

Task 2.1 - Surveys and Mapping

The CE&G Team will complete a topographic survey. The survey work will include research and review of control monuments and County record maps. Consultant will recover and survey "coordinated" County monuments and benchmarks, and will recover and survey local subdivision monuments and resolve property lines from record data. Consultant will plot the right-of-way and adjacent property lines and incorporate this boundary mapping into a topographic survey map based on record maps and deeds.

A minimum of two control points will be set per site which will be visibly marked with a flight cross to be used for control of the UAV (drone) survey.

Survey will be based on NAVD88 vertical datum and California Coordinate System 83, Zone 2, based upon available NGS published GPS control points.

Consultant will perform a topographic field survey of the land within the following described areas:

Upper Landslide Location: Along roadway, approximately 200 linear feet along edge of roadway to include pavement failed areas plus 50 feet on each side of apparent slide limits. Full roadway section including 10

feet past pavement on cut side of road. Full topo from top of slope to 40 feet (horizontally) down slope. Will include grade (elevations) and horizontal location of toe of slope (bottom of ravine).

Lower Landslide Location: Along roadway, approximately 150 linear feet along edge of roadway to include pavement failed areas plus 50 feet on each side of apparent slide limits. Full roadway section including 10 feet past pavement on cut side of road. Full topo from top of slope to 20 feet (horizontally) down slope.

Topography will include locations and elevations of any permanent structures, edge of pavement, significant grade breaks, retaining walls, guardrails, poles, flow lines, trees (over 6" in trunk diameter), utilities, (utility boxes/valves, pipelines, overhead utilities, grade breaks, poles, hydrants, etc.), uphill slope and slide area including slide margins, head scarp, grade breaks, fence lines, and any other significant features within the areas described. Cross sections will be performed at a minimum of every 25 feet.

Mapping will include, 1-foot contours, spot elevations (1/10 foot) and mapping will be 10-scale, unless otherwise requested. The drawings will be delivered in AutoCAD Civil 3D compatible format with contours and points at 3-D locations (elevations assigned to contour and point features). The Survey map will include a standard statement listing the horizontal and vertical control datum including listing any temporary (local) control points if applicable.

Assumptions:

- Field locating existing underground utilities (by pothole or electronic sensor methods) is not included
- Obtaining or adding utility base map information is not included

Deliverables:

- Electronic pdf and hard copy of topographic survey for each site

Due to the extremely steep terrain below the road, the ground survey work will be supplemented with mapping using UAV (drone) aerial imagery and photogrammetry software. Consultant will complete the flights and render the 3D models created using Pix4D and AutoCad software to create orthophoto topos that will be combined with ground survey data.

Task 2.2 - Geotechnical Investigations

Geologic and Geotechnical Data Review

Existing geological data in CE&G's files and geotechnical data available from the County's files will be reviewed. It is anticipated that this data will include recent aerial photos, published geologic and soil mapping, and project-specific reports for nearby Calpine facilities (if available).

Geologic Mapping

A Certified Engineering Geologist will complete a geologic reconnaissance and prepare a geologic features map of the two sites. The mapping will include the cut slopes uphill of the road and the descending slopes down to the creek/drainage. The work will be completed prior to subsurface exploration and mapping will be done using a preliminary site map developed from the County's publicly available orthophoto topo LiDar files.

Identification of Proposed Boring Locations and Depths

CE&G's geologist will mark the proposed locations of boring, record the GPS coordinates using a handheld GPS device, and mark the sites for underground utility clearance. The GPS coordinates and proposed depths of each boring will be provided to the County for environmental clearance prior to drilling. No borings will be completed until the proposed sites and depths have been cleared and approved by FEMA.

Underground Utility Clearance

Clearance of underground utilities will be completed using the process for contacting Underground Service Alert (USA) as detailed in the California Codes Section 4216-4216.9 for marking and clearing of utilities prior to initiating subsurface excavations. Consultant personnel will visit the site after the initial request and prior to drilling to confirm that all USA member utility companies have responded.

Permitting and Coordination

Drilling and encroachment permits will be obtained from County of Lake. A site plan illustrating the boring locations will be developed and included with the drilling permit application.

Traffic Control

It is anticipated that the subsurface investigation can be completed within the existing lane that is already shut down. Anticipated traffic control will include signage at both ends of the work and cones around the drill rig. Any additional traffic control that might be required will need to be subcontracted out.

Subsurface Exploration

A subsurface exploration program will be undertaken to obtain information needed to characterize the geologic and geotechnical conditions at the site. Two exploratory borings will be drilled along edge of the roadway at each site.

The borings will be advanced to depths between 30 and 50 feet using a truck-mounted drill rig. Soil and rock samples will be obtained from the borings for testing using Standard Penetration Test (SPT) and Modified California samplers. When the bedrock encountered results in drilling refusal, the exploration technique will switch to rotary wash rock coring method. The borings will be logged in the field by a geologist in accordance with the Caltrans *Soil and Rock Logging, Classification, and Presentation Manual*. The borings will be sealed in accordance with drilling and encroachment permit requirements. All drilling spoils will be left onsite within the future construction footprint if approved by the County or the adjacent property owner. It is anticipated that a combined three days of drilling and sampling will be needed to complete the subsurface exploration.

Laboratory Testing

Soil and rock samples retrieved from the borings will be reviewed and classified in accordance with the Caltrans *Soil and Rock Logging, Classification, and Presentation Manual*. Selected samples will be tested in Consultant's geotechnical laboratory. Anticipated testing will include index properties such as soil/rock strength, in situ moisture and density, Atterberg Limits, and corrosivity. Tests for naturally occurring asbestos (NOA) may also be completed should it be determined by the geologist during drilling that there is a potential to encounter NOA materials.

If hazardous materials are encountered during the geotechnical subsurface investigation, the materials will be evaluated and tested by qualified environmental professionals as approved by the County. Such services will need to be completed on a time and expenses basis as directed by the County.

Geotechnical Analysis

Geotechnical analyses will be completed to evaluate slope stability, calculate lateral earth pressures, evaluate weathering and erosion of cuts, estimate bedrock rippability and drillability, and to determine bearing capacity and lateral earth pressure coefficients, as needed for design.

Geotechnical Report

A geotechnical report will be prepared in conformance with Caltrans Division of Engineering Services guidelines. It is anticipated that the report will be made available to contractors during the bidding phase of the project and will serve as the geotechnical baseline for changed conditions claims. The report will be issued initially in draft format, and will be finalized after review by the County. A single report will be prepared that addresses both sites.

Deliverables:

- Draft and Final Geotechnical Report

Task 2.3 - Slope Stabilization Alternatives

Alternatives Evaluations

The development of the two landslides resulted from the extreme rainfall events which likely brought the fills to near saturation and the failure and erosion of the steep descending slope below the road fill. Each of the landslides developed at a location where a cross-road culvert discharges water out onto the steep, descending slope below the road. The extreme discharges that occurred last winter appear to have severely eroded and/or displaced the native natural soil materials and weathered bedrock and effectively undermined the road embankment. These types of road embankment configurations and adverse drainage situations are common for remote hillside roads and each will need to be addressed in the development of the repair plans.

Additionally, the effective height of the unstable embankment (depth to stable material along the outer edge of the roadway) appears to be greater than 15 feet at least along portions of each landslide. Using conventional stabilization methods such as soldier beam retaining walls will result in the need for tiebacks at this design height. Creative earth retention methods will need to be used to limit the encroachment outside of the public right-of-way.

Using the County LiDar-based map and eventually the project survey, CE&G will sketch and evaluate three potential stabilization alternatives for each landslide. The alternatives will be evaluated based on cost, construction feasibility, lane closure requirements, environmental considerations, and local practice. CE&G will collaborate with the County to select the preferred alternative. The results will be presented in a Design Alternative Memorandum which includes conceptual plan and typical detail and preliminary costs for each alternative.

Deliverables:

- Draft and Final Design Alternatives Memorandum

Task 2.4 - Preliminary Plans

Preparation of plans, specifications, and engineer's estimates for the project will actually begin prior to the selection of a preferred alternative. Plans will be developed initially to a 35% level together with a preliminary estimate and outline of technical specifications.

At the 75% design level CE&G will prepare plans, technical and front end specifications, and estimate for the entire scope of the project for each site. The cost estimate will include any and all costs associated with right of way needs and utility relocations.

