

## **AGREEMENT FOR SERVICES OF INDEPENDENT CONTRACTOR**

**THIS AGREEMENT** (hereafter Agreement) is made by and between the County of Santa Barbara, a political subdivision of the State of California (hereafter COUNTY) and Earth Mechanics, Inc. with an address at 17800 Newhope Street, Suite B Fountain Valley CA 92708 (hereafter CONTRACTOR) wherein CONTRACTOR agrees to provide and COUNTY agrees to accept the services specified herein.

**WHEREAS**, CONTRACTOR represents that it is specially trained, skilled, experienced, and competent to perform the special services required by COUNTY and COUNTY desires to retain the services of CONTRACTOR pursuant to the terms, covenants, and conditions herein set forth;

**NOW, THEREFORE**, in consideration of the mutual covenants and conditions contained herein, the parties agree as follows:

### **1. DESIGNATED REPRESENTATIVE**

Christian Doolittle at phone number (805) 739-8777 is the representative of COUNTY and will administer this Agreement for and on behalf of COUNTY. Lino Cheang at phone number (714) 751-3826 is the authorized representative for CONTRACTOR. Changes in designated representatives shall be made only after advance written notice to the other party. The designated representative may also be referred to herein as the "Contract Administrator".

### **2. NOTICES**

Any notice or consent required or permitted to be given under this Agreement shall be given to the respective parties in writing, by personal delivery or facsimile, or with postage prepaid by first class mail, registered or certified mail, or express courier service, as follows:

To COUNTY: Christian Doolittle, Public Works Transportation, 620 W. Foster Road, Santa Maria, CA 93455, [cdoolit@cosbpw.net](mailto:cdoolit@cosbpw.net), FAX: (805) 739-8753

To CONTRACTOR: Earth Mechanics, Inc. 17800 Newhope Street, Suite B Fountain Valley CA 92708 (714) 751-3826

or at such other address or to such other person that the parties may from time to time designate in accordance with this Notices section. If sent by first class mail, notices and consents under this section shall be deemed to be received five (5) days following their deposit in the U.S. mail. This Notices section shall not be construed as meaning that either party agrees to service of process except as required by applicable law.

### **3. SCOPE OF SERVICES**

CONTRACTOR agrees to provide services to COUNTY in accordance with EXHIBIT A attached hereto and incorporated herein by reference.

### **4. PERFORMANCE PERIOD**

A. This contract shall go into effect on Tuesday, September 20, 2016, contingent upon approval by COUNTY, and CONTRACTOR shall commence work after notification to proceed by COUNTY'S Contract Administrator. The contract shall end on Friday, September 20, 2019, unless extended by contract amendment or unless earlier terminated.

B. CONTRACTOR is advised that any recommendation for contract award is not binding on COUNTY until the contract is fully executed and approved by COUNTY.

## **5. COMPENSATION OF CONTRACTOR**

In full consideration for CONTRACTOR's services, CONTRACTOR shall be paid for performance under this Agreement in accordance with the terms of EXHIBIT B attached hereto and incorporated herein by reference.

## **6. FEDERAL AND STATE PREVAILING WAGE RATES**

A. CONTRACTOR 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.

C. When prevailing wages apply to the services described in the scope of work, transportation and subsistence costs shall be reimbursed at the minimum rates set by the Department of Industrial Relations (DIR) as outlined in the applicable Prevailing Wage Determination. See <http://www.dir.ca.gov>.

## **7. COST PRINCIPLES AND ADMINISTRATIVE REQUIREMENTS**

A. CONTRACTOR 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 allowable cost(s) of individual items.

B. CONTRACTOR 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 (Super or Omni Circular)

C. Any costs for which payment has been made to CONTRACTOR that are determined by subsequent audit to be unallowable under applicable Federal Regulations, are subject to repayment by CONTRACTOR to COUNTY.

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

## **8. INDEPENDENT CONTRACTOR**

It is mutually understood and agreed that CONTRACTOR (including any and all of its officers, agents, and employees), shall perform all of its services under this Agreement as an independent contractor as to COUNTY and not as an officer, agent, servant, employee, joint venturer, partner, or associate of COUNTY. Furthermore, COUNTY shall have no right to control, supervise, or direct the manner or method by which CONTRACTOR shall perform its work and function. However, COUNTY shall retain the right to administer this Agreement so as to verify that CONTRACTOR is performing its obligations in accordance with the terms and conditions hereof. CONTRACTOR understands and acknowledges that it shall not be entitled to any of the benefits of a COUNTY employee, including but not limited to vacation, sick leave, administrative leave, health insurance, disability insurance, retirement, unemployment insurance, workers' compensation and protection of tenure. CONTRACTOR shall be solely liable and responsible for providing to, or on behalf of, its employees all legally-required employee benefits. In addition, CONTRACTOR shall be solely responsible and save COUNTY harmless from all matters relating to payment of CONTRACTOR's employees, including compliance with Social Security withholding and all other regulations governing such matters. It is acknowledged that during the term of this Agreement, CONTRACTOR may be providing services to others unrelated to the COUNTY or to this Agreement.

## **9. STANDARD OF PERFORMANCE**

CONTRACTOR represents that it has the skills, expertise, and licenses/permits necessary to perform the services required under this Agreement. Accordingly, CONTRACTOR shall perform all such services in the manner and according to the standards observed by a competent practitioner of the same profession in which CONTRACTOR is engaged. All products of whatsoever nature, which CONTRACTOR delivers to COUNTY pursuant to this Agreement, shall be prepared in a manner consistent with the standards normally observed by a person practicing in CONTRACTOR's profession. CONTRACTOR shall correct or revise any errors or omissions, at COUNTY'S request without additional compensation. Permits and/or licenses shall be obtained and maintained by CONTRACTOR without additional compensation.

## **10. SUBCONTRACTING**

A. Nothing contained in this contract or otherwise, shall create any contractual relation between COUNTY and any subcontractor(s), and no subcontract shall relieve CONTRACTOR of its responsibilities and obligations hereunder. CONTRACTOR agrees to be as fully responsible to COUNTY for the acts and omissions of its subcontractor(s) 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 CONTRACTOR. CONTRACTOR's obligation to pay its subcontractor(s) is an independent obligation from COUNTY'S obligation to make payments to the CONTRACTOR.

B. CONTRACTOR 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 COUNTY's Contract Administrator, except that, which is expressly identified in the approved Cost Proposal.

C. CONTRACTOR shall pay its subcontractors within ten (10) calendar days from receipt of each payment made to CONTRACTOR by COUNTY.

D. 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.

E. Any substitution of subcontractor(s) must be approved in writing by COUNTY's Contract Administrator prior to the start of work by the subcontractor(s).

## **11. EQUIPMENT PURCHASES**

A. Prior authorization in writing, by COUNTY's Contract Administrator shall be required before CONTRACTOR enters into any unbudgeted purchase order, or subcontract exceeding \$5,000 for supplies, equipment, or CONTRACTOR services. CONTRACTOR 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 CONTRACTOR's Cost Proposal and exceeding \$5,000 prior authorization by COUNTY's Contract Administrator; three competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.

Any equipment purchased as a result of this contract is subject to the following: "CONTRACTOR 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, COUNTY shall receive a proper refund or credit at the conclusion of the contract, or if the contract is terminated, CONTRACTOR may either keep the equipment and credit 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 COUNTY in an amount equal to the sales price. If CONTRACTOR elects to keep the equipment, fair market value shall be determined at CONTRACTOR's expense, on the basis of a competent independent

appraisal of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable to by COUNTY and CONTRACTOR, if it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by COUNTY.”

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

## **12. DEBARMENT AND SUSPENSION**

A. CONTRACTOR's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California, that CONTRACTOR has complied with Title 2 CFR, Part 180, "OMB Guidelines to Agencies on Government wide Debarment and Suspension (nonprocurement)", which certifies that he/she or any person associated therewith in the capacity of owner, partner, director, officer, or manager, is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency; has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years. Any exceptions to this certification must be disclosed to COUNTY.

B. Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining CONTRACTOR responsibility. Disclosures must indicate to whom exceptions apply, initiating agency, and dates of action.

C. Exceptions to the Federal Government Excluded Parties List System maintained by the General Services Administration are to be determined by the Federal Highway Administration.

D. CONTRACTOR's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California, which certifies that CONTRACTOR or any person associated therewith in the capacity of owner, partner, director, officer, or manager, is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility for participation in any state or local government agency contracts. CONTRACTOR certifies that it shall not contract with a subcontractor that is so debarred or suspended.

## **13. TAXES**

CONTRACTOR shall pay all taxes, levies, duties, and assessments of every nature due in connection with any work under this Agreement and shall make any and all payroll deductions required by law. COUNTY shall not be responsible for paying any taxes on CONTRACTOR's behalf, and should COUNTY be required to do so by state, federal, or local taxing agencies, CONTRACTOR agrees to promptly reimburse COUNTY for the full value of such paid taxes plus interest and penalty, if any. These taxes shall include, but not be limited to, the following: FICA (Social Security), unemployment insurance contributions, income tax, disability insurance, and workers' compensation insurance.

## **14. CONFLICT OF INTEREST**

A. CONTRACTOR shall disclose in writing 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. CONTRACTOR 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. CONTRACTOR 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 contract.

C. Any subcontract in excess of \$25,000 entered into as a result of this contract, shall contain all of the provisions of this Section.

D. CONTRACTOR hereby certifies that neither CONTRACTOR, nor any firm affiliated with CONTRACTOR 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 subcontractor 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.

#### **15. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY**

COUNTY shall be the owner of the following items incidental to this Agreement upon production, whether or not completed: all data collected, all documents of any type whatsoever, all photos, designs, sound or audiovisual recordings, software code, inventions, technologies, and other materials, and any material necessary for the practical use of such items, from the time of collection and/or production whether or not performance under this Agreement is completed or terminated prior to completion. CONTRACTOR shall not release any of such items to other parties except after prior written approval of COUNTY.

Unless otherwise specified in Exhibit A, CONTRACTOR hereby assigns to COUNTY all copyright, patent, and other intellectual property and proprietary rights to all data, documents, reports, photos, designs, sound or audiovisual recordings, software code, inventions, technologies, and other materials prepared or provided by CONTRACTOR pursuant to this Agreement (collectively referred to as "Copyrightable Works and Inventions"). COUNTY shall have the unrestricted authority to copy, adapt, perform, display, publish, disclose, distribute, create derivative works from, and otherwise use in whole or in part, any Copyrightable Works and Inventions. CONTRACTOR agrees to take such actions and execute and deliver such documents as may be needed to validate, protect and confirm the rights and assignments provided hereunder. CONTRACTOR warrants that any Copyrightable Works and Inventions and other items provided under this Agreement will not infringe upon any intellectual property or proprietary rights of any third party. CONTRACTOR at its own expense shall defend, indemnify, and hold harmless COUNTY against any claim that any Copyrightable Works or Inventions or other items provided by CONTRACTOR hereunder infringe upon intellectual or other proprietary rights of a third party, and CONTRACTOR shall pay any damages, costs, settlement amounts, and fees (including attorneys' fees) that may be incurred by COUNTY in connection with any such claims. This Ownership of Documents and Intellectual Property provision shall survive expiration or termination of this Agreement.

#### **16. NO PUBLICITY OR ENDORSEMENT**

CONTRACTOR shall not use COUNTY's name or logo or any variation of such name or logo in any publicity, advertising or promotional materials. CONTRACTOR shall not use COUNTY's name or logo in any manner that would give the appearance that the COUNTY is endorsing CONTRACTOR. CONTRACTOR shall not in any way contract on behalf of or in the name of COUNTY. CONTRACTOR shall not release any informational pamphlets, notices, press releases, research reports, or similar public notices concerning the COUNTY or its projects, without obtaining the prior written approval of COUNTY.

#### **17. COUNTY PROPERTY AND INFORMATION**

All of COUNTY's property, documents, and information provided for CONTRACTOR's use in connection with the services shall remain COUNTY's property, and CONTRACTOR shall return any such items whenever requested by COUNTY and whenever required according to the Termination section of this Agreement. CONTRACTOR may use such items only in connection with providing the services. CONTRACTOR shall not disseminate any COUNTY property, documents, or information without COUNTY's prior written consent.

## **18. RETENTION OF RECORDS/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 8546.7; CONTRACTOR, subcontractors, and COUNTY shall maintain and make available for inspection 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 years from the date of final payment under the contract. The state, State Auditor, COUNTY, FHWA, or any duly authorized representative of the Federal Government shall have access to any books, records, and documents of CONTRACTOR and its certified public accountants (CPA) work papers that are pertinent to the contract and indirect cost rates (ICR) for audit, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested. Subcontracts in excess of \$25,000 shall contain this provision.

If federal, state or COUNTY audit exceptions are made relating to this Agreement, CONTRACTOR shall reimburse all costs incurred by federal, state, and/or COUNTY governments associated with defending against the audit exceptions or performing any audits or follow-up audits, including but not limited to: audit fees, court costs, attorneys' fees based upon a reasonable hourly amount for attorneys in the community, travel costs, penalty assessments and all other costs of whatever nature. Immediately upon notification from COUNTY, CONTRACTOR shall reimburse the amount of the audit exceptions and any other related costs directly to COUNTY as specified by COUNTY in the notification.

## **19. 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 COUNTY'S Deputy Director - Finance and Administration for Public Works.

B. Not later than 30 days after issuance of the final audit report, CONTRACTOR may request a review by 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 COUNTY will excuse CONTRACTOR from full and timely performance, in accordance with the terms of this contract.

## **20. INDEMNIFICATION AND INSURANCE**

CONTRACTOR agrees to the indemnification and insurance provisions as set forth in EXHIBIT C attached hereto and incorporated herein by reference.

## **21. NONDISCRIMINATION**

A. COUNTY hereby notifies CONTRACTOR that COUNTY's Unlawful Discrimination Ordinance (Article XIII of Chapter 2 of the Santa Barbara County Code) applies to this Agreement and is incorporated herein by this reference with the same force and effect as if the ordinance were specifically set out herein and CONTRACTOR agrees to comply with said ordinance.

### **B. STATEMENT OF COMPLIANCE:**

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

2. During the performance of this Contract, CONTRACTOR 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, 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. CONTRACTOR and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. CONTRACTOR and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated there under (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. CONTRACTOR 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.

3. The CONTRACTOR shall comply with regulations relative to Title VI (nondiscrimination in federally-assisted programs of the Department of Transportation – Title 49 Code of Federal Regulations, Part 21 - Effectuation of Title VI of the 1964 Civil Rights Act). Title VI provides that the recipients of federal assistance will implement and maintain a policy of nondiscrimination in which no person in the state of California shall, on the basis of race, color, national origin, religion, sex, age, disability, be excluded from participation in, denied the benefits of or subject to discrimination under any program or activity by the recipients of federal assistance or their assignees and successors in interest.

4. The CONTRACTOR, with regard to the work performed by it during the Agreement shall act in accordance with Title VI. Specifically, the CONTRACTOR shall not discriminate on the basis of race, color, national origin, religion, sex, age, or disability in the selection and retention of Subcontractors, including procurement of materials and leases of equipment. The CONTRACTOR shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the U.S. DOT's Regulations, including employment practices when the Agreement covers a program whose goal is employment.

## **22. REBATES, KICKBACKS OR OTHER UNLAWFUL CONSIDERATION**

CONTRACTOR 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.

## **23. PROHIBITION OF EXPENDING COUNTY, STATE OR FEDERAL FUNDS FOR LOBBYING**

A. CONTRACTOR certifies to the best of his or her knowledge and belief that:

1. No state, federal or COUNTY appropriated funds have been paid, or will be paid by-or-on behalf of CONTRACTOR 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; CONTRACTOR 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, U.S. 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. CONTRACTOR 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.

#### **24. CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT.**

CONTRACTOR shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q.) and pursuant to the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). The CONTRACTOR shall promptly disclose, in writing, to the COUNTY office, to the Federal Awarding Agency, and to the Regional Office of the Environmental Protection Agency (EPA), whenever, in connection with the award, performance, or closeout of this contract or any subcontract thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed a violation of the Clean Air Act (42 U.S.C. 7401-7671q.) or the Federal Water Pollution Control Act (33 U.S.C. 1251-1387).

