REQUEST FOR COUNCIL ACTION

CITY COUNCIL MEETING DATE:

JUNE 19, 2018

TITLE:

APPROVE AGREEMENTS FOR ON-CALL ENGINEERING SERVICES (NON-GENERAL FUND) {STRATEGIC PLAN NO. 6, 1G}

CITY MANAGER

CLERK OF COUNCIL USE ONLY:

APPROVED

- ☐ As Recommended
- ☐ As Amended
- ☐ Ordinance on 1st Reading
- ☐ Ordinance on 2nd Reading
- ☐ Implementing Resolution
- ☐ Set Public Hearing For_____

CONTINUED TO _____

FILE NUMBER _____

RECOMMENDED ACTION

1. Authorize the City Manager and Clerk of the Council to execute agreements with each of the firms listed below, to provide on-call engineering services for general engineering projects for a-three year term expiring June 18, 2021, with one, two-year extension exercisable by the City Manager and the City Attorney, for a total aggregate amount not to exceed $2,000,000 for the term of the entire contract and subject to nonsubstantive changes approved by the City Manager and the City Attorney.

    - Kimley-Horn
    - Huitt-Zollars
    - CSG
    - Anderson Penna
    - NV5
    - TAIT
    - Mark Thomas
    - Willdan
    - Stantec

2. Authorize the City Manager and Clerk of the Council to execute agreements with each of the firms listed below, to provide on-call engineering services for water resources projects for a three-year term expiring June 18, 2021, with one, two-year extension exercisable by the City Manager and the City Attorney, for a total aggregate amount not to exceed $1,200,000 for the term of the entire contract and subject to nonsubstantive changes approved by the City Manager and the City Attorney.

    - Kimley-Horn
    - Tetra Tech, Inc.
    - Huitt-Zollars
    - NV5
    - Willdan

DISCUSSION

On September 29, 2017 the City issued a Request for Qualifications (RFQ) for on-call engineering consulting. These services are required to augment City staff efforts to complete the timely delivery of the Capital Improvement Program, which include street rehabilitation, park and facility improvement projects.

A five-member panel review committee comprised of Public Works Agency staff reviewed and ranked the 19 qualification packages that were received and created a short list of qualified consulting firms. The top consulting firms in each of two engineering categories were invited to submit proposals through a Request for Proposals (RFP 17-083) issued on February 22, 2018 and due on March 20, 2018.

The first category, General Engineering (Option A) are professional services related to the design, construction, management, and operations of public works infrastructure and City facilities which include: street rehabilitation/widening/improvements, transportation/traffic engineering, architectural, structural, geotechnical, environmental engineering, land surveying, and any specialty engineering studies that pertain to public works. The second category, Water Resources (Option B) is comprised of professional services related to the design, construction, operations and maintenance and management of water wells, reservoirs, pump stations, water pipe networks, sewer lift stations, and related of systems to run and maintain a water and sewer system operations.

As a result of RFP 17-083 a total of ten proposals were received. Five of the proposals received included both Options A and B with the remaining five specifically proposed for Option A. The proposal rankings were based on a combination of experience, qualifications, project understanding, and the overall proposal package. The table below summarizes Options A and B for each consulting firm and their total scores:

General Engineering other than Water Resources- Option A (Highest to Lowest)

Rank	Firm	Score
1	Kimley-Horn	93.2
2	Huitt-Zollars	85.5
3	CSG	84.6
4	Anderson Penna	84.1
5	NV5	82.7
6	TAIT	79.4
7	Mark Thomas	77.9
8	Willdan	76.3
9	Stantec	75.1

Water Resources- Option B (Highest to Lowest)

Rank	Firm	Score
1	Kimley-Horn	93.2
2	Tetra Tech, Inc.	91.3
3	Huitt-Zollars	85.5
4	NV5	82.7
5	Willdan	76.3

In accordance with Qualifications Based Selection (QBS) process, the fee schedules were opened after the proposal evaluations were completed. Staff recommends that Kimley-Horn, Tetra Tech Inc., Huitt-Zollars, CSG, Anderson Penna, NV5, TAIT, Mark Thomas, Wildan, and Stantec be retained to provide on-call engineering services (Exhibit 1-14) based upon this selection criteria of the firms that responded to RFP 17-083 (Exhibit 15).

ENVIRONMENTAL IMPACT

There is no environmental impact associated with this action.

STRATEGIC PLAN ALIGNMENT

Approval of this item supports the City's efforts to meet Goal #6 Community Facilities & Infrastructure, Objective #1 (establish and maintain a Community Investment Plan for all City assets), Strategy G (Develop and implement the City's Capital Improvement Program in coordination with the Community Investment and Deferred Maintenance Plans).

FISCAL IMPACT

There is no fiscal impact at this time. Prior to utilizing any of these on-call services, Public Works staff must receive Finance & Management Services Agency approval of funding and accounts to ensure that funds are available under the authorization and aggregate limit of these agreements.

Upon successful completion of this fiscal review, a corresponding Notice to Proceed containing specific scope and maximum expenditure for the task order will be issued to a firm. Funding for these services is available in prior year and the current FY 2017-18 approved Capital Improvement Program (CIP) budgets, and will be budgeted in future CIPs.

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

EWG/ARC/AF

Exhibits:

1. Agreement- Kimley-Horn (General Engineering Projects)
2. Agreement- Kimley Horn (Water Resources Projects)
3. Agreement- Tetra- Tech Inc. (Water Resources Projects)
4. Agreement- Huitt-Zollars (General Engineering Projects)
5. Agreement- Huitt-Zollars (Water Resources Projects)
6. Agreement- CSG (General Engineering Projects)
7. Agreement- Anderson Penna (General Engineering Projects)
8. Agreement- NV5 (General Engineering Projects)
9. Agreement- NV5 (Water Resources Projects)
10. Agreement- TAIT (General Engineering Projects)
11. Agreement- Mark Thomas (General Engineering Projects)
12. Agreement- Willdan (General Engineering Projects)
13. Agreement- Willdan (Water Resources Projects)
14. Agreement- Stantec (General Engineering Projects)
15. Request for Proposal (RFP)

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (GENERAL ENGINEERING)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between Kimley-Horn and Associates, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of nine (9) consultants selected to provide services for general engineering projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $2,000,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures.

Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement.

Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees,

for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: Kimley-Horn and Associates, Inc.
765 The City Drive, Suite 200
Orange, CA 92868
Attn: Darren Adrian, P.E., Project Manager / Vice President

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant,

Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

EXHIBIT A

PREPARED FOR:

PROPOSAL FOR

ON-CALL ENGINEERING SERVICES

RFP NO.: 17-083

PREPARED BY:

Kimley»Horn

Expect More. Experience Better.

CONTACT:

Darren Adrian, P.E.
765 The City Drive, Suite 200
Orange, CA 92868
darren.adrian@kimley-horn.com
TEL 714.705.1304

www.kimley-horn.com

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CONTACT:

Darren Adrian, P.E.
765 The City Drive, Suite 200
Orange, CA 92868
darren.adrian@kimley-horn.com
TEL 714.705.1304

www.kimley-horn.com

1. STATEMENT OF QUALIFICATIONS

Cover Letter

March 20, 2018

765 The City Drive
Suite 200
Orange, California
92868
TEL 714.939.1030
FAX 714.621.0368

Mr. Armando Fernandez
City of Santa Ana
20 Civic Center Plaza
3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

Re: Proposal for On-Call Engineering Services, RFP No. 17-083

Dear Mr. Fernandez and Members of the Selection Panel:

For more than a decade, **Kimley-Horn** has supported the City of Santa Ana (City) on a variety of projects to help enhance traffic circulation, improve the City's infrastructure, and fix local roads. Our team is highly capable of supporting the City's general engineering needs on the ITS Capital Improvement Program. In addition to our team's experience and passion to provide outstanding supplemental civil engineering support to the City's in-house staff, we offer you the following:

Local Knowledge. Through our previous on-call contracts and other City solicitations, we have assisted your City with various tasks which has enabled us to become familiar with your standards, goals, and challenges related to existing infrastructure. Not only have we worked closely with City staff on roadway design, traffic, water quality, and utility relocations, we are currently completing the Santa Ana Boulevard and 5th Street Protected Bike Lane PS&E contract. We are also assisting the City on two other major projects: South Main Street Corridor Improvements and Warner Avenue Improvements. ***Our depth of local knowledge and understanding will help to streamline our production efforts for you.***

Seasoned Leadership with Talented Technical Staff to Serve You. As with our previous contracts I, **Darren Adrian, P.E.,** will serve as project manager and sole point of contact. I have nearly 27 years of experience in civil engineering related to planning, design, and construction of municipal and transportation facilities. I've managed both small and large projects for municipal clients. When a task order is issued, I work with the team to quickly identify the right technical professionals from our staff to address the task. Kimley-Horn's staffing resources and current and projected workload ensure that we will meet your project schedules and provide you with the highest level of responsiveness and quality. We have partnered with **Hazen and Sawyer, Twining, Inc,** and **OnPoint Land Survey, Inc.** to provide additional expertise to the City, as needed.

Extensive On-Call Experience. On-call contracts require a different approach from typical project-specific contracts. Each task assigned under an on-call contract will need an individualized approach that includes the various disciplines necessary to complete the assignment. Our team combines familiarity with conditions in Santa Ana and Orange County and exposure to challenging civil engineering issues in other parts of the state and country, providing the City with the highest quality and most cost-effective solutions.

As an officer of the firm, I have authority to bind the firm to this offer. If you should have any questions, please contact me at 714. 705.1304 or darren.adrian@kimley-horn.com. We look forward to continuing to serve as your on-call civil engineering consultant.

Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.

Darren Adrian, P.E.
Project Manager / Vice President

Contract Agreement Statement

Kimley-Horn has reviewed the contract agreement and takes no exceptions.

Firm and Team Experience

Founded in 1967, Kimley-Horn and Associates, Inc. is a privately held corporation with a staff of more than 3,000 personnel in 83 offices nationwide, including our Orange office. The firm has steadily grown into a full-service civil engineering, planning, and environmental consulting firm offering a comprehensive range of services to both public and private clients. Kimley-Horn's growth is reflected in its steady rise on Engineering News-Record's list of top design firms in the nation, ranking 21st in the top 500 U.S. Design Firms; 6th in Pure Design; 9th in Transportation; and 9th in Highways in 2017. The success of our rankings is a result of our steadfast commitment to providing responsive client service, pursuing continuous quality improvement, and operating as an extension to your existing staff.

Kimley-Horn is well-equipped to respond quickly to the City's needs on this on-call contract. With more than 100 registered Southern California Professional Engineers, Kimley-Horn offers specialized engineering knowledge that comes from our full range of services for municipal projects. Our technical qualifications and strengths align perfectly with your needs for this on-call contract. We are a fully integrated consulting firm offering a variety of in-house services, including:

- Civil engineering design services
- Roadway design, streetscape, improvements, and upgrades
- Transportation planning and design
- Traffic engineering and traffic operations
- Pavement management systems and rehabilitation design
- Traffic studies/traffic calming studies
- Traffic signal and signing and striping design
- Structural analysis and design
- Active Transportation planning and design
- Storm drain design, upgrades, and rehabilitation
- Regional storm drain and watershed analysis
- Water/wastewater design
- Utility coordination and undergrounding
- Landscape and irrigation design
- Environmental services, including CEQA, NEPA, and Site Assessment
- Grant writing and administration
- Construction administration and support

Kimley-Horn understands what it means to provide services on an on-call basis for a local government. Not only have we provided services to the City in the past, we have also worked with Caltrans, the County of Orange, and many other California municipalities (including several in Orange County) through on-call contracts. Since our founding, on-call clients have been a top priority.

Team Organization and Management

When you choose a consultant, you are really choosing the people who offer you the technical expertise, hands-on experience with similar projects, and commitment to a high standard of quality and client service that will make your projects as successful as you have envisioned. The people on our team are passionate about their work and do it well. Our team is comprised of veteran project managers, transportation engineers, and technical staff to provide streamlined design engineering support on a variety of tasks.

While we remain responsive to our clients' dynamic needs by drawing upon a diverse professional staff, we also provide management continuity through the assignment of a client-oriented project manager. **Darren Adrian, P.E.**, Kimley-Horn's project manager, will serve as the primary point of contact, and will manage the team through the length of the contract. He has nearly 27 years of engineering experience and has managed several projects with many cities in Southern

California, including the cities of Santa Ana, Orange, and Anaheim. Darren will lead the Kimley-Horn team to provide quality design, planning, and construction support services, as well as be available to City staff throughout the duration of this on-call contract. Darren will be supported by a team of experienced engineers and subconsultant specialists who will act as task managers, providing backup to the project manager, as well as task management and technical support for each task based on scope of work for each project.

Darren will coordinate all team members' efforts and deliverables, including those of our subconsultants. Before a project starts, he will conduct a project scoping meeting with all respective team members to brainstorm the project issues to make sure their experience matches the requirements of the project scope. Our team will also conduct a project initiation meeting with the appropriate team members to coordinate the project plan including milestones, deliverables, and current project events. Project coordination meetings will be scheduled depending upon the project duration to make sure the project remains on track with the project plan. Kimley-Horn will also review the work performed by subconsultants as part of our Quality Control standards.

Subconsultant Overview

In addition to our Kimley-Horn staff, we have partnered with specialized subconsultants with whom we have built long-term relationships and delivered successful local projects in Southern California. Our teaming partners, described below, are poised to provide project support services to the City, as needed. These subconsultants will act as seamless team members able to provide their specific areas of expertise when required.

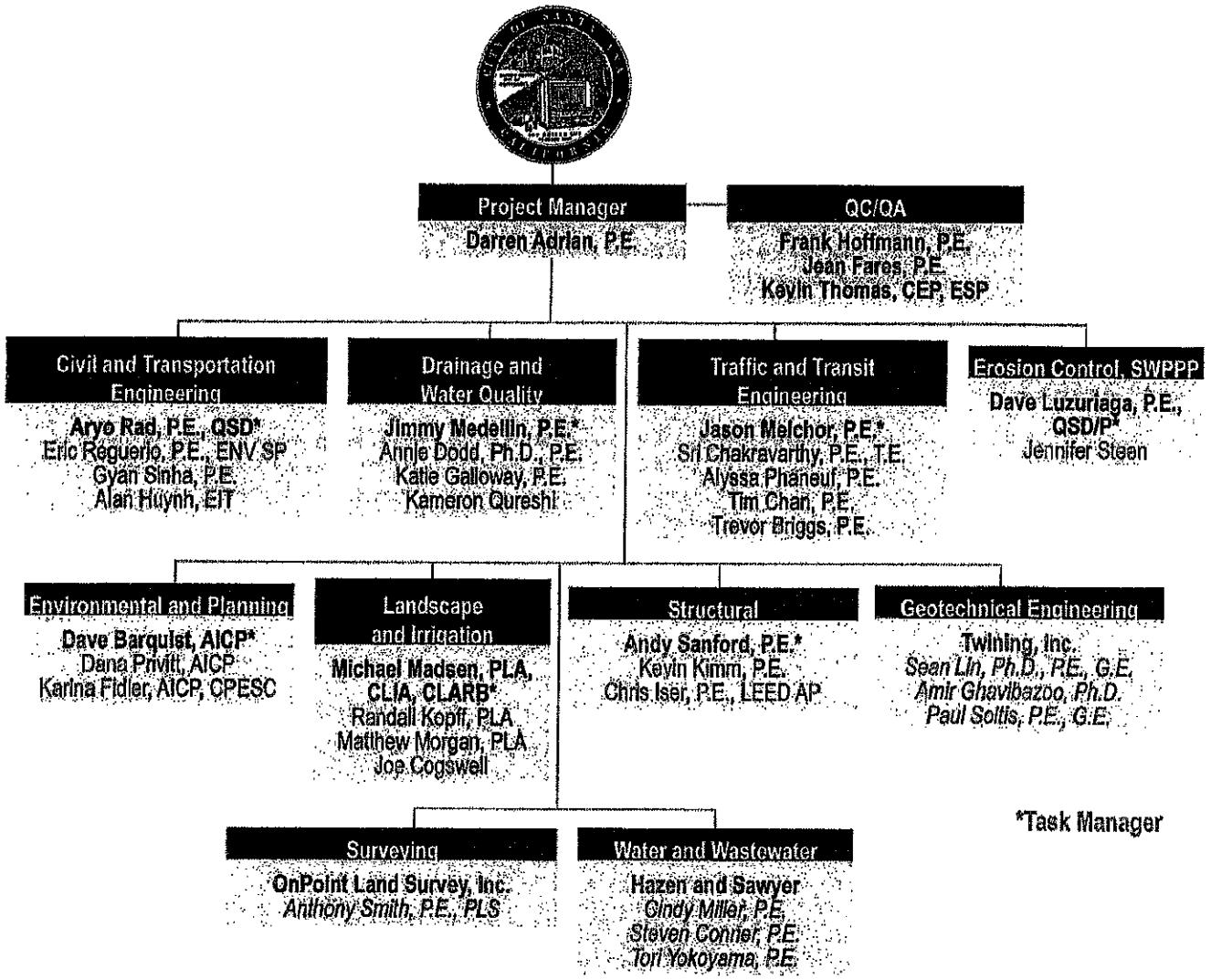
Hazen **Hazen and Sawyer (Water/Wastewater)** is a nationally and internationally recognized water resources and environmental engineering consulting firm, with a singular focus on "All Things Water." They specialize in domestic wastewater, recycled water, and the potable water market and bring a unique level of expertise and specialists to each project. Hazen has grown to over 1,000 engineering professionals in 51 offices across the United States. Hazen has concentrated on two critical activities – helping their clients provide safe drinking water to their customers, and controlling water pollution and its effects on the environment. They are a full service environmental and engineering consulting firm, and can offer exceptionally qualified personnel available immediately to assist you.

TWINING **Twining (Geotechnical)** is a full-service engineering company with unmatched technical expertise. Their services include geotechnical engineering, materials testing, and inspection, and highly technical capabilities in applied engineering and integrated disciplines. Twining's geotechnical engineers, geologists, and technicians bring their finest professional skills and practical experience to each project. Their staff includes 11 licensed professional geotechnical engineers (GE), as well as others. Their professionals have vast experience in completing subsurface investigations involving geotechnical analysis, and providing design recommendations to meet needs across the full spectrum of project types. Their fully-accredited geotechnical engineering laboratories are equipped to perform the standard tests needed in geotechnical engineering evaluations.

ON POINT LAND SURVEYING, INC. **On Point Surveying (Surveying)** offers highly experienced staff that specialize in boundary surveys, design surveys, construction staking, GPS surveys, topographic surveys, parcel maps, tract maps, and records of survey. They utilize both Static and RTK GPS combined with the latest software for processing geospatial data. Robotic total stations ensure that their survey crew supervisors are not tied to one location and can stay mobile to oversee your project.

Team Organization

The organization chart below identifies our proposed project team members and their project roles.
Resumes for our team members are provided in the Appendix for your review.



*Task Manager

Our Availability

Key Staff/Task Managers	Current Availability
Darren Adrian, P.E.	50%
Frank Hoffmann, P.E.	35%
Jean Fares, P.E.	55%
Kevin Thomas, CEP, ESR	30%
Aryo Rad, P.E., QSD	50%
Eric Reguelro, P.E., ENV/SP	55%
Jimmy Medellin, P.E.	55%
Annje Dodd, P.E.	50%
Jason Melchor, P.E.	55%
Sri Chakravarthy, P.E., T.E.	40%
Alyssa Phaneuf, P.E.	35%
Dave Luzuriaga, P.E., QSD/P	40%
Dave Barquist, AICP	35%
Dana Privitt, AICP	55%
Karina Fidler, AICP, CPESC	45%
Michael Madsen, PLA, CLIA, CLARB	55%
Randall Kopff, PLA	60%
Andy Sanford, P.E.	55%
Kevin Kimm	40%
Chris Iser, P.E., LEED AP	45%
Amir Ghavibazoo, Ph.D. *Twining*	55%
Paul Soltis, P.E., G.E. *Twining*	50%
Anthony Smith, P.E., PLS *OnPoint*	45%
Cindy Miller P.E. *Hazen*	50%
Steven Conner, P.E. *Hazen*	40%
Tori Yokoyama, P.E. *Hazen*	45%

Understanding of Need

Project Understanding

Based on our current working relationship, and Kimley-Horn staff's familiarity with the City's needs, requirements, and goals, we will strive to act as an extension of City staff by providing as-needed engineering services. To accomplish this, our strategy centers closely on the City's requirements, master plan elements, codes, ordinances, and applicable standards, as well as Kimley-Horn' experience, to maintain the high standards expected by the City. To demonstrate our abilities, we have developed brief descriptions of services to be performed for to City's On-Call program:

Civil Engineering and Roadway Design. These are the foundation of Kimley-Horn's professional practice. Kimley-Horn's team has provided public agencies with design services for public facilities such as parks, parking lots, parking structures, libraries, senior centers, and community centers. We have provided roadway design services to urban, rural, primary, secondary, and interstate roadways, and for clients ranging from public agencies, municipalities and state DOTs to private developers. We anticipate the City's design projects to include intersection geometrics, roadway widening and realignment, utility relocations, traffic control, signing and marking, erosion control, construction sequencing, and final plans, specifications, and estimates (PS&E). We have gained extensive experience in dealing with local regulatory and other agencies to secure the permits and approvals necessary for the building and upgrading of public and roadway facilities.

Bicycle and Pedestrian Planning and Design. Kimley-Horn understands the importance of planning and designing for alternative transportation modes such as bicycles and pedestrians. We employ state-of-the-art techniques to accommodate and encourage the use of alternative transportation modes and minimize vehicular conflicts, and routinely design bike and pedestrian facilities using the AASHTO, FHWA, Caltrans Highway Design Manuals, and NACTO Urban Bikeway Design Guide. Typical municipal bike facilities could include Class I bikeways, sharrows, buffered bike lanes and cycle tracks, and bike hubs. Our firm has led numerous bicycle planning and design projects throughout the United States and have completed many local city pedestrian and bicycle facility master plans, developed comprehensive statewide plans and requirements for pedestrian/bicycle facilities, and designed over 200 miles of bicycle trails.

Green Streets and Complete Streets Design. Green Streets combine multiple elements allowing the roadway to be an extension of the sustainable environment. This method of sustainable roadway design can incorporate stormwater management elements such as permeable pavements, vegetated water quality facilities, and open spaces that reduce runoff and strive to duplicate predevelopment hydrology. Energy reduction technologies such as LED lighting and traffic signals are often integrated and heat island effects are reduced through the use of reflective pavements and the incorporation of street trees. Green Streets can be designed with "Complete Streets" principles that encourage alternate modes of transportation. ***This is not an emerging discipline for Kimley-Horn, but a recognition of how we can blend sustainability and roadway design.***

Traffic Engineering. Kimley-Horn is an industry leader in traffic engineering, offering unparalleled expertise in traffic and transportation impacts, methodologies to monitor development-generated traffic, and financing mechanisms for transportation improvements. Kimley-Horn offers complete in-house traffic engineering services such as traffic signal communication and system integration design, intersection geometric design, signing and striping, traffic control plans, construction phasing plans, preparation of traffic impact studies, traffic calming studies, speed zoning studies, safety and operations studies, accident analysis, pedestrian safety programs, parking studies, site access and circulation studies, and general consultation in traffic engineering.

Transit System Design. For urban, regional, and statewide transit systems all over the country, Kimley-Horn provides comprehensive analysis, planning, and design services such as major investment studies, major route planning, alternatives analysis, line-by-line analyses, on-board surveys, demand modeling, environmental documentation, and comprehensive consensus-building activities. Our team of experts are able to successfully assist public transit agencies on their transit projects including bus route design, bus hub and bus shelter design, and other transit related projects. Kimley-Horn's transit experts guide our clients through all phases of these difficult projects, from the early planning stages and final design, through permitting, public review, and construction administration.

Landscape Architecture. From the revitalization of a popular community park to the design and implementation of a downtown streetscape, Kimley-Horn has planned and implemented scores of landscape architecture projects. We have completed dozens of park designs and master plan projects for federal, state, regional, and local government. ***Kimley-Horn has a well-earned reputation for combining creative ideas, technical excellence, and client collaboration, resulting in dynamic projects that blend into their environments and become a part of the area they inhabit.*** For our public works projects, we consider drought resistant landscape features and low water usage irrigation systems to help our clients become more successful in meeting their water conservation goals. We understand the City's visions for landscape and streetscape design. As metropolitan urban areas continue to grow, urban design, streetscape design, and landscape architecture have become integral components of roadway and transportation system designs and infrastructure improvements in general. Revitalizing commercial districts, providing recreational areas, and enhancing pedestrian and bicycle facilities in increasingly congested areas are some of the areas where our landscape architects and planners thrive.

Water Quality Management and National Pollution Discharge Elimination System (NPDES). Our approach to design encourages preserving or improving water quality by utilizing the latest technology available for Low Impact Development (LID) projects. Review criteria for Water Quality Management Plans (WQMP) would include the requirements established by the State Water Resources Control Board, the County of Orange, and the City's requirements for permitting/planning applications. As part of our engineering plan review or Environmental Documents review, Kimley-Horn' certified Qualified Storm Water Pollution Prevention (SWPPP) Developer (QSD) engineers will provide the support needed to review the project's environmental documents including the WQMP, SWPPP, and Water Pollution Control Plan (WPCP).

Mapping and Surveying. Kimley-Horn will provide professional mapping and surveying review services for development projects based on Subdivision Map Act and the City of Santa Ana's requirements. We, and our subconsultant **OnPoint Land Surveying, Inc.,** will provide these professional services as necessary for the assigned projects including any additional services that benefit the City. Our surveying services include: right of way verification, tract map review, parcel and assessor map review, existing record research, design surveying, existing easement research, proposed easement coordination, field reviews, tentative and final maps, and lot line adjustments.

Geotechnical and Geological Services. Kimley-Horn understands that the assignments for geotechnical and geological services may vary on a case-by-case basis depending upon specific needs of the City. Kimley-Horn and our subconsultant **Twining, Inc.** recognize that these services will be provided as requested by the City. Geotechnical and geology services may include tasks such as: pavement evaluation, slope stability and analysis, shoring design, percolation test and infiltration rate analysis, geotechnical and geology reports review, and geotechnical and geology reports for special public projects. The geotechnical and geological items may include soil stability, soil composition, segmental retaining walls, liquefaction, compaction, foundations, checking calculations, reviewing test results, and more. ***Our approach to this, and any assignment, will be to provide appropriate task leaders and staff, establish work plans, provide compliance with schedule and budget, maintain continuous communication with the City, and provide QA/QC deliverables.***

Water Improvement Design and Coordination. Our utility design team along with our subconsultant, **Hazen and Sawyer** have successfully completed water infrastructure projects for various agencies in Southern California. These projects consist of water main replacement, realignment, upsizing and capacity increase, master planning, existing system evaluation and maintenance and operational support. Although each project is unique, the majority of challenging utility projects we face are in developed areas where existing utility facilities are located within the proposed project area and any improvement will generally affect or be affected by the location of the existing utility facility. Kimley-Horn believes in drawing all utility lines and features true to size in our plans to aid in identifying conflicts early in the design phase. We will also pothole potential conflict locations when budgets allow, which gives a better understanding of the locations of the existing lines, and provide extensive coordination with the various utility companies. We also use 3-D modeling of utilities to identify potential conflicts in early stages of design. This method has helped us to avoid discrepancies between construction documents and actual field conditions that resulted in cost effective and timely manner execution of projects.

Sanitary Sewer Design. Sewers will be designed based on Orange County Sanitation District and City of Santa Ana's requirements. All design criteria will be reviewed versus the previous requirements including sewer pipe sizing, modeling and analysis, sewer line alignment and depth, minimum slopes, pipe materials, bedding and trench design, and required manholes. Kimley-Horn will provide modeling based on assembled information based on the existing system and incorporating proposed conditions if requested by the City. Results of the modeling and recommendations by Kimley-Horn for project solutions will then be submitted to the City for review and approval.

Well Rehabilitation Design. A combination of three factors can cause water production decline. The first is a regional decline in water elevations that shift the "static" water level downward. The second is a decline in water levels in the local aquifer caused by continuous pumping. The third is a decline in specific capacity caused by a plugged filter pack or well screen. The regional decline in water levels is not controllable and groundwater levels will recover through natural recharge. The reduction in specific capacity requires corrective action in the form of root cause evaluation, well redevelopment, and possibly modification to pump location and flow rate.

The decline in specific capacity could be a result of a reduction of permeability near the well screen. This type of permeability reduction is often the result of biological fouling, cementation, or the intrusion of fine-grained aquifer sand into the gravel pack surrounding the well casing. Well videos could confirm this. Migration of fine-grained aquifer sand could be a root cause of the rapid decline in specific capacity. The result of this is that water velocity during pumping is much higher in those sections of screen that produce the most water. During pumping, small sand particles mobilize and migrate through the well filter pack and wedge into the pore space, reducing permeability in the filter pack.

Mitigation of this issue would include careful well development to remove the sand and resettle the filter pack and modification of pumping operations to reduce sharp changes in water velocity that mobilize fine-grained aquifer sand. Prior to redevelopment it is recommended to review of the factors that can cause this reduction in specific capacity. The review would include assessment of biological and cementation plugging and review the original, well construction documents including the sieve analysis performed to size the filter pack and the daily construction (if available). As part of developing a mitigation approach, spinner logs may be recommended to verify production zones.

Environmental Studies. Our environmental services team provides complete natural resource regulatory compliance services for public works projects. Our environmental professionals have provided services for a wide variety of projects, including roadway, transit, transportation planning, green streets, complete streets, land development, storm drain, and water resources. They are well versed in all aspects of the development process from Phase I Environmental Site Assessments to California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA)

documentation and resource agency permitting. They are experienced in taking a project from conception to final build-out, and provide environmental compliance services in support of design and construction engineering. Our team's environmental services include: CEQA/NEPA documentation, groundwater protection, environmental audits, environmental compliance, natural resource investigations, stormwater management, and more.

Storm Drain Design and Drainage Analysis. Kimley-Horn's drainage engineering services include the design of canals, detention basins, culvert crossings, water control structures, diversion structures, pump stations, and more. Our engineers have been called upon by numerous public agencies and major agricultural, industrial, and residential developers to conduct preliminary studies and drainage consultation, prepare stormwater management plans, perform watershed and floodplain analysis, prepare storm drain master plans, and coordinate permit applications on their behalf.

Structural Analysis. Kimley-Horn's structural engineering team provides structural design and analysis for a range of major retaining structures, parking structures, roadway bridges, pedestrian bridges, to minor footings and foundations for traffic signals, roadway signs, and storm drain structures. Our structural engineers have extensive experience working with public agencies and are familiar with routine plan check processes for multiple agencies.

Construction and Bid Support. Our team is equipped with the latest construction management systems and applications available in the industry. These tools are scalable and customizable to fit the City's project needs and budget, and to integrate with the City's existing standards. ***From simple, time-tested forms and procedures, to advanced construction management and web-based systems, our team will deliver small and large projects on-time and under budget while keeping the City up to date on a "real-time" basis.*** In addition to our design team's experience with design relevant topics, our construction phase personnel can attend pre-construction conferences and regular project meetings, provide review and approval of submittals, as well as other activities necessary to achieve well-coordinated construction projects of proposed improvements.

Approach to Your On-Call

Through our five decades of experience working with on-call clients, we have learned valuable lessons that have helped us create a unique approach to meeting our clients' needs. We understand the urgency associated with federally funded, time sensitive, or public safety projects, and we are equipped to allocate sufficient resources to meet deadlines and the City's capital improvement program schedule. Our approach to your on-call tasks entails the following:

Project Management—Single Point of Contact: We have widespread expertise, and experience in all facets of municipal projects. Kimley-Horn's project manager, **Darren Adrian, P.E.,** will serve as the primary point of contact, and will manage the team through the length of the contract. He has over 27 years of municipal engineering experience and managed several projects with various cities in California. His experience includes design, planning, and construction of major roadways, transportation facilities, streetscape improvements, and utilities and is knowledgeable of federal, state, county, and municipal regulations. Darren will oversee and review the engineering activities including engineering design, studies, investigations, peer review, surveying, subconsultant review, and other related activities. He will be available to City staff for a timely response to service requests, including questions about budgets, invoices, and schedules.

Before a project starts, Darren will conduct a project scoping meeting with all respective team members to brainstorm the project issues. Our team will conduct a project initiation meeting with the appropriate team members to coordinate the project plan including milestones, deliverables, and current project events. Project coordination meetings will be scheduled based on the project duration to make sure the project remains on track.

Effective Communication: Through effective communication we plan to thoroughly understand your vision and implement the innovative and cost-effective solutions that our team is known for. Effective communication begins with listening to your City's ideas, concerns, and goals for its projects. Making certain that our team and your staff are on the same page throughout each project will help avoid or mitigate potential problems that may arise. Successful techniques may include monthly Progress Development Team meetings (PDT) and bi-weekly progress reports, regular conference calls to keep you abreast of critical issues, and ongoing electronic communications amongst all members of the project team, which may include a ftp site dedicated to the project.

Responsiveness and Cost-Effective Solutions: Responsiveness is much more than proximity or distance from our office to your office (3.5 miles, and about 10 minutes) responsiveness is providing you with information on short notice. It's promptly returning phone calls and meeting the client's needs; and this is where Kimley-Horn excels. ***We strive to put our client's needs first. We strongly believe that Kimley-Horn's continuing success rests on the strengths of our day-to-day management, vision for the firm, emphasis on quality, and responsiveness to you, our client.*** We have worked with many public agency on-call contracts, and we understand the importance of providing cost effective solutions in the early stages of design for the City's future projects. We emphasize project management using bi-monthly effort reports that give our project managers up-to-date staffing and expense information related to their projects. This information enables them to continuously monitor the status of project cost, cost control effectiveness, and schedule.

Schedule Adherence: Meeting schedules and budgets is a high priority for Kimley-Horn. Critical elements in maintaining schedules and achieving work goals include a clear definition of the responsibilities of team members and ongoing communication of project needs. We are well suited to manage and administer upcoming projects for the City, and are prepared to commit the necessary resources so projects are completed within your timeframe and budget.

On the rare occasion that a project requires a schedule correction due to a delay on Kimley-Horn's part, we utilize an aggressive system with regional support to quickly get the project back on track and avoid impacts to our client's overall project schedule. This includes the involvement of regional management to commit additional resources from within the office and from around the firm if necessary. Once the correction is made, follow-ups are performed by all team members involved to make sure the project remains on schedule at no additional cost to the City. During this process, the project manager and key regional team members work closely with City personnel to confirm deliverables meet the City's expectations included within our scope of work.

Community Engagement: Community engagement at various points during the project allow participants to voice their opinion on the design process. The Kimley-Horn team believes outreach materials (including, but not limited to, presentations, graphics, and exhibits) required for community engagement activities must be created in a meaningful and strategic way. All community engagement activities will be turn-key (i.e. we will provide set-up/breakdown, materials/ supplies, easels, refreshments, etc.), allowing City staff to focus on the issues, not logistics. Kimley-Horn will provide outreach collateral such as flyers, and press releases prior to community engagement activities and coordinate with the City's public information officer. In order to optimally engage public stakeholders, the Kimley-Horn team will provide translation headsets and Spanish-speaking engineers at each public informational meeting. Kimley-Horn staff members have a track record of successful and informative community events and we will apply the best elements of these to each on-call project.

Quality Control/Quality Assurance (QC/QA): Quality projects don't happen by accident. Kimley-Horn has been firmly committed to quality since the firm began over 50 years ago to that end, Kimley-Horn has developed a QC/QA manual that every project manager is required to know and use. The objective of our QC/QA program is to produce deliverables that conform to your scope and minimize the number of errors and omissions. Our QC/QA program is based on the following philosophy:

- Quality is achieved by adequate planning, coordination, supervision, and technical direction; proper definition of the job requirements and procedures; understanding the scope of services; and the use of appropriately skilled personnel performing work functions carefully. Individuals who are not directly responsible for performing the initial efforts assure quality through the careful oversight of work activities.
- Quality is controlled by assigning a manager to evaluate all work and procedures followed while providing the services.
- Quality is verified through independent reviews by a qualified staff member of the processes, procedures, documentation, supervision, technical direction, and staffing associated with the project development.
- Quality is assured through a carefully designed system of cross checks and independent reviews.

Kimley-Horn is fortunate to have the staff depth and resources to provide a QC/QA review by senior-level professionals who are familiar with the type of services provided, yet not working directly on the project. Our project work plans, schedules, and budgets are developed with QC tasks, milestones, and hours integrated at the beginning of a project. This system allows adequate time for thorough QC/QA reviews throughout the life of a project.

Relevant Project Experience

Kimley-Horn has enjoyed collaborating with the City on a variety of civil, traffic, and transportation projects in the past. From 17th Street Grade Separation and Bristol Street Southern California Edison corridor to OC Streetcar Design Review and 5th Street and Santa Boulevard Bike Lane projects, Kimley-Horn has partnered with the City to provide exceptional service for critical projects. We also recently started a new collaboration with the City on its Main Street Corridor Improvement Project.

Our experience and lessons learned from these projects means the City can expect the right balance of technical expertise, responsiveness, and valuable local knowledge to successfully complete your task order assignments.

Similar/Relevant Project Experience

On the following pages we've provided a brief list of similar and relevant experience for clients and the various types of services we've provided to them for your quick review.

On-Call Traffic and Civil Engineering Services, City of Industry, CA (2005 – Ongoing)

Kimley-Horn has provided on-call traffic and civil engineering services to the City of Industry since 2005. Since initiation, we have been issued more than 50 tasks, focused primarily on improving the transportation system within the City. Tasks entail developing geometric alternatives for major intersection modifications; evaluating access points and presenting various alternatives for modifications at the Puente Hills Mall; attending project meetings on behalf of the City; intersection capacity analysis using Synchro software; and traffic impact analysis, sight distance evaluation, traffic handling design, traffic signal design, signing and striping design, street lighting analysis and design, speed surveys, and peer and plan check reviews. Our on-call work is conducted with the City Department of Public Works and the Industry Urban-Development Agency (IUDA).

Client Reference: *City of Industry, Joshua Nelson, P.E., Regional Vice President, CNC Engineering, 626.956.8288*

Planning and Engineering On-Call, Anaheim, CA (2014 – Ongoing)

Kimley-Horn provided transportation planning and traffic engineering on-call services to the City on dozens of projects under multi-year contracts with the City's Planning and Engineering Departments. Services provided include the preparation of parking studies and traffic studies for private development projects, as well as third-party review of parking and traffic studies prepared by others.

Client Reference: *City of Anaheim, Rudy Emami, Public Works Director, 714.765.5176*

Santa Ana FIT Cities, Santa Ana, CA (2016 – Ongoing)

Kimley-Horn worked with the City of Santa Ana and Latino Health Access to develop a community-driven active transportation project that, when constructed, will encourage improved public health through walking or cycling. Using information from stakeholder workshops with Latino Health Access, fieldwork, and data collection, Kimley-Horn developed a conceptual design and visual rendering for the community preferred project and prepared a preliminary cost analysis for the concept.

Client Reference: *City of Santa Ana, Cory Wilkerson, Active Transportation Coordinator, 714.647.5643*

OC Streetcar Peer Review, Orange County, CA (2016 – Ongoing)

Kimley-Horn is providing peer review of the streetcar design for various technical areas such as track alignment, grade crossings, stations, signalization, Overhead Catenary System, Traction Power Sub Station, constructability, basic operations, and overall coordination of the proposed corridor with bicycles, pedestrians, buses, and other vehicles. The OC Streetcar will increase transportation options and provide greater access to a 4.15-mile route along Santa Ana Boulevard, 4th Street, and the Pacific Electric right-of-way to Harbor Boulevard in Garden Grove.

Client Reference: *City of Santa Ana, Jason Gabriel, Principal Civil Engineer, 714.647.5664*

On-Call General Engineering Services, Malibu, CA (2012 – Ongoing)

Kimley-Horn was originally selected to provide on-call traffic engineering services to the City of Malibu in 2012, but the contract was later expanded to include Civil Engineering Services, due to high quality service provided by Kimley-Horn. As extension to the City staff, Kimley-Horn staff performs the following on a regular basis:

- Performing review of development project reports, grading, utility and construction plans
- Conducting engineering and traffic surveys
- Feasibility/conceptual studies and reports and recommendations for preliminary, final and construction design studies
- Utilizing applicable engineering disciplines
- Preparing construction plans, specifications, and estimates
- Researching of utilities and other records
- Collecting and analyzing traffic data
- Participating in meetings with City staff associated with various development and improvement projects

Client Reference: *City of Malibu, Rob Duboux, Assistant Public Works Director, 310.456.2489 x339*

City of Pomona On-Call, Pomona, CA (2011 – 2013)

Kimley-Horn was selected through an on-call agreement with the City to provide street rehabilitation services for various streets within the City. The general scope of work was to evaluate the suitable pavement rehabilitation methodologies and select the methods that were most suitable for the City's budget, this project also included isolated concrete improvements including, sidewalk, curb and gutter, cross gutters, curb ramps, bus pads, and medians. Some of the pavement rehabilitation methods that were evaluated were cold in-place recycling, conventional asphalt removal and replacement, and cold mill and overlay. Each method was evaluated with conventional asphalt and rubberized asphalt.

Client Reference: *City of Pomona, Reza Zolghadr, Consultant Project Manager, 909.620.2238*

On-Call Pavement Rehabilitation/Utility Design, Fontana, CA (2008 – Ongoing)

Kimley-Horn has completed pavement rehabilitation design under several task orders:

Catawba Avenue, Slover Avenue, Hemlock Avenue, Beech Avenue, and Popular Avenue: Improvements entailed pavement replacement and overlays per geotechnical recommendations; miscellaneous concrete improvements where adjacent improvements were affected; and reconstruction/resetting of affected private property improvements such as fences, walls, curb drains, and meters. Various pavement rehabilitation options were investigated; conventional asphalt concrete replacement was recommended along one-street and full-depth asphalt recycling (FDAR) along the others. The construction cost savings by going with FDAR were approximately 40 percent in comparison to conventional remove-and-replace options. Coordination was required to obtain permits for work adjacent to two UPRR at-grade rail crossings and for work associated with affected utilities. Kimley-Horn also assisted the City in applying for Proposition 1B funds through the State and Local Partnership Program (SLPP).

CDBG and ARAM Pavement Rehabilitation: The task included a total of 42 streets, and had strict budget, funding, and scheduling components. The City needed a consultant who could analyze several alternative pavement rehabilitation strategies under a limited construction budget, while still meeting the required project guidelines to obtain funding. Improvements entailed grind and overlay of all streets in both bid packages, with the use of an Asphalt Rubber and Aggregate Membrane (ARAM) interlayer, with localized areas of full-depth remove and replace. Kimley-Horn assisted the City to meet requirements for a grant from the Department of Resources Recycling and Recovery (Cal Recycle) and the Community Development Block Grant (CDBG) federal funding program. Kimley-Horn's knowledge of new and innovative pavement rehabilitation strategies has helped the City utilize recycled materials and in-place recycling methods, which has brought the City several funding opportunities and millions of dollars in construction cost savings.

Client Reference: *City of Fontana, Keith Kramer, Public Works Manager, 909.350.6644*

West Grove Valley Pipelines, Riverview Pipelines, Santa Ana, CA (Hazen and Sawyer)

Two projects with the City of Santa Ana included a total of over 17,000 Linear Feet of water pipeline design ranging in size from 8-inch to 12-inch diameter. The City is actively replacing aging and undersized water mains throughout their distribution system. The West Grove Valley project included 9,500 Linear Feet of pipeline replacement design. The Riverview project included 7,700 Linear Feet of pipeline replacement design.

Client Reference: *City of Santa Ana, Public Works Agency, Armando Fernandez, Project Manager, 714.647.5680*

Well 29 Improvements Alternatives Analysis, Santa Ana, CA (Hazen and Sawyer)

The City of Santa Ana owns and operates Well 29, located at the southeast corner of Flower Street and First Street, adjacent to City owned tennis courts. Well 29 pumps directly to an existing 8 MG reservoir. The existing well site includes the well head and discharge, piping assembly, control equipment, a chlorination system in a building, and an SCE transformer. An alternatives analysis was conducted to recommend, upgrades at the site including site improvements, structural, mechanical, and electrical upgrades. Highlights of the study include developing three alternatives for the improved site, providing 3D renderings for each site alternative, and developing a preliminary opinion of probable cost for the design and construction of each alternative discussed. The City is moving forward with implementing the recommended alternative from this analysis.

Client Reference: *City of Santa Ana, Public Works Agency - Water Resources Division, Brian Ige, Assistant Engineer, 714.647.3385*

References

We have provided client references in the previous section and below. We invite you to contact these recent clients and ask them about our work history, quality of service, and whether they would again select us for similar services.

Mr. Carlos Castellanos, City Engineer. City of Anaheim
TEL: 714.765.5176 (On-Call Planning and Engineering projects)

Mr. Keith Kramer, Public Works Manager. City of Fontana
TEL: 909.350.6644 (On-Call Pavement Rehabilitation/Utility Design Projects)

Mr. Jason Lee, Project Manager, Orange County Transportation Agency
TEL: 714.560.6282 (On-Call Transportation Engineering projects)

2. SCOPE OF SERVICES AND SCHEDULE

Scope of Services

The tasks below are intended to demonstrate the work to be implemented and the deliverables to be provided as part of the On-Call services. Additional items not in the Scope of Services may be required to complete the On-Call project. Design plans and reports indicated will follow the City's standard format, unless required otherwise. Tasks are marked per options A and B as outlined in the RFP.

Task 1: Project Management and Coordination (Options A and B)

Kimley-Horn team members will attend an initial kick-off meeting to confirm project elements, objectives, scope, and schedule; and attend monthly PDT coordination meetings with the City. We will conduct meetings and conference calls and provide pertinent meeting minutes with action items and will prepare monthly progress reports, as part of the invoice package.

As part of this task, a Gantt Chart Format Target Schedule will be provided showing primary tasks and review periods/ processing, in agreement with the City. Kimley-Horn will maintain a Progress Schedule showing actual progress versus target and provide to the City on a monthly basis.

Deliverables: *Meeting agendas, meeting minutes, action items, progress reports, invoicing, draft target schedule, monthly updated schedule.*

Task 2: Record Research and Utility Coordination (Options A and B)

Kimley-Horn will obtain readily available record drawings and data pertinent to the scope of services, such as GIS mapping, as-built plans, and utility atlases. We will maintain a utility agency tracking list to indicate the status of communication and add a contact list for substructure and utility owner-operators that will also carry over to the specifications. We will assist the City with utility notification letters. These letters will notify the utility agency of the project, describe anticipated impacts, and identify action required.

Deliverables: *Utility agency tracking list, utility notification letters.*

Task 3: Geotechnical Study (Options A and B)

Pavement Evaluation: We will use City's provided traffic index for pavement design. Pavement evaluation will consist of the following services:

- Subsurface exploration consisting of the excavation, sampling, and logging
- Evaluate the R-value and in-place moisture content of subsurface soils
- Excavation and compaction requirements
- Evaluate Expansion Index and Corrosion potential of subsurface soils
- Analysis and design of new pavement and pavement rehabilitation alternatives
- Provide recommendation for sidewalk improvement

Infiltration Test: Our team will conduct a geotechnical field review and will provide recommendations as follows:

- Percolation rate test to the depth of eight feet
- Agronomy/soil fertility laboratory testing
- Obtain bulk soil samples at selected depths
- Percolation rate characteristics of the soils
- Grain Size Distribution and Atterberg Limits/Plasticity Index
- Moisture content
- Suitability of the on-site soils for landscape improvements

We will prepare a report presenting the results of field exploration, geotechnical laboratory testing, and engineering analyses, as well as conclusions and recommendations relative to the project.

Deliverables: *Draft Pavement and Soil Material Report, Final Pavement Report and Soil Material Report.*

Task 4: Survey (Options A and B)

The Kimley-Horn team will provide aerial mapping with supplemental ground surveys at a scale of 1" = 20' with 50 feet interval cross sections along streets as well as the project area for pump stations. This encompasses survey record collection; establishment of horizontal and vertical controls; monument and centerline tie preservation; and establishment of temporary benchmarks. Existing features such as utility covers, pavement limits, private property improvements, curb ramps, driveways, curb and gutters, sidewalks, street lights and poles, and traffic signs and striping will be surveyed where needed for the proposed design and added to the base maps. Existing right-of-way will be input per readily available records.

Deliverables: *Microstation V8I Files of Topographic Survey, XML Point File, DTM of existing surface features.*

Task 5: Hydraulic/Hydrology Analysis (Option B)

Our team will prepare a Drainage Report to address hydrology and hydraulics for the site per Orange County Hydrology Manual and Orange County Local Drainage Manual requirements and will provide design recommendations. Modifications are intended to maintain existing drainage patterns and flows. Calculations will consist of comparing the pre- and post-project conditions at the site. Catch basins will be incorporated into design, where necessary, i.e. to limit flooded width, and at low points.

Deliverables: *Draft hydrology and hydraulic analysis and drainage report, Final hydrology and hydraulic analysis and drainage report.*

Task 6: Water Quality (Options A and B)

Kimley-Horn will develop a WQMP for the project in compliance with, and meeting the requirements of Order No. R8-2009-0030/NPDES No. CAS618030, of the Santa Ana Regional Water Quality Control Board. The WQMP will incorporate low impact development best management practices to the maximum extent practical. For example, the use of bioretention facilities within landscaped parkway areas will be in accordance with the United States Environmental Protection Agency Green Street standards. If proprietary items are needed, these will be indicated in compliance with the City's adopted public contracting code.

Deliverables: *Draft WQMP, Final WQMP.*

Task 7: Environmental Studies (Options A and B)

Kimley-Horn Scope of Services assumes that an Initial Study leading to a Mitigated Negative Declaration (IS/ MND) is the appropriate CEQA documentation for the proposed project. The IS will provide the necessary background. Each of the topics contained in the Environmental Checklist will be evaluated to document the nature and extent of any potential environmental consequences and the need for mitigation. During the preparation of the IS should it be determined that the project could have significant impacts that cannot be fully mitigated, we will work with the City to identify modifications to the project that could reduce anticipated impacts. Using the City's Initial Study Checklist, Kimley-Horn will respond to each checklist question. The analysis will use the following technical studies and data prepared by our team: Traffic Impact Study, Air Quality and Greenhouse Gas Study, Noise Study, Utilities/ Infrastructure, Geotechnical Study, Drainage, Concept WQMP, and a Phase I Environmental Site Assessment. All other environmental topics would be studied qualitatively.

Deliverables: *Initial Study leading to a Mitigated Negative Declaration (IS/MND).*

Task 8: Street Improvement Plans (Option B)

Kimley-Horn will develop a street improvement plan for the construction of roadway improvements. The plans will show horizontal and vertical design information. Roadway plans will be prepared at a scale of 1" = 20' horizontal and 1" = 4' vertical for profiles. We will use the surveying from Task 4 for base mapping. Vertical design information for construction of new medians and curbs will be indicated on the plans with profiles. Details and typical sections will be added as needed. We will prepare details for items that deviate from published standards.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 9: System Modeling to Connect Well Directly to Water System (Option A)

A hydraulic modeling analysis will be conducted to analyze the changed operating conditions from the existing direct discharge to a reservoir, to a direct connection to the City's distribution system. A new system curve will be developed and analyzed with the existing well pump curve to determine the new operating conditions of the pump, along with any improvements necessary for the new connection point. The model will also be used to analyze impacts to other system facilities within the City's distribution system, and recommend a revised operations and control strategy.

Deliverables: *Draft water system modeling report, Final water system modeling report.*

Task 10: Water Improvement Plans (Option A)

Kimley-Horn will develop a water improvement plan for rehabilitation of the existing water well and proposed water mains construction. The plans will show horizontal and vertical design information. Plans will be prepared at a scale of 1" = 20' horizontal and 1" = 4' vertical for profiles. We will use the surveying from Task 4 for base mapping. Vertical design information for water main will show proposed water main profile and will identify potential conflicts with existing underground utilities. Details and typical sections will be added as needed. We will prepare details for items that deviate from published standards.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 11: Signing and Striping Plans (Options A and B)

We will prepare striping and signing plans at a scale of 1" = 40' for the proposed improvements within the limits of the project. Striping and signing plans will comply with the City's standards, Caltrans, and the California MUTCD. Flashing beacon installation and parking meter details, if required, will be shown on the striping and signing plans.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 12: Landscape and Irrigation Plans (Option B)

The Kimley-Horn team will prepare landscape and irrigation plans for the proposed medians and parkways within the project limits. These plans will be consistent with the City's Standards and General Plan, the City's Scenic Corridor Elements, the City's Urban Design Elements, and California's Water Efficient Landscape Ordinance. We will consider City maintenance when developing the design. Landscape and irrigation plans will be prepared at a scale of 1" = 20' horizontal.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 13: Storm Drain Plans (Option B)

We will prepare storm drain plans showing proposed catch basins and lateral connections to the existing main lines. Catch basin sizing, inlet dimensions, and laterals pipe sizes will be determined as part of Task 4. Potential conflicts with existing utilities will be shown on profiles with approximate location of utilities, per the utility agencies readily available record drawings. Storm drain plans will be prepared at a scale of 1" = 20' horizontal and 1" = 4' vertical for profiles.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 14: Street Light and Electrical Plans (Option B)

Kimley-Horn will prepare street light plans for the project. Plans will incorporate street lighting along both sides of the street. We will conduct voltage drop calculations to determine the wiring sizes. Part of this task will include coordination with Southern California Edison to determine new and existing service points. We will provide a photometric analysis to determine required illumination for the corridor.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 15: Traffic Signal Plans (Option B)

We will prepare traffic signal plans to incorporate the new improvements along project area. Installation of closed-circuit television (CCTV), video detection, conduits, and cables or modification of existing communication systems is anticipated within the project limits and will be shown on the traffic signal plans. Plans will show the connection to each signalized intersection within the project limits. Pull box details and modification of conduit sweeps for the signal interconnect are included. The traffic signal modification plan will be prepared in accordance with current City and Caltrans standards and will be prepared at a scale of 1" = 20'.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 16: Specifications (Options A and B)

Kimley-Horn will prepare technical specifications based upon the boiler plate supplied by the City. Bid items will be described as reasonably required in the General Provisions and will be included in the Contractor's bid list. References for the technical provisions to the City's Standards and Standard Specifications for Public Works Construction (Greenbook), Caltrans, or other appropriate specifications will be shown.

