

**"PROFESSIONAL SERVICES AGREEMENT
ENVIRONMENTAL AND CIVIL ENGINEERING DESIGN SERVICES ON THE HOLLAND
RD/I-215 BRIDGE OVERCROSSING PROJECT, CIP #13-03**

THIS AGREEMENT for Professional Services ("Agreement") is made this April 16, 2014 ("Effective Date") by and between the CITY OF MENIFEE ("City") and T.Y. Lin International (TYLIN) a C-Corporation ("Consultant") (together sometimes referred to the "Parties").

Section 1. SERVICES. Subject to the terms and conditions set forth in this Agreement, Consultant shall provide to City the services described in the Scope of Work, (Exhibit A) and incorporated here. Consultant will perform subsequent Task Orders as requested by the Contract Administrator, in accordance with the Scope of Work. In the event of a conflict in or inconsistency between the terms of this Agreement and Exhibit A, this Agreement shall prevail.

1.1 Term of Services. The term of this Agreement shall begin on April 16, 2014 and shall end on June 30, 2019 unless the term of the Agreement is otherwise terminated or extended as provided for in Section 8. The time provided to Consultant to complete the services required by this Agreement shall not affect the City's right to terminate the Agreement, as provided for in Section 8.

1.2 Standard of Performance. Consultant shall perform all services required pursuant to this Agreement in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged in the geographical area in which Consultant practices its profession and to the sole satisfaction of the Contract Administrator.

1.3 Assignment of Personnel. Consultant shall assign only competent personnel to perform services pursuant to Agreement. In the event that City, in its sole discretion, at any time during the term of this Agreement, desires the reassignment of any such persons, Consultant shall, immediately upon receiving notice from City of such desire of City, reassign such person or persons.

1.4 Time. Consultant shall devote such time to the performance of services pursuant to this Agreement as may be reasonably necessary to satisfy Consultant's obligations hereunder.

1.5 Authorization to Perform Services. The Consultant is not authorized to perform any services or incur any costs whatsoever under the terms of this Agreement until receipt of authorization from the Contract Administrator.

Section 2. COMPENSATION. City hereby agrees to pay Consultant a sum not to exceed ONE MILLION SEVEN HUNDRED SIXTY SIX THOUSAND AND ONE HUNDRED THIRTY DOLLARS(\$1,766,130.00) notwithstanding any contrary indications that may be contained in Consultant's proposal, for services to be performed and reimbursable costs incurred under this Agreement. In the event of a conflict between this Agreement and Exhibit A, regarding the amount of compensation, this Agreement shall prevail. City shall pay Consultant for services rendered pursuant to this Agreement at the time and in the manner set forth herein. The payments specified below shall be the only payments from City to Consultant for services

rendered pursuant to this Agreement. Consultant shall submit all invoices to City in the manner specified herein. Except as specifically authorized in advance by City, Consultant shall not bill City for duplicate services performed by more than one person.

2.1 Invoices. Consultant shall submit invoices monthly during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- Serial identifications of progress bills; i.e., Progress Bill No. 1 for the first invoice, etc.;
- The beginning and ending dates of the billing period;
- A Task Summary containing the original contract amount, the amount of prior billings, the total due this period, the balance available under the Agreement, and the percentage of completion;
- At City's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense;
- The total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder necessary to complete the work described in Exhibit A;
- Receipts for expenses to be reimbursed;
- The Consultant's signature.

Invoices shall be submitted to:

City of Menifee
Attn: Accounts Payable
29714 Haun Road
Menifee, CA 92586

2.2 Monthly Payment. City shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. City shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.

2.3 Final Payment. City shall pay the last ten percent (10%) of the total sum due pursuant to this Agreement within sixty (60) days after completion of the services and submittal to City of a final invoice, if all services required have been satisfactorily performed.

2.4 Total Payment. City shall not pay any additional sum for any expense or cost whatsoever incurred by Consultant in rendering services pursuant to this Agreement. City shall make no payment for any extra, further, or additional service pursuant to this Agreement.

In no event shall Consultant submit any invoice for an amount in excess of the maximum amount of compensation provided above either for a task or for the entire Agreement, unless the Agreement is modified in writing prior to the submission of such an invoice.

2.5 Hourly Fees. Fees for work performed by Consultant on an hourly basis shall not exceed the amounts shown on the fee schedule included with Exhibit A.

2.6 Reimbursable Expenses. Reimbursable expenses are included within the maximum amount of the contract.

2.7 Payment of Taxes. Consultant is solely responsible for the payment of employment taxes incurred under this Agreement and any federal or state taxes.

2.8 Payment upon Termination. In the event that the City or Consultant terminates this Agreement pursuant to Section 8, the City shall compensate the Consultant for all outstanding costs and reimbursable expenses incurred for work satisfactorily completed as of the date of written notice of termination. Consultant shall maintain adequate logs and timesheets in order to verify costs incurred to that date.

Section 3. FACILITIES AND EQUIPMENT. Except as otherwise provided, Consultant shall, at its sole cost and expense, provide all facilities and equipment necessary to perform the services required by this Agreement. City shall make available to Consultant only physical facilities such as desks, filing cabinets, and conference space, as may be reasonably necessary for Consultant's use while consulting with City employees and reviewing records and the information in possession of the City. The location, quantity, and time of furnishing those facilities shall be in the sole discretion of City. In no event shall City be required to furnish any facility that may involve incurring any direct expense, including but not limited to computer, long-distance telephone or other communication charges, vehicles, and reproduction facilities.

Section 4. INSURANCE REQUIREMENTS. Before beginning any work under this Agreement, Consultant, at its own cost and expense, shall procure the types and amounts of insurance checked below and provide Certificates of Insurance, indicating that Consultant has obtained or currently maintains insurance that meets the requirements of this section and which is satisfactory, in all respects, to the City. Consultant shall maintain the insurance policies required by this section throughout the term of this Agreement. The cost of such insurance shall be included in the Consultant's compensation. Consultant shall not allow any subcontractor, consultant or other agent to commence work on any subcontract until Consultant has obtained all insurance required herein for the subcontractor(s) and provided evidence thereof to City. Verification of the required insurance shall be submitted and made part of this Agreement prior to execution. Consultant acknowledges the insurance policy must cover inter-insured suits between the City and other Insureds.

4.1 Workers' Compensation. Consultant shall, at its sole cost and expense, maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Consultant. The Statutory Workers' Compensation Insurance and Employer's Liability Insurance shall be provided with limits of not less than ONE MILLION DOLLARS (\$1,000,000.00) per accident, ONE MILLION DOLLARS (\$1,000,000.00) disease per employee, ONE MILLION DOLLARS (\$1,000,000.00) disease per policy. In the alternative, Consultant may rely on a self-insurance program to meet those

requirements, but only if the program of self-insurance complies fully with the provisions of the California Labor Code. Determination of whether a self-insurance program meets the standards of the Labor Code shall be solely in the discretion of the Contract Administrator. The insurer, if insurance is provided, or the Consultant, if a program of self-insurance is provided, shall waive all rights of subrogation against the City and its officers, officials, employees, and authorized volunteers for loss arising from work performed under this Agreement.

4.2 Commercial General Automobile Liability Insurance.

4.2.1 General requirements. Consultant, at its own cost and expense, shall maintain commercial general and automobile liability insurance for the term of this Agreement in an amount not less than ONE MILLION DOLLARS (\$1,000,000.00) per occurrence, combined single limit coverage, for risks associated with the work contemplated by this Agreement, TWO MILLION DOLLARS (\$2,000,000.00) general aggregate, TWO MILLION DOLLARS (\$2,000,000.00) products/completed operations aggregate. If a Commercial General Liability Insurance or an Automobile Liability form or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the work to be performed under this Agreement or the general aggregate limit shall be at least twice the required occurrence limit. Such coverage shall include but shall not be limited to, protection against claims arising from bodily and personal injury, including death resulting therefrom, and damage to property resulting from activities contemplated under this Agreement, including the use of hired, owned and non-owned automobiles.

4.2.2 Minimum scope of coverage. Commercial general coverage shall be at least as broad as Insurance Services Office Commercial General Liability occurrence form CG 0001 or GL 0002 (most recent editions) covering comprehensive General Liability and Insurance Services Office form number GL 0404 covering Broad Form Comprehensive General Liability. Automobile coverage shall be at least as broad as Insurance Services Office Automobile Liability form CA 0001 (ed. 12/90) Code 8 and 9. No endorsement shall be attached limiting the coverage.

4.2.3 Additional requirements. Each of the following shall be included in the insurance coverage or added as a certified endorsement to the policy:

a. The insurance shall cover on an occurrence or an accident basis, and not on a claims-made basis.

b. Any failure of Consultant to comply with reporting provisions of the policy shall not affect coverage provided to City and its officers, employees, agents, and volunteers.

4.3 Professional Liability Insurance.

4.3.1 General requirements. Consultant, at its own cost and expense, shall maintain for the period covered by this Agreement professional liability insurance for licensed professionals performing work pursuant to this Agreement in an amount not less than ONE MILLION DOLLARS (\$1,000,000) covering the licensed professionals' errors and omissions. Any deductible or self-insured retention shall not exceed \$150,000 per claim.

4.3.2 Claims-made limitations. The following provisions shall apply if the professional liability coverage is written on a claims-made form:

a. The retroactive date of the policy must be shown and must be no later than the commencement of the work.

b. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the Agreement or the work, so long as commercially available at reasonable rates.

c. If coverage is canceled or not renewed and it is not replaced with another claims-made policy form with a retroactive date that precedes the date of this Agreement, Consultant must provide extended reporting coverage for a minimum of five (5) years after completion of the Agreement or the work. Such continuation coverage may be provided by one of the following: (1) renewal of the existing policy; (2) an extended reporting period endorsement; or (3) replacement insurance with a retroactive date no later than the commencement of the work under this Agreement. The City shall have the right to exercise, at the Consultant's sole cost and expense, any extended reporting provisions of the policy, if the Consultant cancels or does not renew the coverage.

d. A copy of the claim reporting requirements must be submitted to the City prior to the commencement of any work under this Agreement.

4.4 All Policies Requirements.

4.4.1 Acceptability of insurers. All insurance required by this section is to be placed with insurers with a Bests' rating of no less than A:VII and admitted in California.

4.4.2 Verification of coverage. Prior to beginning any work under this Agreement, Consultant shall furnish City with Certificates of Insurance, additional insured endorsement or policy language granting additional insured status complete certified copies of all policies, including complete certified copies of all endorsements. All copies of policies and certified endorsements shall show the signature of a person authorized by that insurer to bind coverage on its behalf. The Certificate of Insurance must include the following reference: **Environmental and Civil Engineering Design Services on Holland Rd/I-215 Bridge Overcrossing Project, CIP #13-03.** The name and address for Additional Insured endorsements, Certificates of Insurance and Notice of Cancellation is: City of Menifee, 29714 Haun Road, Menifee, CA 92586. The City must be endorsed as an additional insured for liability arising out of **ongoing and completed operations** by or on behalf of the Consultant.

4.4.3 Notice of Reduction in or Cancellation of Coverage. A certified endorsement shall be attached to all insurance obtained pursuant to this Agreement stating that coverage shall not be suspended, voided, canceled or materially changed by either party, or reduced in coverage or in limits, except after thirty (30) days' prior written notice by certified, mail, return receipt requested, has been given to the City. In the event that any coverage required by this section is reduced, limited, cancelled, or materially affected in any other manner, Consultant shall provide written notice to City at Consultant's earliest possible opportunity and in no case later than ten (10) working days after Consultant is notified of the change in coverage.

4.4.4 Additional insured; primary insurance. City and its officers, employees, agents, and authorized volunteers shall be covered as additional insureds with respect to each of the following: liability arising out of activities performed by or on behalf of Consultant, including the insured's general supervision of Consultant; products and completed operations of Consultant, as applicable; premises owned, occupied, or used by Consultant; and automobiles owned, leased, or used by the Consultant in the course of providing services pursuant to this Agreement. The coverage shall contain no special limitations on the scope of protection afforded to City or its officers, employees, agents, or authorized volunteers. The insurance provided to the City as an additional insured must apply on a primary and non-contributory basis with respect to any insurance or self-insurance program maintained by the City. Additional insured status shall continue for (1) year after delivery of product(s).