#### **25. PROCUREMENT OF RECOVERED MATERIALS**

CONTRACTOR must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

#### **26. NONEXCLUSIVE AGREEMENT**

CONTRACTOR understands that this is not an exclusive Agreement and that COUNTY shall have the right to negotiate with and enter into contracts with others providing the same or similar services as those provided by CONTRACTOR as the COUNTY desires.

#### **27. NON-ASSIGNMENT**

CONTRACTOR shall not assign, transfer or subcontract this Agreement or any of its rights or obligations under this Agreement without the prior written consent of COUNTY and any attempt to so assign, subcontract or transfer without such consent shall be void and without legal effect and shall constitute grounds for termination.

#### **28. TERMINATION**

A. COUNTY reserves the right to terminate this contract for convenience upon thirty (30) calendar days written notice to CONTRACTOR with the reasons for termination stated in the notice.



During the thirty (30) day period, CONTRACTOR shall, as directed by COUNTY, wind down and cease its services as quickly and efficiently as reasonably possible, without performing unnecessary services or activities and by minimizing negative effects on COUNTY from such winding down and cessation of services.

B. COUNTY may terminate this contract with CONTRACTOR should CONTRACTOR fail to perform the covenants herein contained at the time and in the manner herein provided. In the event of such termination, COUNTY may proceed with the work in any manner deemed proper by COUNTY. If COUNTY terminates this contract with CONTRACTOR, COUNTY shall pay CONTRACTOR the sum due to CONTRACTOR under this contract prior to termination, unless the cost of completion to COUNTY exceeds the funds remaining in the contract. In which case the overage shall be deducted from any sum due CONTRACTOR under this contract and the balance, if any, shall be paid to CONTRACTOR upon demand.

C. Should COUNTY fail to pay CONTRACTOR all or any part of the payment set forth in EXHIBIT B, CONTRACTOR may, at CONTRACTOR's option, terminate this Agreement if such failure is not remedied by COUNTY within thirty (30) days of written notice to COUNTY of such late payment.

D. The maximum amount for which the COUNTY shall be liable if this contract is terminated is \$149,000.00 dollars.

E. Upon termination, CONTRACTOR shall deliver to COUNTY all data, estimates, graphs, summaries, reports, and all other property, records, documents or papers as may have been accumulated or produced by CONTRACTOR in performing this Agreement, whether completed or in process, except such items as COUNTY may, by written permission, permit CONTRACTOR to retain. CONTRACTOR shall furnish to COUNTY such financial information as in the judgment of COUNTY is necessary to determine the reasonable value of the services rendered by CONTRACTOR. In the event of a dispute as to the reasonable value of the services rendered by CONTRACTOR, the decision of COUNTY shall be final. The foregoing is cumulative and shall not affect any right or remedy which COUNTY may have in law or equity.

## **29. SECTION HEADINGS**

The headings of the several sections, and any Table of Contents appended hereto, shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof.

## **30. SEVERABILITY**

If any one or more of the provisions contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, then such provision or provisions shall be deemed severable from the remaining provisions hereof, and such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

## **31. REMEDIES NOT EXCLUSIVE**

No remedy herein conferred upon or reserved to COUNTY is intended to be exclusive of any other remedy or remedies, and each and every such remedy, to the extent permitted by law, shall be cumulative and in addition to any other remedy given hereunder or now or hereafter existing at law or in equity or otherwise.

## **32. TIME IS OF THE ESSENCE**

Time is of the essence in this Agreement and each covenant and term is a condition herein.

### **33. NO WAIVER OF DEFAULT**

No delay or omission of COUNTY to exercise any right or power arising upon the occurrence of any event of default shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein; and every power and remedy given by this Agreement to COUNTY shall be exercised from time to time and as often as may be deemed expedient in the sole discretion of COUNTY.

### **34. ENTIRE AGREEMENT AND AMENDMENT**

In conjunction with the matters considered herein, this Agreement contains the entire understanding and agreement of the parties and there have been no promises, representations, agreements, warranties or undertakings by any of the parties, either oral or written, of any character or nature hereafter binding except as set forth herein. This Agreement may be altered, amended or modified only by an instrument in writing, executed by the parties to this Agreement and by no other means. Each party waives their future right to claim, contest or assert that this Agreement was modified, canceled, superseded, or changed by any oral agreements, course of conduct, waiver or estoppel.

### **35. SUCCESSORS AND ASSIGNS**

All representations, covenants and warranties set forth in this Agreement, by or on behalf of, or for the benefit of any or all of the parties hereto, shall be binding upon and inure to the benefit of such party, its successors and assigns.

### **36. COMPLIANCE WITH LAW**

CONTRACTOR shall, at its sole cost and expense, comply with all County, State and Federal ordinances and statutes now in force or which may hereafter be in force with regard to this Agreement. The judgment of any court of competent jurisdiction, or the admission of CONTRACTOR in any action or proceeding against CONTRACTOR, whether COUNTY is a party thereto or not, that CONTRACTOR has violated any such ordinance or statute, shall be conclusive of that fact as between CONTRACTOR and COUNTY.

### **37. CALIFORNIA LAW AND JURISDICTION**

This Agreement shall be governed by the laws of the State of California. Any litigation regarding this Agreement or its contents shall be filed in the County of Santa Barbara, if in state court, or in the federal district court nearest to Santa Barbara County, if in federal court.

### **38. EXECUTION OF COUNTERPARTS**

This Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original; and all such counterparts, or as many of them as the parties shall preserve undestroyed, shall together constitute one and the same instrument.

### **39. AUTHORITY**

All signatories and parties to this Agreement warrant and represent that they have the power and authority to enter into this Agreement in the names, titles and capacities herein stated and on behalf of any entities, persons, or firms represented or purported to be represented by such entity(ies), person(s), or firm(s) and that all formal requirements necessary or required by any state and/or federal law in order to enter into this Agreement have been fully complied with. Furthermore, by entering into this Agreement, CONTRACTOR hereby warrants that it shall not have breached the terms or conditions of any other contract or agreement to which CONTRACTOR is obligated, which breach would have a material effect hereon.

#### **40. SURVIVAL**

All provisions of this Agreement which by their nature are intended to survive the termination or expiration of this Agreement shall survive such termination or expiration.

#### **41. PRECEDENCE**

In the event of conflict between the provisions contained in the numbered sections of this Agreement and the provisions contained in the Exhibits, the provisions of the Exhibits shall prevail over those in the numbered sections.

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Agreement for Services of Independent Contractor between the **County of Santa Barbara** and Earth Mechanics, Inc..

**IN WITNESS WHEREOF**, the parties have executed this Agreement to be effective on the date executed by COUNTY.

**ATTEST:**

Mona Miyasato  
County Executive Officer  
Clerk of the Board

**COUNTY OF SANTA BARBARA:**

By: \_\_\_\_\_  
Deputy Clerk

By: \_\_\_\_\_  
Chair, Board of Supervisors

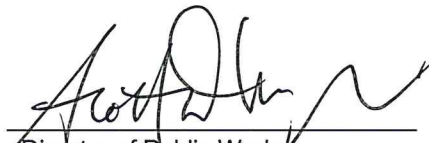
Date: \_\_\_\_\_

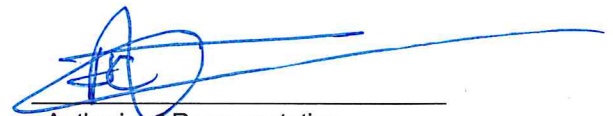
**RECOMMENDED FOR APPROVAL:**

Public Works

**CONTRACTOR:**

Earth Mechanics, Inc.

By:   
Director of Public Works

By:   
Authorized Representative

Name: Kandiah Arulmoli

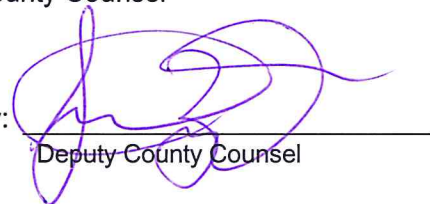
Title: President

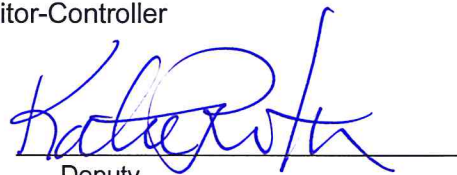
**APPROVED AS TO FORM:**

Michael C. Ghizzoni  
County Counsel

**APPROVED AS TO ACCOUNTING FORM:**

Theodore A. Fallati, CPA  
Auditor-Controller

By:   
Deputy County Counsel

By:   
Deputy

**APPROVED AS TO FORM:**

Risk Management

By: 

**EXHIBIT A**  
**STATEMENT OF WORK**  
**Project No. 862367**

The following documents are incorporated by reference and shall constitute the Statement of Work for this contract:

**Exhibit A-1**, CONTRACTOR's Proposal of July 1, 2016, and as amended during contract negotiations.

**Exhibit A-2**, COUNTY's Request for Proposal, dated June 9, 2016

Lino Cheang, P.E., G.E., Principal shall be the individual(s) personally responsible for providing all services hereunder. CONTRACTOR may not substitute other persons without the prior written approval of COUNTY's designated representative.

**Suspension for Convenience.** COUNTY may, without cause, order CONTRACTOR in writing to suspend, delay, or interrupt the services under this Agreement in whole or in part for up to 365 days. COUNTY shall incur no liability for suspension under this provision and suspension shall not constitute a breach of this Agreement.

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## EXHIBIT B

### PAYMENT ARRANGEMENTS Lump Sum Contracts

- A. The method of payment for this contract will be based on lump sum. The total lump sum price paid to CONTRACTOR will include compensation for all work and deliverables, including travel and equipment described in Exhibit A, Statement of Work of this contract. No additional compensation will be paid to CONTRACTOR, unless there is a change in the scope of the work or the scope of the project. In the instance of a change in the scope of work or scope of the project, adjustment to the total lump sum compensation will be negotiated between CONTRACTOR and COUNTY. Adjustment in the total lump sum compensation will not be effective until authorized by contract amendment and approved by COUNTY.
- B. Progress payments may be made monthly in arrears based on the percentage of work completed by CONTRACTOR. If CONTRACTOR fails to submit the required deliverable items according to the schedule set forth in the Statement of Work, COUNTY shall have the right to delay payment or terminate this Contract in accordance with the provisions of Section 28 Termination.
- C. CONTRACTOR shall not commence performance of work or services until this contract has been approved by COUNTY and notification to proceed has been issued by COUNTY'S Contract Administrator. No payment will be made prior to approval of any work, or for any work performed prior to approval of this contract.
- D. CONTRACTOR will be reimbursed, as promptly as fiscal procedures will permit, upon receipt by COUNTY'S Contract Administrator of itemized invoices. Invoices shall be submitted no later than 45 calendar days after the performance of work for which CONTRACTOR is billing. Invoices shall detail the work performed on each milestone, on each project as applicable. Invoices shall follow the format stipulated for the Cost Proposal and shall reference this contract number and project title. Final invoice must contain the final cost and all credits due COUNTY that include any equipment purchased under the provisions of Section 11 Equipment Purchase of this contract. The final invoice should be submitted within 60-calendar days after completion of CONTRACTOR's work. Invoices shall be mailed to COUNTY's Contract Administrator at the following address:
- County of Santa Barbara  
Public Works Dept - Transportation  
Attn: Christian Doolittle  
620 W. Foster Road  
Santa Maria, CA 93455
- E. The total amount payable by COUNTY shall not exceed **\$149,000**.
- F. All subcontracts in excess of \$25,000 shall contain the above provisions.

## EXHIBIT C

### Indemnification and Insurance Requirements (For Design Professional Contracts)

#### INDEMNIFICATION

To the fullest extent permitted by law, CONTRACTOR agrees to indemnify, defend (with counsel reasonably approved by COUNTY) and hold harmless COUNTY and its officers, officials, employees, agents and volunteers from and against any and all claims, actions, losses, damages, costs, expenses (including but not limited to attorneys' fees), judgments and/or liabilities that arise out of, or pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONTRACTOR and its employees, subcontractors, or agents in the performance of services under this Agreement, but this indemnity does not apply to liability for damages arising from the sole negligence, active negligence, or willful acts of the COUNTY.

#### NOTIFICATION OF ACCIDENTS AND SURVIVAL OF INDEMNIFICATION PROVISIONS

CONTRACTOR shall notify COUNTY immediately in the event of any accident or injury arising out of or in connection with this Agreement. The indemnification provisions in this Agreement shall survive any expiration or termination of this Agreement.

#### INSURANCE

CONTRACTOR shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the CONTRACTOR, his agents, representatives, employees or subcontractors.

##### A. Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products-completed operations, personal & advertising injury, with limits no less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate.
1. **Automobile Liability:** ISO Form Number CA 00 01 covering any auto (Code 1), or if CONTRACTOR has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.
1. **Workers' Compensation:** as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.
1. **Professional Liability (Errors and Omissions)** Insurance appropriate to the CONTRACTOR'S profession, with limit of no less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate.

If the CONTRACTOR maintains higher limits than the minimums shown above, the COUNTY requires and shall be entitled to coverage for the higher limits maintained by the CONTRACTOR. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the COUNTY.

##### A. Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. **Additional Insured** – COUNTY, its officers, officials, employees, agents and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the CONTRACTOR including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the CONTRACTOR's insurance at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10 and CG 20 37 if a later edition is used).
1. **Primary Coverage** – For any claims related to this Agreement, the CONTRACTOR's insurance coverage shall be primary insurance as respects the COUNTY, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the COUNTY, its officers, officials, employees, agents or volunteers shall be excess of the CONTRACTOR's insurance and shall not contribute with it.
1. **Notice of Cancellation** – Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the COUNTY.
1. **Waiver of Subrogation Rights** – CONTRACTOR hereby grants to COUNTY a waiver of any right to subrogation which any insurer of said CONTRACTOR may acquire against the COUNTY by virtue of the payment of any loss under such insurance. CONTRACTOR agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the COUNTY has received a waiver of subrogation endorsement from the insurer.
1. **Deductibles and Self-Insured Retention** – Any deductibles or self-insured retentions must be declared to and approved by the COUNTY. The COUNTY may require the CONTRACTOR to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.
1. **Acceptability of Insurers** – Unless otherwise approved by Risk Management, insurance shall be written by insurers authorized to do business in the State of California and with a minimum A.M. Best's Insurance Guide rating of "A- VII".
1. **Verification of Coverage** – CONTRACTOR shall furnish the COUNTY with proof of insurance, original certificates and amendatory endorsements as required by this Agreement. The proof of insurance, certificates and endorsements are to be received and approved by the COUNTY before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the CONTRACTOR's obligation to provide them. The CONTRACTOR shall furnish evidence of renewal of coverage throughout the term of the Agreement. The COUNTY reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.
1. **Failure to Procure Coverage** – In the event that any policy of insurance required under this Agreement does not comply with the requirements, is not procured, or is canceled and not replaced, COUNTY has the right but not the obligation or duty to terminate the Agreement. Maintenance of required insurance coverage is a material element of the Agreement and



failure to maintain or renew such coverage or to provide evidence of renewal may be treated by COUNTY as a material breach of contract.

1. **Subcontractors** – CONTRACTOR shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and CONTRACTOR shall ensure that COUNTY is an additional insured on insurance required from subcontractors.
1. **Claims Made Policies** – If any of the required policies provide coverage on a claims-made basis:
  - i. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
  - i. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of contract work.
  - i. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the CONTRACTOR must purchase "extended reporting" coverage for a minimum of five (5) years after completion of contract work.
1. **Special Risks or Circumstances** – COUNTY reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Any change requiring additional types of insurance coverage or higher coverage limits must be made by amendment to this Agreement. CONTRACTOR agrees to execute any such amendment within thirty (30) days of receipt.

Any failure, actual or alleged, on the part of COUNTY to monitor or enforce compliance with any of the insurance and indemnification requirements will not be deemed as a waiver of any rights on the part of COUNTY.