Deliverables: *30%, 60%, and Final Specifications, electronic files in PDF and word format (final specifications will be sealed and signed), and responses to previous review comments from the City.*

Task 17: Opinion of Probable Construction Cost (Options A and B)

Kimley-Horn will prepare an Opinion of Probable Construction Costs (Estimate) based on quantities, for comparison to project budget and assist during the Contractor's bidding process. Unit prices will be derived from readily available current bid information based on similar projects within the area. Backup will be generated for lump sum items. Contingencies will be shown, as agreed upon with City staff.

Deliverables: *30%, 60%, and Final Estimates, electronic files in PDF.*

Task 18: Potholing (Options A and B)

Our team will provide vacuum excavation potholes to positively identify utilities where conflicts may exist. This task entails potholes with a depth of up to 15 feet. Potholing information will be used to identify potential conflicts with traffic signal footings, new catch basins, wall footings, and water quality devices.

Deliverables: *Potholing report*

Task 19: Bid Phase Support (Options A and B)

Kimley-Horn will provide support during the bid phase by responding in writing to Requests for Information (RFI)/ clarifications. Our team will assist the City in the issuance of addenda to the bid package which consists of making design changes determined necessary to address clarifications.

Deliverables: *Responses to RFIs, design revision.*

Task 20: Construction Support (Options A and B)

Kimley-Horn will assist the City during the construction phase by responding to the Contractor's RFIs, preparing addenda, and providing clarifications. This task includes reviewing the Contractors change orders and changed conditions in the field. We will prepare record drawings by updating the approved design drawings based on one set of redline markups provided by the Contractor or City staff. The purpose of the record drawings is to create a deliverable that will represent the built condition for the City's records, as recorded by the Contractor. Independent verification is not included in this scope.

Deliverables: *Record Drawings: One hardcopy and one electronic (PDF format and Microstation V8i).*

Schedule

The draft schedule ***on the following page*** contains the tasks outlined within the scope of work, as well as necessary agency review periods. Relationships are assigned to each task representing a logical progression and allowing easy identification of tasks that could constrain the project. Note that task durations and agency review periods are realistic based on our recent experience on similar projects. Our intent is to review this draft target schedule with you at the kick-off meeting for each project, make any desired adjustments, and track as a progress schedule during the project by providing updates on a monthly basis.

3. FEE PROPOSAL

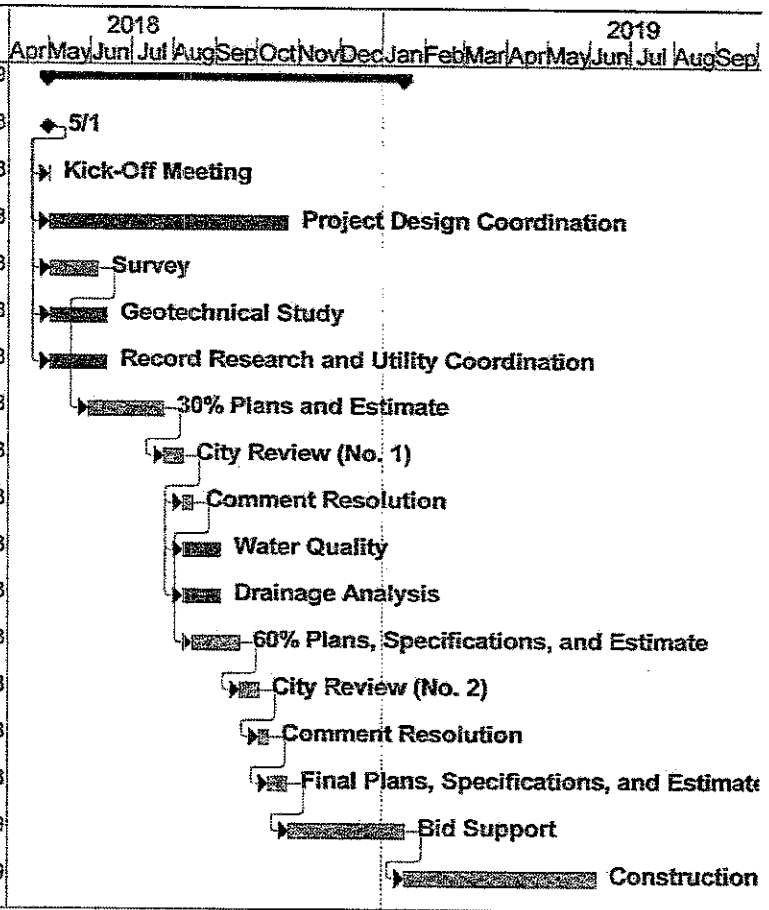
See separate sealed envelope for our hourly rate schedules.

25E-35

Draft Target Schedule -

City of Santa Ana Street Improvement Projects

ID	Task Name	Duration	Start	Finish
1	**Design Phase**	187 days	Tue 5/1/18	Wed 1/16/19
2	Notice to Proceed	0 days	Tue 5/1/18	Tue 5/1/18
3	Kick-Off Meeting	1 day	Tue 5/1/18	Tue 5/1/18
4	Project Design Coordination	126 days	Tue 5/1/18	Tue 10/23/18
5	Survey	25 days	Wed 5/2/18	Tue 6/5/18
6	Geotechnical Study	30 days	Wed 5/2/18	Tue 6/12/18
7	Record Research and Utility Coordination	30 days	Wed 5/2/18	Tue 6/12/18
8	30% Plans and Estimate	40 days	Wed 5/30/18	Tue 7/24/18
9	City Review (No. 1)	10 days	Wed 7/25/18	Tue 8/7/18
10	Comment Resolution	5 days	Wed 8/8/18	Tue 8/14/18
11	Water Quality	20 days	Wed 8/8/18	Tue 9/4/18
12	Drainage Analysis	20 days	Wed 8/8/18	Tue 9/4/18
13	60% Plans, Specifications, and Estimate	25 days	Wed 8/15/18	Tue 9/18/18
14	City Review (No. 2)	10 days	Wed 9/19/18	Tue 10/2/18
15	Comment Resolution	5 days	Wed 10/3/18	Tue 10/9/18
16	Final Plans, Specifications, and Estimate	10 days	Wed 10/10/18	Tue 10/23/18
17	**Bid Support**	60 days	Thu 10/25/18	Wed 1/16/19
18	**Construction Support**	100 days	Thu 1/17/19	Wed 6/5/19



Task — CRITICAL — Baseline Summary
Milestone — Baseline — Progress
Summary — Baseline Milestone — Slippage

Kimley»Horn
765 The City Drive, Suite 200
Orange, CA 92868

4. CERTIFICATIONS

Subconsultant signed attachments available upon request

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 19th day of March, 2018 by Darren Adrian, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

EMMA SORTO
COMM. # 2140476
NOTARY PUBLIC - CALIFORNIA
ORANGE COUNTY
COMM. EXPIRES JAN. 21, 2020

Notary Public Signature

Notary Public Seal

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Kimley-Horn and Associates, Inc.

Signed and Printed Name: Darren Adrian, P.E.

Title Vice President

Date March 20, 2018

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: _____ Darren Adrian, P.E.

Title: Vice President

Firm: Kimley-Horn and Associates, Inc.

Date: March 20, 2018

RESUMES

Darren Adrian, P.E.

PROJECT MANAGER

Darren has more than 27 years of professional experience in civil engineering related to planning, design, and construction of transportation facilities. His primary emphasis has been in the areas of roadway planning and final design associated with highways and streets including interchanges, at-grade intersections, railway grade separations, widening and rehabilitation. He has served as project manager for the City of Santa Ana On-Call for several years and brings a superior project management track record combined with technical knowledge and skill. He recently served as ASCE President for the Orange County Branch, which demonstrates both his dedication to the engineering community as well as the respect he has garnered amongst his peers.

Professional Credentials

Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona
Professional Engineer in California (#53031) and Utah (#318105-2202)
American Public Works Association, Member
American Society of Civil Engineers (ASCE), Board Member
Institute of Transportation Engineers, Member

Relevant Experience

- County of Orange, On-Call Architect/Engineer Design Support Services (2014-17), Orange County, CA – Project Manager.
- City of Corona On-Call Traffic and Transportation Services, Corona, CA — Project Engineer
- City of Fontana On-Call Pavement Rehabilitation/Utility Design, Fontana, CA — Project Manager
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Project Engineer
- On-Call Traffic and Civil Engineering Services, (Industry), City of Industry, CA — Project Manager
- OCTA, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Project Manager
- ACE Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Project Manager
- Anaheim Rapid Connection (ARC) Streetcar, Anaheim, CA — Project Manager
- Azusa Avenue/Amar Road Intersection Improvements, West Covina, CA — Project Engineer
- Azusa/Gale Intersection Analysis, City of Industry, CA — Project Manager
- Baseline Road/Laurel Avenue Intersection Widening, Fontana, CA — Project Manager
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Principal-In-Charge
- California State University-Long Beach, West Campus Turnaround Drainage (Veteran Affairs), Long Beach, CA — Project Manager
- City of Buena Park, SR 91/Beach Blvd WB Exit Ramp, Buena Park, CA — Project Manager
- CSU Long Beach, East Campus Road - Safety Improvements, Long Beach, CA — QC/QA Reviewer
- Diamond Bar Prospectors Road Street Rehabilitation Project, Diamond Bar, CA — Project Manager
- East Coast Highway Signal Rehab Design, Newport Beach, CA — Project Director
- Firestone Boulevard Improvements, Buena Park, CA— Project Manager
- Pavement Rehabilitation (Task Order Under On-Call), Pomona, CA — Project Manager
- Traffic Flow Improvement Study of Artesia Boulevard from I-5 to Beach Boulevard, Buena Park, CA — Project Manager

Frank Hoffmann, P.E.

QUALITY CONTROL/QUALITY ASSURANCE

Frank has more than 30 years of diverse experience in civil design and construction management. Project types include private, local, state, and federal working with roadway design and improvement, utility design, water resources, drainage design, airport construction, private and commercial development, and more. His responsibilities have included project management, work plan preparation, cost estimating, contractor selection, scheduling and oversight, design specification development, resource allocation, technical and final report preparation and review, quality control, trouble-shooting, negotiation/approval of field changes, and client relations.

Professional Credentials

Bachelor of Science, Civil Engineering, Fachhochschule Rheinland-Pfalz
Professional Engineer in California (#61839) and Arizona (#42877)
American Society of Civil Engineers, Member

Relevant Experience

- Voigt Drive/I-5 North Coast Corridor (NCC) Improvements (PS&E), San Diego, CA — QC/QA Reviewer
- RCTD, I-10 Bypass, Riverside County, CA — Project Engineer
- RCTD, Sunset Avenue Railroad Grade Separation at I-10 PS&E, Banning, CA — QC/QA Reviewer
- City of Los Angeles, Bridge On-Call Program (North Spring Street and Laurel Canyon Tasks), Los Angeles, CA —
- City of Los Angeles, Los Angeles Downtown Streetcar Independent Cost Estimate, Los Angeles, CA — Project Engineer
- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA —
- Bailey Road PSR/PDS, Bailey Road/SR 4 Interchange PID, Contra Costa County, CA — Project Engineer
- City of Lancaster, Program Management Services for Measure R Highway Equity Program, Lancaster, CA — Project Engineer
- Downtown Glendale Pedestrian Enhancements, Glendale, AZ — QC/QA Reviewer
- Expo Metro Line Construction Authority, Design of LRT Phase 2, Los Angeles, CA — Project Engineer
- Gonsalves Avenue Extension, Marine Corps Air Station (MCAS), Miramar-San Diego, CA — QC/QA Reviewer
- I-5 North Coast - PA/ED and PS&E (also Staff Augmentation I-5 HOV Extension PS&E), San Diego, CA — QC/QA Reviewer
- I-880 Express Lanes, Oakland, CA — Project Engineer
- La Habra Harbor/Lambert Intersection Widening, La Habra, CA — QC/QA Reviewer
- SR 138 Project Approval & Environmental Documentation (PA&ED), North Los Angeles County, CA — Project Engineer
- Loop 101 Frontage Road, Peoria, AZ — Deputy Project Manager
- Mulholland Highway Scenic Corridor, Calabasas, CA — QC/QA Reviewer
- OCTA, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA
- Regional Express Lane Network Phase 1- I-880/I6-80/SR 84/SR 92 On-Call PS&E Design Services, San Francisco County, CA — Project Engineer
- SANDAG, Bus On Shoulder (BOS) Bus Rapid Transit (BRT) Demonstration, San Diego, CA — Project Engineer
- SANDAG, Mid-Coast - 100% Final Design Phase, sub to PB, San Diego, CA — Project Engineer

Jean Fares, P.E.

QUALITY CONTROL/QUALITY ASSURANCE

Jean is a seasoned project manager with nearly 30 years of professional experience in the fields of traffic and transportation engineering, including traffic signal design (over 2,000 locations), interconnect design, and signal system design (over 2,500 locations), traffic operations, signing and marking plans (over 100 miles), and traffic control plans. In addition to signal design and corridor signal operations, he has managed Kimley-Horn's contracts to provide on-call traffic engineering services to the cities of Thousand Oaks, Agoura Hills, Santa Clarita, Chino, Glendale, Burbank, Palmdale, as well as for the County of Los Angeles, CVAG, and Caltrans District 7.

Professional Credentials

Bachelor of Science, Architecture, California State Polytechnic University, Pomona
Professional Engineer (Traffic) in California (#TR2097)
Institute of Transportation Engineers, Member

Relevant Experience

- Traffic Engineering Surveys (aka Flashing Beacon Design), La Canada Flintridge, CA — QC/QA Reviewer
- Traffic Engineering Services - Engineering and Traffic Surveys, Santa Monica, CA — Project Manager
- Long Beach On-Call Traffic Engineering, Long Beach, CA — Project Manager
- Traffic Signal Coordination and Design Improvements, Costa Mesa, CA — Project Engineer
- On-Call Services - Traffic Engineering and Transportation Planning Review Services, Riverside County, CA — Project Engineer
- On-Call Signal Design Services (Chino), Chino, CA — Project Manager
- On-Call Signal Design Services (Palmdale), Palmdale, CA — Project Manager
- On-Call Traffic Engineering Services (Riverside County), Riverside County, CA — Project Manager
- On-Call Traffic Engineering Services - Thousand Oaks, CA, Thousand Oaks, CA — Project Manager
- City of Buena Park, Auto Center Drive Traffic Signal and Median Design, Buena Park, CA — QC/QA Reviewer
- City of Burbank, San Fernando Blvd/Burbank Blvd Intersection Improvements, Burbank, CA — Project Manager
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Principal-In-Charge
- City of Glendale, Consultant Services Traffic Engineering and Fiber-Optic Comm Design, Glendale, CA — Project Manager
- City of Lancaster, Traffic Signals and Smart Crosswalk Designs, Lancaster, CA — QC/QA Reviewer
- City of Santa Monica, Engineering and Traffic Survey, Santa Monica, CA — Project Manager
- City of Thousand Oaks, Moorpark Road Sidewalk and Bike Lane Improvements, Thousand Oaks, CA — Project Manager
- Agoura Hills On-Call, Agoura Hills, CA — Project Manager
- City of Los Angeles, Bridge On-Call Program (North Spring Street and Laurel Canyon Tasks), Los Angeles, CA —
- As-Needed Traffic Design Services for Various County Projects - 2014, Los Angeles County, CA — Project Manager
- Civil and Traffic Engineering Firms, Transit Consultants, and Security Design Consultants On-Call, Porterville, CA — Project Manager
- Lancaster Multi-Year Professional Services, Lancaster, CA — Project Manager
- Caltrans District 7 Freeway Traffic Operation System (Design), Los Angeles, CA — Project Engineer

Kevin Thomas, CEP, Env-SP

QUALITY CONTROL/QUALITY ASSURANCE

Kevin has more than 30 years of experience in the environmental compliance and permitting of major infrastructure and land development projects. He has managed and prepared numerous environmental and planning studies for public and private sector clients under CEQA and NEPA, specializing in the strategic guidance, preparation, and peer review of CEQA/NEPA documents and regulatory permitting programs. Kevin has managed a wide range of environmental planning projects, including environmental documents for major infrastructure and land development projects, air quality and noise studies, community participation programs, highly controversial hillside development projects, state-of-the-art visual analyses, facility siting and due diligence studies, and technical support for the California Energy Commission, California Public Utilities Commission and California Coastal Commission permitting processes.

Professional Credentials

Bachelor of Arts, Environmental Engineering, University of California, Los Angeles, CA
Certified Environmental Professional (#99040383)
Envision Sustainability Professional
American Council of Engineering Companies, Chair
American Water Works Association
National Association of Environmental Professionals
CalDesal, Chair, Regulatory Working Group
ARTBA, Co-Chair Environmental Committee, Chair NEPA Subcommittee (Federal Issues Oversight)

Relevant Experience

- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Environmental Planner
- City of Fontana On-Call Environmental Services, CA – Principal-in-Charge
- County of Riverside On-Call Planning Services, CA – Project Manager
- On-Call Environmental Services (currently ongoing), County of Riverside – Project Manager
- County of Riverside General Plan Update and Program EIR, County of Riverside – Project Manager
- County of San Bernardino On-Call Civil Engineering Services, CA – CEQA/NEPA Task Manager
- Jackson Avenue Extension and Bridge Project IS/MND, City of Murrieta – Project Manager
- Murrieta 25 Grading Project IS/MND, City of Murrieta – Project Manager
- Murrieta 18 Office Campus IS/MND (peer review), City of Murrieta – Project Manager
- Los Alamos/I-215 Interchange Improvements CE/CE, City of Murrieta and Caltrans – Project Manager
- Wine Country Community Plan Program EIR, County of Riverside – Project Manager
- Temecula Creek Inn Specific Plan Administrative Draft EIR, City of Temecula, CA – Project Manager
- Butterfield Specific Plan Subsequent Program EIR, Banning, CA – Project Manager
- Wine Country Community Plan Program EIR, Temecula, CA – Project Manager
- La Entrada Specific Plan Program EIR, Coachella, CA – Project Manager
- Heritage Valley Parks Specific Plan Program EIR and Addenda EIR, Fillmore, CA – Project Manager
- Holiday Inn Express and Restaurant IS/MND, Downey, CA – Project Manager

Aryo Rad, P.E., QSD

CIVIL AND TRANSPORTATION ENGINEERING – TASK MANAGER

Aryo has more than two decades of civil engineering and construction management experience related to municipal and public facilities. His broad range of experience includes planning, permitting, design, bidding, and construction of community centers, libraries, parks, as well as for municipal infrastructure such as roadways, storm drains, utilities, and other transportation projects in Orange, Los Angeles, and Riverside areas. He has led complex multidisciplinary public works projects with a track record of successful implementation. Aryo has significant experience in working with community development, public works, and planning departments for more than 15 municipalities in Southern California and assisting them with their capital improvement and special projects. Aryo is thoroughly familiar with the City of Santa Ana procedures as well as the challenges the City faces with local issues.

Professional Credentials

Master of Science, Civil Engineering, California State University, Fullerton
Master of Science, Systems Engineering, Industrial Management Institute
Bachelor of Science, Civil Engineering, Azad University, Tehran
Professional Civil Engineer in California (#81231)
American Association of State Highway and Transportation Officials
American Society of Civil Engineers, Member
American Water Works Association
Project Management Institute, Member

Relevant Experience

- City of Anaheim On-Call Consulting Support for Public Works, Development Services, Anaheim, CA – Project Manager and Senior Plan Checker
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Engineer
- City of Laguna Niguel, Auxiliary Parking Lot for Sea Country Senior Center, Laguna Niguel, CA Project Manager
- City of Montebello, Beverly Boulevard and Wilcox Avenue Intersection Improvement, Montebello, CA – Project Manager
- City of Lynwood, Various Street Improvements, Lynwood, CA – Project Manager
- City of Brea, Cliffwood Industrial Street Rehabilitation, Alley Rehabilitation, and Water Main Replacement Projects, Brea, CA – Project Manager and Project Designer
- City of Montebello, Flotilla Street Rehabilitation and Sewer Main Improvements, Montebello, CA Project Manager
- City of Anaheim, Fairmont Boulevard Widening, Anaheim, CA – Principal Design Engineer
- City of Diamond Bar, Area 6 Road Maintenance, Diamond Bar, CA – Project Engineer and Design Engineer
- City of Irvine, Culver Drive Street Improvement, Irvine, CA – Design Engineer
- City of Bell Gardens, Ford Park Soccer Field Number 5, Bell Gardens, CA – Project Manager and Principal Design Engineer
- City of Moreno Valley, Redlands Blvd and SR 60 Westbound Ramps Improvements, Redlands, CA – Project Manager
- City of Pico Rivera, Rosemead Boulevard and Mines Avenue Intersection Improvement, Pico Rivera, CA – Project Manager
- City of Maywood, Atlantic Boulevard & Slauson Avenue Street and Street Rehabilitation and Median Improvements, Maywood, CA – Project Engineer
- City of San Clemente, Vista Hermosa Sports Park, San Clemente, CA – Project Design Engineer

Eric Regueiro, P.E., ENV SP

CIVIL AND TRANSPORTATION ENGINEERING – TASK MANAGER

Eric has more than a dozen years of experience in civil engineering for roadway and land development projects throughout Southern California. His technical skillset allows him to support a wide range of projects, from local roadway improvements to major interchange, grade separation, and regional transportation projects. His emphasis has been on street improvement design, pavement condition analysis, grading and drainage, stormwater management, and sewer and water system design. In addition, Eric uses both of the major design software programs - AutoCAD Civil 3D and MicroStation/InRoads, and is able to design and model roadway plans using the client's preferred CAD software.

Professional Credentials

Bachelor of Science, Civil Engineering, University of California, Irvine
Professional Engineer in California (#78161)
Envision Sustain Professional
American Society of Civil Engineers, Associate Member

Relevant Experience

- Long Beach Citywide Pavement Maintenance Management System, Long Beach, CA — Project Engineer
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Manager
- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Project Engineer
- Artesia Boulevard Improvements, Buena Park, CA — Project Engineer
- Baseline Road/Laurel Avenue Intersection Widening, Fontana, CA — Analyst
- City of Buena Park, Auto Center Drive Traffic Signal and Median Design, Buena Park, CA — Project Engineer
- City of Fontana On-Call Pavement Rehabilitation/Utility Design, Fontana, CA — Project Engineer
- CSU Long Beach, East Campus Road - Safety Improvements, Long Beach, CA — Project Manager
- Diamond Bar Prospectors Road Street Rehabilitation Project, Diamond Bar, CA — Analyst
- Expo Metro Line Construction Authority, Design of LRT Phase 2, Los Angeles, CA — Project Engineer
- Firestone Boulevard Improvements, Buena Park, CA — Analyst
- Fresno Marketplace at El Paseo, Fresno, CA — Project Engineer
- La Habra Harbor/Lambert Intersection Widening, La Habra, CA — Project Engineer
- Lakewood Boulevard and Cover Street Intersection Improvements, Long Beach, CA — Project Engineer
- New Pedestrian Mall and Repairs to North Deukmejian Way, Long Beach, CA — Project Engineer
- Ocean Park Boulevard Complete Green Street Project, Santa Monica, CA — Project Engineer
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Project Engineer
- RCTD, I-10 Bypass, Riverside County, CA — Project Engineer
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Project Engineer

Gyan Sinha, P.E.

CIVIL AND TRANSPORTATION ENGINEERING

Gyan has experience in roadway, rail, and land development. He has supported a wide range of projects and provided roadway design, rail design, storm and sewer design, Storm Water Pollution Plan Development, bio-swale design, hydrology design, and precise and mass grading. Gyan is proficient in variety of software such as AutoCAD, AutoCAD Civil 3D, FlowMaster and WSPG. Also, he is involved in American Society of Civil Engineers, Orange County, Younger Member Forum as a board member.

Professional Credentials

Bachelor of Science, Civil and Environmental Engineering, Seattle University
Professional Engineer in California (#85031)
American Society of Civil Engineers, Board Member

Relevant Experience

- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Engineer
- City of Jurupa Valley, Pedley Road and Jurupa Road Intersection Analysis, Jurupa Valley, CA — Project Engineer
- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Analyst
- Anaheim Rapid Connection (ARC) Streetcar, Anaheim, CA — Analyst
- Atlanta BeltLine, Inc., Design Engineering and Consulting for the Westside Transit Corridor, Atlanta, GA —
- Capitol Expressway ITS Infrastructure and Sidewalk Project, Santa Clara County, CA — Analyst
- CDCR- Deuel Vocational Institute (DVI), Solano, CA — Analyst
- Fresno Marketplace at El Paseo, Fresno, CA — Analyst
- Garden Grove Walmart, Garden Grove, CA — Project Engineer
- Lakewood Boulevard and Cover Street Intersection Improvements, Long Beach, CA — Analyst
- Los Alamitos Medical Center (Specific Plan and Master Plan), Los Alamitos, CA — Analyst
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Analyst
- RCTD, I-10 Bypass, Riverside County, CA — Analyst

Alan Huynh, EIT

CIVIL AND TRANSPORTATION ENGINEERING

Alan is an engineering analyst specializing in roadway and rail design. He has experience designing roadway and rail alignments and profiles using AutoCAD Civil 3D and MicroStation. He also has experience with utility design and coordination.

Professional Credentials

Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona
Engineer-in-Training (#156838)
American Society of Civil Engineers, Member

Relevant Experience

- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Analyst
- Anaheim Rapid Connection (ARC) Streetcar, Anaheim, CA — Analyst
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Analyst
- I-5 North Coast - PA/ED and PS&E (also Staff Augmentation I-5 HOV Extension PS&E), San Diego, CA — Analyst
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Analyst
- RCTD, I-10 Bypass, Riverside County, CA — Analyst
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Analyst
- Regional Express Lane Network Phase 1- I-880/I6-80/SR 84/SR 92 On-Call PS&E Design Services, San Francisco County, CA — Analyst
- Sacramento County Airport System, Consulting Engineer Services, Sacramento, CA — Analyst

Jimmy Medellin, P.E.

DRAINAGE AND WATER QUALITY – TASK MANAGER

Jimmy has more than 15 years of experience in civil engineering, with an emphasis on hydrology and hydraulics. Jimmy's project experience includes design work for dam retrofit and transportation projects, flood hazard studies, including hydraulic evaluation of systems in riverine, alluvial fan, and urban environments. His prior work experience includes failure analysis evaluation to analyze systems and recommend measures to prevent failures through in-depth third-party reviews and risk assessments. Jimmy's additional experience includes awareness floodplain mapping for the California Department of Water Resources, periodic inspections of USACE levees, and stormwater drainage system design and stormwater best management practices design for the California Department of Transportation. He also has experience working with HEC-RAS, HEC-HMS, WMS, WSPG, ArcGIS, HEC-GeoRAS, HEC-GeoHMS, Autodesk Civil 3D/AutoCAD, AES, MicroStation, FLO-2D, PondPack, and StormCAD.

Professional Credentials

Bachelor of Science, Environmental Engineering, Massachusetts Institute of Technology
Professional Engineer in California (#77250)
American Society of Civil Engineers (ASCE); Member

Relevant Experience

- Malibu On-Call Traffic Engineering Services, Malibu, CA — Project Engineer
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Project Engineer
- Port of Los Angeles (POLA), On-Call Design Services: Harry Bridges Boulevard Street Improvements, Los Angeles, CA — Senior Engineer
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Engineer
- Orange County Public Works, Stonybrook Lane Storm Drain Project, Orange County, CA — Senior Engineer
- OCTA, PE and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Project Engineer
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Project Engineer
- Caltrans, Stormwater Detention Basin Designs (along SR-73), Various, CA — Staff Engineer
- Alameda Corridor–East Construction Authority (ACE), Durfee Avenue Grade Separation, Pico Rivera, CA — Senior Engineer
- Caltrans, I-15/I-215 Interchange Improvements (Devore), Devore, CA — Senior Engineer
- City of Rancho Mirage, Frank Sinatra at Whitewater River, Rancho Mirage, CA — Senior Engineer
- City of Wildomar, Palomar Road Widening, Wildomar, CA — Senior Engineer
- San Bernardino Associated Governments (SANBAG), SR 210 Mixed Flow Lane Addition PA&ED – Highland Avenue to San Bernardino Avenue, San Bernardino County, CA — Senior Engineer
- The Port of Long Beach, Pier G Berths G230-G236 Terminal Redevelopment, Long Beach, CA — Senior Engineer
- Santa Margarita Water District, Engineering and Geotechnical Design Services for Trampas Canyon Reservoir, Orange County, CA — Senior Engineer
- City of Los Angeles Dept. of Recreation and Parks, Chatsworth Park South, Chatsworth, CA — Senior Engineer

Annje Dodd, Ph.D., P.E.

DRAINAGE AND WATER QUALITY – TASK MANAGER

Annje has nearly 25 years of experience leading projects in civil and water resources engineering as well as planning and environmental science. Her wide range of expertise includes advanced hydrologic and hydraulic analyses; sediment transport analysis; fluvial geomorphologic analysis; floodplain management; stormwater compliance; water rights and quantity studies; environmental permit application assistance (DFW, RWQCB, USACE); CEQA/NEPA document preparation and supporting analyses; and water quality planning, monitoring, and reporting. Additional areas of expertise include 1-D and 2-D sediment transport modeling, groundwater modeling, flood frequency analyses, stormwater master planning, drainage analyses and design, evapotranspiration studies, stormwater utility analysis, nutrient management planning, statistical and probabilistic analyses, developing and analyzing success criteria for monitoring programs, and stream erosion and stability analyses.

Professional Credentials

Doctor of Philosophy, Civil and Environmental Engineering, Utah State University
Master of Science, Environmental Systems, Mathematical Modeling, Humboldt State University
Bachelor of Arts, Applied Mathematics, Humboldt State University
Bachelor of Science, Environmental Resources Engineering, Humboldt State University
Professional Engineer in CA (#77756), NV (#22663), and AZ (#58307)
Association of State Floodplain Managers, Member

Relevant Experience

- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Team Member
- Brookfield Residential Properties, Amoruso Ranch Master Planned Community, Roseville, CA — Project Engineer
- City of Marina, Imjin Parkway Widening Project, Marina, CA — Environmental Planner
- CEQA Compliance for Jefferson Community Center and Park; Westside Community Improvement Association; Eureka, CA — Project Manager
- Various Projects for City Engineer's Office; City of Ferndale, CA — Project Manager
- Eureka Arcata Safety Corridor Project, California Department of Transportation, Eureka, CA — Project Manager
- City of Sparks, NFIP CRS Program Development and Modeling, Sparks, NV — Project Manager
- Del Sur A, B, and C CUP Site Plans, Lancaster, CA — Task Manager
- Fairview Estates, El Cerrito, CA — Environmental Scientist
- Regional Transportation System Enhancements Project (RTSEP), San Rafael, CA — Project Engineer
- Rocketdyne/UTC Canoga Park Campus Master Plan (aka UTC/Warner Center Development), Canoga Park, CA — Project Engineer
- Sacramento County Airport System, Consulting Engineer Services, Sacramento, CA — Project Engineer
- Salinas, Municipal Separate Storm Sewer System Annual Report Review, Salinas, CA — Project Manager
- sPower, Green Beanworks B, C and D Solar Facility, Lancaster, CA — Project Engineer
- Truckee River Watershed CEQA Consult, Middle Truckee and Upper Little Truckee Watersheds Restoration Project, Truckee, CA — Project Engineer
- Citywide Stormwater Master Plan, Town of Yountville, CA — Project Manager
- Truckee River Watershed Regional Hydrologic Model, Truckee River Flood Management Authority, Washoe County, NV — Deputy Project Manager

Katie Galloway, P.E.

DRAINAGE AND WATER QUALITY

Katie specializes in hydrology and other water related services such as stormwater management and best management practices. Katie has been involved in wet utility design, storm drain design, water quality analysis, water quality reports, hydrology analysis, and task management. Katie is proficient in a variety of software packages such as MicroStation, AutoCAD Civil 3d, StormCAD, InRoads, FlowMaster, CulvertMaster and ProjectWise.

Professional Credentials

Master, Applied Ocean Science (Mechanical Engineering), University of California, San Diego
Bachelor of Science, Civil and Environmental Engineering, University of Maryland
Professional Engineer in California (#84222)
American Society of Civil Engineers (ASCE), Member
Engineers Without Borders, Member

Relevant Experience

- Mission Avenue Streetscape - A Green/Complete Streets, Oceanside, CA — Project Engineer
- National City, Community Corridors Improvements, 4th Street, National City, CA — Analyst
- ACE, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA —
- East County Bus Maintenance Facility Master Plan and Construction Documents, San Diego, CA — Project Engineer
- Euclid Avenue Pedestrian & Bicycle Enhancements, National City, CA —
- Graton Casino - Wilfred Avenue Off-Site Improvements, Rohnert Park, CA — Analyst
- Voigt Drive/I-5 North Coast Corridor (NCC) Improvements (PS&E), San Diego, CA — Project Engineer
- Willow Street Bridge Replacement Phase 2, Chula Vista, CA — Analyst
- Hayward I-880/SR 92 Reliever Route, Hayward, CA — Analyst
- I-215/Van Buren Blvd Interchange PA&ED and PS&E Phases, Riverside County, CA — Analyst
- I-5/Genesee PR/ED, PS&E and Construction Phase Services (CPS), San Diego, CA — Analyst
- Martin Luther King Community-Oriented Skate Park (aka Sidewinder Skate Park), El Centro, CA — Analyst
- Palm Ave. and I-805 Interchange Widening (Bridge), San Diego, CA — Analyst
- Rancho Coronado Villages Design Services - A Public/Private Partnership, San Marcos, CA — Project Engineer
- RCTD, I-10 Bypass, Riverside County, CA — Project Engineer
- Rehabilitation of Willow Street Bridge over the Sweetwater River, Chula Vista, CA — Project Engineer
- Safari Park Wastewater Treatment Plant Expansion (aka Water Pipeline Upgrades and Safari Park Grant Support), San Diego, CA — Project Engineer
- SANDAG, Final Design of the South Line Freight Rail Improvements, San Diego, CA — Project Engineer
- SANDAG, Mid-Coast - 100% Final Design Phase, sub to PB, San Diego, CA — Project Engineer
- SANDAG/MTS Light Rail Transit (LRT) Renewal Project – Blue Line Stations, San Diego, CA — Analyst
- UCSD Traffic Study for I-5/Gilman Drive Advanced Technology Bridge project, San Diego, CA — Project Engineer

Kameron Qureshi

DRAINAGE AND WATER QUALITY

Kameron has experience in civil, traffic, and drainage design for roadway projects. He has worked on the design and coordination of utilities for grade separations and roadway projects. He also has experience with completing hydrology studies, developing traffic control plans, and cost estimates for public road projects. He is proficient in AutoCAD, AutoCAD Civil 3D, Microstation, and InRoads.

Professional Credentials

Bachelor of Science, Civil Engineering, California State Polytehnic University of Pomona
American Society of Civil Engineers, Member

Relevant Experience

- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Analyst
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Analyst
- City of Jurupa Valley, Pedley Road and Jurupa Road Intersection Analysis, Jurupa Valley, CA — Analyst
- City of Marina, Imjin Parkway Widening Project, Marina, CA — Analyst
- Lake Havasu State Park Boat Launch Design, Lake Havasu City, AZ — Analyst
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Analyst
- R-2530B/B-4974, NC 24-27-73 Widening, Stanly and Montgomery, NC — Analyst
- RCTD, I-10 Bypass, Riverside County, CA — Analyst
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Analyst
- SANDAG, Bus On Shoulder (BOS) Bus Rapid Transit (BRT) Demonstration, San Diego, CA — Analyst
- SR 91/Beach Boulevard Entrance Ramp Modifications, Buena Park, CA — Analyst

Jason Melchor, P.E.

TRAFFIC AND TRANSIT ENGINEEERING – TASK MANAGER

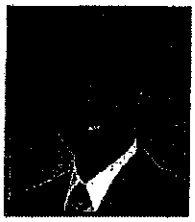
Jason has more than 20 years of experience in traffic engineering and transportation planning. He has worked with clients in Orange, Los Angeles, Riverside and San Diego Counties to complete traffic impact studies and perform the technical analysis for a variety of transportation planning projects: parking studies, transit analysis, site plan reviews, and circulation studies. His traffic engineering experience includes traffic signal design, signing and striping, traffic control, and signal interconnect design plans. He has acted as in-house staff for the cities of Irvine and Huntington Beach to review development studies and design plans. In this role, he worked directly with developers and City staff to provide comments on plan and document submittals. Jason also has experience working with a variety of traffic engineering software programs and computer design packages.

Professional Credentials

Bachelor of Science, Civil Engineering; Specialization in Transportation, University of California, Irvine
Professional Engineer in California (#C65218)
Institute of Transportation Engineers, Member
Orange County Traffic Engineering Council

Relevant Experience

- On-Call Civil Engineering Services, San Bernardino County, CA — Project Engineer
- On-Call Review Services (Moreno Valley), Moreno Valley, CA — Project Engineer
- On-Call Services - Traffic Engineering and Transportation Planning Review Services, Riverside County, CA — Project Engineer
- On-Call Signal Design Services (Chino), Chino, CA — Project Engineer
- On-Call Signal Design Services (Palmdale), Palmdale, CA — Project Engineer
- On-Call Traffic/Civil Engineering Services, City of Industry, CA — Project Engineer
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Project Engineer
- On-Call Review Services (Moreno Valley), Moreno Valley, CA — Project Engineer
- On-Call Services - Traffic Engineering and Transportation Planning Review Services, Riverside County, CA — Project Engineer
- On-Call Signal Design Services (Chino), Chino, CA — Project Engineer
- On-Call Signal Design Services (Palmdale), Palmdale, CA — Project Engineer
- FY2011-12 Major Pavement Rehabilitation (Task Order Under On-Call), Pomona, CA — Project Engineer
- Agoura Hills On-Call, Agoura Hills, CA — Project Engineer
- Artesia Boulevard Improvements, Buena Park, CA — Project Engineer
- City of Oceanside On-Call Traffic Engineering Services, Oceanside, CA — Project Manager
- Azusa Avenue/Amar Road Intersection Improvements, West Covina, CA — Project Engineer
- Buena Park Traffic Operation System, Buena Park, CA — Project Engineer
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — QC/QA Reviewer
- City of Buena Park, Auto Center Drive Traffic Signal and Median Design, Buena Park, CA — Project Manager
- City of Fontana On-Call Pavement Rehabilitation/Utility Design, Fontana, CA — Project Engineer



Sri Chakravarthy, P.E., T.E.

TRAFFIC AND TRANSIT ENGINEERING – TASK MANAGER

Sri has nearly 15 years of traffic operations and transportation engineering experience. Since beginning his career with Los Angeles County prior to joining Kimley-Horn, Sri has participated in a wide variety of traffic signal synchronization, ITS operations projects, and on-call traffic engineering services. His project management experience includes traffic signal operations, traffic signal design, traffic impact studies, roundabout design, corridor planning, signal justification studies, school safety studies, site specific traffic circulation and safety studies. His key areas of expertise include traffic signal timing, signal design, ITS, transportation modeling, grant applications, and statistical analysis. Sri also has extensive knowledge of Synchro 8.0, CORSIM©, Traffix, Tru-Traffic, TransCAD 4.5, MicroStation, AutoCAD, and Systat 10.

Professional Credentials

Master of Science, Civil Engineering, Louisiana State University
Bachelor of Science, Civil Engineering, Kakatiya University, India
Professional Engineer in California (#73629)
Traffic Engineer in California (#2531)
Institute of Transportation Engineers, Past President
City Traffic Engineers, Board Member

Relevant Experience

- Malibu On-Call Traffic Engineering Services, Malibu, CA — Project Manager
- Traffic Engineering and Traffic Surveys, Santa Monica, CA — Project Engineer
- Traffic Engineering Surveys (aka Flashing Beacon Design), La Canada Flintridge, CA — Project Manager
- Traffic Signal System Design Select List, Los Angeles County, CA — Project Engineer
- OCTA, Lake Forest Drive (task order C-2-1420 from On-Call), Orange, CA — Project Manager
- On-Call Traffic and Civil Engineering Services, (Industry), City of Industry, CA — Project Engineer
- 27th Street/Bay Place Bikeway Feasibility Study, Oakland, CA — Analyst
- Accident Rate Study, Los Angeles County, CA — Project Engineer
- Agoura Hills On-Call, Agoura Hills, CA — Project Engineer
- Citywide Traffic Signal Equipment and Infrastructure Assessment Study, Rancho Mirage, CA — Project Engineer
- Engineering and Traffic Survey, Malibu, CA — Deputy Project Manager
- Agoura Hills Traffic Services (in CP aka Kanan/Agoura Signal Timing), Agoura Hills, CA — Project Manager
- Agoura Road Widening Project (Complete Streets), Agoura Hills, CA — Project Engineer
- Bicknell Avenue Green Street - Complete Street, Santa Monica, CA — Project Engineer
- Chapman Avenue Corridor Traffic Signal Synchronization Project (TSSP) (Task Order for Traffic Engineering Services for), Orange County, CA — Project Manager
- City of Lancaster, Program Management Services for Measure R Highway Equity Program, Lancaster, CA — Project Engineer
- City of Los Angeles, Bridge On-Call Program (North Spring Street and Laurel Canyon Tasks), Los Angeles, CA — Project Engineer
- City of Malibu, PCH (Route 1) Mobility Improvements at Various Locations, Malibu, CA — Project Manager
- Citywide Sign Management Study, Agoura Hills, CA — Project Manager
- Crown Valley Parkway Traffic Signal Synchronization Program (TSSP), Orange County, CA — Project Manager

Alyssa Phaneuf, P.E.

TRAFFIC AND TRANSIT ENGINEERING – TASK MANAGER

Alyssa has more than 15 years of experience in a wide range of transportation and transit projects including regional ITS planning and systems engineering. She has experience writing technical specifications for a variety of technologies including video walls, traffic signal systems, and ITS field equipment. Through her work on regional and local ITS projects, she has experience working with a variety of stakeholders such as the Federal Highway Administration, local police departments, regional planning agencies, and FEMA. She is adept at assessing the needs of the stakeholders and translating those needs into on-the-ground solutions.

Professional Credentials

Master of Science, Civil Engineering - Transportation, Georgia Institute of Technology
Master of City and Regional Planning, Georgia Institute of Technology
Bachelor of Science, Civil and Environmental Engineering, University of California, Berkeley
Professional Engineer in California (#63123)

Relevant Experience

- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Project Engineer.
- City of Culver City, Traffic Control System (KITS®), Culver City, CA — Deputy Project Manager.
- City of Malibu, Pacific Coast Highway (PCH) Signal System Improvements Project, Malibu, CA — Project Engineer.
- City of San Mateo, Downtown Parking Technology Implementation, San Mateo, CA — Project Engineer.
- Citywide Traffic Signal Equipment and Infrastructure Assessment Study, Rancho Mirage, CA — Project Engineer.
- OCTA, Brookhurst Street TLSP (8-0612-4), Orange County, CA — Project Engineer.
- U.S. 101 Freeway Cap Preliminary Feasibility Study, SCAG 2% Compass Blueprint, Ventura County, CA — Project Manager.
- LA Metro, Wilshire Bus Rapid Transit (BRT) Before and After Study, Los Angeles, CA — Project Manager.
- Best Practices in Arterial Speed Management, Pasadena, CA — Project Engineer.
- Transit Priority System Phase 2/ATMS Phase 3, Santa Monica, CA — Project Engineer.
- California ITS Architecture and System Plan, Statewide, CA — Project Engineer.
- Caltrans District 7, Historic Arroyo Seco Parkway Strategic Program (CMAS), Los Angeles, CA — Project Engineer.
- Caltrans, Connected Corridors Program and Corridor System Management/Operations Pilot Project, Statewide, CA — Project Manager.
- City of Anaheim ITS Master Plan (aka Anaheim Traffic Management Center TMC), Anaheim, CA — Project Engineer.
- City of Commerce KITS® (ATMS), City of Commerce, CA — Project Engineer.
- Downey Traffic Management Center (TMC) Assessment, Downey, CA — Project Engineer.
- Downtown Paso Robles Parking and Master (Specific) Plan, Paso Robles, CA — Project Engineer.
- ITS Integration Plan for Goods Movement, Gateway Cities Area, CA — Project Manager.
- Pasadena SAFETEA-LU - Parking Guidance and Information Systems Integrator, Manager, and Design (TMC), Pasadena, CA — Project Engineer.
- Real Time Parking Information System (Formerly known as Design, Implementation, and Integration of a DMS), Culver City, CA — Project Manager.
- Real-Time Beach Parking Project and DMS, Santa Monica, CA — Project Engineer.

Tim Chan, P.E.

TRAFFIC AND TRANSIT ENGINEERING

Tim's experience includes transportation planning and traffic engineering. He has worked with public and private sector clients on a variety of traffic impact studies, transportation analyses, and parking evaluations throughout the Southern California region. His traffic engineering experience includes traffic signal, signing and striping, traffic handling, and streetlight plans. He has utilized a wide range of transportation-related software packages and is knowledgeable of planning and design standards for local and state agencies.

Professional Credentials

Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona
Civil Engineer in California (#C85687)
American Society of Civil Engineers (ASCE), Student Chapter
Institute of Transportation Engineers (ITE), Student Chapter

Relevant Experience

- Santa Ana Transportation System Improvement Area Study, Santa Ana, CA -
- City of Buena Park, Auto Center Drive Traffic Signal and Median Design, Buena Park, CA — Analyst
- City of Buena Park, Complete Streets Master Plan, Buena Park, CA — Project Engineer
- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Analyst
- Capitol Expressway ITS Infrastructure and Sidewalk Project, Santa Clara County, CA — Analyst
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Engineer
- City of Jurupa Valley, Limonite Avenue Traffic Analysis Between Downey Street and Pedley Road, Jurupa Valley, CA — Project Engineer
- City of Jurupa Valley, Pedley Road and Jurupa Road Intersection Analysis, Jurupa Valley, CA — Project Engineer
- City of Temple City, TIA for Las Tunas Drive Improvement, Temple City, CA — Analyst
- East Coast Highway Signal Rehabilitation Design, Newport Beach, CA — Analyst
- Newport Executive Center Addendum to the Newport Executive Court Project, Newport Beach, CA — Analyst
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Analyst
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Analyst.
- Riverside Community Hospital Expansion, Riverside, CA — Analyst
- Sand Hill Property Company, Vallco Shopping District Specific Plan, Cupertino, CA — Analyst
- Western Avenue Sight Distance and Parking Improvments, Buena Park, CA — Analyst
- Riverside Community Hospital Traffic Impact Study and Parking Evaluation, Riverside, CA -
- Newport Beach East Coast Highway Signal Rehabilitation, Newport Beach, CA -
- Rialto Panattoni Assemblage Traffic Impact Study, Rialto, CA -
- La Habra Gas Station Circulation Study, La Habra, CA -
- Uptown Newport, Newport Beach, CA – Analyst

Trevor Briggs, P.E.

TRAFFIC AND TRANSIT ENGINEERING

Trevor has completed various transportation projects and studies in California, Utah, Idaho, and Florida. Trevor has designed and drafted various traffic plans, including signing and striping, traffic signal, traffic control, and ITS plans. He has also been involved in conducting analyses and writing various traffic impact studies for public agencies and jurisdictions. Trevor has utilized a wide range of transportation-related software packages and is knowledgeable of planning and design standards for many local and state agencies. He is also familiar with right-of-way easement documents and mapping the easement locations into AutoCAD Civil 3D 2012 and ArcGIS.

Professional Credentials

Bachelor of Science, Civil Engineering, Brigham Young University
Professional Engineer in CA (#87664)
American Society of Civil Engineers (ASCE), Member
Institute of Transportation Engineers (ITE), Member

Relevant Experience

- City of Buena Park, Complete Streets Master Plan, Buena Park, CA — Analyst
- Western Avenue Sight Distance and Parking Improvements, Buena Park, CA — Analyst
- Traffic Impact Study for Hyatt Place, 101-111 W. Valley Boulevard, San Gabriel, CA — Analyst
- Traffic Impact Study for the Orangethorpe and Thomas Residential Project, SW Corner of Orangthorpe Avenue and Thomas Street, Buena Park, CA — Analyst
- 234 West Hyde Park Boulevard Manufacturing/Warehouse Project Initial Study/Mitigated Negative Declaration, Inglewood, CA — Analyst
- Capitol Expressway ITS Infrastructure and Sidewalk Project, Santa Clara County, CA — Analyst
- Contra Costa County, Byron Highway and Camino Diablo Intersection Improvements, Contra Costa County, CA — Analyst
- East Coast Highway Signal Rehabilitation Design, Newport Beach, CA — Analyst
- Garvey Square (El Monte Townhomes), El Monte, CA —
- Hoag Health Center, Irvine, CA — Analyst
- I-880 Express Lanes, Oakland, CA — Analyst
- La Palma Townhomes, Anaheim, CA — Analyst
- Lakeshore Towers Parking Demand Study, Irvine, CA — Analyst
- Monster Beverage Corporation, Monster Energy Distribution Center, Rialto, CA — Analyst
- Newport Executive Center Addendum to the Newport Executive Court Project, Newport Beach, CA — Analyst
- Niagara Bottling Plant Addendum to the Renaissance Specific Plan Final EIR, Rialto, CA — Analyst
- Regional Express Lane Network Phase 1- I-880/I6-80/SR 84/SR 92 On-Call PS&E Design Services, San Francisco County, CA — Analyst
- Sand Hill Property Company, Vallco Shopping District Specific Plan, Cupertino, CA — Analyst
- Traffic Impact Study for the Newport Executive Center, Newport Beach, CA — Analyst
- Traffic Impact Study for the Medline Warehouse Project, Northeast Corner of Laurel Avenue and Miro Way, Rialto, CA — Analyst
- Traffic Signal Modification Plans for Capitol Expressway, San Jose, CA — Analyst

Dave Luzuriaga, P.E., QSD/P

EROSION CONTROL AND SWPPP – TASK MANAGER

Dave has been involved in a multitude of projects over his 25-year career. His background includes a wide range of civil engineering projects for higher education facilities and land development projects in Southern California. His overall grasp of general civil engineering, the process involved, and the ever-complicated permit approvals has consistently appealed to clients.

Professional Credentials

Bachelor of Science, Civil Engineering, California Polytechnic State University, San Luis Obispo
Professional Engineer in California (#56734)
Qualified SWPPP Developer/Practitioner (#00687)
California Board for Civil Engineers and Land Surveyors, Board Member

Relevant Experience

- Bellflower Unified School District, Mayfair High School STEAM Building, Track and Field Stadium, and Additional Improvements, Lakewood, CA — Project Manager
- Lake Elsinore Unified School District, Elsinore High School, Synthetic Baseball Field and Courtyard Redesign, Wildomar, CA — Project Manager
- Long Beach City College, Master Plan Update for New Sports Complex and Kinesiology and Health Education Building, Long Beach, CA — Project Manager
- Orange Unified School District, Orange High School Improvements, Orange, CA — Project Manager
- Rio Hondo College, Nursing Village, Transit Center, and Library Tower, Whittier, CA — Project Manager
- Viewpoint School, A/E Services for Sports Facility and Two Parking Lots, Calabasas, CA — Project Manager
- Long Beach City College, Due Diligence, New Sports Complex, and new Kinesiology Building, Long Beach, CA — Project Manager
- Rio Hondo College, Nursing Village, Transit Center, and Library Tower Seismic Retrofit, Lakewood, CA — Project Manager
- Cypress College, Baseball Field, Cypress, CA — Project Manager
- Orange Coast College, Substation, Costa Mesa, CA — Project Manager
- Fullerton College, Softball Field, Softball Batting Cage ADA Upgrades, Fullerton, CA — Project Manager
- College of the Canyons, Soccer Field and Accessibility Upgrades, Santa Clarita, CA — Project Manager
- El Camino College, Campus Wide Utility Mapping, and Water Main Relocation Plan, Torrance, CA — Project Manager
- Viewpoint School, Preliminary Design of Three Parking Lots, Six Tennis Courts, Sewer Alignment, and Multi-Use Synthetic Sports Field, Calabasas, CA — Project Manager
- Mater Dei High School, Parking Lot Re-Striping, ADA Upgrades, New Modular Building, and Portables, Santa Ana, CA — Project Manager
- Mayfair High School, Interim Classroom Modular Village, New STEAM Building, New Track and Field Stadium, New Synthetic Sports Field, LA County Culvert Design and Conversion of Open Channel, and Storm Drain Percolation Field, Lakewood, CA — Project Manager
- Elsinore High School, New Synthetic Baseball Field, Courtyard Redesign, Wildomar, CA — Project Manager
- Orange High School, New STEM Building, Design of the Interim Portable Village, Campus Wide Utility Upgrades, and Relocation of a Bus Drop Off, Orange, CA — Project Manager

Jennifer Steen

EROSION CONTROL AND SWPPP

Jennifer has more than 12 years of engineering experience on site development projects, including the preparation of Stormwater Pollution Prevention Plans and water quality technical reports. She has been responsible for providing support for educational, residential, commercial, and institutional land development projects throughout Southern California. In addition to stormwater management services, her work includes preparation of Phase I Environmental Site Assessments and jurisdictional delineations, as well as entitlement processing.