CE&G will proceed with final design and preparation of final PS&E upon FEMA's review and approval of the 75% PS&E. An independent check of the plans and specifications will be provided by subconsultant firm, LCC.

During the design process and following the approval of the 75% plans, CE&G will assist the County in obtaining project permits. Required studies needed for environmental clearance will be the responsibility of the County.

35 Percent Preliminary Plans and Estimate

CE&G will develop the preferred alternative to a 35 percent design-level and prepare a plan set using AutoCad Civil 3D 2017. Plans will be prepared in accordance with County standards or in a format utilized by Alameda County Public Works Agency if approved by Lake County. The 35 percent plans will be provided to the County in 11x17 PDF format. The plan sheets are anticipated to include:

- Title Sheet
- Site Plan
- Repair Plan, Elevation, and Typical Section (2 sheets)
- Details
- Erosion Control Plan

A quantity take-off will be completed and a conceptual estimate prepared using average Caltrans bid item unit costs.

For the 35 percent level, an outline of the technical specification sections will be prepared.

A separate plan set for each site is assumed to be required until it is clear that a single set of construction documents can be approved for use by FEMA.

75 Percent Plans, Specifications, and Estimate

CE&G will advance the 35 percent PS&E to the 75 percent design-level following County review and acceptance. An updated quantity take-off and estimate will be completed. Technical specifications (special provision) and Notice to Bidders, and Bid Book will be prepared to the 75 percent level at this time. Before the plans are delivered to the County, an independent review will be completed by a qualified engineer from subconsultant firm LCC.

A separate plan set for each site is assumed to be required until it is clear that a single set of construction documents can be approved for use by FEMA.

Design analyses and calculations will be prepared and critically reviewed and checked internally by an experienced geotechnical design engineer.

TASK 3- FINAL DESIGN ENGINEERING

Tasks 3.1 and 3.3 – Final Design and PS&E

Final Plans, Specifications, and Estimate

CE&G will advance the 75 percent documents to the 95 percent design-level following County and FEMA review and approval and completion of the EHP process. An updated quantity take-off will be completed and an estimate prepared. Technical specifications (special provision) and Notice to Bidders, and Bid Book will be prepared to the 95 percent level at this time.

A separate plan set for each site is assumed to be required until it is clear that a single set of construction documents can be approved for use by FEMA

The Final PS&E package will consist of electronic format and hard copy submittal of full- size and half-size plans, estimate, Notice to Bidders and Special Provisions, and Bid Book.

A second independent design check of the documents will be completed by an engineer from subconsultant LCC to evaluate completeness, constructability, and conformance with design criteria.

Deliverables:

- 95 Percent and Final Plans, Specifications, and Estimate and associated documents
- Summary of findings and comments from independent review
- Design analysis and calculations package

Task 3.2 – Permits

Because the project is being completed in response to a declared emergency, the project should be categorically exempt under CEQA codes. It is anticipated that the permits required to complete the work will be limited to a 1) California Department of Fish and Wildlife 1602 Lake and Stream Alteration agreement which could be triggered by the extension of the existing culvert discharge pipe and placement of energy dissipating rock slope protection material above the creek and above the ordinary high water mark, and possibly 2) a Section 401 water quality permit from the Regional Water Quality Control Board. It is not anticipated that any federal permits such as a US Corps of Engineers 404 permit will be required, as no fill will be placed within the zone of the ordinary high water of the existing creek. No change in runoff water quantity or quality will result from the projects.

The CE&G Team will complete limited environmental studies to support the anticipated permitting as described above. The limited environmental studies will consist of plant and wildlife survey of the project areas, including surveys for federally-listed and state-listed species, and an assessment of riparian habitat, as required for 1602 applications. The studies will also include determination and mapping of the ordinary high water for the creek at both sites. A habitat study and completion of a biological survey of the area of construction disturbance may be required for each site. If needed, the results of the studies will be presented in a report which will be submitted with the applications for the identified permits.

The CE&G Team will prepare all of the above described permit applications required for the project and provide the applications to the County for submittal to the various agencies and a payment of permit application fees.

Although not anticipated, the CE&G Team could also perform services relating to acquisition of additional necessary permits including notifications, regulatory compliance, additional studies and general project assistance on technical and environmental matters relating to project implementation.

This optional task could include submittal and acquisition of the following permits:

State Permits and Compliance

- Central Valley Flood Protection Board Encroachment Permit
- California Endangered Species Act Compliance
- Cultural Resources Survey (as required)

Federal Permits and Compliance

- Section 7 Consultations with USFWS and NMFS (as required)
- USACOE Clean Water Act 404 Permit
- Section 10 Compliance with Rivers and Harbor Act
- Section 106 Consultation under National Historic Preservation Act

Deliverables:

- CDFW 1602 agreement application and supporting documents
- RWQCB 404 permit application
- Habitat and biological survey report

TASK 4 – RIGHT OF WAY SERVICES

The CE&G Team will provide right of way services required for the project. Final scope will be established once the right of way needs are determined and the associated fee will be negotiated at that time. The scope, at a minimum, will consist of the tasks outlined below.

Task 4.1 – Surveying

The CE&G Team will determine the existing right-of-way and centerline for the project and provide the following for each site:

- Legal descriptions and plats for right-of-way takes and temporary construction easements for the project
- Field-staking of the right of way take lines for appraisal use
- Pre- and post-construction corner records or record of survey to protect and/or preserve at-risk markers placed by surveyors and engineers to monument property boundaries and define the location of streets and roads and file said documents per Section 8771 of the Business and Professions Code.
- A record of survey depicting right of way acquired for the project shall be filed upon completion of the project
- Set new right of way / boundary monuments on the new right-of-way line at locations where record right of way/ boundary monuments exist on the old right of way line, and set centerline monuments in the new road after completion of construction

Deliverables:

- As noted

Task 4.2 - Right of Way Appraisals

Appraisal Preparation

The CE&G Team will prepare appraisals in accordance with California Eminent Domain Law; California Government Code Section 7260 et seq.; Uniform Standards of Professional Appraisal Practice (USPAP) requirements and 49 CFR Part 24. The property owner or a designated representative will be invited by the appraiser to accompany him/her during the inspection of the property. The appraisals will be for the “Fair Market Value” of the property as per California Code of Civil Procedure, Section 1263.320. The appraiser will issue the necessary public acquisition informational brochure to all owners.

Assumptions:

- Appraisal, appraisal review, and acquisition services will be required from up to two parcels, identified as follows:

APN	OWNER	ADDRESS
013-058-091	Haddow, Virginia Marie	9570 Socrates Mine Road, Middletown, CA
013-058-311	Thorne, Lillian B	9760 Socrates Mine Road, Middletown, CA

- No buildings will be impacted and none of the proposed acquisitions will result in damages.

Deliverables:

- Draft Notice of Decision to Appraise for approval
- Appraisal Report

Appraisal Review

CE&G will retain a qualified, certified review appraiser. The review appraiser will prepare independent written reviews of the reports prepared by the CE&G Team's property appraisers. All reviews will be conducted in accordance to professional standards, USPAP, and all applicable laws and regulations. The review appraiser will prepare a summary of the appraisal process and provide comments regarding any omissions or problems with the reports such as lack of reasonable support for the appraisal conclusions. Upon satisfactory completion of the appraisal reports, a review certificate report will be prepared, including an explanation of the basis for recommendation.

Task 4.3 - Right of Way Acquisition

The CE&G Team will prepare acquisition documents and conduct personal field contacts. If an administrative settlement appears to be prudent, a settlement memorandum reviewing the issues will be prepared. This memorandum will require the County's written approval before implementation of any settlement agreement. A process of coordinating escrow closings and reviewing escrow instructions will be prepared. The CE&G Team will make every reasonable effort to acquire property expeditiously through agreement with its owner and to avoid litigation. This may necessitate greater levels of effort in the negotiations phase and, where appropriate, should continue after eminent domain has been initiated. Acquisition services will be provided in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

Deliverables:

- Draft Acquisition Documents for approval
- Memorandum of Settlement (upon settlement)
- Notice that negotiations have reached an impasse (if needed)
- Complete parcel file and other supporting documentation for condemnation parcels (if needed)

Task 4.4 - Right of Way Certification

The CE&G Team will coordinate with and assist the County to prepare the Right of Way Certification as required for each site. Preparation of the Right of Certification will be the responsibility of the County.