# PROPOSAL

DESIGN SERVICES FOR  
**BONITA SCHOOL ROAD  
BRIDGE PROJECT**

*PRELIMINARY & FINAL FOUNDATION REPORTS*  
COUNTY PROJECT NO. 862367, FEDERAL PROJECT NO. BRLOZE-5951 (151)



Submitted by:  
**EARTH MECHANICS, INC.**  
17800 Newhope Street, Suite B  
Fountain Valley, CA 92708  
T: 714.751.3826

July 1, 2016



# Earth Mechanics, Inc.

Geotechnical & Earthquake Engineering

July 1, 2016

Mr. Christian Doolittle, Project Manager  
County of Santa Barbara  
Department of Public Works, Transportation Division  
620 W. Foster Road  
Santa Maria, CA 93455  
Phone: (805) 739-8777  
Email: cdoolit@cosbpw.net

**Subject:** County of Santa Barbara, Department of Public Works  
Design Services for Bonita School Road Bridge Project-  
Preliminary and Final Foundation Reports  
County Project No. 862367, Federal Project No. BRLOZE-5951 (151)

Dear Mr. Doolittle:

Earth Mechanics, Inc. (EMI) is pleased to submit this proposal to prepare preliminary and final foundation reports for the Bonita School Road Bridge Project. EMI has prepared hundreds of Foundation Reports for projects following Caltrans standards and Caltrans Local Assistance policies for the Highway Bridge Rehabilitation Program (HBP). Our recent HBP experience includes Watmaugh Road Bridge crossing Sonoma Creek in Sonoma County, Manor Street Bridge crossing Kern River in Bakersfield, Fairview Street Bridge crossing Santa Ana River in Orange County, Jefferson Street Bridge over Whitewater River in La Quinta, Araz Road and Winterhaven Road Bridges in Imperial County, and Buckman Springs Road Bridge across Cottonwood Creek in San Diego County.

We foresee the biggest project challenges are the field exploration phase and the schedule. EMI will mobilize our experienced field crew from southern California; this is the same crew that has successfully completed many recent phases of field exploration for the California High Speed Rail Authority under very challenging circumstances due to constraints of accessibility and schedule. We have examined the County published NTP of September 2, 2016 and a deadline of January 6, 2017 for delivery of the Draft Foundation Report. Using our experience in delivering this type of project, our proposal described a Project Schedule and Work Plan capable of accommodating this relatively fast-pace project. In addition, Cast-in-Drilled-Hole (CIDH) concrete piles may become the preferred foundation type. We will solicit input from our in-house CIDH pile

construction expert, Mr. Eric Brown. Eric was a full-time employee of Anderson Drilling for almost 3 years; Anderson Drilling is one the premier CIDH pile contractors in the west coast. Finally, the Army Corps of Engineers (USACE) is one of the stake holders and some levee alteration work will be required for this project. For this work, we will solicit input from another EMI employee, Mr. Andrew Korkos. Andy was an employee of USACE and is familiar with USACE levee design practices and published USACE Engineer Manuals.

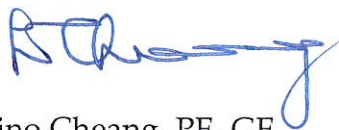
Lino Cheang a founding Principal of EMI will serve as your Project Manager. He will be the contact person during the period of proposal evaluation, contract negotiation, and project delivery. As Founder/Principal of EMI, he has full authority to obligate the firm and its resources to this project.

We understand the County has set a DBE goal of 0% for this contract; however, EMI is a certified DBE firm and will provide about 70% of the work on this contract. Completed Caltrans LAPM Exhibits 10-O1 and 10-O2 acknowledging our DBE participation are provided as Attachment A.

We accept the terms of the County Standard Agreement provided with the RFP and understand the method of payment is lump sum.

We appreciate this opportunity to present our understanding and approach to address the challenges you face on this project and your consideration of EMI's qualifications. Should you require any additional information, please do not hesitate to contact me by email at [l.cheang@earthmech.com](mailto:l.cheang@earthmech.com) or by phone at (714) 751-3826 ext. 112.

Respectfully Submitted,  
**EARTH MECHANICS, INC.**



Lino Cheang, PE, GE  
Principal

**Earth Mechanics, Inc.**  
17800 Newhope Street, Suite B, Fountain Valley, CA 92708  
Phone: 714.751.3826 ext. 112  
Email: [l.cheang@earthmech.com](mailto:l.cheang@earthmech.com)

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Attachment A - DBE Forms (Exhibit 10-O1 and Exhibit 10-O2)

Attachment B - Acceptance of Standard Agreement Form

Attachment C – Consultant Information Sheet

Attachment D – Form 10-H Cost Proposal

## I. UNDERSTANDING OF WORK TO BE DONE

### A. Scope of Services

The purpose of this project is to prepare a Preliminary Foundation Report (PFR) for Bridge Type Selection and a Final Foundation Report (FR) for final PS&E to support the design of a new bridge to replace the existing Bonita School Road low-water crossing and the existing Army Corps of Engineers (USACE) southern embankment approach. According to the RFP, preliminary 30% design has been completed including bridge and roadway plans; a first draft of the Project Report is in review; bridge type selection report, hydraulic study and NEPA and biological assessment are in-progress; and the California Fish and Wildlife Sect 1602 permit has been approved.

The new bridge is 2,320' long by 47'-10" wide. Five structure alternatives are being considered with the following foundation options:

- 22 piers and 2 abutments on large-diameter Cast-in-Drilled-Hole (CIDH) concrete piles,
- 22 piers and 2 abutments on driven HP piles, or
- 46 piers and 2 abutments on 30" diameter CIDH piles.

Retaining walls or reinforced earthen embankment may be required near the bridge approaches. In addition, soil infiltration rates for storm water management plan, structural pavement and slope stability for approach embankments and levee access roads, and soil particle distributions for scour analysis are specified in the RFP.

As-built plans show four soil borings: Borings B-2 and B-3 drilled on the existing southern embankment approach and Borings B-1 and B-4 drilled south of the BB and EB of the bridge, respectively. Borings B-1 and B-2 encountered early refusal at an approximate depth of 30 feet likely due to heaving sands and Borings B-3 and B-4 achieved a penetration depth of 80 feet. Soils are described as sand (SP) underlain by silty sand (SM) with a clay layer (CL) in-between. Thicknesses of the SP, CL and SM layers are approximately 35, 10 and 35 feet, respectively. Using the measured blowcounts, SP is medium dense to very dense, CL is very stiff to hard, and SM is very dense. Groundwater was encountered at Borings B-1 and B-2 at El. +103 and +106 feet, respectively, in April 1999.

Driving records of the existing bridge show some the driven HP 12x84 piles requiring setup and re-strike for acceptance at a specified pile tip elevation of +70 feet. The as-built boring information does not support a "soft" driving condition at this tip elevation, and this discrepancy will need to be reconciled as part of this project. This is of particular importance if HP piles become the preferred foundation type for the replacement structure.

Groundwater was encountered at a depth of about 25 feet in April 1999. Impact of groundwater on CIDH pile construction is crucial but less important for the driven HP-piles; and to a lesser extent, groundwater also affects soil liquefaction potential. If groundwater is encountered in the upcoming field exploration, we recommend converting at least two borings into groundwater monitoring wells. The added cost is minimal if the conversion is performed immediately after completion of the soil boring. After these wells are built, they will be released to the County for monitoring. The resulting groundwater measurements, if any, can be made available in the bid documents.

## **B. Project Work Plan**

Based on our project understanding and experience with similar water crossing projects, EMI has developed a Work Plan as described below.

### ***Task 1 – Initiation and Review of Existing Data***

We will review the subsurface data included in the referenced materials of the RFP, and other pertinent information provided by the County and are available in the public domain. We will attend one PDT meeting via teleconference to discuss the findings as well as a work plan for the planned field exploration.

### ***Task 2 – Preliminary Foundation Report (PFR)***

The PFR will be prepared in accordance with the Caltrans Guidelines for Structure Foundation Report dated 2009. Details of the field exploration will be included in this PFR. Also, we will communicate with the County and Rende Consulting Group to determine the need to expand beyond what is required in a typical Caltrans PFR prior to the initiation of this task.

### ***Task 3 – Field Exploration and Soils Laboratory Analysis***

At EMI, we always consider this data gathering task to be the most crucial geotechnical component of a PS&E package. In addition to the details of the planning and execution of the field and laboratory work, we want to make sure the input from all stake holders is considered. We envision the following field exploration program, which may require some adjustments after approval of Bridge Type Selection, to supplement the existing data:

Design Element	No. of Borings	Approx. Boring Depth (ft)
Bridge Piers	7	120
Bridge Abutments & Retaining Walls	2	100
Pavement	4	<2

Notes:

(1) Boring depths can be reduced if driven HP piles are selected for final design prior to field exploration.

(2) Pavement borings are proposed to be surface grab samples.

We will work closely with County to secure all the required encroachment permits. We plan to locate the boreholes on the unpaved area adjacent to the existing Bonita School Road. This will eliminate the need for traffic control, provide added safety to our field crew and allow a longer work day for increased efficiency. County personnel are welcome to attend the field exploration.

We plan to use a hollow-stem auger (HSA) rig for the soil borings. It has been known that HSA borings with shallow groundwater may produce erroneous sampler blowcounts and soil disturbance. This is due to the unbalanced water level inside and outside the hollow stem; this unbalanced water level will induce seepage at the bottom of the hollow-stem resulting in a condition known as “piping (heaving)”; heaving is more severe in granular soils as compared to clayey soils. Our field personnel as well as the drilling crew are well aware of this condition, and will take the necessary precautions to minimize the occurrence of heaving. This can easily be accomplished by flooding the inside of the hollow stem with water to minimize the occurrence of any unbalanced water level inside and outside the hollow stem. In past projects, we compared the blowcounts obtained from HSA borings with blowcounts interpreted from side-by-side Cone Penetrometer Test data, and the results confirmed that the blowcounts obtained from the HSA borings are valid. However, if heaving continues even with the above mitigation, we will switch over to using a rotary-wash (RW) drill rig with the heavier drilling mud as the hole stabilizing fluid.

Soils will be classified using the 2010 edition of the Caltrans Soil and Rock Logging, Classification and Presentation Manual and the October 2015 Errata Sheet. EMI field personnel will also collect soil samples for laboratory testing, including bulk samples of near-surface soils and small disturbed and relatively undisturbed ring samples of deeper soils. The small disturbed and relatively undisturbed soil samples will be collected using split-spoon samplers at a vertical interval of 5 or 10 feet, alternating between the Standard Penetration Test (SPT) sampler and the Modified California Drive (MCD) sampler. Samples of subsurface soils will be logged during the field investigation, secured in their containers or collected in plastic bags, and transported to the Caltrans certified EMI soil testing laboratory.



EMI will select representative soil samples for laboratory testing. The laboratory testing is likely to include:

Type of Test	Applicable Test Method	Purpose
Dry Density	ASTM D 2937	Estimate in-situ soil density
Moisture Content	ASTM D 2216	Estimate in-situ soil moisture content
No. 200 Wash	ASTM D 1140	Estimate percentage of gravel, sand, and fines content
Grain Size Distribution	ASTM D 422-63	Estimate percentage of gravel, sand, and fines content
Atterberg Limits	ASTM D 4318	Determine the plasticity of the soil/bedrock
Direct Shear	ASTM D 3080	Estimate strength parameters of soil
Compaction Test	ASTM D 1557	Determine maximum density and optimum moisture of soil
R-Value	ASTM D-2844	Determine R-value for pavement design
Soil pH	CTM 643 & 532	Determine pH to assess corrosion potential of soil
Sand Equivalent	ASTM D-2419/CTM 217	Determine sand equivalent of soil
Minimum Resistivity	CTM 643 & 532	Determine corrosion potential of soil
Sulfate Content	CTM 417	Determine sulfate content to assess corrosion potential of soil
Chloride Content	CTM 422	Determine chloride content to assess corrosion potential of soil

*ASTM = American Society for Testing and Materials; CTM = California Test Method.*

**Field Infiltration Tests.** The County clarified that soil percolation testing is requested at four locations outside of the Santa Maria River using shallow soil borings. EMI uses the United States Bureau of Reclamation (USBR) 7300-89 method for field infiltration tests. We have used this method on many Caltrans BMP projects.

This method involves drilling a boring and three temporary wells at each test location. Depths of the boring and wells will depend on the design invert elevation of the infiltration basin. Sampling schedule will be at 5-foot intervals in the soil boring. The three wells will not be sampled, though the soil type will be observed for comparison and documented in well logs. Each well will be soaked overnight and infiltration testing will commence the following day.

The following tests are planned on select samples:

- Grain Size and Moisture Content,
- Chemical Testing (CCR Title 22 Metals, Total Petroleum Hydrocarbons gas & diesel, volatile and semi-volatile organic compound), and
- Soil pH-Value, Organic Content and Cation Exchange Capacity.

We will calculate a soil infiltration (permeability) rate using the USBR 7300-89 method and the results will be included in a technical memorandum.

#### ***Task 4 – Draft Foundation Report***

Results obtained from the field investigation and laboratory testing will be used to characterize subsurface soils and conditions and create idealized profiles for design purposes. Analyses will be performed in accordance with the guidelines provided in the 2009 Caltrans' Foundation Report Preparation for Bridge Foundations and the latest California Amendment to AASHTO LRFD Bridge Design Specifications as well as the bullet items listed on Page 7 of the RFP.

We will document the results of the subsurface explorations and laboratory testing, our interpretation of the geologic and geotechnical conditions encountered, and recommendations for the design and construction of the new bridge in a draft Foundation Report for the County to review.

#### ***Task 5 – Final Foundation Report***

We will incorporate the review comments of the County into a Final Foundation Report.

Besides the five tasks outlined above, EMI will attend up to four Project Development Team (PDT) meetings through teleconferencing or face-to-face meetings, if necessary.

### **C. Standards**

EMI's technical staff is familiar with Federal codes and specifications published by the Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), American Railway Engineering and Maintenance-of-Way Association (AREMA), and ATC (Applied Technology Council) as well as design manuals, standard plans and specifications and other design guidelines published by Caltrans. EMI is the prime geotechnical consultant on the ATC-32 project responsible for the review and modification of the foundation section of the widely used Caltrans Bridge Design Specifications. EMI also played a lead role in the National Cooperative Highway Research Program (NCHRP) 12-70 research and development project for the Transportation Research Board to advance the state of practice in seismic analysis and design of retaining walls, buried structures, slopes, and embankments using a Load & Resistance Factor Design (LRFD) design procedure.

EMI also has extensive experience with Caltrans Local Assistance policies for the Highway Bridge Rehabilitation Program (HBP). Some of our project experience funded by the HBP program includes the Araz Road and Winterhaven Road Bridges in Imperial County; the Buckman Springs Road Bridge across Cottonwood Creek in San Diego County; the Jefferson Street Bridge over Whitewater River in La Quinta; and the Manor Street Bridge crossing Kern River in Bakersfield.

## D. Deliverables

### *Task 1 – Initiation and Review of Existing Data*

- Deliverable: None

### *Task 2 – Preliminary Foundation Report (PFR)*

- Deliverable: PFR (3 hard copies and 1 electronic version)

### *Task 3 – Field Exploration and Soils Laboratory Analysis*

- Deliverables: Field logs of test borings, laboratory test assignment sheet, digital photos of sampled materials, equipment and field conditions and a technical memorandum summarizing the field infiltration test results.

### *Task 4 – Draft Foundation Report*

- Deliverables: Draft Foundation Report (3 hard copies and one electronic version) and Draft LOTB sheets (pdf copy)

### *Task 5 – Final Foundation Report*

- Deliverable: Final Foundation Report (3 hard copies and one electronic version)

## II. PROJECT TEAM AND STAFF

### **Earth Mechanics, Inc. (DBE/SBE)**

17800 Newhope Street, Suite B, Fountain Valley, CA 92708

Telephone: 714.751.3826 | Fax: 714.751.3928

Contact: Lino Cheang, Principal | Email: [l.cheang@earthmech.com](mailto:l.cheang@earthmech.com)

Earth Mechanics, Inc. (EMI) is a geotechnical and earthquake engineering consulting company founded as a California Corporation in February 1989. The firm specializes in major geotechnical site investigations and testing, seismic hazard and earthquake retrofit evaluations, and foundation design for projects related to transportation infrastructure including bridges, freeways, roadways, and tunnels. With a staff of 32, EMI has offices located throughout California. The headquarters is in Fountain Valley, California in Orange County. Other offices are located in San Pedro, Hayward, San Bernardino, and San Marcos.