Professional Credentials

Bachelor of Science, Sociology, University of Illinois

Associate of Arts, Social Sciences, Saddleback College, Mission Viejo, CA

Relevant Experience

- Boeing Fitness and Recreation Center (8500 Fallbrook), Canoga Park, CA — Analyst
- Cardinal Health Pacific Corporate Center, San Diego, CA — Environmental Scientist
- Denver Premium Outlets, Thornton, CO — Analyst
- Escondido 7th Day Adventist Academy, Escondido, CA — Analyst
- Garden Grove Walmart, Garden Grove, CA — Analyst
- I-215/Van Buren Blvd Interchange PA&ED and PS&E Phases, Riverside County, CA — Analyst
- Intellicenter Riverside, Riverside, CA — Analyst
- LA Fitness (Van Nuys), Los Angeles, CA — Analyst
- Lake Matthews, Lake Matthews area, CA — Team Member
- Lennar, Superior Plating EAW, St. Paul, MN — Analyst
- Los Robles Hospital and Medical Center Expansion (Medical Tower) and parking structure, Thousand Oaks, CA — Team Member
- Monster Beverage Corporation, Monster Energy Distribution Center, Rialto, CA — Environmental Planner
- Pilot Travel Centers (E Otay Mesa Pilot Travel Center), San Diego County, CA — Analyst
- Rialto Walmart Site, Rialto, CA — Analyst
- Temple Palms Business Park, El Monte, CA, El Monte, CA — Analyst
- Tract No. 17708, Rialto, CA — Analyst.
- Tracy Combined Cycle Plant aka GFW Tracy Peaker Facility, Tracy, CA — Analyst
- Walmart #1879, Barstow, CA, Barstow, CA — Environmental Planner
- Walmart Cerritos Expansion, Phase 1 & 2, Cerritos, CA — Environmental Planner

Dave Barquist, AICP

PLANNING SERVICES – TASK MANAGER

Dave has more than 20 years of public and private sector planning experience, including extensive work with policy and program analysis for local and regional Housing Elements, comprehensive planning, local government policy and development, and environmental analysis. An expert in crafting local government policy, Dave has managed numerous complex planning programs, including General Plans, Specific Plans, Zoning Codes, and Development Code updates. His planning expertise includes policy analysis and development, urban design, downtown revitalization, parks and recreation planning, sustainability, and land use analysis. Dave has been an instructor at Cal State Fullerton's Urban Planning Certificate Program and Leadership Development for Public Agencies program for the last 10 years, teaching public agency staff on principals of communication and group facilitation. He excels in utilizing community engagement and public outreach programs to guide public policy development and has led hundreds of public meetings. Dave is well-versed in finding locally-specific techniques and tools—and in developing multimedia and interactive technology applications—to engage the community in the planning process.

Professional Credentials

Bachelor of Science, Urban and Regional Planning, California State Polytechnic University, Pomona
American Institute of Certified Planners (#136746)
American Institute of Certified Planners, Member
American Planning Association, Member
Society of College and University Planners

Relevant Experience

- Downtown/Old Town Indio Specific Plan Update and Community Outreach, Indio, CA — Project Manager
- Fountain Valley-New Electronic Message Center Sign Environmental Impact Report (EIR), Fountain Valley, CA — Project Planner
- On-Call Civil Engineering Professional Services, San Bernardino County, CA— Public Involvement Specialist
- Scotts Valley General Plan, EIR, and Climate Action Plan, Scotts Valley, CA — Project Planner
- Whittier Boulevard Specific Plan Moratorium Analysis, Whittier, CA — Project Manager
- Yorba Linda General Plan Update and Community Outreach and Parks and Recreation Master Plan, Yorba Linda, CA — Project Manager
- 1998-2007 Santa Ana Housing Element Update, Santa Ana, CA — Project Manager
- Santa Ana Citywide Design Guidelines, Santa Ana, CA — Project Manager
- City of Yorba Linda General Plan and EIR, Yorba Linda, CA – Project Manager
- Brea Downtown Specific Plan, Brea, CA — Project Manager
- City of Anaheim Housing Element, Anaheim, CA — Project Manager
- San Jacinto Comprehensive Development Code Update, San Jacinto, CA — Project Manager
- Paseo San Gorgonio Specific Plan-SCAG Compass Blueprint Demonstration Project, Banning, CA — Project Manager
- Yucca Valley Old Town Specific Plan, Program EIR, SR-62 Streetscape Master Plan, Yucca Valley, CA — Lead Project Planner

Dana Privitt, AICP

ENVIRONMENTAL SERVICES – TASK MANAGER

Dana is an environmental planner with more than 35 years of private- and public-sector experience focused on CEQA environmental analysis, project management, staff support services, and planning documentation for multi-issue development projects. Her projects include small- and largescale urban infill and greenfield developments; public infrastructure; policy programs; and public-sector support staff services. She has conducted CEQA training in coordination with the Association of Environmental Professionals, as well as for Newport Beach and the University of California, Irvine. Throughout her career, she has continued to work and collaborate with a diverse group of public and private planners, developers, and local governments. She has worked on many EIRs that were prepared under the threat of litigation.

Professional Credentials

Bachelor of Science, Social Ecology, University of California, Irvine
American Institute of Certified Planners (#9036)
American Institute of Certified Planners, Member
American Planning Association, Board Member
California Planning Foundation, Friend of CPF
California Preservation Foundation

Relevant Experience

- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Planner
- City of Ventura Residential Allocation Program, Ventura County, CA — Project Planner.
- Downtown/Old Town Indio Specific Plan Update and Community Outreach, Indio, CA — Project Planner
- Newport Executive Center Addendum to the Newport Executive Court Project, Newport Beach, CA — Project Manager
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Environmental Planner
- RCTD, I-10 Bypass, Riverside County, CA — Project Planner
- Tracy Hills Specific Plan Amendment Subsequent EIR, Tracy, CA — Project Planner
- Whittier Boulevard Specific Plan Moratorium Analysis and Addendum, Whittier, CA — CEQA Project Manager
- Yorba Linda General Plan Update and Community Outreach and Parks and Recreation Master Plan, Yorba Linda, CA — Project Planner
- Yorba Linda General Plan Update Program EIR, Yorba Linda, CA — CEQA Project Manager
- Gene Autry Way Improvement Project Addendum to the Platinum Triangle EIR, Anaheim, CA — CEQA Project Manager
- Downtown/Old Town Indio Specific Plan Update Program EIR, Indio, CA — CEQA Project Manager/Planner
- The Koll Center Residences Environmental Impact Report, Newport Beach, CA — Project Manager
- Red Hill Avenue Specific Plan EIR, Tustin, CA — Project Manager
- Hoag Hospital Master Plan Update Supplemental EIR, Newport Beach, CA — Project Manager
- University of California, Irvine (UCI) Medical Center Long Range Development Plan Program EIR, Orange, CA — Project Manager
- Multiple CEQA documents for the UCI campus (Irvine) and the UCI Medical Center (Orange), CA — Project Manager
- Plaza Residences EIR, Costa Mesa, CA — Project Manager

Karina Fidler, AICP, CPESC

ENVIRONMENTAL AND SWPPP – TASK MANAGER

Karina has nearly 20 years of experience as an environmental planner providing field investigations and CEQA and NEPA documentation for public and private sector projects. She has completed numerous Phase 1 Environmental Site Assessments, Phase II ESAs, environmental planning documents, and wetland delineations. In addition to environmental services, Karina has also prepared Stormwater Pollution Prevention Plans for private developments and public works improvements, and has conducted weekly and rain event inspections for projects under the Statewide General Construction Permit. Her responsibilities also include coordination with the contractor through the construction process to assure the Best Management Practices controls are installed and maintained, and that the site is in full compliance with the Permit. Karina is also trained to measure pH and turbidity in the field during storm events, as required by the Permit for high risk sites.

Professional Credentials

Master of Science, Public Health/ Environmental Health, San Diego State University
Bachelor of Science, Biological Sciences, University of California, Santa Barbara
American Institute of Certified Planners, (#020016)
Certified Professional in Erosion & Sediment Control (#7165)

Relevant Experience

- Civil Engineering Design Services - Santiago Detention Basin, Temecula, CA — Environmental Planner
- Intersection and Drainage Improvements at Frank Sinatra Drive and Portola Avenue, Palm Desert, CA — Environmental Planner
- San Diego County As-Needed Environmental Services, San Diego, CA — Project Manager
- San Diego River Bikepath, Ocean Beach Bikepath/Hotel Circle North (aka Mission Valley Bikeway Feasibility Study), San Diego, CA — Environmental Planner
- Main Street Promenade (Linear Park - A Street Vacation), Lemon Grove, CA — Project Engineer
- Bakersfield Master Plan Development (Meadow Field Airport) AKA Wingspoint, Bakersfield, CA — Environmental Planner.
- Bayshore Bikeway Environmental Documentation and Final Design, San Diego, CA — Environmental Planner.
- Santa Rosa Road Widening Project, Camarillo, CA — Project Engineer
- City of Stockton, Installation of Emergency Vehicle Pre-Emption(EVP) at Various Locations, Stockton, CA — Environmental Planner
- Del Dios Gorge Trail Feasibility Study, Escondido, CA — Environmental Planner
- Douglas Park-Long Beach (Boeing), Long Beach, CA — Environmental Planner
- Faraday Avenue, Carlsbad, CA — Environmental Planner
- Harbor Boulevard Smart Street Feasibility Study and Environmental Documentation, Garden Grove, CA — Environmental Planner
- I-215/Van Buren Blvd Interchange PA&ED and PS&E Phases, Riverside County, CA — Environmental Planner
- I-5/Genesee PR/ED, PS&E and Construction Phase Services (CPS), San Diego, CA — Environmental Planner
- Broadway Plaza Expansion, Walnut Creek, CA — Environmental Planner.

Michael Madsen, PLA, CLIA, CLARB

LANDSCAPE AND IRRIGATION – TASK MANAGER

Michael has nearly 15 years of landscape architectural experience in master planning, streetscapes, site design, pool and amenity areas, planting and irrigation design, and the preparation of tree mitigation plans. His background includes coordinating multidisciplinary design projects involving landscape architecture, urban planning, architecture, civil engineering, roadway design, and transportation design. Much of his project experience has been within the private sector with a focus on retail, restaurants, healthcare, and multi-family housing developments. He has also worked on parks, streets and pedestrian thoroughfares, and transportation corridors within the public realm. Michael is a Certified Landscape Irrigation Auditor, is member of the American Society of Landscape Architects, and is Certified by the Council of Landscape Architectural Registration Boards.

Professional Credentials

Master of Landscape Architecture, Landscape Architecture, University of Florida
Bachelor of Science, Business Administration, Florida State University
Professional Landscape Architect in CA (#5798), WA (#1477), FL (#LA6666994)
Certified Landscape Irrigation Auditor (#92638)
Council of Landscape Architectural Registration Boards (#21623)
American Society of Landscape Architects, Full Member
U.S. Green Building Council - National Capital Region, Member

Relevant Experience

- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Landscape Architect
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Landscape Architect
- City of Inverness Bicycle Master Plan, Inverness, FL — Landscape Architect
- City of Los Angeles, Bridge On-Call Program (North Spring Street and Laurel Canyon Tasks), Los Angeles, CA — Landscape Architect
- 11th Avenue Improvements (part of the Downtown BRT Stations project), San Diego, CA — Landscape Architect
- A Avenue Green Street (thru Kimball Park), National City, CA — Landscape Architect
- ACE, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Landscape Architect
- Coolidge Avenue Safe Routes to School, National City, CA — Landscape Architect
- D Avenue and 12th Street Roundabout (Safe Routes to School), National City, CA — Landscape Architect
- Engineering Design and Architectural Design Services for Plank Park, El Centro, CA — Landscape Architect
- I-5/Genesee PR/ED, PS&E and Construction Phase Services (CPS), San Diego, CA — Landscape Architect
- Martin Luther King Community-Oriented Skate Park (aka Sidewinder Skate Park), El Centro, CA — Landscape Architect
- Meridian Development, Millenia Park (P-6), Chula Vista, CA — Project Manager
- Rancho Road Sidewalks and Bike Lanes, Thousand Oaks, CA — Landscape Architect
- RCTD, Sunset Avenue Railroad Grade Separation at I-10 PS&E, Banning, CA — Landscape Architect
- SANDAG, Broadway Corridor/BRT Station Engineering and Environmental Compliance (CEQA), San Diego, CA — Landscape Architect

Randall Kopff, PLA

LANDSCAPE AND IRRIGATION – TASK MANAGER

With more than 15 years of professional experience, Randall has encompassed a wide variety of landscape architectural, planning, and graphic services on projects throughout the U.S. His skills include site inventory/analysis, master planning, design development, graphic presentations, 3-D modeling, project management, and detailed technical drawings. Randal utilizes his diverse project background to work closely with individual clients to interpret public input and ensure that the proper vision has been achieved throughout the planning and design implementation processes. He is well-versed in the latest versions of AutoCAD, Adobe Photoshop, Illustrator, InDesign, Acrobat Professional, SketchUp, Podium and VUE 3D rendering software, and more.

Professional Credentials

Bachelor of Science, Landscape Architecture, Ohio State University
Professional Landscape Architect in Arizona (#62750) and Oregon (#LA0916).

Relevant Experience

- National City, On-Call 5-Year Capital Improvement Projects (CIP), National City, CA — Landscape Architect
- SANDAG, Mid-Coast - 100% Final Design Phase, sub to PB, San Diego, CA — Landscape Architect
- El Centro, Aquatic Center, El Centro, CA — Landscape Architect
- Engineering Design and Architectural Design Services for Plank Park, El Centro, CA — Landscape Architect
- ASU Tempe Campus Mall Hardscape Master Plan, Tempe, AZ — Landscape Architect
- Carr McNatt Park, Casa Grande, AZ — Landscape Architect
- City of Scottsdale WestWorld Landscape & Signage Master Plan and Design, Scottsdale, AZ — Landscape Architect
- City of Yuma: Pacific Avenue Athletic Complex (PAAC), Yuma, AZ — Landscape Architect
- Denver Premium Outlets, Thornton, CO — Landscape Architect
- Gilbert Regional Park, Gilbert, AZ — Landscape Architect
- Scottsdale AutoShow at Salt River, Scottsdale, AZ — Landscape Architect
- MTS, Old Town Transit Center (OTTC) West Improvements, San Diego, CA — Landscape Architect
- University Community Plan Update (aka University Mobility Plan Update / University Future Conditions TO Contract / Regents Road Bridge), San Diego, CA — Landscape Architect
- Town of Fountain Hills Interconnected Trails (FIT) Identity Branding and Trailheads, Fountain Hills, AZ — Project Manager
- Scottsdale Community Services Division Master Plan, Scottsdale, AZ — Landscape Architect

Matthew Morgan, PLA

LANDSCAPE AND IRRIGATION

With professional experience in the field of landscape architecture and design, Matthew has had the opportunity to work on a broad variety of projects, providing initial site analysis, concept development, planning services, and highly detailed designs. He has both public- and private sector experience in urban planning, habitat restoration, planting and hardscape design, stormwater management, and historic preservation.

Professional Credentials

Bachelor of Landscape Architecture, Landscape Architecture, University of Oregon
Professional Landscape Architect in CA (#6256)

Relevant Experience

- El Centro, Aquatic Center, El Centro, CA — Landscape Analyst
- Martin Luther King Community-Oriented Skate Park (aka Sidewinder Skate Park), El Centro, CA — Landscape Analyst
- Paradise Creek Educational Park, National City, CA — Landscape Analyst
- The Village at Corte Madera, Corte Madera, CA — Landscape Analyst
- Volgt Drive/I-5 North Coast Corridor (NCC) Improvements (PS&E), San Diego, CA — Landscape Analyst
- Aurora Commerce Center, Aurora, CO — Landscape Architect
- Centennial Parkway Road Diet, Louisville, CO — Landscape Architect

Joe Cogswell

LANDSCAPE AND IRRIGATION

Joe has landscape architectural experience in arboriculture, horticulture, irrigation, urban design, and pedestrian and bicycle transportation planning. Much of his project experience has been within the municipal and commercial sector with a focus on community parks, athletic complexes, and streetscapes. Joe is an aspiring landscape architect in training and specializes in photo simulations, presentation graphics, 3d modeling, rendering, and diagramming. He also has experience in AutoCAD, SketchUp, Photoshop, InDesign, Illustrator, and Microsoft Office.

Professional Credentials

Bachelor of Science, Landscape Architecture, Purdue University
American Society of Landscape Architects

Relevant Experience

- 11th Avenue Improvements (part of the Downtown BRT Stations project), San Diego, CA — Landscape Analyst
- 2920 Rowena Townhomes, Los Angeles, CA — Landscape Analyst
- A Avenue Green Street (thru Kimball Park), National City, CA — Landscape Analyst
- AC Transit, Line 51 Corridor Delay Reduction and Sustainability Project, Alameda/Berkeley/Oakland, CA — Analyst
- ACE, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Landscape Analyst
- Alyce Gereaux Park - Park Renovation, Brawley, CA — Landscape Analyst
- ASU Tempe Campus Mall Hardscape Master Plan, Tempe, AZ — Landscape Analyst
- D Avenue and 12th Street Roundabout (Safe Routes to School), National City, CA — Landscape Analyst
- Dougherty Road Improvements (Sierra Lane to North City Limit), Dublin, CA — Landscape Analyst
- El Centro, Aquatic Center, El Centro, CA — Landscape Analyst
- Engineering Design and Architectural Design Services for Plank Park, El Centro, CA — Landscape Analyst
- Martin Luther King Community-Oriented Skate Park (aka Sidewinder Skate Park), El Centro, CA — Landscape Analyst
- Metropolitan Council, Advanced Design Consultant Services for the Metro Green Line Extension (Southwest LRT) Project, Minneapolis, MN — Analyst
- MTS, Old Town Transit Center (OTTC) West Improvements, San Diego, CA — Landscape Analyst
- Off-Site Roadway Improvements for Renaissance Parkway, Laurel Ave., and Alder Ave. for Target Food Distribution Center, Southern, CA — Landscape Analyst
- Paradise Creek Educational Park, National City, CA — Analyst
- San Rafael Corporate Center, San Rafael, CA — Analyst
- SANDAG, Broadway Corridor/BRT Station Engineering and Environmental Compliance (CEQA), San Diego, CA — Landscape Analyst
- SANDAG, Mid-Coast - 100% Final Design Phase, sub to PB, San Diego, CA — Landscape Analyst
- SANDAG, South Bay Bus Rapid Transit (BRT) East Palomar Street Segment Final Design, San Diego, CA — Landscape Analyst
- SANDAG/MTS Light Rail Transit (LRT) Renewal Project – Blue Line Stations, San Diego, CA — Analyst
- South Bay Bus Rapid Transit (BRT) Otay Mesa Intermodal Transit Center (ITC) Final Design, Otay Mesa - San Diego, CA — Landscape Analyst

Andy Sanford, P.E.

STRUCTURAL

Andy Sanford has over 29 years of professional experience, including 2 years of construction inspection experience, six years with Caltrans as a Project Engineer, and the last 20 years providing bridge design and project management. Andy has recently joined Kimley-Horn to continue with his bridge and project management roles. Andy has been involved in a variety of transportation planning, bridge design, retrofit analysis and design, and structure construction projects throughout his career. His brings key experience working on bridge replacement projects in San Diego, Riverside, San Bernardino and Imperial County (Anza Road Bridge). Andy has an extensive background in the preparation of planning documents, including Project Study Reports (PSRs) and Project Reports (PRs), and has been part of multiple-agency planning committees. He has developed project specifications utilizing the base standard special provisions for both Caltrans and locally funded projects. These projects involved the coordination of federal, state, and local agencies.

Professional Credentials

Bachelor of Science, Civil Engineering, California State University, Chico
Professional Engineer in California (#49671)
American Society of Civil Engineers, Member

Relevant Experience*

- County of San Diego On-Call Structural and Bridge Engineering, San Diego, CA – Project Manager
- Anza Road Bridge Replacement, County of Imperial, CA – Project Manager
- Bayshore Bikeway Bridges, San Diego, CA – Bridge Engineer, Project Manager
- Palm Avenue/I-805 Interchange and Bridge Widening, City of San Diego, CA – Project Manager
- Clairemont -Mesa Widening over SR-163, San Diego, CA – Project Manager
- 13th Street Bridge over Santa Maria Creek, County of San Diego, CA – Project Manager
- I-10/Sunset Avenue Interchange UPRR Grade Separation, (PEER, PS&E) Banning, CA – Bridge Task Lead
- I-215/Van Buren (PR/ED and PS&E), Riverside County, CA – Bridge Task Lead
- North First Avenue Barstow Overhead, Barstow, CA – Project Manager
- Mojave River Bridge, Barstow, CA – Project Manager
- Clairemont Mesa Boulevard/SR-163 PSR/PR/ED and PS&E, San Diego, CA – Project Engineer
- Nordahl Road Improvements SR-78, Caltrans, Escondido, CA – Project Manager
- SR-86 at Daroca Ditch, Caltrans, Imperial County, CA – Project Engineer
- Bridge Maintenance Program, Caltrans District 4, Bay Area, CA – Project Manager
- Gird Road Bridge over Live Oak Creek, County of San Diego, CA – Design Engineer
- Oleander Avenue Bridge at Compton Creek, County of Los Angeles, CA – Task Lead and Design Engineer
- Patrick Drive Bridge over Harbison Canyon Creek, County of San Diego, CA – Design Check Engineering
- Pacific Street Bridge at Loma Alta Creek, City of Oceanside, CA – Project Engineer

*Performed while at another firm

Kevin Kimm, P.E.

STRUCTURAL – TASK MANAGER

Kevin has nearly 20 years of experience in structural engineering and multidisciplinary project management on a variety of public sector projects. His expertise ranges from preparing preliminary project assessment documents and bridge selection reports to bridge/retaining wall construction plans, quantities, estimates and specifications, as well as managing post-design/construction activities. Kevin's bridge design experience includes structures of reinforced concrete, precast/pre-stressed concrete, cast-in-place post-tensioned concrete and structural steel. He also brings experience in the design of pedestrian bridges and other various structures such as retaining walls, sign and lighting structures, shade pedestrian shelters, drainage structures, and building elements. Over the years, Kevin has worked on many fast-track projects and has shown his commitment to getting projects done in a timely manner.

Professional Credentials

Bachelor of Science, Civil Engineering, Montana State University
Registered Professional Engineer in Arizona (#043306), California (#75462), and North Carolina (#030483)
American Society of Civil Engineers, Member

Relevant Experience

- Santa Rosa Road Widening Project, Camarillo, CA — Project Engineer
- A.E. Wright Middle School Pedestrian Bridge, Calabasas, CA — Project Engineer
- Advanced Transportation Management and Information and Security System (ATMIS), Port of Long Beach, CA — Project Engineer
- Agoura Road Widening Project (Complete Streets), Agoura Hills, CA — Project Engineer
- 11th Avenue Improvements (part of the Downtown BRT Stations project), San Diego, CA — Project Engineer
- 17315 W. Sunset Blvd. Renovation Project (J. Paul Getty), Pacific Palisades, CA — Project Engineer
- Interchange Improvements for I-215 at Cactus Avenue PSR, Moreno Valley, CA — Project Engineer
- Broadway Plaza Parking Study, Walnut Creek, CA — Project Engineer
- Calaveras Sidewalk Improvements, Milpitas, CA — Project Engineer
- SANDAG, Broadway Corridor/BRT Station Engineering and Environmental Compliance (CEQA), San Diego, CA — Project Engineer
- SANDAG, Final Design of the South Line Freight Rail Improvements, San Diego, CA — Project Engineer
- I-5/Genesee PR/ED, PS&E and Construction Phase Services (CPS), San Diego, CA — Project Engineer
- SANDAG/MTS Light Rail Transit (LRT) Renewal Project – Blue Line Stations, San Diego, CA — Project Engineer
- Graton Casino - Wilfred Avenue Off-Site Improvements, Rohnert Park, CA — Project Engineer
- I-215/Van Buren Blvd Interchange PA&ED and PS&E Phases, Riverside County, CA — Project Engineer
- City of Rocklin, Farron Street Pedestrian Bridge, Rocklin, CA — Project Manager
- Lincoln On-Call Services, Lincoln, CA — Project Engineer
- Los Angeles, Upper 2nd Street Bridge Design, Los Angeles, CA — Project Engineer
- City of Elk Grove, Preliminary Engineering for Intermodal Rail Station, Elk Grove, CA — Project Engineer
- City of Folsom, Johnny Cash Trail - Phase Two, Folsom, CA — Project Engineer

Chris Iser, P.E., LEED AP

STRUCTURAL SERVICES – TASK MANAGER

Chris has nearly 15 years of experience on a variety of projects, including building structural and pavement assessments, parking facility design and repair, vehicular and pedestrian bridge design and repair, culvert design, roadway/streetscape improvements, and other ancillary transportation support structures. Chris' responsibilities have included planning, structural design, production of plans and specifications, and construction phase services for a wide range of project types. His design and assessment experience encompasses structures of reinforced concrete, precast/ prestressed concrete, post-tensioned concrete, and structural steel for a wide variety of project and client types. Chris also recognizes the correlation between sustainability and practicality and applies this to every project.

Professional Credentials

Master of and Bachelor of Science, Civil Engineering, Clemson University
Professional Engineer in CA (#80317), SC (#28099), NC (#36111), TN (#005278)
LEED AP (Leadership in Energy and Environmental Design)
American Society of Civil Engineers, Member
International Parking Institute, Advisory Council, Sustainability Committee, Consultants Committee
Green Parking Council, Credentialing Committee

Relevant Experience

- Bayside District, 3rd Street Promenade Downtown Parking Study, Santa Monica, CA — Project Engineer
- Firestone Boulevard Improvements, Buena Park, CA— Project Manager
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA
- Pavement Rehabilitation (Task Order Under On-Call), Pomona, CA — Project Manager
- Traffic Flow Improvement Study of Artesia Boulevard from I-5 to Beach Boulevard, Buena Park, CA — Project Manager
- C Gold Line Design-Build Wayside Energy Storage Substructure (WESS) Project, Los Angeles, CA — Project Engineer
- Comprehensive Parking Analysis, Santa Ana, CA — Project Engineer
- California State University-Long Beach, West Campus Turnaround Drainage (Veteran Affairs), Long Beach, CA — Project Manager
- City of Buena Park, SR 91/Beach Blvd WB Exit Ramp, Buena Park, CA — Project Manager
- Patton Street Pocket Park (Parks for People), Los Angeles, CA — Project Engineer
- CSU Long Beach, East Campus Road - Safety Improvements, Long Beach, CA — QC/QA Reviewer
- Diamond Bar Prospectors Road Street Rehabilitation Project, Diamond Bar, CA — Project Manager
- East Coast Highway Signal Rehab Design, Newport Beach, CA — Project Director
- Valley Transportation Authority PARCS, Silicon Valley, CA — Project Engineer
- Santa Fe Christian School Parking Deck, Solana Beach, CA — Project Engineer
- Berryessa Station Parking Structure, San Jose, CA — Project Engineer
- California State University, Sacramento Parking Structure Condition Assessments, Sacramento, CA — Project Engineer
- Lower Pacific Avenue Parking Study, Santa Cruz, CA — Project Engineer
- Milpitas Station Pedestrian Bridge over Montague Expressway, Milpitas, CA — Project Engineer
- Richmond Transit Village Parking Garage (BART), Richmond, CA — Project Engineer

TWINING

Sean Lin, PhD, PE, GE, *Chief Geotechnical Engineer*

Dr. Sean Lin has over 20 years of professional experience as a Geotechnical Engineer. He specializes in seismic site response analysis as it applies to hospitals, schools and high-rise buildings. His professional experience includes soil mechanics and foundations, soil reinforcement, geosynthetics, pile design and driving analysis, slope stability, and liquefaction analysis. Sean has experience in engineering projects for commercial, residential, water/wastewater, military, educational and industrial facilities. Sean also has experience in geotechnical and construction projects for municipal, commercial, residential, military, educational and industrial facilities including technical and laboratory oversight and supervision of staff and personnel.

Overview

Joined Twining in 2014

In the industry since 1997

Current Licenses Held

California Registered Civil Engineer, PE 67109
California Registered Geotechnical Engineer, GE 2921

Education

Ph.D. Civil Engineering emphasis Earthquake Engineering,
University of Southern California, Los Angeles, CA

Master of Science, Civil Engineering emphasis Geotechnical Engineering,
University of Southern California, Los Angeles, CA

Bachelor of Science, Civil Engineering,
Chung Yuan Christian University, Taoyuan City, Taiwan

Project Experience Summaries

- **City of Fontana, Street Widening Including Sidewalk Design, Martin Avenue at Sierra Avenue** This street improvement project included street and sidewalk improvements on Martin Avenue from Sierra Avenue to approximately 525 feet east of Sierra Avenue. The roadway and street improvements consisted of curb, gutter, sidewalk, handicapped access ramps, commercial and residential driveways, AC pavement, and utility pole relocations. Sean served as the geotechnical engineer and project manager, performing pavement condition evaluation, field exploration, geotechnical laboratory testing, and engineering analysis. Sean provided a final structural pavement recommendation report for the project.

- **City of Colton, Mt. Vernon Avenue Over UPRR Tracks Bridge Widening** Sean is serving as Project Manager for the widening of this bridge from 2 lanes to 4 lanes. He is responsible for the geotechnical engineering services, which include a preliminary foundation report, geotechnical investigation, geotechnical laboratory testing, and geotechnical engineering analyses. He communicates with the structural and civil engineers closely and provides geotechnical design recommendations during the design phase. Sean also coordinates stakeholders' right of way information for the City of Colton and the UPRR.

- **City of Simi Valley, Cochran Street and Las Llajas Channel Bridge Widening** Sean was the Project Manager for this project, which consisted of widening the bridge from two to four lanes. He was responsible for oversight of the geotechnical investigation to explore and evaluate the subsurface conditions, and provided geotechnical engineering recommendations for the design of the project.

TWINING

Amir Ghavibazoo, Ph.D., *Senior Pavement Engineer*

Dr. Amir Ghavibazoo is the Senior Pavement Engineer at Twining, Inc. He directs and works on pavement design, highway design, and engineering specifications. During his graduate study, Amir obtained extensive knowledge and expertise on Pavement Management Systems (MicroPaver), Pavement Evaluation and Pavement Rehabilitation Strategies. He is an expert in calculating Pavement Condition Index (PCI) through visual inspection following the United Stated Army Corps of Engineers' methodology, as well as conducting Life Cycle Cost Analysis (LCCA) rehabilitation strategies for pavements. Amir has extensive practical experience in asphalt pavement engineering including pavement design, rehabilitation, preservation, pavement management, materials, and construction. His experience includes the characterization of rubberized asphalt binders and developing mix designs following Superpave specifications. He works closely with cities and government agencies to develop unique and specialized mix designs, pavement constructions inspections, and pavement design solutions.

Overview
In the Industry since 2014
Joined Twining in 2014

Education
Ph.D. in Civil and Environmental Engineering
North Dakota State University

Master of Science in Railways Engineering
Iran University of Science and Technology, Tehran, Iran

Project Experience Summaries

- **City of Huntington Beach, Nichols Lane Rehabilitation** Twining performed inspection and material testing on this project. Amir served as project manager to assure the quality of the job that was being delivered to the City. He oversaw the material sampling and testing and provided technical comments to the City. He was also responsible for developing Cement-treated soil mix design for the City.

- **City of Claremont, Foothill Boulevard Improvement** Twining performed pavement evaluation on approximately four lane miles of Foothill Boulevard in the City of Claremont to recommend repair and rehabilitation strategies for the pavement. Amir served as senior pavement engineer, coordinating the required testing and preparation of the final recommendation and design. Several alternative options were provided to the City, including mill and overlay, Cold In-Place recycling, reconstruction, and soil stabilization.

- **Pavement Evaluation & Repair Recommendations at Various Parks** Twining performed network level pavement evaluation on approximately 20 lane miles of road in various parks of Forest Lawn in Southern California to develop a 5-year plan for rehabilitation of the road network. Amir was the lead Pavement Engineer on this project, coordinating all required surface evaluation tasks, data collection, and preparation of the final report.

- **City of El Monte, Ramona Boulevard Resurfacing Pavement Evaluation** This project consisted of repairing the PS&E and related construction documents for the 2014- 2015 STP-L Ramona Boulevard Street Resurfacing project. Twining performed geotechnical pavement evaluations and rehabilitation recommendations for this project. Amir served as the pavement

TWINING

Paul Soltis, PE, GE, *Senior Geotechnical Engineer*

Paul Soltis, PE, GE, brings more than 24 years of technical expertise to Twining. His experience includes geotechnical investigations and analyses relative to roads, bridges, highways, and other California infrastructure projects. His focus is on interaction with the design team during development of construction documents to achieve the most appropriate foundation type and most efficient site preparation techniques. Paul has extensive on-call contract management experience and the proven ability to simultaneously maintain and manage multiple projects. Paul is responsible for the technical oversight of the firm's geotechnical projects and management of the firm's geotechnical personnel.

Overview
In the industry since 1993
Joined Twining in 2005

Current Licenses Held

- Professional Engineer, Civil, CA, 56140
- Registered Geotechnical Engineer, CA, GE 2606

Education

MS, Geotechnical Engineering, University of Colorado, Boulder, CO
BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, CA

Project Experience Summaries

- **City of Long Beach, Studebaker Road Pavement Evaluation** Serving as Geotechnical Engineer, Paul provided engineering oversight to ensure the City's expectations were met on this 0.5-mile stretch of Studebaker Road in the City of Long Beach. The surface condition assessment was performed following the Caltrans Flexible Pavement Rehabilitation Manual. Boring and coring were performed to investigate the subsurface condition of the road. Based on collected information, different rehabilitation strategies were calculated and recommended to the City of Long Beach, including Cold In-Place Recycled Asphalt Concrete Pavement and Cement Stabilized Pulverized Base.

- **LADPW, Del Amo Boulevard Improvements** This project consisted of extracting asphalt concrete cores and developing a cold recycling mix design using the collected materials. The thickness of the existing asphalt concrete and base was recorded. The extracted materials were returned to Twining's Long Beach laboratory for evaluation in order to develop a cold recycling mix design. In addition to developing the mix design, Twining served as the quality assurance testing laboratory during construction. Paul provided geotechnical oversight throughout this project, assisting with the investigation and identification of soft subgrade soils that were discovered during construction.

- **County of San Bernardino, On-Call Geotechnical Engineering Services** Paul is currently the project manager for this contract and provides monitoring, sampling, testing, reporting and contract compliance enforcement for construction concrete, quality control compliance of steel, reinforcing steel, wood, roofing material, brick, masonry, material quality control of asphalt and concrete paving and road construction materials, compaction testing, R-value, aggregate analysis, sieve analysis, gradation classification, moisture content, and shear analysis.

Anthony D. Smith, PE, PLS

1910 Orange Tree Lane, Suite 344 • Redlands, CA 92374 • 909.792.2221 • tsmith@onpointlandsurveying.com

ADMINISTRATIVE SURVEY MANAGER • PRINCIPAL

Land Surveying, Topographic & Aerial Mapping, Construction Staking

Accomplished Survey Manager and Principal with over 20 years broad-spectrum experience in all phases of land surveying and civil engineering; including project management, fundamental engineering, and construction services for projects valued over $100 million. Extensive work experience with civil, architectural, and geotechnical industries developing skills in multiple facets. Accomplished problem solver and consensus builder; able to relate to diverse populations from general public, colleagues, and staff. Technology proficient; use computer skills to improve operational efficiency and productivity.

- Drafting/Mapping Supervision
- Estimates/Bids/Proposals
- Regulatory Compliance
- Field Design Engineering
- Topographical Mapping
- Equipment Procurement
- GPS and GIS Project Overview
- Construction Project Troubleshooting
- Productivity Improvements
- Resource Management
- Public Relations
- Crew & Subcontractor Oversight

PROFESSIONAL EXPERIENCE

On Point Land Surveying, Inc. • Redlands, CA — 2010 – Present

Corporation specializing in land surveying services; design topographic surveys, establishment of horizontal and vertical control networks, aerial mapping, construction staking, and boundary retracement surveys.

Principal/Administrative Survey Director

- Responsible for the direction and coordination of firm's technical and administrative activities, including review of contracts all the way through the delivery of final products.
  - Active in seeking out new clients, new company opportunities, and developing professional relationships.
  - Responsible for management of survey projects involving: Boundary, GIS, Control Networks (GPS & Conventional), and Aerial Mapping.
  - Final review of all parcel maps, tract maps, records of survey and corner records.

Hillwig-Goodrow, Inc. • Yucaipa, CA — 2000 – 2010

A well established survey company that is capable of dispatching six survey crews. Hillwig-Goodrow started out, in 1993, as a two man partnership that developed into a corporation offering industry leading survey services.

Principal/Vice President/Director of Operations

- Chief of Survey with full responsibility for assignment scheduling and direct supervision of survey crews.
  - Supervise, instruct, schedule, and maintain crews on field operations and drafting/mapping personnel.
  - Collect and review surveying information for accuracy and completeness; oversight of all calculations; perform field design engineering.
  - Effective leadership and direction of cost estimating, preparation of bid proposals and statements of qualifications.
  - Implement and maintain GPS adjustments, GIS project tracking systems, check all tract maps, parcel maps, and records of survey prior to submittal.

EDUCATION

Bachelor of Science • *Civil (Geospatial) Engineering* - California State Polytechnic University, Pomona, CA

Licensure/Certifications

Professional Land Surveyor – CA Certificate No. 8133
Professional Land Surveyor – AZ Certificate No. 48359
Professional Engineer - Civil – CA Certification No. 80387

Cindy Miller, PE

Water/Wastewater Team Lead

Ms. Miller has extensive experience in the planning, design and construction of water supply, treatment, storage and conveyance facilities.

Her assignments have included providing Program Management services for a $150 million groundwater supply project, which includes pipelines, wells, pump stations, and an advanced treatment system for R.O. concentrate reduction; Project Manager for preliminary and final design of a 28 MGD microfiltration treatment facility, and Project Manager for a 10 MGD R.O./Ion Exchange groundwater treatment plant. Ms. Miller has also led numerous water storage and conveyance infrastructure projects, including design of over 100 miles of Ductile Iron, CML&C steel, PVC, and HDPE pipeline, design of steel, pre-stressed concrete, and cast-in-place concrete storage reservoirs, up to 10 million gallons, and numerous pump station facilities. She has led feasibility and planning studies, developed treatment process evaluations and life-cycle cost evaluations, participated in value engineering studies and operations evaluations. She has developed detailed designs of many systems and provided construction and startup services. She has experience with different project delivery methods including: design-bid-build, design-build and design-build-operate-finance.

Education

BS, Civil Engineering, University of California, Irvine

Certification/License

Professional Engineer: OA, UT

Areas of Expertise

- Well Equipping Planning and Design
- Pipeline Planning and Design
- Project Management
- Program Management
- Project Delivery
- Groundwater Supply
-
- Pump Station Planning and Design
- Reservoir Storage Planning and Design
- Drinking Water

Experience

- 23 total years
- 1 year with Hazen

Professional Activities

AWWA, ASCE, AMTA

OA-NV AWWA,

OA Water Reuse Assoc.

City of Santa Ana Well 29 Improvements Alternatives Analysis, Santa Ana, CA

Principal In Charge. The City of Santa Ana owns and operates Well 29, located at the southeast corner of Flower Street and First Street, adjacent to City owned tennis courts. Well 29 pumps directly to an existing 8 MG reservoir. The existing well site includes the well head and discharge piping assembly, control equipment, a chlorination system in a building, and an SCE transformer. An alternatives analysis was conducted to recommend upgrades at the site including site improvements, structural, mechanical, and electrical upgrades. Highlights of the study include developing three (3) alternatives for the improved site, providing 3D renderings for each site alternative, and developing a preliminary opinion of probable cost for the design and construction of each alternative discussed. The City is moving forward with implementing the recommended alternative from this analysis.

Miller, Cindy

Hazen

Steven Conner, PE

Water/Wastewater Technical Lead

Mr. Conner is a professional civil engineer with 22 years of experience in the planning and design of water infrastructure including production wells, pipelines, storage tanks, treatment systems, and booster stations.

Education

B.S., 1994, Civil Engineering/ Water Resources, University of California at Irvine

Certification/License

Professional Engineer: CA

Transportation Worker Identification Credential (TWIC), California, 2011

Areas of Expertise

- Well Equipping Design
- Pipeline Design
- Trenchless Pipeline Rehabilitation and Installation
- Planning and design of major water and wastewater facilities
- Pump station design
- In-depth evaluation of system requirements for proposed new facilities as well as for rehabilitation, upgrade, or replacement of existing pump stations

Experience

- 22 total years
- 1 year with Hazen

Professional Activities

American Society of Civil Engineers, Member

Mr. Conner is responsible for project management, design supervision, contract administration, client interaction and development, and personnel management. His expertise includes: complex pumping and piping system layout, hydraulic design, groundwater supply and treatment design, and construction phase assistance including start-up and operation of pumping and treatment facilities. Mr. Conner coordinates all engineering support disciplines (civil, architectural, structural, process, mechanical, electrical, and I&C) during project design and construction phases.

City of Santa Ana Well 29 Improvements Alternatives Analysis, Santa Ana, CA

Project Manager. The City of Santa Ana owns and operates Well 29, located at the southeast corner of Flower Street and First Street, adjacent to City owned tennis courts. Well 29 pumps directly to an existing 8 MG reservoir. The existing well site includes the well head and discharge piping assembly, control equipment, a chlorination system in a building, and an SCE transformer. An alternatives analysis was conducted to recommend upgrades at the site including site improvements, structural, mechanical, and electrical upgrades. Highlights of the study include developing three (3) alternatives for the improved site, providing 3D renderings for each site alternative, and developing a preliminary opinion of probable cost for the design and construction of each alternative discussed. The City is moving forward with implementing the recommended alternative from this analysis.

Mojave Water Agency Regional Recharge and Recovery (R3) Project, San Bernardino County, CA

Design Manager - Wells, Pump Station, Recharge Facility, Turnout Facilities, Reservoirs, Disinfection System, and Pipelines. Mr. Conner provided engineering services to the Mojave Water Agency for the Regional Recharge and Recovery (R3) Project, a high-profile water supply project in San Bernardino County. The project will ultimately recharge up to 40,000 acre-feet per year of State Water Project water into the Upper Mojave River flood plain for later distribution to member agencies. The Phase I project included construction of six wells to extract up to

Conner,Steven

Hazen

15,000 acre-ft per year, over 16 miles of 12-inch to 48-inch diameter pipe, a 2.65 MG welded steel reservoir, a flow control and recharge facility with 40,000 gpm capacity and up to 235 psi pressure drop, a pump station sized for 25,000 gpm with pumps installed to provide 15,000 gpm, and four turnout flow control facilities for delivering the water to member agencies.

Bellflower High Capacity Well, City of Bellflower, Bellflower, CA
Project Manager. Prepared a preliminary design report and provided final engineering design and construction management and inspection services for the well drilling and equipping of the city's new high-capacity groundwater well. The well is designed to produce 3,500 gallons per minute of high-quality groundwater to replace a large portion of the city's water supplies. Electrical design services included a motor control center, a variable-frequency drive for the well pump, interior and exterior lighting, an automatic transfer switch, and an emergency diesel-fueled generator. Control design included preparation of process and instrumentation diagrams and specification of control components to provide consistency with control components installed in existing city facilities. Provided engineering support during testing and start-up of the well.

Wells 21 and 22 Wellhead Facilities and Pipelines, Irvine Ranch Water District, Tustin, CA
Task Manager. Task manager responsible for the design of the wellhead facilities and untreated water pipeline. Deliverables included plans, specifications and engineers estimates of probable construction costs for each the wellhead facilities and all pipelines. Well 21 and Well 22, with capacities of 3,300 gpm and 1,600 gpm respectively, are submersible turbine pump / motor assemblies, installed within vaults, and one well is equipped with a bladder-type surge tank. Project included 7,000 ft. of 24-inch steel untreated water pipeline, 13,000 feet of 36-inch steel product water pipeline and 1,700 LF of 10-inch HDPE brine concentrate pipeline. The pipelines required jack-and-bores to cross the OCTA Metrolink train tracks, an Orange County Flood Control District channel, BNSF train tracks, a box culvert, and Peter's Canyon Channel.

Rehabilitation of College Avenue Pump Station, Orange County Sanitation District, Costa Mesa, CA
Engineer. Provided engineering services to Orange County Sanitation District for rehabilitation of College Avenue Sewage Pump Station. Provided engineering and construction support services for the rehabilitation of the College Avenue Sewage Pump Station. The design included replacement of pumping equipment with new dry-pit submersible pumps, structural rehabilitation of the wet-pit and dry-pit, a new ventilation system, a new odor control system, a new discharge valve vault for interconnecting dual force mains, and a new concrete block building for the electrical equipment and controls. The design included replacement of pumping equipment with new submersible pumps and a new concrete block building to house the new electrical equipment and controls.

Reconstruction of the Los Alamitos Pump Station and Retarding Basin, County of Orange, CA
Pump Station Technical Advisor. Prepared plans, specifications, and estimates for a new 800 cfs storm water pump station with natural gas engine driven pumps to replace the existing Los Alamitos facility for the County of Orange. Work included final design for the pump station facility and retarding basin, preparation of a value engineering report, final engineering report, hydrology and hydraulic routing, best management practices for improving water quality, inspection and analysis of existing 2,400 lineal foot of 54-inch discharge piping, Phase I and II environmental assessments, geotechnical investigation, CEQA, and permit processing, and coordination with agencies and homeowner associations. The pump station includes four vertical mixed flow pumps with a design capacity of 129 MGD each. Each pump is driven by a 1500 hp dual-fuel engine (natural gas and propane). Engine related components include a compressed air starting system, primary and secondary jacket water cooling system, natural gas primary fuel system, and propane

Conner, S

Tori Yokoyama, PE

Water/Wastewater Technical Lead

Mr. Yokoyama is experienced in project management and design of water and sewer pipelines in city streets. His background includes both the design of new facilities, as well as rehabilitation of aging existing facilities.

Education

BS, Civil Engineering, California State Polytechnic University, San Luis Obispo

Certification/License

Professional Engineer: OA, Guam

Areas of Expertise

- Pipelines
- Pump Stations
- Reservoirs
- Master Plans
- Hydraulic Modeling

Experience

- 15 total years
- 1 year with Hazen

Professional Activities

OA-NV AWWA

OOWA

ASCE

City of Santa Ana Well 29 Improvements Alternatives Analysis, Santa Ana, CA

Project Engineer. The City of Santa Ana owns and operates Well 29, located at the southeast corner of Flower Street and First Street, adjacent to City owned tennis courts. Well 29 pumps directly to an existing 8 MG reservoir. The existing well site includes the well head and discharge piping assembly, control equipment, a chlorination system in a building, and an SCE transformer. An alternatives analysis was conducted to recommend upgrades at the site including site improvements, structural, mechanical, and electrical upgrades. Highlights of the study include developing three (3) alternatives for the improved site, providing 3D renderings for each site alternative, and developing a preliminary opinion of probable cost for the design and construction of each alternative discussed. The City is moving forward with implementing the recommended alternative from this analysis.

West Grove Valley Pipelines, Riverview Pipelines, Santa Ana, CA

Project Manager. Two projects with the City of Santa Ana included a total of over 17,000 LF of water pipeline design ranging in size from 8-inch to 12-inch diameter. The City is actively replacing aging and undersized water mains throughout their distribution system. The West Grove Valley project include 9,500 LF of pipeline replacement design. The Riverview project included 7,700 LF of pipeline replacement design.

Waterline Replacement Project, Yorba Linda Water District, Yorba Linda, Anaheim, and Placentia, CA

Project Manager. Provided preliminary and final design and construction support services for the replacement of seven pipeline segments, the replacement of one pressure-reducing station, and the installation of one new pressure-reducing station. The pipeline replacements required many connections to existing pipelines, laterals, services, fire hydrants, and other appurtenances.

Hazen

EXHIBIT B

Cost Proposal

Standard Hourly Fee Schedules

Below please find our team's standard, prevailing wage, hourly rate schedules.

Kimley-Horn

Kimley»Horn

Rate Schedule

Effective through June 30, 2019

Classification	Billing Rate per Hour
Analyst	$100 to $120
Professional I	$120 to $145
Professional II	$145 to $185
Sr. Professional I	$185 to $220
Sr. Professional II	$220 - $285
Sr. Technical Advisor	$285 - $325
Project Support	$100 to $135
Administrative Support	$75 to $100

Rates will be escalated yearly 5% on July 1st.

Other Direct Costs: Outside Printing/Reproduction, Delivery Services/USPS, Misc. Field Equipment/Supplies, Travel Expenses, and Subconsultants will be billed at cost plus 10%. Mileage will be billed at the Federal Rate.

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Standard Hourly Rate Schedule
City of Santa Ana
On-Call Engineering Services
March 20, 2018

Classification	Hourly Rate
Senior Associate Technical	$ 250
Senior Associate	$ 220
Associate Technical	$ 200
Associate	$ 185
Sr. Principal Engineer	$ 165
Principal Engineer	$ 145
Engineer	$ 135
Assistant Engineer	$ 115
Principal Designer	$ 128
Designer	$ 120
Administration	$ 100

An annual 3% increase will apply.

Twining

TWINING

Schedule of Fees 2017 - 2018

NOTE: Rates will be adjusted annually each July 1st to reflect increased costs.

Personnel Rates: Per Hour Unless Otherwise Noted

Task Code	Engineering and Consulting Personnel	Rate
10026	Senior Principal Advisor/Consultant	$ 260.00
10001	Principal Engineer/Geologist	$ 185.00
10017	Metallurgical Engineer	$ 180.00
70000	Registered Geotechnical Engineer	$ 180.00
10010	Technical Advisor	$ 160.00
10011	Material Scientist, Welding/NDT Consultant	$ 190.00
70003	Registered Geologist/Certified Engineering Geologist	$ 170.00
10003	Senior Engineer/Geologist	$ 165.00
10009	Registered Civil Engineer	$ 160.00
60003	Roofing/Waterproofing Consultant	$ 165.00
10013	Project Engineer/Manager	$ 150.00
30000	Quality Control Manager	$ 140.00
10005	Senior Staff Engineer/Geologist	$ 135.00
10007	Staff Engineer/Geologist	$ 130.00
10015	Quality Control Administrator	$ 120.00
10019	Metallurgical Technician	$ 95.00
99001	CADD Operator/Draftsperson	$ 88.00
70107	Field Supervisor	$ 115.00
91030	Safety Supervisor	$ 115.00
20000	Laboratory Manager	$ 105.00
99000	Laboratory Technician	$ 88.00
99005	Expert Witness Testimony	$ 495.00
91010	Qualified SWPPP Developer	$ 130.00
91000	Qualified SWPPP Practitioner	$ 120.00

Task Code	Field Inspection Personnel	Rate
10101	Concrete/Reinforced Steel Inspector	$ 109.00
10103	Prestressed/Post Tensioned Inspector	$ 109.00
10105	Concrete ICC Inspector	$ 109.00
10109	Drilled-In-Anchor Inspector	$ 109.00
10111	Gunite/Shotcrete Inspector	$ 109.00
10113	Masonry Inspector	$ 109.00
10201	Structural Steel/Welding Inspector	$ 109.00
10203	AWS Certified Welding Inspector	$ 109.00
10207	Fireproofing Inspector	$ 109.00
10501	Lead Inspector	$ 113.00
10116	Firestop Special Inspector - IFC Premier	$ 105.00
10117	Firestop Special Inspector - IQP	$ 116.00
70109	L.A. Deputy Grading Inspector	$ 113.00
75001	Asphalt Field and Plant Inspector/Technician	$ 110.00
70103	Pile Driving Inspector	$ 110.00
70101	Soils Technician	$ 109.00
10107	Concrete Quality Control (ACI/Caltrans Technician)	$ 109.00
60001	Roofing/Waterproofing Inspector	$ 116.00
10515	Mechanical Inspector	$ 128.00
10519	Electrical Inspector	$ 130.00
10521	Plumbing Inspector	$ 130.00
10523	Building Inspector	$ 130.00
50003	Field Engineering Technician	$ 113.00

Task Code	Shop Inspection Personnel	Rate
10301	Structural Steel Fabrication Inspector	$ 110.00
10309	Batch Plant Quality Control Technician/Inspector	$ 110.00

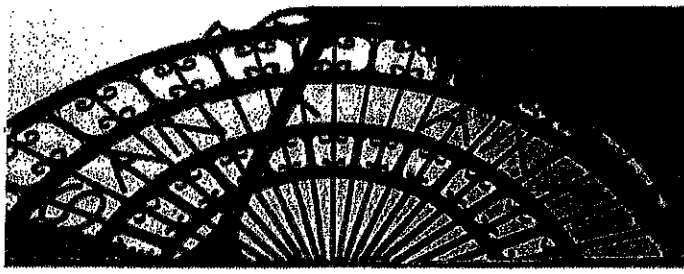
Task Code	Shop Inspection Personnel	Rate
10326	Glue-Laminated Fabrication Inspector	Quotation
10328	Pre-Cast Concrete/Pipe Fabrication Inspector	$ 110.00

Task Code	Non-Destructive Testing Personnel	Rate
10401	NDE Ultrasonic Testing Technician	$ 114.00
10403	NDE Magnetic Particle Testing Technician	$ 114.00
10405	NDE Dye Penetrant Testing Technician	$ 114.00
10305	Combination NDE Technician/Welding Inspector	$ 114.00
10409	Radiographic Testing (crew of 2)	$ 295.00
10029	NDE Engineer	$ 150.00

Task Code	Equipment Usage (Daily Unless Otherwise Noted)	Rate
95318	Skidmore	$ 40.00
95309	Torque Wrench, Small	$ 15.00
95312	Torque Wrench, Large	$ 25.00
95315	Torque Multiplier	$ 40.00
95321	Air Meter	$ 20.00
95324	Brass Mold	$ 20.00
95343	Nuclear Gauge (Per Hour)	$ 9.00
95333	Pull Test Equipment	$ 90.00
95348	Concrete/Asphalt Coring Equipment	$ 600.00
95327	Pachometer	$ 65.00
95336	Floor Flatness (Dipstick)	$ 45.00
95330	Schmidt Hammer	$ 20.00
95341	Vapor Emission Test Kits	$ 30.00
95342	Relative Humidity Probe	$ 60.00
95339	UPV (Ultrasonic Pulse Velocity) Meter	$ 280.00
95351	Fireproofing Adhesion/Cohesion (Per Test)	$ 20.00
95300	A Scan Ultrasonic Equipment and Consumables	$ 65.00
95303	Magnetic Particle Equipment and Consumables	$ 30.00
95306	Liquid Penetrant Consumables	$ 25.00
95307	Phased Array Ultrasonic Equipment (Per Hour)	$ 50.00
95347	Ground Penetrating Radar (Per Hour)	$ 60.00
95345	Impact Echo	$ 280.00
95362	Ultrasonic Tomography	$ 400.00
95359	California Pavement Profilograph (Per Hour)	$ 115.00
95349	Inertial Profiler (Per Hour)	$ 250.00
95357	Project Dedicated Vehicle	$ 100.00
95362	Roller Compacted Concrete Vibrating Hammer/Tamping Plate	$ 60.00
95367	Half-cell Potential Equipment Set	$ 250.00
95368	Concrete Electrical Resistivity Meter	$ 150.00

Task Code	Specimen Pick-Up	Rate
20102	Standard Sample: Concrete Cylinders (Each)	$ 20.00
20101	Standard Sample: Mortar/Grout Cubes and Cores, Fireproofing, Rebar, and Epoxy Prisms (Each)	$ 20.00
20103/ 20104	Oversize Sample: Masonry Prisms, Shotcrete Panels, Flexural Beams (Each)	$ 47.00
20107	Technician for Specimen Pick-Up Not Listed Above (Per Hour, 2-Hour Minimum)	$ 85.00
20109	Technician for Specimen Pick-Up Before 8:00 a.m. or After 5:00 p.m. Monday thru Friday, or All Day Saturday (Per Hour, 2-Hour Minimum Plus Mileage)	$ 103.00

Task Code	Jobsite Trailer, Mobile or On-site Laboratory	Rate
95360	Mobile laboratory for rapid set concrete (per shift not exceeding 12 hours) All others by quotation	$ 376.00



PROPOSAL FOR

ON-CALL ENGINEERING SERVICES

RFP NO.: 17-083

On Point Land Surveying, Inc.