TASK 5 – BIDDING ASSISTANCE

CE&G will provide assistance during advertising and bidding including attendance at pre-bid meetings, reviewing and responding to bidder questions, and preparation and production of addenda to the bid documents, as warranted.

TASK 6 – CONSTRUCTION SUPPORT

CE&G professionals will provide engineering services during construction (ESDC), as deemed needed by the County or the Resident Engineer. ESDC will likely include:

- attendance at pre-construction meeting, review and response to RFIs from the contractor or Resident Engineer,
- review of technical submittals,
- providing intermittent, part-time geotechnical observations and testing during construction, and
- preparation of daily field reports following site visits.

TASK 7 – PREPARE RECORD (AS-BUILT) DRAWINGS

During construction of the project CE&G will coordinate with the Resident Engineer (RE) to develop a means of tracking any field changes to the plans. Based on the RE's notes on the contract plans and change orders, CE&G will prepare Record Drawings which reflect the changes and provide the drawings to the County in digital and hard copy format for the Project. No surveying is anticipated to be needed to prepare the Record Drawings.

TASK	ANTICIPATED DURATION
TASK 1 - PROJECT INITIATION & MANAGEMENT	44 weeks
Task 1.1 - Kick-Off Meeting	1 day
Task 1.2 - Project Management	44 weeks
TASK 2- PRELIMINARY ENGINEERING	8 weeks
Task 2.1 - Surveys and Mapping	5 weeks
Task 2.2 - Geotechnical Investigations	6 weeks
Task 2.3 - Slope Stabilization Alternatives	1 week
Task 2.4 - Preliminary Plans	4 weeks
TASK 3- FINAL DESIGN ENGINEERING	8 weeks*
Tasks 3.1 and 3.3 – Final Design / PS&E	8 weeks
Task 3.2 – Permits	8 weeks*
TASK 4 – RIGHT OF WAY SERVICES	TBD
Task 4.1 – Surveying	2 weeks
Task 4.2 - Right of Way Appraisals	2 weeks
Task 4.3 - Right of Way Acquisition	TBD
Task 4.4 - Right of Way Certification	TBD
TASK 5 – BIDDING ASSISTANCE	4 weeks
TASK 6 – CONSTRUCTION SUPPORT	19 weeks
TASK 7 – PREPARE RECORD DRAWINGS	2 weeks

***dependent on time required to obtain permits

EXHIBIT “B”

TO

AGREEMENT FOR ENGINEERING SERVICES

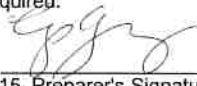
FOR

REPAIR OF SOCRATES MINE ROAD LANDSLIDES

IN LAKE COUNTY, CALIFORNIA

EXHIBIT 10-O2 CONSULTANT CONTRACT DBE COMMITMENT

1. Local Agency: County of Lake 2. Contract DBE Goal: 3%
 3. Project Description: Engineering Services for Repair of Socrates Mine Road Landslides
 4. Project Location: Socrates Mine Road (Lat/Long 38.7752, -122.7304 ; Lat/Long 38.7796, -122.7234)
 5. Consultant's Name: Cal Engineering & Geology 6. Prime Certified DBE: ☐ 7. Total Contract Award Amount: \$232,304.36
 8. Total Dollar Amount for ALL Subconsultants: \$127,746.98 9. Total Number of ALL Subconsultants: 4

10. Description of Work, Service, or Materials Supplied	11. DBE Certification Number	12. DBE Contact Information	13. DBE Dollar Amount
Drilling	37887	Woodward Drilling Co., Inc. 707.374.4300	\$23,550
		550 River Road, Rio Vista, CA 94571	
Local Agency to Complete this Section			
20. Local Agency Contract Number: _____			\$ 23,550
21. Federal-Aid Project Number: _____			11.1 %
22. Contract Execution Date: _____			
Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.			
23. Local Agency Representative's Signature _____			
24. Date _____			
25. Local Agency Representative's Name _____			
26. Phone _____			
27. Local Agency Representative's Title _____			
14. TOTAL CLAIMED DBE PARTICIPATION			
IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.			
 15. Preparer's Signature Phillip Gregory 17. Preparer's Name Sr. Principal, CEO 19. Preparer's Title			07-13-2018 16. Date 925 935 9771 18. Phone

DISTRIBUTION: 1. Original – Local Agency
 2. Copy – Caltrans District Local Assistance Engineer (DLAE). Failure to submit to DLAE within 30 days of contract execution may result in de-obligation of federal funds on contract.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

INSTRUCTIONS – CONSULTANT CONTRACT DBE COMMITMENT

CONSULTANT SECTION

- 1. Local Agency** - Enter the name of the local or regional agency that is funding the contract.
- 2. Contract DBE Goal** - Enter the contract DBE goal percentage as it appears on the project advertisement.
- 3. Project Description** - Enter the project description as it appears on the project advertisement (Bridge Rehab, Seismic Rehab, Overlay, Widening, etc).
- 4. Project Location** - Enter the project location as it appears on the project advertisement.
- 5. Consultant's Name** - Enter the consultant's firm name.
- 6. Prime Certified DBE** - Check box if prime contractor is a certified DBE.
- 7. Total Contract Award Amount** - Enter the total contract award dollar amount for the prime consultant.
- 8. Total Dollar Amount for ALL Subconsultants** – Enter the total dollar amount for all subcontracted consultants. SUM = (DBEs + all Non-DBEs). Do not include the prime consultant information in this count.
- 9. Total number of ALL subconsultants** – Enter the total number of all subcontracted consultants. SUM = (DBEs + all Non-DBEs). Do not include the prime consultant information in this count.
- 10. Description of Work, Services, or Materials Supplied** - Enter description of work, services, or materials to be provided. Indicate all work to be performed by DBEs including work performed by the prime consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.
- 11. DBE Certification Number** - Enter the DBE's Certification Identification Number. All DBEs must be certified on the date bids are opened.
- 12. DBE Contact Information** - Enter the name, address, and phone number of all DBE subcontracted consultants. Also, enter the prime consultant's name and phone number, if the prime is a DBE.
- 13. DBE Dollar Amount** - Enter the subcontracted dollar amount of the work to be performed or service to be provided. Include the prime consultant if the prime is a DBE. See LAPM Chapter 9 for how to count full/partial participation.
- 14. Total Claimed DBE Participation - \$:** Enter the total dollar amounts entered in the "DBE Dollar Amount" column. **%:** Enter the total DBE participation claimed ("Total Participation Dollars Claimed" divided by item "Total Contract Award Amount"). If the total % claimed is less than item "Contract DBE Goal," an adequately documented Good Faith Effort (GFE) is required (see Exhibit 15-H DBE Information - Good Faith Efforts of the LAPM).
- 15. Preparer's Signature** - The person completing the DBE commitment form on behalf of the consultant's firm must sign their name.
- 16. Date** - Enter the date the DBE commitment form is signed by the consultant's preparer.
- 17. Preparer's Name** - Enter the name of the person preparing and signing the consultant's DBE commitment form.
- 18. Phone** - Enter the area code and phone number of the person signing the consultant's DBE commitment form.
- 19. Preparer's Title** - Enter the position/title of the person signing the consultant's DBE commitment form.

LOCAL AGENCY SECTION

- 20. Local Agency Contract Number** - Enter the Local Agency contract number or identifier.
- 21. Federal-Aid Project Number** - Enter the Federal-Aid Project Number.
- 22. Contract Execution Date** - Enter the date the contract was executed.
- 23. Local Agency Representative's Signature** - The person completing this section of the form for the Local Agency must sign their name to certify that the information in this and the Consultant Section of this form is complete and accurate.
- 24. Date** - Enter the date the DBE commitment form is signed by the Local Agency Representative.
- 25. Local Agency Representative's Name** - Enter the name of the Local Agency Representative certifying the consultant's DBE commitment form.
- 26. Phone** - Enter the area code and phone number of the person signing the consultant's DBE commitment form.
- 27. Local Agency Representative Title** - Enter the position/title of the Local Agency Representative certifying the consultant's DBE commitment form.