A certified endorsement must be attached to all policies stating that coverage is primary insurance with respect to the City and its officers, officials, employees and volunteers, and that no insurance or self-insurance maintained by the City shall be called upon to contribute to a loss under the coverage.

4.4.5 Deductibles and Self-insured Retentions. Consultant shall obtain the written approval of City for the self-insured retentions and deductibles before beginning any of the services or work called for by any term of this Agreement.

During the period covered by this Agreement, only upon the prior express written authorization of Contract Administrator, Consultant may increase such deductibles or self-insured retentions with respect to City, its officers, employees, agents, and volunteers. The Contract Administrator may condition approval of an increase in deductible or self-insured retention levels with a requirement that Consultant procure a bond guaranteeing payment of losses and related investigations, claim administration, and defense expenses that is satisfactory in all respects to each of them.

4.4.6 Subcontractors. Consultant shall include all subcontractors as insureds under its policies or shall furnish separate certificates and certified endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

4.4.7 Variation. Contract Administrator may approve in writing a variation in the foregoing insurance requirements, upon a determination that the coverage, scope, limits, and forms of such insurance are either not commercially available, or that the City's interests are otherwise fully protected.

4.5 Remedies. In addition to any other remedies City may have if Consultant fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option, exercise any of the following remedies, which are alternatives to other remedies City may have and are not the exclusive remedy for Consultant's breach:

- Obtain such insurance and deduct and retain the amount of the premiums for such insurance from any sums due under the Agreement;

- Order Consultant to stop work under this Agreement or withhold any payment that becomes due to Consultant hereunder, or both stop work and withhold any payment, until Consultant demonstrates compliance with the requirements hereof; and/or
- Terminate this Agreement.

Section 5. INDEMNIFICATION.

Design Professional agrees to indemnify, defend and hold harmless, the City, its officers, officials, employees and volunteers from any and all claims, demands, costs or liability that actually or allegedly arise out of, or pertain to, or relate to the negligence, recklessness or willful misconduct of Design Professional and its agents in the performance of services under this contract, but this indemnity does not apply to liability for damages for bodily injury, property damage or other loss, arising from the sole negligence, active negligence or willful misconduct by the City, its officers, official employees, and volunteers.

As respects all acts or omissions which do not arise directly out of the performance of professional services, including but not limited to those acts or omissions normally covered by general and automobile liability insurance, Consultant agrees to indemnify, defend and hold harmless the City, its officers officials, employees and volunteers for an against any claim, demands, losses, liability of any kind or nature arising out of or in connection with the Consultant's performance or failure to perform under the terms of this contract, excepting those which arise out of the active negligence, sole negligence or willful misconduct of the city.

Section 6. STATUS OF CONSULTANT.

6.1 Independent Contractor. At all times during the term of this Agreement, Consultant shall be an independent contractor and shall not be an employee of City. City shall have the right to control Consultant only insofar as the results of Consultant's services rendered pursuant to this Agreement and assignment of personnel pursuant to Subparagraph 1.3; however, otherwise City shall not have the right to control the means by which Consultant accomplishes services rendered pursuant to this Agreement. Notwithstanding any other City, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Consultant and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to any compensation, benefit, or any incident of employment by City, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of City and entitlement to any contribution to be paid by City for employer contributions and/or employee contributions for PERS benefits.

Section 7. LEGAL REQUIREMENTS.

7.1 Governing Law. The laws of the State of California shall govern this agreement.

7.2 Compliance with Applicable Laws. Consultant and any subcontractor shall comply with all applicable local, state and federal laws and regulations applicable to the performance of the work hereunder. Consultant shall not hire or employ any person to perform work within the City of Menifee or allow any person to perform work required under this Agreement unless such person is properly documented and legally entitled to be employed within the United States. Consultant shall obtain a City of Menifee business license. Consultant shall require the same of all subcontractors.

7.3 Licenses and Permits. Consultant represents and warrants to City that Consultant and its employees, agents, and any subcontractors have all licenses, permits, qualifications, and approvals of whatsoever nature that are legally required to practice their respective professions. Consultant represents and warrants to City that Consultant and its employees, agents, any subcontractors shall, at their sole cost and expense, keep in effect at all times during the term of this Agreement any licenses, permits, and approvals that are legally required to practice their respective professions. In addition to the foregoing, Consultant and any subcontractors shall obtain and maintain during the term of this Agreement valid Business Licenses from City.

Section 8. TERMINATION AND MODIFICATION.

8.1 Termination. City may cancel this Agreement at any time and without cause upon written notification to Consultant.

Consultant may cancel this Agreement upon 30 days' written notice to City and shall include in such notice the reasons for cancellation.

In the event of termination, Consultant shall be entitled to compensation for services performed to the effective date of termination; City, however, may condition payment of such compensation upon Consultant delivering to City any or all documents, photographs, computer software, video and audio tapes, and other materials provided to Consultant or prepared by or for Consultant or the City in connection with this Agreement.

8.2 Extension. City may, in its sole and exclusive discretion, extend the end date of this Agreement beyond that provided for in Subsection 1.1. Any such extension shall require a written amendment to this Agreement, as provided for herein. Consultant understands and agrees that, if City grants such an extension, City shall have no obligation to provide Consultant with compensation beyond the maximum amount provided for in this Agreement. Similarly, unless authorized by the Contract Administrator, City shall have no obligation to reimburse Consultant for any otherwise reimbursable expenses incurred during the extension period.

8.3 Amendments. The parties may amend this Agreement only by a writing signed by all the parties.

8.4 Assignment and Subcontracting. City and Consultant recognize and agree that this Agreement contemplates professional performance by Consultant and is based upon a determination of Consultant's unique personal competence, experience, and specialized personal knowledge. Moreover, a substantial inducement to City for entering into this Agreement was and is the professional reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the Contract Administrator. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors noted in the proposal, without prior written approval of the Contract Administrator. In the event that key personnel leave Consultant's employ, Consultant shall notify City immediately.

8.5 Survival. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between City and Consultant shall survive the termination of this Agreement.

8.6 Options upon Breach by Consultant. If Consultant materially breaches any of the terms of this Agreement, City's remedies shall include, but not be limited to, any or all of the following:

8.6.1 Immediately terminate the Agreement;

8.6.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement;

8.6.3 Retain a different consultant to complete the work described in Exhibit A not finished by Consultant; or

8.6.4 Charge Consultant the difference between the cost to complete the work described in Exhibit A that is unfinished at the time of breach and the amount that City would have paid Consultant pursuant to Section 2 if Consultant had completed the work.

Section 9. KEEPING AND STATUS OF RECORDS.

9.1 Records Created as Part of Consultant's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the City. Consultant hereby agrees to deliver those documents to the City upon termination of the Agreement. It is understood and agreed that the documents and other materials, including but not limited to those described above, prepared pursuant to this Agreement are prepared specifically for the City and are not necessarily suitable for any future or other use. City and Consultant agree that, until final approval by City, all data, plans, specifications, reports and other documents are confidential and will not be released to third parties without prior written consent of both parties unless required by law.

9.2 Consultant's Books and Records. Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements

charged to the City under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.

9.3 Inspection and Audit of Records. Any records or documents that Section 9.2 of this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of, the City. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds Ten Thousand Dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of City or as part of any audit of the City, for a period of three (3) years after final payment under the Agreement.

Section 10. MISCELLANEOUS PROVISIONS.

10.1 Attorneys' Fees. If either party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and expenses including costs, in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

10.2 Venue. In the event that either party brings any action against the other under this Agreement, the parties agree that trial of such action shall be vested exclusively in Riverside County.

10.3 Severability. If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

10.4 No Implied Waiver of Breach. The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

10.5 Successors and Assigns. The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the parties.

10.6 Consultant Representative. All matters under this Agreement shall be handled for Consultant by **Jim Rucker**.

10.7 City Contract Administration. This Agreement shall be administered by a City Employee, Jonathan G. Smith ("Contract Administrator"). All correspondence shall be directed to or through the Contract Administrator or his or her designee.

10.8 Notices. Any written notice to Consultant shall be sent to:

T.Y. LIN International
404 Camino del Rio South, Suite 700
San Diego, CA 92108

Any written notice to City shall be sent to the Contract Administrator with a copy to:

City Clerk
City of Menifee
29714 Haun Road
Menifee, CA 92586

10.9 Professional Seal. Where applicable in the determination of the Contract Administrator, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation. The stamp/seal shall be in a block entitled "Seal and Signature of Registered Professional with report/design responsibility," as in the following example.

Seal and Signature of Registered Professional with report/design responsibility.

10.10 Integration. This Agreement, including the scope of work attached hereto and incorporated herein as Exhibit A, represents the entire and integrated agreement between City and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral.

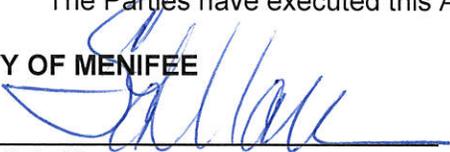
10.11 Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

10.12 Nondiscrimination. Consultant shall not discriminate in any way, against any person on the basis of race, color, religious creed, national origin, ancestry, sex, age, physical handicap, medical condition or marital status in connection with or related to the performance of this Agreement.

Section 11.

The Parties have executed this Agreement as of the Effective Date.

CITY OF MENIFEE



Scott A. Mann, Mayor

Attest:

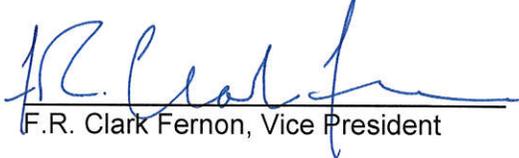


Kathy Bennett, City Clerk

T.Y. LIN INTERNATIONAL



W. Mark Ashley, Senior Vice President



F.R. Clark Fernon, Vice President

Approved as to Form:



Julie H. Biggs, Interim City Attorney

EXHIBIT A
SCOPE OF WORK

See attached Proposal

HOLLAND ROAD/I-215 OVERCROSSING

SCOPE OF WORK

PART 1 – PROJECT MANAGEMENT

TYLI will provide overall execution and financial management of the project, including City and Caltrans District 8 (Caltrans) coordination, tracking progress of the work, preparing monthly invoices with project status reports and conducting project meetings.

1.1 General Coordination and Administration

TYLI's Project Manager will provide management, coordination, and supervision of project staff to facilitate the performance of the work in accordance with the scope and requirements of the City and Caltrans. Working with the City and Caltrans, TYLI will form a Project Development Team (PDT) and will maintain close coordination amongst all of its members.

TYLI will prepare monthly status reports to update the City on the progress to date; work to be accomplished in the next period; and potential problems of a technical nature or forecasted budget/schedule requirement. TYLI will also prepare and update a project schedule and distribute it to all project team members.

Deliverables:

- ◆ Project Schedule
- ◆ Monthly Invoices
- ◆ Progress Report

1.2 Meetings

TYLI will conduct a kickoff/field review meeting that will be scheduled immediately upon Notice-to-Proceed. TYLI will ensure attendance of agency key personnel with decision-making abilities (i.e. City, Caltrans). The purpose of the meeting is to review project objectives and requirements, receive initial information from agencies, establish communication protocols, and address other issues as necessary to facilitate successful project initiation. During this meeting, a 'Need and Purpose' of the project and preliminary drawings will be presented to obtain early conceptual approval and expedite the project initiation process. Thereafter, meetings with City of Menifee and/or Caltrans will be conducted as-needed to discuss progress, general project issues, obtain direction, and to exchange information.