1910 Orange Tree Lane, Suite 344 • Redlands, California 92373
(909) 792-2221 • (909) 784-1836 fax
office@onpointlandsurveying.com • www.onpointlandsurveying.com

RATES EFFECTIVE April, 2017

HOURLY RATE SCHEDULE (PREVAILING WAGE)

OFFICE:

Research of Records/Drafting/Mapping	$85
Survey Calculations and Document Preparation	$100
Land Surveyor Review/Professional Services	$140

FIELD:

Survey Crew (4 hour Minimum)	$225
Survey Crew (Outside of normal hours of operation)	$335
Travel Time	Half hourly rate
Global Positioning Systems (GPS) Surveys	Estimates upon Request
GPS Receiver/Data Collector	$100/per Receiver per Day
RTK GPS System	$300 per Day
Utility Location Services	Estimates upon Request
Pre/Post Construction Audio/Video Recording	Estimates upon Request
Expert Witness/Testimony (Portal to Portal)	$260 per hour

Your Project, On Budget, On Time... On Point Land Surveying!

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (WATER RESOURCES)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between Kimley-Horn and Associates, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the Water Resources Division of the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of five (5) consultants selected to provide services for water resources projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $1,200,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures.

Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement.

Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

   (i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees,

for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: Kimley-Horn and Associates, Inc.
765 The City Drive, Suite 200
Orange, CA 92868
Attn: Darren Adrian, P.E., Project Manager / Vice President

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant,

Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

EXHIBIT A

PREPARED FOR

PROPOSAL FOR

ON-CALL ENGINEERING SERVICES

RFP NO.: 17-083

PREPARED BY

Kimley»Horn

Expect More. Experience Better.

CONTACT:

Darren Adrian, P.E.
765 The City Drive, Suite 200
Orange, CA 92868
darren.adrian@kimley-horn.com
TEL 714.705.1304

www.kimley-horn.com

Kimley»Horn
Expect More. Experience Better.

1. STATEMENT OF QUALIFICATIONS

Cover Letter

March 20, 2018

765 The City Drive
Suite 200
Orange, California
92868
TEL 714.939.1030
FAX 714.621.0368

Mr. Armando Fernandez
City of Santa Ana
20 Civic Center Plaza
3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

Re: Proposal for On-Call Engineering Services, RFP No. 17-083

Dear Mr. Fernandez and Members of the Selection Panel:

For more than a decade, **Kimley-Horn** has supported the City of Santa Ana (City) on a variety of projects to help enhance traffic circulation, improve the City's infrastructure, and fix local roads. Our team is highly capable of supporting the City's general engineering needs on the ITS Capital Improvement Program. In addition to our team's experience and passion to provide outstanding supplemental civil engineering support to the City's in-house staff, we offer you the following:

Local Knowledge. Through our previous on-call contracts and other City solicitations, we have assisted your City with various tasks which has enabled us to become familiar with your standards, goals, and challenges related to existing infrastructure. Not only have we worked closely with City staff on roadway design, traffic, water quality, and utility relocations, we are currently completing the Santa Ana Boulevard and 5th Street Protected Bike Lane PS&E contract. We are also assisting the City on two other major projects: South Main Street Corridor Improvements and Warner Avenue Improvements. ***Our depth of local knowledge and understanding will help to streamline our production efforts for you.***

Seasoned Leadership with Talented Technical Staff to Serve You. As with our previous contracts I, **Darren Adrian, P.E.,** will serve as project manager and sole point of contact. I have nearly 27 years of experience in civil engineering related to planning, design, and construction of municipal and transportation facilities. I've managed both small and large projects for municipal clients. When a task order is issued, I work with the team to quickly identify the right technical professionals from our staff to address the task. Kimley-Horn's staffing resources and current and projected workload ensure that we will meet your project schedules and provide you with the highest level of responsiveness and quality. We have partnered with **Hazen and Sawyer, Twining, Inc,** and **OnPoint Land Survey, Inc.** to provide additional expertise to the City, as needed.

Extensive On-Call Experience. On-call contracts require a different approach from typical project-specific contracts. Each task assigned under an on-call contract will need an individualized approach that includes the various disciplines necessary to complete the assignment. Our team combines familiarity with conditions in Santa Ana and Orange County and exposure to challenging civil engineering issues in other parts of the state and country, providing the City with the highest quality and most cost-effective solutions.

As an officer of the firm, I have authority to bind the firm to this offer. If you should have any questions, please contact me at 714. 705.1304 or darren.adrian@kimley-horn.com. We look forward to continuing to serve as your on-call civil engineering consultant.

Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.

Darren Adrian, P.E.
Project Manager / Vice President

Contract Agreement Statement

Kimley-Horn has reviewed the contract agreement and takes no exceptions.

Firm and Team Experience

Founded in 1967, Kimley-Horn and Associates, Inc. is a privately held corporation with a staff of more than 3,000 personnel in 83 offices nationwide, including our Orange office. The firm has steadily grown into a full-service civil engineering, planning, and environmental consulting firm offering a comprehensive range of services to both public and private clients. Kimley-Horn's growth is reflected in its steady rise on Engineering News-Record's list of top design firms in the nation, ranking 21st in the top 500 U.S. Design Firms; 6th in Pure Design; 8th in Transportation; and 9th in Highways in 2017. The success of our rankings is a result of our steadfast commitment to providing responsive client service, pursuing continuous quality improvement, and operating as an extension to your existing staff.

Kimley-Horn is well equipped to respond quickly to the City's needs on this on-call contract. With more than 100 registered Southern California Professional Engineers, Kimley-Horn offers specialized engineering knowledge that comes from our full range of services for municipal projects. Our technical qualifications and strengths align perfectly with your needs for this on-call contract. We are a fully integrated consulting firm offering a variety of in-house services, including:

- Civil engineering design services
- Roadway design, streetscape, improvements, and upgrades
- Transportation planning and design
- Traffic engineering and traffic operations
- Pavement management systems and rehabilitation design
- Traffic studies/traffic calming studies
- Traffic signal and signing and striping design
- Structural analysis and design
- Active Transportation planning and design
- Storm drain design, upgrades, and rehabilitation
- Regional storm drain and watershed analysis
- Water/wastewater design
- Utility coordination and undergrounding
- Landscape and irrigation design
- Environmental services, including CEQA, NEPA, and Site Assessment
- Grant writing and administration
- Construction administration and support

Kimley-Horn understands what it means to provide services on an on-call basis for a local government. Not only have we provided services to the City in the past, we have also worked with Caltrans, the County of Orange, and many other California municipalities (including several in Orange County) through on-call contracts. Since our founding, on-call clients have been a top priority.

Team Organization and Management

When you choose a consultant, you are really choosing the people who offer you the technical expertise, hands-on experience with similar projects, and commitment to a high standard of quality and client service that will make your projects as successful as you have envisioned. The people on our team are passionate about their work and do it well. Our team is comprised of veteran project managers, transportation engineers, and technical staff to provide streamlined design engineering support on a variety of tasks.

While we remain responsive to our clients' dynamic needs by drawing upon a diverse professional staff, we also provide management continuity through the assignment of a client-oriented project manager. **Darren Adrian, P.E.,** Kimley-Horn's project manager, will serve as the primary point of contact, and will manage the team through the length of the contract. He has nearly 27 years of engineering experience and has managed several projects with many cities in Southern

California, including the cities of Santa Ana, Orange, and Anaheim. Darren will lead the Kimley-Horn team to provide quality design, planning, and construction support services, as well as be available to City staff throughout the duration of this on-call contract. Darren will be supported by a team of experienced engineers and subconsultant specialists who will act as task managers, providing backup to the project manager, as well as task management and technical support for each task based on scope of work for each project.

Darren will coordinate all team members' efforts and deliverables, including those of our subconsultants. Before a project starts, he will conduct a project scoping meeting with all respective team members to brainstorm the project issues to make sure their experience matches the requirements of the project scope. Our team will also conduct a project initiation meeting with the appropriate team members to coordinate the project plan including milestones, deliverables, and current project events. Project coordination meetings will be scheduled depending upon the project duration to make sure the project remains on track with the project plan. Kimley-Horn will also review the work performed by subconsultants as part of our Quality Control standards.

Subconsultant Overview

In addition to our Kimley-Horn staff, we have partnered with specialized subconsultants with whom we have built long-term relationships and delivered successful local projects in Southern California. Our teaming partners, described below, are poised to provide project support services to the City, as needed. These subconsultants will act as seamless team members able to provide their specific areas of expertise when required.

Hazen

Hazen and Sawyer (Water/Wastewater) is a nationally and internationally recognized water resources and environmental engineering consulting firm, with a singular focus on "All Things Water." They specialize in domestic wastewater, recycled water, and the potable water market and bring a unique level of expertise and specialists to each project. Hazen has grown to over 1,000 engineering professionals in 51 offices across the United States. Hazen has concentrated on two critical activities – helping their clients provide safe drinking water to their customers, and controlling water pollution and its effects on the environment. They are a full service environmental and engineering consulting firm, and can offer exceptionally qualified personnel available immediately to assist you.

TWINING

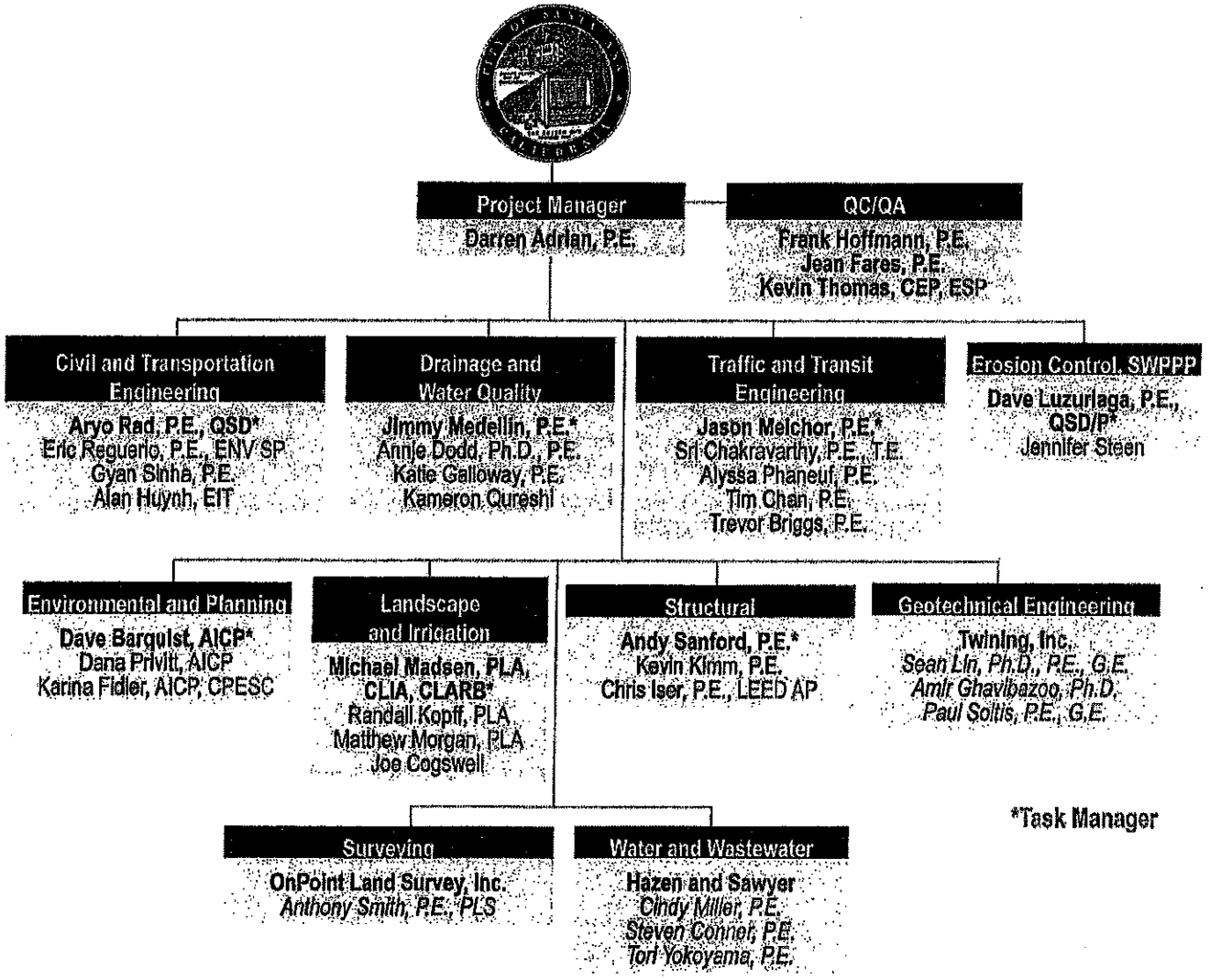
Twining (Geotechnical) is a full-service engineering company with unmatched technical expertise. Their services include geotechnical engineering, materials testing, and inspection, and highly technical capabilities in applied engineering and integrated disciplines. Twining's geotechnical engineers, geologists, and technicians bring their finest professional skills and practical experience to each project. Their staff includes 11 licensed professional geotechnical engineers (GE), as well as others. Their professionals have vast experience in completing subsurface investigations involving geotechnical analysis, and providing design recommendations to meet needs across the full spectrum of project types. Their fully-accredited geotechnical engineering laboratories are equipped to perform the standard tests needed in geotechnical engineering evaluations.

ON POINT
LAND SURVEYING, INC.

On Point Surveying (Surveying) offers highly experienced staff that specialize in boundary surveys, design surveys, construction staking, GPS surveys, topographic surveys, parcel maps, tract maps, and records of survey. They utilize both Static and RTK GPS combined with the latest software for processing geospatial data. Robotic total stations ensure that their survey crew supervisors are not tied to one location and can stay mobile to oversee your project.

Team Organization

The organization chart below identifies our proposed project team members and their project roles.
Resumes for our team members are provided in the Appendix for your review.



*Task Manager

Our Availability

Key Staff/Task Managers	Current Availability
Darren Adrian, P.E.	50%
Frank Hoffmann, P.E.	35%
Jean Fares, P.E.	35%
Kevin Thomas, CEP, ESP	30%
Aryo Rad, P.E., QSD	50%
Eric Reguelro, P.E., ENV/SP	55%
Jimmy Medellin, P.E.	55%
Annje Dodd, P.E.	50%
Jason Melchor, P.E.	55%
Sri Chakravarthy, P.E., T.E.	40%
Alyssa Phaneuf, P.E.	35%
Dave Luzuriaga, P.E., QSD/P	40%
Dave Barquist, AICP	35%
Dana Privitt, AICP	55%
Karina Fidler, AICP, CPESC	45%
Michael Madsen, PLA, CLIA, CLARB	55%
Randall Kopff, PLA	60%
Andy Sanford, P.E.	55%
Kevin Kimm	40%
Chris Iser, P.E., LEED AP	45%
Amir Ghavibazoo, Ph.D. *Twining*	55%
Paul Soltis, P.E., G.E. *Twining*	50%
Anthony Smith, P.E., PLS *OnPoint*	45%
Cindy Miller P.E. *Hazen*	50%
Steven Conner, P.E. *Hazen*	40%
Tori Yokoyama, P.E. *Hazen*	45%

Understanding of Need

Project Understanding

Based on our current working relationship, and Kimley-Horn staff's familiarity with the City's needs, requirements, and goals, we will strive to act as an extension of City staff by providing as-needed engineering services. To accomplish this, our strategy centers closely on the City's requirements, master plan elements, codes, ordinances, and applicable standards, as well as Kimley-Horn' experience, to maintain the high standards expected by the City. To demonstrate our abilities, we have developed brief descriptions of services to be performed for to City's On-Call program:

Civil Engineering and Roadway Design. These are the foundation of Kimley-Horn's professional practice. Kimley-Horn's team has provided public agencies with design services for public facilities such as parks, parking lots, parking structures, libraries, senior centers, and community centers. We have provided roadway design services to urban, rural, primary, secondary, and interstate roadways, and for clients ranging from public agencies, municipalities and state DOTs to private developers. We anticipate the City's design projects to include intersection geometrics, roadway widening and realignment, utility relocations, traffic control, signing and marking, erosion control, construction sequencing, and final plans, specifications, and estimates (PS&E). We have gained extensive experience in dealing with local regulatory and other agencies to secure the permits and approvals necessary for the building and upgrading of public and roadway facilities.

Bicycle and Pedestrian Planning and Design. Kimley-Horn understands the importance of planning and designing for alternative transportation modes such as bicycles and pedestrians. We employ state-of-the-art techniques to accommodate and encourage the use of alternative transportation modes and minimize vehicular conflicts, and routinely design bike and pedestrian facilities using the AASHTO, FHWA, Caltrans Highway Design Manuals, and NACTO Urban Bikeway Design Guide. Typical municipal bike facilities could include Class I bikeways, sharrows, buffered bike lanes and cycle tracks, and bike hubs. Our firm has led numerous bicycle planning and design projects throughout the United States and have completed many local city pedestrian and bicycle facility master plans, developed comprehensive statewide plans and requirements for pedestrian/bicycle facilities, and designed over 200 miles of bicycle trails.

Green Streets and Complete Streets Design. Green Streets combine multiple elements allowing the roadway to be an extension of the sustainable environment. This method of sustainable roadway design can incorporate stormwater management elements such as permeable pavements, vegetated water quality facilities, and open spaces that reduce runoff and strive to duplicate predevelopment hydrology. Energy reduction technologies such as LED lighting and traffic signals are often integrated and heat island effects are reduced through the use of reflective pavements and the incorporation of street trees. Green Streets can be designed with "Complete Streets" principles that encourage alternate modes of transportation. ***This is not an emerging discipline for Kimley-Horn, but a recognition of how we can blend sustainability and roadway design.***

Traffic Engineering. Kimley-Horn is an industry leader in traffic engineering, offering unparalleled expertise in traffic and transportation impacts, methodologies to monitor development-generated traffic, and financing mechanisms for transportation improvements. Kimley-Horn offers complete in-house traffic engineering services such as traffic signal communication and system integration design, intersection geometric design, signing and striping, traffic control plans, construction phasing plans, preparation of traffic impact studies, traffic calming studies, speed zoning studies, safety and operations studies, accident analysis, pedestrian safety programs, parking studies, site access and circulation studies, and general consultation in traffic engineering.

Transit System Design. For urban, regional, and statewide transit systems all over the country, Kimley-Horn provides comprehensive analysis, planning, and design services such as major investment studies, major route planning, alternatives analysis, line-by-line analyses, on-board surveys, demand modeling, environmental documentation, and comprehensive consensus-building activities. Our team of experts are able to successfully assist public transit agencies on their transit projects including bus route design, bus hub and bus shelter design, and other transit related projects. Kimley-Horn's transit experts guide our clients through all phases of these difficult projects, from the early planning stages and final design, through permitting, public review, and construction administration.

Landscape Architecture. From the revitalization of a popular community park to the design and implementation of a downtown streetscape, Kimley-Horn has planned and implemented scores of landscape architecture projects. We have completed dozens of park designs and master plan projects for federal, state, regional, and local government. ***Kimley-Horn has a well-earned reputation for combining creative ideas, technical excellence, and client collaboration, resulting in dynamic projects that blend into their environments and become a part of the area they inhabit.*** For our public works projects, we consider drought resistant landscape features and low water usage irrigation systems to help our clients become more successful in meeting their water conservation goals. We understand the City's visions for landscape and streetscape design. As metropolitan urban areas continue to grow, urban design, streetscape design, and landscape architecture have become integral components of roadway and transportation system designs and infrastructure improvements in general. Revitalizing commercial districts, providing recreational areas, and enhancing pedestrian and bicycle facilities in increasingly congested areas are some of the areas where our landscape architects and planners thrive.

Water Quality Management and National Pollution Discharge Elimination System (NPDES). Our approach to design encourages preserving or improving water quality by utilizing the latest technology available for Low Impact Development (LID) projects. Review criteria for Water Quality Management Plans (WQMP) would include the requirements established by the State Water Resources Control Board, the County of Orange, and the City's requirements for permitting/planning applications. As part of our engineering plan review or Environmental Documents review, Kimley-Horn' certified Qualified Storm Water Pollution Prevention (SWPPP) Developer (QSD) engineers will provide the support needed to review the project's environmental documents including the WQMP, SWPPP, and Water Pollution Control Plan (WPCP).

Mapping and Surveying. Kimley-Horn will provide professional mapping and surveying review services for development projects based on Subdivision Map Act and the City of Santa Ana's requirements. We, and our subconsultant **OnPoint Land Surveying, Inc.**, will provide these professional services as necessary for the assigned projects including any additional services that benefit the City. Our surveying services include: right of way verification, tract map review, parcel and assessor map review, existing record research, design surveying, existing easement research, proposed easement coordination, field reviews, tentative and final maps, and lot line adjustments.

Geotechnical and Geological Services. Kimley-Horn understands that the assignments for geotechnical and geological services may vary on a case-by-case basis depending upon specific needs of the City. Kimley-Horn and our subconsultant **Twining, Inc.** recognize that these services will be provided as requested by the City. Geotechnical and geology services may include tasks such as: pavement evaluation, slope stability and analysis, shoring design, percolation test and infiltration rate analysis, geotechnical and geology reports review, and geotechnical and geology reports for special public projects. The geotechnical and geological items may include soil stability, soil composition, segmental retaining walls, liquefaction, compaction, foundations, checking calculations, reviewing test results, and more. ***Our approach to this, and any assignment, will be to provide appropriate task leaders and staff, establish work plans, provide compliance with schedule and budget, maintain continuous communication with the City, and provide QA/QC deliverables.***

Water Improvement Design and Coordination. Our utility design team along with our subconsultant, **Hazen and Sawyer** have successfully completed water infrastructure projects for various agencies in Southern California. These projects consist of water main replacement, realignment, upsizing and capacity increase, master planning, existing system evaluation and maintenance and operational support. Although each project is unique, the majority of challenging utility projects we face are in developed areas where existing utility facilities are located within the proposed project area and any improvement will generally affect or be affected by the location of the existing utility facility. Kimley-Horn believes in drawing all utility lines and features true to size in our plans to aid in identifying conflicts early in the design phase. We will also pothole potential conflict locations when budgets allow, which gives a better understanding of the locations of the existing lines, and provide extensive coordination with the various utility companies. We also use 3-D modeling of utilities to identify potential conflicts in early stages of design. This method has helped us to avoid discrepancies between construction documents and actual field conditions that resulted in cost effective and timely manner execution of projects.

Sanitary Sewer Design. Sewers will be designed based on Orange County Sanitation District and City of Santa Ana's requirements. All design criteria will be reviewed versus the previous requirements including sewer pipe sizing, modeling and analysis, sewer line alignment and depth, minimum slopes, pipe materials, bedding and trench design, and required manholes. Kimley-Horn will provide modeling based on assembled information based on the existing system and incorporating proposed conditions if requested by the City. Results of the modeling and recommendations by Kimley-Horn for project solutions will then be submitted to the City for review and approval.

Well Rehabilitation Design. A combination of three factors can cause water production decline. The first is a regional decline in water elevations that shift the "static" water level downward. The second is a decline in water levels in the local aquifer caused by continuous pumping. The third is a decline in specific capacity caused by a plugged filter pack or well screen. The regional decline in water levels is not controllable and groundwater levels will recover through natural recharge. The reduction in specific capacity requires corrective action in the form of root cause evaluation, well redevelopment, and possibly modification to pump location and flow rate.

The decline in specific capacity could be a result of a reduction of permeability near the well screen. This type of permeability reduction is often the result of biological fouling, cementation, or the intrusion of fine-grained aquifer sand into the gravel pack surrounding the well casing. Well videos could confirm this. Migration of fine-grained aquifer sand could be a root cause of the rapid decline in specific capacity. The result of this is that water velocity during pumping is much higher in those sections of screen that produce the most water. During pumping, small sand particles mobilize and migrate through the well filter pack and wedge into the pore space, reducing permeability in the filter pack.

Mitigation of this issue would include careful well development to remove the sand and resettle the filter pack and modification of pumping operations to reduce sharp changes in water velocity that mobilize fine-grained aquifer sand. Prior to redevelopment it is recommended to review of the factors that can cause this reduction in specific capacity. The review would include assessment of biological and cementation plugging and review the original, well construction documents including the sieve analysis performed to size the filter pack and the daily construction (if available). As part of developing a mitigation approach, spinner logs may be recommended to verify production zones.

Environmental Studies. Our environmental services team provides complete natural resource regulatory compliance services for public works projects. Our environmental professionals have provided services for a wide variety of projects, including roadway, transit, transportation planning, green streets, complete streets, land development, storm drain, and water resources. They are well versed in all aspects of the development process from Phase I Environmental Site Assessments to California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA)

documentation and resource agency permitting. They are experienced in taking a project from conception to final build-out, and provide environmental compliance services in support of design and construction engineering. Our team's environmental services include: CEQA/NEPA documentation, groundwater protection, environmental audits, environmental compliance, natural resource investigations, stormwater management, and more.

Storm Drain Design and Drainage Analysis. Kimley-Horn's drainage engineering services include the design of canals, detention basins, culvert crossings, water control structures, diversion structures, pump stations, and more. Our engineers have been called upon by numerous public agencies and major agricultural, industrial, and residential developers to conduct preliminary studies and drainage consultation, prepare stormwater management plans, perform watershed and floodplain analysis, prepare storm drain master plans, and coordinate permit applications on their behalf.

Structural Analysis. Kimley-Horn's structural engineering team provides structural design and analysis for a range of major retaining structures, parking structures, roadway bridges, pedestrian bridges, to minor footings and foundations for traffic signals, roadway signs, and storm drain structures. Our structural engineers have extensive experience working with public agencies and are familiar with routine plan check processes for multiple agencies.

Construction and Bid Support. Our team is equipped with the latest construction management systems and applications available in the industry. These tools are scalable and customizable to fit the City's project needs and budget, and to integrate with the City's existing standards. ***From simple, time-tested forms and procedures, to advanced construction management and web-based systems, our team will deliver small and large projects on-time and under budget while keeping the City up to date on a "real-time" basis.*** In addition to our design team's experience with design relevant topics, our construction phase personnel can attend pre-construction conferences and regular project meetings, provide review and approval of submittals, as well as other activities necessary to achieve well-coordinated construction projects of proposed improvements.

Approach to Your On-Call

Through our five decades of experience working with on-call clients, we have learned valuable lessons that have helped us create a unique approach to meeting our clients' needs. We understand the urgency associated with federally funded, time sensitive, or public safety projects, and we are equipped to allocate sufficient resources to meet deadlines and the City's capital improvement program schedule. Our approach to your on-call tasks entails the following:

Project Management—Single Point of Contact: We have widespread expertise, and experience in all facets of municipal projects. Kimley-Horn's project manager, **Darren Adrian, P.E.**, will serve as the primary point of contact, and will manage the team through the length of the contract. He has over 27 years of municipal engineering experience and managed several projects with various cities in California. His experience includes design, planning, and construction of major roadways, transportation facilities, streetscape improvements, and utilities and is knowledgeable of federal, state, county, and municipal regulations. Darren will oversee and review the engineering activities including engineering design, studies, investigations, peer review, surveying, subconsultant review, and other related activities. He will be available to City staff for a timely response to service requests, including questions about budgets, invoices, and schedules.

Before a project starts, Darren will conduct a project scoping meeting with all respective team members to brainstorm the project issues. Our team will conduct a project initiation meeting with the appropriate team members to coordinate the project plan including milestones, deliverables, and current project events. Project coordination meetings will be scheduled based on the project duration to make sure the project remains on track.

Effective Communication: Through effective communication we plan to thoroughly understand your vision and implement the innovative and cost-effective solutions that our team is known for. Effective communication begins with listening to your City's ideas, concerns, and goals for its projects. Making certain that our team and your staff are on the same page throughout each project will help avoid or mitigate potential problems that may arise. Successful techniques may include monthly Progress Development Team meetings (PDT) and bi-weekly progress reports, regular conference calls to keep you abreast of critical issues, and ongoing electronic communications amongst all members of the project team, which may include a ftp site dedicated to the project.

Responsiveness and Cost-Effective Solutions: Responsiveness is much more than proximity or distance from our office to your office (3.5 miles, and about 10 minutes) responsiveness is providing you with information on short notice, it's promptly returning phone calls and meeting the client's needs; and this is where Kimley-Horn excels. ***We strive to put our client's needs first. We strongly believe that Kimley-Horn's continuing success rests on the strengths of our day-to-day management, vision for the firm, emphasis on quality, and responsiveness to you, our client.*** We have worked with many public agency on-call contracts, and we understand the importance of providing cost effective solutions in the early stages of design for the City's future projects. We emphasize project management using bi-monthly effort reports that give our project managers up-to-date staffing and expense information related to their projects. This information enables them to continuously monitor the status of project cost, cost control effectiveness, and schedule.

Schedule Adherence: Meeting schedules and budgets is a high priority for Kimley-Horn. Critical elements in maintaining schedules and achieving work goals include a clear definition of the responsibilities of team members and ongoing communication of project needs. We are well suited to manage and administer upcoming projects for the City, and are prepared to commit the necessary resources so projects are completed within your timeframe and budget.

On the rare occasion that a project requires a schedule correction due to a delay on Kimley-Horn's part, we utilize an aggressive system with regional support to quickly get the project back on track and avoid impacts to our client's overall project schedule. This includes the involvement of regional management to commit additional resources from within the office and from around the firm if necessary. Once the correction is made, follow-ups are performed by all team members involved to make sure the project remains on schedule at no additional cost to the City. During this process, the project manager and key regional team members work closely with City personnel to confirm deliverables meet the City's expectations included within our scope of work.

Community Engagement: Community engagement at various points during the project allow participants to voice their opinion on the design process. The Kimley-Horn team believes outreach materials (including, but not limited to, presentations, graphics, and exhibits) required for community engagement activities must be created in a meaningful and strategic way. All community engagement activities will be turn-key (i.e. we will provide set-up/breakdown, materials/ supplies, easels, refreshments, etc.), allowing City staff to focus on the issues, not logistics. Kimley-Horn will provide outreach collateral such as flyers, and press releases prior to community engagement activities and coordinate with the City's public information officer. In order to optimally engage public stakeholders, the Kimley-Horn team will provide translation headsets and Spanish-speaking engineers at each public informational meeting. Kimley-Horn staff members have a track record of successful and informative community events and we will apply the best elements of these to each on-call project.

Quality Control/Quality Assurance (QC/QA): Quality projects don't happen by accident. Kimley-Horn has been firmly committed to quality since the firm began over 50 years ago to that end, Kimley-Horn has developed a QC/QA manual that every project manager is required to know and use. The objective of our QC/QA program is to produce deliverables that conform to your scope and minimize the number of errors and omissions. Our QC/QA program is based on the following philosophy:

- Quality is achieved by adequate planning, coordination, supervision, and technical direction; proper definition of the job requirements and procedures; understanding the scope of services; and the use of appropriately skilled personnel performing work functions carefully. Individuals who are not directly responsible for performing the initial efforts assure quality through the careful oversight of work activities.
- Quality is controlled by assigning a manager to evaluate all work and procedures followed while providing the services.
- Quality is verified through independent reviews by a qualified staff member of the processes, procedures, documentation, supervision, technical direction, and staffing associated with the project development.
- Quality is assured through a carefully designed system of cross checks and independent reviews.

Kimley-Horn is fortunate to have the staff depth and resources to provide a QC/QA review by senior-level professionals who are familiar with the type of services provided, yet not working directly on the project. Our project work plans, schedules, and budgets are developed with QC tasks, milestones, and hours integrated at the beginning of a project. This system allows adequate time for thorough QC/QA reviews throughout the life of a project.

Relevant Project Experience

Kimley-Horn has enjoyed collaborating with the City on a variety of civil, traffic, and transportation projects in the past. From 17th Street Grade Separation and Bristol Street Southern California Edison corridor to OC Streetcar Design Review and 5th Street and Santa Boulevard Bike Lane projects, Kimley-Horn has partnered with the City to provide exceptional service for critical projects. We also recently started a new collaboration with the City on its Main Street Corridor Improvement Project.

Our experience and lessons learned from these projects means the City can expect the right balance of technical expertise, responsiveness, and valuable local knowledge to successfully complete your task order assignments.

Similar/Relevant Project Experience

On the following pages we've provided a brief list of similar and relevant experience for clients and the various types of services we've provided to them for your quick review.

On-Call Traffic and Civil Engineering Services, City of Industry, CA (2005 – Ongoing)

Kimley-Horn has provided on-call traffic and civil engineering services to the City of Industry since 2005. Since initiation, we have been issued more than 50 tasks, focused primarily on improving the transportation system within the City. Tasks entail developing geometric alternatives for major intersection modifications; evaluating access points and presenting various alternatives for modifications at the Puente Hills Mall; attending project meetings on behalf of the City; intersection capacity analysis using Synchro software; and traffic impact analysis, sight distance evaluation, traffic handling design, traffic signal design, signing and striping design, street lighting analysis and design, speed surveys, and peer and plan check reviews. Our on-call work is conducted with the City Department of Public Works and the Industry Urban-Development Agency (IUDA).

Client Reference: *City of Industry, Joshua Nelson, P.E., Regional Vice President, CNC Engineering, 626.956.8288*

Planning and Engineering On-Call, Anaheim, CA (2014 – Ongoing)

Kimley-Horn provided transportation planning and traffic engineering on-call services to the City on dozens of projects under multi-year contracts with the City's Planning and Engineering Departments. Services provided include the preparation of parking studies and traffic studies for private development projects, as well as third-party review of parking and traffic studies prepared by others.

Client Reference: *City of Anaheim, Rudy Emami, Public Works Director, 714.765.5176*

Santa Ana FIT Cities, Santa Ana, CA (2016 – Ongoing)

Kimley-Horn worked with the City of Santa Ana and Latino Health Access to develop a community-driven active transportation project that, when constructed, will encourage improved public health through walking or cycling. Using information from stakeholder workshops with Latino Health Access, fieldwork, and data collection, Kimley-Horn developed a conceptual design and visual rendering for the community preferred project and prepared a preliminary cost analysis for the concept.

Client Reference: *City of Santa Ana, Cory Wilkerson, Active Transportation Coordinator, 714.647.5643*

OC Streetcar Peer Review, Orange County, CA (2016 – Ongoing)

Kimley-Horn is providing peer review of the streetcar design for various technical areas such as track alignment, grade crossings, stations, signalization, Overhead Catenary System, Traction Power Sub Station, constructability, basic operations, and overall coordination of the proposed corridor with bicycles, pedestrians, buses, and other vehicles. The OC Streetcar will increase transportation options and provide greater access to a 4.15-mile route along Santa Ana Boulevard, 4th Street, and the Pacific Electric right-of-way to Harbor Boulevard in Garden Grove.

Client Reference: *City of Santa Ana, Jason Gabriel, Principal Civil Engineer, 714.647.5664*

On-Call General Engineering Services, Malibu, CA (2012 – Ongoing)

Kimley-Horn was originally selected to provide on-call traffic engineering services to the City of Malibu in 2012, but the contract was later expanded to include Civil Engineering Services, due to high quality service provided by Kimley-Horn. As extension to the City staff, Kimley-Horn staff performs the following on a regular basis:

- Performing review of development project reports, grading, utility and construction plans
- Conducting engineering and traffic surveys
- Feasibility/conceptual studies and reports and recommendations for preliminary, final and construction design studies
- Utilizing applicable engineering disciplines
- Preparing construction plans, specifications, and estimates
- Researching of utilities and other records
- Collecting and analyzing traffic data
- Participating in meetings with City staff associated with various development and improvement projects

Client Reference: *City of Malibu, Rob Duboux, Assistant Public Works Director, 310.456.2489 x339*

City of Pomona On-Call, Pomona, CA (2011 – 2013)

Kimley-Horn was selected through an on-call agreement with the City to provide street rehabilitation services for various streets within the City. The general scope of work was to evaluate the suitable pavement rehabilitation methodologies and select the methods that were most suitable for the City's budget, this project also included isolated concrete improvements including, sidewalk, curb and gutter, cross gutters, curb ramps, bus pads, and medians. Some of the pavement rehabilitation methods that were evaluated were cold in-place recycling, conventional asphalt removal and replacement, and cold mill and overlay. Each method was evaluated with conventional asphalt and rubberized asphalt.

Client Reference: *City of Pomona, Reza Zolghadr, Consultant Project Manager, 909.620.2238*

On-Call Pavement Rehabilitation/Utility Design, Fontana, CA (2008 – Ongoing)

Kimley-Horn has completed pavement rehabilitation design under several task orders:

Catawba Avenue, Slover Avenue, Hemlock Avenue, Beech Avenue, and Popular Avenue: Improvements entailed pavement replacement and overlays per geotechnical recommendations; miscellaneous concrete improvements where adjacent improvements were affected; and reconstruction/resetting of affected private property improvements such as fences, walls, curb drains, and meters. Various pavement rehabilitation options were investigated; conventional asphalt concrete replacement was recommended along one street and full-depth asphalt recycling (FDAR) along the others. The construction cost savings by going with FDAR were approximately 40 percent in comparison to conventional remove-and-replace options. Coordination was required to obtain permits for work adjacent to two UPRR at-grade rail crossings and for work associated with affected utilities. Kimley-Horn also assisted the City in applying for Proposition 1B funds through the State and Local Partnership Program (SLPP).

CDBG and ARAM Pavement Rehabilitation: The task included a total of 42 streets, and had strict budget, funding, and scheduling components. The City needed a consultant who could analyze several alternative pavement rehabilitation strategies under a limited construction budget, while still meeting the required project guidelines to obtain funding. Improvements entailed grind and overlay of all streets in both bid packages, with the use of an Asphalt Rubber and Aggregate Membrane (ARAM) interlayer, with localized areas of full-depth remove and replace. Kimley-Horn assisted the City to meet requirements for a grant from the Department of Resources Recycling and Recovery (Cal Recycle) and the Community Development Block Grant (CDBG) federal funding program. Kimley-Horn's knowledge of new and innovative pavement rehabilitation strategies has helped the City utilize recycled materials and in-place recycling methods, which has brought the City several funding opportunities and millions of dollars in construction cost savings.

Client Reference: *City of Fontana, Keith Kramer, Public Works Manager, 909.350.6644*

West Grove Valley Pipelines, Riverview Pipelines, Santa Ana, CA (Hazen and Sawyer)

Two projects with the City of Santa Ana included a total of over 17,000 Linear Feet of water pipeline design ranging in size from 8-inch to 12-inch diameter. The City is actively replacing aging and undersized water mains throughout their distribution system. The West Grove Valley project included 9,500 Linear Feet of pipeline replacement design. The Riverview project included 7,700 Linear Feet of pipeline replacement design.

Client Reference: *City of Santa Ana, Public Works Agency, Armando Fernandez, Project Manager, 714.647.5680*

Well 29 Improvements Alternatives Analysis, Santa Ana, CA (Hazen and Sawyer)

The City of Santa Ana owns and operates Well 29, located at the southeast corner of Flower Street and First Street, adjacent to City owned tennis courts. Well 29 pumps directly to an existing 8 MG reservoir. The existing well site includes the well head and discharge, piping assembly, control equipment, a chlorination system in a building, and an SCE transformer. An alternatives analysis was conducted to recommend, upgrades at the site including site improvements, structural, mechanical, and electrical upgrades. Highlights of the study include developing three alternatives for the improved site, providing 3D renderings for each site alternative, and developing a preliminary opinion of probable cost for the design and construction of each alternative discussed. The City is moving forward with implementing the recommended alternative from this analysis.

Client Reference: *City of Santa Ana, Public Works Agency - Water Resources Division, Brian Ige, Assistant Engineer, 714.647.3385*

References

We have provided client references in the previous section and below. We invite you to contact these recent clients and ask them about our work history, quality of service, and whether they would again select us for similar services.

Mr. Carlos Castellanos, City Engineer, City of Anaheim
TEL: 714.765.5176 (On-Call Planning and Engineering projects)

Mr. Keith Kramer, Public Works Manager, City of Fontana
TEL: 909.350.6644 (On-Call Pavement Rehabilitation/Utility Design Projects)

Mr. Jason Lee, Project Manager, Orange County Transportation Agency
TEL: 714.560.6282 (On-Call Transportation Engineering projects)

2. SCOPE OF SERVICES AND SCHEDULE

Scope of Services

The tasks below are intended to demonstrate the work to be implemented and the deliverables to be provided as part of the On-Call services. Additional items not in the Scope of Services may be required to complete the On-Call project. Design plans and reports indicated will follow the City's standard format, unless required otherwise. Tasks are marked per options A and B as outlined in the RFP.

Task 1: Project Management and Coordination (Options A and B)

Kimley-Horn team members will attend an initial kick-off meeting to confirm project elements, objectives, scope, and schedule; and attend monthly PDT coordination meetings with the City. We will conduct meetings and conference calls and provide pertinent meeting minutes with action items and will prepare monthly progress reports, as part of the invoice package.

As part of this task, a Gantt Chart Format Target Schedule will be provided showing primary tasks and review periods/ processing, in agreement with the City. Kimley-Horn will maintain a Progress Schedule showing actual progress versus target and provide to the City on a monthly basis.

Deliverables: *Meeting agendas, meeting minutes, action items, progress reports, invoicing, draft target schedule, monthly updated schedule.*

Task 2: Record Research and Utility Coordination (Options A and B)

Kimley-Horn will obtain readily available record drawings and data pertinent to the scope of services, such as GIS mapping, as-built plans, and utility atlases. We will maintain a utility agency tracking list to indicate the status of communication and add a contact list for substructure and utility owner-operators that will also carry over to the specifications. We will assist the City with utility notification letters. These letters will notify the utility agency of the project, describe anticipated impacts, and identify action required.

Deliverables: *Utility agency tracking list, utility notification letters.*

Task 3: Geotechnical Study (Options A and B)

Pavement Evaluation: We will use City's provided traffic index for pavement design. Pavement evaluation will consist of the following services:

- Subsurface exploration consisting of the excavation, sampling, and logging
- Evaluate the R-value and in-place moisture content of subsurface soils
- Excavation and compaction requirements
- Evaluate Expansion Index and Corrosion potential of subsurface soils
- Analysis and design of new pavement and pavement rehabilitation alternatives
- Provide recommendation for sidewalk improvement

Infiltration Test: Our team will conduct a geotechnical field review and will provide recommendations as follows:

- Percolation rate test to the depth of eight feet
- Agronomy/soil fertility laboratory testing
- Obtain bulk soil samples at selected depths
- Percolation rate characteristics of the soils
- Grain Size Distribution and Atterberg Limits/Plasticity Index
- Moisture content
- Suitability of the on-site soils for landscape improvements

We will prepare a report presenting the results of field exploration, geotechnical laboratory testing, and engineering analyses, as well as conclusions and recommendations relative to the project.

Deliverables: *Draft Pavement and Soil Material Report, Final Pavement Report and Soil Material Report.*

Task 4: Survey (Options A and B)

The Kimley-Horn team will provide aerial mapping with supplemental ground surveys at a scale of 1" = 20' with 50 feet interval cross sections along streets as well as the project area for pump stations. This encompasses survey record collection; establishment of horizontal and vertical controls; monument and centerline tie preservation; and establishment of temporary benchmarks. Existing features such as utility covers, pavement limits, private property improvements, curb ramps, driveways, curb and gutters, sidewalks, street lights and poles, and traffic signs and striping will be surveyed where needed for the proposed design and added to the base maps. Existing right-of-way will be input per readily available records.

Deliverables: *Microstation V8i Files of Topographic Survey, XML Point File, DTM of existing surface features.*

Task 5: Hydraulic/Hydrology Analysis (Option B)

Our team will prepare a Drainage Report to address hydrology and hydraulics for the site per Orange County Hydrology Manual and Orange County Local Drainage Manual requirements and will provide design recommendations. Modifications are intended to maintain existing drainage patterns and flows. Calculations will consist of comparing the pre- and post-project conditions at the site. Catch basins will be incorporated into design, where necessary, i.e. to limit flooded width, and at low points.

Deliverables: *Draft hydrology and hydraulic analysis and drainage report, Final hydrology and hydraulic analysis and drainage report.*

Task 6: Water Quality (Options A and B)

Kimley-Horn will develop a WQMP for the project in compliance with, and meeting the requirements of Order No. R8-2009-0030/NPDES No. CAS618030, of the Santa Ana Regional Water Quality Control Board. The WQMP will incorporate low impact development best management practices to the maximum extent practical. For example, the use of bioretention facilities within landscaped parkway areas will be in accordance with the United States Environmental Protection Agency Green Street standards. If proprietary items are needed, these will be indicated in compliance with the City's adopted public contracting code.

Deliverables: *Draft WQMP, Final WQMP.*

Task 7: Environmental Studies (Options A and B)

Kimley-Horn Scope of Services assumes that an Initial Study leading to a Mitigated Negative Declaration (IS/ MND) is the appropriate CEQA documentation for the proposed project. The IS will provide the necessary background. Each of the topics contained in the Environmental Checklist will be evaluated to document the nature and extent of any potential environmental consequences and the need for mitigation. During the preparation of the IS should it be determined that the project could have significant impacts that cannot be fully mitigated, we will work with the City to identify modifications to the project that could reduce anticipated impacts. Using the City's Initial Study Checklist, Kimley-Horn will respond to each checklist question. The analysis will use the following technical studies and data prepared by our team: Traffic Impact Study, Air Quality and Greenhouse Gas Study, Noise Study, Utilities/ Infrastructure, Geotechnical Study, Drainage, Concept WQMP, and a Phase I Environmental Site Assessment. All other environmental topics would be studied qualitatively.

Deliverables: *Initial Study leading to a Mitigated Negative Declaration (IS/MND).*

Task 8: Street Improvement Plans (Option B)

Kimley-Horn will develop a street improvement plan for the construction of roadway improvements. The plans will show horizontal and vertical design information. Roadway plans will be prepared at a scale of 1" = 20' horizontal and 1" = 4' vertical for profiles. We will use the surveying from Task 4 for base mapping. Vertical design information for construction of new medians and curbs will be indicated on the plans with profiles. Details and typical sections will be added as needed. We will prepare details for items that deviate from published standards.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8I and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 9: System Modeling to Connect Well Directly to Water System (Option A)

A hydraulic modeling analysis will be conducted to analyze the changed operating conditions from the existing direct discharge to a reservoir, to a direct connection to the City's distribution system. A new system curve will be developed and analyzed with the existing well pump curve to determine the new operating conditions of the pump, along with any improvements necessary for the new connection point. The model will also be used to analyze impacts to other system facilities within the City's distribution system, and recommend a revised operations and control strategy.

Deliverables: *Draft water system modeling report, Final water system modeling report.*

Task 10: Water Improvement Plans (Option A)

Kimley-Horn will develop a water improvement plan for rehabilitation of the existing water well and proposed water mains construction. The plans will show horizontal and vertical design information. Plans will be prepared at a scale of 1" = 20' horizontal and 1" = 4' vertical for profiles. We will use the surveying from Task 4 for base mapping. Vertical design information for water main will show proposed water main profile and will identify potential conflicts with existing underground utilities. Details and typical sections will be added as needed. We will prepare details for items that deviate from published standards.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8I and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 11: Signing and Striping Plans (Options A and B)

We will prepare striping and signing plans at a scale of 1" = 40' for the proposed improvements within the limits of the project. Striping and signing plans will comply with the City's standards, Caltrans, and the California MUTCD. Flashing beacon installation and parking meter details, if required, will be shown on the striping and signing plans.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8I and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 12: Landscape and Irrigation Plans (Option B)

The Kimley-Horn team will prepare landscape and irrigation plans for the proposed medians and parkways within the project limits. These plans will be consistent with the City's Standards and General Plan, the City's Scenic Corridor Elements, the City's Urban Design Elements, and California's Water Efficient Landscape Ordinance. We will consider City maintenance when developing the design. Landscape and irrigation plans will be prepared at a scale of 1" = 20' horizontal.

Deliverables: *30%, 60%, and Final Plans, electronic files in Microstation V8I and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 13: Storm Drain Plans (Option B)

We will prepare storm drain plans showing proposed catch basins and lateral connections to the existing main lines. Catch basin sizing, inlet dimensions, and laterals pipe sizes will be determined as part of Task 4. Potential conflicts with existing utilities will be shown on profiles with approximate location of utilities, per the utility agencies readily available record drawings. Storm drain plans will be prepared at a scale of 1" = 20' horizontal and 1" = 4' vertical for profiles.

***Deliverables:** 30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 14: Street Light and Electrical Plans (Option B)

Kimley-Horn will prepare street light plans for the project. Plans will incorporate street lighting along both sides of the street. We will conduct voltage drop calculations to determine the wiring sizes. Part of this task will include coordination with Southern California Edison to determine new and existing service points. We will provide a photometric analysis to determine required illumination for the corridor.

***Deliverables:** 30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 15: Traffic Signal Plans (Option B)

We will prepare traffic signal plans to incorporate the new improvements along project area. Installation of closed-circuit television (CCTV), video detection, conduits, and cables or modification of existing communication systems is anticipated within the project limits and will be shown on the traffic signal plans. Plans will show the connection to each signalized intersection within the project limits. Pull box details and modification of conduit sweeps for the signal interconnect are included. The traffic signal modification plan will be prepared in accordance with current City and Caltrans standards and will be prepared at a scale of 1" = 20'.

***Deliverables:** 30%, 60%, and Final Plans, electronic files in Microstation V8i and PDF (final plans will be sealed and signed), and responses to previous review comments from the City.*

Task 16: Specifications (Options A and B)

Kimley-Horn will prepare technical specifications based upon the boiler plate supplied by the City. Bid items will be described as reasonably required in the General Provisions and will be included in the Contractor's bid list. References for the technical provisions to the City's Standards and Standard Specifications for Public Works Construction (Greenbook), Caltrans, or other appropriate specifications will be shown.

***Deliverables:** 30%, 60%, and Final Specifications, electronic files in PDF and word format (final specifications will be sealed and signed), and responses to previous review comments from the City.*

Task 17: Opinion of Probable Construction Cost (Options A and B)

Kimley-Horn will prepare an Opinion of Probable Construction Costs (Estimate) based on quantities, for comparison to project budget and assist during the Contractor's bidding process. Unit prices will be derived from readily available current bid information based on similar projects within the area. Backup will be generated for lump sum items. Contingencies will be shown, as agreed upon with City staff.

***Deliverables:** 30%, 60%, and Final Estimates, electronic files in PDF.*

Task 18: Potholing (Options A and B)

Our team will provide vacuum excavation potholes to positively identify utilities where conflicts may exist. This task entails potholes with a depth of up to 15 feet. Potholing information will be used to identify potential conflicts with traffic signal footings, new catch basins, wall footings, and water quality devices.

Deliverables: *Potholing report*

Task 19: Bid Phase Support (Options A and B)

Kimley-Horn will provide support during the bid phase by responding in writing to Requests for Information (RFI)/ clarifications. Our team will assist the City in the issuance of addenda to the bid package which consists of making design changes determined necessary to address clarifications.

Deliverables: *Responses to RFIs, design revision.*

Task 20: Construction Support (Options A and B)

Kimley-Horn will assist the City during the construction phase by responding to the Contractor's RFIs, preparing addenda, and providing clarifications. This task includes reviewing the Contractors change orders and changed conditions in the field. We will prepare record drawings by updating the approved design drawings based on one set of redline markups provided by the Contractor or City staff. The purpose of the record drawings is to create a deliverable that will represent the built condition for the City's records, as recorded by the Contractor. Independent verification is not included in this scope.

Deliverables: *Record Drawings: One hardcopy and one electronic (PDF format and Microstation V8i).*

Schedule

The draft schedule ***on the following page*** contains the tasks outlined within the scope of work, as well as necessary agency review periods. Relationships are assigned to each task representing a logical progression and allowing easy identification of tasks that could constrain the project. Note that task durations and agency review periods are realistic based on our recent experience on similar projects. Our intent is to review this draft target schedule with you at the kick-off meeting for each project, make any desired adjustments, and track as a progress schedule during the project by providing updates on a monthly basis.

3. FEE PROPOSAL

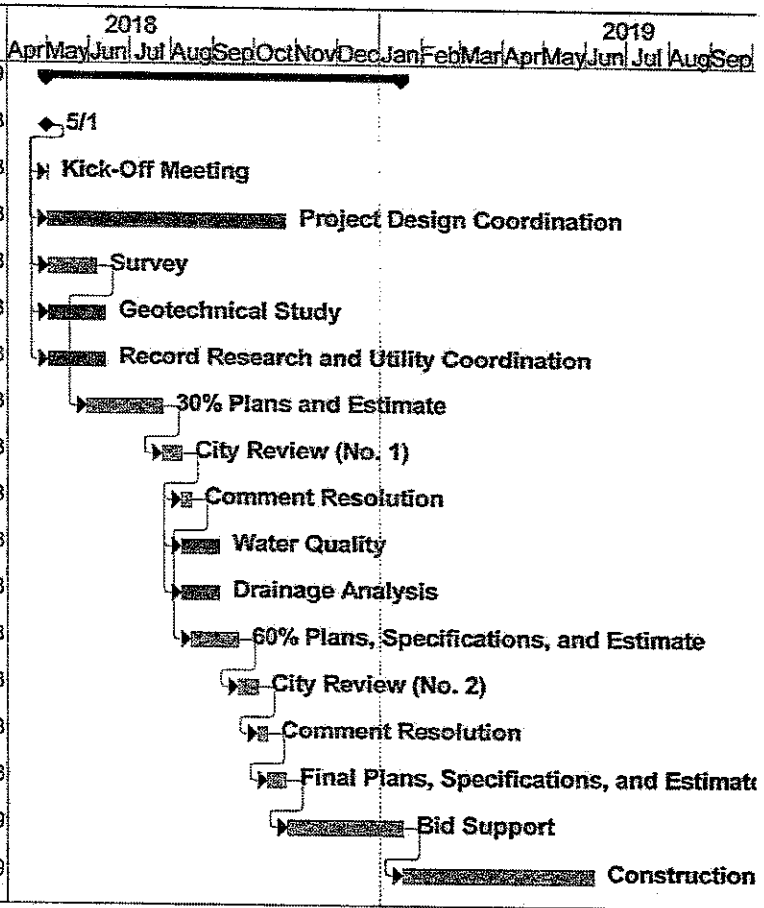
See separate sealed envelope for our hourly rate schedules.