Exhibit 10-H Cost Proposal

COST PROPOSALContract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Upper SiteConsultant: Cal Engineering & Geology, Inc.Date: 7/30/2018**DIRECT LABOR**

Classification/Title	Name	Range	Hours	Initial Hourly Rate	Total
Sr. Principal Engineer	Phil Gregory	\$89.00-\$92.00	16	\$89.00	\$1,424.00
Principal Engineer	Chris Hockett, Mark Myers	\$61.54-\$75.48	16	\$65.00	\$1,040.00
Assoc. Engineer/Geologist	Dave Burger, Eli Zane	\$49.04-\$61.54	52	\$53.00	\$2,756.00
Senior Engineer/Geologist	Paul Sorci	\$49.00-\$54.00	43	\$51.00	\$2,193.00
Project Engineer/Geologist	W. Radford, R. Longoria, R. Briseno	\$32.69-\$40.87	204	\$38.00	\$7,752.00
UAV Pilot	Josh Wagner	\$43.00-\$46.00	8	\$43.00	\$344.00
Staff Engineer/Geologist		\$26.00-\$37.02	0	\$37.00	\$0.00
GIS/CADD Specialist	Kasia Drozynska	\$30.00-\$35.00	47	\$30.00	\$1,410.00
Project Assistant	Gus Gregory	\$22.00-\$26.00	12	\$25.00	\$300.00
TOTAL			398		\$17,219.00

LABOR COSTS

a) Subtotal Direct Labor Costs	\$17,219.00
b) Escalation for Multi-Year Project (3.0%)(see pg.2)	\$129.14
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$17,348.14

FRINGE BENEFITS

d) Fringe Benefits Rate: 36.00%	
e) TOTAL FRINGE BENEFITS [(c) x (d)]	\$6,244.64

INDIRECT COSTS

f) Overhead Rate: 28.48%	
g) Overhead [(c) x (f)]	\$4,940.75
h) General Administ. Rate: 92.60%	
i) General & Administration [(c) x (h)]	\$16,064.38
j) TOTAL INDIRECT COSTS [(g) + (i)]	\$21,005.13

FIXED FEE (profit)

k) Fixed Fee Rate: 10.00%	
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)	\$4,459.79

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	800	\$0.55	\$436.00
Vendor Reproduction	2	\$150.00	\$300.00
Woodward Drilling (per day) (subcontracted drilling)	1.5	\$7,850.00	\$11,775.00
Drilling permits	1	\$285.00	\$285.00
Laboratory testing (per drill hole)	2	\$1,100.00	\$2,200.00
Miscellaneous	0	\$0.00	\$0.00
m) Other Direct Cost Subtotal:			\$14,996.00

SUBCONSULTANT COSTS (ATTACHED DETAILED COST PROPOSALS)

LCC (field)	(see attached 10H)	\$12,603.07
LCC (Office)	(see attached 10H)	\$10,044.75
FlowWest	(see attached 10H)	\$14,177.50
Associated Right of Way	(see attached 10H)	\$15,269.50
n) Subconsultant Costs		\$52,094.81

o) TOTAL COST**\$116,148.51**

EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant: Cal Engineering & Geology, Inc.

Date: 7/30/2018

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

Direct Labor Subtotal per Cost Proposal	Total Hours per Cost Proposal	Avg Hourly Rate	5 Year Contract Duration
\$17,219.00	398	\$43.26	Year 1 Avg Hourly Rate

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

	Avg Hourly Rate		Proposed Escalation			
Year 1	\$43.26	+	3.0%	=	\$44.56	Year 2 Avg Hourly Rate
Year 2	\$44.56	+	3.0%	=	\$45.90	Year 3 Avg Hourly Rate
Year 3	\$45.90	+	3.0%	=	\$47.28	Year 4 Avg Hourly Rate
Year 4	\$47.28	+	3.0%	=	\$48.69	Year 5 Avg Hourly Rate

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

Estimated % Completed Each Year			Total Hours per Cost Proposal	Total Hours per Year	
Year 1	75.00%	*	398.0	298.5	Estimated Hrs Year 1
Year 2	25.00%	*	398.0	99.5	Estimated Hrs Year 2
Year 3	0.00%	*	398.0	0.0	Estimated Hrs Year 3
Year 4	0.00%	*	398.0	0.0	Estimated Hrs Year 4
Year 5	0.00%	*	398.0	0.0	Estimated Hrs Year 5
Total	100%		Total	398.0	

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

Avg Hourly Rate (calculated above)			Estimated hours (calculated above)	Cost per Year	
Year 1	\$43.26	*	299	\$12,914.25	Estimated Hrs Year 1
Year 2	\$44.56	*	100	\$4,433.89	Estimated Hrs Year 2
Year 3	\$45.90	*	0	\$0.00	Estimated Hrs Year 3
Year 4	\$47.28	*	0	\$0.00	Estimated Hrs Year 4
Year 5	\$48.69	*	0	\$0.00	Estimated Hrs Year 5
Total Direct Labor Cost with Escalation				\$17,348.14	
Direct Labor Subtotal before Escalation				\$17,219.00	
Estimated total of Direct Labor Salary Increase				\$129.14	Transfer to Page 1

NOTES:

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

Exhibit 10-H Cost Proposal

COST PROPOSAL

Contract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Upper Site
 Consultant: LCC Engineering & Surveying (Office) Date: 7/13/2018

DIRECT LABOR

Classification/Title	Range	Hours	Initial Hourly	
			Rate	Total
Principal Surveyor - Christine Parks	N/A	26	\$65.00	\$1,690.00
CAD Technician - Noel Crisolo	N/A	52	\$33.50	\$1,742.00
TOTAL		78		\$3,432.00

LABOR COSTS

a) Subtotal Direct Labor Costs	\$3,432.00
b) Escalation for Multi-Year Project (3.0%) (see pg.2)	\$25.74
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$3,457.74

FRINGE BENEFITS

d) Fringe Benefits (Rate: 56.44%)	56.44%
e) TOTAL FRINGE BENEFITS [(c) x (d)]	\$1,951.55

INDIRECT COSTS

f) Overhead (Rate: 29.80%):	
g) Overhead [(c) x (f)]	\$1,030.41
h) General Administration (Rate: 75.53%):	
i) General & Administration [(c) x (h)]	\$2,611.63
j) TOTAL INDIRECT COSTS [(g) + (i)]	\$3,642.04

FIXED FEE (profit)

k) Fixed Fee (10.0%):	
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)	\$905.13

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	162	\$0.55	\$88.29
m) Other Direct Cost Subtotal:			\$88.29

SUBCONSULTANT COSTS (ATTACHED DETAILED COST PROPOSALS)

	0.00	\$0.00	0.00
N/A			\$0.00

o) TOTAL COST**\$10,044.75**

EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant LCC Engineering & Surveying (office) Contract No. _____ Date 7/13/2018

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

Direct Labor Subtotal per Cost Proposal	Total Hours per Cost Proposal		Avg Hourly Rate	5 Year Contract Duration
\$3,432.00	156	=	\$22.00	Year 1 Avg Hourly Rate

2. Calculate hourly rate for all years (Increase the Average Hourly Rate for a year by proposed escalati

	Avg Hourly Rate		Proposed Escalation			
Year 1	\$22.00	+	3.0%	=	\$22.66	Year 2 Avg Hourly Rate
Year 2	\$22.66	+	3.0%	=	\$23.34	Year 3 Avg Hourly Rate
Year 3	\$23.34	+	3.0%	=	\$24.04	Year 4 Avg Hourly Rate
Year 4	\$24.04	+	3.0%	=	\$24.76	Year 5 Avg Hourly Rate

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

	Estimated % Completed Each Year		Total Hours per Cost Proposal		Total Hours per Year	
Year 1	75.00%	*	156.0	=	117.0	Estimated Hrs Year 1
Year 2	25.00%	*	156.0	=	39.0	Estimated Hrs Year 2
Year 3	0.00%	*	0.0	=	0.0	Estimated Hrs Year 3
Year 4	0.00%	*	0.0	=	0.0	Estimated Hrs Year 4
Year 5	0.00%	*	0.0	=	0.0	Estimated Hrs Year 5
Total	100%		Total	=	156.0	