EMI has been engaged in the geotechnical investigation, design, and construction of numerous bridge projects. Recent significant water crossing projects in California include the Sixth Street Bridge over Los Angeles River, the Riverside Drive Viaduct over Los Angeles River, and the Vanowen Street Bridge over Bull Creek Channel to

name a few. EMI's experience in these contracts covers all facets of retrofit and design services including design analysis, site investigation, earthquake engineering, and construction support. In addition, EMI has provided geotechnical services to the County of Santa Barbara for the past 20 years on similar projects such as the Jonata Park Road Bridge over Zaca Creek Widening, the Floradale Avenue Bridge Replacement over Santa Ynez River, and the Bell Street Bridge Replacement over San Antonio Creek.

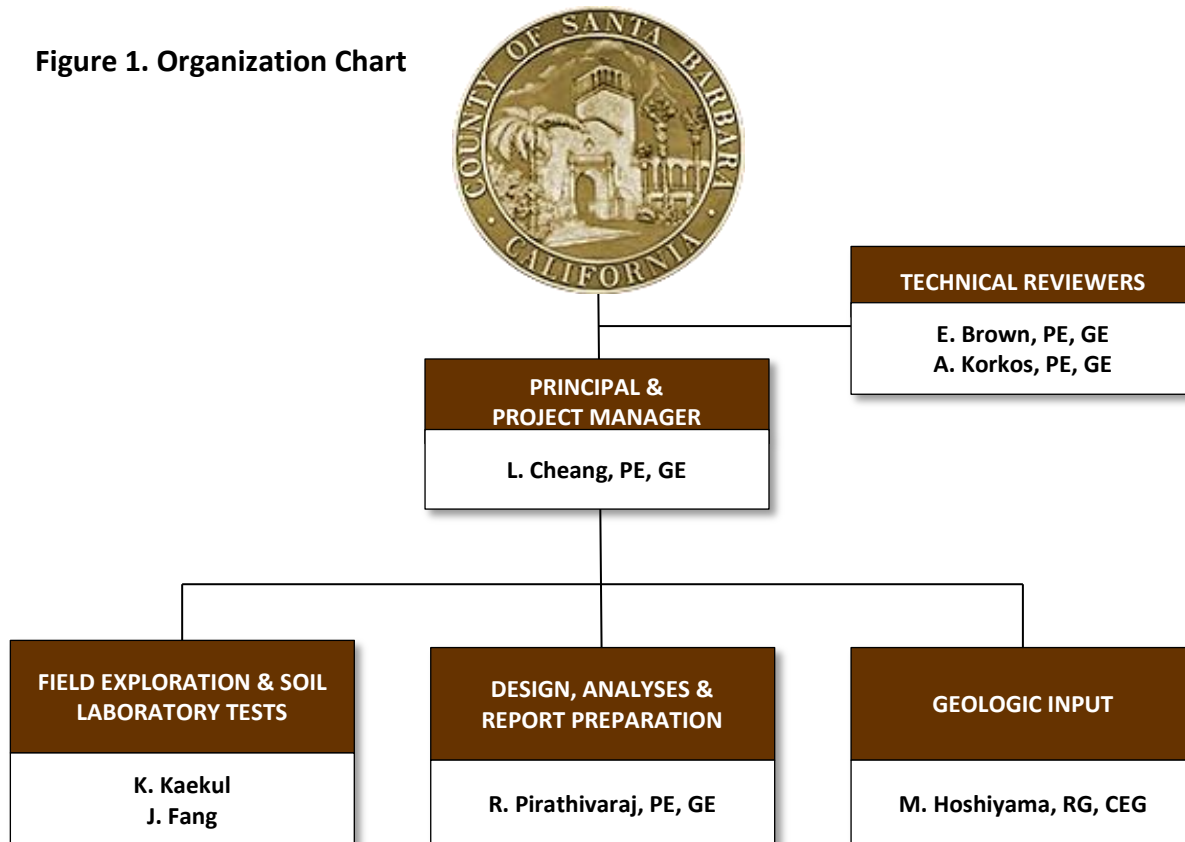
### Subconsultants/Subcontractors

EMI does not foresee the need for subconsultants to assist EMI on this project. However, drilling subcontractors will be hired for the field exploration work.

## A. Organizational Chart

The organization chart below represents the team's organization, lines of communication, and reporting relationships.

Figure 1. Organization Chart



## B. Resumes of Key Staff

A successful project begins with the selection of individuals who are experts in their respective fields. Our proposed Project Manager, Mr. Lino Cheang, has selected a team of highly qualified and well-motivated professionals to assist him in delivering this project. Resumes for staff shown on the organization chart are presented below.

## **Lino Cheang, P.E., G.E.,** *Principal and Project Manager*

<b>Registrations</b>	1997, Geotechnical Engineer, California, GE 2345 1987, Civil Engineer, California, RCE 41401
<b>Years of Experience</b>	37 years (27 years with this firm)
<b>Education</b>	M.S., Civil Engineering, University of Texas at Austin, 1979 B.S., Civil Engineering, University of Texas at Austin, 1978

Mr. Cheang has provided foundation design for close to 1,000 new, replaced and widened structures, statewide, for various transportation and public works agencies. These structures include railroad bridges, major water crossings, long viaducts, and overcrossings and undercrossings at major interchanges. He is familiar with Caltrans design philosophy and criteria, and the review process. Mr. Cheang has worked closely with civil and structural engineers to develop and refine cost-saving schemes for foundations. He has designed roadway embankments and pavement structural sections for Caltrans facilities, statewide. His philosophy for roadway embankment design is to use realistic soil strength parameters to avoid the need for extensive earthwork mitigations. He is familiar with pavement design methods published in the Caltrans Highway Design Manual.

**Santa Ynez River Bridge, Lompoc, CA.** Project Manager. The original retrofit design consisted of cost foundation retrofit due to soil liquefaction. Conducted field exploration consisting of cone penetrometer test to evaluate site liquefaction potential. Provided alternatives and low-cost mitigations for soil liquefaction and lateral spreading.

**Bell Street Bridge Replacement, Santa Barbara County, CA.** Project Manager. Worked closely with Santa Barbara County Dept. Public Works on foundation design. Site conditions show a compressible soil layer and long settlement period; therefore, settlement monitoring was incorporated into the design.

**Garey Bridge Replacement, Santa Barbara County, CA.** Project Manager. Provided geotechnical services for replacement of a 4-span bridge over the Sisquoc River. This site has severe scour concerns due to local mining operation. The foundation type at the pier locations consists of 7-foot diameter drilled shafts.

**Rehabilitation of River Road Bridge, Stanislaus County, CA.** Project Manager. Provided foundation design parameters for foundation rehabilitation damaged by scour and upgraded capacity for earthquake loads. The retrofit strategy was presented to the County and Caltrans and decision was for a complete bridge replacement. Work on this bridge replacement project will continue when funding is available.

**Echo Ditch Bridge (Widen) at I-10, Coachella, CA.** Project Manager. Prepared a Structural Preliminary Geotechnical Report in support on the Advance Planning Study for bridge widening. This project will be moving into the final design phase shortly.

**Realignment of Hueneme Road at Calleguas Creek, Ventura County, CA.** Project Manager. Performed overall geotechnical investigation including field exploration, laboratory testing, engineering analyses, report preparation and construction support. In the construction support phase, observed the pile driving operation and assisted County personnel in developing the pile acceptance criteria.

**Slab Bridges Crossing Lincoln Channel, Mecca, CA.** Project Manager. Work included field exploration, laboratory testing and geotechnical recommendations for bridge foundation design. Design will include effects of high groundwater and soil liquefaction.

**Vanowen Street over Bull Creek Bridge Widening, Los Angeles, CA.** Project Manager. Directed all aspects of the geotechnical and foundation design task which included field exploration, soil laboratory testing, foundation design, and report preparation. Worked closely with structural designers to develop cost effective foundation system for bridge widening.

**Major Water Crossings, Mendicino County, CA.** Project Manager. This contract included seismic analysis and retrofit of several major water crossings on Rte 101. As a subconsultant for the Caltrans Phase 2 Retrofit Program, Mr. Cheang developed foundation capacity and foundation spring constants to assist the structural designers in the as-built analysis. Participated in Caltrans Strategy Meeting to defend our work and answer questions concerning geotechnical issues.

**Manor Street over Kern River, Bakersfield, CA.** Principal/Project Manager. This is a bridge retrofit and widening project. Site has liquefiable soils and lateral resistance of the foundation may be deficient. This phase of work includes preliminary assessment of seismic vulnerabilities. A follow-up phase will include a full-blown geotechnical investigation consisting of borings, testing and foundation design.

**Lytle Creek Bridge, San Bernardino County, CA.** Principal/Project Manager. This is a wide bridge crossing Lytle Creek. The foundation consists of 7-foot diameter CIDH pile extensions. The site has extreme scour and degradation parameters which were considered in design of the pile extension. The bridge is also located within a fault rupture zone.

**Glassell Street over Santa Ana River, Orange County, CA.** Principal/Project Manager. Planned and supervised field exploration consisting of rotary drilling, and cone penetrometer testing; analyzed the collected data to develop idealized soil profiles for pile capacity calculations.

## **Andrew Korkos, P.E., G.E.,** *Principal Engineer: Technical Reviewer*

<b>Registrations</b>	1997, Geotechnical Engineer, California, GE 2357 1987, Civil Engineer, California, RCE 44544
<b>Years of Experience</b>	30 years (20 years with this firm)
<b>Education</b>	M.S., Civil Engineering, California State University, Long Beach, 1989 B.S., Civil Engineering, California State University, Long Beach, 1985

Mr. Korkos has 30 years of experience conducting and directing geotechnical investigations for highway and railroad bridges, roadway and pavement, flood control facilities (including open channels, culverts, basins, levees, and pump stations), earth retaining structures, and buildings. He has significant experience in grading including evaluating settlement of deep fills and stability of cut and fill slopes, and developing remedial measures for slope stabilization; he has practical field grading experience in observing excavations and compacted fill placement. He is familiar with Caltrans criteria and design guidelines, and as a previous employee of the Army Corps of Engineers, he is also familiar with USACE practices and Engineer Manuals.

### **Slope and Landslide Stabilization, Canada de al Pila, Santa Barbara County, CA.**

Senior Engineer. Evaluated the stability of an existing landslide located in the native geologic formation.

**La Cadena Drive Bridge Replacement, City of Colton, CA.** Geotechnical Project Manager. Planned and managed the geotechnical field investigation, laboratory testing, geotechnical analyses, and report preparation. The project involved: providing foundation recommendations for a four-lane, 552-ft long roadway bridge crossing the Santa Ana River; providing soil parameters and foundation recommendations for numerous retaining walls; addressing liquefaction potential, soil settlement, and stability of channel slopes; providing pavement section recommendations; and, preparing a geotechnical and foundation report.

**Santa Ana River Bikeway and Trail Project, Orange, Riverside, and San Bernardino Counties, CA.** Geotechnical Project Manager. Reviewed available information for a feasibility-level study and assessed the geotechnical conditions as they relate to the proposed grading and construction of an approximately 2.5-mile long bikeway and trail. Improvements also include widening portions of an existing trail, three bridges over the Santa Ana River, and a possible undercrossing traversing existing railroad tracks.

### **Tustin Avenue Bridge Widening (Spanning the Atwood Channel), Orange County.**

Senior Engineer. Planned and conducted geotechnical investigation, developed pile capacity curves for design of deep foundation.

## **Eric Brown, P.E., G.E.,** *Principal Engineer: Technical Reviewer*

<b>Registrations</b>	2007, California, Geotechnical, GE 2806 2000, California, Civil, RCE 60249
<b>Years of Experience</b>	19 years (16 years with EMI)
<b>Education</b>	M.S., Civil Engineering, University of Colorado, Boulder, 1995 B.S., Civil Engineering, California Polytechnic State University, San Luis Obispo, 1993

Mr. Brown has managed several geotechnical investigation and construction support projects. He conducted the geotechnical design and analysis and prepared many Foundation Reports for bridge foundation design. He is familiar with equipment used in field explorations. While employed with a foundation drilling contractor, his responsibilities included coordination and supervision of engineering design with structural engineers for design-build projects, preparation and maintenance of construction schedule and project delivery including coordination of crew, equipment and material, preparation of field correspondence including submittals, invoices, and change orders and coordination/maintenance of contract updates.

**Araz Road over All-American Canal Retrofit, Imperial County, CA.** Project Manager. Planned geotechnical investigation for seismic retrofit/replacement study of existing slab bridge over All-American Canal. Study includes evaluation of existing foundation capacity and development of potential replacement structure foundation alternatives.

**Greenspot Road at Santa Ana River, City of Highland, Highland, CA.** Project Manager. Approximately 0.66 mile roadway realignment project with a signature improvement consisting of replacing the Highland Avenue Bridge over the Santa Ana River. The project site is located at the base of the San Bernardino Mountains which presented many geotechnical challenges including shallow formation materials consisting of an abundance of oversized cobbles and boulders, loose alluvial deposits within the riverbed with a high potential for scour and the nearby (less than 0.2 miles) San Andreas Fault capable of generating high ground accelerations. Planned and conducted geotechnical field investigation and prepared Structure Foundation Report.

**Buckman Springs Bridge over Cottonwood Creek Widening/Replacement, San Diego County, CA.** Project Manager. Widening/replacement study of the existing 455 ft. long, eight span Buckman Springs Bridge over Cottonwood Creek. Scope of work included conducting geotechnical field investigation and laboratory testing program, evaluating existing structure foundation capacity and stiffness and providing design and construction recommendations for widening and replacement alternatives.

**Cathedral Oaks Interchange, Santa Barbara County, CA.** Staff Engineer. Planned and conducted geotechnical investigation, developed pile capacity curves for design of deep foundation, provided design and construction recommendations for retaining walls and approach embankments.



**Michael Hoshiyama, R.G., C.E.G.,** *Project Geologist: As-Needed  
Geologic and Seismic Input*

**Registrations** 2013, California, Certified Engineering Geologist, No. 2599  
2011, California, Registered Geologist, No. 8864

**Years of Experience** 9 years (5 years with this firm)

**Education** B.S., Earth Sciences, University of California, Santa Barbara, 2006

Mr. Hoshiyama is a geologist responsible for planning and leading field investigation, laboratory testing, analysis, and report preparation for freeway, roadway, bridge, and transit projects. He has effectively conducted subsurface investigations including test pit/downhole logging, sampling, site reconnaissance, and field mapping. He has conducted soils laboratory testing for geotechnical analysis in accordance with ASTM standards. Mr. Hoshiyama has managed grading/caisson drilling projects, conducted field testing, and observed elements of grading and construction including inspections for wall and foundation footings, subdrains, and drainage structures. He is also adept at compiling and writing geologic/geotechnical engineering reports, landslide studies, sewage disposal system design/assessment reports, environmental impact reports, dam/levee seepage evaluation/mitigation reports, and bluff/coastal retreat studies.

**Manor Street over Kern River, Bakersfield, CA.** Project Geologist. This is a bridge retrofit and widening project. Site has liquefiable soils and lateral resistance of the foundation may be deficient. Provided coordination of field exploration, regional and local geologic data review and write-ups, produced geologic figures, and generated soil profile interpretations for the associated foundation report.

**Schuyler Heim Bridge Replacement, Los Angeles, CA.** Senior Staff Geologist. The project consists of new six-lane, twenty three-span cast-in-place prestressed concrete box girder bridge and approach structures over Cerritos Channel, having a total length of 4,122 feet and minimum vertical clearance of 47 feet above the water level. Conducted an over water drilling investigation and instrumentation monitoring program. Instrumentation monitoring included installation of fully grouted vibrating wire piezometers at varying depths and locations utilizing continuous data logging systems to monitor pressures at within confined aquifers to support the construction effort.