25E-110

Draft Target Schedule -

City of Santa Ana Street Improvement Projects

ID	Task Name	Duration	Start	Finish
1	**Design Phase**	187 days	Tue 5/1/18	Wed 1/16/19
2	Notice to Proceed	0 days	Tue 5/1/18	Tue 5/1/18
3	Kick-Off Meeting	1 day	Tue 5/1/18	Tue 5/1/18
4	Project Design Coordination	126 days	Tue 5/1/18	Tue 10/23/18
5	Survey	25 days	Wed 5/2/18	Tue 6/5/18
6	Geotechnical Study	30 days	Wed 5/2/18	Tue 6/12/18
7	Record Research and Utility Coordination	30 days	Wed 5/2/18	Tue 6/12/18
8	30% Plans and Estimate	40 days	Wed 5/30/18	Tue 7/24/18
9	City Review (No. 1)	10 days	Wed 7/25/18	Tue 8/7/18
10	Comment Resolution	5 days	Wed 8/8/18	Tue 8/14/18
11	Water Quality	20 days	Wed 8/8/18	Tue 9/4/18
12	Drainage Analysis	20 days	Wed 8/8/18	Tue 9/4/18
13	60% Plans, Specifications, and Estimate	25 days	Wed 8/15/18	Tue 9/18/18
14	City Review (No. 2)	10 days	Wed 9/19/18	Tue 10/2/18
15	Comment Resolution	5 days	Wed 10/3/18	Tue 10/9/18
16	Final Plans, Specifications, and Estimate	10 days	Wed 10/10/18	Tue 10/23/18
17	**Bid Support**	60 days	Thu 10/25/18	Wed 1/16/19
18	**Construction Support**	100 days	Thu 1/17/19	Wed 6/5/19



Task | CRITICAL | Baseline Summary
Milestone | Baseline | Progress
Summary | Baseline Milestone | Slippage

Kimley»Horn
765 The City Drive, Suite 200
Orange, CA 92868

4. CERTIFICATIONS

Subconsultant signed attachments available upon request

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 19th day of March, 2018 by Darren Adrian, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

_____
Notary Public Signature

EMMA SORTO
COMM. # 2140476
NOTARY PUBLIC - CALIFORNIA
ORANGE COUNTY
COMM. EXPIRES JAN. 21, 2020

Notary Public Seal

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Kimley-Horn and Associates, Inc.

Signed and Printed Name: Darren Adrian, P.E.

Title Vice President

Date March 20, 2018

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: Darren Adrian, P.E.

Title: Vice President

Firm: Kimley-Horn and Associates, Inc.

Date: March 20, 2018

RESUMES

Darren Adrian, P.E.

PROJECT MANAGER

Darren has more than 27 years of professional experience in civil engineering related to planning, design, and construction of transportation facilities. His primary emphasis has been in the areas of roadway planning and final design associated with highways and streets including interchanges, at-grade intersections, railway grade separations, widening and rehabilitation. He has served as project manager for the City of Santa Ana On-Call for several years and brings a superior project management track record combined with technical knowledge and skill. He recently served as ASCE President for the Orange County Branch, which demonstrates both his dedication to the engineering community as well as the respect he has garnered amongst his peers.

Professional Credentials

Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona
Professional Engineer in California (#53031) and Utah (#318105-2202)
American Public Works Association, Member
American Society of Civil Engineers (ASCE), Board Member
Institute of Transportation Engineers, Member

Relevant Experience

- County of Orange, On-Call Architect/Engineer Design Support Services (2014-17), Orange County, CA – Project Manager.
- City of Corona On-Call Traffic and Transportation Services, Corona, CA — Project Engineer
- City of Fontana On-Call Pavement Rehabilitation/Utility Design, Fontana, CA — Project Manager
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Project Engineer
- On-Call Traffic and Civil Engineering Services, (Industry), City of Industry, CA — Project Manager
- OCTA, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Project Manager
- ACE Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Project Manager
- Anaheim Rapid Connection (ARC) Streetcar, Anaheim, CA — Project Manager
- Azusa Avenue/Amar Road Intersection Improvements, West Covina, CA — Project Engineer
- Azusa/Gale Intersection Analysis, City of Industry, CA — Project Manager
- Baseline Road/Laurel Avenue Intersection Widening, Fontana, CA — Project Manager
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Principal-In-Charge
- California State University-Long Beach, West Campus Turnaround Drainage (Veteren Affairs), Long Beach, CA — Project Manager
- City of Buena Park, SR 91/Beach Blvd WB Exit Ramp, Buena Park, CA — Project Manager
- CSU Long Beach, East Campus Road - Safety Improvements, Long Beach, CA — QC/QA Reviewer
- Diamond Bar Prospectors Road Street Rehabilitation Project, Diamond Bar, CA — Project Manager
- East Coast Highway Signal Rehab Design, Newport Beach, CA — Project Director
- Firestone Boulevard Improvements, Buena Park, CA— Project Manager
- Pavement Rehabilitation (Task Order Under On-Call), Pomona, CA — Project Manager
- Traffic Flow Improvement Study of Artesia Boulevard from I-5 to Beach Boulevard, Buena Park, CA — Project Manager

Frank Hoffmann, P.E.

QUALITY CONTROL/QUALITY ASSURANCE

Frank has more than 30 years of diverse experience in civil design and construction management. Project types include private, local, state, and federal working with roadway design and improvement, utility design, water resources, drainage design, airport construction, private and commercial development, and more. His responsibilities have included project management, work plan preparation, cost estimating, contractor selection, scheduling and oversight, design specification development, resource allocation, technical and final report preparation and review, quality control, trouble-shooting, negotiation/approval of field changes, and client relations.

Professional Credentials

Bachelor of Science, Civil Engineering, Fachhochschule Rheinland-Pfalz
Professional Engineer in California (#61839) and Arizona (#42877)
American Society of Civil Engineers, Member

Relevant Experience

- Voigt Drive/I-5 North Coast Corridor (NCC) Improvements (PS&E), San Diego, CA — QC/QA Reviewer
- RCTD, I-10 Bypass, Riverside County, CA — Project Engineer
- RCTD, Sunset Avenue Railroad Grade Separation at I-10 PS&E, Banning, CA — QC/QA Reviewer
- City of Los Angeles, Bridge On-Call Program (North Spring Street and Laurel Canyon Tasks), Los Angeles, CA —
- City of Los Angeles, Los Angeles Downtown Streetcar Independent Cost Estimate, Los Angeles, CA — Project Engineer
- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA —
- Bailey Road PSR/PDS, Bailey Road/SR 4 Interchange PID, Contra Costa County, CA — Project Engineer
- City of Lancaster, Program Management Services for Measure R Highway Equity Program, Lancaster, CA — Project Engineer
- Downtown Glendale Pedestrian Enhancements, Glendale, AZ — QC/QA Reviewer
- Expo Metro Line Construction Authority, Design of LRT Phase 2, Los Angeles, CA — Project Engineer
- Gonsalves Avenue Extension, Marine Corps Air Station (MCAS), Miramar-San Diego, CA — QC/QA Reviewer
- I-5 North Coast - PA/ED and PS&E (also Staff Augmentation I-5 HOV Extension PS&E), San Diego, CA — QC/QA Reviewer
- I-880 Express Lanes, Oakland, CA — Project Engineer
- La Habra Harbor/Lambert Intersection Widening, La Habra, CA — QC/QA Reviewer
- SR 138 Project Approval & Environmental Documentation (PA&ED), North Los Angeles County, CA — Project Engineer
- Loop 101 Frontage Road, Peoria, AZ — Deputy Project Manager
- Mulholland Highway Scenic Corridor, Calabasas, CA — QC/QA Reviewer
- OCTA, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA
- Regional Express Lane Network Phase 1- I-880/I6-80/SR 84/SR 92 On-Call PS&E Design Services, San Francisco County, CA — Project Engineer
- SANDAG, Bus On Shoulder (BOS) Bus Rapid Transit (BRT) Demonstration, San Diego, CA — Project Engineer
- SANDAG, Mid-Coast - 100% Final Design Phase, sub to PB, San Diego, CA — Project Engineer

Jean Fares, P.E.

QUALITY CONTROL/QUALITY ASSURANCE

Jean is a seasoned project manager with nearly 30 years of professional experience in the fields of traffic and transportation engineering, including traffic signal design (over 2,000 locations), interconnect design, and signal system design (over 2,500 locations), traffic operations, signing and marking plans (over 100 miles), and traffic control plans. In addition to signal design and corridor signal operations, he has managed Kimley-Horn's contracts to provide on-call traffic engineering services to the cities of Thousand Oaks, Agoura Hills, Santa Clarita, Chino, Glendale, Burbank, Palmdale, as well as for the County of Los Angeles, CVAG, and Caltrans District 7.

Professional Credentials

Bachelor of Science, Architecture, California State Polytechnic University, Pomona
Professional Engineer (Traffic) in California (#TR2097)
Institute of Transportation Engineers, Member

Relevant Experience

- Traffic Engineering Surveys (aka Flashing Beacon Design), La Canada Flintridge, CA — QC/QA Reviewer
- Traffic Engineering Services - Engineering and Traffic Surveys, Santa Monica, CA — Project Manager
- Long Beach On-Call Traffic Engineering, Long Beach, CA — Project Manager
- Traffic Signal Coordination and Design Improvements, Costa Mesa, CA — Project Engineer
- On-Call Services - Traffic Engineering and Transportation Planning Review Services, Riverside County, CA — Project Engineer
- On-Call Signal Design Services (Chino), Chino, CA — Project Manager
- On-Call Signal Design Services (Palmdale), Palmdale, CA — Project Manager
- On-Call Traffic Engineering Services (Riverside County), Riverside County, CA — Project Manager
- On-Call Traffic Engineering Services - Thousand Oaks, CA, Thousand Oaks, CA — Project Manager
- City of Buena Park, Auto Center Drive Traffic Signal and Median Design, Buena Park, CA — QC/QA Reviewer
- City of Burbank, San Fernando Blvd/Burbank Blvd Intersection Improvements, Burbank, CA — Project Manager
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Principal-in-Charge
- City of Glendale, Consultant Services Traffic Engineering and Fiber-Optic Comm Design, Glendale, CA — Project Manager
- City of Lancaster, Traffic Signals and Smart Crosswalk Designs, Lancaster, CA — QC/QA Reviewer
- City of Santa Monica, Engineering and Traffic Survey, Santa Monica, CA — Project Manager
- City of Thousand Oaks, Moorpark Road Sidewalk and Bike Lane Improvements, Thousand Oaks, CA — Project Manager
- Agoura Hills On-Call, Agoura Hills, CA — Project Manager
- City of Los Angeles, Bridge On-Call Program (North Spring Street and Laurel Canyon Tasks), Los Angeles, CA —
- As-Needed Traffic Design Services for Various County Projects - 2014, Los Angeles County, CA — Project Manager
- Civil and Traffic Engineering Firms, Transit Consultants, and Security Design Consultants On-Call, Porterville, CA — Project Manager
- Lancaster Multi-Year Professional Services, Lancaster, CA — Project Manager
- Caltrans District 7 Freeway Traffic Operation System (Design), Los Angeles, CA — Project Engineer

Kevin Thomas, CEP, Env-SP

QUALITY CONTROL/QUALITY ASSURANCE

Kevin has more than 30 years of experience in the environmental compliance and permitting of major infrastructure and land development projects. He has managed and prepared numerous environmental and planning studies for public and private sector clients under CEQA and NEPA, specializing in the strategic guidance, preparation, and peer review of CEQA/NEPA documents and regulatory permitting programs. Kevin has managed a wide range of environmental planning projects, including environmental documents for major infrastructure and land development projects, air quality and noise studies, community participation programs, highly controversial hillside development projects, state-of-the-art visual analyses, facility siting and due diligence studies, and technical support for the California Energy Commission, California Public Utilities Commission and California Coastal Commission permitting processes.

Professional Credentials

Bachelor of Arts, Environmental Engineering, University of California, Los Angeles, CA
Certified Environmental Professional (#99040383)
Envision Sustainability Professional
American Council of Engineering Companies, Chair
American Water Works Association
National Association of Environmental Professionals
CalDesal, Chair, Regulatory Working Group
ARTBA, Co-Chair Environmental Committee, Chair NEPA Subcommittee (Federal Issues Oversight)

Relevant Experience

- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Environmental Planner
- City of Fontana On-Call Environmental Services, CA – Principal-In-Charge
- County of Riverside On-Call Planning Services, CA – Project Manager
- On-Call Environmental Services (currently ongoing), County of Riverside – Project Manager
- County of Riverside General Plan Update and Program EIR, County of Riverside – Project Manager
- County of San Bernardino On-Call Civil Engineering Services, CA – CEQA/NEPA Task Manager
- Jackson Avenue Extension and Bridge Project IS/MND, City of Murrieta – Project Manager
- Murrieta 25 Grading Project IS/MND, City of Murrieta – Project Manager
- Murrieta 18 Office Campus IS/MND (peer review), City of Murrieta – Project Manager
- Los Alamos/I-215 Interchange Improvements CE/CE, City of Murrieta and Caltrans – Project Manager
- Wine Country Community Plan Program EIR, County of Riverside – Project Manager
- Temecula Creek Inn Specific Plan Administrative Draft EIR, City of Temecula, CA – Project Manager
- Butterfield Specific Plan Subsequent Program EIR, Banning, CA – Project Manager
- Wine Country Community Plan Program EIR, Temecula, CA – Project Manager
- La Entrada Specific Plan Program EIR, Coachella, CA – Project Manager
- Heritage Valley Parks Specific Plan Program EIR and Addenda EIR, Fillmore, CA – Project Manager
- Holiday Inn Express and Restaurant IS/MND, Downey, CA – Project Manager

Aryo Rad, P.E., QSD

CIVIL AND TRANSPORTATION ENGINEERING – TASK MANAGER

Aryo has more than two decades of civil engineering and construction management experience related to municipal and public facilities. His broad range of experience includes planning, permitting, design, bidding, and construction of community centers, libraries, parks, as well as for municipal infrastructure such as roadways, storm drains, utilities, and other transportation projects in Orange, Los Angeles, and Riverside areas. He has led complex multidisciplinary public works projects with a track record of successful implementation. Aryo has significant experience in working with community development, public works, and planning departments for more than 15 municipalities in Southern California and assisting them with their capital improvement and special projects. Aryo is thoroughly familiar with the City of Santa Ana procedures as well as the challenges the City faces with local issues.

Professional Credentials

Master of Science, Civil Engineering, California State University, Fullerton
Master of Science, Systems Engineering, Industrial Management Institute
Bachelor of Science, Civil Engineering, Azad University, Tehran
Professional Civil Engineer in California (#81231)
American Association of State Highway and Transportation Officials
American Society of Civil Engineers, Member
American Water Works Association
Project Management Institute, Member

Relevant Experience

- City of Anaheim On-Call Consulting Support for Public Works, Development Services, Anaheim, CA – Project Manager and Senior Plan Checker
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Engineer
- City of Laguna Niguel, Auxiliary Parking Lot for Sea Country Senior Center, Laguna Niguel, CA Project Manager
- City of Montebello, Beverly Boulevard and Wilcox Avenue Intersection Improvement, Montebello, CA – Project Manager
- City of Lynwood, Various Street Improvements, Lynwood, CA – Project Manager
- City of Brea, Cliffwood Industrial Street Rehabilitation, Alley Rehabilitation, and Water Main Replacement Projects, Brea, CA – Project Manager and Project Designer
- City of Montebello, Flotilla Street Rehabilitation and Sewer Main Improvements, Montebello, CA Project Manager
- City of Anaheim, Fairmont Boulevard Widening, Anaheim, CA – Principal Design Engineer
- City of Diamond Bar, Area 6 Road Maintenance, Diamond Bar, CA – Project Engineer and Design Engineer
- City of Irvine, Culver Drive Street Improvement, Irvine, CA – Design Engineer
- City of Bell Gardens, Ford Park Soccer Field Number 5, Bell Gardens, CA – Project Manager and Principal Design Engineer
- City of Moreno Valley, Redlands Blvd and SR 60 Westbound Ramps Improvements, Redlands, CA – Project Manager
- City of Pico Rivera, Rosemead Boulevard and Mines Avenue Intersection Improvement, Pico Rivera, CA – Project Manager
- City of Maywood, Atlantic Boulevard & Slauson Avenue Street and Street Rehabilitation and Median Improvements, Maywood, CA – Project Engineer
- City of San Clemente, Vista Hermosa Sports Park, San Clemente, CA – Project Design Engineer

Eric Regueiro, P.E., ENV SP

CIVIL AND TRANSPORTATION ENGINEERING – TASK MANAGER

Eric has more than a dozen years of experience in civil engineering for roadway and land development projects throughout Southern California. His technical skillset allows him to support a wide range of projects, from local roadway improvements to major interchange, grade separation, and regional transportation projects. His emphasis has been on street improvement design, pavement condition analysis, grading and drainage, stormwater management, and sewer and water system design. In addition, Eric uses both of the major design software programs - AutoCAD Civil 3D and MicroStation/InRoads, and is able to design and model roadway plans using the client's preferred CAD software.

Professional Credentials

Bachelor of Science, Civil Engineering, University of California, Irvine
Professional Engineer in California (#78161)
Envision Sustain Professional
American Society of Civil Engineers, Associate Member

Relevant Experience

- Long Beach Citywide Pavement Maintenance Management System, Long Beach, CA — Project Engineer
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Manager
- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E; Fullerton Road Grade Separation, City of Industry, CA — Project Engineer
- Artesia Boulevard Improvements, Buena Park, CA — Project Engineer
- Baseline Road/Laurel Avenue Intersection Widening, Fontana, CA — Analyst
- City of Buena Park, Auto Center Drive Traffic Signal and Median Design, Buena Park, CA — Project Engineer
- City of Fontana On-Call Pavement Rehabilitation/Utility Design, Fontana, CA — Project Engineer
- CSU Long Beach, East Campus Road - Safety Improvements, Long Beach, CA — Project Manager
- Diamond Bar Prospectors Road Street Rehabilitation Project, Diamond Bar, CA — Analyst
- Expo Metro Line Construction Authority, Design of LRT Phase 2, Los Angeles, CA — Project Engineer
- Firestone Boulevard Improvements, Buena Park, CA — Analyst
- Fresno Marketplace at El Paseo, Fresno, CA — Project Engineer
- La Habra Harbor/Lambert Intersection Widening, La Habra, CA — Project Engineer
- Lakewood Boulevard and Cover Street Intersection Improvements, Long Beach, CA — Project Engineer
- New Pedestrian Mall and Repairs to North Deukmejian Way, Long Beach, CA — Project Engineer
- Ocean Park Boulevard Complete Green Street Project, Santa Monica, CA — Project Engineer
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Project Engineer
- RCTD, I-10 Bypass, Riverside County, CA — Project Engineer
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Project Engineer

Gyan Sinha, P.E.

CIVIL AND TRANSPORTATION ENGINEERING

Gyan has experience in roadway, rail, and land development. He has supported a wide range of projects and provided roadway design, rail design, storm and sewer design, Storm Water Pollution Plan Development, bio-swale design, hydrology design, and precise and mass grading. Gyan is proficient in variety of software such as AutoCAD, AutoCAD Civil 3D, FlowMaster and WSPG. Also, he is involved in American Society of Civil Engineers, Orange County, Younger Member Forum as a board member.

Professional Credentials

Bachelor of Science, Civil and Environmental Engineering, Seattle University
Professional Engineer in California (#85031)
American Society of Civil Engineers, Board Member

Relevant Experience

- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Engineer
- City of Jurupa Valley, Pedley Road and Jurupa Road Intersection Analysis, Jurupa Valley, CA — Project Engineer
- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Analyst
- Anaheim Rapid Connection (ARC) Streetcar, Anaheim, CA — Analyst
- Atlanta BeltLine, Inc., Design Engineering and Consulting for the Westside Transit Corridor, Atlanta, GA —
- Capitol Expressway ITS Infrastructure and Sidewalk Project, Santa Clara County, CA — Analyst
- CDCR- Deuel Vocational Institute (DVI), Solano, CA — Analyst
- Fresno Marketplace at El Paseo, Fresno, CA — Analyst
- Garden Grove Walmart, Garden Grove, CA — Project Engineer
- Lakewood Boulevard and Cover Street Intersection Improvements, Long Beach, CA — Analyst
- Los Alamitos Medical Center (Specific Plan and Master Plan), Los Alamitos, CA — Analyst
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Analyst
- RCTD, I-10 Bypass, Riverside County, CA — Analyst

Alan Huynh, EIT

CIVIL AND TRANSPORTATION ENGINEERING

Alan is an engineering analyst specializing in roadway and rail design. He has experience designing roadway and rail alignments and profiles using AutoCAD Civil 3D and MicroStation. He also has experience with utility design and coordination.

Professional Credentials

Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona
Engineer-in-Training (#155838)
American Society of Civil Engineers, Member

Relevant Experience

- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Analyst
- Anaheim Rapid Connection (ARC) Streetcar, Anaheim, CA — Analyst
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Analyst
- I-5 North Coast - PA/ED and PS&E (also Staff Augmentation I-5 HOV Extension PS&E), San Diego, CA — Analyst
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Analyst
- RCTD, I-10 Bypass, Riverside County, CA — Analyst
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Analyst
- Regional Express Lane Network Phase 1- I-880/I6-80/SR 84/SR 92 On-Call PS&E Design Services, San Francisco County, CA — Analyst
- Sacramento County Airport System, Consulting Engineer Services, Sacramento, CA — Analyst

Jimmy Medellin, P.E.

DRAINAGE AND WATER QUALITY – TASK MANAGER

Jimmy has more than 15 years of experience in civil engineering, with an emphasis on hydrology and hydraulics. Jimmy's project experience includes design work for dam retrofit and transportation projects, flood hazard studies, including hydraulic evaluation of systems in riverine, alluvial fan, and urban environments. His prior work experience includes failure analysis evaluation to analyze systems and recommend measures to prevent failures through in-depth third-party reviews and risk assessments. Jimmy's additional experience includes awareness floodplain mapping for the California Department of Water Resources, periodic inspections of USACE levees, and stormwater drainage system design and stormwater best management practices design for the California Department of Transportation. He also has experience working with HEC-RAS, HEC-HMS, WMS, WSPG, ArcGIS, HEC-GeoRAS, HEC-GeoHMS, Autodesk Civil 3D/AutoCAD, AES, MicroStation, FLO-2D, PondPack, and StormCAD.

Professional Credentials

Bachelor of Science, Environmental Engineering, Massachusetts Institute of Technology
Professional Engineer in California (#77250)
American Society of Civil Engineers (ASCE), Member

Relevant Experience

- Malibu On-Call Traffic Engineering Services, Malibu, CA — Project Engineer
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Project Engineer
- Port of Los Angeles (PDLA), On-Call Design Services: Harry Bridges Boulevard Street Improvements, Los Angeles, CA — Senior Engineer
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Engineer
- Orange County Public Works, Stonybrook Lane Storm Drain Project, Orange County, CA — Senior Engineer
- OCTA, PE and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Project Engineer
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Project Engineer
- Caltrans, Stormwater Detention Basin Designs (along SR-73), Various, CA — Staff Engineer
- Alameda Corridor–East Construction Authority (ACE), Durfee Avenue Grade Separation, Pico Rivera, CA — Senior Engineer
- Caltrans, I-15/I-215 Interchange Improvements (Devore), Devore, CA — Senior Engineer
- City of Rancho Mirage, Frank Sinatra at Whitewater River, Rancho Mirage, CA — Senior Engineer
- City of Wildomar, Palomar Road Widening, Wildomar, CA — Senior Engineer
- San Bernardino Associated Governments (SANBAG), SR 210 Mixed Flow Lane Addition PA&ED – Highland Avenue to San Bernardino Avenue, San Bernardino County, CA — Senior Engineer
- The Port of Long Beach, Pier G Berths G230-G236 Terminal Redevelopment, Long Beach, CA — Senior Engineer
- Santa Margarita Water District, Engineering and Geotechnical Design Services for Trampas Canyon Reservoir, Orange County, CA — Senior Engineer
- City of Los Angeles Dept. of Recreation and Parks, Chatsworth Park South, Chatsworth, CA — Senior Engineer

Annje Dodd, Ph.D., P.E.

DRAINAGE AND WATER QUALITY – TASK MANAGER

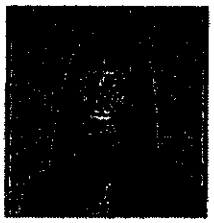
Annje has nearly 25 years of experience leading projects in civil and water resources engineering as well as planning and environmental science. Her wide range of expertise includes advanced hydrologic and hydraulic analyses; sediment transport analysis; fluvial geomorphologic analysis; floodplain management; stormwater compliance; water rights and quantity studies; environmental permit application assistance (DFW, RWQCB, USACE); CEQA/NEPA document preparation and supporting analyses; and water quality planning, monitoring, and reporting. Additional areas of expertise include 1-D and 2-D sediment transport modeling, groundwater modeling, flood frequency analyses, stormwater master planning, drainage analyses and design, evapotranspiration studies, stormwater utility analysis, nutrient management planning, statistical and probabilistic analyses, developing and analyzing success criteria for monitoring programs, and stream erosion and stability analyses.

Professional Credentials

Doctor of Philosophy, Civil and Environmental Engineering, Utah State University
Master of Science, Environmental Systems, Mathematical Modeling, Humboldt State University
Bachelor of Arts, Applied Mathematics, Humboldt State University
Bachelor of Science, Environmental Resources Engineering, Humboldt State University
Professional Engineer in CA (#77756), NV (#22663), and AZ (#58307)
Association of State Floodplain Managers, Member

Relevant Experience

- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Team Member
- Brookfield Residential Properties, Amoruso Ranch Master Planned Community, Roseville, CA — Project Engineer
- City of Marina, Imjin Parkway Widening Project, Marina, CA — Environmental Planner
- CEQA Compliance for Jefferson Community Center and Park; Westside Community Improvement Association; Eureka, CA — Project Manager
- Various Projects for City Engineer's Office; City of Ferndale, CA — Project Manager
- Eureka Arcata Safety Corridor Project, California Department of Transportation, Eureka, CA — Project Manager
- City of Sparks, NFIP CRS Program Development and Modeling, Sparks, NV — Project Manager
- Del Sur A, B, and C CUP Site Plans, Lancaster, CA — Task Manager
- Fairview Estates, El Cerrito, CA — Environmental Scientist
- Regional Transportation System Enhancements Project (RTSEP), San Rafael, CA — Project Engineer
- Rocketdyne/UTC Canoga Park Campus Master Plan (aka UTC/Warner Center Development), Canoga Park, CA — Project Engineer
- Sacramento County Airport System, Consulting Engineer Services, Sacramento, CA — Project Engineer
- Salinas, Municipal Separate Storm Sewer System Annual Report Review, Salinas, CA — Project Manager
- sPower, Green Beanworks B, C and D Solar Facility, Lancaster, CA — Project Engineer
- Truckee River Watershed CEQA Consult, Middle Truckee and Upper Little Truckee Watersheds Restoration Project, Truckee, CA — Project Engineer
- Citywide Stormwater Master Plan, Town of Yountville, CA — Project Manager
- Truckee River Watershed Regional Hydrologic Model, Truckee River Flood Management Authority, Washoe County, NV — Deputy Project Manager



Katie Galloway, P.E.

DRAINAGE AND WATER QUALITY

Katie specializes in hydrology and other water related services such as stormwater management and best management practices. Katie has been involved in wet utility design, storm drain design, water quality analysis, water quality reports, hydrology analysis, and task management. Katie is proficient in a variety of software packages such as MicroStation, AutoCAD Civil 3d, StormCAD, InRoads, FlowMaster, CulvertMaster and ProjectWise.

Professional Credentials

Master, Applied Ocean Science (Mechanical Engineering), University of California, San Diego
Bachelor of Science, Civil and Environmental Engineering, University of Maryland
Professional Engineer in California (#84222)
American Society of Civil Engineers (ASCE), Member
Engineers Without Borders, Member

Relevant Experience

- Mission Avenue Streetscape - A Green/Complete Streets, Oceanside, CA — Project Engineer
- National City, Community Corridors Improvements, 4th Street, National City, CA — Analyst
- ACE, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA —
- East County Bus Maintenance Facility Master Plan and Construction Documents, San Diego, CA — Project Engineer
- Euclid Avenue Pedestrian & Bicycle Enhancements, National City, CA —
- Graton Casino - Wilfred Avenue Off-Site Improvements, Rohnert Park, CA — Analyst
- Volgt Drive/I-5 North Coast Corridor (NCC) Improvements (PS&E), San Diego, CA — Project Engineer
- Willow Street Bridge Replacement Phase 2, Chula Vista, CA — Analyst
- Hayward I-880/SR 92 Reliever Route, Hayward, CA — Analyst
- I-215/Van Buren Blvd Interchange PA&ED and PS&E Phases, Riverside County, CA — Analyst
- I-5/Genesee PR/ED, PS&E and Construction Phase Services (CPS), San Diego, CA — Analyst
- Martin Luther King Community-Oriented Skate Park (aka Sidewinder Skate Park), El Centro, CA — Analyst
- Palm Ave. and I-805 Interchange Widening (Bridge), San Diego, CA — Analyst
- Rancho Coronado Villages Design Services - A Public/Private Partnership, San Marcos, CA — Project Engineer
- RCTD, I-10 Bypass, Riverside County, CA — Project Engineer
- Rehabilitation of Willow Street Bridge over the Sweetwater River, Chula Vista, CA — Project Engineer
- Safari Park Wastewater Treatment Plant Expansion (aka Water Pipeline Upgrades and Safari Park Grant Support), San Diego, CA — Project Engineer
- SANDAG, Final Design of the South Line Freight Rail Improvements, San Diego, CA — Project Engineer
- SANDAG, Mid-Coast - 100% Final Design Phase, sub to PB, San Diego, CA — Project Engineer
- SANDAG/MTS Light Rail Transit (LRT) Renewal Project – Blue Line Stations, San Diego, CA — Analyst
- UCSD Traffic Study for I-5/Gilman Drive Advanced Technology Bridge project, San Diego, CA — Project Engineer

Kameron Qureshi

DRAINAGE AND WATER QUALITY

Kameron has experience in civil, traffic, and drainage design for roadway projects. He has worked on the design and coordination of utilities for grade separations and roadway projects. He also has experience with completing hydrology studies, developing traffic control plans, and cost estimates for public road projects. He is proficient in AutoCAD, AutoCAD Civil 3D, Microstation, and InRoads.

Professional Credentials

Bachelor of Science, Civil Engineering, California State Polytehnic University of Pomona
American Society of Civil Engineers, Member

Relevant Experience

- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Analyst
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Analyst
- City of Jurupa Valley, Pedley Road and Jurupa Road Intersection Analysis, Jurupa Valley, CA — Analyst
- City of Marina, Imjin Parkway Widening Project, Marina, CA — Analyst
- Lake Havasu State Park Boat Launch Design, Lake Havasu City, AZ — Analyst
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Analyst
- R-2530B/B-4874, NC 24-27-73 Widening, Stanly and Montgomery, NC — Analyst
- RCTD, I-10 Bypass, Riverside County, CA — Analyst
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Analyst
- SANDAG, Bus On Shoulder (BOS) Bus Rapid Transit (BRT) Demonstration, San Diego, CA — Analyst
- SR 91/Beach Boulevard Entrance Ramp Modifications, Buena Park, CA — Analyst

Jason Melchor, P.E.

TRAFFIC AND TRANSIT ENGINEEERING – TASK MANAGER

Jason has more than 20 years of experience in traffic engineering and transportation planning. He has worked with clients in Orange, Los Angeles, Riverside and San Diego Counties to complete traffic impact studies and perform the technical analysis for a variety of transportation planning projects; parking studies, transit analysis, site plan reviews, and circulation studies. His traffic engineering experience includes traffic signal design, signing and striping, traffic control, and signal interconnect design plans. He has acted as in-house staff for the cities of Irvine and Huntington Beach to review development studies and design plans. In this role, he worked directly with developers and City staff to provide comments on plan and document submittals. Jason also has experience working with a variety of traffic engineering software programs and computer design packages.

Professional Credentials

Bachelor of Science, Civil Engineering; Specialization in Transportation, University of California, Irvine
Professional Engineer in California (#C65218)
Institute of Transportation Engineers, Member
Orange County Traffic Engineering Council

Relevant Experience

- On-Call Civil Engineering Services, San Bernardino County, CA — Project Engineer
- On-Call Review Services (Moreno Valley), Moreno Valley, CA — Project Engineer
- On-Call Services - Traffic Engineering and Transportation Planning Review Services, Riverside County, CA — Project Engineer
- On-Call Signal Design Services (Chino), Chino, CA — Project Engineer
- On-Call Signal Design Services (Palmdale), Palmdale, CA — Project Engineer
- On-Call Traffic/Civil Engineering Services, City of Industry, CA — Project Engineer
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Project Engineer
- On-Call Review Services (Moreno Valley), Moreno Valley, CA — Project Engineer
- On-Call Services - Traffic Engineering and Transportation Planning Review Services, Riverside County, CA — Project Engineer
- On-Call Signal Design Services (Chino), Chino, CA — Project Engineer
- On-Call Signal Design Services (Palmdale), Palmdale, CA — Project Engineer
- FY2011-12 Major Pavement Rehabilitation (Task Order Under On-Call), Pomona, CA — Project Engineer
- Agoura Hills On-Call, Agoura Hills, CA — Project Engineer
- Artesia Boulevard Improvements, Buena Park, CA — Project Engineer
- City of Oceanside On-Call Traffic Engineering Services, Oceanside, CA — Project Manager
- Azusa Avenue/Amar Road Intersection Improvements, West Covina, CA — Project Engineer
- Buena Park Traffic Operation System, Buena Park, CA — Project Engineer
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — QC/QA Reviewer
- City of Buena Park, Auto Center Drive Traffic Signal and Median Design, Buena Park, CA — Project Manager
- City of Fontana On-Call Pavement Rehabilitation/Utility Design, Fontana, CA — Project Engineer

Sri Chakravarthy, P.E., T.E.

TRAFFIC AND TRANSIT ENGINEERING – TASK MANAGER

Sri has nearly 15 years of traffic operations and transportation engineering experience. Since beginning his career with Los Angeles County prior to joining Kimley-Horn, Sri has participated in a wide variety of traffic signal synchronization, ITS operations projects, and on-call traffic engineering services. His project management experience includes traffic signal operations, traffic signal design, traffic impact studies, roundabout design, corridor planning, signal justification studies, school safety studies, site specific traffic circulation and safety studies. His key areas of expertise include traffic signal timing, signal design, ITS, transportation modeling, grant applications, and statistical analysis. Sri also has extensive knowledge of Synchro 8.0, CORSIM©, Traffix, Tru-Traffic, TransCAD 4.5, MicroStation, AutoCAD, and Systat 10.

Professional Credentials

Master of Science, Civil Engineering, Louisiana State University
Bachelor of Science, Civil Engineering, Kakatiya University, India
Professional Engineer in California (#73629)
Traffic Engineer in California (#2531)
Institute of Transportation Engineers, Past President
City Traffic Engineers, Board Member

Relevant Experience

- Malibu On-Call Traffic Engineering Services, Malibu, CA — Project Manager
- Traffic Engineering and Traffic Surveys, Santa Monica, CA — Project Engineer
- Traffic Engineering Surveys (aka Flashing Beacon Design), La Canada Flintridge, CA — Project Manager
- Traffic Signal System Design Select List, Los Angeles County, CA — Project Engineer
- OCTA, Lake Forest Drive (task order C-2-1420 from On-Call), Orange, CA — Project Manager
- On-Call Traffic and Civil Engineering Services, (Industry), City of Industry, CA — Project Engineer
- 27th Street/Bay Place Bikeway Feasibility Study, Oakland, CA — Analyst
- Accident Rate Study, Los Angeles County, CA — Project Engineer
- Agoura Hills On-Call, Agoura Hills, CA — Project Engineer
- Citywide Traffic Signal Equipment and Infrastructure Assessment Study, Rancho Mirage, CA — Project Engineer
- Engineering and Traffic Survey, Malibu, CA — Deputy Project Manager
- Agoura Hills Traffic Services (In CP aka Kanan/Agoura Signal Timing), Agoura Hills, CA — Project Manager
- Agoura Road Widening Project (Complete Streets), Agoura Hills, CA — Project Engineer
- Bicknell Avenue Green Street - Complete Street, Santa Monica, CA — Project Engineer
- Chapman Avenue Corridor Traffic Signal Synchronization Project (TSSP) (Task Order for Traffic Engineering Services for), Orange County, CA — Project Manager
- City of Lancaster, Program Management Services for Measure R Highway Equity Program, Lancaster, CA — Project Engineer
- City of Los Angeles, Bridge On-Call Program (North Spring Street and Laurel Canyon Tasks), Los Angeles, CA — Project Engineer
- City of Malibu, PCH (Route 1) Mobility Improvements at Various Locations, Malibu, CA — Project Manager
- Citywide Sign Management Study, Agoura Hills, CA — Project Manager
- Crown Valley Parkway Traffic Signal Synchronization Program (TSSP), Orange County, CA — Project Manager

Alyssa Phaneuf, P.E.

TRAFFIC AND TRANSIT ENGINEERING – TASK MANAGER

Alyssa has more than 15 years of experience in a wide range of transportation and transit projects including regional ITS planning and systems engineering. She has experience writing technical specifications for a variety of technologies including video walls, traffic signal systems, and ITS field equipment. Through her work on regional and local ITS projects, she has experience working with a variety of stakeholders such as the Federal Highway Administration, local police departments, regional planning agencies, and FEMA. She is adept at assessing the needs of the stakeholders and translating those needs into on-the-ground solutions.

Professional Credentials

Master of Science, Civil Engineering - Transportation, Georgia Institute of Technology
Master of City and Regional Planning, Georgia Institute of Technology
Bachelor of Science, Civil and Environmental Engineering, University of California, Berkeley
Professional Engineer in California (#63123)

Relevant Experience

- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Project Engineer.
- City of Culver City, Traffic Control System (KITS®), Culver City, CA — Deputy Project Manager.
- City of Malibu, Pacific Coast Highway (PCH) Signal System Improvements Project, Malibu, CA — Project Engineer.
- City of San Mateo, Downtown Parking Technology Implementation, San Mateo, CA — Project Engineer.
- Citywide Traffic Signal Equipment and Infrastructure Assessment Study, Rancho Mirage, CA — Project Engineer.
- OCTA, Brookhurst Street TLSP (8-0612-4), Orange County, CA — Project Engineer.
- U.S. 101 Freeway Cap Preliminary Feasibility Study, SCAG 2% Compass Blueprint, Ventura County, CA — Project Manager.
- LA Metro, Wilshire Bus Rapid Transit (BRT) Before and After Study, Los Angeles, CA — Project Manager.
- Best Practices in Arterial Speed Management, Pasadena, CA — Project Engineer.
- Transit Priority System Phase 2/ATMS Phase 3, Santa Monica, CA — Project Engineer.
- California ITS Architecture and System Plan, Statewide, CA — Project Engineer.
- Caltrans District 7, Historic Arroyo Seco Parkway Strategic Program (CMAS), Los Angeles, CA — Project Engineer.
- Caltrans, Connected Corridors Program and Corridor System Management/Operations Pilot Project, Statewide, CA — Project Manager.
- City of Anaheim ITS Master Plan (aka Anaheim Traffic Management Center TMC), Anaheim, CA — Project Engineer.
- City of Commerce KITS® (ATMS), City of Commerce, CA — Project Engineer.
- Downey Traffic Management Center (TMC) Assessment, Downey, CA — Project Engineer.
- Downtown Paso Robles Parking and Master (Specific) Plan, Paso Robles, CA — Project Engineer.
- ITS Integration Plan for Goods Movement, Gateway Cities Area, CA — Project Manager.
- Pasadena SAFETEA-LU - Parking Guidance and Information Systems Integrator, Manager, and Design (TMC), Pasadena, CA — Project Engineer.
- Real Time Parking Information System (Formerly known as Design, Implementation, and Integration of a DMS), Culver City, CA — Project Manager.
- Real-Time Beach Parking Project and DMS, Santa Monica, CA — Project Engineer.

Tim Chan, P.E.

TRAFFIC AND TRANSIT ENGINEERING

Tim's experience includes transportation planning and traffic engineering. He has worked with public and private sector clients on a variety of traffic impact studies, transportation analyses, and parking evaluations throughout the Southern California region. His traffic engineering experience includes traffic signal, signing and striping, traffic handling, and streetlight plans. He has utilized a wide range of transportation-related software packages and is knowledgeable of planning and design standards for local and state agencies.

Professional Credentials

Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona
Civil Engineer in California (#C85687)
American Society of Civil Engineers (ASCE), Student Chapter
Institute of Transportation Engineers (ITE), Student Chapter

Relevant Experience

- Santa Ana Transportation System Improvement Area Study, Santa Ana, CA -
- City of Buena Park, Auto Center Drive Traffic Signal and Median Design, Buena Park, CA — Analyst
- City of Buena Park, Complete Streets Master Plan, Buena Park, CA — Project Engineer
- Alameda Corridor East Construction Authority, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Analyst
- Capitol Expressway ITS Infrastructure and Sidewalk Project, Santa Clara County, CA — Analyst.
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Engineer
- City of Jurupa Valley, Limonite Avenue Traffic Analysis Between Downey Street and Pedley Road, Jurupa Valley, CA — Project Engineer
- City of Jurupa Valley, Pedley Road and Jurupa Road Intersection Analysis, Jurupa Valley, CA — Project Engineer
- City of Temple City, TIA for Las Tunas Drive Improvement, Temple City, CA — Analyst
- East Coast Highway Signal Rehabilitation Design, Newport Beach, CA — Analyst
- Newport Executive Center Addendum to the Newport Executive Court Project, Newport Beach, CA — Analyst
- Orange County Transportation Authority, Preliminary Engineering and Environmental Documentation for 17th Street Grade Separation Project, Orange County, CA — Analyst
- RCTD, Mission Boulevard Bridge Replacement, sub to Kleinfelder, Riverside, CA — Analyst.
- Riverside Community Hospital Expansion, Riverside, CA — Analyst
- Sand Hill Property Company, Valloo Shopping District Specific Plan, Cupertino, CA — Analyst
- Western Avenue Sight Distance and Parking Improvments, Buena Park, CA — Analyst
- Riverside Community Hospital Traffic Impact Study and Parking Evaluation, Riverside, CA -
- Newport Beach East Coast Highway Signal Rehabilitation, Newport Beach, CA -
- Rialto Panattoni Assemblage Traffic Impact Study, Rialto, CA -
- La Habra Gas Station Circulation Study, La Habra, CA -
- Uptown Newport, Newport Beach, CA – Analyst

Trevor Briggs, P.E.

TRAFFIC AND TRANSIT ENGINEERING

Trevor has completed various transportation projects and studies in California, Utah, Idaho, and Florida. Trevor has designed and drafted various traffic plans, including signing and striping, traffic signal, traffic control, and ITS plans. He has also been involved in conducting analyses and writing various traffic impact studies for public agencies and jurisdictions. Trevor has utilized a wide range of transportation-related software packages and is knowledgeable of planning and design standards for many local and state agencies. He is also familiar with right-of-way easement documents and mapping the easement locations into AutoCAD Civil 3D 2012 and ArcGIS.

Professional Credentials

Bachelor of Science, Civil Engineering, Brigham Young University
Professional Engineer in CA (#67664)
American Society of Civil Engineers (ASCE), Member
Institute of Transportation Engineers (ITE), Member

Relevant Experience

- City of Buena Park, Complete Streets Master Plan, Buena Park, CA — Analyst
- Western Avenue Sight Distance and Parking Improvements, Buena Park, CA — Analyst
- Traffic Impact Study for Hyatt Place, 101-111 W. Valley Boulevard, San Gabriel, CA — Analyst
- Traffic Impact Study for the Orangethorpe and Thomas Residential Project, SW Corner of Orangthorpe Avenue and Thomas Street, Buena Park, CA — Analyst
- 234 West Hyde Park Boulevard Manufacturing/Warehouse Project Initial Study/Mitigated Negative Declaration, Inglewood, CA — Analyst
- Capitol Expressway ITS Infrastructure and Sidewalk Project, Santa Clara County, CA — Analyst
- Contra Costa County, Byron Highway and Camino Diablo Intersection Improvements, Contra Costa County, CA — Analyst
- East Coast Highway Signal Rehabilitation Design, Newport Beach, CA — Analyst
- Garvey Square (El Monte Townhomes), El Monte, CA —
- Hoag Health Center, Irvine, CA — Analyst
- I-880 Express Lanes, Oakland, CA — Analyst
- La Palma Townhomes, Anaheim, CA — Analyst
- Lakeshore Towers Parking Demand Study, Irvine, CA — Analyst
- Monster Beverage Corporation, Monster Energy Distribution Center, Rialto, CA — Analyst
- Newport Executive Center Addendum to the Newport Executive Court Project, Newport Beach, CA — Analyst
- Niagara Bottling Plant Addendum to the Renaissance Specific Plan Final EIR, Rialto, CA — Analyst
- Regional Express Lane Network Phase 1- I-880/I6-80/SR 84/SR 92 On-Call PS&E Design Services, San Francisco County, CA — Analyst
- Sand Hill Property Company, Vallco Shopping District Specific Plan, Cupertino, CA — Analyst
- Traffic Impact Study for the Newport Executive Center, Newport Beach, CA — Analyst
- Traffic Impact Study for the Medline Warehouse Project, Northeast Corner of Laurel Avenue and Miro Way, Rialto, CA — Analyst
- Traffic Signal Modification Plans for Capitol Expressway, San Jose, CA — Analyst

Dave Luzuriaga, P.E., QSD/P

EROSION CONTROL AND SWPPP – TASK MANAGER

Dave has been involved in a multitude of projects over his 25-year career. His background includes a wide range of civil engineering projects for higher education facilities and land development projects in Southern California. His overall grasp of general civil engineering, the process involved, and the ever-complicated permit approvals has consistently appealed to clients.

Professional Credentials

Bachelor of Science, Civil Engineering, California Polytechnic State University, San Luis Obispo
Professional Engineer in California (#56734)
Qualified SWPPP Developer/Practitioner (#00687)
California Board for Civil Engineers and Land Surveyors, Board Member

Relevant Experience

- Bellflower Unified School District, Mayfair High School STEAM Building, Track and Field Stadium, and Additional Improvements, Lakewood, CA — Project Manager
- Lake Elsinore Unified School District, Elsinore High School, Synthetic Baseball Field and Courtyard Redesign, Wildomar, CA — Project Manager
- Long Beach City College, Master Plan Update for New Sports Complex and Kinesiology and Health Education Building, Long Beach, CA — Project Manager
- Orange Unified School District, Orange High School Improvements, Orange, CA — Project Manager
- Rio Hondo College, Nursing Village, Transit Center, and Library Tower, Whittier, CA — Project Manager
- Viewpoint School, A/E Services for Sports Facility and Two Parking Lots, Calabasas, CA — Project Manager
- Long Beach City College, Due Diligence, New Sports Complex, and new Kinesiology Building, Long Beach, CA — Project Manager
- Rio Hondo College, Nursing Village, Transit Center, and Library Tower Seismic Retrofit, Lakewood, CA — Project Manager
- Cypress College, Baseball Field, Cypress, CA — Project Manager
- Orange Coast College, Substation, Costa Mesa, CA — Project Manager
- Fullerton College, Softball Field, Softball Batting Cage ADA Upgrades, Fullerton, CA — Project Manager
- College of the Canyons, Soccer Field and Accessibility Upgrades, Santa Clarita, CA — Project Manager
- El Camino College, Campus Wide Utility Mapping, and Water Main Relocation Plan, Torrance, CA — Project Manager
- Viewpoint School, Preliminary Design of Three Parking Lots, Six Tennis Courts, Sewer Alignment, and Multi-Use Synthetic Sports Field, Calabasas, CA — Project Manager
- Mater Dei High School, Parking Lot Re-Striping, ADA Upgrades, New Modular Building, and Portables, Santa Ana, CA — Project Manager
- Mayfair High School, Interim Classroom Modular Village, New STEAM Building, New Track and Field Stadium, New Synthetic Sports Field, LA County Culvert Design and Conversion of Open Channel, and Storm Drain Percolation Field, Lakewood, CA — Project Manager
- Elsinore High School, New Synthetic Baseball Field, Courtyard Redesign, Wildomar, CA — Project Manager
- Orange High School, New STEM Building, Design of the Interim Portable Village, Campus Wide Utility Upgrades, and Relocation of a Bus Drop Off, Orange, CA — Project Manager

Jennifer Steen

EROSION CONTROL AND SWPPP

Jennifer has more than 12 years of engineering experience on site development projects, including the preparation of Stormwater Pollution Prevention Plans and water quality technical reports. She has been responsible for providing support for educational, residential, commercial, and institutional land development projects throughout Southern California. In addition to stormwater management services, her work includes preparation of Phase I Environmental Site Assessments and jurisdictional delineations, as well as entitlement processing.

Professional Credentials

Bachelor of Science, Sociology, University of Illinois
Associate of Arts, Social Sciences, Saddleback College, Mission Viejo, CA

Relevant Experience

- Boeing Fitness and Recreation Center (8500 Fallbrook), Canoga Park, CA — Analyst
- Cardinal Health Pacific Corporate Center, San Diego, CA — Environmental Scientist
- Denver Premium Outlets, Thornton, CO — Analyst
- Escondido 7th Day Adventist Academy, Escondido, CA — Analyst
- Garden Grove Walmart, Garden Grove, CA — Analyst
- I-215/Van Buren Blvd Interchange PA&ED and PS&E Phases, Riverside County, CA — Analyst
- Intellicenter Riverside, Riverside, CA — Analyst
- LA Fitness (Van Nuys), Los Angeles, CA — Analyst
- Lake Matthews, Lake Matthews area, CA — Team Member
- Lennar, Superior Plating EAW, St. Paul, MN — Analyst
- Los Robles Hospital and Medical Center Expansion (Medical Tower) and parking structure, Thousand Oaks, CA — Team Member
- Monster Beverage Corporation, Monster Energy Distribution Center, Rialto, CA — Environmental Planner
- Pilot Travel Centers (E Otay Mesa Pilot Travel Center), San Diego County, CA — Analyst
- Rialto Walmart Site, Rialto, CA — Analyst
- Temple Palms Business Park, El Monte, CA, El Monte, CA — Analyst
- Tract No. 17708, Rialto, CA — Analyst.
- Tracy Combined Cycle Plant aka GFW Tracy Peaker Facility, Tracy, CA — Analyst
- Walmart #1879, Barstow, CA, Barstow, CA — Environmental Planner
- Walmart Cerritos Expansion, Phase 1 & 2, Cerritos, CA — Environmental Planner

Dave Barquist, AICP

PLANNING SERVICES – TASK MANAGER

Dave has more than 20 years of public and private sector planning experience, including extensive work with policy and program analysis for local and regional Housing Elements, comprehensive planning, local government policy and development, and environmental analysis. An expert in crafting local government policy, Dave has managed numerous complex planning programs, including General Plans, Specific Plans, Zoning Codes, and Development Code updates. His planning expertise includes policy analysis and development, urban design, downtown revitalization, parks and recreation planning, sustainability, and land use analysis. Dave has been an instructor at Cal State Fullerton's Urban Planning Certificate Program and Leadership Development for Public Agencies program for the last 10 years, teaching public agency staff on principals of communication and group facilitation. He excels in utilizing community engagement and public outreach programs to guide public policy development and has led hundreds of public meetings. Dave is well-versed in finding locally-specific techniques and tools—and in developing multimedia and interactive technology applications—to engage the community in the planning process.

Professional Credentials

Bachelor of Science, Urban and Regional Planning, California State Polytechnic University, Pomona
American Institute of Certified Planners (#136746)
American Institute of Certified Planners, Member
American Planning Association, Member
Society of College and University Planners

Relevant Experience

- Downtown/Old Town Indio Specific Plan Update and Community Outreach, Indio, CA — Project Manager
- Fountain Valley-New Electronic Message Center Sign Environmental Impact Report (EIR), Fountain Valley, CA — Project Planner
- On-Call Civil Engineering Professional Services, San Bernardino County, CA— Public Involvement Specialist
- Scotts Valley General Plan, EIR, and Climate Action Plan, Scotts Valley, CA — Project Planner
- Whittier Boulevard Specific Plan Moratorium Analysis, Whittier, CA — Project Manager
- Yorba Linda General Plan Update and Community Outreach and Parks and Recreation Master Plan, Yorba Linda, CA — Project Manager
- 1998-2007 Santa Ana Housing Element Update, Santa Ana, CA — Project Manager
- Santa Ana Citywide Design Guidelines, Santa Ana, CA — Project Manager
- City of Yorba Linda General Plan and EIR, Yorba Linda, CA – Project Manager
- Brea Downtown Specific Plan, Brea, CA — Project Manager
- City of Anaheim Housing Element, Anaheim, CA — Project Manager
- San Jacinto Comprehensive Development Code Update, San Jacinto, CA — Project Manager
- Paseo San Gorgonio Specific Plan-SCAG Compass Blueprint Demonstration Project, Banning, CA — Project Manager
- Yucca Valley Old Town Specific Plan, Program EIR, SR-62 Streetscape Master Plan, Yucca Valley, CA — Lead Project Planner

Dana Privitt, AICP

ENVIRONMENTAL SERVICES – TASK MANAGER

Dana is an environmental planner with more than 35 years of private- and public-sector experience focused on CEQA environmental analysis, project management, staff support services, and planning documentation for multi-issue development projects. Her projects include small- and largescale urban infill and greenfield developments; public infrastructure; policy programs; and public-sector support staff services. She has conducted CEQA training in coordination with the Association of Environmental Professionals, as well as for Newport Beach and the University of California, Irvine. Throughout her career, she has continued to work and collaborate with a diverse group of public and private planners, developers, and local governments. She has worked on many EIRs that were prepared under the threat of litigation.