Deliverables:

- ◆ Meeting Agendas
- ◆ Meeting Minutes

1.3 Project Management Plan

TYLI will develop a Project Management Plan (PMP). The purpose of the PMP is to provide management guidelines to ensure timely delivery of a high quality project within established budgets. The PMP also serves as a tool for project control throughout the life of the project.

Deliverables:

- ◆ Project Charter
- ◆ Project Fact Sheet
- ◆ Project Work plan
- ◆ Quality Assurance/Quality Control Plan
- ◆ Communication Management Plan
- ◆ Risk Management Plan/Risk Register
- ◆ Resource Management Plan

PART 2 – PROJECT REPORT EQUIVALENT (PR-E), PERMIT ENGINEERING EVALUATION REPORT (PEER), AND ENVIRONMENTAL DOCUMENT (ED)

This phase will consist of conducting technical studies and analysis, and preparing a PR-E, PEER, and ED in prescribed format for City and Caltrans review and approval. Specific activities will be as follows:

2.1 Project Report Equivalent (PR-E)

TYLI will prepare a PR-E and submit to the City for review and approval. The report will address issues affecting operation, maintenance, and safety. The format of the report will be per Appendix K of Caltrans' Project Development Procedures Manual (PDPM).

The PR-E will include the following attachments:

- ◆ Location Map
- ◆ Geometric Approval Drawings
- ◆ Environmental Document
- ◆ Initial Site Assessment
- ◆ Traffic Impact Analysis
- ◆ Cost Estimate

Deliverables:

- ◆ Draft PR-E
- ◆ Final PR-E

2.2 Permit Engineering Evaluation Report (PEER)

TYLI will prepare and secure approval of a PEER per the latest Caltrans requirements. Form TR-0112 from the Caltrans Encroachment Permit Manual will be completed. This document will include a location map, cost estimate, and construction schedule.

Deliverables:

- ◆ Draft PEER
- ◆ Final PEER

2.3 Traffic and Accident Analysis

Iteris will provide traffic analysis for the project. Iteris' approach to successful and timely completion of the traffic analyses will be to work closely with and maintain open communication with the City and Caltrans staff through the preparation and completion of the traffic study in support of the interchange improvement project. Study parameters and methodology will be discussed in advance with the project team and documented in technical memoranda. Traffic forecasts will be submitted to Caltrans for review and concurrence prior to the initiation of operational analyses. After completion of the agreed upon traffic analysis methodology, and once forecast traffic volumes are approved, the traffic operations analysis will be conducted in conformance with Caltrans standards and the approved methodology. Any issues will be presented to the project team with Iteris' recommendations and decisions will be documented as they are made.

2.3.1 Data Collection

Iteris will coordinate with City staff to collect all available traffic and inventory data necessary to effectively evaluate local traffic impacts associated with the Holland Road/I-215 Bridge Overcrossing. Recently completed traffic count data will be collected from the City and will also include traffic counts associated with any recent citywide or specific traffic studies. For example, data on arterial segments and intersections in the project area from the City's recently completed Circulation Element will be used to the extent possible. To be conservative, it is assumed that current traffic counts will be required at a maximum of ten (10) study intersections. In addition, it is assumed that eight (8) arterial segment counts will be collected and evaluated throughout the study area. This includes the ramp intersections at Newport Road and Scott Road interchanges. Field work will be performed to confirm circulation system geometry including lane widths and turn pocket storage lengths. Traffic signal phasing and timing information will be obtained from appropriate jurisdictions (Caltrans or City).

Other information required for analysis will be collected from the respective jurisdictions and will include signal timing plans for intersections to be evaluated using the Synchro model, which include all freeway on- and off-ramp intersections, and future geometric plans for all study intersections.

2.3.2 Traffic Forecasting

It is expected that the City's travel demand model, which is a refined version of RIVTAM, will be used for this project. *Iteris developed the original RIVTAM for Riverside County, Riverside County Transportation Commission and other County agencies and has complete familiarity with the details and procedures of the model.* Alternatively, if required by Caltrans or other agencies to use the regional model for this Caltrans process, Iteris can directly use the RIVTAM, which is possessed in-house with full capability of running all necessary traffic forecasts. The model network will be reviewed and refined as necessary for the project study area and analysis years. All projects in the Southern California Association of Government's (SCAG) "Modeling List" will be included for the relevant analysis years. Traffic volumes will be developed for two horizon years, including 1) project opening year conditions, and 2) project design/horizon year conditions. The traffic forecast methodology will be consistent with industry standards, and as agreed upon with all major project stakeholders. Raw (unprocessed) volumes derived from the forecast model will be post-processed to develop final horizon year traffic forecast volumes.

Forecasts of daily and AM and PM peak hour volumes will be developed for all intersections and roadway arterial segments identified in the study area for the Holland Road/I-215 Bridge Overcrossing Project.

Once Caltrans staff has approved the forecasting methodology, future forecasts will be prepared for the opening year and design year for No Build and One Build alternative.

2.3.3 Traffic Operations Analysis or Traffic Engineering Performance Assessment (TEPA)

The traffic operational analysis will build upon Iteris' previous experience in performing the traffic analysis for similar projects. Levels of service analysis will be prepared and summarized for local street intersections and arterial segments. Operational analysis will be completed for the following timeframes:

- ◆ Existing Conditions
- ◆ Opening Year
- ◆ Design Horizon Year

Traffic analysis will be performed consistent with Highway Capacity Manual (HCM) methodologies, and in accordance with the methodologies prescribed by Caltrans in the development of the PR-E and PA/ED (PEER) traffic studies. The HCM methodologies allow for the evaluation of vehicle platoons and impacts of upstream and downstream intersections. Level of service standards defined by Caltrans and the City will serve as the basis for the analysis. Intersection LOS summaries will be presented.

Circulation system components that are found to operate deficiently (worse than the agreed upon standards) will be compared to baseline conditions and project related impacts will be identified. Geometric improvements that would result in acceptable operations will be identified and summarized. All proposed improvement measures will be coordinated closely with the project team and project stakeholders.

Deliverables:

- ◆ Traffic Operations Analysis or Traffic Engineering Performance Assessment (TEPA)

2.4 Right of Way Data Sheets

Based on the preliminary geometric plans, right of way/utility impacts will be documented for review and approval by City and Caltrans. Potentially impacted areas/facilities will be reviewed to assess the likely degree of impact. TYLI will prepare Right of Way Data Sheets for all the alternatives in accordance with the latest Caltrans guidelines and will include them in the PS-E and PEER as appendices.

The Scope of Work necessary to complete the Caltrans Right of Way Data Sheet in accordance with the Caltrans Right of Way Manual is as follows:

- ◆ Take an inventory of the affected properties.
- ◆ Secure preliminary parcel information from online database sources and investigate current ownerships. Utilizing this information and Assessor's Roll information, determine other valuation considerations such as zoning, lot and building size, current usage, and other relevant factors.
- ◆ Visually inspect each property (aerial and street-level views) and note the effects of all proposed acquisitions.
- ◆ Sort each property into product types to determine the set of real estate data to be researched and create valuation data sets for each product type.
- ◆ Prepare an estimate of the probable cost of each partial acquisition, as well as permanent and temporary easement interests, including (for partial acquisitions) damages to the remaining parcel, using created data sets from various real estate value databases.

- ◆ Prepare an estimate of the probable relocation assistance (if applicable) for each residential or non-residential occupant located on each property.
- ◆ Prepare an estimate of the total probable loss of business goodwill (if applicable) attributable to each operating business.
- ◆ Prepare an estimate of the inspection and demolition costs (if applicable) associated with delivering each cleared site.
- ◆ Prepare an estimate of the total services and incidental costs associated with each real estate acquisition program (appraisals, acquisition and relocation consultants, title/escrow, legal services, etc.).
- ◆ Prepare latest Caltrans Right of Way Data Sheet cover in accordance with Caltrans policies and all applicable findings.
- ◆ Provide Quality Assurance/Quality Control (QA/QC) of final work product, submit to client and other Project Team members, respond to inquiries, and update report, as-needed.

Deliverables:

- ◆ Right of Way Data Sheets

2.5 Fact Sheets for Exceptions to Design Standards

TYLI will prepare and secure approval of Design Exception Fact Sheets for Mandatory and Advisory standards. The fact sheets will be prepared according to the latest Caltrans requirements listed in the Project Development Procedures Manual (PDPM).

Deliverables:

- ◆ Draft and Final Mandatory Design Exception Fact Sheets
- ◆ Draft and Final Advisory Design Exception Fact Sheets

2.6 Geometric Approval Drawings (GAD's)

TYLI will prepare and secure approval of a GAD. The GAD will be prepared according to the latest Caltrans and City requirements, and will follow the guidelines set forth in Caltrans District 8 – Design QA/QC Plan dated May 2003, Attachment B “Geometric Approval Drawing Process.” Prior to Final GAD concurrence, a Design Checklist (DIB 78) will be completed and presented along with the approved Fact Sheets and the Traffic Report. TYLI will complete the Design Checklist (DIB 78) for use with the GAD.

Deliverables:

- ◆ Design Checklist (DIB 78)
- ◆ Draft GAD's
- ◆ Final GAD's

2.7 Transportation Management Plan (TMP) Data Sheet

TYLI will prepare a TMP Data Sheet according to the latest Caltrans requirements. The preliminary TMP Data Sheet will propose specific measures that will be effective in reducing the impacts of project construction for mainline freeway traffic.

Deliverables:

- ◆ TMP Data Sheet

2.8 Hydrology/Hydraulic Report

TYLI will prepare a Hydrology/Hydraulic Analysis Report that analyzes existing hydraulic facilities and provides calculations to support the design of the drainage facilities needed for the project. The report will be submitted to Caltrans and City for review and approval.

Deliverables:

- ◆ Hydrology/Hydraulic Report
- ◆ Location Hydraulic Study

2.9 Storm Water Data Report (SWDR)

TYLI will prepare a PA&ED level Storm Water Data Report (SWDR) according to the latest Caltrans requirements. This report will also address and satisfy any Storm Water Pollution Prevention Plan (SWPPP) requirements that may apply.

Deliverables:

- ◆ PA&ED Level Storm SWDR

2.10 Structure Preliminary Geotechnical Report (SPGR)

Geotechnical subconsultant, **Earth Mechanics, Inc. (EMI)** will prepare a Structure Preliminary Geotechnical Report (SPGR) for the Advance Planning Study (APS) of the Overcrossing. The following scope of work will be performed in order to produce the SPGR.

An idealized soil profile and design strength parameters for foundation analysis will be developed based on existing subsurface data obtained from the as-built log-of-test-boring sheets for the nearby existing Newport Road East Bound/West Bound Overcrossings (Bridge No. 56-0646R/L). Seismic design parameters (acceleration and response spectrum) using the latest Caltrans web-based seismic design criteria will be provided.

Using the soil profile and strength parameters, EMI will provide preliminary foundation design data for the proposed new overcrossing bridge.

Deliverables:

- ◆ SPGR

2.11 Advance Planning Study

TYLI will prepare a Bridge APS for the proposed structure in accordance with the requirements in Caltrans' *Bridge Memo to Designers 1-8*. This effort will be used to establish final alignment and profile, support locations, bridge depth, and other key characteristics of the structure.

Utilizing Caltrans' *Bridge Advance Planning Studies Guide*, square foot cost factors will be used to develop cost estimates for the structure. A technical memorandum will also be prepared to accompany the drawing, and will discuss key issues affecting design or construction of the proposed structure.

The APS drawing, memorandum, and cost estimate will be included in the PR-E.

Deliverables:

- ◆ APS, Memo, and Estimate

2.12 Environmental Documents (ED)

2.12.1 Perform Environmental Studies and Prepare Draft Environmental Document

2.12.1.1 Environmental Scoping of Alternatives Identified for Studies in the Feasibility Study

Project Information Review

ICF International will coordinate in consultation with the project team with the City, Caltrans, and local agencies to gather existing environmental documents and/or planning documents related to the proposed project.