**Bayshore Bikeway Segments 4 and 5, San Diego, CA.** Project Geologist. The project includes constructing a continuous bikeway from southern downtown San Diego to National City. Supported Lead Engineers with preparation of Technical Memorandum. Prepared boring location plans and geotechnical figures as part of the submittal.

**Sivasubramaniam (Raja) Pirathiviraj, Ph.D., P.E., G.E.,** *Project Engineer: Geotechnical Design & Analyses and Report Preparation*

**Registrations** 2011, Geotechnical Engineer, California, GE 2963  
2007, Civil Engineer, California, RCE 71662

**Years of Experience** 11 years (6 years with this firm)

**Education** M.S., Civil and Geotechnical Engineering, State University of New York (SUNY), Buffalo, NY, 2004  
B.S., Civil Engineering, University of Peradeniya, Sri Lanka, 2001

Mr. Pirathiviraj has 11 years of varied experience in civil and geotechnical engineering. His experience has included project management, construction monitoring, dam inspection, levee repair, and various geotechnical engineering services. He has managed and/or performed engineering services for dams, highways, light rail tracks, airport facilities, levees, and groundwater recharge basin facilities. Mr. Pirathiviraj's areas of expertise include design of deep and shallow foundations for bridges, walls, sign structures, airport traffic control towers and light rail system, stability and repair of levees, pile drivability analysis, probabilistic and deterministic seismic hazard evaluation, liquefaction and seismic settlement analysis, static and pseudo-static slope stability analyses.

**Manor Street over Kern River, Bakersfield, CA.** Project Geologist. This is a bridge retrofit and widening project. Performed liquefaction analysis, lateral capacity analysis, axial capacity analysis for existing and proposed piles. Prepared Preliminary Foundation Report for Type Selection. Attended Type Selection Meeting in Sacramento. Prepared log-of-test-boring sheets. Currently preparing the final Foundation Report.

**Fullerton Road Grade Separation Project, City of Industry, CA.** Senior Staff Engineer. Project involves lowering Fullerton Road between Rowland Street and the SR-60 mainline and partially raising the existing Union Pacific railroad tracks and Railroad Street. Responsible for the field investigation of 39 borings for a railroad bridge, a roadway bridge and a pedestrian bridge; nine retaining walls; roadways; and a pump station. Reviewed the Geotechnical and Structure Foundation Report.

**SR-57/SR-60 Confluence, City of Industry, CA.** Senior Staff Engineer. Responsible for the preliminary analysis and investigation of bridges and retaining walls on spread footing and pile footing and preliminary pavement design. Prepared Structure Preliminary Geotechnical Reports for bridges and retaining walls and Preliminary Materials Report.

**SR-91/SR-71 Interchange Improvements, Riverside County, CA.** Project Engineer. Responsible for the field investigation for three bridges, eleven retaining walls and roadways. The field investigation includes 41 borings, 4 CPTs and 4 trenches. Performed analyses for the bridges including about 2600-foot long flyover connector and prepared three Foundation Reports.

### **Kiat Kaekul**, *Senior Technician: Field Exploration & Soil Laboratory Tests*

**Certifications** Caltrans-certified Soil Tester  
**Years of Experience** 25 years (6 years with this firm)  
**Education** Monrovia High School, 1987

Mr. Kaekul has 24 years of experience the geotechnical and environmental field. He has worked on various projects including transportation, sanitation, and residential construction. His responsibilities include laboratory and field testing of soil samples.

**Manor Street over Kern River, Bakersfield, CA.** Senior Technician. Participated in field exploration and lab testing on soil samples.

#### **Schuyler Heim Bridge Replacement - Terminal Island Freeway, Long Beach, CA.**

Senior Technician. Performed soil exploration borings and collected geotechnical soil samples for the determination of subsurface soil conditions. Performed laboratory testing of soil samples.

#### **I-5 HOV Improvements, Segments 1, 2 and 3, Orange County, CA.** Senior Technician.

The project will widen a 5.7 mile segment of the I-5 mainline by adding one HOV lane in each direction, reestablishing existing auxiliary lanes and constructing new auxiliary lanes, and improving several existing on- and off-ramps. Responsibilities included borehole logging and lab testing on soil samples.

### **Jianmin Fang**, *Senior Technician: Field Exploration & Soil Laboratory Tests*

**Certifications** Caltrans-certified Soil Tester  
**Years of Experience** 26 years (9 years with this firm)  
**Education** B.S., Engineering Mechanics, HeHai University, China, 1990

Mr. Fang has 26 years of experience in soil testing in the laboratory for freeway, bridge, port, and harbor projects. He has been responsible for conducting laboratory tests for the purposes of characterizing soil and rock, and determining strength, compressibility and various other engineering properties of soil and rock. He has broad experience using American Society for Testing and Materials (ASTM) and Caltrans Test Methods (CTM) procedures. Mr. Fang oversees technicians performing laboratory tests, and reviews the raw data and calculations of laboratory tests prior to engineers using the data in geotechnical analyses.

#### **Schuyler Heim Bridge Replacement - Terminal Island Freeway, Long Beach, CA.**

Senior Technician. Responsible for laboratory soil mechanics testing, Index, compressibility, etc; CAD drafting.

#### **First Street Bridge over Santa Ana River, Orange County, CA.** Senior Technician.

Responsible for laboratory soil mechanics testing, Index, compressibility, etc; CAD drafting.

## C. Experience with Similar Projects

EMI has a proven track record delivering technically sound projects of a similar nature within the project delivery schedules and budgets. The following section summarizes a few of our projects detailing similar project activities, the challenges faced, and the solutions provided.

### **GUADALUPE RIVER FLOOD CONTROL PROJECT, SACRAMENTO, CA (COMPLETED)**

**Reference:** USACE, Joe Sciandrone, 916.557.7184, Joe.Sciandrone@usace.army.mil

**Key Staff:** Andrew Korkos, Kandiah Arulmoli

This is a very unusual and complicated project where a part of the USACE's flood control channel comes within close proximity of existing Caltrans Highway bridge structures. Upon recommendation by Caltrans, EMI was contracted by the USACE to evaluate the performance of the bridge foundations that are impacted by the flood control project. The major issue involved in this project was to evaluate the performance of the bridge structure under seismic loading before and after the completion of USACE's flood control project and demonstrate to Caltrans that the bridge structures and foundations are not compromised by the proposed construction. For USACE, the approval from Caltrans was critical for timely completion of the project. In addition, EMI was entrusted with the tasks of reviewing geotechnical data, evaluating seismic site response, performing liquefaction analysis, and evaluating slope stability under static and seismic conditions. Based on the analytical results provided by EMI in a comprehensive report, USACE was able to demonstrate to the complete satisfaction of Caltrans that the bridge structures are not compromised by the proposed construction as long as the retaining walls are designed to accommodate additional loads generated by the seismic loading of the bridge structures.

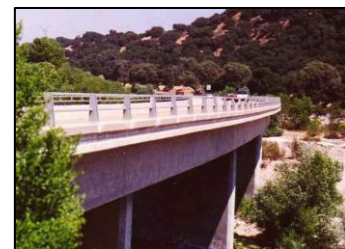


### **SANTA YNEZ RIVER BRIDGE, LOMPOC, CA (COMPLETED)**

**Reference:** Bengal Engineering, M.D. Wahiduzzaman, 805.563.0788 x101, Md@BengalEngineering.com

**Key Staff:** Lino Cheang, Andy Korkos

The Santa Ynez Bridge site is underlain by liquefiable materials. EMI supervised performance of Cone Penetrometer Test (CPT) soundings within the riverbed to collect supplemental subsurface soil data for soil liquefaction assessment. The CPT data was also used to delineate the subsurface soil profile as well as soil consistency. We incorporated the reinforcing effects of the abutment piles and were able to demonstrate that lateral spreading of the approach embankments was not a design issue.



**BELL STREET BRIDGE REPLACEMENT, SANTA BARBARA COUNTY, CA (COMPLETED)****Reference:** County of Santa Barbara, Christian Doolittle, 805.568.3037, cdoolit@cosbpw.net**Key Staff:** Lino Cheang

After completion of a seismic vulnerability analysis in accordance with Caltrans seismic retrofit guidelines, the Bell Street was recommended for replacement. The Bell Street Bridge, a 70-year-old, steel girder bridge spanning San Antonio Creek in Los Alamos, was replaced with a 115 feet long, single-span, pre-stressed reinforced concrete bridge.



EMI worked closely with the Santa Barbara County Department of Public Works on foundation design. Site conditions showed a compressible soil layer and long settlement period; therefore, settlement monitoring was incorporated into the design.

**INTERCHANGE IMPROVEMENTS AT RTE. 101/CATHEDRAL OAKS, RTE. 101/STOWELL RD. AND RTE. 101/DONOVAN RD., SANTA BARBARA COUNTY, CA (COMPLETED)****Reference:** Rende Consulting Group, Greg Rende, 949.713.6780, greg@rendeconsulting.com**Key Staff:** Lino Cheang

The purpose of these three projects was to improve existing structural deficiencies along the Rte. 101 corridor in Santa Barbara County. The Rte. 101/Cathedral Oaks project included the relocation of a highway interchange in Goleta. The Rte. 101/Stowell Rd project included the replacement of the Stowell Road overcrossing, construction of a new box culvert and local street improvements in Santa Maria. The Rte. 101/Donovan Rd project, also in Santa Maria, included the replacement of the Donovan Road overcrossing, modifications to ramps, construction of a new southbound ramp to Route 101 and local street improvements.

**RIVER ROAD BRIDGE AT SAN JOAQUIN RIVER, STANISLAUS COUNTY, CA (COMPLETED)****Reference:** AECOM, Thomas Barnard, 916.929.3124,

Thomas.Barnard@aecom.com

**Key Staff:** Lino Cheang

EMI reviewed regional geotechnical and foundation data to determine stiffness and capacity of existing bridge foundations; developed site-specific response spectrum for structural analysis; and will be participating in a Strategy meeting to respond to comments on our work. The foundation behavior of this bridge is affected by soil liquefaction and scour. As a result, the foundation is susceptible to large lateral movements. We provided preliminary foundation retrofit alternatives for cost estimating purposes.

**MANOR STREET BRIDGE OVER KERN RIVER, BAKERSFIELD, CA (ACTIVE)**

**Reference:** WKE, Inc., Mr. Dan Weddell, 714.953.1020, DWeddell@wke-inc.com

**Key Staff:** Lino Cheang, Raja Pirathivaraj, Michael Hoshiyama, Kiat Kaekul

The project involves seismic retrofit and widening of the existing bridge. The retrofit of northbound pier footings consists of installing a HP 14 x 117 steel driven piles group. Following a site-specific field investigation, EMI conducted geotechnical analyses and prepared a preliminary foundation report (PFR) Now in the PS&E phase, EMI is responsible for preparation of the Final Foundation Report (FFR).



### III. FINANCIAL RESPONSIBILITY

#### A. Resource Allocation Matrix

A Resource Allocation Matrix showing total hours and cost for each task is presented below. We have used Caltrans audited rates and backups to support the Other Direct Costs are available, if requested by the County. Also, we separated the cost for the percolation testing from the geotechnical cost.

TASK	Principal	Principal Engineer	Project Engineer	Project Geologist	Field Tech.	Lab Tech.	Total Hours	Total Cost
1. Data Review	4		8				12	\$1,979
2. Preliminary Foundation Report	22	4	36	6	0	0	68	\$11,306
3. Field Exploration/ Lab Tests	16		30	24	114	60	244	\$28,994
4. Draft Foundation Report	62	20	96	16		40	234	\$37,197
5. Final Foundation Report	12	6	24			8	50	\$7,980
Field Percolation Test	2		4		30	24	60	\$6,827
Percolation Rate Memo	2		16				18	\$2,493
<b>Total Hours</b>	<b>120</b>	<b>30</b>	<b>214</b>	<b>46</b>	<b>144</b>	<b>132</b>	<b>686</b>	
Hourly Rate	\$244.38	\$192.45	\$125.24	\$108.59	\$105.85	\$110.89		
<b>LABOR COST</b>	<b>\$29,325</b>	<b>\$5,774</b>	<b>\$26,801</b>	<b>\$4,995</b>	<b>\$15,242</b>	<b>\$14,637</b>		<b>\$96,775</b>
<b>OTHER DIRECT COSTS</b>								
Drilling Rig, Geotechnical Borings							\$30,160	
Drilling Rig, Percolation Tests							\$10,740	
Travel Expenses							\$1,350	
Express Mail							\$150	
<b>TOTAL</b>								<b>\$139,175</b>

## B. Cost Proposal

Form 10-H is included as Attachment D.

## IV. UNDERSTANDING OF SCHEDULE

We have developed the following schedule based on the Notice-to-Proceed (NTP) date of September 2, 2016 and a Draft Foundation Report (FR) deadline of January 6, 2017, as provided in the RFP:

Tasks/Deliverables	Deadline
NTP	September 2, 2016
Draft PFR	October 7, 2016
Final PFR	November 4, 2016
Field Exploration	November 18, 2016
Soil Laboratory Tests	December 2, 2016
Draft FR	January 6, 2017
Final FR and Signed LOTB Sheets	TBD

The above schedule is tight to achieve the goal of delivering a Draft FR by January 6, 2017, but it is doable. In order to meet the Draft FR deadline:

- EMI is prepared to proceed, at risk, with the Draft PFR and to work with County to secure the necessary encroachment permits for the field exploration. Field exploration will need to be initiated immediately after submittal of the Final PFR, which implies that all encroachment permits will need to be secured by early November 2016.
- Soil laboratory testing and Draft FR will proceed concurrently. This should be fine because we do not anticipate an extensive soil testing program due to the onsite soil types.
- County (with the assistance of EMI) will push for a final decision on foundation type as soon as possible. This could reduce the boring depths and eliminate the need to study more than one foundation option in the Draft FR.
- We can delay the field percolation tests after January 6, 2017 because the information is used by the County to develop the post-construction storm water management plan. This will ensure that the geotechnical borings can be completed on or before November 18, 2016.

## V. INNOVATIVE OR ADVANCED TECHNIQUES

If driven HP piles are the preferred foundation type, there is benefit to conduct an Indicator Pile program prior to the installation of the production piles due to the large number of pilings. The Indicator Pile Program consists of test piles monitored using a Pile Driving Analyzer (PDA) during driving. PDA provides axial pile capacity measurements and can be used with hammer blowcounts to develop pile acceptance criteria. Although an Indicator Pile Program is usually implemented when soil boring data is incomplete and/or the commonly adopted bearing equation for pile acceptance is questionable, we can still use the results to mitigate possible “soft” or “hard” driving condition prior to the installation of the production piles. In the case of a hard driving condition, we can contemplate pile shortening for the production piles.

All test piles can be production piles. If feasible, fabrication of the remaining production piles can be delayed until completion of the Indicator Pile Program so that the specified pile length can be adjusted, if necessary.

If CIDH piles become the preferred foundation type, EMI’s Principal Engineer Eric Brown is our in-house expert in CIDH pile construction because he worked for Anderson Drilling for close to three years prior to re-joining EMI. Anderson Drilling is one of the premier west-coast based CIDH pile contractors. Eric will review the Contract Plans and Specifications pertaining to the construction of the CIDH piles and provide recommendations on the details shown on the CIDH plan sheets and “tightening” the specifications languages.

Another EMI’s Principal Engineer, Andrew Korkos, was an employee of USACE, Los Angeles District. Andy is our in-house expert in resolving USACE design and construction review comments. Recently, he successfully provided design mitigation and obtained USACE approval for construction of large-diameter CIDH piles through USACE levees at the Santa Ana River. His familiarity with USACE engineering guidelines and practices may become useful if geotechnical issues arise due to the levee alteration required by this project.

## VI. FAMILIARITY WITH STATE/FEDERAL/COUNTY PROCEDURES

EMI’s technical staff is familiar with Federal codes and specifications published by the Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), ATC (Applied Technology Council) as well as design manuals, standard plans and specifications and other design guidelines published by Caltrans, and Engineer Manuals (EM) published by



the U.S. Army Corps of Engineers (USACE) including EM manual 1110-2-1913 for “Design and Construction of Levees”.