Professional Credentials

Bachelor of Science, Social Ecology, University of California, Irvine
American Institute of Certified Planners (#9036)
American Institute of Certified Planners, Member
American Planning Association, Board Member
California Planning Foundation, Friend of CPF
California Preservation Foundation

Relevant Experience

- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Project Planner
- City of Ventura Residential Allocation Program, Ventura County, CA — Project Planner.
- Downtown/Old Town Indio Specific Plan Update and Community Outreach, Indio, CA — Project Planner
- Newport Executive Center Addendum to the Newport Executive Court Project, Newport Beach, CA — Project Manager
- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Environmental Planner
- RCTD, I-10 Bypass, Riverside County, CA — Project Planner
- Tracy Hills Specific Plan Amendment Subsequent EIR, Tracy, CA — Project Planner
- Whittier Boulevard Specific Plan Moratorium Analysis and Addendum, Whittier, CA — CEQA Project Manager
- Yorba Linda General Plan Update and Community Outreach and Parks and Recreation Master Plan, Yorba Linda, CA — Project Planner
- Yorba Linda General Plan Update Program EIR, Yorba Linda, CA — CEQA Project Manager
- Gene Autry Way Improvement Project Addendum to the Platinum Triangle EIR, Anaheim, CA — CEQA Project Manager
- Downtown/Old Town Indio Specific Plan Update Program EIR, Indio, CA — CEQA Project Manager/Planner
- The Koll Center Residences Environmental Impact Report, Newport Beach, CA — Project Manager
- Red Hill Avenue Specific Plan EIR, Tustin, CA — Project Manager
- Hoag Hospital Master Plan Update Supplemental EIR, Newport Beach, CA — Project Manager
- University of California, Irvine (UCI) Medical Center Long Range Development Plan Program EIR, Orange, CA — Project Manager
- Multiple CEQA documents for the UCI campus (Irvine) and the UCI Medical Center (Orange), CA — Project Manager
- Plaza Residences EIR, Costa Mesa, CA — Project Manager

Karina Fidler, AICP, CPESC

ENVIRONMENTAL AND SWPPP – TASK MANAGER

Karina has nearly 20 years of experience as an environmental planner providing field investigations and CEQA and NEPA documentation for public and private sector projects. She has completed numerous Phase 1 Environmental Site Assessments, Phase II ESAs, environmental planning documents, and wetland delineations. In addition to environmental services, Karina has also prepared Stormwater Pollution Prevention Plans for private developments and public works improvements, and has conducted weekly and rain event inspections for projects under the Statewide General Construction Permit. Her responsibilities also include coordination with the contractor through the construction process to assure the Best Management Practices controls are installed and maintained, and that the site is in full compliance with the Permit. Karina is also trained to measure pH and turbidity in the field during storm events, as required by the Permit for high risk sites.

Professional Credentials

Master of Science, Public Health/ Environmental Health, San Diego State University
Bachelor of Science, Biological Sciences, University of California, Santa Barbara
American Institute of Certified Planners, (#020016)
Certified Professional in Erosion & Sediment Control (#7165)

Relevant Experience

- Civil Engineering Design Services - Santiago Detention Basin, Temecula, CA — Environmental Planner
- Intersection and Drainage Improvements at Frank Sinatra Drive and Portola Avenue, Palm Desert, CA — Environmental Planner
- San Diego County As-Needed Environmental Services, San Diego, CA — Project Manager
- San Diego River Bikepath, Ocean Beach Bikepath/Hotel Circle North (aka Mission Valley Bikeway Feasibility Study), San Diego, CA — Environmental Planner
- Main Street Promenade (Linear Park - A Street Vacation), Lemon Grove, CA — Project Engineer
- Bakersfield Master Plan Development (Meadow Field Airport) AKA Wingspoint, Bakersfield, CA — Environmental Planner.
- Bayshore Bikeway Environmental Documentation and Final Design, San Diego, CA — Environmental Planner.
- Santa Rosa Road Widening Project, Camarillo, CA — Project Engineer
- City of Stockton, Installation of Emergency Vehicle Pre-Emption(EVP) at Various Locations, Stockton, CA — Environmental Planner
- Del Dios Gorge Trail Feasibility Study, Escondido, CA — Environmental Planner
- Douglas Park-Long Beach (Boeing), Long Beach, CA — Environmental Planner
- Faraday Avenue, Carlsbad, CA — Environmental Planner
- Harbor Boulevard Smart Street Feasibility Study and Environmental Documentation, Garden Grove, CA — Environmental Planner
- I-215/Van Buren Blvd Interchange PA&ED and PS&E Phases, Riverside County, CA — Environmental Planner
- I-5/Genesee PR/ED, PS&E and Construction Phase Services (CPS), San Diego, CA — Environmental Planner
- Broadway Plaza Expansion, Walnut Creek, CA — Environmental Planner.

Michael Madsen, PLA, CLIA, CLARB

LANDSCAPE AND IRRIGATION – TASK MANAGER

Michael has nearly 15 years of landscape architectural experience in master planning, streetscapes, site design, pool and amenity areas, planting and irrigation design, and the preparation of tree mitigation plans. His background includes coordinating multidisciplinary design projects involving landscape architecture, urban planning, architecture, civil engineering, roadway design, and transportation design. Much of his project experience has been within the private sector with a focus on retail, restaurants, healthcare, and multi-family housing developments. He has also worked on parks, streets and pedestrian thoroughfares, and transportation corridors within the public realm. Michael is a Certified Landscape Irrigation Auditor, is member of the American Society of Landscape Architects, and is Certified by the Council of Landscape Architectural Registration Boards.

Professional Credentials

Master of Landscape Architecture, Landscape Architecture, University of Florida
Bachelor of Science, Business Administration, Florida State University
Professional Landscape Architect in CA (#5798), WA (#1477), FL (#LA6666994)
Certified Landscape Irrigation Auditor (#92638)
Council of Landscape Architectural Registration Boards (#21623)
American Society of Landscape Architects, Full Member
U.S. Green Building Council - National Capital Region, Member

Relevant Experience

- On-Call Civil Engineering Professional Services, San Bernardino County, CA — Landscape Architect
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA — Landscape Architect
- City of Inverness Bicycle Master Plan, Inverness, FL — Landscape Architect
- City of Los Angeles, Bridge On-Call Program (North Spring Street and Laurel Canyon Tasks), Los Angeles, CA — Landscape Architect
- 11th Avenue Improvements (part of the Downtown BRT Stations project), San Diego, CA — Landscape Architect
- A Avenue Green Street (thru Kimball Park), National City, CA — Landscape Architect
- ACE, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Landscape Architect
- Coolidge Avenue Safe Routes to School, National City, CA — Landscape Architect
- D Avenue and 12th Street Roundabout (Safe Routes to School), National City, CA — Landscape Architect
- Engineering Design and Architectural Design Services for Plank Park, El Centro, CA — Landscape Architect
- I-5/Genesee PR/ED, PS&E and Construction Phase Services (CPS), San Diego, CA — Landscape Architect
- Martin Luther King Community-Oriented Skate Park (aka Sidewinder Skate Park), El Centro, CA — Landscape Architect
- Meridian Development, Millenia Park (P-6), Chula Vista, CA — Project Manager
- Rancho Road Sidewalks and Bike Lanes, Thousand Oaks, CA — Landscape Architect
- RCTD, Sunset Avenue Railroad Grade Separation at I-10 PS&E, Banning, CA — Landscape Architect
- SANDAG, Broadway Corridor/BRT Station Engineering and Environmental Compliance (CEQA), San Diego, CA — Landscape Architect

Randall Kopff, PLA

LANDSCAPE AND IRRIGATION – TASK MANAGER

With more than 15 years of professional experience, Randall has encompassed a wide variety of landscape architectural, planning, and graphic services on projects throughout the U.S. His skills include site inventory/analysis, master planning, design development, graphic presentations, 3-D modeling, project management, and detailed technical drawings. Randal utilizes his diverse project background to work closely with individual clients to interpret public input and ensure that the proper vision has been achieved throughout the planning and design implementation processes. He is well-versed in the latest versions of AutoCAD, Adobe Photoshop, Illustrator, InDesign, Acrobat Professional, SketchUp, Podium and VUE 3D rendering software, and more.

Professional Credentials

Bachelor of Science, Landscape Architecture, Ohio State University
Professional Landscape Architect in Arizona (#62750) and Oregon (#LA0916).

Relevant Experience

- National City, On-Call 5-Year Capital Improvement Projects (CIP), National City, CA — Landscape Architect
- SANDAG, Mid-Coast - 100% Final Design Phase, sub to PB, San Diego, CA — Landscape Architect
- El Centro, Aquatic Center, El Centro, CA — Landscape Architect
- Engineering Design and Architectural Design Services for Plank Park, El Centro, CA — Landscape Architect
- ASU Tempe Campus Mall Hardscape Master Plan, Tempe, AZ — Landscape Architect
- Carr McNatt Park, Casa Grande, AZ — Landscape Architect
- City of Scottsdale WestWorld Landscape & Signage Master Plan and Design, Scottsdale, AZ — Landscape Architect
- City of Yuma: Pacific Avenue Athletic Complex (PAAC), Yuma, AZ — Landscape Architect
- Denver Premium Outlets, Thornton, CO — Landscape Architect
- Gilbert Regional Park, Gilbert, AZ — Landscape Architect
- Scottsdale AutoShow at Salt River, Scottsdale, AZ — Landscape Architect
- MTS, Old Town Transit Center (OTTC) West Improvements, San Diego, CA — Landscape Architect
- University Community Plan Update (aka University Mobility Plan Update / University Future Conditions TO Contract / Regents Road Bridge), San Diego, CA — Landscape Architect
- Town of Fountain Hills Interconnected Trails (FIT) Identity Branding and Trailheads, Fountain Hills, AZ — Project Manager
- Scottsdale Community Services Division Master Plan, Scottsdale, AZ — Landscape Architect

Matthew Morgan, PLA

LANDSCAPE AND IRRIGATION

With professional experience in the field of landscape architecture and design, Matthew has had the opportunity to work on a broad variety of projects, providing initial site analysis, concept development, planning services, and highly detailed designs. He has both public- and private sector experience in urban planning, habitat restoration, planting and hardscape design, stormwater management, and historic preservation.

Professional Credentials

Bachelor of Landscape Architecture, Landscape Architecture, University of Oregon
Professional Landscape Architect in CA (#6256)

Relevant Experience

- El Centro, Aquatic Center, El Centro, CA — Landscape Analyst
- Martin Luther King Community-Oriented Skate Park (aka Sidewinder Skate Park), El Centro, CA — Landscape Analyst
- Paradise Creek Educational Park, National City, CA — Landscape Analyst
- The Village at Corte Madera, Corte Madera, CA — Landscape Analyst
- Voigt Drive/I-5 North Coast Corridor (NCC) Improvements (PS&E), San Diego, CA — Landscape Analyst
- Aurora Commerce Center, Aurora, CO — Landscape Architect
- Centennial Parkway Road Diet, Louisville, CO — Landscape Architect

Joe Cogswell

LANDSCAPE AND IRRIGATION

Joe has landscape architectural experience in arboriculture, horticulture, irrigation, urban design, and pedestrian and bicycle transportation planning. Much of his project experience has been within the municipal and commercial sector with a focus on community parks, athletic complexes, and streetscapes. Joe is an aspiring landscape architect in training and specializes in photo simulations, presentation graphics, 3d modeling, rendering, and diagramming. He also has experience in AutoCAD, SketchUp, Photoshop, InDesign, Illustrator, and Microsoft Office.

Professional Credentials

Bachelor of Science, Landscape Architecture, Purdue University
American Society of Landscape Architects

Relevant Experience

- 11th Avenue Improvements (part of the Downtown BRT Stations project), San Diego, CA — Landscape Analyst
- 2920 Rowena Townhomes, Los Angeles, CA — Landscape Analyst
- A Avenue Green Street (thru Kimball Park), National City, CA — Landscape Analyst
- AC Transit, Line 51 Corridor Delay Reduction and Sustainability Project, Alameda/Berkeley/Oakland, CA — Analyst
- ACE, Phase II Grade Separations PS&E, Fullerton Road Grade Separation, City of Industry, CA — Landscape Analyst
- Alyce Gereaux Park - Park Renovation, Brawley, CA — Landscape Analyst
- ASU Tempe Campus Mall Hardscape Master Plan, Tempe, AZ — Landscape Analyst
- D Avenue and 12th Street Roundabout (Safe Routes to School), National City, CA — Landscape Analyst
- Dougherty Road Improvements (Sierra Lane to North City Limit), Dublin, CA — Landscape Analyst
- El Centro, Aquatic Center, El Centro, CA — Landscape Analyst
- Engineering Design and Architectural Design Services for Plank Park, El Centro, CA — Landscape Analyst
- Martin Luther King Community-Oriented Skate Park (aka Sidewinder Skate Park), El Centro, CA — Landscape Analyst
- Metropolitan Council, Advanced Design Consultant Services for the Metro Green Line Extension (Southwest LRT) Project, Minneapolis, MN — Analyst
- MTS, Old Town Transit Center (OTTC) West Improvements, San Diego, CA — Landscape Analyst
- Off-Site Roadway Improvements for Renaissance Parkway, Laurel Ave., and Alder Ave. for Target Food Distribution Center, Southern, CA — Landscape Analyst
- Paradise Creek Educational Park, National City, CA — Analyst
- San Rafael Corporate Center, San Rafael, CA — Analyst
- SANDAG, Broadway Corridor/BRT Station Engineering and Environmental Compliance (CEQA), San Diego, CA — Landscape Analyst
- SANDAG, Mid-Coast - 100% Final Design Phase, sub to PB, San Diego, CA — Landscape Analyst
- SANDAG, South Bay Bus Rapid Transit (BRT) East Palomar Street Segment Final Design, San Diego, CA — Landscape Analyst
- SANDAG/MTS Light Rail Transit (LRT) Renewal Project – Blue Line Stations, San Diego, CA — Analyst
- South Bay Bus Rapid Transit (BRT) Otay Mesa Intermodal Transit Center (ITC) Final Design, Otay Mesa - San Diego, CA — Landscape Analyst

Andy Sanford, P.E.

STRUCTURAL

Andy Sanford has over 29 years of professional experience, including 2 years of construction inspection experience, six years with Caltrans as a Project Engineer, and the last 20 years providing bridge design and project management. Andy has recently joined Kimley-Horn to continue with his bridge and project management roles. Andy has been involved in a variety of transportation planning, bridge design, retrofit analysis and design, and structure construction projects throughout his career. His brings key experience working on bridge replacement projects in San Diego, Riverside, San Bernardino and Imperial County (Anza Road Bridge). Andy has an extensive background in the preparation of planning documents, including Project Study Reports (PSRs) and Project Reports (PRs), and has been part of multiple-agency planning committees. He has developed project specifications utilizing the base standard special provisions for both Caltrans and locally funded projects. These projects involved the coordination of federal, state, and local agencies.

Professional Credentials

Bachelor of Science, Civil Engineering, California State University, Chico
Professional Engineer in California (#49671)
American Society of Civil Engineers, Member

Relevant Experience*

- County of San Diego On-Call Structural and Bridge Engineering, San Diego, CA – Project Manager
- Anza Road Bridge Replacement, County of Imperial, CA – Project Manager
- Bayshore Bikeway Bridges, San Diego, CA – Bridge Engineer, Project Manager
- Palm Avenue/I-805 Interchange and Bridge Widening, City of San Diego, CA – Project Manager
- Clairemont -Mesa Widening over SR-163, San Diego, CA – Project Manager
- 13th Street Bridge over Santa Maria Creek, County of San Diego, CA – Project Manager
- I-10/Sunset Avenue Interchange UPRR Grade Separation, (PEER, PS&E) Banning, CA – Bridge Task Lead
- I-215/Van Buren (PR/ED and PS&E), Riverside County, CA – Bridge Task Lead
- North First Avenue Barstow Overhead, Barstow, CA – Project Manager
- Mojave River Bridge, Barstow, CA – Project Manager
- Clairemont Mesa Boulevard/SR-163 PSR/PR/ED and PS&E, San Diego, CA – Project Engineer
- Nordahl Road Improvements SR-78, Caltrans, Escondido, CA – Project Manager
- SR-86 at Daroca Ditch, Caltrans, Imperial County, CA – Project Engineer
- Bridge Maintenance Program, Caltrans District 4, Bay Area, CA – Project Manager
- Gird Road Bridge over Live Oak Creek, County of San Diego, CA – Design Engineer
- Oleander Avenue Bridge at Compton Creek, County of Los Angeles, CA – Task Lead and Design Engineer
- Patrick Drive Bridge over Harbison Canyon Creek, County of San Diego, CA – Design Check Engineering
- Pacific Street Bridge at Loma Alta Creek, City of Oceanside, CA – Project Engineer

*Performed while at another firm

Kevin Kimm, P.E.

STRUCTURAL – TASK MANAGER

Kevin has nearly 20 years of experience in structural engineering and multidisciplinary project management on a variety of public sector projects. His expertise ranges from preparing preliminary project assessment documents and bridge selection reports to bridge/retaining wall construction plans, quantities, estimates and specifications, as well as managing post-design/construction activities. Kevin's bridge design experience includes structures of reinforced concrete, precast/pre-stressed concrete, cast-in-place post-tensioned concrete and structural steel. He also brings experience in the design of pedestrian bridges and other various structures such as retaining walls, sign and lighting structures, shade pedestrian shelters, drainage structures, and building elements. Over the years, Kevin has worked on many fast-track projects and has shown his commitment to getting projects done in a timely manner.

Professional Credentials

Bachelor of Science, Civil Engineering, Montana State University
Registered Professional Engineer in Arizona (#043306), California (#75462), and North Carolina (#030483)
American Society of Civil Engineers, Member

Relevant Experience

- Santa Rosa Road Widening Project, Camarillo, CA — Project Engineer
- A.E. Wright Middle School Pedestrian Bridge, Calabasas, CA — Project Engineer
- Advanced Transportation Management and Information and Security System (ATMIS), Port of Long Beach, CA — Project Engineer
- Agoura Road Widening Project (Complete Streets), Agoura Hills, CA — Project Engineer
- 11th Avenue Improvements (part of the Downtown BRT Stations project), San Diego, CA — Project Engineer
- 17315 W. Sunset Blvd. Renovation Project (J. Paul Getty), Pacific Palisades, CA — Project Engineer
- Interchange Improvements for I-215 at Cactus Avenue PSR, Moreno Valley, CA — Project Engineer
- Broadway Plaza Parking Study, Walnut Creek, CA — Project Engineer
- Calaveras Sidewalk Improvements, Milpitas, CA — Project Engineer
- SANDAG, Broadway Corridor/BRT Station Engineering and Environmental Compliance (CEQA), San Diego, CA — Project Engineer
- SANDAG, Final Design of the South Line Freight Rail Improvements, San Diego, CA — Project Engineer
- I-5/Genesee PR/ED, PS&E and Construction Phase Services (CPS), San Diego, CA — Project Engineer
- SANDAG/MTS Light Rail Transit (LRT) Renewal Project – Blue Line Stations, San Diego, CA — Project Engineer
- Graton Casino - Wilfred Avenue Off-Site Improvements, Rohnert Park, CA — Project Engineer
- I-215/Van Buren Blvd Interchange PA&ED and PS&E Phases, Riverside County, CA — Project Engineer
- City of Rocklin, Farron Street Pedestrian Bridge, Rocklin, CA — Project Manager
- Lincoln On-Call Services, Lincoln, CA — Project Engineer
- Los Angeles, Upper 2nd Street Bridge Design, Los Angeles, CA — Project Engineer
- City of Elk Grove, Preliminary Engineering for Intermodal Rail Station, Elk Grove, CA — .Project Engineer
- City of Folsom, Johnny Cash Trail - Phase Two, Folsom, CA — Project Engineer

Chris Iser, P.E., LEED AP

STRUCTURAL SERVICES – TASK MANAGER

Chris has nearly 15 years of experience on a variety of projects, including building structural and pavement assessments, parking facility design and repair, vehicular and pedestrian bridge design and repair, culvert design, roadway/streetscape improvements, and other ancillary transportation support structures. Chris' responsibilities have included planning, structural design, production of plans and specifications, and construction phase services for a wide range of project types. His design and assessment experience encompasses structures of reinforced concrete, precast/ prestressed concrete, post-tensioned concrete, and structural steel for a wide variety of project and client types. Chris also recognizes the correlation between sustainability and practicality and applies this to every project.

Professional Credentials

Master of and Bachelor of Science, Civil Engineering, Clemson University
Professional Engineer in CA (#80317), SC (#28099), NC (#35111), TN (#005278)
LEED AP (Leadership in Energy and Environmental Design)
American Society of Civil Engineers, Member
International Parking Institute, Advisory Council, Sustainability Committee, Consultants Committee
Green Parking Council, Credentialing Committee

Relevant Experience

- Bayside District, 3rd Street Promenade Downtown Parking Study, Santa Monica, CA — Project Engineer
- Firestone Boulevard Improvements, Buena Park, CA— Project Manager
- City of Anaheim, Gene Autry Way Improvements (I-5 to State College Blvd.) & State College Blvd. Improvements (West Side), Anaheim, CA
- Pavement Rehabilitation (Task Order Under On-Call), Pomona, CA — Project Manager
- Traffic Flow Improvement Study of Artesia Boulevard from I-5 to Beach Boulevard, Buena Park, CA — Project Manager
- C Gold Line Design-Build Wayside Energy Storage Substructure (WESS) Project, Los Angeles, CA — Project Engineer
- Comprehensive Parking Analysis, Santa Ana, CA — Project Engineer
- California State University-Long Beach, West Campus Turnaround Drainage (Veteran Affairs), Long Beach, CA — Project Manager
- City of Buena Park, SR 91/Beach Blvd WB Exit Ramp, Buena Park, CA — Project Manager
- Patton Street Pocket Park (Parks for People), Los Angeles, CA — Project Engineer
- CSU Long Beach, East Campus Road - Safety Improvements, Long Beach, CA — QC/QA Reviewer
- Diamond Bar Prospectors Road Street Rehabilitation Project, Diamond Bar, CA — Project Manager
- East Coast Highway Signal Rehab Design, Newport Beach, CA — Project Director
- Valley Transportation Authority PARCS, Silicon Valley, CA — Project Engineer
- Santa Fe Christian School Parking Deck, Solana Beach, CA — Project Engineer
- Berryessa Station Parking Structure, San Jose, CA — Project Engineer
- California State University, Sacramento Parking Structure Condition Assessments, Sacramento, CA — Project Engineer
- Lower Pacific Avenue Parking Study, Santa Cruz, CA — Project Engineer
- Milpitas Station Pedestrian Bridge over Montague Expressway, Milpitas, CA — Project Engineer
- Richmond Transit Village Parking Garage (BART), Richmond, CA — Project Engineer

TWINING

Sean Lin, PhD, PE, GE, *Chief Geotechnical Engineer*

Dr. Sean Lin has over 20 years of professional experience as a Geotechnical Engineer. He specializes in seismic site response analysis as it applies to hospitals, schools and high-rise buildings. His professional experience includes soil mechanics and foundations, soil reinforcement, geosynthetics, pile design and driving analysis, slope stability, and liquefaction analysis. Sean has experience in engineering projects for commercial, residential, water/wastewater, military, educational and industrial facilities. Sean also has experience in geotechnical and construction projects for municipal, commercial, residential, military, educational and industrial facilities including technical and laboratory oversight and supervision of staff and personnel.

Overview
Joined Twining in 2014
In the Industry since 1997

Current Licenses Held
California Registered Civil Engineer, PE 67109
California Registered Geotechnical Engineer, GE 2921

Education
Ph.D. Civil Engineering emphasis Earthquake Engineering,
University of Southern California, Los Angeles, CA

Master of Science, Civil Engineering emphasis Geotechnical Engineering,
University of Southern California, Los Angeles, CA

Bachelor of Science, Civil Engineering,
Chung Yuan Christian University, Taoyuan City, Taiwan

Project Experience Summaries

- **City of Fontana, Street Widening Including Sidewalk Design, Martin Avenue at Sierra Avenue** This street improvement project included street and sidewalk improvements on Martin Avenue from Sierra Avenue to approximately 525 feet east of Sierra Avenue. The roadway and street improvements consisted of curb, gutter, sidewalk, handicapped access ramps, commercial and residential driveways, AC pavement, and utility pole relocations. Sean served as the geotechnical engineer and project manager, performing pavement condition evaluation, field exploration, geotechnical laboratory testing, and engineering analysis. Sean provided a final structural pavement recommendation report for the project.
- **City of Colton, Mt. Vernon Avenue Over UPRR Tracks Bridge Widening** Sean is serving as Project Manager for the widening of this bridge from 2 lanes to 4 lanes. He is responsible for the geotechnical engineering services, which include a preliminary foundation report, geotechnical investigation, geotechnical laboratory testing, and geotechnical engineering analyses. He communicates with the structural and civil engineers closely and provides geotechnical design recommendations during the design phase. Sean also coordinates stakeholders' right of way information for the City of Colton and the UPRR.
- **City of Simi Valley, Cochran Street and Las Llajas Channel Bridge Widening** Sean was the Project Manager for this project, which consisted of widening the bridge from two to four lanes. He was responsible for oversight of the geotechnical investigation to explore and evaluate the subsurface conditions, and provided geotechnical engineering recommendations for the design of the project.

TWINING

Amir Ghavibazoo, Ph.D., *Senior Pavement Engineer*

Dr. Amir Ghavibazoo is the Senior Pavement Engineer at Twining, Inc. He directs and works on pavement design, highway design, and engineering specifications. During his graduate study, Amir obtained extensive knowledge and expertise on Pavement Management Systems (MicroPaver), Pavement Evaluation and Pavement Rehabilitation Strategies. He is an expert in calculating Pavement Condition Index (PCI) through visual inspection following the United Stated Army Corps of Engineers' methodology, as well as conducting Life Cycle Cost Analysis (LCCA) rehabilitation strategies for pavements. Amir has extensive practical experience in asphalt pavement engineering including pavement design, rehabilitation, preservation, pavement management, materials, and construction. His experience includes the characterization of rubberized asphalt binders and developing mix designs following Superpave specifications. He works closely with cities and government agencies to develop unique and specialized mix designs, pavement constructions inspections, and pavement design solutions.

Overview
In the Industry since 2014
Joined Twining in 2014

Education
Ph.D. In Civil and Environmental Engineering
North Dakota State University

Master of Science in Railways Engineering
Iran University of Science and Technology, Tehran, Iran

Project Experience Summaries

- **City of Huntington Beach, Nichols Lane Rehabilitation** Twining performed inspection and material testing on this project. Amir served as project manager to assure the quality of the job that was being delivered to the City. He oversaw the material sampling and testing and provided technical comments to the City. He was also responsible for developing Cement-treated soil mix design for the City.

- **City of Claremont, Foothill Boulevard Improvement** Twining performed pavement evaluation on approximately four lane miles of Foothill Boulevard in the City of Claremont to recommend repair and rehabilitation strategies for the pavement. Amir served as senior pavement engineer, coordinating the required testing and preparation of the final recommendation and design. Several alternative options were provided to the City, including mill and overlay, Cold In-Place recycling, reconstruction, and soil stabilization.

- **Pavement Evaluation & Repair Recommendations at Various Parks** Twining performed network level pavement evaluation on approximately 20 lane miles of road in various parks of Forest Lawn in Southern California to develop a 5-year plan for rehabilitation of the road network. Amir was the lead Pavement Engineer on this project, coordinating all required surface evaluation tasks, data collection, and preparation of the final report.

- **City of El Monte, Ramona Boulevard Resurfacing Pavement Evaluation** This project consisted of repairing the PS&E and related construction documents for the 2014- 2015 STP-L Ramona Boulevard Street Resurfacing project. Twining performed geotechnical pavement evaluations and rehabilitation recommendations for this project. Amir served as the pavement

TWINING

Paul Soltis, PE, GE, *Senior Geotechnical Engineer*

Paul Soltis, PE, GE, brings more than 24 years of technical expertise to Twining. His experience includes geotechnical investigations and analyses relative to roads, bridges, highways, and other California infrastructure projects. His focus is on interaction with the design team during development of construction documents to achieve the most appropriate foundation type and most efficient site preparation techniques. Paul has extensive on-call contract management experience and the proven ability to simultaneously maintain and manage multiple projects. Paul is responsible for the technical oversight of the firm's geotechnical projects and management of the firm's geotechnical personnel.

Overview
In the industry since 1993
Joined Twining in 2005

Current Licenses Held

- Professional Engineer, Civil, CA, 66140
- Registered Geotechnical Engineer, CA, GE 2606

Education
MS, Geotechnical Engineering, University of Colorado, Boulder, CO
BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, CA

Project Experience Summaries

- **City of Long Beach, Studebaker Road Pavement Evaluation** Serving as Geotechnical Engineer, Paul provided engineering oversight to ensure the City's expectations were met on this 0.6-mile stretch of Studebaker Road in the City of Long Beach. The surface condition assessment was performed following the Caltrans Flexible Pavement Rehabilitation Manual. Boring and coring were performed to investigate the subsurface condition of the road. Based on collected information, different rehabilitation strategies were calculated and recommended to the City of Long Beach, including Cold In-Place Recycled Asphalt Concrete Pavement and Cement Stabilized Pulverized Base.

- **LADPW, Del Amo Boulevard Improvements** This project consisted of extracting asphalt concrete cores and developing a cold recycling mix design using the collected materials. The thickness of the existing asphalt concrete and base was recorded. The extracted materials were returned to Twining's Long Beach laboratory for evaluation in order to develop a cold recycling mix design. In addition to developing the mix design, Twining served as the quality assurance testing laboratory during construction. Paul provided geotechnical oversight throughout this project, assisting with the investigation and identification of soft subgrade soils that were discovered during construction.

- **County of San Bernardino, On-Call Geotechnical Engineering Services** Paul is currently the project manager for this contract and provides monitoring, sampling, testing, reporting and contract compliance enforcement for construction concrete, quality control compliance of steel, reinforcing steel, wood, roofing material, brick, masonry, material quality control of asphalt and concrete paving and road construction materials, compaction testing, R-value, aggregate analysis, sieve analysis, gradation classification, moisture content, and shear analysis.

Anthony D. Smith, PE, PLS

1910 Orange Tree Lane, Suite 344 ♦ Redlands, CA 92374 ♦ 909.792.2221 ♦ tsmith@onpointlandsurveying.com

ADMINISTRATIVE SURVEY MANAGER ♦ PRINCIPAL

Land Surveying, Topographic & Aerial Mapping, Construction Staking

Accomplished Survey Manager and Principal with over 20 years broad-spectrum experience in all phases of land surveying and civil engineering; including project management, fundamental engineering, and construction services for projects valued over $100 million. Extensive work experience with civil, architectural, and geotechnical industries developing skills in multiple facets. Accomplished problem solver and consensus builder; able to relate to diverse populations from general public, colleagues, and staff. Technology proficient; use computer skills to improve operational efficiency and productivity.

- ♦ Drafting/Mapping Supervision
- ♦ Estimates/Bids/Proposals
- ♦ Regulatory Compliance
- ♦ Field Design Engineering
- ♦ Topographical Mapping
- ♦ Equipment Procurement
- ♦ GPS and GIS Project Overview
- ♦ Construction Project Troubleshooting
- ♦ Productivity Improvements
- ♦ Resource Management
- ♦ Public Relations
- ♦ Crew & Subcontractor Oversight

PROFESSIONAL EXPERIENCE

On Point Land Surveying, Inc. ♦ Redlands, CA — 2010 – Present

Corporation specializing in land surveying services; design topographic surveys, establishment of horizontal and vertical control networks, aerial mapping, construction staking, and boundary retracement surveys.

Principal/Administrative Survey Director

- ♦ Responsible for the direction and coordination of firm's technical and administrative activities, including review of contracts all the way through the delivery of final products.
  - Active in seeking out new clients, new company opportunities, and developing professional relationships.
  - Responsible for management of survey projects involving: Boundary, GIS, Control Networks (GPS & Conventional), and Aerial Mapping.
  - Final review of all parcel maps, tract maps, records of survey and corner records.

Hillwig-Goodrow, Inc. ♦ Yucaipa, CA — 2000 – 2010

A well established survey company that is capable of dispatching six survey crews. Hillwig-Goodrow started out, in 1993, as a two man partnership that developed into a corporation offering industry leading survey services.

Principal/Vice President/Director of Operations

- ♦ Chief of Survey with full responsibility for assignment scheduling and direct supervision of survey crews.
  - Supervise, instruct, schedule, and maintain crews on field operations and drafting/mapping personnel.
  - Collect and review surveying information for accuracy and completeness; oversight of all calculations; perform field design engineering.
  - Effective leadership and direction of cost estimating, preparation of bid proposals and statements of qualifications.
  - Implement and maintain GPS adjustments, GIS project tracking systems, check all tract maps, parcel maps, and records of survey prior to submittal.

EDUCATION

Bachelor of Science ♦ *Civil (Geospatial) Engineering* - California State Polytechnic University, Pomona, CA

Licensure/Certifications

Professional Land Surveyor – CA Certificate No. 8133
Professional Land Surveyor – AZ Certificate No. 48359
Professional Engineer - Civil – CA Certification No. 80387

Cindy Miller, PE

Water/Wastewater Team Lead

Ms. Miller has extensive experience in the planning, design and construction of water supply, treatment, storage and conveyance facilities.

Her assignments have included providing Program Management services for a $150 million groundwater supply project, which includes pipelines, wells, pump stations, and an advanced treatment system for R.O. concentrate reduction; Project Manager for preliminary and final design of a 28 MGD microfiltration treatment facility, and Project Manager for a 10 MGD R.O./Ion Exchange groundwater treatment plant. Ms. Miller has also led numerous water storage and conveyance infrastructure projects, including design of over 100 miles of Ductile Iron, CML&C steel, PVC, and HDPE pipeline, design of steel, pre-stressed concrete, and cast-in-place concrete storage reservoirs, up to 10 million gallons, and numerous pump station facilities. She has led feasibility and planning studies, developed treatment process evaluations and life-cycle cost evaluations, participated in value engineering studies and operations evaluations. She has developed detailed designs of many systems and provided construction and startup services. She has experience with different project delivery methods including: design-bid-build, design-build and design-build-operate-finance.

Education

BS, Civil Engineering, University of California, Irvine

Certification/License

Professional Engineer: OA, UT

Areas of Expertise

- Well Equipping Planning and Design
- Pipeline Planning and Design
- Project Management
- Program Management
- Project Delivery
- Groundwater Supply
-
- Pump Station Planning and Design
- Reservoir Storage Planning and Design
- Drinking Water

Experience

- 23 total years
- 1 year with Hazen

Professional Activities

AWWA, ASCE, AMTA

OA-NV AWWA,

OA Water Reuse Assoc.

City of Santa Ana Well 29 Improvements Alternatives Analysis, Santa Ana, OA

Principal in Charge. The City of Santa Ana owns and operates Well 29, located at the southeast corner of Flower Street and First Street, adjacent to City owned tennis courts. Well 29 pumps directly to an existing 8 MG reservoir. The existing well site includes the well head and discharge piping assembly, control equipment, a chlorination system in a building, and an SCE transformer. An alternatives analysis was conducted to recommend upgrades at the site including site improvements, structural, mechanical, and electrical upgrades. Highlights of the study include developing three (3) alternatives for the improved site, providing 3D renderings for each site alternative, and developing a preliminary opinion of probable cost for the design and construction of each alternative discussed. The City is moving forward with implementing the recommended alternative from this analysis.

Miller, Cindy

Hazen

Steven Conner, PE

Water/Wastewater Technical Lead

Mr. Conner is a professional civil engineer with 22 years of experience in the planning and design of water infrastructure including production wells, pipelines, storage tanks, treatment systems, and booster stations.

Education

B.S., 1994, Civil Engineering/ Water Resources, University of California at Irvine

Certification/License

Professional Engineer: CA

Transportation Worker Identification Credential (TWIC), California, 2011

Areas of Expertise

- Well Equipping Design
- Pipeline Design
- Trenchless Pipeline Rehabilitation and Installation
- Planning and design of major water and wastewater facilities
- Pump station design
- In-depth evaluation of system requirements for proposed new facilities as well as for rehabilitation, upgrade, or replacement of existing pump stations

Experience

- 22 total years
- 1 year with Hazen

Professional Activities

American Society of Civil Engineers, Member

Mr. Conner is responsible for project management, design supervision, contract administration, client interaction and development, and personnel management. His expertise includes: complex pumping and piping system layout, hydraulic design, groundwater supply and treatment design, and construction phase assistance including start-up and operation of pumping and treatment facilities. Mr. Conner coordinates all engineering support disciplines (civil, architectural, structural, process, mechanical, electrical, and I&C) during project design and construction phases.

City of Santa Ana Well 29 Improvements Alternatives Analysis, Santa Ana, CA

Project Manager. The City of Santa Ana owns and operates Well 29, located at the southeast corner of Flower Street and First Street, adjacent to City owned tennis courts. Well 29 pumps directly to an existing 8 MG reservoir. The existing well site includes the well head and discharge piping assembly, control equipment, a chlorination system in a building, and an SCE transformer. An alternatives analysis was conducted to recommend upgrades at the site including site improvements, structural, mechanical, and electrical upgrades. Highlights of the study include developing three (3) alternatives for the improved site, providing 3D renderings for each site alternative, and developing a preliminary opinion of probable cost for the design and construction of each alternative discussed. The City is moving forward with implementing the recommended alternative from this analysis.

Mojave Water Agency Regional Recharge and Recovery (R3) Project, San Bernardino County, CA

Design Manager - Wells, Pump Station, Recharge Facility, Turnout Facilities, Reservoirs, Disinfection System, and Pipelines. Mr. Conner provided engineering services to the Mojave Water Agency for the Regional Recharge and Recovery (R3) Project, a high-profile water supply project in San Bernardino County. The project will ultimately recharge up to 40,000 acre-feet per year of State Water Project water into the Upper Mojave River flood plain for later distribution to member agencies. The Phase I project included construction of six wells to extract up to

15,000 acre-ft per year, over 16 miles of 12-inch to 48-inch diameter pipe, a 2.65 MG welded steel reservoir, a flow control and recharge facility with 40,000 gpm capacity and up to 235 psi pressure drop, a pump station sized for 25,000 gpm with pumps installed to provide 15,000 gpm, and four turnout flow control facilities for delivering the water to member agencies.

Bellflower High Capacity Well, City of Bellflower, Bellflower, CA
Project Manager. Prepared a preliminary design report and provided final engineering design and construction management and inspection services for the well drilling and equipping of the city's new high-capacity groundwater well. The well is designed to produce 3,500 gallons per minute of high-quality groundwater to replace a large portion of the city's water supplies. Electrical design services included a motor control center, a variable-frequency drive for the well pump, interior and exterior lighting, an automatic transfer switch, and an emergency diesel-fueled generator. Control design included preparation of process and instrumentation diagrams and specification of control components to provide consistency with control components installed in existing city facilities. Provided engineering support during testing and start-up of the well.

Wells 21 and 22 Wellhead Facilities and Pipelines, Irvine Ranch Water District, Tustin, CA
Task Manager. Task manager responsible for the design of the wellhead facilities and untreated water pipeline. Deliverables included plans, specifications and engineers estimates of probable construction costs for each the wellhead facilities and all pipelines. Well 21 and Well 22, with capacities of 3,300 gpm and 1,600 gpm respectively, are submersible turbine pump / motor assemblies, installed within vaults, and one well is equipped with a bladder-type surge tank. Project included 7,000 ft. of 24-inch steel untreated water pipeline, 13,000 feet of 36-inch steel product water pipeline and 1,700 LF of 10-inch HDPE brine concentrate pipeline. The pipelines required jack-and-bores to cross the OCTA Metrolink train tracks, an Orange County Flood Control District channel, BNSF train tracks, a box culvert, and Peter's Canyon Channel.

Rehabilitation of College Avenue Pump Station, Orange County Sanitation District, Costa Mesa, CA
Engineer. Provided engineering services to Orange County Sanitation District for rehabilitation of College Avenue Sewage Pump Station. Provided engineering and construction support services for the rehabilitation of the College Avenue Sewage Pump Station. The design included replacement of pumping equipment with new dry-pit submersible pumps, structural rehabilitation of the wet-pit and dry-pit, a new ventilation system, a new odor control system, a new discharge valve vault for interconnecting dual force mains, and a new concrete block building for the electrical equipment and controls. The design included replacement of pumping equipment with new submersible pumps and a new concrete block building to house the new electrical equipment and controls.

Reconstruction of the Los Alamitos Pump Station and Retarding Basin, County of Orange, CA
Pump Station Technical Advisor. Prepared plans, specifications, and estimates for a new 800 cfs storm water pump station with natural gas engine driven pumps to replace the existing Los Alamitos facility for the County of Orange. Work included final design for the pump station facility and retarding basin, preparation of a value engineering report, final engineering report, hydrology and hydraulic routing, best management practices for improving water quality, inspection and analysis of existing 2,400 lineal foot of 54-inch discharge piping, Phase I and II environmental assessments, geotechnical investigation, CEQA, and permit processing, and coordination with agencies and homeowner associations. The pump station includes four vertical mixed flow pumps with a design capacity of 129 MGD each. Each pump is driven by a 1500 hp dual-fuel engine (natural gas and propane). Engine related components include a compressed air starting system, primary and secondary jacket water cooling system, natural gas primary fuel system, and propane

Tori Yokoyama, PE

Water/Wastewater Technical Lead

Mr. Yokoyama is experienced in project management and design of water and sewer pipelines in city streets. His background includes both the design of new facilities, as well as rehabilitation of aging existing facilities.

Education

BS, Civil Engineering, California State Polytechnic University, San Luis Obispo

Certification/License

Professional Engineer: OA, Guam

Areas of Expertise

- Pipelines
- Pump Stations
- Reservoirs
- Master Plans
- Hydraulic Modeling

Experience

- 16 total years
- 1 year with Hazen

Professional Activities

OA-NV AWWA

OOWA

ASCE

City of Santa Ana Well 29 Improvements Alternatives Analysis, Santa Ana, CA

Project Engineer. The City of Santa Ana owns and operates Well 29, located at the southeast corner of Flower Street and First Street, adjacent to City owned tennis courts. Well 29 pumps directly to an existing 8 MG reservoir. The existing well site includes the well head and discharge piping assembly, control equipment, a chlorination system in a building, and an SCE transformer. An alternatives analysis was conducted to recommend upgrades at the site including site improvements, structural, mechanical, and electrical upgrades. Highlights of the study include developing three (3) alternatives for the improved site, providing 3D renderings for each site alternative, and developing a preliminary opinion of probable cost for the design and construction of each alternative discussed. The City is moving forward with implementing the recommended alternative from this analysis.

West Grove Valley Pipelines, Riverview Pipelines, Santa Ana, CA

Project Manager. Two projects with the City of Santa Ana included a total of over 17,000 LF of water pipeline design ranging in size from 8-inch to 12-inch diameter. The City is actively replacing aging and undersized water mains throughout their distribution system. The West Grove Valley project include 9,500 LF of pipeline replacement design. The Riverview project included 7,700 LF of pipeline replacement design.

Waterline Replacement Project, Yorba Linda Water District, Yorba Linda, Anaheim, and Placentia, CA

Project Manager. Provided preliminary and final design and construction support services for the replacement of seven pipeline segments, the replacement of one pressure-reducing station, and the installation of one new pressure-reducing station. The pipeline replacements required many connections to existing pipelines, laterals, services, fire hydrants, and other appurtenances.

Hazen

CONTACT:

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Orange, CA 92868
darren.adrian@kimley-horn.com
TEL 714.705.1304

www.kimley-horn.com

EXHIBIT B

Cost Proposal

Standard Hourly Fee Schedules

Below please find our team's standard, prevailing wage, hourly rate schedules.

Kimley-Horn

Kimley»Horn

Rate Schedule

Effective through June 30, 2019

Classification	Billing Rate per Hour
Analyst	$100 to $120
Professional I	$120 to $145
Professional II	$145 to $185
Sr. Professional I	$185 to $220
Sr. Professional II	$220 - $285
Sr. Technical Advisor	$285 - $325
Project Support	$100 to $135
Administrative Support	$75 to $100

Rates will be escalated yearly 5% on July 1st.

Other Direct Costs: Outside Printing/Reproduction, Delivery Services/USPS, Misc. Field Equipment/Supplies, Travel Expenses, and Subconsultants will be billed at cost plus 10%. Mileage will be billed at the Federal Rate.

Hazen

Hazen

Standard Hourly Rate Schedule
City of Santa Ana
On-Call Engineering Services
March 20, 2018

Classification	Hourly Rate
Senior Associate Technical	$ 250
Senior Associate	$ 220
Associate Technical	$ 200
Associate	$ 185
Sr. Principal Engineer	$ 165
Principal Engineer	$ 145
Engineer	$ 135
Assistant Engineer	$ 115
Principal Designer	$ 128
Designer	$ 120
Administration	$ 100

An annual 3% increase will apply.

Twining

TWINING

Schedule of Fees 2017 - 2018

NOTE: Rates will be adjusted annually each July 1st to reflect increased costs.

Personnel Rates: Per Hour Unless Otherwise Noted

Task Code	Engineering and Consulting Personnel	Rate
10026	Senior Principal Advisor/Consultant	$ 280.00
10001	Principal Engineer/Geologist	$ 185.00
10017	Metallurgical Engineer	$ 180.00
70000	Registered Geotechnical Engineer	$ 180.00
10010	Technical Adviser	$ 180.00
10011	Material Scientist, Welding/NDT Consultant	$ 180.00
70003	Registered Geologist/Certified Engineering Geologist	$ 170.00
10003	Senior Engineer/Geologist	$ 165.00
10009	Registered Civil Engineer	$ 160.00
60003	Roofing/Waterproofing Consultant	$ 185.00
10013	Project Engineer/Manager	$ 150.00
30003	Quality Control Manager	$ 140.00
10005	Senior Staff Engineer/Geologist	$ 135.00
10007	Staff Engineer/Geologist	$ 130.00
10015	Quality Control Administrator	$ 120.00
10019	Metallurgical Technician	$ 95.00
90001	CADD Operator/Draftsperson	$ 85.00
70107	Field Supervisor	$ 115.00
91030	Safety Supervisor	$ 115.00
20000	Laboratory Manager	$ 105.00
96000	Laboratory Technician	$ 85.00
90005	Expert Witness Testimony	$ 495.00
91010	Qualified SWPPP Developer	$ 130.00
91000	Qualified SWPPP Practitioner	$ 120.00

Task Code	Field Inspection Personnel	Rate
10101	Concrete/Reinforced Steel Inspector	$ 109.00
10103	Prestressed/Post Tensioned Inspector	$ 109.00
10105	Concrete ICC Inspector	$ 109.00
10109	Drilled-In-Anchor Inspector	$ 109.00
10111	Gunite/Shotcrete Inspector	$ 109.00
10113	Masonry Inspector	$ 109.00
10201	Structural Steel/Welding Inspector	$ 109.00
10203	AWS Certified Welding Inspector	$ 109.00
10207	Fireproofing Inspector	$ 109.00
10501	Lead Inspector	$ 113.00
10115	Firestop Special Inspector - IFC Premier	$ 105.00
10117	Firestop Special Inspector - IQP	$ 115.00
70109	L.A. Deputy Grading Inspector	$ 113.00
75001	Asphalt Field and Plant Inspector/Technician	$ 110.00
70103	Pile Driving Inspector	$ 110.00
70101	Soils Technician	$ 109.00
10107	Concrete Quality Control (ACI/Caltrans Technician)	$ 109.00
60001	Roofing/Waterproofing Inspector	$ 115.00
10515	Mechanical Inspector	$ 128.00
10519	Electrical Inspector	$ 130.00
10521	Plumbing Inspector	$ 130.00
10523	Building Inspector	$ 130.00
50003	Field Engineering Technician	$ 113.00

Task Code	Shop Inspection Personnel	Rate
10301	Structural Steel Fabrication Inspector	$ 110.00
10309	Batch Plant Quality Control Technician/Inspector	$ 110.00

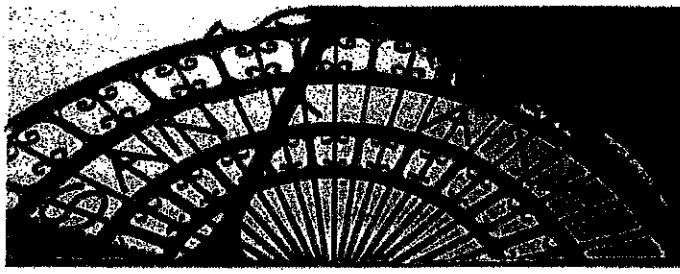
Task Code	Shop Inspection Personnel	Rate
10325	Glue-Laminated Fabrication Inspector	Quotation
10329	Pre-Cast Concrete/Pipe Fabrication Inspector	$ 110.00

Task Code	Non-Destructive Testing Personnel	Rate
10401	NDE Ultrasonic Testing Technician	$ 114.00
10403	NDE Magnetic Particle Testing Technician	$ 114.00
10405	NDE Dye Penetrant Testing Technician	$ 114.00
10305	Combination NDE Technician/Welding Inspector	$ 114.00
10409	Radiographic Testing (crew of 2)	$ 295.00
10020	NDE Engineer	$ 160.00

Task Code	Equipment Usage (Daily Unless Otherwise Noted)	Rate
95315	Skidmore	$ 40.00
95309	Torque Wrench, Small	$ 15.00
95312	Torque Wrench, Large	$ 25.00
95315	Torque Multiplier	$ 40.00
95321	Air Meter	$ 20.00
95324	Brass Mold	$ 20.00
95343	Nuclear Gauge (Per Hour)	$ 9.00
95333	Putt Test Equipment	$ 60.00
95348	Concrete/Asphalt Coring Equipment	$ 600.00
95327	Pachometer	$ 55.00
95336	Floor Flatness (Dipstick)	$ 45.00
95330	Schmidt Hammer	$ 20.00
95341	Vapor Emission Test Kits	$ 30.00
95342	Relative Humidity Probe	$ 60.00
95339	UPV (Ultrasonic Pulse Velocity) Meter	$ 250.00
95361	Fireproofing Adhesion/Cohesion (Per Test)	$ 20.00
95300	A Scan Ultrasonic Equipment and Consumables	$ 65.00
95303	Magnetic Particle Equipment and Consumables	$ 30.00
95308	Liquid Penetrant Consumables	$ 25.00
96307	Phased Array Ultrasonic Equipment (Per Hour)	$ 50.00
96347	Ground Penetrating Radar (Per Hour)	$ 60.00
95345	Impact Echo	$ 290.00
95302	Ultrasonic Tomography	$ 400.00
95359	California Pavement Profilograph (Per Hour)	$ 115.00
95349	Inertial Profiler (Per Hour)	$ 250.00
95357	Project Dedicated Vehicle	$ 100.00
95362	Roller Compacted Concrete Vibrating Hammer/Tamping Plate	$ 60.00
96367	Half-cell Potential Equipment Set	$ 250.00
96368	Concrete Electrical Resistivity Meter	$ 150.00

Task Code	Specimen Pick-Up	Rate
20102	Standard Sample: Concrete Cylinders (Each)	$ 20.00
20101	Standard Sample: Mortar/Grout Cubes and Cores, Fireproofing, Rebar, and Epoxy Prisms (Each)	$ 20.00
20103/ 20104	Oversize Sample: Masonry Prisms, Shotcrete Panels, Flexural Beams (Each)	$ 47.00
20107	Technician for Specimen Pick-Up Not Listed Above (Per Hour, 2-Hour Minimum)	$ 86.00
20109	Technician for Specimen Pick-Up Before 6:00 a.m. or After 5:00 p.m. Monday thru Friday, or All Day Saturday (Per Hour, 2-Hour Minimum Plus Mileage)	$ 103.00

Task Code	Jobsite Trailer, Mobile or On-site Laboratory	Rate
95360	Mobile laboratory for rapid set concrete (per shift not exceeding 12 hours) All others by quotation	$ 375.00



PROPOSAL FOR

ON-CALL ENGINEERING SERVICES

RFP NO.: 17-083

On Point Land Surveying, Inc.

ON POINT
LAND SURVEYING, INC.

1910 Orange Tree Lane, Suite 344 • Redlands, California 92373
(909) 792-2221 • (909) 784-1836 fax
office@onpointlandsurveying.com • www.onpointlandsurveying.com

RATES EFFECTIVE April, 2017

HOURLY RATE SCHEDULE (PREVAILING WAGE)

OFFICE:

Research of Records/Drafting/Mapping	$85
Survey Calculations and Document Preparation	$100
Land Surveyor Review/Professional Services	$140

FIELD:

Survey Crew (4 hour Minimum)	$225
Survey Crew (Outside of normal hours of operation)	$335
Travel Time	Half hourly rate
Global Positioning Systems (GPS) Surveys	Estimates upon Request
GPS Receiver/Data Collector	$100/per Receiver per Day
RTK GPS System	$300 per Day
Utility Location Services	Estimates upon Request
Pre/Post Construction Audio/Video Recording	Estimates upon Request
Expert Witness/Testimony (Portal to Portal)	$260 per hour

Your Project, On Budget, On Time... On Point Land Surveying!