2.12.1.2 General Environmental Studies

Preparation of all technical analyses and reports will follow local, state, and federal environmental guidelines, primarily consisting of the Caltrans Standard Environmental Reference (SER) website, local and state *California Environmental Quality Act (CEQA) Guidelines*, and Federal Highway Administration (FHWA) Technical Advisory 6640.81 *Guidance on Preparing and Processing Environmental and Section 4(f) Documents*. The formats to be used for the technical studies will follow the guidance available on the Caltrans SER website as of the date that those studies are initiated.

The assumed environmental document under CEQA is an Initial Study/Mitigated Negative Declaration (IS/MND). The City will be the lead agency under CEQA. No federal funding will be used on the project and thus no National Environmental Policy Act (NEPA) document will be required.

Deliverables:

- ◆ 1st Draft Technical Studies (two copies each)
- ◆ Final Technical Studies For Concurrence (two copies each)
- ◆ Final Approved Technical Studies (two copies each)

2.12.1.3 Noise Study

ICF will prepare a Noise Study Report (NSR) evaluating the noise impacts and potential noise mitigation measures, if any, associated with the proposed project in compliance with CEQA. ICF will conduct a site visit to identify noise sensitive land uses and other features of the project area relevant to the NSR.

A field noise study will be performed to quantify and assess existing noise conditions at the potential noise-sensitive areas. It is estimated that short-term (10 to 15 minutes duration) sound-level data will be collected at up to six (6) representative land uses and noise-sensitive locations throughout the area. In addition continuous 24-hour noise monitoring will be conducted at up to two locations if a secure measurement location can be identified.

ICF will conduct traffic noise modeling related to the proposed project using the FHWA Traffic Noise Model (TNM) Version 2.5 and traffic data to be provided by the project traffic engineer. TNM will be used to model worst-noise-hour noise

conditions at representative modeled receiver locations under existing conditions and design-year conditions with and without the proposed project.

Traffic noise impacts from the proposed project will be assessed based on significance thresholds identified by the City and project design team (PDT). The analysis of substantial noise increases will be based on a comparison between predicted with-project design year traffic noise and existing traffic noise levels. The absolute design year noise levels will also be analyzed based on the threshold identified by the City and PDT. If significant traffic noise impacts are projected to occur, information on the feasibility of noise mitigation will be presented. The feasibility of noise mitigation and the decision to include noise mitigation will be developed in coordination with the City and PDT. ICF will also evaluate potential construction noise impacts using methods recommended by the U.S. Department of Transportation.

ICF will prepare the NSR describing significant traffic related noise impacts, if any. If warranted the NSR will include a preliminary noise mitigation design to schematically identify the location, height, and extent of noise walls needed to mitigate significant noise impacts. The description of noise walls will be sufficient for environmental review of the proposed project, but not for final design of the walls.

2.12.1.4 Air Quality Study

ICF will prepare an Air Quality Study Report. The report will provide the following discussions and analyses.

Regulatory Setting and Existing Conditions – Summarize the existing federal, state, and local air quality regulatory environment as it affects the proposed project, and describe the location of sensitive receptors in the project vicinity. Using data provided by the California Air Resources Board (CARB) and the South Coast Air Quality Management District (SCAQMD), characterize existing air quality conditions in the project area and explain how those conditions are affected by local climate and topography.

Evaluation of Construction Emissions – Quantify local and regional mass emissions during construction. Based on preliminary construction scheduling and phasing information to be provided by the Project Team, construction emissions will be quantified using the Road Construction Emissions Model. Local and regional emissions will be compared to applicable SCAQMD significance thresholds to determine significance under CEQA.

Evaluation of Operations-Period Mass Emissions – Regional criteria pollutant emissions will be quantified using project-level traffic data and the Caltrans' CT-EMFAC emissions inventory model. Project-related criteria pollutant emissions will be compared to SCAQMD significance thresholds to determine significance under CEQA.

Localized Carbon Monoxide Hot Spot Analysis – Analyze the degree to which project-related traffic volumes have a potential to effect local carbon monoxide (CO) concentrations using the California Department of Transportation CO Hotspot Protocol. It is anticipated that the CO screening procedure will be appropriate and that CALINE-4 dispersion modeling will not be required.

Localized PM2.5/PM10 Hot Spot Analysis – Analyze the degree to which project-related traffic volumes have a potential to affect local PM2.5 and PM10 concentrations. Based on our preliminary review of the proposed Project, this project does not appear have potential to be categorized as a Project of Air Quality Concern (POAQC) as defined by EPA and FHWA. As such, this scope and cost assumes that a qualitative analysis that evaluates mobile-source and re-entrained dust emissions will be sufficient to address project-level PM2.5 and PM10.

Mobile Source Air Toxics – Evaluate proposed project-related mobile source air toxics (MSATs) emissions in accordance with FHWA interim guidance on how MSATs should be addressed in NEPA documents. Project MSAT emissions will be quantified for each alternative using the CT-EMFAC model, and discussed qualitatively.

Climate Change/Greenhouse Gas Emissions – A quantification of construction- and operational-period greenhouse gas (GHG) emissions associated with implementation of the proposed project will be conducted. Construction-period GHG emissions will be quantified using the Road Construction Emissions Model. Operations-period GHG emissions will be quantified using project traffic data and the CT-EMFAC emissions model. ICF will present a comparison of GHG emissions associated with the Build Alternative(s) to the No-build Alternative to characterize effects of the proposed project on GHG emissions. The analysis of climate change also will also incorporate the most recent guidance found on the Caltrans Standard Environmental Reference and Caltrans annotated outline.

Mitigation Measures – ICF will develop mitigation measures, where applicable, to address significant air quality impacts, if present.

2.12.1.5 Biological Studies

Biological Assessment

The proposed project occurs within the planning boundary of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Based on a review of the proposed project and background information, there are several federally listed species that may have potential to occur.

Wetland Studies

A qualified ICF regulatory specialist will examine all relevant portions of the site and perform a routine-level delineation of the extent of potentially jurisdictional waters under both state and federal regulations. Evaluation for federal wetlands will follow the applicable methods in the 1987 manual from the U.S. Army Corps of Engineers (USACE) and 2008 Arid West supplement from USACE, along with subsequent supporting materials and applicable regulations, policy, and case law. Work will include data sampling for wetlands and completion of Arid West Region Wetland Determination forms and Ordinary High Water Mark (OHWM) data forms, as appropriate. Clean Water Act jurisdiction will be documented assuming that a preliminary jurisdictional determination will be submitted, requiring approval from USACE. California Department of Fish and Wildlife (CDFW) jurisdictional areas will be mapped to either top-of-bank or to the drip line of the associated riparian canopy, whichever is greater. The study area for this work will include the proposed project footprint, which is assumed to include the proposed project alignment, proposed access and detour roads, and proposed staging/storage areas, along with a 100-foot buffer. Evaluation of existing functions and values for jurisdictional areas will be addressed at a qualitative level; however, work will not include a functional or condition assessment (e.g., California Rapid Assessment Method). Mapping will be performed to reflect the delineated boundaries of any potentially jurisdictional waters and/or wetlands present. Photographs representative of relevant site conditions will be taken. As part of this task a Jurisdictional Delineation Report will be prepared that includes background information, delineation methods, and the results of this delineation in text, tabular, and graphical formats. The report will meet the standard requirements for a delineation report in the Los Angeles District of the USACE, Santa Ana Regional Water Quality Control Board (RWQCB), and CDFW Inland Deserts Region. A one-day field determination with the USACE, RWQCB, and/or CDFW is included. It is assumed that the City or engineering prime will provide any property access that is required.

Natural Environment Study (NES) Report

Task 1: Biological Technical Report

ICF will conduct a literature search, perform field surveys, and prepare a Biological Technical Report (BTR) analyzing potential impacts to biological resources. The following tasks will be performed during the preparation of the report:

Review of Project Information and Applicable Literature

A literature review will be conducted to identify special-status species known or reported from the project area. The literature review will include:

- 1) Special status species lists from the California Department of Fish and Game (CDFW) and U.S. Fish and Wildlife Service (USFWS);
- 2) Database searches of current versions of the California Natural Diversity Database (CNDDDB) and the Online Inventory of the California Native Plant Society (CNPS);
- 3) The most recent applicable Federal Register listing package and critical habitat determination for each federally listed Endangered or Threatened species potentially occurring within the project site;
- 4) The most recent CDFW Annual Report on the status of California's listed Threatened and Endangered plants and animals; and
- 5) Searl Biological Consulting (SBC) (2013) and other available biological studies conducted in the vicinity of the project site.

Field Evaluation for Biological Resource Constraints

A single field visit will be made to the project site to confirm project area conditions reported in SBC (2013) are current. The study area for this work will include the LOD and a 100-foot buffer with an additional 100 feet added where potential fairy shrimp habitat has been identified. This ensures a level of assurance that all necessary details associated with the potential fairy shrimp habitat can be evaluated and reported. Field notes will be compiled including conditions, visible disturbance factors, species, habitats, and more general biological resource issues observed or detected. The site will be evaluated regarding the presence, absence, or likelihood of occurrence for all special status species, habitats, or more general biological resource issues potentially posing a constraint to the project through applicable laws and regulations. Adjacent

areas will also be briefly examined to provide context. It is assumed that access shall be provided by the City or the engineering prime for the field work. If focused habitat evaluations and/or focused surveys for any species other than those included in this scope of work are required for any species then this will be communicated to the City or the engineering prime immediately and a separate scope and cost for this work will be provided.

We have not proposed updating the burrowing owl focused survey work because surveys supporting public work projects are typically valid for more than a single year, particularly when presence has been confirmed.

We have not proposed an update survey for rare plants because any rare plants not covered by the MSHCP but with potential to occur could not be present in such a manner as to trigger a threshold of significance under CEQA.

A Determination of Equivalent or Superior Preservation (DBESP) report for the presence of smooth tarplant has not been included in this scope because the removal of smooth tarplant would be fully covered by the MSHCP. The project occurs outside the survey area for this species and as such does not trigger a DBESP.

This task includes evaluations/determinations for the following potential resource issues:

- *Focused Wet and Dry Season Fairy Shrimp Surveys* –ICF biologists will carry out a complete fairy shrimp survey on the four seasonal depressions identified in past work within the project area. This scope covers up to ten basins/depressions. Surveys will be conducted following the USFWS Interim Survey Guidelines for Listed Vernal Pool Branchiopods (USFWS 1996). A protocol-level survey to determine absence of listed branchiopods in potential basins involves one wet and one dry season survey. It is too late to perform a valid wet season survey so we have proposed a dry season this summer and a wet season next winter. Results of this work will be integrated into the BTR report.
- **Subtask: Dry Season Fairy Shrimp Survey.** ICF biologists will complete a protocol USFWS dry season survey for listed fairy shrimp within up to 10 basins or ruts. Soil will be collected in the summer of 2014 after all basins are dry. Soil will be processed to collect any potential fairy shrimp cysts, and inspected under a microscope. If additional basins are discovered during the survey, these additional basins can be included at an additional cost. The protocol-required USFWS survey report will be prepared, provided to the City for review, and submitted to the USFWS per the biologist's permit conditions
- **Subtask: Wet Season Fairy Shrimp Survey.** ICF biologists will complete a protocol USFWS wet season survey for listed fairy shrimp. This cost assumes up to 10 site visits to conduct wet season surveys following protocol methodology. Site visits will occur every two weeks in the 2014-2015 rainy season, until basins are no longer inundated. Wet season sampling assumes a maximum of 10 basins. If additional visits or basins are required, they can be completed at additional costs. The protocol-required USFWS survey report will be prepared, provided to the City for review, and submitted to the USFWS per the biologist's permit conditions.
- *Focused Habitat Evaluation for Vernal Pools* – ICF biologist will complete a vernal pool and alkali playa habitat assessment at the potential fairy shrimp habitat. The area will be assessed for the presence of potential water-holding features and inspect any depressions for presence of vernal pool or alkali playa endemic plant species, and any vernal pool or alkali playa habitat will be mapped. ICF will provide a memo letter presenting results of the survey, which will include graphics depicting the location of any sensitive basins.