EMI is the prime geotechnical consultant on the ATC-32 project responsible for the review and modification of the foundation section of the widely used Caltrans Bridge Design Specifications. EMI also played a lead role in the National Cooperative Highway Research Program (NCHRP) 12-70 research and development project for the Transportation Research Board to advance the state of practice in seismic analysis and design of retaining walls, buried structures, slopes, and embankments using a Load & Resistance Factor Design (LRFD) design procedure.

The designated EMI Project Manager, Lino Cheang, has worked with the County Project Manager, Mr. Christian Doolittle, on all of these bridge projects. In addition, Lino Cheang has worked on numerous bridge projects with Mr. Greg Rende of Rende Consulting Group who was selected by the County to prepare the Structure Type Selection Report for this project.

## VII. REQUIRED STATEMENTS

### A. Duration

EMI affirms that the proposal terms shall remain in effect for ninety (90) days following the date proposal submittals are due.

### B. Disadvantage Business Enterprise (DBE) Information

We understand the County has set a DBE goal of 0% for this contract, due to limited sub-contracting opportunities. However, EMI is a certified DBE firm and will provide 100% of the work on this contract. Completed Caltrans LAPM Exhibits 10-O1 and 10-O2 are provided immediately following the cover letter acknowledging our DBE participation. It is signed by our Founder/Principal who has full authority to obligate Earth Mechanics, Inc.

### C. Individual Authorized to Negotiate the Contract

Our Founder/Principal, Lino Cheng, PE, GE, will serve as the Project Manager for this project and is fully authorized to obligate Earth Mechanics, Inc. His contact information is provided on the signed cover letter and below.

Lino Cheang, PE, GE, Principal

**Earth Mechanics, Inc.**

17800 Newhope Street, Suite B, Fountain Valley, CA 92708

Phone: 714.751.3826 ext. 112

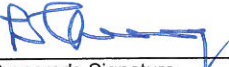
Email: l.cheang@earthmech.com

# ATTACHMENTS

- **Attachment A**
  - **DBE Form - Exhibit 10-01**
  - **DBE Form - Exhibit 10-02**
  
- **Attachment B**
  - **Acceptance of Standard Agreement Form**
  
- **Attachment C**
  - **Consultant Information Sheet**
  
- **Attachment D**
  - **Form 10-H Cost Proposal**

**EXHIBIT 10-O1 CONSULTANT PROPOSAL DBE COMMITMENT**

1. Local Agency: County of Santa Barbara 2. Contract DBE Goal: 0%  
 3. Project Description: Bonita School Rd. Bridge Project-Preliminary & Final Foundation Report (County Proj. #862367)  
 4. Project Location: Bonita School Rd. crossing Santa Maria River  
 5. Consultant's Name: Earth Mechanics, Inc. 6. Prime Certified DBE:


7. Description of Work, Service, or Materials Supplied	8. DBE Certification Number	9. DBE Contact Information	10. DBE %
Geotechnical Engineering	CUCP #6956	Lino Cheang, PE, GE 714-751-3826 ext.112	70%
<b>Local Agency to Complete this Section</b>		<b>11. TOTAL CLAIMED DBE PARTICIPATION</b>	<b>70%</b>
17. Local Agency Contract Number: _____ 18. Federal-Aid Project Number: _____ 19. Proposed Contract Execution Date: _____	IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.  <div style="display: flex; justify-content: space-between;"> <div data-bbox="922 1373 1247 1593"> <p>                      _____                      12. Preparer's Signature                      Lino Cheang, PE, GE                      _____                      14. Preparer's Name                      Principal                      _____                      16. Preparer's Title</p> </div> <div data-bbox="1279 1394 1474 1520"> <p>July 1, 2016                      _____                      13. Date                      714-751-3826                      _____                      15. Phone</p> </div> </div>		
Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.  <div style="display: flex; justify-content: space-between;"> <div data-bbox="191 1430 613 1593"> <p>_____                      20. Local Agency Representative's Signature                       _____                      22. Local Agency Representative's Name                       _____                      24. Local Agency Representative's Title</p> </div> <div data-bbox="646 1430 857 1520"> <p>_____                      21. Date                       _____                      23. Phone</p> </div> </div>			

DISTRIBUTION: Original – Included with consultant's proposal to local agency.

**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.

**EXHIBIT 10-O2 CONSULTANT CONTRACT DBE COMMITMENT**

1. Local Agency: County of Santa Barbara 2. Contract DBE Goal: 0%  
 3. Project Description: Bonita School Rd. Bridge Project-Preliminary & Final Foundation Report (County Proj. #862367)  
 4. Project Location: Bonita School Rd. crossing Santa Maria River  
 5. Consultant's Name: Earth Mechanics, Inc. 6. Prime Certified DBE:  7. Total Contract Award Amount: \$139,175  
 8. Total Dollar Amount for **ALL** Subconsultants: \$42,400 9. Total Number of **ALL** Subconsultants: 1 subcontractor

10. Description of Work, Service, or Materials Supplied	11. DBE Certification Number	12. DBE Contact Information	13. DBE Dollar Amount
Geotechnical Engineering	CUCP #6956	Lino Cheang, PE, GE, Principal 714-751-3826 ext.112	\$96,775
<b>Local Agency to Complete this Section</b>			\$
20. Local Agency Contract Number: _____ 21. Federal-Aid Project Number: _____ 22. Contract Execution Date: _____	<b>14. TOTAL CLAIMED DBE PARTICIPATION</b>		70 %
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	 15. Preparer's Signature	July 1, 2016 16. Date
_____ 25. Local Agency Representative's Name	_____ 26. Phone	Lino Cheang, PE, GE 17. Preparer's Name	714-751-3826 18. Phone
_____ 27. Local Agency Representative's Title	Principal 19. Preparer's Title		


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.

**Acknowledgement of Acceptance of Standard Agreement for Services of  
Independent Contractors  
Bonita School Road Bridge Project, BRLOZE-5951 (151)**

Attachment B contains the Standard Agreement used by the COUNTY for Technical Services and added clauses by the State Auditors; no changes will be made to the Standard Agreement language. CONSULTANTS are required to review the Standard Agreement and acknowledge their acceptance of the terms of the Standard Agreement language in the space provided below. A proposal failing to acknowledge acceptance of the Standard Agreement language will cause the proposal to be considered nonresponsive and rejected without evaluation.

Earth Mechanics, Inc. (print name)  
acknowledges acceptance of the terms of the Standard Agreement, "Agreement for Services of Independent Contractors".

Signature:   
Lino Cheang, PE, GE, Principal

Date: July 1, 2016

CONSULTANT INFORMATION SHEET

NAME OF PROPOSER Earth Mechanics, Inc.

BUSINESS P.O. BOX N/A

CITY, STATE, ZIP N/A

BUSINESS STREET ADDRESS 17800 Newhope Street, Suite B  
(include even if P.O. Box used)

CITY, STATE, ZIP Fountain Valley, CA 92708

TELEPHONE NO: 714-751-3826

FAX NO: 714-751-3928

BUSINESS TYPE (Check one):  Corporation  Partnership  Sole Proprietorship

CONTACT PERSON NAME Lino Cheang, PE, GE, Principal

CONTACT PERSON PHONE No. 714-751-3826 ext.112

CONTACT PERSON E-MAIL l.cheang@earthmech.com

EMPLOYER'S TAX IDENTIFICATION NUMBER 33-0342617

PUBLIC WORKS CONTRACTOR REGISTRATION NO. (IF APPLICABLE) DIR No. 1000018020

**EXHIBIT 10-H COST PROPOSAL (EXAMPLE #1) PAGE 1 OF 2**  
**ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS**  
 (DESIGN, ENGINEERING AND ENVIRONMENTAL STUDIES)

Consultant Earth Mechanics, Inc.

Contract No. \_\_\_\_\_

Date 6/29/2016**DIRECT LABOR**

Classification/Title	Name	hours	Actual Hourly Rate	Total
Principal	Lino Cheang	120	\$80.00	\$9,600.00
Principal Engineer & QA/QC Manager	Eric Brown/Andrew Korkos	30	\$63.00	\$1,890.00
Project Engineer	S. (Raja) Pirathivaraj	214	\$41.00	\$8,774.00
Project Geologist	Michael Hoshiyama	46	\$35.55	\$1,635.30
Field Technican	Kiat Kaekul	144	\$34.65	\$4,989.60
Lab Technician	Jianmin Fang	132	\$36.30	\$4,791.60
				\$0.00

**LABOR COSTS**

a) Subtotal Direct Labor Costs	\$31,680.50
b) Anticipated Salary Increases (see page 2 for sample)	\$0.00
<b>c) TOTAL DIRECT LABOR COSTS [(a) + (b)]</b>	<b>\$31,680.50</b>

**FRINGE BENEFITS**

d) Fringe Benefits (Rate: <u>48.36%</u> )	<b>e) Total Fringe Benefits</b>
	[(c) x (d)] <u>\$15,320.69</u>

**INDIRECT COSTS**

f) Overhead (Rate: <u>129.34%</u> )	g) Overhead [(c) x (f)]	<u>\$40,975.56</u>
h) General and Administrative (Rate: <u>0.00%</u> )	i) Gen & Admin [(c) x (h)]	<u>\$0.00</u>
	<b>j) Total Indirect Costs [(e) + (g) + (i)]</b>	<b>\$56,296.25</b>

**FEE (Profit)**

q) (Rate: <u>10.00%</u> )	<b>k) TOTAL FIXED PROFIT [(c) + (j)] x (q)]</b>	<b>\$8,797.67</b>
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**OTHER DIRECT COSTS (ODC)**

Description	Unit(s)	Unit Cost	Total
l) Travel/Mileage Costs (supported by consultant actual costs)	0.00	\$0.56	\$0.00
m) Drill Rig, Geotechnical Borings	6.50	\$4,000.00	\$26,000.00
n) Drill Rig, Percolation Tests	2.00	\$3,520.00	\$7,040.00
o) Drill Rig, Mob/Demob	1.00	\$7,360.00	\$7,360.00
p) Travel Expenses	1.00	\$1,850.00	\$1,850.00
q) Express Mails	6.00	\$25.00	\$150.00
q) Traffic Control	0.00		\$0.00
	<b>p) Total Other Direct Costs [(l) + (m) + (n) + (o)]</b>		<b>\$42,400.00</b>

**TOTAL COST [(c) + (j) + (k) + (p)]** \$139,174.42

**NOTES:**

- Employees subject to prevailing wage requirements to be marked with an \*.
- ODC items should be based on actual costs and supported by historical data and other documentation.
- ODC items that would be considered "tools of the trade" are not reimbursable.
- ODC items should be consistently billed directly to all clients, not just when client will pay for them as a direct cost.
- ODC items when incurred for the same purpose, in like circumstances, should not be included in any indirect cost pool or in overhead rate.

**EXHIBIT 10-H COST PROPOSAL (EXAMPLE #1) PAGE 2 OF 2**  
**ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS**  
 (SAMPLE CALCULATIONS FOR ANTICIPATED SALARY INCREASES)

Consultant Earth Mechanics, Inc. Contract No. \_\_\_\_\_ Date 6/29/2016

**1. Calculate Average Hourly Rate for 1st year of the contract (Direct Labor Subtotal divided by total hours) 6/29/2016**

Direct Labor <u>Subtotal</u> per Cost Proposal \$31,680.50	Total Hours per Cost Proposal 686	=	Avg Hourly Rate \$46.18	5 Year Contract Duration Year 1 Avg Hourly Rate
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**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	\$46.18	+	0%	=	\$46.18	Year 2 Avg Hourly Rate
Year 2	\$46.18	+	0%	=	\$46.18	Year 3 Avg Hourly Rate
Year 3	\$46.18	+	0%	=	\$46.18	Year 4 Avg Hourly Rate
Year 4	\$46.18	+	0%	=	\$46.18	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	60.00%	*	686.0	=	411.6	Estimated Hours Year 1
Year 2	40.00%	*	686.0	=	274.4	Estimated Hours Year 2
Year 3	0.00%	*	686.0	=	0.0	Estimated Hours Year 3
Year 4	0.00%	*	686.0	=	0.0	Estimated Hours Year 4
Year 5	0.00%	*	686.0	=	0.0	Estimated Hours Year 5
Total	0%		Total	=	686.0	

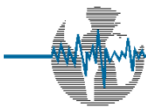
**4. Calculate Total Costs including Escalation (Multiply Average Hourly Rate by the number of hours)**

	Avg Hourly Rate (calculated above)		Estimated hours (calculated above)		Cost per Year	
Year 1	\$46.18	*	412	=	\$19,008.30	Estimated Hours Year 1
Year 2	\$46.18	*	274	=	\$12,672.20	Estimated Hours Year 2
Year 3	\$46.18	*	0	=	\$0.00	Estimated Hours Year 3
Year 4	\$46.18	*	0	=	\$0.00	Estimated Hours Year 4
Year 5	\$46.18	*	0	=	\$0.00	Estimated Hours Year 5
	Total Direct Labor Cost with Escalation			=	\$31,680.50	
	Direct Labor Subtotal before Escalation			=	\$31,680.50	
	Estimated total of Direct Labor Salary Increase			=	<b>\$0.00</b>	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.





## **Earth Mechanics, Inc.**

**Geotechnical and Earthquake Engineering**

17800 Newhope Street, Suite B, Fountain Valley, CA 92708

T: 714.751.3826 | F: 714.751.3928



**REQUEST FOR PROPOSAL**

**for**

**PROFESSIONAL DESIGN SERVICES**

**for the**

**Preliminary and Final Foundation Reports  
Bonita School Road Bridge Project  
County Project No. 862367  
Federal Project No. BRLOZE-5951 (151)**

**June 9, 2016**

County of Santa Barbara  
Department of Public Works  
Transportation Division  
620 W Foster Road  
Santa Maria, CA 93455  
(805) 739-8777

## ADMINISTRATIVE INFORMATION

Issue Date: June 9, 2016

\*Proposal Due Date and Time: July 1, 2016 at 3:00pm\*

Questions on RFP: All questions regarding the RFP must be received 72 hours prior to proposal due date, must be submitted electronically, and must be sent to [cdoolit@cosbpw.net](mailto:cdoolit@cosbpw.net)

Agency Contact Person: Christian Doolittle, Project Manager  
Email: [cdoolit@cosbpw.net](mailto:cdoolit@cosbpw.net)  
Phone: (805) 739-8777

\*Number of Copies Required: 1 (electronically) and 3 (paper)

Page Limit: The cumulative total pages for the proposal must not exceed 20 pages (Minimum Font Size: 12, Single Spaced). Page count maximum is exclusive of cover letters, blank pages, and required forms.

Funding Sources: Highway Bridge Program (Federal), County of Santa Barbara (Local)

\*Delivery Information: Regular/Express Mail and Hand Delivery:  
  
County of Santa Barbara  
Department of Public Works - Transportation Division  
Attn: Christian Doolittle  
620 W Foster Road  
Santa Maria, CA 93455  
  
Email: [cdoolit@cosbpw.net](mailto:cdoolit@cosbpw.net)

**\*Proposals received after Due Date and Time, received at wrong location, or with inadequate copies are considered non responsive and shall be rejected.**

### DISADVANTAGE BUSINESS ENTERPRISE (DBE) INFORMATION

This RFP includes DBE information and requirements (See Attachment A). If all required information is not provided, a proposal will be considered nonresponsive and rejected without evaluation. (CALTRANS LAPM Ch. 10 Section 10.5)

**PROCUREMENT SCHEDULE**

DESCRIPTION	DATE	TIME (IF APPLICABLE)
Request for Proposal Issue Date	June 9, 2016	
Deadline for Questions	June 28, 2016	3:00pm
Proposal Due Date	July 1, 2016	3:00pm
Proposal Review Completion	July 6, 2016	
Consultant Notification	July 7, 2016	
Consultant Negotiations Begin	July 7, 2016	
Consultant Negotiations End	July 13, 2016	
Consultant Selection	July 14, 2016	
Board of Supervisors Award Date	August 30 2016	
Notice to Proceed	September 2, 2016	

## **I. INVITATION**

A replacement bridge structure is being developed for the Bonita School Road crossing of the Santa Maria River. The County of Santa Barbara, herein referred to as "COUNTY", as Lead Agency, is soliciting proposals from qualified professional geotechnical engineering firms, hereinafter referred to as "CONSULTANT", to provide professional geotechnical engineering design services to conduct site investigations and to develop the preliminary and final foundation reports portion of the project, as outlined within the Request for Proposal, hereinafter referred to as "RFP". The geotechnical investigation and subsequent reports generated is hereinafter referred to as "PROJECT".