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (WATER RESOURCES)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between Tetra Tech, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the Water Resources Division of the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of five (5) consultants selected to provide services for water resources projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $1,200,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of

performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to

Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees, for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council

City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: Tetra Tech, Inc.
17885 Von Karman Avenue, Suite 500
Irvine, CA 92614
Attn: Tom Epperson, P.E., Vice President

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without

the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

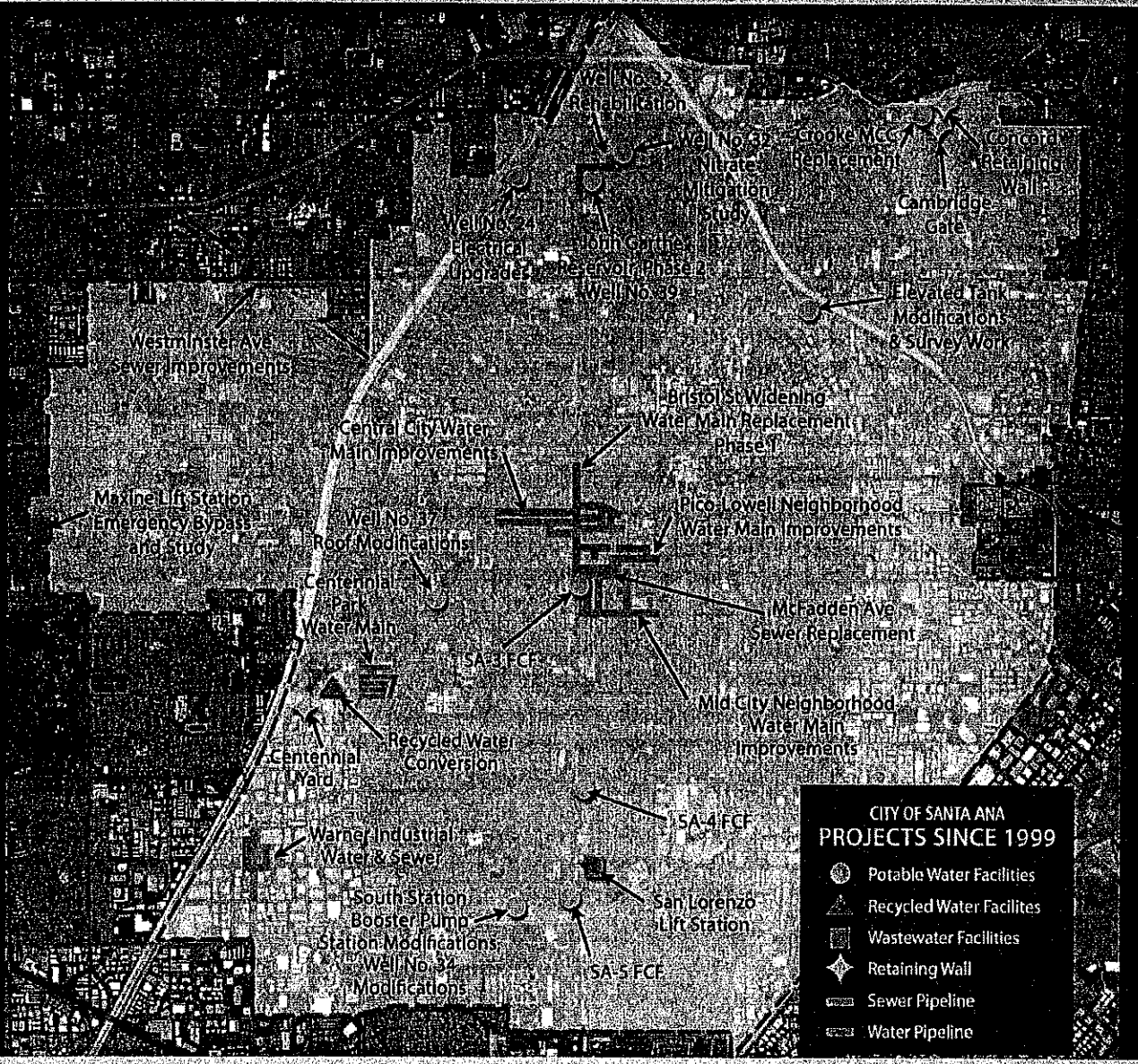
25E-164

EXHIBIT A

Proposal to Provide RFP NO.: 17-083

ON-CALL
ENGINEERING SERVICES

For Water Resources - Option A



March 20, 2018

CITY OF SANTA ANA
Santa Ana Public Works Agency
20 Civic Center Plaza
Santa Ana, CA 92701

TETRA TECH

TETRA TECH

March 20, 2018

City of Santa Ana
Attn: Armando Fernandez
Public Works Agency
20 Civic Center Plaza, 3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

Reference: Proposal for On-Call Engineering Services, RFP No.: 17-083
Water Resources – Option A

Dear Mr. Fernandez:

Tetra Tech is excited about the opportunity to submit our proposal to provide On-Call Engineering Services for the City of Santa Ana (City) Water Resources - Option A project. We value the relationship we have built with the City through our past and currently ongoing projects, and are committed to providing the City with the same consistent, diligent, high quality service that you expect and deserve. Our project team brings the following distinct advantages:

- ***Extensive City Water/Wastewater Design Experience:*** Members of our project team have completed more than 30 water/wastewater projects for the City since 1999. Our project team knows the City's design requirements and standards, preferred materials, and operational preferences which will allow us to complete designs in the most cost-effective manner.
- ***Extensive On-Call Engineering Services Experience:*** Tetra Tech has provided similar on-call engineering services for over 20 clients in Southern California. Many of these clients are repeat clients as Tetra Tech has provided service and innovative solutions on-time and within budget.
- ***Extensive Well Experience:*** During the last 15 years, members of our project team have been involved in the design and equipping of more than 16 water wells within Southern California.
- ***In-house Process, Structural, Electrical, and Control Capabilities:*** We have our own in-house process, structural, electrical, and control engineers who have all worked on previous City projects.
- ***Dedication to City:*** We believe our past 19 year relationship with the City shows our commitment to providing the City with high quality service. We have been awarded repeat work with the City due to our quality and responsiveness as well as the trust formed with the City Water Resources staff.

Tetra Tech, Inc. is a Delaware Corporation (publicly traded) and has been in business for over 50 years. This project will be managed and directed from our Irvine office location: 17885 Von Karman, Suite 500. The primary contact for this project will be Mr. Tom Epperson, P.E., Vice President; telephone 949/809-5166; fax 949/809-5010; e-mail: tom.epperson@tetratech.com.

We have reviewed the Standard Agreement and take no exceptions to the Terms and Conditions. Thank you for giving us the opportunity to present our proposal, we look forward to your positive response. Should you require additional information or have any questions, please feel free to contact me.

Sincerely,

Tom Epperson, P.E.
Vice President

TLE/de

17885 Von Karman Avenue, Suite 500, Irvine, CA 92614-6231
Tel 949.809.5000 Fax 949.809.5010 tetratech.com

Company History

Tetra Tech is a Delaware Corporation (publicly traded) and has been in business for over 50 years. Our website address is: tetratech.com and we are listed on the NASDAQ Exchange (TTEK). Tetra Tech's annual revenues now exceed $2.8 billion (2017). Thus, we are in excellent financial position and can provide necessary resources to rapidly deploy and meet aggressive project schedules. Founded in 1966, Tetra Tech is a nationally-recognized engineering and resource management firm of more than 16,000 engineers, scientists, construction specialists, and technical support personnel in 400 offices worldwide. Tetra Tech consistently ranks among the top engineering firms annually according to the *Engineering News-Record*. In 2017, Tetra Tech was ranked 5th among the top 500 design firms nationwide and was ranked #1 in the water service industry for the 14th year in a row.

This project will be managed and directed from our Irvine office location: 17885 Von Karman, Suite 500. The primary contact for this project will be Mr. Tom Epperson, PE, Vice President; telephone 949/809-5156; fax 949/809-5010; e-mail: tom.epperson@tetratech.com.

Our proposal is for Water Resources – Option A project.

City Experience

We believe our best relevant experience is the more than 30 projects that we have completed for the City of Santa Ana (City) since 1999. Please see our proposal cover identifying the locations of these projects. We are confident that these past projects with the City will attest to our technical excellence, responsive staff, and our complete understanding of the City's water and sewer facilities. Our previous work for the City included a wide range of engineering services including: pipelines, pump stations, reservoirs, wells, lift stations, flow control facilities, mechanical, structural, electrical, and instrumentation design; studies and miscellaneous support. During these projects, we have developed a working relationship with the City's Public Works staff, Parks and Building Departments and Construction Management groups. We believe that the City is our best reference for our performance and execution of our past contracts. The various type of projects we have performed for the City since 1999 were summarized on Page 2 in our Statement of Qualifications (SOQ) for On-Call Engineering Services submitted to the City on October 26, 2017.

On-Call Engineering Experience

Through efficient management and leadership, our professional staff are currently providing similar engineering services on an as-needed basis for over 20 clients in Southern California. Some of these clients include: Moulton Niguel Water District, West Basin Municipal Water District, Upper San Gabriel Valley Municipal Water District, City of Paramount, City of Huntington Beach, and Los Angeles Department of Water and Power. Many of these clients are repeat clients as Tetra Tech has provided responsive service and innovative solutions on-time and within budget. We understand the privilege of on-call contracts and the necessity to provide timely responses while maintaining schedules and budgets.

We believe our best relevant experience are the projects that we have completed as part of our past and ongoing as-needed contracts with southern California municipalities. We are confident these past projects will attest to our technical excellence, responsible staff, and our complete understanding of every aspect of an On-Call Engineering Services contract. Included on Page 3 in our SOQ for On-Call Engineering Services submitted to the City on October 26, 2017, is a client list of our existing California as-needed engineering services contracts.

Why Tetra Tech

Our project team brings the following distinct advantages:

- ***Extensive City Water/Wastewater Design Experience:*** Our project team has completed more than 30 water/wastewater projects for the City since 1999. Our project team knows the City's design requirements and standards, preferred materials, and operational preferences which will allow us to complete designs in the most cost-effective manner.
- ***Extensive On-Call Engineering Services Experience:*** Tetra Tech has provided similar on-call engineering services for over 20 clients in Southern California. Many of these clients are repeat clients as Tetra Tech has delivered service and innovative solutions on-time, within budget, and with a high level of quality.
- ***Extensive Well Experience:*** During the last 15 years, members of our project team have been involved in the design and equipping of more than 16 water wells within Southern California.
- ***In-house Process, Structural, Electrical, and Control Capabilities:*** We have our own in-house process, structural, electrical, and control engineers who have all worked on previous City projects.
- ***Dedication to City:*** We believe our past 19 year relationship with the City shows our commitment to providing the City with high quality service. We have been awarded repeat work with the City due to our quality and responsiveness as well as the trust formed with the City Water Resources staff.

Our extensive experience with similar projects will ensure that the City will receive a high level of service delivered by qualified, knowledgeable engineering professionals. Highly meticulous and coherent plans and specifications greatly benefit all project stakeholders, with the largest benefit realized by the Owner. Quality contract documents clearly lead to a larger number of bidders, lower competitive bid prices (due to increased competition, the contractor has less to assume and take the risk for, and a greater overall comfort level in our design based on a long history of successful projects), and lowest overall cost while achieving a very high quality end product (quality contract documents mitigates the potential, and impact of change orders, and sets forth a standard of quality the contract must achieve).

No two projects are the same, although many are similar. The key is to utilize elements of work that have been successful and apply to this project, and continue to improve construction efficiencies without lowering quality based on contractor feedback. Our goal is to provide the necessary expertise and resources to deliver the project on-time, within budget and in compliance with the design and construction standards set forth by the City. Tetra Tech is especially proud of its high level of repeat customers, which we attribute to our dedication and commitment to quality engineering and client satisfaction. Thus, we invite you to contact our references regarding our past record of performance, client relations, and project satisfaction.

The Tetra Tech Team

Tetra Tech has assembled a project team that possesses the knowledge, experience, and enthusiasm necessary to successfully complete this project. Our Project Team is devoted to completing your project within schedule and under budget, and not only meet, but exceed your expectations. On the next page is an organizational chart of the Project Team.

Project Manager

Providing the team oversight is one of Tetra Tech's most experienced Project Managers, **Mr. Tom Epperson, PE.** Mr. Epperson has over 32 years of experience devoted entirely to wastewater, water, and recycled water facility projects and has been responsible for completing the design of over 180 miles of water, recycled water, and sewer mains; 36 water/recycled water pump stations; and 18 wellhead facilities. He will be the focal point for communications between the City and members of the project team to ensure that the project needs are clearly spelled out and understood. Mr. Epperson will be responsible for achieving the City's goals and ensuring compliance with project intent, completeness of the final deliverables, and satisfaction of the City.

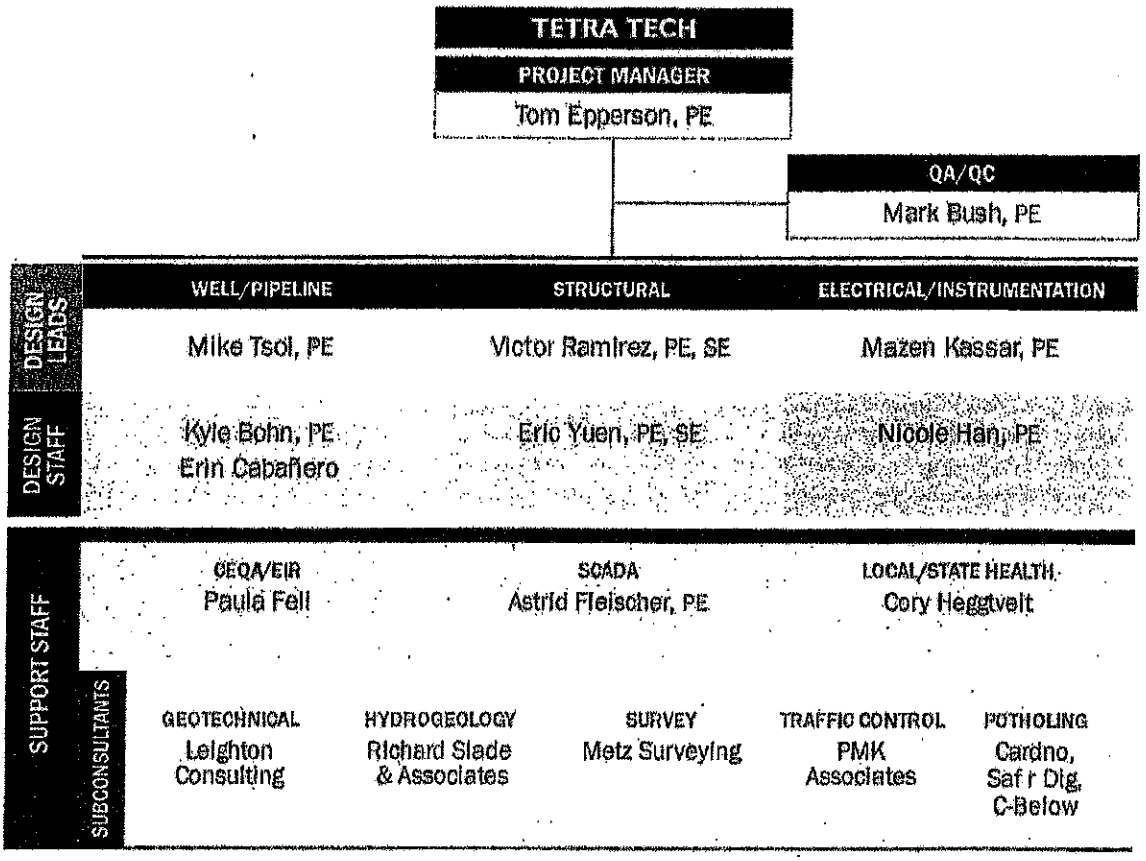
Mr. Epperson has been working with the City since 1983. While his knowledge of City facilities and working relationship with the City staff started in 1983, Mr. Epperson is currently the Project Manager for the design of the Well No. 32 Rehabilitation Project as well as over 20 past projects under the City's On-Call Water Engineering Design Services Contracts since 2006. Mr. Epperson has a long personal history of working with the City and is very proud of the repeat service. He believes strongly that repeat work is earned through responsiveness, hard work, and providing a quality product. In addition, Mr. Epperson was the Project Manager on the three similar projects included in the relevant project experience section of the proposal.

Key Senior Staff

A cornerstone to our continued success is the involvement of key senior staff during the design. **Mr. Mark Bush, PE,** will serve as the team's QA/QC Manager. Our team clearly understands the importance of making certain the City receives the highest quality product from Tetra Tech. We have assigned Mr. Bush to lead the QA/QC review team for this project, and strictly monitor the project's engineering and construction components. As QA/QC Manager, it will be Mr. Bush's responsibility to assign and oversee QA/QC for each phase of the project to ensure that all of the project goals are met. Mr. Bush is also very familiar with the City.

Mr. Mike Tsoi, PE, will be the Design Lead for the well. Mr. Tsoi has over 24 years of experience and has been working with Mr. Epperson on various projects for over 20 years. Over his career, Mr. Tsoi has designed over 20 pump stations, lift stations and well facilities. During the last 10 years, Mr. Tsoi has been working almost exclusively with Mr. Epperson on our pump station and well projects. Mr. Tsoi understands the design and construction aspects of a well. Mr. Tsoi will utilize his experience to work with the team's hydrogeologist and work through all of the layout issues for the construction equipment required to construct and rehabilitate the well in the future. Mr. Tsoi has been the Project Engineer for the following well equipping projects: Mid Basin Centennial Park for OCWD; Well No. 27 for City of Orange; Rehabilitation of Well Nos. 115, 107 and 78 and all of the IDP potable/non-potable wells for IRWD.

PROJECT ORGANIZATIONAL CHART



Mr. Victor Ramirez, PE, SE, will be the Project Manager for Structural Engineering. Mr. Ramirez has more than 28 years of experience in structural engineering design and construction support services with an emphasis in the design of water storage/water containment and water conveyance related structures. This includes: reservoirs, water/wastewater treatment plants, booster pump stations, well facilities, flow control facilities, pressure reducing stations and pipelines. Mr. Ramirez also has experience working with the City and the City Building Department since he worked on the John Garthe Reservoir Improvements, Well No. 32 Rehabilitation Study, and San Lorenzo Sewer Lift Station.

Mr. Mazen Kassar, PE, will be the Project Manager for Electrical and Controls. Mr. Kassar has more than 24 years of experience in electrical engineering design and construction management. His background includes designing medium and low voltage power distribution as well as instrumentation and control systems for a wide variety of projects. He is also very familiar with the City since he worked on the SA-3, SA-4 and SA-5 Flow Control Facilities, the Crooke Reservoir Pump Station, and Well No. 24 Electrical Upgrades.

Subconsultants

In order to provide all the services we feel will be needed for this project, Tetra Tech has added the following subconsultants to our project team:

Hydrogeological Services:
Richard C. Slade & Associates LLC

Geotechnical Services:
Leighton Consulting, Inc.

Survey:
Metz Surveying

Traffic Control:
PMK Associates

Potholing:
Cardno, Saf-r-Dig or C-Below

Tetra Tech has worked with all of the above consultants for several years.

Summary of Staff Qualifications and Experience

Tetra Tech has selected highly qualified individuals with the task-to-talent match to meet the needs of the project. The table below outlines the experience, time commitment, and home office of each team member. Resumes of each individual can be found in the Appendix-Resumes section of this proposal.

Key Personnel and Role	Home Office	Years of Exp.	No. of Wells	Time Pledged to Project	Similar Experience
Tom Epperson, PE Project Manager	Irvine	35	18	15%	• Well No. 32 Rehab • OCWD Mid Basin • South Gate Well No. 29 • Orange Well No. 27 • IRWD Wells • Santa Ana Projects
Mark Bush PE QA/QC	Irvine	21	7	5%	• Well No. 32 Study • Orange Well No. 27 • Santa Ana Projects
Mike Tsol, PE Well/Pipeline Design Lead	Irvine	24	13	20%	• Well No. 32 Rehab • OCWD Mid Basin • Orange Well No. 27 • IRWD Wells
Kyle Bohn, PE Pipeline Design	Irvine	10	7	20%	• Well No. 32 Rehab • OCWD Mid Basin • Santa Ana Project • Orange Well No. 27 • Paramount Well No. 16
Victor Ramirez, PE, SE Structural Lead	San Dimas	28	4	25%	• Well No. 32 Rehab • OCWD Mid Basin • South Gate Well No. 29 • Orange Well No. 27 • IRWD Wells • Paramount Well No. 15
Mazen Kassar, PE Electrical and Instrumentation	Irvine	25	3	25%	• Well No. 32 Rehab • OCWD Mid Basin • South Gate Well No. 29 • Orange Well No. 27 • IRWD Wells

Tetra Tech, and more importantly, the team dedicated to this project, has demonstrated a track record in delivering identical services to water agencies in Southern California. This project displays many similar elements to several past projects involving rehabilitation of existing wells. We believe our references are our best demonstration of the successful partnering and completion of these projects. We invite the City to call our references listed in this proposal.

UNDERSTANDING OF NEED

Introduction and Background

The City intends to retain Civil Engineering Consultants on an as-needed or "on-call" basis. On an on-call, as-needed basis, the selected consultants may later be asked to provide professional engineering services proposals on specific, project-by-project basis, based on an agreed-upon specific scope of services and fees. The consultant shall be able to assist the City through this contract to provide the necessary engineering services. The consultant shall utilize in-house staff and/or subconsultants to complete the assignments to meet the City standards. For specialized work for which the prime consultant shall require a subconsultant, the prime consultant shall serve as an administrative liaison between the City and the subconsultant. Prime consultant mark-ups for subconsultant work will not be allowed. **Tetra Tech is submitting our proposal for Water Resources – Option A projects.**

Scope of Services: Water Resources – Option A

The City is seeking proposals for the design and construction support services for the Santa Ana Water Project. The Water Project includes the rehabilitation of an existing water well approximately 30 years old, and the design of 1,500 feet of 12-inch PVC water main and 600 feet of 15-inch sewer main within an arterial street. The City is looking for recommendation regarding the pipe material for the sewer main improvements. Currently, the well is connected to an existing onsite reservoir. However, the City desires to have the well pump directly to the City's distribution system. This well is a sand producer, and currently the capacity has dropped by 35% of its maximum yield of 2,000 gpm. The depth of the well is approximately 1,100 feet; it has a vertical turbine pump with a 250 hp motor. In addition, the screens are made of mild steel. No video or any other preventive maintenance has been done in the past 15 years. The City is looking for the options for rehabilitation and potential benefits of each option.

Approach

Tetra Tech fully understands your project. We are offering an outstanding team, which combines the experience, depth, and understanding needed for the successful delivery of this project. Our core principles establish how we plan to work together with the City to complete this project:

- ***Service:*** Tetra Tech puts its clients first. We listen to and better understand our clients' needs and deliver cost-effective solutions that meet those needs. Our philosophy is to "Do It Right."
- ***Value:*** Tetra Tech takes on our clients' problems as if they were our own. We develop and implement real-world solutions that are cost-effective, efficient, and practical.
- ***Excellence:*** Tetra Tech brings superior technical capability, disciplined project management, and excellence in safety and quality to all of our work.
- ***Opportunity:*** Our people are our number one asset. Our workforce is diverse and includes leading experts in our fields. Our entrepreneurial nature and commitment to success provides challenges and opportunities.

Tetra Tech is committed to providing the City with the high quality service you expect and deserve. Our strength lies in our proven track record that has led to successful completion of multi-projects for the City, as well as other nearby agencies.

Key Design Issues

The following are some of the key design issues we envision that will be required to be performed during the execution of the sample project. We believe Tetra Tech has an excellent grasp of these issues based on our overall design experience as well as the knowledge we have gained from our similar well design projects, including Well No. 32 Rehabilitation for the City. Our approach to resolving project issues is summarized below:

SUMMARY OF KEY ISSUES	
Issues	**Tetra Tech Approach**
Well Rehabilitation	• Recommend City contract with a well rehabilitation company to conduct initial investigatory operations on well (similar to Well 32). • Prepare exhibits for existing well rehabilitation work. • Assume that a full casing liner will need to be installed. • May need new pump and motor due to liner. • Evaluate options of well water discharge during testing (NPDES).
Well Modifications	• Determine anticipated flow and specific capacity after rehab. • Evaluate pump and motor based on well rehabilitation. • Evaluate pump and motor based on pumping to distribution system instead of existing onsite reservoir. • Determine if onsite sodium hypochlorite generation facilities are required to pump directly into distribution system. • Evaluate pump to discharge due to pumping directly into distribution system. • Evaluate impacts to site layout, mechanical, piping, electrical modifications required to change operation of well.
Pipeline Design	• Recommend scope of work for pipeline: potholing; geotechnical; traffic control; CEQA; SWPPP; permitting; etc. • City street requirements (working hours, lane closures, etc). • Utility coordination, traffic control, and construction phasing. • Perform alignment selection.
Coordination	• SCE coordination for any electrical modifications (upsize motor). • Coordination with City on any site and building modifications. • Assist City in public outreach program. • Traffic management plan and corresponding traffic control plans.
Permitting	• Renderings of any building exterior modifications for review and approval by Planning and Building Division. • Street, building and electrical permits will take multi-reviews and will be time consuming. Allow for in schedule and budget for costs accordingly. Start early and document everything.

The following is a more detailed summary of our approach for some of the above key issues.

Well Rehabilitation

Well rehabilitation is frequently a necessary down-well process to improve the efficiency and pumping capacity, and to extend the longevity of existing water-supply wells. Generally, a well may require rehabilitation for several observed conditions, including: the well loses its ability to pump at its former rate, or at the rate at which it was originally placed online, or it ceases to pump at all; the specific capacity of the well declines considerably, generally greater than 15 to 25% of its original value from the date of well construction; the pumping water level in the well has declined either rather quickly or over a longer period, during which the pumping rate and the

static water level have remained consistent; and/or the well begins to pump sand and/or gravel pack, or even displays large amounts of entrained air in the pumped discharge.

The causes for these observed conditions can be due to many reasons, including: pump, motor, and/or electrical problems, resulting in decreased production rates; biological fouling of the perforations and gravel pack, resulting in plugged conditions, thereby decreasing the production rate and specific capacity and deepening of the pumping levels, and even loss of pump efficiency; and/or development of holes in the well casing and/or enlargement of the perforations, resulting in the production of sand.

When considering well rehabilitation, site-specific data from the well in question needs to be evaluated to determine what could be causing the observed conditions. Therefore, it is imperative to obtain and review available data on both historic and current values for: static and pumping water levels; water quality; specific capacity; well construction records; previous well rehabilitation work; production rates; and video logs, etc. Only through review of such data by qualified hydrogeologists can the potential reason(s) for the decreases in well performance and the identification of rehabilitation steps be defined.

It is understood that the subject of the Santa Ana Water Project is reported as being 30 years old and is currently producing sand. Because it is constructed of low carbon steel, the casing may be reaching near the end of its useful life and further operations may lead to complete failure, e.g., by a potential casing collapse. However, the life of the existing well could be extended somewhat longer by the installation of a full, stainless-steel liner casing in the well and this is the prime recommended course of action that can now be undertaken on the well.

The project can be approached in one of two ways by the City. An initial approach, and one that is less efficient, is to conduct this initial work as part of a prepared set of Technical Specifications where all rehabilitation options are included. However, a second, and more efficient approach, would be for the City to contract with a well rehabilitation company to conduct initial investigatory operations on the well to determine the current downhole conditions in the well. This would include conducting an initial short-term pumping test to obtain the current, pre-rehabilitation specific capacity of the well. This would be immediately followed by removing the pump and running a down-well video survey to determine the observable condition of the casing and the perforations, and depth of the sand in the well. This would be a preferred approach, because by determining the current condition of the well, a set of Technical Specifications can be prepared with the necessary rehabilitation operations already provided. This is the approach that Tetra Tech is using on the Well No. 32 Rehabilitation Project for the City.

The tasks for this preferred initial approach would be as follows:

1. Following removal of the pump motor, column and bowls from the well, inspect and measure all apparatus (conducted by the contractor in the field and at the pumping contractor's shop).

2. Sound the bottom of the casing to determine the current amount (and type) of sediment fill and then bail that sediment from the bottom of the casing; examine the collected sediments and possibly conduct laboratory analysis. Check carefully for the possible presence of gravel pack and/or formation sand in the bailed material.

3. Perform a current video survey of the well to determine the depth to which sand has filled the well; check for possible holes in the casing, and the possible extent of plugging of the perforations.

Following the initial steps in the rehabilitation of the well, then there are additional preliminary well rehabilitation operations that could be performed in the well. However, final well rehabilitation operations need to be determined following a more complete review of the newly-generated data and information from the above listed initial approach tasks. Following this, a set of Technical Specifications can be developed to provide the final well rehabilitation operations. These operations may and will likely include the following rehabilitation options:

1. Installation of a full, stainless-steel wire-wrapped well screen casing liner and a new gravel pack.
2. Mechanical cleaning, including wire brushing and using the AirBursting®, Bore Blasting®, or Sonar-Jet® methods.
3. Dual swab airlifting and swabbing (i.e., mechanical development), including chemical treatment, using appropriate available solutions or acids determined necessary by earlier findings (i.e., performing a video survey).
4. Re-developing and re-testing the well with a temporary test pump to determine the new post-rehabilitation specific capacity of the well (i.e., to check for possible improvements in specific capacity).

Based on the results of new testing of the well following liner installation, it may be necessary for the City to install a new pump and motor. A memorandum will be prepared discussing the findings and conclusions regarding the new pumping rates and specific capacities in the well.

Important to the preparation of the Technical Specifications is to evaluate options for the discharge of fluids generated from the well, via the National Pollutant Discharge Elimination System (NPDES) permit, and to provide a program for having the Contractor treat the discharge so that Contractor-compliance with the City's NPDES permit is achieved at the well site. It will also be possible to have the Contractor obtain a discharge permit for the site. In this way, the burden of the permitting, sampling, and reporting is shifted from the City to the Contractor.

Well Modifications

The sample project has a well approximately 30 years old that pumps to an existing onsite reservoir, and has a maximum yield of 2,000 gpm and a 250 hp motor. Based on the summary of the City's existing wells, none of the existing wells match these conditions. The only wells that have a design capacity of 2,000 gpm that pump to a reservoir are Well No. 16 (pumps to Walnut) and Well No. 18 (pumps to John Garthe). However, both of these wells have 150 hp motors.

As noted above, the installation of a stainless steel liner casing will impact the well flow capacity as well as the well's specific capacity. In addition, pumping directly into the distribution system instead of adjacent reservoir will greatly impact the pump capacity as it will increase the design head required by additional 180 to 200 feet. If assume a reduced well production by the liner of 80%, the pump will need to meet the following conditions: 1,600 gpm at 420 feet lift which would require a 250 hp motor. For the sample project, the City has stated the well has a 250 hp motor so the motor will not be required to be upsized. However, the pump will need to be changed due to the liner as well as the new well design conditions.

The sample project did not mention where the existing sodium hypochlorite generation facilities are located (at the well or at the reservoir). If the existing chlorination facilities treat the water at the reservoirs and not at the well, a new chlorination facility will be required if the well pumps directly into the distribution system. In addition, changing the well operation to pump directly to

distribution system may require piping modifications to allow for the initial well discharge to waste or to the reservoir and not to the distribution system.

Pipeline Design

Tetra Tech's previous experience will help the City to successfully address the key pipeline issues including: agency requirements, utilities, traffic control, alignment selection, and construction phasing. Early on in the project, it will be important to meet with the City Public Works to define the following requirements: work hours; lane closures; storage of equipment; open cut verses boring of intersections; trench backfill; and pavement restoration.

Tetra Tech will perform our utility research immediately upon issuance of the Notice-to-Proceed. The USA markings for the geotechnical investigation will also be used to verify the location of existing utilities. Any potholing services will be completed by use of the vacuum extraction method thereby minimizing pavement damage and traffic disruption. In addition, a field walk will be completed to look for evidence of infrastructure (e.g. valve cans, trench patch, vaults, etc.) as some utility owners do not belong to USA Dig Alert, and others respond with only partially complete information. We have learned the importance of taking extra steps to verify potential underground infrastructures.

The proposed pipelines in the sample project are stated to be located within an arterial street. Therefore, traffic control will be a major concern of the City. The traffic control requirements shall be determined with the objective of providing the Contractor with adequate room for safety as well as efficient operation while providing the least possible disruption to the traveling public. We believe traffic control is a key design element and should be completed hand-in-hand with the design of the pipeline. Similar to SA-5 Vault Relocation and San Lorenzo Lift Station projects, both have pipelines being constructed within Bristol Street, Tetra Tech will prepare the conceptual traffic control requirements, specifying the work area and proposed lane closures that are acceptable to the City. The contractor will be responsible for the actual preparation of the traffic control plans based on these requirements.

If the proposed pipelines cross a signalized intersection, Tetra Tech will evaluate whether a bore and jack operation or open-cut construction will be the most beneficial solution. Typically, Tetra Tech has been able to show that open-cut construction during limited work hours or during times of minimal traffic is the better solution verses bore and jack operations due to the 24 hours, 7 day lane closures required for the pits.

Project Management

Over the years, Tetra Tech has established well defined, rigorous procedures for project management. These techniques have been developed and refined and have contributed to our success and reputation. The keys to our project management system are communications, project planning, monitoring, and quality assurance. The Tetra Tech team's goal is to keep the City staff "in the loop" from day one of the project. Communication tools include formal progress reports afforded through our project management system and an informal give-and-take approach starting with Tom Epperson, our Project Manager, and extending to every member of the Tetra Tech team. At the project's outset, the chain of command and appropriate communication methods will be agreed upon and can be as formal or as informal as the City desires. We will use the entire communication spectrum. We will conduct formal meetings with agenda and typewritten notes, and we will use informal meetings with notes to file. We also will have documentation of telephone communications, with notes to file or letters of understanding as appropriate follow-up.

Another important communication link will be our e-mail system. We are proposing to use e-mail to keep the City aware of the status of the project. Every two weeks, Tetra Tech will prepare a brief (one or two paragraphs or bullet items) e-mail summarizing the following: activities completed in the previous two weeks; the activities planned for the upcoming two weeks; any critical decisions that need to be made; and schedule of upcoming events/meetings. In addition, each month we will prepare a project status report containing the following: summary of completion of tasks; description of key issues/concerns which have surfaced along with proposed options and solutions; status of action items; and a project status summary report showing current schedule and budget status.

Communications

The key to any successful project is good communication. As our project partner, we propose to involve City staff in open, honest communications from the very start of the project. Our communications will include: bi-weekly e-mail reports; monthly reports, invoices and schedule updates; regular meetings with City staff; and project documentation available upon request.

All information can be provided electronically via e-mail or through a website portal. At each meeting our team will have our Project Manager and key design staff present to facilitate the discussion. We encourage the City to have at least our representative from Engineering and one from Water Resources present at each meeting. However, we welcome as many City staff who have ideas and input on the project to attend our progress meetings.

Quality Control

Our team clearly understands the importance of ensuring the City receives a quality product. We have assigned a QA/QC Manager, Mr. Mark Bush to ensure that all are the project goals are met. A detailed Quality Control/Quality Assurance Plan will be prepared and submitted for review. This plan establishes lines of communications and procedures for ensuring quality during all phases of the project's design and construction. In keeping with our open communications policy, all of our Quality Control documents will be made available to the City. Information including design reviews, responses to comments and redline plans can be provided in either hard copy or electronically upon request from the City.

SCOPE OF WORK

Since the RFP did not have a detailed scope of work, Tetra Tech will use the recent Well No. 32 and Well No. 29 Rehabilitation RFP's scope of work as the basis. Due to proposal page limitation, we are only summarizing the scope of work included in those RFPs.

Task 1: General Administration and Meetings - Tetra Tech and the City of Santa Ana will meet six (6) times: kick-off meeting; preliminary well rehabilitation meeting; basis of design meeting; 30%, 60%, and final design submittal meetings. Tetra Tech will prepare the agendas, meeting minutes, and distribute the minutes to all attending or as required.

Tetra Tech will prepare a detailed project management plan and project schedule. In addition, Tetra Tech will prepare and implement a QA/QC Plan.

For the sample project, Tetra Tech has also assumed that four (4) meetings will be required with the City Public Works; Building, Electrical, Traffic Departments; City of Santa Ana Police Department; Orange County Fire Authority; SCE; other utility companies; as necessary or requested by the City.

Task 2: Utility Research and Design Survey - Tetra Tech will conduct as-built and utility research within the project area. The utility research will include contacting USA, and sending preliminary notice to each utility company within the project area. Tetra Tech will verify the location of the utilities based on the USA information by a field walk of the alignment. Tetra Tech will identify any critical utilities which are recommended to be potholed. We will prepare a memorandum summarizing the pothole recommendations for the City review and approval. For this sample project, we are assuming that five (5) utilities for the sewer main may be necessary to be performed to confirm the vertical alignment of the sewer. We do not recommend potholing for the PVC water main. The potholing subconsultant will procure the necessary permits, including preparation of typical traffic control plan (not a site-specific traffic control plan).

Field topographic survey will be performed for the existing well site, area immediately around the existing well site including the adjacent streets. The field topographic survey will include curbs, gutters, medians, light poles, improvements, surface breaklines, ramps, above ground facilities, utility manholes and pull boxes and the dipping of sewer and storm drain manholes. Our survey subconsultant will provide a field survey profile over the proposed sewer pipeline at 50-foot intervals. This is similar to what we have done previously for other sewer replacement projects.

Task 3: Geotechnical Recommendations - Due to the potential of encountering ground water during the construction of the proposed sewer main, we are recommending a geotechnical investigation be performed during the design phase of the work. We have assumed a total of three (3) borings for the pipeline work. One of the borings can be located at the existing well site if a new building is required for the chlorination facilities. The cost difference between doing one boring verses three borings is minimal and the additional data will only ensure that the contractor bidding on the project has the necessary information to bid the project. We have assumed the following: field exploration can be performed during the daylight hours on weekdays under a no charge City excavation permit; identification, handling and treatment of materials that need to be environmentally addresses are beyond our scope of work; and the removal of USA markings is not included in our scope of work. In addition, we have assumed that typical traffic control plans will be acceptable to the City and site specific traffic control plans will not be required.

Task 4: Well Assessment - Richard C. Slade & Associates (RCS), as a subconsultant to Tetra Tech, will perform the following scope of work:

- Review available well data (both historic and current). Perform a site visit.
- Prepare technical specification and bid form for the City to contract with a well rehabilitation company for the preliminary investigation of the well. This work will include: conducting an initial short-term pumping test; removal of pump, sound bottom of casing and perform a down-well survey.
- Provide support/assistance to the City during the preliminary investigation work at the well.
- Prepare Technical Specifications for the rehabilitation of the well, including probable cost for the rehabilitation work. Also, prepare a memorandum discussing the estimated lower production capacity of the well based on a new casing liner.
- Perform field monitoring of the well rehabilitation construction **(this is an optional task)**. This **Optional Task** includes the following: attend pre-construction meeting; observe the removal of the pump on a full-time basis; support during well surveys; monitor the brushing and balling of the well (two days); observe the casing liner installation on a part-time basis; monitor the mechanical and chemical development on a full-time basis; monitor the swabbing and airlifting on a full-time basis; observe the video surveys; present during the

pumping redevelopment and pumping tests on a part-time basis; preparation of the recommended new pumping rate and depth setting for the new pump; observe the final well video survey; and prepare a summary of well rehabilitation operations report.

Task 5: Basis of Design - Tetra Tech will prepare a Basis of Design Report summarizing the findings of the well assessment, necessary well modifications, the pipeline design requirements, and the pipeline alignment selection. The Basis of Design Report will include the following issues:

- Overall evaluation of the existing well based on current operation and City standards.
- Recommended well rehabilitation.
- Recommended well modifications required to pump water directly into distribution system instead of into adjacent reservoir: size of pump/motor; pump to waste; etc.
- Evaluation of chlorination facilities and any recommended modifications.
- Evaluation of site layout, access issues, piping modifications, etc.
- Evaluation of existing electrical facilities and recommended upgrades.
- Evaluation of existing communications and controls. Recommend upgrades.
- Identify any hydraulic issues for the change in well operation.
- Update the well Operational Functional Specification for the well **(an Optional Task)**.
- Summarize the alignment analysis and the recommended alignment selection.
- Determine pipeline material: PVC for water main (unless restrained joints are required and DIP is recommended); and PVC (SDR-35) for the sewer main (unless depth is greater than 10 to 12 feet and extra-strength VCP is recommended).
- Summarize the preliminary staging for construction and traffic management plan.
- Identify all permits and time frames for processing said permits.
- Prepare preliminary estimate of probable construction costs.

Tetra Tech will prepare preliminary drawings (30% milestone) for both the pipelines and well rehabilitation as part of the Basis of Design Report.

Task 6: CEQA Documentation - Tetra Tech will prepare documentation required to fulfill the California Environmental Quality Act (CEQA) requirements. We have assumed an Initial Study (IS)/Proposed Mitigated Negative Declaration (MND) will be required as was in the RFP for both Well No. 32 and Well No. 29 Rehabilitation Projects. However, on similar past projects where the rehabilitation of the well was minor and no building modifications were required, a Notice of Exception was only required as the project was only replacing an existing facility with no appreciable upsize in capacity. The following is a brief summary of the anticipated scope of work for the IS/MND:

- Technical studies for air quality/greenhouse gas and noise are included, as well as biological resources letter report.
- Perform project initiation and organization.
- Prepare project description.
- Prepare and submit administrative Draft IS/MND using the CEQA checklist.
- Prepare revisions, produce and circulate Draft IS/MND.
- Prepare draft responses to public comments, and compile and submit final IS/MND.

Task 7: 60% Construction Document (PS&E) Submittal - Tetra Tech will prepare 60% design plans, specifications and estimate of probable construction costs (PS&E's) in accordance with the approved criteria as outlined in the Final Basis of Design. Two (2) hard copies of full size plan sets, four (4) hard copies of half-size plan sets and one electronic pdf

copy will be submitted to the City for review. We envision the construction drawings will include the following:

- General Sheets (Title Sheet and General Notes Sheet)
- Horizontal Control Plan
- Existing Well Site Plan and Existing Well Mechanical Plan and Section (2 sheets)
- Existing Well Detail and Well Rehabilitation Plan
- Well Yard Piping Plan and Profiles (2 sheets)
- Well Discharge Pipeline Plan and Profile (2 sheets @ 40 scale)
- Well Sewer Pipeline Plan and Profile (1 sheet @ 40 scale)
- Trench and Paving Details, Piping and Miscellaneous Details (2 sheets)
- Connection Details (discharge piping and sewer)
- Well Electrical Site Plan and Well Electrical Modifications (2 sheets)

The following are additional construction drawings for **Optional Work**:

Modification to Well Flushing Piping **(OPTIONAL TASK)**
- Well Flushing Piping Modifications Plan and Sections
- On-site Piping Modifications and Connections

Adding Sodium Hypochlorite Facilities **(OPTIONAL TASK)**
- Sodium Hypochlorite Generation Schematic and Details
- Sodium Hypochlorite Mechanical Piping Plan and Sections
- Sodium Hypochlorite Building Structural Plans (2 sheets)
- Structural Details
- Existing Well Site Electrical Plan and Single Line Diagram
- Sodium Hypochlorite Building Power and Lighting Plan
- Sodium Hypochlorite P&ID

Well Operation Modification (directly into distribution system) **(OPTIONAL TASK)**
- Well Block Diagram Upgrade
- Well Loop Diagram Upgrade
- Well PLC Modifications
- Well P&ID Upgrade

Traffic Control Plans (site-specific) **(OPTIONAL TASK)**
- Traffic Control Plans for Potholing (3 sheets)
- Traffic Control Plans for Geotechnical Investigation (2 sheets)
- Traffic Control Plans for Pipeline Construction (3 sheets)

Task 8: PLC Panel Design and Control Strategies - This task is an **Optional Task** if the City decides to revise, upgrade, or modify the PLC panel design and the well control strategies. The following is a brief summary of the **Optional** scope of work:

- Review and update/revise the Functional Specification provided by the City.
- Modify control panel per City's new standard control panel drawings and specifications.
- Prepare wiring diagrams, loop diagrams and control panel drawings.

Task 9: 100% Construction Document (PS&E) Submittal - Tetra Tech will prepare the 100% PS&E's in accordance with the approved Basis of Design Report, compile in a matrix format all 60% comments received, and address and incorporate comments per the matrix. Two (2) hard copies of full size plan sets, four (4) hard copies of half-size plan sets and one electronic pdf copy will be submitted to the City for review.

Task 10: Final Construction Document (PS&E) Submittal - Tetra Tech will prepare the final PS&E's ready for bidding, compile in a matrix format all 100% comments received, and address and incorporate comments per the matrix. Two (2) hard copies of full size plan sets, four (4) hard copies of half-size plan sets and one electronic pdf copy will be submitted to the City for review.

Task 11: Bidding and Construction Phase Services - Throughout the bidding and construction process, Tetra Tech will assist the City in the following items:

- Attend the pre-construction meeting and construction kick-off meeting.
- Assist in responding to questions raised during the bidding process.
- Prepare at maximum two (2) addendums.
- Respond in writing to contractor's questions (RFIs) during construction. We have assumed a total of fifteen (15), of which five (5) will require design sketches or exhibits.
- Attend site visits to clarify design issues. Assumed eight (8) hours for site visits and construction meetings.
- Assist the City with start-up of the well. We have assumed eight (8) hours.
- Review shop drawings. We have assumed twenty (20) shop drawings.
- Evaluate and respond to contractor's requests for change orders. Assumed three (3).

Task 12: Record Drawings Preparation - Tetra Tech will prepare record drawings based on the final as-built drawings provided by the contractor and/or City. We will submit one (1) full size hard copy of the Record Drawings along with one (1) electronic copy in MicroStation format.

Additional Work (OPTIONAL):

1. Modifications to Well Flushing Piping
2. Adding Sodium Hypochlorite Facilities
3. Well Operation Modifications (directly into distribution system)
4. Site Specific Traffic Control Plans
5. PLC Panel Design and Strategies
6. Field Monitoring of the Well Rehabilitation Construction

RELEVANT PROJECT EXPERIENCE

We believe our project team's relevant design and construction experience of 16 water well projects makes us well qualified for this project. Summarized below are recent well facility projects that have been completed by our project team:

TETRA TECH WELL EXPERIENCE

Client/Contact	Project	No. of Wells	Capacity (gpm)	Wellhead Treatment	Completion Date
City of South Gate Kenneth Tang, PE 323/563-9574	Well No. 29	1	2,500	Sodium Hypochlorite	2016
City of Lakewood Jason Wen 562/866-9771	Plant 13 and Well No. 22 Improvements	1	1,200	Sodium Hypochlorite	2016
	Well No. 27	1	2,250	Chlorination	2006 - 2008
City of Orange Sonny Tran 714/288-2475	Well No. 27	1	3,000	Sodium Hypochlorite	2015
Irvine Ranch WD Rich Mori 949/453-5571	Well No. 115 Replacement	1	1,000	No treatment	2014
Irvine Ranch WD Rich Mori 949/453-5571	Well No. 78 Replacement	1	800	No treatment	2012
Irvine Ranch WD Rich Mori 949/453-5571	Well No. 107 Replacement	1	1,000	No treatment	2012
City of Paramount Christopher Cash 562/220-2100	Well No. 15 and Treatment Plant	1	3,000	Sodium Hypochlorite	2011
	Replacement of Chlorine Treatment at Well Nos. 13 and 14	2		Sodium Hypochlorite	2010 - 2011
Irvine Ranch WD Rich Mori 949/453-5571	IDP Potable Wells: 75, 76, 77, 107, 110, 115	6	4,100	No treatment	2007
Irvine Ranch WD Rich Mori 949/453-5571	IRWD Non-Potable Wells: ET-1 & 2, and Well No. 78	2	2,300	TCE / PCE Removal	2007

Richard C. Slade & Associates, LLC Experience

Richard C. Slade & Associates, LLC (RCS), our hydrogeologist subconsultant, has considerable experience in performing evaluations of existing wells and in providing office and field monitoring services during well rehabilitation operations. RCS has evaluated, assisted in the preparation of Technical Specifications, and provided field oversight services for several local wells, for example, those for the City of Anaheim and Irvine Ranch Water District (IRWD). Six of the IRWD wells that underwent extensive rehabilitation operation are located in the City of Santa Ana, within IRWD's Dyer Road Wellfield, whereas another six are located in the Irvine area for the Irvine Desalter Project. Thus, RCS has had considerable experience in performing hydrogeological services during well rehabilitation operations. Currently, RCS is assisting the City for Well No. 32 Rehabilitation.

Pipeline Experience

During the last 15 years, our project team has been involved in the design of more than 100 miles of water, recycled water, and sewer mains within fully developed areas having extensive traffic control and utility conflicts. On Page 5 of our On-Call Engineering Services SOQ, submitted to the City on October 26, 2017, is a list of many pipeline projects designed by our project team.

City of Santa Ana Experience

We believe that our best reference of our experience is our past performance on projects that we have completed for the City. We are confident that these past projects with the City will attest to our technical excellence, responsive staff, and our complete understanding of the City's facilities.

Summarized below is a quick summary of the applicable projects that Tetra Tech has previously completed for the City:

- **Pump Station/Well Projects** - South Station Modifications, Well No. 34 Modifications, Well No. 39 and Well No. 36, Well No. 24 electrical upgrades, and Well No. 32 Rehabilitation
- **Water Main Replacement Projects** - Bristol Street Widening, Centennial Park, Warner Industrial, Mid City, Pico-Lowell and Central City Water Main Replacements
- **Sewer Main Replacement Projects** - Westminster and McFadden Sewer Replacements
- **Lift Station Projects** - San Lorenzo and Maxine Lift Station Emergency Bypass

We are committed to providing the City with the same high quality service that we provided on these previous projects.

Similar Projects

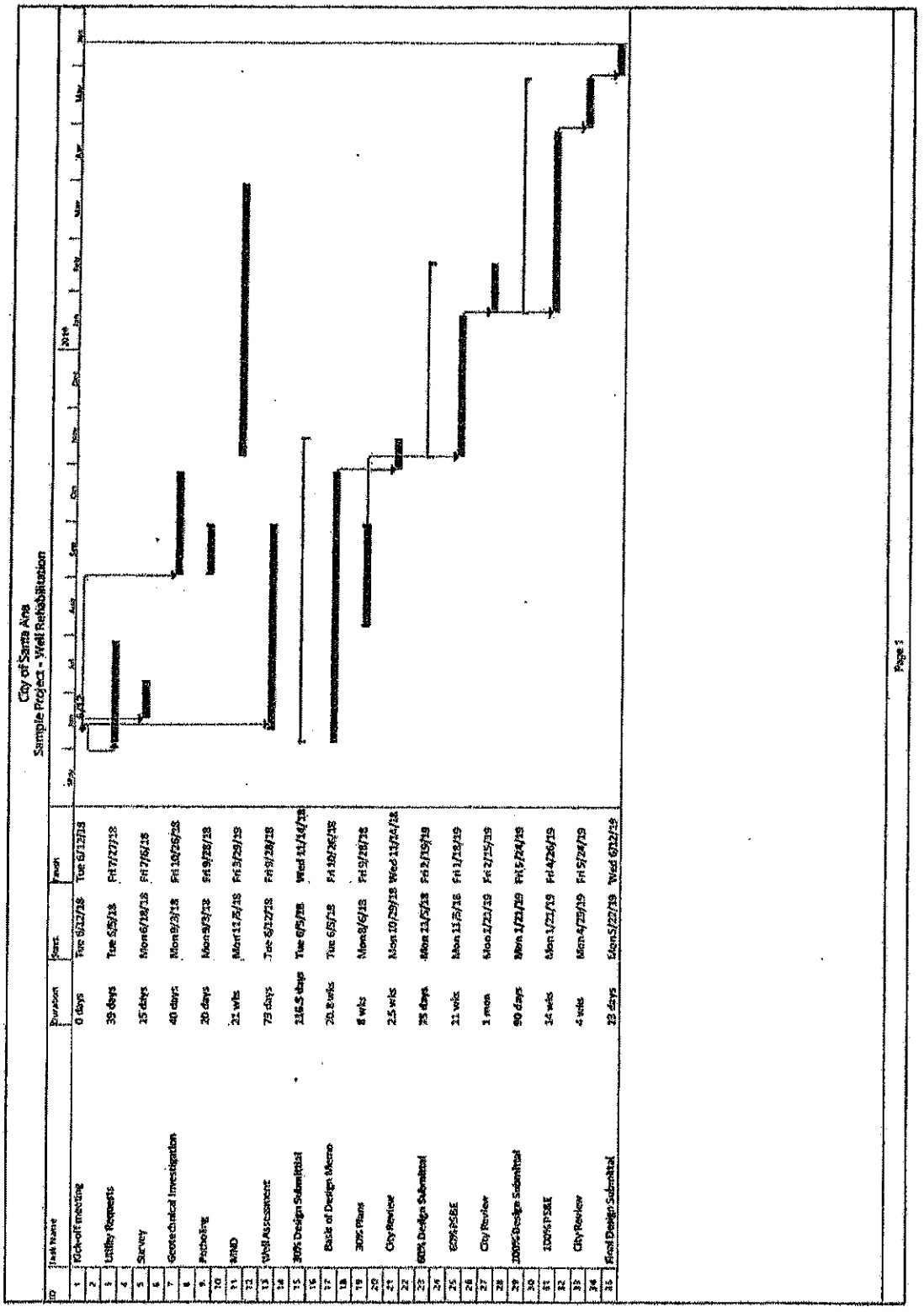
The following are three projects that are similar to the sample project:

- ***Mid-Basin Injection Centennial Park Project (OCWD):*** *These facilities include four (4) submersible backflush pumps and motors within a vault structure. The main relevance is that OCWD was drilling and equipping well facilities within the City of Santa Ana (Centennial Park) and our services included obtaining the necessary City Permits.*
- ***Elizabeth Reservoir and Booster Pump Station and Water Well No. 29 (City of South Gate):*** This project included the design of the drilling and equipping of Well No. 29, corresponding disinfection equipment and replacement of several thousand feet of pipe.
- ***Well No. 27 Drilling and Equipping (City of Orange):*** This project included the well drilling and well equipping of a new potable water well, including an electrical and chemical building for sodium hypochlorite treatment.

The requested contact information is included on the following page (Client References).