Technical Report Preparation

A draft BTR will be developed based on results of the biological surveys and analysis. The report will describe:

- (a) The study methods used in identifying and assessing the biological resources at the project site, the personnel who conducted the studies, contacts made with agencies, and any limitations associated with the study;
- (b) The environmental setting including both the biological and physical setting at the project site;
- (c) The results, including special-status species present on the site, if any, and a discussion of impacts and mitigation, as necessary; and
- (d) The appropriate regulatory requirements and necessary permits, if any.

Task 2: Determination of Biologically Equivalent or Superior Preservation

ICF will prepare a Determination of Biologically Equivalent or Superior Preservation (DBESP) for impacts to Riparian/Riverine Resources including fairy shrimp and/or vernal pool resources (if applicable). The report will provide the following information:

- (1) A definition of the project area for all portions of the project;
- (2) A written project description, demonstrating why an avoidance alternative is not feasible;
- (3) A written description of biological information available for the project site including the results of resource mapping;
- (4) Mapping of Riparian/Riverine areas as defined by the MSHCP indicating areas of impact;
- (5) Soils description/analysis/map, floral and faunal list;
- (6) Analysis of 100% avoidance and alternatives (including minimization of direct and indirect effects, hydrologic regime, flood storage, flood flow modification, nutrient retention and transformation, sediment trapping and transport, toxic trapping, public use, wildlife habitat, aquatic habitat);
- (7) Quantification of unavoidable impacts to riparian/riverine areas and vernal pools, associated with the project, including direct and indirect effects;
- (8) A functions and values assessment that will focus on affects to downstream values related to Conserved Species;
- (9) Habitat assessment/focused survey results for Riverside fairy shrimp, and vernal pool fairy shrimp;
- (10) A written description of project design features and mitigation measures that reduce indirect effects, such as edge treatments, landscaping, elevation difference, minimization and/or compensation through restoration or enhancement;
- (11) Written discussion of edge treatments and their relation to the functions and values to be conserved (including lighting, noise, trash/debris, urban and storm water runoff, toxic material, exotic plant and animal infestations, dust);
- (12) Mitigation measures need to demonstrate ensure long-term conservation and need to consider restoration and/or enhancement of on-site habitat restoration and/or enhancement of off-site habitat; and
- (13) A finding demonstrating that although the proposed project would not avoid impacts, with proposed design and compensation measures, the project would be biologically equivalent or superior to that which would occur under an avoidance alternative without these measures.

2.12.1.6 Cultural Resource Studies

The proposed project improvements will be subject to compliance with the CEQA. ICF shall conduct a records search at the Eastern Archaeological Information Center of the California Historical Resources Information System. This records search will consult California's database of previous studies and previously recorded sites within the proposed project area and within a 1.0 mile radius. Historic maps and photographs shall also be reviewed, if available. ICF shall establish a study area map in consultation with the City. The map shall provide the survey boundaries for cultural resources to be evaluated during project studies. The study area map shall be based on the total anticipated disturbance footprint associated with project activities (e.g., road widening/overcrossing construction, staging areas and other temporary construction easements, detours, drainage facilities, temporary construction activities, and parcels containing impacted structures, if any).

ICF will also contact the Native American Heritage Commission and request a review of the Sacred Lands File and will consult with Native American groups and other interested parties to request information regarding the types of potential cultural resources in the study area. Consultation will be conducted in accordance with appropriate current state regulations.

Following completion of the record search/review, ICF shall conduct a field survey of the study area for archaeological resources. It is assumed that the City or engineering prime will be responsible for obtaining access for conducting the surveys. This scope of work assumes that no archaeological sites or sites eligible for listing on the National Register of Historic Places or California Register of Historical Resources will be identified in the study area and that no testing and/or evaluation will be required. This will be documented in a Cultural Resources Report.

2.12.1.7 Draft Environmental Document

As previously described it is assumed that the appropriate document for the proposed project would be an Initial Study/Mitigated Negative Declaration (IS/MND). If a higher level CEQA document is identified as the appropriate document

for the proposed project based on the technical analyses performed then this will be communicated to the City and the engineering prime a scope and cost for performing this work will be submitted. However, based on our review of the proposed project this is not anticipated.

The IS/MND will be prepared by ICF using a City-approved format (assumed to be the CEQA Checklist). To reduce iterations of the document, ICF will conduct a revision workshop with the City, if needed, to facilitate completion of the document following the review of the Draft IS/MND, if comments still remain after this review. The following submittals are assumed.

Deliverables:

- ♦ Administrative Draft IS/MND (two hard copies and electronic copy to the City)
- ♦ Draft IS/MND (two hardcopies and electronic copy to the City)
- ♦ Final Draft IS/MND for City Approval (two hard copies and electronic copy to the City)
- ♦ Environmental Commitments Record (ECR) (included as an appendix in each submittal of the IS/MND)
- ♦ 30 hard copies and one electronic (pdf) final Draft IS/MND for availability (this includes the 15 copies for submittal to the State Clearinghouse)

2.12.1.8 Hazardous Material Study (CEQA)

The purpose of this hazardous material study is to assess the possible presence that would indicate a known potential hazardous waste problem within or near the proposed project. Potential hazardous waste conditions include property uses that may indicate the presence or likely presence of an existing, historical, or threatened release of any hazardous substance or petroleum products into structures, soil, and/or groundwater beneath the property. The term potential hazardous waste is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment, and that would not be subject to enforcement action by a regulatory agency.

The Phase Initial Site Assessment (ISA) will be conducted in general conformance with Caltrans Preparation Guidelines for Initial Site Assessment Checklist for Hazardous Waste and the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process, ASTM E1527-05.

The following scope of work will be conducted:

- (1) A review of readily available documents which include topographic maps, geologic maps, and hydrogeologic conditions associated with the subject site.
- (2) A review of readily available maps, aerial photographs and other documents relative to historical subject site usage and development.
- (3) A review of readily available federal, state, county, and city documents, and database files concerning hazardous material storage, generation and disposal, active and inactive landfills, and associated permits related to the subject property and/or immediately adjacent sites.
- (4) A site reconnaissance to observe current conditions of the subject property.
- (5) Sampling the yellow paint to determine the presence of lead.

Deliverables:

- ♦ Results of the investigation summarized in a written report presenting our findings and conclusions.

2.12.2 Permits, Agreements, and Route Adoption During PA&ED

ICF anticipates the necessary services will consist of obtaining regulatory permits from the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and Department of Fish and Game (DFG). In addition, ICF has included tasks for impact analysis and figure preparation, mitigation strategy and development, and agency coordination and data requests. The tasks associated with obtaining these permits are:

- ♦ Impact Analysis

To facilitate the preparation of the permit applications and agency coordination, ICF will prepare an Impact Analysis to be included in the BTR that describes and quantifies the anticipated impacts from the proposed project. The impact analysis will be conducted using jurisdictional delineation GIS files and the most current project design CADD files available at the time that the BTR is prepared, provided by the engineering team. This analysis will include the impacts categorized by permanent and temporary impacts, impacts by agency jurisdiction, and impacts by resource type, and will be depicted graphically in maps and figures, as well as in tables.

Mitigation Strategy Development

Mitigation is typically required for all temporary and permanent impacts to features under federal and state jurisdiction associated with the construction of the proposed project. For the purpose of this scope, we are assuming mitigation will be required. Generally, the regulatory agencies require mitigation that is the same type of features as those impacted and is within the same watershed as the impact areas, and may require the creation, restoration, or enhancement of wetlands or streambeds and associated habitat. Mitigation options, as determined through mitigation strategy development, will be included in the BTR. This scope does not include the preparation of a Conceptual Mitigation Plan or Habitat Mitigation and Monitoring Plan.

USACE Section 404 Nationwide Permit Authorization

Based on a preliminary review of the project description and plans, it appears that the project could potentially be processed under the USACE Nationwide Permit (NWP) Program. Based on our review, this approach is expected to involve authorization under NWP 14 (Linear Transportation Projects). A NWP 14 may be issued for the proposed project if permanent impacts to waters of the United States are less than 0.5 acre.

A written request for authorization under the NWP Program will be prepared for review and submittal to the USACE. A request for an NWP generally includes the following elements:

- ◆ A detailed description of the proposed project, including cross-sections or similar graphic depicting the proposed work;
- ◆ A description of the project's purpose;
- ◆ A detailed description of the jurisdictional areas that would be affected by the proposed project (generally accomplished by submittal of the delineation report);
- ◆ A discussion of the approvals and certifications being obtained from other federal, state, and local agencies;
- ◆ Documentation demonstrating compliance with Section 106 of the National Historic Preservation Act (generally accomplished by submittal of a Cultural Resources Report);
- ◆ Documentation demonstrating compliance with the Endangered Species Act (generally accomplished by submittal of a Biological Resources Report, in this case, the BTR); and
- ◆ A brief description of the mitigation proposal, if deemed applicable.

Although not expected, if the district engineer determines that the project would result in a significant adverse impact on the aquatic environment, an individual permit (IP) would be required. The average processing time for an IP from the USACE is currently 8 to 12 months, not including the time necessary to prepare the application. The preparation and processing of an IP (or accompanying environmental documents) have not been included in this scope of work, but will be provided to the City if necessary.

Note that if the project results in permanent impacts to less than 0.1 acre of Corps jurisdiction and does not result in a discharge to a special aquatic site (i.e. wetlands), notification to the USACE as described above will not be required for authorization under NWP 14 and this task will not be necessary. At this time, however, it is assumed that permanent impacts would be greater than 0.1 acre and less than 0.5 acre.

RWQCB Section 401 Water Quality Certification Application

A written request for a Section 401 water quality certification will be prepared and submitted to the RWQCB for review. The request will include a completed application form, detailed project description, description of project impacts, water quality plan identifying project-specific best management practices (provided by the City), CEQA documentation, and a brief description of the mitigation proposal, if deemed applicable.

An application fee must be provided to the RWQCB as part of the permit application. This fee consists of a base fee (\$944), plus an additional fee calculated based on the project impacts. It is assumed that the City will pay this fee directly.

DFG 1602 Streambed Alteration Agreement Notification

A Section 1602 Streambed Alteration Agreement (SAA) notification will be prepared and submitted to DFG for review. The request will include a completed notification form, detailed project description, description of project impacts, CEQA documentation, and a brief description of the mitigation proposal, if deemed applicable.

A processing fee must be provided to DFG with the notification. This fee is based on the cost of the project and will be assessed during preparation of the SAA. It is assumed that the City will pay this fee directly.

Coordination of Processing

The resource agency notifications will be coordinated with USACE, RWQCB, and CDFW throughout processing to ensure that any potential issues are made known to the project team and resolved at the earliest possible opportunity. Coordination may include telephone, e-mail, or written correspondence, or meetings with the agencies. If additional coordination efforts beyond what can be reasonably expected is required due to unforeseen complications related to permitting activities or difficulties in locating appropriate mitigation sites, if required, then this will be communicated to the City and the engineering prime and a scope will be provided for approval for this additional effort.

California Rapid Assessment Method Analysis

It is assumed that any fees would be submitted by the City and are not included in this scope and cost.

Permit Application Fees

It is assumed that the California Rapid Assessment Method (CRAM) will not be required and it is not included in this scope of work.