## **II. CONTRACT**

The Agreement for Services of Independent Contractor (Standard Agreement), Consultant's Proposal, and County's Request for Proposal combined is hereinafter referred to as CONTRACT.

### **AGREEMENT FOR SERVICES OF INDEPENDENT CONTRACTOR**

Attachment B of this RFP contains a sample of the Standard Agreement used by the COUNTY for Technical Services and clauses added by the State and Federal Auditors; no changes will be made to the Standard Agreement language. CONSULTANTS are required to review the sample Standard Agreement and acknowledge their acceptance of the terms of the Standard Agreement in the space provided on the Attachment B coversheet.

A proposal failing to acknowledge acceptance of the Standard Agreement language will be considered nonresponsive and rejected without evaluation.

### **METHOD OF PAYMENT**

Method of payment is described in Exhibit B of the sample Standard Agreement found in Attachment B of this RFP.

### **INSURANCE REQUIREMENTS**

Insurance requirements are described in Exhibit C of the sample Standard Agreement found in Attachment B of this RFP.

### **SUBCONSULTANTS**

Parties subcontracted by CONSULTANT to perform services described in RFP, hereinafter referred to as SUBCONSULTANTS, are responsible for complying with all state, federal and specific contract requirements.

### **SUBSTITUTION OF CONSULTANT PERSONNEL OR SUBCONSULTANTS**

After contract execution the CONSULTANT should not substitute key personnel (project manager and others listed by name in the cost proposal) or SUBCONSULTANTS without prior written approval from the COUNTY. The CONSULTANT must request and justify the need for the substitution and obtain approval from the COUNTY prior to use of a different SUBCONSULTANT on the CONTRACT. The proposed substituted person must be as qualified as the original, and at the same or lower cost.

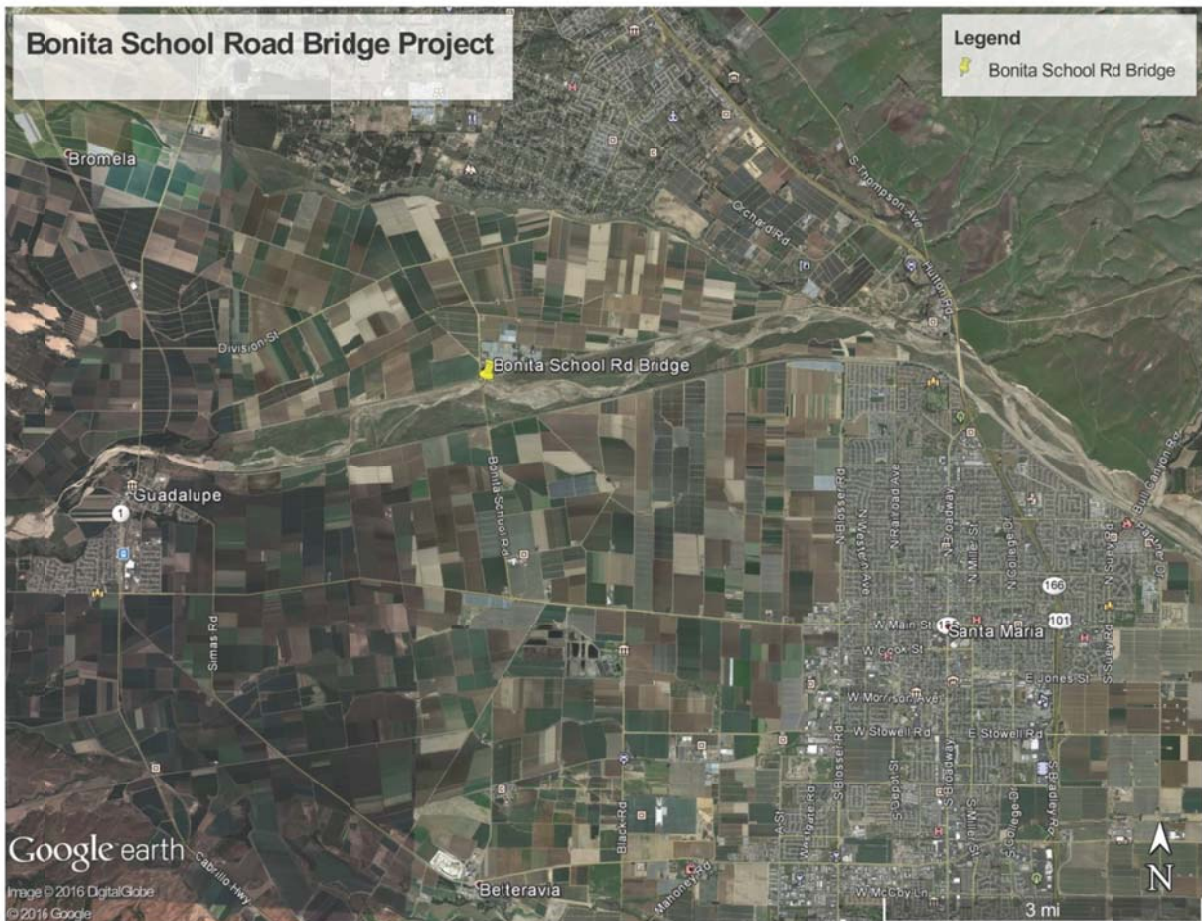
### III. ORGANIZATION

The COUNTY is the lead agency for this project.

- The COUNTY is governed by the Santa Barbara County Board of Supervisors. Reporting to the Board of Supervisors is the Public Works Director.
- The COUNTY Project Manager for the PROJECT is Chris Doolittle, serving in Public Works.
- Final design review and approval of PROJECT will be performed by COUNTY.
- The PROJECT will be coordinated through the formation of a Project Development Team (PDT). The team will consist of representatives of the COUNTY and other agencies, as well as the CONSULTANT. PDT meetings will occur at appropriate milestones or intervals throughout the development of the PROJECT.
- The PROJECT is within the jurisdiction of the COUNTY. The PROJECT is also within the jurisdiction of the Army Corps of Engineers, California Department of Fish and Wildlife, and the County Flood Control District.
- The COUNTY will serve as the construction contract administration agency for the PROJECT.
- CONSULTANT will take direction from the COUNTY.

### IV. PROJECT INFORMATION

#### PROJECT LOCATION

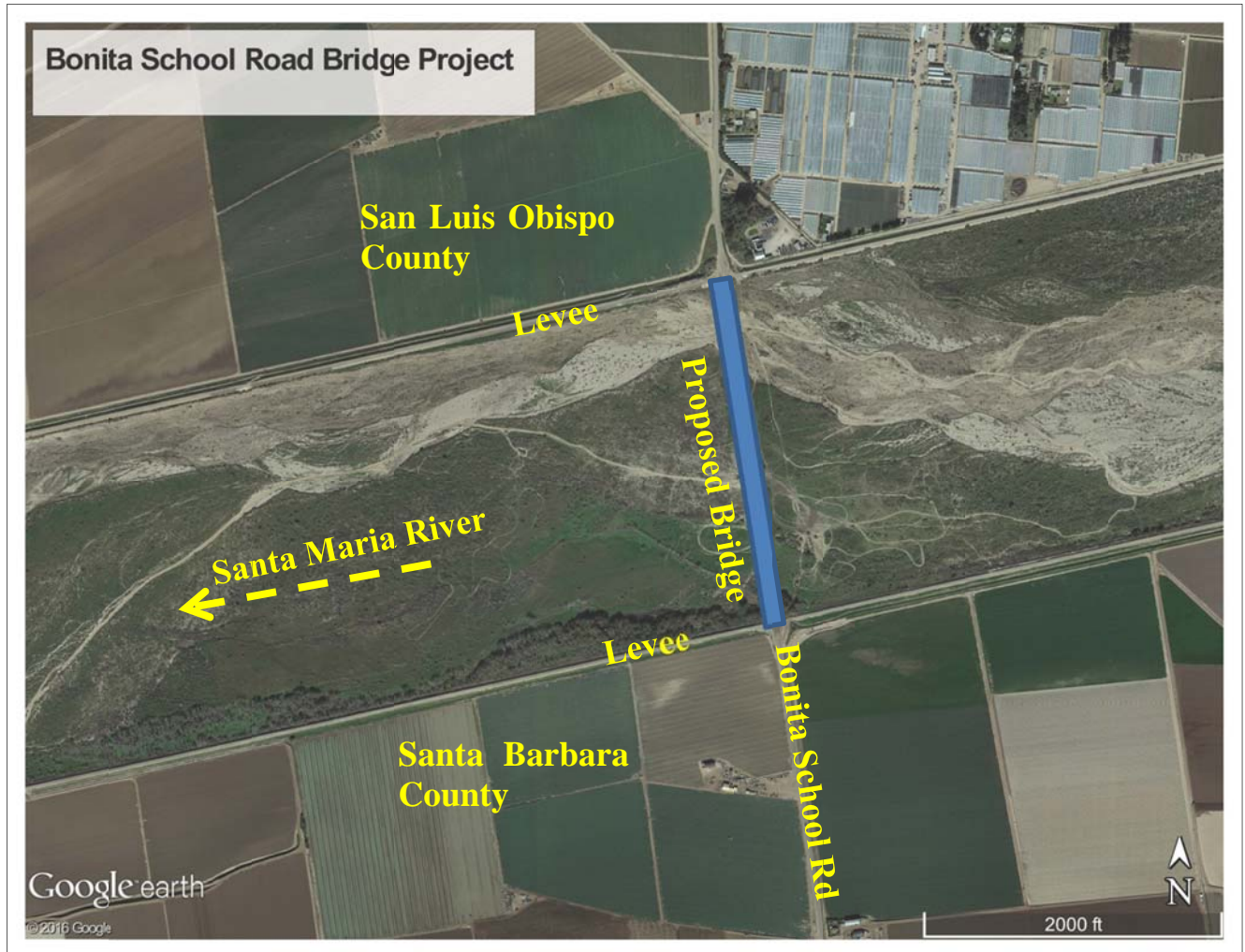


The PROJECT is located along Bonita School Road, approximately 1.6 miles north of State Route 166 (West Main Street), and approximately 2.8 miles west of the City of Santa Maria. Bonita School Road crosses the Santa Maria River, which is an intermittent drainage with its headwaters on the northern slopes of the Santa Ynez Mountains, draining to the Pacific Ocean west of the City of Guadalupe.

### PURPOSE AND NEED

The purpose of the PROJECT is to replace the existing Bonita School Road Bridge and embankment crossing the Santa Maria River. The existing bridge is considered fracture critical due to cracks in lateral brace support, vertical stiffener, and splice plate welds. In addition, the Army Corps of Engineers is requiring removal of the existing embankment along the bridge approach from the south. Bonita School Road is an important haul route for the agricultural businesses on both sides of the Santa Maria River, and is an important alternative crossing to US Route 101 and SR 1. A lengthy detour will be in effect should the bridge or embankment fail, causing heavy traffic impacts on the adjacent crossing points of the Santa Maria River. The proposed bridge construction would allow for safe crossing of the Santa Maria River under all weather conditions by residents and commercial traffic, and improve emergency access.

### PROJECT SETTING



## **BACKGROUND**

Rende Consulting Group has been selected to prepare the Structure Type Selection Report. The COUNTY will be soliciting proposals for bridge design services. The COUNTY is preparing roadway design. West Consultants has been selected to perform hydrology and hydraulics services. Initial site assessment and field work was performed by the COUNTY.

### Project Milestones Achieved To Date:

Bridge Plans	30% complete
Roadway Plans	30% complete
Project Report	1st Draft in review
Structure Type Selection Report	In progress
Design Hydraulic Study	In progress
NEPA and Biological Assessment	In progress
California Fish and Wildlife Sect 1602 Permit	Approved
Army Corps of Engineers Sect 408 Permit	Application Postponed

## **PROPOSED PROJECT IMPROVEMENTS**

The proposed PROJECT will replace the existing 323-foot long rail car bridge and approximately 2,100-foot long elevated embankment currently conveying Bonita School Road traffic across the Santa Maria River. The Structure Type Selection Report is currently being produced and indicates that the replacement structure will possibly be one of the 5 following structure and foundation combinations:

- 1) Pre-cast, pre-stressed concrete "wide-flange" girder (CA WF48) bridge supported on cast-in-drilled-hole (CIDH) piles
- 2) Pre-cast, pre-stressed concrete "wide-flange" girder (CA WF48) bridge supported on driven HP piling and reinforced concrete pier wall
- 3) Cast-in-place, pre-stressed concrete box girder bridge supported on CIDH piles
- 4) Cast-in-place, pre-stressed concrete box girder bridge supported on driven HP piling and reinforced concrete pier wall
- 5) Cast-in-place reinforced concrete slab bridge supported on CIDH piles

From a review of the 30% bridge general plans, the structure is anticipated to be 47'-10" wide, consisting of two 12-foot travel lanes, two 8-foot shoulders, one 5-foot sidewalk, and two 1'-5" barriers. The structure foundation is anticipated to consist of twenty two piers and two abutments for options 1-4, and forty-six piers and two abutments for option 5.

In addition to the foundation design of the proposed replacement bridge structure, it is also anticipated that the geotechnical professional will be required to investigate and provide recommendations on the following design elements:

- Retaining walls or reinforced earthen embankment as required near the approaches to the bridge abutments.
- Dry wells or other stormwater mitigation elements in order to satisfy the post-construction stormwater management plan.
- Structure section recommendations and slope stability evaluation of roadway approaches, levee access roads, and possible Santa Maria River Bike Path.
- Scour evaluation and mitigation.
- Levee alteration associated with the bridge project.

## **SUPPLEMENTAL INFORMATION AVAILABLE**

- Draft Bonita School Road Bridge General Plan Sheets (30%)
- As-built plans for Bonita School Road Low Water Crossing Bridge No. 51C-0230
- Pile Driving Report for Bonita School Road Low Water Crossing Bridge No. 51C-0230



## V. PREVIOUS GEOTECHNICAL WORK CONDUCTED TO DATE

To date, the following preliminary geotechnical investigation items have been performed for this project:

- Lead paint investigation of existing bridge structure.
- Streambed materials samples were collected and submitted to a materials testing laboratory for use in developing the Hydraulics Report.
- Limited desk study of the project site for initial geotechnical input to Project Report.

## VI. SCOPE OF PROFESSIONAL SERVICES

### DESCRIPTION OF WORK

The work entails performing professional geotechnical engineering services for the Bonita School Road Bridge Project over the Santa Maria River. The scope of services shall include, but is not limited to, producing a Preliminary Foundation Report (PFR) and a Final Foundation Report (FFR) as input to the preparation of the project plans and specifications. CONSULTANT will acquire site-specific geotechnical data, and will coordinate and execute all field work, including surface and sub-surface investigations, and all required laboratory testing of materials. In your proposal, please outline the work that you foresee necessary, based on information provided, the existing materials made available to you, and past experience on similar projects.

### REQUESTED SCOPE OF SERVICES

The CONSULTANT'S Scope of Work is summarized as follows:

#### Project Management

- Manage, administer, and coordinate all work, including but not limited to design, quality control, quality assurance, and scheduling required to produce all services and deliverables on-time and on-budget.
- Inform COUNTY Project Manager immediately of any potential for exceeding the schedule or design budget prior to proceeding with work.
- Attend Project Development Team (PDT) meetings, as requested. It is assumed that consultant will be requested to attend up to a total of 4 PDT meetings for up to one (1) hour each. These may take place at the COUNTY's offices either in Santa Maria or Santa Barbara. The COUNTY encourages teleconferencing or video conferencing as much as possible to reduce cost and travel time.