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

	Avg Hourly Rate (calculated above)		Estimated hours (calculated above)		Cost per Year	
Year 1	\$22.00	*	117	=	\$2,574.00	Estimated Hrs Year 1
Year 2	\$22.66	*	39	=	\$883.74	Estimated Hrs Year 2
Year 3	\$23.34	*	0	=	\$0.00	Estimated Hrs Year 3
Year 4	\$24.04	*	0	=	\$0.00	Estimated Hrs Year 4
Year 5	\$24.76	*	0	=	\$0.00	Estimated Hrs Year 5
	Total Direct Labor Cost with Escalation			=	\$3,457.74	
	Direct Labor Subtotal before Escalation			=	\$3,432.00	
	Estimated total of Direct Labor Salary Increase			=	\$25.74	Transfer to Page 1

NOTES:

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

Exhibit 10-H Cost Proposal

COST PROPOSALContract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Upper SiteConsultant: LCC Engineering & Surveying (Field)Date: 7/13/2018**DIRECT LABOR**

Classification/Title	Range	Hours	Initial	
			Hourly Rate	Total
Licensed Land Surveyor-Andrew Lam	N/A	48	\$40.60	\$1,948.80
Chairman-Ken Tetzl	N/A	48	\$34.18	\$1,640.64
TOTAL		96		\$3,589.44

LABOR COSTS

a) Subtotal Direct Labor Costs	\$3,589.44
b) Escalation for Multi-Year Project (3.0%) (see pg.2)	\$53.84
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$3,643.28

FRINGE BENEFITS

d) Fringe Benefits (Rate: 96.11%)	96.11%
e) TOTAL FRINGE BENEFITS [(c) x (d)]	\$3,501.56

INDIRECT COSTS

f) Overhead (Rate: 29.80%):	
g) Overhead [(c) x (f)]	\$1,085.70
h) General Administration (Rate:75.35%):	
i) General & Administration [(c) x (h)]	\$2,745.21
j) TOTAL INDIRECT COSTS [(g) + (i)]	\$3,830.91

FIXED FEE (profit)

k) Fixed Fee (10.0%):	10.00%
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)	\$1,097.58

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	972	\$0.55	\$529.74
m) Other Direct Cost Subtotal:			\$529.74

SUBCONSULTANT COSTS (ATTACHED DETAILED COST PROPOSALS)

	0.00	\$0.00	0.00
N/A			\$0.00

o) TOTAL COST**\$12,603.07**

EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant LCC Engineering & Surveying (field) Contract No. _____ Date 7/13/2018

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

Direct Labor Subtotal per Cost Proposal	Total Hours per Cost Proposal		Avg Hourly Rate	5 Year Contract Duration
\$3,589.44	96	=	\$37.39	Year 1 Avg Hourly Rate

2. Calculate hourly rate for all years (Increase the Average Hourly Rate for a year by proposed esc:

	Avg Hourly Rate		Proposed Escalation		
Year 1	\$37.39	+	3.0%	=	\$38.51 Year 2 Avg Hourly Rate
Year 2	\$38.51	+	3.0%	=	\$39.67 Year 3 Avg Hourly Rate
Year 3	\$39.67	+	3.0%	=	\$40.86 Year 4 Avg Hourly Rate
Year 4	\$40.86	+	3.0%	=	\$42.08 Year 5 Avg Hourly Rate

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

	Estimated % Completed Each Year		Total Hours per Cost Proposal		Total Hours per Year	
Year 1	50.00%	*	96.0	=	48.0	Estimated Hours Year 1
Year 2	50.00%	*	96.0	=	48.0	Estimated Hours Year 2
Year 3	0.00%	*	0.0	=	0.0	Estimated Hours Year 3
Year 4	0.00%	*	0.0	=	0.0	Estimated Hours Year 4
Year 5	0.00%	*	0.0	=	0.0	Estimated Hours Year 5
Total	100%		Total	=	96.0	

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

	Avg Hourly Rate (calculated above)		Estimated hours (calculated above)		Cost per Year	
Year 1	\$37.39	*	48	=	\$1,794.72	Estimated Hours Year 1
Year 2	\$38.51	*	48	=	\$1,848.56	Estimated Hours Year 2
Year 3	\$39.67	*	0	=	\$0.00	Estimated Hours Year 3
Year 4	\$40.86	*	0	=	\$0.00	Estimated Hours Year 4
Year 5	\$42.08	*	0	=	\$0.00	Estimated Hours Year 5
Total Direct Labor Cost with Escalation				=	\$3,643.28	
Direct Labor Subtotal before Escalation				=	\$3,589.44	
Estimated total of Direct Labor Salary Increase				=	\$53.84	Transfer to Page 1

NOTES:

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

Exhibit 10-H Cost Proposal

COST PROPOSALContract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Upper SiteConsultant: Associated Right of Way Services, Inc.Date: 7/13/2018**DIRECT LABOR**

Classification/Title	Range	Hours	Hourly Rate	Total
Project Manager-Gary Dowd	N/A	51	\$56.97	\$2,905.47
Administrative Support-Kelly Balog	N/A	2	\$29.00	\$58.00
TOTAL		53		\$2,963.47

LABOR COSTS

a) Subtotal Direct Labor Costs	\$2,963.47
b) Escalation for Multi-Year Project (3.0%) (see pg.2)	\$22.23
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$2,985.70

FRINGE BENEFITS

d) Fringe Benefits (Rate: 28%)	
e) TOTAL FRINGE BENEFITS [(c) x (d)]	\$835.99

INDIRECT COSTS

f) Overhead (Rate: 104%):	
g) Overhead [(c) x (f)]	\$3,105.12
h) General Administration (Rate: 0.00%):	
i) General & Administration [(c) x (h)]	\$0.00
j) TOTAL INDIRECT COSTS [(g) + (i)]	\$3,105.12

FIXED FEE (profit)

k) Fixed Fee (10.0%):	10.00%
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)	\$692.68

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	0	\$0.55	\$0.00
Appraisals (Erik Woodhouse - lump sum)	1	\$6,000.00	\$6,000.00
m) Other Direct Cost Subtotal:			\$6,000.00

SUBCONSULTANT COSTS (ATTACHED DETAILED COST PROPOSALS)

n) Subconsultant Costs	1.00	\$1,650.00	1,650.00
			\$1,650.00

o) TOTAL COST**\$15,269.50**

EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant Associated Right of Way Services, Inc. Contract No. Date 7/13/2018

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

Direct Labor Subtotal per Cost Proposal	Total Hours per Cost Proposal		Avg Hourly Rate	5 Year Contract Duration
\$2,963.47	95	=	\$31.19	Year 1 Avg Hourly Rate

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

	Avg Hourly Rate		Proposed Escalation			
Year 1	\$31.19	+	3.0%	=	\$32.13	Year 2 Avg Hourly Rate
Year 2	\$32.13	+	3.0%	=	\$33.09	Year 3 Avg Hourly Rate
Year 3	\$33.09	+	3.0%	=	\$34.09	Year 4 Avg Hourly Rate
Year 4	\$34.09	+	3.0%	=	\$35.11	Year 5 Avg Hourly Rate

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

	Estimated % Completed Each Year		Total Hours per Cost Proposal		Total Hours per Year	
Year 1	75.00%	*	95.0	=	71.3	Estimated Hours Year 1
Year 2	25.00%	*	95.0	=	23.8	Estimated Hours Year 2
Year 3	0.00%	*	95.0	=	0.0	Estimated Hours Year 3
Year 4	0.00%	*	95.0	=	0.0	Estimated Hours Year 4
Year 5	0.00%	*	95.0	=	0.0	Estimated Hours Year 5
Total	100%		Total	=	95.0	

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

	Avg Hourly Rate (calculated above)		Estimated hours (calculated above)		Cost per Year	
Year 1	\$31.19	*	71	=	\$2,222.60	Estimated Hours Year 1
Year 2	\$32.13	*	24	=	\$763.09	Estimated Hours Year 2
Year 3	\$33.09	*	0	=	\$0.00	Estimated Hours Year 3
Year 4	\$34.09	*	0	=	\$0.00	Estimated Hours Year 4
Year 5	\$35.11	*	0	=	\$0.00	Estimated Hours Year 5
	Total Direct Labor Cost with Escalation			=	\$2,985.70	
	Direct Labor Subtotal before Escalation			=	\$2,963.47	
	Estimated total of Direct Labor Salary Increase			=	\$22.23	Transfer to Page 1

NOTES:

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

Exhibit 10-H Cost Proposal

COST PROPOSAL

Contract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Upper Site

Consultant: FlowWest

Date: 7/30/2018

DIRECT LABOR

Classification/Title	Name	Range	Hours	Initial Hourly	
				Rate	Total
Principal	Paul Frank	N/A	12	\$75.00	\$900.00
Principal Planner	Mike Urkov	N/A	12	\$70.00	\$840.00
Planner	CJ Day	N/A	36	\$40.00	\$1,440.00
Staff Engineer	Bethany Hackenjoss		4	\$20.00	\$80.00
Administration	Louise Ullrich	N/A	2	\$20.00	\$40.00
TOTAL			66		\$3,300.00

LABOR COSTS

a) Subtotal Direct Labor Costs	\$3,300.00
b) Escalation for Multi-Year Project (3.0%)(see pg.2)	\$24.75
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$3,324.75

FRINGE BENEFITS

d) Fringe Benefits	Rate: 35.00%
e) TOTAL FRINGE BENEFITS [(c) x (d)]	\$1,163.66

INDIRECT COSTS

f) Overhead	Rate: 30.00%
g) Overhead [(c) x (f)]	\$997.43
h) General Administration Rate: 98.00%	
i) General & Administration [(c) x (h)]	\$3,258.26
j) TOTAL INDIRECT COSTS [(g) + (i)]	\$4,255.68

FIXED FEE (profit)

k) Fixed Fee	Rate: 10.00%
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)	\$874.41

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	200	\$0.55	\$109.00
Vendor Reproduction	1	\$75.00	\$75.00

CDFW Permit Fee	0	\$5,200.00	\$0.00
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m) Other Direct Cost Subtotal:	\$184.00
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SUBCONSULTANT COSTS

Alnus Ecological - Biological Resources Services	\$4,375.00
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n) Subconsultant Costs	\$4,375.00
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o) TOTAL COST	\$14,177.50
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EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant FlowWest Contract No. _____ Date 7/30/2018

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

Direct Labor <u>Subtotal</u> per Cost Proposal	Total Hours per Cost Proposal	Avg Hourly Rate	5 Year Contract Duration Year 1 Avg Hourly Rate
\$3,300.00	66	\$50.00	

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

	Avg Hourly		Proposed Escalation			
Year 1	\$50.00	+	3.0%	=	\$51.50	Year 2 Avg Hourly Rate
Year 2	\$51.50	+	3.0%	=	\$53.05	Year 3 Avg Hourly Rate
Year 3	\$53.05	+	3.0%	=	\$54.64	Year 4 Avg Hourly Rate
Year 4	\$54.64	+	3.0%	=	\$56.28	Year 5 Avg Hourly Rate

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

Estimated % Completed Each			Total Hours per Cost	Total Hours per Year	
Year 1	75.00%	*	66.0	49.5	Estimated Hours Year 1
Year 2	25.00%	*	66.0	16.5	Estimated Hours Year 2
Year 3	0.00%	*	66.0	0.0	Estimated Hours Year 3
Year 4	0.00%	*	66.0	0.0	Estimated Hours Year 4
Year 5	0.00%	*	66.0	0.0	Estimated Hours Year 5
Total	100%		Total	66.0	

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

Avg Hourly Rate (calculated above)			Estimated (calculated above)	Cost per Year	
Year 1	\$50.00	*	50	\$2,475.00	Estimated Hours Year 1
Year 2	\$51.50	*	17	\$849.75	Estimated Hours Year 2
Year 3	\$53.05	*	0	\$0.00	Estimated Hours Year 3
Year 4	\$54.64	*	0	\$0.00	Estimated Hours Year 4
Year 5	\$56.28	*	0	\$0.00	Estimated Hours Year 5
Total Direct Labor Cost with Escalation				\$3,324.75	
Direct Labor Subtotal before Escal:				\$3,300.00	
Estimated total of Direct Labor Salary Increase				\$24.75	Transfer to Page 1

NOTES:

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

Exhibit 10-H Cost Proposal

COST PROPOSALContract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Lower SiteConsultant: Cal Engineering & Geology, Inc.Date: 7/30/2018**DIRECT LABOR**

Classification/Title	Name	Range	Hours	Initial Hourly Rate	Total
Sr. Principal Engineer	Phil Gregory	\$89.00-\$92.00	16	\$89.00	\$1,424.00
Principal Engineer	Chris Hockett, Mark Myers	\$61.54-\$75.48	16	\$65.00	\$1,040.00
Assoc. Engineer/Geologist	Dave Burger, Eli Zane	\$49.04-\$61.54	52	\$53.00	\$2,756.00
Senior Engineer/Geologist	Paul Sorci	\$49.00-\$54.00	43	\$51.00	\$2,193.00
Project Engineer/Geologist	W. Radford, R. Longoria, R. Briseno	\$32.69-\$40.87	204	\$38.00	\$7,752.00
UAV Pilot	Josh Wagner	\$43.00-\$46.00	8	\$43.00	\$344.00
Staff Engineer/Geologist		\$26.00-\$37.02	0	\$37.00	\$0.00
GIS/CADD Specialist	Kasia Drozynska	\$30.00-\$35.00	47	\$30.00	\$1,410.00
Project Assistant	Gus Gregory	\$22.00-\$26.00	12	\$25.00	\$300.00
TOTAL			398		\$17,219.00

LABOR COSTS

a) Subtotal Direct Labor Costs	\$17,219.00
b) Escalation for Multi-Year Project (3.0%)(see pg.2)	\$129.14
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$17,348.14

FRINGE BENEFITS

d) Fringe Benefits Rate: 36.00%	
e) TOTAL FRINGE BENEFITS [(c) x (d)]	\$6,244.64

INDIRECT COSTS

f) Overhead Rate: 28.48%	
g) Overhead [(c) x (f)]	\$4,940.75
h) General Administ. Rate: 92.60%	
i) General & Administration [(c) x (h)]	\$16,064.38
j) TOTAL INDIRECT COSTS [(g) + (i)]	\$21,005.13

FIXED FEE (profit)

k) Fixed Fee Rate: 10.00%	
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)	\$4,459.79

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	800	\$0.55	\$436.00
Vendor Reproduction	2	\$150.00	\$300.00
Woodward Drilling (per day) (subcontracted drilling)	1.5	\$7,850.00	\$11,775.00
Drilling permits	1	\$285.00	\$285.00
Laboratory testing (per drill hole)	2	\$1,100.00	\$2,200.00
Miscellaneous	0	\$0.00	\$0.00
m) Other Direct Cost Subtotal:			\$14,996.00

SUBCONSULTANT COSTS (ATTACHED DETAILED COST PROPOSALS)

LCC (field)	(see attached 10H)	\$12,603.07
LCC (Office)	(see attached 10H)	\$10,044.75
FlowWest	(see attached 10H)	\$14,177.50
Associated Right of Way	(see attached 10H)	\$15,269.50
n) Subconsultant Costs		\$52,094.81

o) TOTAL COST**\$116,148.51**

EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant: Cal Engineering & Geology, Inc.

Date: 7/30/2018

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

Direct Labor <u>Subtotal</u> per Cost Proposal	Total Hours per Cost Proposal	Avg Hourly Rate	5 Year Contract Duration
\$17,219.00	398	\$43.26	Year 1 Avg Hourly Rate

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

	Avg Hourly Rate		Proposed Escalation			
Year 1	\$43.26	+	3.0%	=	\$44.56	Year 2 Avg Hourly Rate
Year 2	\$44.56	+	3.0%	=	\$45.90	Year 3 Avg Hourly Rate
Year 3	\$45.90	+	3.0%	=	\$47.28	Year 4 Avg Hourly Rate
Year 4	\$47.28	+	3.0%	=	\$48.69	Year 5 Avg Hourly Rate

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

Estimated % Completed Each Year			Total Hours per Cost Proposal	Total Hours per Year	
Year 1	75.00%	*	398.0	298.5	Estimated Hrs Year 1
Year 2	25.00%	*	398.0	99.5	Estimated Hrs Year 2
Year 3	0.00%	*	398.0	0.0	Estimated Hrs Year 3
Year 4	0.00%	*	398.0	0.0	Estimated Hrs Year 4
Year 5	0.00%	*	398.0	0.0	Estimated Hrs Year 5
Total	100%		Total	398.0	