Deliverables:

- ◆ Draft and Final 401 Water Quality Certification
- ◆ Draft and Final 404 Permit
- ◆ Draft and Final 1602 Streambed Alteration Agreement

2.12.3 Circulate Draft Environmental Document

2.12.3.1 DED Circulation

For the proposed project ICF will utilize a distribution list developed with the City to distribute the documents. It is assumed that then engineering prime's right-of-way consultant will provide a list of owners and residents, along with their mailing addresses, within 500 feet of the proposed project limits. ICF will prepare a Notice of Intent to adopt a MND (NOI) for publication in a newspaper of local circulation (assumed to be the Press Enterprise), for posting at the Riverside County Clerk's office, and for distribution to anyone who has filed a written request with the City. A draft notice will be provided to the City for review and approval. It is assumed that ICF will coordinate publication of the notice with the appropriate newspapers. A cost of \$8,500 for publishing of the notices is assumed. If the cost is in excess of this amount then ICF will notify the City and this will be billed to the City at cost for reimbursement. It is assumed that the technical studies will not be included in the availability but copies will be available if requested by anyone during the public availability period. Hardcopies of the document and NOI/NOPH will be provided to the availability locations (City and libraries), cds containing the document and a hard copy of the NOI/NOPH will be provided to other agencies and officials included on the distribution list (and anyone else who specifically requests a copy of the document), and a copy of the NOI will be provided to property owners and residences within a 500-foot radius of the proposed project. A Draft State Clearinghouse Form (Notice of Completion & Environmental Document Transmittal) will be prepared and submitted to the City for review. The final form, along with 15 copies of the Draft IS/MND, will be submitted by ICF to the State Clearinghouse.

Deliverables:

- ◆ Draft NOI (assumed to be transmitted electronically with no hard copies)
- ◆ Final NOI (400 copies)
- ◆ Draft and Final Notice of Completion and Environmental Document Transmittal

2.12.3.2 Public Hearing

The environmental document types that are assumed for the proposed project do not have any legal requirements for conducting a public meeting or hearing. Therefore, no public meeting or hearings are assumed or included.

2.12.3.3 Public Comment Responses and Correspondence

At the close of the public availability period for the Draft IS/MND, ICF will review and respond to all comments received. The comments will be responded to and incorporated directly into the Final IS/MND. It is assumed that no comments requiring legal review or requiring new analyses or comments from lawyers will be received.

Deliverables:

- ◆ Responses to comments (included in Final IS/MND)

2.12.4 Prepare and Approve Project Report and Final Environmental Document (FED)

2.12.4.1 Final Environmental Document

ICF will revise the IS/MND to respond to the comments and to document whether any changes to the project have occurred. The following submittals are assumed. If comments remain after the revised draft Final IS/MND then a revision workshop will be held to address any remaining comments.

Deliverables:

- ◆ Draft Final IS/MND for review (two hardcopies and electronic copy to the City)
- ◆ Final IS/MND for review (two hardcopies and electronic copy to the City)
- ◆ Eight hard copies and pdf of Final IS/MND for City records/use

2.12.4.2 Completed Environmental Document

NOD (CEQA)

ICF prepare the Notice of Determination (NOD) in compliance with CEQA. It is assumed that ICF will file the NOD with the Office of Planning and Research (OPR). The NOD would also be posted with the Riverside County Clerk. This notice starts a statute of limitation period under CEQA. Using the standard NOD format the NOD will include an identification of the project and its location, description of the project, date of agency approval, determination that the project will not have a significant effect on the environment, statement that a mitigated negative declaration has been prepared pursuant to the provisions of CEQA, and an address of where a copy of the MND may be examined. Along with the NOD a California Department of Fish and Game (CDFW) filing fee would also be filed. The CDFW filing fee has been included in the submitted cost estimate and is assumed to not exceed \$2,250 (new fee amount effective January 1, 2014 is \$2,181.25 and it is assumed this will increase in 2015).

Deliverables:

- ◆ Draft and Final Notice of Determination (all transmittals assumed to be done electronically)

2.13 Community Outreach Support

TYLI will assist the City with facilitating meetings with the communities that will be impacted by the improvements. Project exhibits and a meeting summary will be prepared for City.

2.14 Bridge Aesthetics and Landscape Concept Plans

TYLI will prepare conceptual sketches to assist the City in the development of construction drawings for the bridge aesthetic elements which may include the following: barrier recess enhancements, railings, pilasters, abutment walls, and columns.

David Evans and Associates (DEA) will prepare conceptual landscape plans (one preliminary and one revised based on input) for the project.

- ◆ TYLI will conduct appropriate research and coordinate with the City and Caltrans leading to detailed sketches of the bridge aesthetic components. These details will be considered design development details capable of indicating size, layout, design intent, color, texture and treatment of materials. Sketches will be prepared in color and will be suitable for presentation to the City staff and City Council for review and approval of the selected bridge aesthetic elements.
- ◆ The DEA landscape team will necessitate a close and coordinated effort between team members. This task includes coordination with the project team, City staff, Caltrans District 8 landscape architects, outside agencies, and community groups.

PART 3 – PLANS, SPECIFICATIONS & ESTIMATES (PS&E)

This phase consists of preparing roadway and structure PS&E per Caltrans and City standards and guidelines.

3.1 Surveys and Topographic Mapping

DEA will provide the following survey and mapping for preparation of the PS&E.

Control Surveys

Horizontal and Vertical corridor control will be established within the project limits and will be tied into the North American Datum of 1983 and the North American Vertical Datum of 1988 (NAVD88). Existing monuments will be utilized where available and durable monuments will be set where no suitable monuments exist. A durable permanent monument will be set (one west and one east of the mainline) to be used during later phases of the project.

Photogrammetric Mapping

Limited aerial mapping will be obtained to supplement existing mapping within the project limits as defined in the planned alignments. The limits of the mapping will extend along Holland Road east and west of the existing Interstate 215 corridor approximately 1,000 feet.

The aerial mapping will be prepared in conformance with Caltrans CAD standards and photogrammetric specifications. Horizontal and Vertical aerial control panels will be set to meet aerial triangulation requirements. The mapping will be prepared to 1" = 40' scale with 1-foot contours and will be delivered in a Microstation v8 format.

Survey crews will field verify the aerial mapping to delineate planimetrics obstructed by tree coverage or shadows and to verify the contours and spot elevations generated from the aerial mapping.

As an option and if requested, prior to notice to proceed, a color digital orthophoto with 3" pixel resolution may be obtained from the 50-scale imagery. The digital orthophoto will cover the same mapping limits described above.

Deliverables:

- ♦ The aerial mapping will be delivered in Microstation v8 and InRoads v8 formats.

Engineering Surveys

Supplemental topographic surveys will be performed as needed in join areas to locate existing pavement and other hard surface elevations and to locate large drainage structures, box culverts, structures and other major features along the corridor in support of the preliminary design studies of alternatives.

The topographic survey information will be plotted at a scale comparable to the aerial mapping in a Microstation v8 format.

Deliverables:

- ♦ The engineering survey data will be delivered in Microstation v8 and InRoads v8 formats.

Pavement Surveys

Limited pavement surveys will be performed as needed to verify edge of traveled way, edge of shoulder and other pavement features along the mainline. The survey crew will use reflectorless total station technology or other scanning capabilities to obtain this data, no formal lane or shoulder closures have been included in this cost estimate.

The topographic survey information will be plotted at a scale comparable to the aerial mapping in a Microstation v8 format.

Deliverables:

- ♦ The pavement survey data will be delivered in Microstation v8 and InRoads v8 formats.

Determine Utility Locations (Potholing)

Field surveys will be performed to support the utility potholing effort. Once the potholes are completed, survey crews will obtain the location of the potholes and incorporate this information with the topographic survey information collected in 4.0 and 5.0. For the purposes of this proposal, 20 potholes have been included in this fee.

Deliverables:

- ♦ The pothole locations (Northing, Easting and Elevation at grade and top of pipe) will be provided to the design team in ASCII format.

Perform Utility Surveys

Surface visible utility features will be surveyed as a part of the Engineering and Pavement surveys.

Deliverables:

- ♦ The utility survey data will be delivered in Microstation v8 and InRoads v8 formats.

Monument Perpetuation/Record of Survey

A Record of Survey will be prepared for the control established under section 2.0 described above. The purpose of this record of survey will be to document existing and the newly established corridor control for future engineering and construction activities and to perpetuate monuments that may be destroyed during project construction. The record of survey will be prepared in accordance with the California Land Surveyor's Act 8762 (b) (4) & (5) and 8771(b) and recorded with the County of Riverside. The agency fees associated with this map will be invoiced as a reimbursable expense.

Deliverables:

- ♦ A hard copy or pdf will be provided upon recordation of the Record of Survey Map at the county of Riverside Recorder's Office.

3.2 Geotechnical Engineering

Geotechnical Field Investigation

EMI's geotechnical field investigation plan is presented in the table below. Borings will be excavated using a truck-mounted drill rig equipped with 8-inch diameter hollow-stem augers. Cone penetrometer test (CPT) soundings may be used to replace some of these soil borings.

The borehole locations will be shown on Boring Location Plans. These plans will be used to secure encroachment permits from the City and Caltrans. Any other permits, if required, will be secured by others.

Spoils generated from the boring excavations will be mixed with cement and water, and used to backfill the boreholes; spoils will not be stored in drums, tested for contaminants, or disposed of off-site by EMI. Asphalt concrete cold-patch will be used to replace asphalt that is removed by excavations, and quick-set cement will be used to replace concrete that is removed by excavations.

EMI field personnel will 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 about five-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 EMI laboratory.

Travel lane or shoulder closures may be required to accomplish the field investigation. Traffic control will be established in accordance with the City or the W.A.T.C.H. Manual.

Laboratory Testing

EMI will select representative soil samples for laboratory testing. Various laboratory tests will be performed to determine or derive physical and engineering characteristics of soils. Anticipated laboratory soil tests include: moisture content, density, grain size distribution, direct shear, R-value, maximum density and optimum moisture content, and soil corrosion tests. Tests will be conducted in general accordance with California Test methods or ASTM standards.

Geotechnical Engineering Analyses

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.

The following analyses will be performed for the project:

- ◆ Evaluation of seismicity, estimation of Peak Bedrock Acceleration based on the Caltrans design criteria, and recommendations of an ARS curve for the bridge structural design.
- ◆ Foundation design of proposed structures (bridge and retaining walls).
- ◆ Assessment of global stability and settlement of roadway embankments.
- ◆ Evaluation of soil corrosivity conditions, recommendations for mitigation measures and culvert materials.
- ◆ Pavement structural section design in accordance with the Caltrans method.

Preliminary Foundation Report (PFR) and Foundation Report (FR)

For the proposed overcrossing, the PFR and bridge FR will be prepared in general accordance with the Caltrans Guidelines for Structure Foundation Report dated December 2009.

Geotechnical Report for City

Geotechnical Report will include recommendations for retaining walls, embankments, pavements and culvert materials. These design elements are located outside Caltrans right of way, so this Geotechnical Report does not require Caltrans review and approval.

Deliverables:

- ◆ Log of Test Boring
- ◆ Geotechnical Design Report
- ◆ Materials Report
- ◆ Foundation Reports

3.3 Utility Coordination and Potholing

Utility coordination will be carried out in conformance with the requirements of Chapter 13 of the Caltrans Right of Way Manual, and Appendix LL of the Caltrans Project Development Procedures Manual.

Information to be researched includes as-built records and maps, future improvement and development plans, and other supporting documentation. The collected data will be compiled in a Utility Disposition Matrix, which will identify facility types, locations, ownership, point of contact, risk level (high or low), and relocation and/or protection requirements.

Electrical (Southern California Edison), gas (Southern California Gas), and water (Eastern Municipal Water District) facilities are within the proposed project limits. Due to their potential impact on schedule, meetings will be held with these companies, on an individual basis if necessary, immediately upon receiving notice to proceed. This is critical because it is imperative to identify any relocations requiring long-lead times. During this time, TYLI will also identify potential conflicts between existing utilities and proposed improvements to determine where potholing will be needed.

TYLI will arrange with the respective utility owners to pothole their facilities. TYLI will locate by potholing or other approved methods, underground utilities to determine the elevations for clearance and to identify conflicts with the proposed improvements. TYLI will coordinate with utility company inspectors during potholing operations. It is anticipated that there will be approximately twenty (20) Utility Potholes and five (5) manhole dips.