#### Geotechnical

- The CONSULTANT selected for the PROJECT shall be responsible for gathering and reviewing existing data; determining what information is necessary for completion of the PFR and the FFR; coordinating and completing all geotechnical investigations; identifying, coordinating and completing all necessary laboratory analysis; determining subsurface conditions; and developing recommendations for the project design and construction. The CONSULTANT shall be responsible preparing the PFR and the FFR, accurately depicting the project area's geologic attributes and conditions and providing recommendations for foundation type.
- 
- All field investigations and analysis is to be performed by CONSULTANT. CONSULTANT will help evaluate the need for additional explorations and sample materials collection, as needed. The CONSULTANT must consult with County Staff as well as directly with the other members of the Project Development Team, as needed to assist the PDT and complete the PFR and the FFR.

#### Bridge Structure

- Give input as required to assist in the determination and evaluation of structure type selection alternatives and coordinate with the COUNTY and other professional design consultants to select an appropriate alternative.
- Provide structural design services for selected project alternative.
- Assist in preparing geotechnical aspects of technical specifications for selected project alternative.

### Roadway

- Coordinate with COUNTY Roadway Designer to supply roadway structural section recommendations as part of Preliminary and Final Foundation Reports.
- Perform site investigation and provide design recommendations for retaining walls, geosynthetically reinforced soil embankment, or other roadway support techniques, as necessary.

### Post Construction Storm Water Management

Perform site investigation and provide design recommendations for post-construction stormwater management plan, as necessary. It is anticipated that dry wells will be utilized to control stormwater leaving the proposed bridge structure.

### Hydraulics

Coordinate with COUNTY hydraulic consultant to determine the scourability of streambed materials and other geotechnical aspects of the materials present and their effect on the hydraulics of the proposed replacement structure.

### Utility Coordination

CONSULTANT will conduct Underground Service Alert demarcation, and notification prior to conducting sub-surface investigations.

### Right of Way

CONSULTANT will prepare documents as required to supply COUNTY necessary information in a format as directed for use in determining areas requiring access by CONSULTANT.

### Advertisement, Award and Administration of Construction Project

CONSULTANT must prepare documents, as necessary, to supply COUNTY with geotechnical support as necessary during the advertisement, award, and construction phases of the PROJECT.

## **TASKS AND DELIVERABLES**

The Scope of Work will be broken down into the following major tasks and associated deliverables:

### **Task 1 –Project Initiation and Review of Existing Data**

Any developed preliminary plans for the project will be delivered to the CONSULTANT, showing the location of planned improvements. Existing data will also be provided, in order for the CONSULTANT to prepare the Preliminary Foundation Report, coordinate subsurface explorations, soil sampling and laboratory analysis. CONSULTANT will review available information from published geologic maps and studies. CONSULTANT will attend 1 PDT (via teleconference) to discuss the needs of the PROJECT, and coordinate regarding ROW access and environmental permitting needs.

### **Task 2 - Preliminary Foundation Report (PFR)**

CONSULTANT will prepare a Preliminary Foundation Report, following the latest available version of Caltrans *Foundation Reports for Bridges*. The report will provide a summary of the existing geotechnical data reviewed by the CONSULTANT, the results of any subsequent investigations, laboratory analysis results, and preliminary foundation recommendations.

Using existing subsurface data, CONSULTANT will provide initial recommendations as to the continued viability of the preferred foundation alternatives and any recommended alternative foundations.

*Task 2 Deliverable:* Preliminary Foundation Report (PFR) (3 hard copies and 1 electronic version)  
(Including recommended geotechnical investigation plan)

### **Task 3 - Field Exploration and Soils Laboratory Analysis**

Based on the PFR and any received QA/QC comments from the COUNTY, CONSULTANT will initiate the field exploration program. CONSULTANT must obtain representative material samples, store samples, and perform laboratory analysis, as needed to characterize the site conditions. CONSULTANT will prepare a letter to COUNTY staff, indicating the number and type of laboratory geotechnical analysis to be performed in order to adequately characterize the subsurface materials, and their geotechnical characteristics, for the preparation of the Final Foundation Report. COUNTY will review the results of the preliminary field exploration program, and inventory of samples taken during the investigation. Digital photos of sampled materials, equipment and field conditions will be sent to COUNTY. COUNTY is welcome to attend field investigations. All soils must be described per the latest available version of Caltrans *Soil and Rock Logging, Classification, and Presentation Manual*.

*Task 3 Deliverables:* Field Log of Test Borings, schedule of laboratory analysis to be performed on collected samples.

### **Task 4 - Draft Final Foundation Report (FFR)**

CONSULTANT will prepare a Draft Final Foundation Report, following the latest available version of Caltrans *Foundation Reports for Bridges*. The report will provide a summary of the geotechnical data collected by the CONSULTANT; present the results of any subsequent investigations, laboratory analysis results, and opinions; and provide recommendations regarding items from the following list that the CONSULTANT has evaluated and assessed the need for:

- Soil and groundwater conditions at project site.
- Seismic design parameters for use with Caltrans current design methods, including closest fault(s), maximum ground acceleration, recommended Acceleration Response Spectra (ARS), and liquefaction potential.
- Suitable foundation types for subsurface conditions encountered.
- Pile data table using load demands provided by structure designer.
- Lateral pile solutions for free head and fixed head conditions.
- Lateral earth pressures, and passive pressure resistance for abutment design.
- Settlement and settlement period.
- Foundation recommendations, including LRFD bearing pressures, base width, settlement and bearing capacity of underlying soils, and remedial removal and re-compaction recommendations for wing walls and any retaining walls, both temporary and permanent, as required by the project.
- If required by project, structure designer will provide retaining wall heights. CONSULTANT will verify that the Caltrans Standard Plan spread footing design is suitable to support these retaining walls, or if deep foundations are required. If required, CONSULTANT will provide suitable foundation types.
- Determination of need for a seismic approach slab.
- Stability of any cut/fill slopes adjacent to the proposed roadway.
- Construction considerations and recommendations, including driven piles or CIDH pile construction, temporary excavations, and shoring.
- Corrosion potential analysis, and recommend procedures to address during construction (minimum concrete cover, cement admixtures, protective coating of reinforcement bar, etc.).
- If required by the project, provide recommendations for reinforced soil slopes. Recommendations must include the type, number, elevation and intervals of reinforcement materials, as well as specifications for materials to be utilized as embankment fill and geosynthetic elements.
- Give recommendations for structure sections, based on R-value of native soil and recent traffic index investigations.
- Recommendations as needed for the design of dry wells or other design aspects of a post-construction stormwater management plan.

Log of Test Boring (LOTB) sheets must be prepared by the CONSULTANT, and must be included in the foundation report.

*Task 4 Deliverables:* Draft Final Foundation Report (3 hard copies and 1 electronic version)  
Draft LOTB sheets (PDF version)

**Task 5 - Final Foundation Report**

Upon receipt of County comments, the Consultant must address comments and incorporate edits as necessary into the FFR, following the latest available version of Caltrans *Foundation Reports for Bridges*.

*Task 5 Deliverables:* Final Foundation Report (3 hard copies and 1 electronic version).

**STANDARDS**

- All geotechnical analysis for the Foundation Report must utilize the latest edition of the AASHTO LRFD Bridge Design Specifications and California Amendments, as required by Caltrans.
- All deliverables must be prepared in accordance with current Caltrans’ regulations, policies, procedures, guidelines and standards. COUNTY currently utilizes the 2010 Caltrans Standard Specifications and Standard Plans (we may move to 2015 edition during this contract).
- All deliverables must comply with federal, state and COUNTY regulations.
- All deliverables must be in English units.
- Submit one (1) electronic file format (unless otherwise noted) of all deliverables.
- Electronic file format for submittals of reports, maps, and all attachments must be in PDF format; calculation sheets must be in Excel format.

**PROPOSED PROJECT IMPORTANT DATES**

DESCRIPTION	DATE
Authorization to Proceed with Contract	September 2, 2016
<b>Begin Tasks 1 and 2 (PFR)</b>	September 7, 2016
PFR Delivery (Proposed)	October 7, 2016
PFR QA/QC Comments delivered to CONSULTANT	October 28, 2016
<b>Begin Tasks 3 and 4 (Exploration and Draft FFR)</b>	November 1, 2016
Draft FFR Delivery	January 6, 2017 (or TBD)
Draft FFR QA/QC Comments delivered to CONSULTANT	January 27, 2017 (or TBD)
<b>Begin Tasks 5 (FFR)</b>	TBD (2017)
Delivery of signed LOTB sheets	TBD (2017/2018)
<b>Construction Administration Support</b>	As Determined

**VII. WORK PERFORMED BY OTHERS**

1. **Project Review and Approval:** Review and approval of all PROJECT deliverables will be performed by the COUNTY. COUNTY review will not serve as independent check for the work of the CONSULTANT. CONSULTANT will submit to COUNTY only task submittals that have been adequately and independently reviewed prior to submittal.
2. **Environmental Permitting:** COUNTY will prepare the necessary documentation and perform the services necessary, unless otherwise described in this RFP, for all environmental permitting. CONSULTANT will

prepare documents as required to supply COUNTY necessary information in a format as directed for use in environmental documents.

3. **Post-Construction Stormwater Management:** COUNTY is preparing the post-construction stormwater management plans, memos and permitting.
4. **Right of Way Entry Permits:** COUNTY will prepare the necessary documentation and perform the necessary services for all right of way entry permits.
5. **Advertisement, Award and Administration of Construction Project:** COUNTY will advertise, award and administer the construction project.

## **VIII. PROPOSAL CONTENT REQUIREMENTS**

### **PROPOSAL FORMAT**

Proposals shall not exceed the page limit using the specified font indicated in the 'GENERAL PROPOSAL INFORMATION.' Preparation of proposals, following these standards and including the described content, will allow information to easily be extracted for evaluation purposes. Proposals must include preparation of or detailed discussions regarding the following information:

### **TRANSMITTAL LETTER**

Include Transmittal letter on the Consultant's letterhead and address to the COUNTY project manager, as indicated in 'GENERAL PROPOSAL INFORMATION' of this RFP. The letter should indicate the consultant's basic understanding of the COUNTY'S needs and the Consultant's understanding of the work required. If an Addendum has been issued by the COUNTY, the consultant must acknowledge receipt of the Addendum in the Transmittal letter. The letter shall be signed by an official or representative authorized to negotiate and contractually bind the CONSULTANT with the COUNTY.

### **UNDERSTANDING OF WORK TO BE DONE**

Describe your understanding of the process and steps necessary to complete the project. Include a discussion of the following items:

- SCOPE OF SERVICES
- PROJECT WORK PLAN
- STANDARDS
- DELIVERABLES

### **PROJECT TEAM AND STAFF**

#### **ORGANIZATION CHART**

Provide an organization chart that shows how the project manager will manage lines of communication between the team, COUNTY, key stakeholders, etc. Identify the Key Staff that will interact with the COUNTY. Provide brief resumes of the Key Staff and an explanation of the function each key person will perform. Key Staff must each have professional experience with similar projects. Emphasize the experience and abilities relevant to the specific engineering services described in this RFP

#### **EXPERIENCE WITH SIMILAR PROJECTS**

- Provide descriptions of similar projects that the proposed Key Staff have completed. The descriptions of similar projects should include:
  - Project description and location;
  - Description of services provided;

- Current status (i.e. active, completed, etc.);
- Relevant aspects of the project related to this RFP;
- Key personnel involved; and,
- Client name, contact person, and his/her current telephone number and email address

## **FINANCIAL RESPONSIBILITY**

Provide detailed information regarding how the Project Manager will complete a successful project and manage costs responsibly. Include a RESOURCE ALLOCATION MATRIX AND COST PROPOSAL as described below:

### **RESOURCE ALLOCATION MATRIX AND COST PROPOSAL**

- Please include a resource allocation matrix of the consultant's proposed project team including in rows a list of the tasks with descriptions for the project, and in columns the name and number of hours proposed per task for each team member proposed to provide each type of service. Also add a cost column and show total cost for each task and summate at bottom.
- Sample Cost Proposals may be found at:  
<http://www.dot.ca.gov/hq/LocalPrograms/lam/forms/chapter10/10h.pdf>

## **UNDERSTANDING OF SCHEDULE**

Indicate the timing of availability of the Geotechnical Professional to begin work on the project. Specifically, describe the time interval from Notice to Proceed being given to time consultant would be able to begin tasks 1, 2 and 3. We envision that these 3 tasks will be worked on concurrently. Describe general timelines required between subsequent tasks or delivery date from the project development team.

## **INNOVATION OR ADVANCED TECHNIQUES**

If your firm has innovative ideas or advanced techniques that could either improve the project or provide cost savings please provide the detailed information in this section.

## **FAMILIARITY WITH STATE/FEDERAL/COUNTY PROCEDURES**

Please describe your project team's familiarity with State, Federal, and County of Santa Barbara procedures. Only provide information that is relevant to this project.

## **REQUIRED STATEMENTS**

### **DURATION**

CONSULTANT shall provide a brief statement affirming that the proposal terms shall remain in effect for ninety (90) days following the date proposal submittals are due.

### **DISADVANTAGE BUISNESS ENTERPRISE (DBE) INFORMATION**

As stated in the "GENERAL PROPOSAL INFORMATION" section of this RFP, all DBE requirements must be adhered to (Please refer to Attachment A). Include a statement signed by the owners or authorized individual(s) acknowledging DBE information and requirements is mandatory.

### **INDIVIDUAL AUTHORIZED TO NEGOTIATE THE CONTRACT**

Please provide us the name of the individual or individuals that are authorized by the firm's owners or representative authorized to negotiate and contractually bind the CONSULTANT with the COUNTY. A statement signed by the owners or authorized individual(s) will be required.

**It is strongly recommended that the content of proposal only include information described in PROPOSAL CONTENT REQUIREMENTS and aforementioned sections.**

## **IX. CONSULTANT SELECTION AND NEGOTIATIONS**

### **EXHIBITS TO AGREEMENT**

A detailed Scope of Work based on the above tasks developed by Consultant and submitted in proposal will be refined during final negotiations between selected CONSULTANT and COUNTY and will be incorporated into the agreement between COUNTY and CONSULTANT as Exhibit A-1 Consultant Proposal.

### **EVALUATION**

The COUNTY will review proposals for completeness, clarity, and content quality. Each proposal will be reviewed to determine if it meets the requirements contained in “PROPOSAL FORMAT AND CONTENT REQUIREMENTS.” If all required information is not provided, a proposal may be considered nonresponsive and rejected. (CALTRANS LAPM Ch. 10 Section 10.5)

The COUNTY will select a committee, comprised of COUNTY staff or other qualified individuals, which will evaluate the submitted proposals. The selection committee will rate and develop a final ranking of each proposal that meets the requirements of the RFP.

### **METHOD AND CRITERIA FOR SELECTION**

Rating of the proposal will be based on the following criteria. Maximum points attainable for each criterion are shown, for a total of 100 points:

Understanding of work to be done (25 points) – How well does the project team or project manager understand work to be done, including but not limited to: Coordination with Structures, Roadway and Hydraulic design professionals to assist in completion of their tasks; Geotechnical tasks to produce the Final Foundation Report; Assist to develop the contract documents (input to Plans and Special Provisions regarding geotechnical aspects of the PROJECT.

Project Team and Experience with similar projects (25 points) – How closely does the project team selected match the experience required to successfully complete the PROJECT?

Financial Responsibility (15 points) – Does the project manager provide a project development process that is fiscally responsible? Does the cost estimate seem reasonable for the work to be performed? If so, how feasible and responsible is the plan.

Understanding of Schedule (10 points) – How well does the firm understand the various timelines, does the firm provide a schedule that meets the provided “Important Dates”, and is the schedule feasible?

Innovation or advance techniques (10 points) – Does the proposal offer innovative or advanced techniques? If so, how feasible and cost effective are the proposed designs?

Familiarity with state/federal/County procedures (15 points) – Based on the proposal how well does the project team understand the State, Federal, and County procedures, guidelines, and standards?

**END RFP**