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

Avg Hourly Rate (calculated above)			Estimated hours (calculated above)	Cost per Year	
Year 1	\$43.26	*	299	\$12,914.25	Estimated Hrs Year 1
Year 2	\$44.56	*	100	\$4,433.89	Estimated Hrs Year 2
Year 3	\$45.90	*	0	\$0.00	Estimated Hrs Year 3
Year 4	\$47.28	*	0	\$0.00	Estimated Hrs Year 4
Year 5	\$48.69	*	0	\$0.00	Estimated Hrs Year 5
Total Direct Labor Cost with Escalation				\$17,348.14	
Direct Labor Subtotal before Escalation				\$17,219.00	
Estimated total of Direct Labor Salary Increase				\$129.14	Transfer to Page 1

NOTES:

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

Exhibit 10-H Cost Proposal

COST PROPOSALContract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Lower SiteConsultant: LCC Engineering & Surveying (Office)Date: 7/13/2018**DIRECT LABOR**

Classification/Title	Range	Hours	Initial Hourly Rate	Total
Principal Surveyor - Christine Parks	N/A	26	\$65.00	\$1,690.00
CAD Technician - Noel Crisolo	N/A	52	\$33.50	\$1,742.00
TOTAL		78		\$3,432.00

LABOR COSTS

a) Subtotal Direct Labor Costs	\$3,432.00
b) Escalation for Multi-Year Project (3.0%) (see pg.2)	\$25.74
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$3,457.74

FRINGE BENEFITS

d) Fringe Benefits (Rate: 56.44%)	56.44%
e) TOTAL FRINGE BENEFITS [(c) x (d)]	\$1,951.55

INDIRECT COSTS

f) Overhead (Rate: 29.80%):	
g) Overhead [(c) x (f)]	\$1,030.41
h) General Administration (Rate: 75.53%):	
i) General & Administration [(c) x (h)]	\$2,611.63
j) TOTAL INDIRECT COSTS [(g) + (i)]	\$3,642.04

FIXED FEE (profit)

k) Fixed Fee (10.0%):	
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)	\$905.13

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	162	\$0.55	\$88.29
m) Other Direct Cost Subtotal:			\$88.29

SUBCONSULTANT COSTS (ATTACHED DETAILED COST PROPOSALS)

	0.00	\$0.00	0.00
N/A			\$0.00

o) TOTAL COST**\$10,044.75**

EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant LCC Engineering & Surveying (office) Contract No. _____ Date 7/13/2018

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

Direct Labor Subtotal per Cost Proposal	Total Hours per Cost Proposal		Avg Hourly Rate	5 Year Contract Duration
\$3,432.00	156	=	\$22.00	Year 1 Avg Hourly Rate

2. Calculate hourly rate for all years (Increase the Average Hourly Rate for a year by proposed escalati

	Avg Hourly Rate		Proposed Escalation			
Year 1	\$22.00	+	3.0%	=	\$22.66	Year 2 Avg Hourly Rate
Year 2	\$22.66	+	3.0%	=	\$23.34	Year 3 Avg Hourly Rate
Year 3	\$23.34	+	3.0%	=	\$24.04	Year 4 Avg Hourly Rate
Year 4	\$24.04	+	3.0%	=	\$24.76	Year 5 Avg Hourly Rate

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

	Estimated % Completed Each Year		Total Hours per Cost Proposal		Total Hours per Year	
Year 1	75.00%	*	156.0	=	117.0	Estimated Hrs Year 1
Year 2	25.00%	*	156.0	=	39.0	Estimated Hrs Year 2
Year 3	0.00%	*	0.0	=	0.0	Estimated Hrs Year 3
Year 4	0.00%	*	0.0	=	0.0	Estimated Hrs Year 4
Year 5	0.00%	*	0.0	=	0.0	Estimated Hrs Year 5
Total	100%		Total	=	156.0	

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

	Avg Hourly Rate (calculated above)		Estimated hours (calculated above)		Cost per Year	
Year 1	\$22.00	*	117	=	\$2,574.00	Estimated Hrs Year 1
Year 2	\$22.66	*	39	=	\$883.74	Estimated Hrs Year 2
Year 3	\$23.34	*	0	=	\$0.00	Estimated Hrs Year 3
Year 4	\$24.04	*	0	=	\$0.00	Estimated Hrs Year 4
Year 5	\$24.76	*	0	=	\$0.00	Estimated Hrs Year 5
Total Direct Labor Cost with Escalation				=	\$3,457.74	
Direct Labor Subtotal before Escalation				=	\$3,432.00	
Estimated total of Direct Labor Salary Increase				=	\$25.74	Transfer to Page 1

NOTES:

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

Exhibit 10-H Cost Proposal

COST PROPOSALContract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Lower SiteConsultant: LCC Engineering & Surveying (Field)Date: 7/13/2018**DIRECT LABOR**

Classification/Title	Range	Hours	Initial	
			Hourly Rate	Total
Licensed Land Surveyor-Andrew Lam	N/A	48	\$40.60	\$1,948.80
Chairman-Ken Tetzl	N/A	48	\$34.18	\$1,640.64
TOTAL		96		\$3,589.44

LABOR COSTS

a) Subtotal Direct Labor Costs	\$3,589.44
b) Escalation for Multi-Year Project (3.0%) (see pg.2)	\$53.84
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$3,643.28

FRINGE BENEFITS

d) Fringe Benefits (Rate: 96.11%)	96.11%
e) TOTAL FRINGE BENEFITS [(c) x (d)]	\$3,501.56

INDIRECT COSTS

f) Overhead (Rate: 29.80%):	
g) Overhead [(c) x (f)]	\$1,085.70
h) General Administration (Rate: 75.35%):	
i) General & Administration [(c) x (h)]	\$2,745.21
j) TOTAL INDIRECT COSTS [(g) + (i)]	\$3,830.91

FIXED FEE (profit)

k) Fixed Fee (10.0%):	10.00%
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)	\$1,097.58

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	972	\$0.55	\$529.74
m) Other Direct Cost Subtotal:			\$529.74

SUBCONSULTANT COSTS (ATTACHED DETAILED COST PROPOSALS)

	0.00	\$0.00	0.00
N/A			\$0.00

o) TOTAL COST**\$12,603.07**

EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant LCC Engineering & Surveying (field) Contract No. _____ Date 7/13/2018

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

Direct Labor Subtotal per Cost Proposal	Total Hours per Cost Proposal		Avg Hourly Rate	5 Year Contract Duration
\$3,589.44	96	=	\$37.39	Year 1 Avg Hourly Rate

2. Calculate hourly rate for all years (Increase the Average Hourly Rate for a year by proposed esc:

	Avg Hourly Rate		Proposed Escalation		
Year 1	\$37.39	+	3.0%	=	\$38.51 Year 2 Avg Hourly Rate
Year 2	\$38.51	+	3.0%	=	\$39.67 Year 3 Avg Hourly Rate
Year 3	\$39.67	+	3.0%	=	\$40.86 Year 4 Avg Hourly Rate
Year 4	\$40.86	+	3.0%	=	\$42.08 Year 5 Avg Hourly Rate

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

	Estimated % Completed Each Year		Total Hours per Cost Proposal		Total Hours per Year	
Year 1	50.00%	*	96.0	=	48.0	Estimated Hours Year 1
Year 2	50.00%	*	96.0	=	48.0	Estimated Hours Year 2
Year 3	0.00%	*	0.0	=	0.0	Estimated Hours Year 3
Year 4	0.00%	*	0.0	=	0.0	Estimated Hours Year 4
Year 5	0.00%	*	0.0	=	0.0	Estimated Hours Year 5
Total	100%		Total	=	96.0	

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

	Avg Hourly Rate (calculated above)		Estimated hours (calculated above)		Cost per Year	
Year 1	\$37.39	*	48	=	\$1,794.72	Estimated Hours Year 1
Year 2	\$38.51	*	48	=	\$1,848.56	Estimated Hours Year 2
Year 3	\$39.67	*	0	=	\$0.00	Estimated Hours Year 3
Year 4	\$40.86	*	0	=	\$0.00	Estimated Hours Year 4
Year 5	\$42.08	*	0	=	\$0.00	Estimated Hours Year 5
Total Direct Labor Cost with Escalation				=	\$3,643.28	
Direct Labor Subtotal before Escalation				=	\$3,589.44	
Estimated total of Direct Labor Salary Increase				=	\$53.84	Transfer to Page 1