3.4 Right of Way Engineering and Coordination

Right of Way engineering services will be to facilitate the acquisition of rights of way and easements for the project. Throughout this process, research, field surveys, land net mapping, records of survey, legal descriptions and plats, and other right of way related documents may be prepared to support the final right of way acquisitions needed for the Holland Road/I-215 Bridge Overcrossing Project. The survey team will work closely with the project team and City staff in order to successfully execute these services.

The following right of way services are anticipated for this project:

Cadastral Research

Cadastral research will be conducted with the City and County of Riverside, Caltrans District 8 in order to obtain publicly available maps and survey records. It is understood that preliminary title reports will be provided by the City.

Land Net Surveys

Field surveys will be performed to locate existing centerline monuments, property corners and other monuments associated with the existing centerlines and right of ways within the project limits.

Land Net Map (Hard Copy Map)

The Land Net Map (Hard Copy Map) is an overall base map for the boundary analysis necessary to complete the right of way acquisition. This map will include the existing street centerlines and rights of way, existing documented easements and ownership information. The map will also include found monuments and record cadastral information used to establish property boundaries and any pertinent information necessary to prepare final acquisition documents. The survey team will also review the preliminary title reports and plot record easements onto the Land Net map.

Appraisal Maps

Upon approval of the Right of Way Requirements map, appraisal maps will be prepared for the project area affected by fee and easement acquisition. The appraisal maps will be signed and sealed by a California licensed land surveyor. (For the purposes of this proposal, one set of appraisal maps and one set of revisions have been included in the fee.)

Legal Descriptions and Plats

Legal descriptions and plat maps will be prepared for the proposed parcel takes (full and partial), easements and temporary construction easements, Resolution of Necessity (RON) and vacation documents. The legal descriptions and plats will be based upon the land net map prepared and the approved right of way requirements. The legal descriptions will be prepared by or under the direction and signed by a California licensed land surveyor. (For the purposes of this proposal, five (5) legals and plats and one set of revisions have been included in the fee.)

Deliverables:

- ◆ Hard Copy Base Map – Hard Copy – Signed Hard Copy Map, Microstation DGN file and pdf's
- ◆ Record of Survey – Hard Copy – Record of Survey first Check County Submittal and Hard Copy – Recorded Record of Survey from County
- ◆ Appraisal Maps – Hard Copy – Signed Appraisal Maps and Microstation DGN Files, pdf's
- ◆ Legal Descriptions/Plats – Hard Copy – Signed Legal Descriptions/Plats and pdf Copy of Signed Legal Descriptions/Plats

3.5 Storm Water Data Report (SWDR)

TYLI will prepare a PS&E level SWDR according to the latest Caltrans requirements. This report will also address and satisfy any SWPPP requirements that may apply.

Deliverables:

- ◆ PS&E Level Storm Water Data Report (SWDR)

3.6 Transportation Management Plan (TMP) Report

TYLI will prepare a Transportation Management Plan (TMP) Report. The TMP Report will propose specific measures that will be effective in reducing the impacts of project construction for mainline freeway traffic.

Deliverables:

- ◆ Transportation Management Plan (TMP) Report

3.7 Roadway PS&E

Roadway Design will be based on the Geometric Approval Drawings approved in the project approval phase. The design will conform to the latest Caltrans Standard Plans and Standard Specifications within Caltrans Right of Way. Outside State highway, City and/or County of Riverside standards will be applied. Per Caltrans District 8's Constructability Review Implementation Plan, this project is required for 30% PS&E and 95% PS&E reviews. Each phase of submittal is expected as follows:

3.7.1 30% PS&E Submittal

TYLI will prepare a Preliminary Roadway Design that is consistent with the GADs. Per District 8's Oversight Design Guidelines, following plans will be included in the 30% PS&E review:

- ◆ Title Sheet
- ◆ Typical Sections (One sheet)
- ◆ Key Map (One sheet)
- ◆ Layouts (4 sheets at 40 scale)
- ◆ Profile and Superelevation Diagram (Eight sheets)
- ◆ Existing Drainage (18 sheets)
- ◆ Utility Plans (4 sheets)
- ◆ Stage Construction and Detour (8 sheets)
- ◆ Signing and Striping (4 sheets)

3.7.2 95% PS&E Submittal

TYLI will review and address Caltrans and City's comments on the 30% PS&E. TYLI will then prepare a 95% Roadway Design package. Per District 8's Oversight Design Guidelines, following plans will be included in the 95% PS&E review:

- ◆ Title Sheet
- ◆ Typical Sections (1 sheet)
- ◆ Key Map (1 sheet)
- ◆ Layouts (4 sheets at 40-scale)
- ◆ Profile and Superelevation Diagram (8 sheets)
- ◆ Construction Details (10 sheets)
- ◆ Temporary Water Pollution Control (4 sheets)
- ◆ Contour Grading (4 sheets)
- ◆ Drainage Plans, Profiles, Details, and Quantities (18 sheets)
- ◆ Utility Plans (4 sheets)
- ◆ Stage Construction, Traffic Handling, and Detour (12 sheets)
- ◆ Signing and Striping (4 sheets)
- ◆ Retaining Walls (16 sheets)
- ◆ Landscape and Irrigation (12 sheets)
- ◆ Lighting and Traffic Signal (12 sheets)
- ◆ Technical Specifications/Special Provisions
- ◆ Quantities and Cost estimates

3.7.3 100% PS&E Submittal

TYLI will prepare a Final Roadway Design. These plans will include the following:

- ◆ Title Sheet
- ◆ Typical Sections (1 sheet)
- ◆ Key Map (1 sheet)
- ◆ Layouts (4 sheets at 40-scale)
- ◆ Profile and Superelevation Diagram (8 sheets)

- ◆ Construction Details (10 sheets)
- ◆ Temporary Water Pollution Control (4 sheets)
- ◆ Contour Grading (4 sheets)
- ◆ Drainage Plans, Profiles, Details, and Quantities (18 sheets)
- ◆ Utility Plans (4 sheets)
- ◆ Stage Construction, Traffic Handling, and Detour (8 sheets)
- ◆ Signing and striping (4 sheets)
- ◆ Retaining Walls (16 sheets)
- ◆ Landscape and Irrigation (12 sheets)
- ◆ Lighting and Traffic Signal (12 sheets)
- ◆ Technical Specifications/Special Provisions
- ◆ Quantities and Cost Estimates

In addition, TYLI will prepare following documents at 100% PS&E approval:

- ◆ Supplemental Information Handout
- ◆ Resident Engineer's Pending File
- ◆ Cross Sections for Construction Staking

Deliverables:

- ◆ Roadway PS&E (as described above)
- ◆ Geotechnical Materials Report
- ◆ Specifications, Special Provisions and Bidding documents
- ◆ Quantities and Cost estimates

3.8 Structural PS&E

A new Holland Overcrossing will be provided across I-215. For the purposes of this scope of services, it is assumed that the new bridge will consist of a two-span, cast-in-place, post-tensioned concrete box girder, constructed in a single stage. It is further assumed that foundations will consist of drilled concrete piles.

Structure design will conform to Caltrans criteria and the requirements outlined in the Caltrans, Division of Engineering Services, and Office of Special Funded Projects (OSFP) *Information and Procedures Guide*.

Seismic design will be performed in accordance with the most current version of Caltrans Seismic Design Criteria (SDC). It is assumed that no project specific seismic design criteria will be required. It is further assumed that no fault rupture hazard exists at the site.

TYLI will conduct analysis and prepare and submit bridge PS&E for Caltrans and City review and approval. Specific activities will be as follows:

3.8.1 Bridge Site Data Submittal (BSDS)

The Bridge Site Data Submittal package will be submitted to the Caltrans District 8 Oversight unit and Structures Liaison.

Deliverables:

- ◆ BSDS

3.8.2 Type Selection

Type Selection will be prepared in accordance with Caltrans' *Memo to Designers 1-29*. Detailed analysis and cost comparisons will be made of various bridge types, resulting in recommendation of the preferred structure alternative.

The Type Selection package will be submitted to the Caltrans Structures Liaison, and a Type Selection Meeting will be held at Caltrans Division of Structures' offices in Sacramento within two weeks after submittal.

Deliverables:

- ◆ Vicinity Map
- ◆ Type Selection Report
- ◆ Preliminary Foundation Report
- ◆ General Plan and Foundation Plan
- ◆ General Plan Estimate

3.8.3 Unchecked Details (65%)

Approval of Type Selection will lead directly to final design and preparation of Unchecked (65%) Bridge Details. Design will be in accordance with Caltrans' *Bridge Design Specifications*, supplemented by the *Memos to Designers, Design Details*, and

Design Aids. Maximum use will be made of standard, constructible details to promote construction efficiency and cost-effectiveness. A Structure Item List, showing all proposed bid items, will also be prepared.

The Unchecked Details, Structure Item List, and Draft Foundation Report will be submitted to the Structures Liaison Engineer and a meeting will be scheduled for review of the plans to ensure Caltrans concurrence.

Deliverables:

- ◆ Unchecked Details
- ◆ Structure Item List
- ◆ Draft Foundation Report

3.8.4 Initial Structures PS&E (90%)

In accordance with standard Caltrans policy, independent checking of the bridge plans by registered engineers who were not originally involved in the design will be performed. Quantity take-offs will be made and independently checked within accepted tolerances. Quantities will be listed on the Caltrans Marginal Estimate Form and unit prices will be developed based on historic information or on detailed analysis as appropriate.

Standard structure special provisions will be downloaded from Caltrans and edited, and new specifications will be added as required. The final specifications will then be compared with the plans as part of the internal review process, and a Caltrans OSFP *Consultant Quality Control Statement* will be completed for submittal.

Deliverables:

- ◆ Checked Bridge Plans
- ◆ Structure Special Provisions
- ◆ Structure Cost Estimate and Quantity Forms
- ◆ Road Plans and Special Provision
- ◆ Final Foundation Report
- ◆ Design and Check Calculations
- ◆ Quantity and Check Calculations
- ◆ Working Day Schedule
- ◆ Quality Control Checklist

3.8.5 Intermediate Structures PS&E (95%)

Any required revisions will be made to the bridge plans in response to Caltrans comments and the Final Structures PS&E (95%) will be submitted for approval.

Deliverables:

- ◆ 95% Bridge PS&E

3.8.6 Final Structures PS&E (100%)

Any required revisions will be made to the bridge plans in response to Caltrans comments on the 95% Structures PS&E will be submitted for approval. Upon Caltrans approval, Division of Structures signoff on the plans will be obtained.

Deliverables:

- ◆ 100% Bridge PS&E
- ◆ 4-Scale Drawing
- ◆ RE Pending File

PART 4 – RIGHT OF WAY ACQUISITION

4.1 Right of Way Project Management and Document Support

- ◆ Track and manage all budgetary-related aspects of OPC's Scope of Work.
- ◆ Assist with the development of administrative policies, procedures, and forms necessary to carry out the initial program.
- ◆ Maintain ongoing general consultation and project coordination with the client, City, and other project team members.
- ◆ Provide representation of the client at public meetings, hearings, and litigation related matters.
- ◆ Prepare and present a monthly written status report based on the agreed-upon guidelines regarding information to be provided. Confer weekly with client verbally on general statuses, problem areas, and progress.
- ◆ Participate in up to four Project Development Team (PDT) Meetings to report on acquisition progress.
- ◆ Manage subcontractors and all necessary disciplines needed for the project.
- ◆ Provide quality assurance and quality control for the right of way program and all right of way components.

Deliverables:

- ♦ Written Status Report (Monthly)

4.2 Title Investigation Services – up to Five (5) Preliminary Title Reports

- ♦ Secure vesting deeds, back up documents, property profiles, and tax maps for each property.
- ♦ Secure preliminary title report which will remain valid for a minimum of six months or until there is an ownership change.
- ♦ Secure copies of recorded back-up documents, as needed.
- ♦ Share title information with right of way engineer, surveyor, and appraisers for their use.
- ♦ Prepare list of title exceptions to be cleared; confirm manner of disposition is consistent with approved project plan.
- ♦ Facilitate changes to preliminary title report after the preparation of the legal description, if necessary for partial acquisition.

Deliverables:

- ♦ List of Title Exceptions

4.3 Appraisal and Specialty Appraisal Services: Five Appraisals, Five Appraisal Reviews

- ♦ **Overland, Pacific, and Cutler, Inc. (OPC)** will mail a notification letter and acquisition policies brochure to the property owner requesting permission to conduct an on-site inspection of the property, advising them of their right to accompany the appraiser at the time of the inspection, and requesting information regarding the property appraised which could influence the appraised value.
- ♦ Appraiser will review title information pertaining to respective ownership and will review drawings and other pertinent information relative to the parcel.
- ♦ Appraiser will inspect the property personally with the owner (if possible) and document the inspection with photographs for use in the report.
- ♦ Appraiser will inventory all improvements affected by the proposed taking, including notes on their manner of disposition (i.e., pay-for and remove vs. move back).
- ♦ Further, if necessary, Appraiser will retain a specialty appraisal to establish the value for fixtures and equipment (cost of Furniture Fixtures and Equipment appraisal not included in fee proposal).
- ♦ Appraiser will perform market research to support the selected appraisal methodologies and will document and confirm comparable sales information.
- ♦ Appraiser will prepare a narrative appraisal report that conforms to the Uniform Standards of Professional Appraisal Practice (USPAP). The appraisal study and report are intended to serve as an acquisition appraisal and will be prepared in a summary format consistent with the specifications for narrative appraisal reports.
- ♦ Upon completion of the fee appraisal, OPC will conduct a formal review by an independent appraiser in accordance with federal regulations and Caltrans procedures manual.
- ♦ OPC will receive and analyze the completed appraisal report accordingly.

Deliverables:

- ♦ Narrative Appraisal Report

4.4 Negotiate Right of Way Settlement/Prepare Acquisition Documents

- ♦ Establish and maintain a complete and current record file in a form acceptable to the client.
- ♦ Receive and analyze title information, approved appraisal report, and legal description in sufficient detail to negotiate with the property owner and other parties.
- ♦ Prepare offer letter, summary statement, and list of compensable items of fixtures and equipment, in accordance with state or federal regulations and the approval of the client.
- ♦ Present written purchase offer to owner or their representative in person, when possible. Secure receipt of delivery of offer as practical and present and secure tenant information statements, as applicable.
- ♦ Follow-up and negotiate with property owner, as necessary; prepare and submit recommended settlement justification to client for review and approval; review any independent appraisal secured by property owner; and coordinate reimbursement of appraisal fees (up to \$5,000) with client. Ongoing negotiations and settlement discussions will continue after the initial offer or until we reach settlement or impasse, as dictated by the overall Project Schedule.
- ♦ Prepare and assemble acquisition contracts, deeds, and related acquisition documents required for the acquisition of all necessary property interests.
- ♦ Maintain a diary report of all contacts made with property owner or representative and a summary of the status of negotiations indicating attitude of owner, problem areas, and other pertinent information. Copies of all applicable written correspondence will be maintained in files.

- ◆ Prepare an impasse letter where, after diligent attempts to settle by negotiation, it appears eminent domain will be needed or prudent to acquire the needed interest.
- ◆ Litigation support: in the event an acquisition is unable to be settled via voluntary means, the negotiations staff will provide a condemnation-ready case file, all relevant negotiations history, and meet with client as needed to provide relevant acquisition content.
- ◆ Transmit executed acquisition documents to client. Each transmittal package shall include a fully executed and properly notarized deed(s), fully executed acquisition contract with attachments, and a brief settlement memorandum which summarizes the pertinent data relative to the transaction.

Deliverables:

- ◆ Offer Letter
- ◆ Summary Statement
- ◆ List of Compensable Items of Fixtures and Equipment
- ◆ Recommended Settlement Justification

4.5 Title/Escrow Coordination

If by Negotiated Settlement – Assist the escrow/title company in the following:

- ◆ Open escrow and coordinate execution of closing instructions providing for title insurance coverage at the settlement amount.
- ◆ Provide escrow officer with fully executed acquisition contract and notarized deed.
- ◆ Work in conjunction with escrow officer to facilitate the clearance of title matters as set forth in the settlement memorandum and escrow instructions.
- ◆ Assist escrow to secure full or partial reconveyance or subordination instruments from lien holders of record.
- ◆ Review settlement statement for accuracy.
- ◆ Coordinate deposit of acquisition price and estimated closing costs with escrow.
- ◆ After the closing, review the title insurance policy for accuracy.
- ◆ Prepare and mail a letter to County Assessor requesting cancellation of taxes if appropriate.

If Settlement by Eminent Domain – Assist eminent domain counsel with the following:

- ◆ Prepare a letter for the client signature to eminent domain counsel, requesting proceeding to condemnation.
- ◆ Provide eminent domain counsel with available right of way maps and legal descriptions, preliminary title reports and title review documents, and information on how to contact each owner or interest holder.
- ◆ Provide eminent domain counsel with a duplicate copy of the parcel file, together with a copy of the appraisal, offer to purchase, correspondence, acquisition contract, and deed as presented.
- ◆ Convert preliminary title reports to litigation guarantees for eminent domain counsel's use. Title company fees (based on the value of the interest required) are additional.

4.6 Caltrans Right of Way Certification Oversight

- ◆ Attend certification planning meeting with client's Right of Way Local Assistance Coordinator and project team.
- ◆ Prepare real estate components of right of way data sheet and provide current and escalated costs for acquisition and relocation; incorporate engineers' construction and utility information as provided to OPC.
- ◆ Ensure appraisal maps/right of way maps and legal descriptions are all properly identified and prepared in conformance with approved right of way numbering system.
- ◆ If applicable, acquire and include relocation activities as required for completion of certification form including utility notices and hi-low risk utility sheets as provided by the project's utility coordination team and engineers for Right of Way Local Assistance Coordinator review.
- ◆ Ensure that all interests necessary for the project have been secured in compliance with all applicable law and regulations.
- ◆ Prepare certification forms, in coordination with the engineer and the client, to include the compilation of all necessary back-up documents required including deed, final order of condemnation, access easements, cooperative agreements, permits, right of entries, etc.
- ◆ Attend and coordinate pre and post-audit submittal meetings.

PART 5 – CONSTRUCTION ENGINEERING SUPPORT

5.1 Bid Support

TYLI will assist the City with the bidding process, including advertising the project, responding to bidders' questions, and preparing and issuing addenda.

5.2 Construction Support

TYLI will participate in the pre-construction meeting. During the construction period, TYLI will provide technical assistance to the City's resident engineer to answer questions, review contractor submittals, respond to Request for Information (RFI), and evaluate addenda or change order requests. At the project close-out, TYLI will prepare as-built plans per guideline stated in the Caltrans Plan Preparation Manual.

Deliverables:

- ◆ RFI Responses As Needed
- ◆ Construction As-Builts

ASSUMPTIONS

The foregoing scope of services is based on the following assumptions:

- ◆ This scope of work constitutes our current understanding of the project. TYLI used professional judgment and the available prior project documentation to develop this scope of work. Certain assumptions have been made in preparing the scope of work and fee estimate. To the extent possible, they are stated herein and are reflected in the estimated fees.
- ◆ If a higher level CEQA document is identified as the appropriate document for the proposed project based on the technical analyses performed then this will be communicated to the City and the engineering prime a scope and cost for performing this work will be submitted. However, based on our review of the proposed project this is not anticipated.
- ◆ Only one alternative will be considered in all phases.
- ◆ Any existing utilities, which must be crossed for construction, will be assumed to be structurally competent unless Consultant is directed otherwise by the City. No local system improvements or replacements or repairs to any other utility are included. Design of other utility relocations not specifically listed herein is not included in the fee.
- ◆ All submittals will be on half-size sheets (11x17) unless otherwise specified.
- ◆ Consultant is not liable for consequences arising from the discovery during construction of undocumented or incorrectly located buried utilities or other undocumented hidden subsurface structures including waste material.
- ◆ Material availability studies are not a part of this scope of work unless specifically stated otherwise.
- ◆ The City and Caltrans will review and comment on draft documents within the assumed review periods listed in the attached schedule, with periods not to exceed 35 working days for each submittal. TYLI shall not be responsible for the effect of review period delays on the project schedule.
- ◆ The scope of work for surveying and right of way services assumes five privately owned parcels.
- ◆ Formal value analysis is not included.
- ◆ If the City would prefer to conduct an open house meeting then this can be provided on a time and materials basis.

COMPANY:		SCOPE OF WORK:		DATE:	
T.Y.LIN INTERNATIONAL		PR-E, PEER, PS&E, AND CONSTRUCTION SUPPORT		4/7/2014	
PROJECT:		MILESTONE/PHASE/PROJECT SUMMARY:			
Holland/I-215 OC					
DIRECT LABOR					
PERSONNEL	FUNCTION	HOURS	RATE	AMOUNT	
Les Hopper	Principal in Charge	8.0	\$ 95.00	\$ 760.00	
Jim Rucker	Project Manager	402.0	\$ 94.00	\$ 37,788.00	
Roya Golchoobian	QA/QC Manager	198.0	\$ 70.00	\$ 13,860.00	
Rodrigo Gonzalez	Senior Transportation Engineer	100.0	\$ 83.00	\$ 8,300.00	
Mick Bartholomew	Senior Const. Engineer	88.0	\$ 77.00	\$ 6,776.00	
Jeff Kim	Senior Transportation Engineer	754.0	\$ 70.00	\$ 52,780.00	
Rob Barton	Senior Bridge Engineer	1,164.0	\$ 56.00	\$ 65,184.00	
Hoon Park	Transportation Engineer II	812.0	\$ 51.00	\$ 41,412.00	
Sabina Piras	Assistant Bridge Engineer	912.0	\$ 30.00	\$ 27,360.00	
Brenda Moun	Assistant Transportation Engineer	504.0	\$ 30.00	\$ 15,120.00	
Patti Boekamp	Outreach Support	24.0	\$ 90.00	\$ 2,160.00	
Andy Toledo	CADD support	1,824.0	\$ 38.00	\$ 69,312.00	
Cathy Salas	Admin	16.0	\$ 41.00	\$ 656.00	
		0.0	\$ -	\$ -	
		0.0	\$ -	\$ -	
TOTAL HOURS		6,806.0	TOTAL DIRECT LABOR	\$ 341,468	
MULTIPLIERS					
ESCALATION	4.00% (of Total Direct Labor)			\$ 13,659	
OVERHEAD	153.34% (of Total Direct Labor + Escalation)			\$ 523,610	
				TOTAL MULTIPLIERS	\$ 537,269
OTHER DIRECT EXPENSES					
ITEM	UNIT	QUANTITY	UNIT COST	AMOUNT	
Reproduction	LS	1	\$ 5,000.00	\$ 5,000.00	
Copying	LS		\$ -	\$ -	
Transportation/Travel	LS	1	\$ 2,500.00	\$ 2,500.00	
Special Deliveries	LS	5	\$ 25.00	\$ 125.00	
Hazardous Waste Study (CEQA)	LS	1	\$ 10,000.00	\$ 10,000.00	
			\$ -	\$ -	
			\$ -	\$ -	
				TOTAL OTHER DIRECT EXPENSES	\$ 17,625
OUTSIDE SERVICES					
COMPANY	FUNCTION		TOTAL		
Iteris	Traffic Studies		\$ 49,040.00		
ICF International	Environmental Support		\$ 377,874.40		
Earth Mechanics, Inc	Geotech		\$ 95,627.24		
David Evans and Associates	Surveying/LS		\$ 122,529.23		
OPC	Right of Way		\$ 99,590.00		
				TOTAL OUTSIDE SERVICES	\$ 744,661
PROFIT	10.00%		\$ 87,874		
Subconsultant Admin	5.00%		\$ 37,233		
				PROFIT	\$ 125,107
				TOTAL COST	\$ 1,766,130