NOTES:

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

Exhibit 10-H Cost Proposal

COST PROPOSALContract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Lower SiteConsultant: Associated Right of Way Services, Inc.Date: 7/13/2018**DIRECT LABOR**

Classification/Title	Range	Hours	Hourly Rate	Total
Project Manager-Gary Dowd	N/A	51	\$56.97	\$2,905.47
Administrative Support-Kelly Balog	N/A	2	\$29.00	\$58.00
TOTAL		53		\$2,963.47

LABOR COSTS

a) Subtotal Direct Labor Costs	\$2,963.47
b) Escalation for Multi-Year Project (3.0%) (see pg.2)	\$22.23
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$2,985.70

FRINGE BENEFITS

d) Fringe Benefits (Rate: 28%)	
e) TOTAL FRINGE BENEFITS [(c) x (d)]	\$835.99

INDIRECT COSTS

f) Overhead (Rate: 104%):	
g) Overhead [(c) x (f)]	\$3,105.12
h) General Administration (Rate: 0.00%):	
i) General & Administration [(c) x (h)]	\$0.00
j) TOTAL INDIRECT COSTS [(g) + (i)]	\$3,105.12

FIXED FEE (profit)

k) Fixed Fee (10.0%):	10.00%
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)	\$692.68

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	0	\$0.55	\$0.00
Appraisals (Erik Woodhouse - lump sum)	1	\$6,000.00	\$6,000.00
m) Other Direct Cost Subtotal:			\$6,000.00

SUBCONSULTANT COSTS (ATTACHED DETAILED COST PROPOSALS)

n) Subconsultant Costs	1.00	\$1,650.00	1,650.00
			\$1,650.00

o) TOTAL COST**\$15,269.50**

EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant Associated Right of Way Services, Inc. Contract No. Date 7/13/2018

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

Direct Labor <u>Subtotal</u> per Cost Proposal	Total Hours per Cost Proposal		Avg Hourly Rate	5 Year Contract Duration
\$2,963.47	95	=	\$31.19	Year 1 Avg Hourly Rate

2. Calculate hourly rate for all years (Increase the Average Hourly Rate for a year by proposed escalat

	Avg Hourly Rate		Proposed Escalation			
Year 1	\$31.19	+	3.0%	=	\$32.13	Year 2 Avg Hourly Rate
Year 2	\$32.13	+	3.0%	=	\$33.09	Year 3 Avg Hourly Rate
Year 3	\$33.09	+	3.0%	=	\$34.09	Year 4 Avg Hourly Rate
Year 4	\$34.09	+	3.0%	=	\$35.11	Year 5 Avg Hourly Rate

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

	Estimated % Completed Each Year		Total Hours per Cost Proposal		Total Hours per Year	
Year 1	75.00%	*	95.0	=	71.3	Estimated Hours Year 1
Year 2	25.00%	*	95.0	=	23.8	Estimated Hours Year 2
Year 3	0.00%	*	95.0	=	0.0	Estimated Hours Year 3
Year 4	0.00%	*	95.0	=	0.0	Estimated Hours Year 4
Year 5	0.00%	*	95.0	=	0.0	Estimated Hours Year 5
Total	100%		Total	=	95.0	

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

	Avg Hourly Rate (calculated above)		Estimated hours (calculated above)		Cost per Year	
Year 1	\$31.19	*	71	=	\$2,222.60	Estimated Hours Year 1
Year 2	\$32.13	*	24	=	\$763.09	Estimated Hours Year 2
Year 3	\$33.09	*	0	=	\$0.00	Estimated Hours Year 3
Year 4	\$34.09	*	0	=	\$0.00	Estimated Hours Year 4
Year 5	\$35.11	*	0	=	\$0.00	Estimated Hours Year 5
	Total Direct Labor Cost with Escalation			=	\$2,985.70	
	Direct Labor Subtotal before Escalation			=	\$2,963.47	
	Estimated total of Direct Labor Salary Increase			=	\$22.23	Transfer to Page 1

NOTES:

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

Exhibit 10-H Cost Proposal

COST PROPOSAL

Contract Name/No.: Lake County - Engineering Services for Repair of Socrates Mine Road Landslides - Lower Site

Consultant: FlowWest

Date: 7/30/2018

DIRECT LABOR

Classification/Title	Name	Range	Initial Hourly		Total
			Hours	Rate	
Principal Engineer and PM	Paul Frank		12	\$75.00	\$900.00
Principal Planner	Mike Urkov		12	\$70.00	\$840.00
Planner	CJ Day		36	\$40.00	\$1,440.00
Staff Engineer	Bethany Hackenjios		4	\$20.00	\$80.00
Administration	Louise Ullrich		2	\$20.00	\$40.00
TOTAL			66		\$3,300.00

LABOR COSTS

a) Subtotal Direct Labor Costs	\$3,300.00
b) Escalation for Multi-Year Project (3.0%)(see pg.2)	\$24.75
c) TOTAL DIRECT LABOR COSTS [(a) + (b)]	\$3,324.75

FRINGE BENEFITS

d) Fringe Benefits	Rate: 35.00%	
e) TOTAL FRINGE BENEFITS [(c) x (d)]		\$1,163.66

INDIRECT COSTS

f) Overhead	Rate: 30.00%	
g) Overhead [(c) x (f)]		\$997.43
h) General Administration Rate: 98.00%		
i) General & Administration [(c) x (h)]		\$3,258.26
j) TOTAL INDIRECT COSTS [(g) + (i)]		\$4,255.68

FIXED FEE (profit)

k) Fixed Fee	Rate: 10.00%	
l) TOTAL PROFIT [(c) + (e) + (j)] x (k)		\$874.41

OTHER DIRECT COSTS (ODC)

Travel (mileage @ IRS rate)	200	\$0.55	\$109.00
Vendor Reproduction	1	\$75.00	\$75.00
CDFW Permit Fee	0	\$5,200.00	\$0.00

m) Other Direct Cost Subtotal:	\$184.00
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SUBCONSULTANT COSTS

Alnus Ecological - Biological Resources Services	\$4,375.00
n) Subconsultant Costs	\$4,375.00

o) TOTAL COST	\$14,177.50
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EXHIBIT 10-H COST PROPOSAL PAGE 2 OF 2
ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

Consultant FlowWest Contract No. _____ Date 7/30/2018

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

Direct Labor <u>Subtotal</u> per Cost Proposal	Total Hours per Cost Proposal	Avg Hourly Rate	5 Year Contract Duration Year 1 Avg Hourly Rate
\$3,300.00	66	\$50.00	

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

	Avg Hourly		Proposed Escalation			
Year 1	\$50.00	+	3.0%	=	\$51.50	Year 2 Avg Hourly Rate
Year 2	\$51.50	+	3.0%	=	\$53.05	Year 3 Avg Hourly Rate
Year 3	\$53.05	+	3.0%	=	\$54.64	Year 4 Avg Hourly Rate
Year 4	\$54.64	+	3.0%	=	\$56.28	Year 5 Avg Hourly Rate

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

Estimated % Completed Each			Total Hours per Cost	Total Hours per Year	
Year 1	75.00%	*	66.0	49.5	Estimated Hours Year 1
Year 2	25.00%	*	66.0	16.5	Estimated Hours Year 2
Year 3	0.00%	*	66.0	0.0	Estimated Hours Year 3
Year 4	0.00%	*	66.0	0.0	Estimated Hours Year 4
Year 5	0.00%	*	66.0	0.0	Estimated Hours Year 5
Total	100%		Total	66.0	

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

Avg Hourly Rate (calculated above)			Estimated (calculated above)	Cost per Year	
Year 1	\$50.00	*	50	\$2,475.00	Estimated Hours Year 1
Year 2	\$51.50	*	17	\$849.75	Estimated Hours Year 2
Year 3	\$53.05	*	0	\$0.00	Estimated Hours Year 3
Year 4	\$54.64	*	0	\$0.00	Estimated Hours Year 4
Year 5	\$56.28	*	0	\$0.00	Estimated Hours Year 5

Total Direct Labor Cost with Escalation

\$3,324.75

Direct Labor Subtotal before Escal:

\$3,300.00

Estimated total of Direct Labor Salary Increase

\$24.75

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NOTES:

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