SCHEDULE

Tetra Tech has the necessary resources to rapidly deploy and meet an aggressive project schedule. In addition, our project team has recent well experience that places our team high on the issues resolution learning curve. On the next page, we have identified the key schedule:


City of Santa Ana
Sample Project - Well Rehabilitation
ID
Task Name
Duration
Start
Finish
1 Kick-off meeting 0 days Tue 6/12/18 Tue 6/12/18
2 Utility Requests 39 days Tue 6/5/18 Fri 7/27/18
3 Survey 25 days Mon 6/18/18 Fri 7/6/18
4 Geotechnical Investigation 40 days Mon 8/13/18 Fri 10/26/18
5 Potholing 20 days Mon 8/13/18 Fri 9/28/18
6 NPDES 21 wks Mon 11/5/18 Fri 3/29/19
7 Well Assessment 73 days Tue 6/12/18 Fri 9/28/18
8 30% Design Submittal 116.5 days Tue 6/5/18 Wed 11/14/18
9 Basis of Design Memo 20.8 wks Tue 6/5/18 Fri 10/26/18
10 30% Plans 8 wks Mon 8/6/18 Fri 9/28/18
11 City Review 2.5 wks Mon 10/29/18 Wed 11/14/18
12 60% Design Submittal 75 days Mon 11/5/18 Fri 2/15/19
13 95% PS&E 11 wks Mon 11/5/18 Fri 1/18/19
14 City Review 1 mon Mon 1/21/19 Fri 2/15/19
15 100% Design Submittal 50 days Mon 1/21/19 Fri 5/24/19
16 100% PS&E 14 wks Mon 1/21/19 Fri 4/26/19
17 City Review 4 wks Mon 4/29/19 Fri 5/24/19
18 Final Design Submittal 13 days Mon 5/27/19 Wed 6/12/19
Page 1

25E-184

CLIENT REFERENCES

Client satisfaction is a major objective for Tetra Tech and the members of our project team. We strongly believe that repeat work is earned through hard work, responsiveness, and delivering a quality product. This commitment to our clients has earned us the privilege of providing continuous service to many clients, including those presented below. We believe that our clients will attest to our technical excellence and our responsive staff. Presented in the table below are references that we encourage the City to contact relative to our similar experience, development of contract documents, and overall project performance.

Client and Contact	Project Name	Project Team Responsible
Orange County Water District Mike Markus 714/378-3200	Mid-Basin Injection Centennial Burris Pump Station	Tom Epperson, Mark Bush, Mike Tsoi, Erin Cabanero, Victor Ramirez, Mazen Kassar
City of South Gate Kenneth Tang, PE 323/563-9574	Elizabeth Reservoir and BPS and Water Well No. 29	Tom Epperson, Erin Cabanero, Kyle Bohn, Victor Ramirez, Mazen Kassar
City of Orange Sonny Tran 714/288-2475	Well No. 27 Demolition, Drilling and Equipping	Tom Epperson, Mark Bush, Mike Tsoi, Victor Ramirez, Mazen Kassar

The following are clients that Tetra Tech has earned the privilege of providing On-Call and continuous repeat services:

Irvine Ranch Water District
15660 Sand Canyon Avenue
Irvine, CA 92618
Richard Mori
949/453-5571
8 Pipelines; 6 Pump Stations; 12 Wells; 1 Reservoir; 4 Treatment Projects

Upper San Gabriel Valley MWD
602 E. Huntington Drive, Suite B
Monrovia, CA 91016
Shane Chapman
626/443-2297
On-Call Services; 2 Pipeline Projects; 2 Customer Retrofit Packages

Moulton Niguel Water District
26161 Gordon Road (Building 1)
Laguna Hills, CA 92653
Matt Collings
949/426-35632
On-Call Services; 8 pipelines; 4 PRVs; 4 Pump Station/Lift Station Upgrades; 4 studies; 2 reports

City of Paramount
16400 Colorado Avenue
Paramount, CA 90723
Christopher Cash
562/220-2100
As-Needed Services; 4 Well Equipping/Disinfection; Pipeline Upgrade; 4 reports including a Water Master Plan

FEE

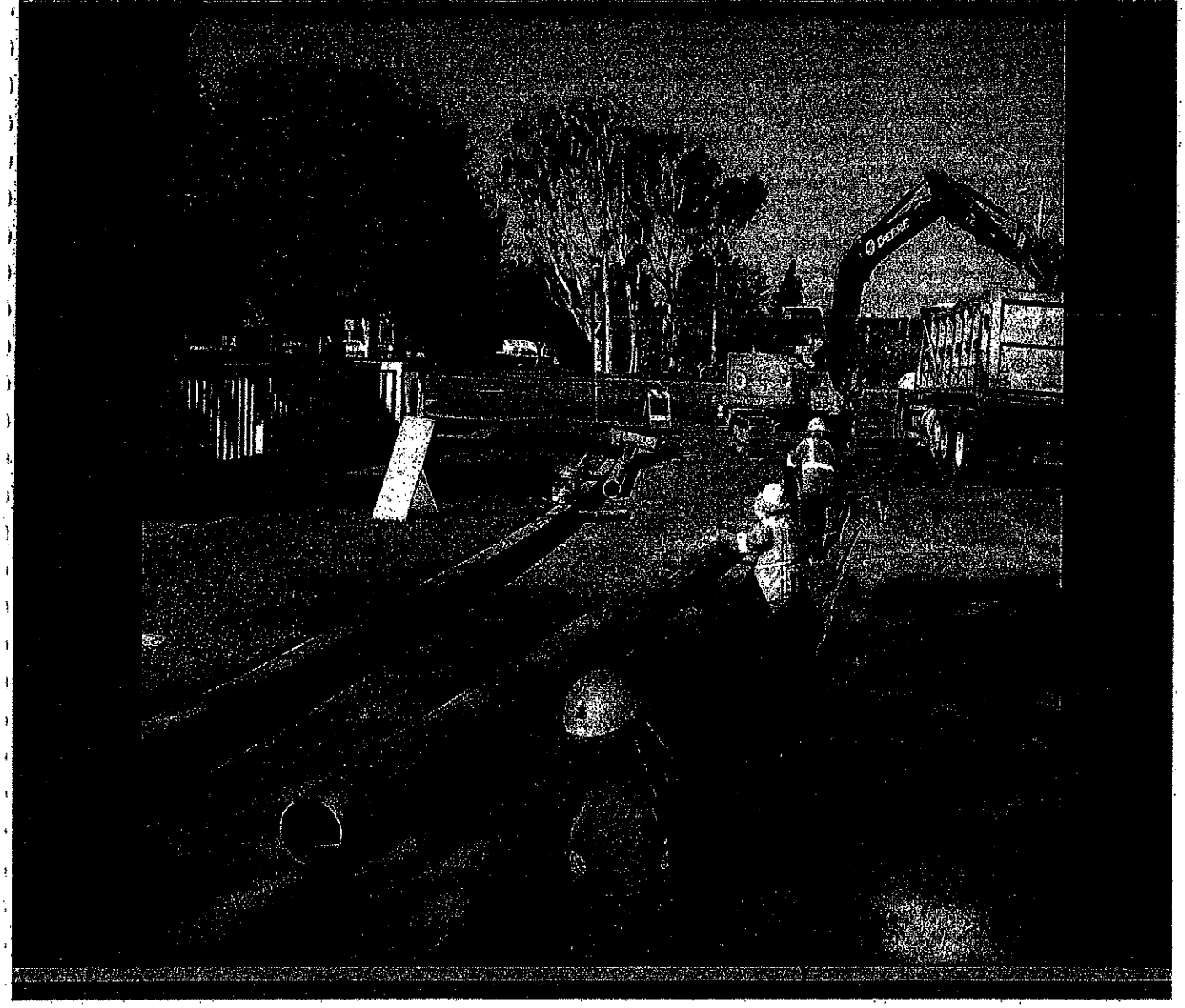
As requested in the RFP, Tetra Tech has included our fee proposal in a separate sealed envelope. Our fee proposal includes estimated hours per task, subconsultant costs, reproduction, and other direct costs. Also included with our fee proposal is our proposed Hourly Rate Schedule and a not-to-exceed amount for each phase of the work.

Proposal to Provide

RFP NO.: 17-083

ON-CALL
ENGINEERING SERVICES
For Water Resources - Option A

CERTIFICATIONS



TETRA TECH

25E-186

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed Tom Epperson

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 16th day of March, 2018 by Tom Epperson, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Juliet A. Reyes
Notary Public Signature

Notary Public Seal

JULIET A. REYES
Notary Public – California
Orange County
Commission # 2189573
My Comm. Expires Apr 30, 2021

Appendix A
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Tetra Tech, Inc.

Signed and Printed Name: Tom Epperson Tom Epperson, P.E.

Title Vice President, United States Infrastructure

Date March 16, 2018

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: Tom Epps

Title: Vice President, United States Infrastructure

Firm: Tetra Tech, Inc.

Date: March 16, 2018

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed:

Title: President and Principal Groundwater Geologist

Firm: Richard C. Slade & Associates LLC

Date: March 14, 2018

Proposal to Provide

RFP NO.: 17-083

ON-CALL
ENGINEERING SERVICES
For Water Resources - Option A

RESUMES

TETRA TECH

25E-192

TETRA TECH

Thomas L. Epperson, PE
Project Manager

Mr. Epperson has over 36 years of professional experience in water, wastewater, and reclaimed water engineering. Mr. Epperson has been responsible for the preparation of water, wastewater, and reclaimed water master plans; project design reports for various water, wastewater, and reclaimed water facilities; and the planning and design of water, wastewater, and reclaimed water pipelines, along with pump stations and reservoirs. He has been responsible for completing the design, bidding, and construction management of over 200 miles of water/reclaimed water/sewer mains, 36 water/reclaimed water pump stations, 18 well-head facilities, 12 sewer lift stations and 25 water/reclaimed water storage reservoirs throughout Southern California.

Education:
B.S., Environmental Engineering, University of California, Irvine, 1978

Registrations/Certifications:
Professional Engineer, California, 1983, No. 36399

Professional Affiliations:
American Water Works Association

Orange County Water Association

WateReuse Association

American Society of Civil Engineers

Water Environment Federation

Office:
Irvine, California

Years of Experience:
36

Years with Tetra Tech:
25

EXPERIENCE

Mid-Basin Injection: Centennial Park Design Services, Orange County Water District, Santa Ana, CA – Project Manager responsible for the design of four injection wells to be located within Centennial Park in the City of Santa Ana for Orange County Water District. In addition to the engineering services for the four injection wells, the project includes the design of the supply pipeline, backflush pipeline, bridge crossing, two shared facility sites, a monitoring well site, site improvements, and paving of park access roads and parking lots.

Well No. 27, City of Orange, CA – Project Manager for the drilling and equipping of Well 27, a new potable water well (930 feet deep). The project involved the partial demolition of an existing warehouse to accommodate the footprint of the new well, installation of a CMU block control building and sodium hypochlorite building, 12.5% sodium hypochlorite disinfection facility, sound enclosure around the well head, as well as, site and landscaping improvements.

Well No. 29 and Elizabeth Reservoir and Booster Pump Station, City of South Gate – Project Manager for the design and construction support for the drilling and equipping of a new 2,500 gpm well, sodium hypochlorite facilities, and generator at the well site and a 1.8 steel reservoir, booster pump station consisting of three 125 hp pumps/motors at the reservoir site, and about 5,000 feet of water main replacements within the City of South Gate. The project combined the well drilling and well equipping phases of the work together.

Equipping Well No. 15 and Treatment Plant, City of Paramount, CA – Project Manager for the design and construction support for a new bulk sodium hypochlorite and ammonia chemical delivery system at the City's new Well 15. Design included the equipment for the well including the pump and motor, the discharge piping, and a manganese and future arsenic treatment system. Included within the facility were an arsenic manganese filtration system, backwash tank, backwash recirculation pumps, sludge mixer pumps, sodium hypochlorite and ammonia

treatment systems, and an emergency generator. The facility included the following building/enclosures: well building removable sound enclosure; pre-engineered, prefabricated precast concrete electrical building; and prefabricated fiberglass insulated building for the backwash pump enclosure.

Plant 13 Booster Station Rehabilitation and Well 22 Improvements, City of Lakewood, Lakewood, CA – Project Manager for plans, specifications and cost estimate for the replacement of a 4,800 gpm booster pump station and replacement of a 1,200 gpm well pump. In addition to the booster pump station replacement, the construction was phased so the booster station was operational during construction.

Well 107 Replacement, Irvine Ranch Water District, Irvine, CA– Project Manager for the preparation of the plans, specifications, cost estimate and construction services for the drilling and equipping of a potable water well in the City of Irvine. This project combined the well drilling and well equipping phases of the project together.

Equipping of Well No. 39, City of Santa Ana, Santa Ana, CA – Project Manager for the design of the equipping of Well No. 39 and corresponding piping and site improvements.

Well 78 Replacement, Irvine Ranch Water District, Irvine, CA – Project Manager for the drilling and equipping of a recycled water well in the City of Irvine.

Irvine Desalter Project – Potable Wells 76, 77, 107, and 110, Irvine Ranch Water District, Irvine, CA – Project Manager for the design and construction services of four potable wells including drilling and equipping of each well.

Burris Pump Station, Orange County Water District, Anaheim, CA – Project Manager for the design of the new Burris Pump Station which consists of four 1,750 horsepower vertical turbine pumps delivering a maximum flow rate of 200 cfs to the Santiago Basins from Burris Basin. Work consists of reviewing the existing Burris Pump Station Evaluation Report, assisting OCWD with selecting a replacement option, performing final design of the selected option and providing bid and construction phase services. The project also included unique designs: 190,000 cubic yards of earthwork to be completed prior to pump station construction, the construction of a 55 foot diameter by 55 foot high circular wet well which was computer and physically modeled during design for flow characteristics, and the construction of a 180,000 gallon surge suppression system.

Centennial Park Neighborhood Water Main Improvements, City of Santa Ana, CA – Project Director for approximately 20,000 linear feet of 8-inch PVC water main to replace existing water mains.

Central City Water Main Improvements, City of Santa Ana, CA – Project Director for approximately 6,600 linear feet of 8-inch PVC water main to replace existing water mains.

Pico-Lowell Neighborhood Water Main Improvements, City of Santa Ana, CA – Project Director for approximately 8,200 linear feet of 8- and 12-inch PVC water main to replace existing water mains.

TETRA TECH

Mark W. Bush, PE
QA/QC

Mr. Bush has over 22 years of professional experience in water, wastewater and recycled water engineering. He has been responsible for the completion of over 100 miles of potable water, recycled water and sewer mains, 20 potable water and recycled water pump station and well projects and 14 potable and recycled water reservoirs.

Mr. Bush is an integral part of the Water/Wastewater Department and brings leadership, strong work ethic, technical knowledge and dedication to overall client satisfaction on each and every project.

Education:
University of California, Irvine
B.S. Civil Engineering, 1997
B.S. Environmental Engineering, 1997

Registrations/Certifications:
Registered Civil Engineer
California No. 60477

Emteite fiberflow, Design and Engineering Certification

Project Management:
PSMJ – PM Workshop

Tetra Tech PM Series

Professional Affiliations:
American Society of Civil Engineers

American Water Works Association

Orange County Water Association

Office:
Irvine, California

Years of Experience:
22

Years with Tetra Tech:
22

EXPERIENCE

Mid-Basin Injection: Centennial Park Design Services, Orange County Water District, Santa Ana, CA – Responsible for the QA/QC of the design of four injection wells to be located within Centennial Park in the City of Santa Ana for Orange County Water District. In addition to the engineering services for the four injection wells, the project includes the design of the supply pipeline, backflush pipeline, bridge crossing, two shared facility sites, a monitoring well site, site improvements, and paving of park access roads and parking lots.

Well No. 27, City of Orange, Orange, CA – Project Engineer for the drilling and equipping of Well 27, a new potable water well (930 feet deep). The project involved the partial demolition of an existing warehouse to accommodate the footprint of the new well, installation of a CMU block control building and sodium hypochlorite building, 12.5% sodium hypochlorite disinfection facility, sound enclosure around the well head, as well as, site and landscaping improvements.

Equipping of Well No. 39, City of Santa Ana, Santa Ana, CA – Project Engineer for the drilling and equipping of Well No. 39, a new potable well (1,350 feet deep), installation of three sodium hypochlorite disinfection facilities, and site landscaping improvements.

Replacement of Chlorine Treatment at Well Nos. 13 and 14, City of Paramount, Paramount, CA – Provided design and construction support to replace the existing chlorine gas disinfection systems with bulk sodium hypochlorite and ammonia chemical delivery systems at the City's Wells 13 and 14. At both well sites, the disinfection systems were located outside within a concrete containment area with a shaded canopy.

Equipping Well No. 15 and Treatment Plant, City of Paramount, CA – Project Engineer for design and construction support for a new bulk sodium hypochlorite and ammonia chemical delivery system at the City's new Well 15. Design included the equipment for the well including the pump and motor, the discharge piping, and a manganese and future arsenic treatment system. Included within the facility are an arsenic manganese filtration system, backwash tank,

backwash recirculation pumps, sludge mixer pumps, sodium hypochlorite and ammonia treatment systems, and an emergency generator. The facility included the following building/enclosures: well building removable sound enclosure; pre-engineered, prefabricated precast concrete electrical building; and prefabricated fiberglass insulated building for the backwash pump enclosure.

Irvine Desalter Project Potable and Non-Potable Well Drilling and Equipping, Irvine Ranch Water District, Irvine, CA – Project Engineer for the preparation of plans and specifications for the drilling and equipping of design of well drilling for five potable water wells and one non-potable water well. This included wellhead equipping for each well for both aboveground and belowground facilities. Also included in this project were modifications to an existing non-potable water well.

Well No. 34 Modifications, City of Santa Ana, Santa Ana, CA – Design Engineer for the well modifications which included the addition of a new pump and motor.

John Garthe Reservoir Improvements, Phase II, City of Santa Ana, CA – The Phase II improvements included the demolition of a 5 MG gunite reservoir, buildings and a pump station and the construction of two new 5 MG circular prestressed concrete reservoirs, drilling and equipping of Well No. 39, a new potable well (1,350 feet deep), installation of three sodium hypochlorite disinfection facilities, and site landscaping improvements.

Centennial Park Neighborhood Water Main Improvements, City of Santa Ana, Santa Ana, CA – Project Manager for approximately 20,000 linear feet of 8-inch PVC water main to replace existing water mains.

Central City Water Main Improvements, City of Santa Ana, Santa Ana, CA – Project Manager for approximately 6,600 linear feet of 8-inch PVC water main to replace existing water mains.

Pico-Lowell Neighborhood Water Main Improvements, City of Santa Ana, Santa Ana, CA – Project Manager for approximately 8,200 linear feet of 8- and 12-inch PVC water main to replace existing water mains.

Mid City Neighborhood Water Main Replacement Project, City of Santa Ana, Santa Ana, CA – Project Engineer for approximately 9,000 linear feet of 12- and 8-inch PVC water main to replace existing water mains. Project included the hot tap of two existing water mains and 15 cut in connections.

Bristol Street Widening Water Main Replacement Project, City of Santa Ana, Santa Ana, CA – Project Manager for approximately 6,000 linear feet of 12- and 8-inch PVC water main to replace existing water mains.

TETRA TECH

Michael Tsoi, PE
Well Equipping Lead

Mr. Tsoi has over 24 years of professional experience in water, wastewater, and recycled water engineering. Mr. Tsoi has been responsible for the planning and design of water, wastewater, and recycled water pipelines along with pump stations, flow control facilities, reservoirs and site improvements. He is knowledgeable in the use of the latest computer software including CADD, horizontal control, hydrology, hydraulics and various spreadsheet programs.

Education:
University of California, Irvine
B.S. Civil Engineering, 1991

Registrations/Certifications:
Registered Professional Engineer
California No. 53715

Professional Affiliations:
American Society of Civil Engineers

Office:
Irvine, California

Years of Experience:
24

Years with Tetra Tech:
24

EXPERIENCE

Mid-Basin Injection: Centennial Park Design Services, Orange County Water District, Santa Ana, CA – Design of four injection wells to be located within Centennial Park in the City of Santa Ana for Orange County Water District. In addition to the engineering services for the four injection wells, the project includes the design of the supply pipeline, backflush pipeline, bridge crossing, two shared facility sites, a monitoring well site, site improvements, and paving of park access roads and parking lots.

Well 27 Equipping Plan, City of Orange, Orange, CA – Project Engineer for the preparation of the plans, specifications and cost estimate for the equipping of a potable water well. As part of the well equipping a generator room was installed for backup power.

Plant 13 Booster Station Rehabilitation and Well 22 Improvements, City of Lakewood, Lakewood, CA – Project Engineer for plans, specifications and cost estimate for the replacement of a 4,800 gpm booster pump station and replacement of a 1,200 gpm well pump. In addition to the booster pump station replacement, the construction was phased so the booster station was operational during construction.

Well 106 Well Siting Study, Irvine Ranch Water District, Irvine, CA – Project Engineer for a study to determine the location of replacement Well 106. Several locations were evaluated to determine if drilling was feasible along with connection to the rest of the raw water system.

Well 107 Replacement, Irvine Ranch Water District, Irvine, CA – Project Engineer for the preparation of the plans, specifications, cost estimate and construction services for the drilling and equipping of a potable water well in the City of Irvine. This project combined the well drilling and well equipping phases of the project together.

Well 78 Replacement, Irvine Ranch Water District, Irvine, CA – Project Engineer for the drilling and equipping of a recycled water well in the City of Irvine. This project included construction of the well within a highly visible area with limited work space.

Irvine Desalter Project Potable and Non-Potable Well Drilling and Equipping, Irvine Ranch Water District, Irvine, CA – Project Engineer for the preparation of plans and specifications for the drilling and equipping for design of well drilling for five potable water wells and one non-

potable water well. This includes wellhead equipping for each well for both aboveground and belowground facilities. Also included in this project was the modification to an existing non-potable water well.

Lakewood Wells 28 and 29, City of Lakewood, Lakewood, CA – The City of Lakewood is constructing one new water well expected to produce about 3,000 gpm (Well 28) and possibly a second well (Well 29) to provide additional groundwater to supplement the City's water supply source. The City would pump water from the new well facilities to one of the existing reservoirs. Should treatment be needed for iron, manganese or arsenic removal from the new water source, the treatment facilities would likely be located at the reservoir site. The project consists of preparing a well siting study and providing recommendations for the new well sites. In addition, a drinking water source assessment was prepared and submitted to the Health Department for the new well. A well design report was prepared that incorporated the design plans and technical specifications. The project is scheduled to bid in late 2014 with completion of Well 28 construction in 2015. Field observation during well drilling and construction is also planned as part of the scope of work.

Well 115 Replacement, Irvine Ranch Water District, Irvine, CA – Project Engineer for the drilling and equipping of a potable water well in the City of Irvine. This project combined the well drilling and well equipping phases of the project together. Coordination with the City of Irvine and The Irvine Company were required to procure the land for the well site.

TETRA TECH

Kyle Bohn, PE
Design Engineer

Mr. Bohn has provided design engineering in various water and wastewater projects including domestic and reclaimed water pipelines, water main replacements, gravity sewer mains, CIPP sewer lining, pump stations, lift stations, reinforced concrete reservoirs, flow control facilities, and pressure reducing valve vaults. Responsibilities have included preparation of construction plans, specifications, and design calculations; assisted supervisors in preparing project memorandums; organized office technical library.

Education:
B.S., Civil Engineering, University of California, Irvine, 2006

Registrations/Certifications:
Registered Civil Engineer, 2011, California No. 77984

Emtelle fiberflow, Design and Engineering Certification

Office:
Irvine, California

Years of Experience:
12

Years with Tetra Tech:
12

EXPERIENCE

Newport Boulevard Water Main Rehabilitation, City of Newport Beach, CA – Provided engineering support for the replacement/rehabilitation of the existing 20/16-inch cast iron pipeline constructed in the mid-1920s within Newport/Balboa Boulevard from the intersection of Via Oporto and Central Avenue to the intersection of Balboa Boulevard and 19th Street. This pipeline is vital as it provides water and fire flow protection to the businesses and residents in the Newport Bay and Peninsula area.

GSWC Waterline Replacement Projects 2010, Golden State Water Company, City of Hawthorne and County of Los Angeles, CA – As Design Engineer, assisted with completing design plans for several water main replacement projects throughout the GSWC service areas primarily the Southwest District. The work was completed as part of a design-build contract teamed with Precision Pipeline. Work included: existing utility research and base map preparation, determining abandonment required, alignment selection and field check surveys, interaction with GSWC project manager with plan check comments, and obtained permit conditions for construction for various affected cities. Project locations included City of Hawthorne and County of Los Angeles. Streets included: Budlong Avenue, Kornblum Avenue, 132nd Street, and Doty Avenue. Total water main footage was approximately 6,000 feet of 12- through 16-inch pipe.

Water Line Replacement Projects, City of Lakewood, Lakewood, CA – Design Engineer for the preparation of plans and specifications of multiple water line replacement projects for the City of Lakewood. Projects included preparation of plans, specifications, and cost estimates for over 50,000 linear feet of 6- to 12-inch pipeline.

Centennial Park Neighborhood Water Main Improvements, City of Santa Ana, Santa Ana, CA – Design Engineer for approximately 20,000 linear feet of 8-inch PVC water main to replace existing water mains.

Central City Water Main Improvements, City of Santa Ana, Santa Ana, CA – Design Engineer for approximately 6,600 linear feet of 8-inch PVC water main to replace existing water mains.

Recycled Water Distribution System Expansion, El Toro Water District, Laguna Woods, CA – Design Engineer for the design of over 20 miles of recycled water pipelines for the El Toro Water District's - Recycled Water Distribution System Expansion Project. The pipelines ranged in size from 4-inch to 20-inch in diameter, and convey up to 775 acre-feet of tertiary treated recycled water per year. The major customer being served recycled water is the Laguna Woods Village Home Owners Association (formerly Leisure World).

Well No. 27, City of Orange, Orange, CA – Design Engineer for the drilling and equipping of Well No. 27, a new potable water well (930 feet deep). The project involved the partial

demolition of an existing warehouse to accommodate the footprint of the new well, installation of a CMU block control building and sodium hypochlorite building, 12.5% sodium hypochlorite disinfection facility, sound enclosure around the well head as well as site and landscaping improvements.

SA-4 and SA-5 Vault Relocations, City of Santa Ana, Santa Ana, CA – Design Engineer for the design and construction phases of two pressure reducing valve vaults. The project included the design of steel and ductile iron yard piping and connections to the existing City system, pressure reducing valves, and concrete vaults.

Trunk Line Sewer Reconstruction, City of San Juan Capistrano, San Juan Capistrano, CA – Design Engineer for design to replace approximately 450 linear feet of deficient 24-inch sewer. The design included removing an existing abandoned 30-inch sewer and constructing a new 27-inch PVC sewer in its place. Project included permitting through the City of Dana Point and coordination with SOCWA.

San Lorenzo Sewage Lift Station, City of Santa Ana, Santa Ana, CA – Design Engineer for the preparation of plans, specifications and cost estimates to construct a new sewer lift station on San Lorenzo Avenue within the City of Santa Ana. The improvements included a wet well, dry well, three variable frequency drive pumps, aboveground CMU block control room, emergency generator, hardscape and landscape improvements, and approximately 1,300 linear feet of new sewer main.

Gisler-Redhill Trunk Improvements, Reach B, Orange County Sanitation District, Tustin, CA – Design Engineer for the replacement of 21- and 24-inch sewer mains in the Gisler-Redhill Trunk Improvements, Reach B to be replaced with 24- to 36-inch pipelines. The project traversed through the cities of Tustin, Santa Ana and Irvine. Scope of services included preliminary design, final design, and construction administration.

Western Avenue Sewer Project, City of Buena Park, Buena Park, CA – Design Engineer for the preparation of plans, specifications and cost estimates for construction of 1,700 linear feet of a 15-inch VCP relief sewer in Western Avenue.

36-Inch Transmission Main Replacement, City of Anaheim, Anaheim, CA – Design Engineer for the preparation of the plans, specifications, cost estimates and construction services for the construction of 700 linear feet of 36-inch steel pipeline.

Ohio Street and Oriente Drive Pipeline Replacement, Yorba Linda Water District, Yorba Linda, CA – Design Engineer for approximately 3,000 feet of 16-inch ductile iron and 1,000 feet of PVC water main to replace existing cast iron water mains within the City of Yorba Linda. The project included the replacement of existing water services, fire hydrants and the up-sizing of the existing main.

SA-3 Vault, City of Santa Ana, Santa Ana, CA – Design Engineer for the design and construction phases of a pressure reducing valve vault. The project included steel yard piping and connections to the existing city system, a pressure reducing valve, and a concrete vault.

TETRA TECH

Erin Cabañero
Well Design

Ms. Cabañero has provided design engineering in various water and wastewater projects including domestic water pipelines, water main replacements, gravity sewer mains, gravity force mains, pump stations, lift stations, reinforced concrete reservoirs, steel tank reservoirs, flow control facilities, and pressure reducing valve vaults. Responsibilities have included preparation of construction plans, specifications, and design calculations; assisted supervisors in preparing project memorandums and project schedules; and organized office technical library.

Education:
B.S., Civil Engineering, University of California, Irvine, 2009

Registrations:
Engineer in Training, California, 2008, No. 131891

Office:
Irvine, California

Years of Experience:
Nine

Years with Tetra Tech:
Seven

EXPERIENCE

Mid-Basin Injection: Centennial Park Design Services, Orange County Water District, Santa Ana, CA – Design Engineer for four injection wells to be located within Centennial Park in the City of Santa Ana for Orange County Water District. In addition to the engineering services for the four injection wells, the project includes the design of the supply pipeline, backflush pipeline, bridge crossing, two shared facility sites, a monitoring well site, site improvements, and paving of park access roads and parking lots.

Well No. 29 and Elizabeth Reservoir and Booster Pump Station, City of South Gate – Design Engineer for the design and construction support for the drilling and equipping of a new 2,500 gpm well, sodium hypochlorite facilities, and generator at the well site and a 1.8 steel reservoir, booster pump station consisting of three 125 hp pumps/motors at the reservoir site, and about 5,000 feet of water main replacements within the City of South Gate. The project combined the well drilling and well equipping phases of the work together.

Well 78 Replacement, Irvine Ranch Water District, Irvine, CA – Design Engineer for the drilling and equipping of a recycled water well in the City of Irvine.

Well No. 27, City of Orange, Orange, CA – Design Engineer for the drilling and equipping of Well 27, a new potable water well (930 feet deep). The project involved the partial demolition of an existing warehouse to accommodate the footprint of the new well, installation of a CMU block control building and sodium hypochlorite building, 12.5% sodium hypochlorite disinfection facility, sound enclosure around the well head back-up generator, as well as, site and landscaping improvements.

Burris Pump Station, Orange County Water District, Anaheim, CA – Design Engineer for the design of the new Burris Pump Station which consists of four 1,750 horsepower vertical turbine pumps delivering a maximum flow rate of 200 cfs to the Santiago Basins from Burris Basin. Work consisted of reviewing the existing Burris Pump Station Evaluation Report, assisting OCWD with selecting a replacement option, performing final design of the selected option and providing bid and construction phase services. The project also included unique designs: 190,000 cubic yards of earthwork to be completed prior to pump station construction, the construction of a 55-foot diameter by 55-foot high circular wet well which was computer and physically modeled during design for flow characteristics, and the construction of a 180,000 gallon surge suppression system.

Peters Canyon Channel Water Capture and Reuse Pipeline, Irvine Ranch Water District, Irvine, CA – Design Engineer for over 17,000 linear feet of 10-inch to 16-inch steel and PVC pipeline. This was a joint project with the City of Irvine, City of Tustin, County of Orange, and Caltrans. Project included three storm drain diversion structures and intake design, hanging the pipeline from two bridges, bore and jack under the railroad and backpressure vault.

Recycled Water Distribution System Expansion, El Toro Water District, Laguna Woods, CA – Design Engineer for the design of over 20 miles of recycled water pipelines for the El Toro Water District's - Recycled Water Distribution System Expansion Project. The pipelines range in size from 4-inch to 20-inch in diameter, and convey up to 775 acre-feet of tertiary treated recycled water per year. The major customer being served recycled water is the Laguna Woods Village Home Owners Association (formerly Leisure World).

TETRA TECH

Victor M. Ramirez, PE, SE
Structural Lead

Mr. Ramirez has over 30 years of structural engineering design experience with special emphasis in the design of water storage/water containment and water conveyance related structures. This includes reservoirs, water/wastewater treatment plants, booster pump stations, flow control facilities, pressure reducing stations and pipelines. His experience also includes the design of a wide variety of other types of structures, including buildings, bridges and storm drainage related structures. He is thoroughly knowledgeable in all types of construction, including reinforced concrete, masonry, structural steel, and timber.

Education:
B.S., Civil Engineering, California State University, Los Angeles, 1995

Registrations/Certifications:
Registered Structural Engineer
California, 2004, No. 4720

Registered Civil Engineer
California, 1997, No. 56863

Professional Affiliations:
Structural Engineers Association of Southern California

American Institute of Steel Construction

Field Safety Certifications
Confined Space
Fall Protection

Office:
San Dimas, California

Years of Experience:
30

Years with Tetra Tech:
35

EXPERIENCE

Mid-Basin Injection: Centennial Park Design Services, Orange County Water District, Santa Ana, CA – Structural Project Manager responsible for the design of four injection wells to be located within Centennial Park in the City of Santa Ana for Orange County Water District. In addition to the engineering services for the four injection wells, the project includes the design of the supply pipeline, backflush pipeline, bridge crossing, two shared facility sites, a monitoring well site, site improvements, and paving of park access roads and parking lots.

Design-Build of Wells 21 and 22 Desalter, Irvine Water District, Irvine, CA – Structural Project Engineer for a project that is the third membrane water treatment plant completed by the design/build team of Tetra Tech and Pascal & Ludwig. The main treatment facility is housed in a 10,000 square foot tilt-up concrete building which also contains pump, control, HVAC and electrical rooms. A corner of the building is constructed on a 12 foot deep, 100,000 gallon, buried, cast-in-place concrete water storage structure. Special consideration was given in the analysis and detailing of the tilt-up building and buried concrete structure so that all design forces are properly resisted and the potential differential settlement between the shallow building foundations and the deep water storage structure is mitigated. Various concrete and steel structures for pre- and post-treatment areas are also located on the site. These areas are hidden from public view by 27 foot tall freestanding tilt-up concrete screen walls and by the main treatment building itself.

Burris Pump Station, Orange County Water District (OCWD), Anaheim, CA – Structural Engineer for the replacement of an existing pumping facility at the Burris Pump Station location. Mr. Ramirez was involved in the comprehensive design of the 0.8 MG buried circular wet well. The new facility will allow OCWD to transfer up to 200 cubic feet per second from the Santa Ana River, which will be and utilized for groundwater recharge to the Santiago Basins.

Wells No. 40 and 44, City of Ontario, CA – Project consisted of two new domestic water wells approximately 1,200 feet deep. Well capacities are 2,000 to 3,000 gpm. Included masonry block enclosure with open roof courtyard. Also included disinfection and construction administration.

Well 107 Replacement, Irvine Ranch Water District, Irvine, CA – Structural Project Manager for the Well 107 site. The structures include concrete masonry retaining walls, concrete mat foundations for electrical cabinets, concrete wellhead pedestals and pipe supports.

Well 78 Replacement, Irvine Ranch Water District, Irvine, CA – Structural Project Manager for a buried reinforced concrete well vault. The vault is designed for the soil loading and H-20 truck loading with applicable impact factors. The concrete wellhead pedestal is isolated from the vault structure to allow for differential settlement of the vault relative to the wellhead, without causing damage to the vault or wellhead.

Equipping of Wells I-16, I-17, and I-18, Chino Basin Desalter Authority, Chino, CA – Tetra Tech is providing design and construction engineering services for the equipping of three new wells at three separate sites. The scope of the structural design includes foundations for prefabricated electrical enclosures, surge tank, well pedestals, pipe racks and supports. Services include conceptual design, permitting assistance, final design, bid assistance, and construction assistance.

Well C-5, City of Cerritos, CA – Mr. Ramirez served as Structural Project Engineer for this 2,000 square foot well building on a mat foundation, to mitigate the effects of potential liquefaction. The facility has nine separate rooms for housing mechanical, electrical, disinfection and water conditioning equipment. The building also contains rooms for an emergency generator and HVAC equipment as well as office and restroom spaces. Portions of the walls and roof at the well are removable. The structural design work scope also included architectural services for making the well building match the buildings in the adjacent housing development.

Well No. 27 Treatment Plant, Lakewood, CA – Design and construction phase services for a groundwater treatment facility which includes foundations for filter vessel, storage tanks, and pumping equipment. The design also includes the structural and architectural design of a 10 foot high masonry screen wall which mirrors several of the architectural features which occur in the community that surrounds the plant.

Rancho Del Rey Wellhead Treatment Facility, Otay Water District Chula Vista, CA – Project Structural Engineer for the design of a 5100 square foot masonry building, with a steel truss framed roof, which houses a well head, RO treatment facility, disinfection equipment, conventionally reinforced concrete clearwell pump station, control room, office and storage area. The design of the building balances the functional water production requirements with the aesthetic, architectural design of the exterior of the building, which was critical for compliance with local planning agency requirements.

Irvine Desalter Project, Irvine Ranch Water District, Irvine, CA – Structural Project Engineer for a project which includes a 6,000 square foot tilt-up concrete RO filtration building, several partially buried cast-in-place concrete clearwell pump stations, a buried cast-in-place concrete well vault, 270 linear feet of 26 foot high tilt-up concrete free-standing fence wall and several chemical containment areas with steel framed canopies.

TETRA TECH

Man Hong (Eric) Yuen, PE, SE

Structural Design

Mr. Yuen has over eight years of experience in the design, analysis and detailing in structural engineering. He is knowledgeable in reinforced concrete, masonry, structural steel and wood frame design, and construction for a variety of building and infrastructure projects including reservoirs, water/wastewater treatment facilities, as well as seismic retrofit of existing structures.

Education:

B.S., Civil Engineering, California State Polytechnic University, Pomona, 2007

Registrations/Certifications:

Professional Engineer, California 2009, No. 75983

Structural Engineer, California 2014, No. 6177

Cal OES Safety Assessment Program Evaluator Training

Professional Affiliations:

American Institute of Steel Construction

Field Safety Certifications:

Fall Protection (Ladders, Scaffolding, Aerial Lifts) 09/2010

H^2S Protection Training
Respiratory Protection Training
Confined Space Training
(1/2015)

Office:

San Dimas, California

Years of Experience:

Eight

Years with Tetra Tech:

Eight

EXPERIENCE

Equipping of Wells I-16, I-17, and I-18, Chino Basin Desalter Authority, Chino, CA – Tetra Tech is providing design and construction engineering services for the equipping of three new wells at three separate sites. The scope of the structural design includes foundations for prefabricated electrical enclosures, surge tank, well pedestals, pipe racks and supports. Services include conceptual design, permitting assistance, final design, bid assistance, and construction assistance. Mr. Yuen served as the structural designer on this project.

Design-Build of Wells 21 and 22 Desalter, Irvine Water District, Irvine, CA – Mr. Yuen served as Structural Design Engineer for this design-build project. This project is a membrane water treatment plant that consists of a buried rectangular concrete wet well, a concrete tilt-up process building and numerous concrete mat foundations. Pascal & Ludwig is our Design-Build Partner and also the prime contractor on the project. Tetra Tech will work under Pascal & Ludwig through a subcontractor agreement.

Rancho Del Rey Wellhead Treatment Facility, Otay Water District Chula Vista, CA – Mr. Yuen served as Structural Design Engineer for the design of a 5,100 square foot masonry building, with a steel truss framed roof, which houses a well head, RO treatment facility, disinfection equipment, conventionally reinforced concrete clearwell pump station, control room, office and storage area. The design of the building balances the functional water production requirements with the aesthetic, architectural design of the exterior of the building, which was critical for compliance with local planning agency requirements.

Burris Pump Station, Orange County Water District (OCWD), Anaheim, CA – Design Engineer for the replacement of an existing pumping facility at the Burris Pump Station location. Mr. Yuen was involved in the comprehensive design of the 0.8 MG buried circular wet well. The new facility will allow OCWD to transfer up to 200 cubic feet per second from the Santa Ana River, which will be and utilized for groundwater recharge to the Santiago Basins. Mr. Yuen also reviews shop drawings and responds to RFIs during the ongoing construction phase of this project.

Plant 224 Pump Station, Surburban Water System, Whittier, CA – Mr. Yuen served as the Structural Design Engineer for the design of a 2,700 square foot single story concrete block pump station building on continuous concrete footings in the City of Whittier. The pump station serves two new concrete reservoirs with a capacity of 2.4 MG and 4.7 MG, and will pump potable water to Suburban Water Systems customers. The masonry building was designed with high parapet walls to satisfy several design criteria which include the city's building architectural guidelines, shielding the roof mounted HVAC equipment from view, and reducing noise from the roof mounted equipment. The building was designed with specially reinforced shear walls based on seismic design category D. The building uses a flexible roof diaphragm comprised of 1½-inch deep metal deck supported on wide flange roof joists that span approximately 34 feet. The masonry building was designed for gravity loads due to roof dead and live loads, as well as lateral loading from a seismic event.

Milliken Pump Station, Chino Basin Desalter Authority, Ontario, CA – Structural Design Engineer for the design of a building for a booster pump station with separate pump and electrical rooms. The building has concrete block walls and a steel framed roof structure. Consideration was given to the appearance of the building so that it will complement the existing well building and 2.0 MG prestressed concrete tanks which share the site with the Milliken Pump Station.

TETRA TECH

Mazen Kassar, PE

Electrical/Instrumentation Lead

Mr. Mazen Kassar has more than 27 years of experience in electrical engineering and industry standard that include electrical engineering staff management, project management, construction management and supervision, water and wastewater treatment, petro-chemical design, and environmental soil and groundwater treatment. His background includes designing medium and low voltage power distribution, designing instrumentation, control systems and SCADA systems for a wide-variety of projects, and the installation of electrical systems for remediation projects, including soil vapor extraction systems and groundwater pump-and-treat systems. Other experience includes, working with utility companies to provide new electrical service to new projects, working with local Building and Safety Departments to obtain Plan Check and construction permits, field trouble shooting of electrical and mechanical systems, system commissioning and startup, problem solving, and managing an operation and maintenance department. He has strong knowledge in MS Office and AutoCAD.

EXPERIENCE

Mid-Basin Injection: Centennial Park Design Services, Orange County Water District, Santa Ana, CA – Electrical P responsible for the design of four injection wells to be located within Centennial Park in the City of Santa Ana for Orange County Water District. In addition to the engineering services for the four injection wells, the project includes the design of the supply pipeline, backflush pipeline, bridge crossing, two shared facility sites, a monitoring well site, site improvements, and paving of park access roads and parking lots.

Lakewood Plant 13 Project, Lakewood, CA – Managing the electrical design for Plant 13 pump station upgrade. The design consists of replacing the plant old MCC with new outdoor NEMA 3R MCC, installing new conduits and wires to the new pumps, and reinstalling the existing control and telemetry system. This replacement upgrade requires interfacing with Southern California Edison (SCE) and relocating the existing ATS.

Well 27 Equipping Plan, City of Orange, Orange, CA – Electrical Project Manager for the preparation of the plans, specifications and cost estimate for the equipping of a potable water well. As part of the well equipping a generator room was installed for backup power.

Lakewood Well No. 22 Project, Lakewood, CA – Managing the electrical design for well no. 22 pump upgrade. The design consists of replacing the old well pump VFD with new one and rewiring the new well pump.

Education:

B.S., Electrical Engineering, California State University, Long Beach, 1990

Registrations/Certifications:

Professional Electrical Engineer California, 1998, No. 15809

General Construction, Class B California, 2008, No. 777845

Contractor - C-10 Electrical, California Class C – Specialty 2000, No. 777845

Training and Certifications:

ETAP Electrical Power Modeling

Project Management I & II

Auto CAD 2005

GE and Allen Bradley PLC programming

GE/Intellution and Wonderware SCADA programming

Vapor eextraction and Groundwater Treatment

OSHA 8-hour Hazardous Waste Operations Annual Refresher Training, 2016

OSHA 8-hour Hazardous Waste Operations Site Supervisor Training, 1992

OSHA 40-hour Hazardous Waste Operations Training, 1989

Professional Affiliations:

Institute of Electrical and Electronics Engineers IEEE

Office:

Irvine, California

Years of Experience:

27

Years with Tetra Tech:

Eight

City of Paramount, Well 13 & 14, Paramount, CA – Managed instrumentation and control design for Well 13 and Well 14 chlorination system. The design included providing new PLC system to control chlorine and ammonia metering pumps. Provided P&ID, loop diagram, wiring schematic and instrumentation and control plans.

Well 21&22 Desalter Plant, Irvine Ranch Water District, Irvine, CA – Wells 21 and 22 Reverse Osmosis (RO) Treatment Plant is designed to remove solids from well water and provide potable water source. The design consisted of providing all design-build services to construct a fully operational reverse osmosis water treatment plant including, but not limited to: Pretreatment chemical systems, high pressure feed pumps, reverse osmosis treatment trains, membrane clean-in-place system, decarbonators, post treatment chemical systems, supervisory control and data acquisition, product water pump station, treatment plant building and electrical and instrumentation system. The RO Plant was sized to produce 6.27 mgd of water. Water will be treated to remove salts (TDS) and nitrates. Managed the electrical design of the electrical power and control system, preparing technical specifications, preparing engineer's cost estimate, preforming electrical power system studies that included load flow, short circuit and arc flash calculations, and integration with the city's SCADA system.

Loma Linda University Anderson No. 4 Well, Loma Linda, CA – Electrical Engineer responsible for creating electrical plans, specifications, electrical load schedules, panel schedules, conduit and wire sizing, electrical details, emergency standby generator sizing, creation of pump control schematics, drafting technical specifications, and preforming electrical power system studies that included load flow, short circuit, and arc flash calculations. The project design includes providing a new pump, a new PLC system to control well pump and providing lighting system.

Crooke Reservoir Electrical Upgrade, City of Santa Ana, Santa Ana, CA – Electrical Engineer for the design of the replacement of the existing motor control panels and switchboards for Crooke Reservoir pump station, Well 27 and Well 28.

Burris Pump Station, Orange County Water District, Fountain Valley, CA – Electrical Engineer for the design of the new Burris Pump Station which consists of four 1,750 horsepower vertical turbine pumps delivering a maximum flow rate of 200 cfs to the Santiago Basins from Burris Basin. Work consists of reviewing the Burris Pump Station construction phase shop drawings, performing design revision, and providing answers to RFIs.

Elizabeth Reservoir, Booster Pump Station and Well No. 29, City of South Gate, South Gate, CA – Engineering design services for a water storage tank and booster pump station and a water well with disinfection equipment. Electrical engineering services included three new 125 horsepower booster pumps and adding and installing new conduits and wires to the new pumps. Responsible for preparing plans, specifications, and load calculation to modify the facility's extensive distribution system. Site investigations were conducted to verify ratings, settings, and locations of equipment. Working with utility company to provide new service to the project.

City of Loma Linda, San Bernardino, CA – Upgraded old drinking water wells with large VFDs. Installed six-pulse and eighteen- pulse VFDs that varied in size from 200 hp to 800 hp. The design included upgrading electrical service, installing new switchboards and MCCs, installing harmonic filters, upgrading instrumentation and control system and reconnecting to the existing SCADA system.

TETRA TECH

Nicole Han, PE

Electrical/Instrumentation Design

Ms. Han is experienced in the electrical design of water and wastewater plants, system studies, power distribution, emergency power supply, motor and instrumentation control. Her projects include designing water and wastewater plants, desalination plants, lift stations, pump stations, drinking water wells, pipelines and order control systems.

EXPERIENCE

Mid-Basin Centennial Park, City of Santa Ana, Santa Ana, CA – Four injection wells are included in this project and will be constructed below ground vaults. Wells are proposed to inject 12 MGD of GWRS water into the principal groundwater aquifer approximately 1,200 feet below ground surface. Submersible backflush pumps will be installed within the injection wells. Electrical Engineer responsible for designing two shared facilities' power distribution, injection well's instrumentation and control, communication with the other sites and headquarters.

Well No. 7, City of Inglewood, Inglewood, CA – Electrical Engineer for designing power distribution, instrumentation control plans and specs. The project is to develop a ground water source of portable water.

Loma Linda University Anderson No. 4 Well, Loma Linda, CA – Electrical Engineer responsible for creating electrical plans, specifications, electrical load schedules, panel schedules, conduit and wire sizing, electrical details, emergency standby generator sizing, creation of pump control schematics, and drafting technical specifications. The project design includes providing a new pump, a new PLC system to control well pump and providing lighting system.

Elizabeth Reservoir, Booster Pump Station and Well No. 29, City of South Gate, South Gate, CA – Engineering design services for a water storage tank and booster pump station and a water well with disinfection equipment. Electrical engineering services included three new 125 horsepower booster pumps and adding and installing new conduits and wires to the new pumps. Responsible for preparing plans, specifications, and load calculation to modify the facility's extensive distribution system. Site investigations were conducted to verify ratings, settings, and locations of equipment. Working with utility company to provide new service to the project.

Crooke Reservoir Electrical Upgrade, City of Santa Ana, Santa Ana, CA – Electrical Engineer for the design of the replacement of the existing motor control panels and switchboards for Crooke Reservoir pump station, Well 27 and Well 28.

Education:
M.S., Electrical Engineering, Southern California University
Los Angeles, 2012

Training and Certifications:
Professional Electrical Engineer
California, 2015, No. 21429

Professional Affiliations:
Institute of Electrical and Electronics Engineers IEEE

Office:
Irvine, California

Years of Experience:
Four

Years with Tetra Tech:
Two

TETRA TECH

Cory Heggtveit
Local/State Health

Mr. Heggtveit has provided design engineering in various water and wastewater projects including domestic and reclaimed water pipelines, water main replacements, gravity sewer mains, pump stations, lift stations, reinforced concrete reservoirs, flow control facilities, recycled water customer conversions, and pressure reducing valve vaults. Responsibilities have included preparation of construction plans, specifications, and design calculations; assisted supervisors in preparing project memorandums.

Education:
B.S., Civil Engineering, California State University, Long Beach, 2009

Registrations/Certifications:
Engineer in Training, California, 2005, No. 121854

Office:
Irvine, California

Years of Experience:
16

Years with Tetra Tech:
16

EXPERIENCE

Mid-Basin Injection: Centennial Park Design Services, Orange County Water District, Santa Ana, CA – Design of four injection wells to be located within Centennial Park in the City of Santa Ana for Orange County Water District. In addition to the engineering services for the four injection wells, the project includes the design of the supply pipeline, backflush pipeline, bridge crossing, two shared facility sites, a monitoring well site, site improvements, and paving of park access roads and parking lots.

Irvine Desalter Project Potable and Non-Potable Well Drilling and Equipping, Irvine Ranch Water District, Irvine, CA – Design Engineer for the preparation of plans and specifications for the drilling and equipping of design of well drilling for five potable water wells and one non-potable water well. This included wellhead equipping for each well for both aboveground and belowground facilities. Also included in this project was modification to an existing non-potable water well.

Robertson's Ready Mix Recycled Water Pipeline and Conversion, Irvine Ranch Water District, Irvine, CA – Design Engineer for the design of 650 feet of 6-inch pipe, appurtenances and above ground flow meter assembly to serve Robertson's Ready Mix recycled water. The project also included assisting the District with evaluating the necessary on-site modifications and coordinating with County and State Health Officials.

Recycled Water Distribution System Expansion, RW Customer Retrofits, El Toro Water District, Laguna Woods, CA – Provided design services for over 200 irrigation meters within Laguna Woods Village, City of Laguna Woods and City of Laguna Hills. Work included preparing technical memorandums for each major customer, performing preliminary site irrigation spray tests, design of recycled water retrofit plans for each property parcel, submittal to State and County Departments of Public Health (DPH) for recycled water retrofit plan review of each property. Working closely with the El Toro Water District, State and County Departments of Public Health, and each of the retrofit customers was critical to the success of this project.

TETRA TECH

Paula Fell
CEQA/EIR

Ms. Fell has over 23 years of experience preparing environmental documentation and over 19 years in a senior management role. She has prepared and managed California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) documents including Initial Studies (ISs), Mitigated Negative Declarations (MNDs), Environmental Impact Report (EIRs), Environmental Assessments (EAs), and Environmental Impact Statements (EISs), for projects throughout California on behalf of federal, state, regional, and local agencies and private clients. Her expertise also includes data collection and analysis on environmental issues such as visual resources, land use, public services, biological resources, socioeconomics, recreation, and utilities.

Education:
MS, Environmental Sciences, California State University, 1993

BA, Biological Sciences, Kansas State University, 1981

Training/Certifications:
Association of Environmental Professionals Workshops

Office:
Irvine, California

Years of Experience:
23

EXPERIENCE

Long Beach Community College District, Unified Master Plan 2020 Supplemental Environmental Impact Reports, Long Beach, CA – Managed preparation of Supplemental Environmental Impact Reports for the Liberal Arts Campus and Pacific Coast Campus to account for changes to the Master Plan Improvements Program. Earlier efforts also included preparation and coordination of addendums to the Program Environmental Impact Reports for both the Liberal Arts Campus and Pacific Coast Campus Master Plans.

Long Beach Community College District, Conant Street Project Initial Study/Mitigated Negative Declaration, Long Beach, CA – Managed and prepared an Initial Study/Mitigated Negative Declaration for the acquisition of the property and buildings under an aggressive schedule in order to facilitate approval of the acquisition.

Santa Monica Community College District, Santa Monica College Parking Structure Project Initial Study/Mitigated Negative Declaration, Santa Monica, CA – Assisted with the preparation of the Initial Study/Mitigated Negative Declaration.

Santa Monica Community College District, Santa Monica College Liberal Arts Building Project Initial Study/Mitigated Negative Declaration, Santa Monica, CA – Assisted with the preparation of the Initial Study/Mitigated Negative Declaration.

Long Beach Unified School District, Polytechnic High School Auditorium AB 300 Project Initial Study/Mitigated Negative Declaration, Long Beach, CA – Managed the preparation of an Initial Study/Mitigated Negative Declaration and supporting notices. In addition, oversaw the preparation of air quality and noise technical documentation.

Long Beach Unified School District, Wilson High School Auditorium AB 300 Project Initial Study, Long Beach, CA – Managed the preparation of an Initial Study and supporting notices. In addition, oversaw the preparation of air quality and noise technical documentation.

Irvine Unified School District, Central Kitchen Project at Creekside Education Center Project Initial Study/Mitigated Negative Declaration, Irvine, CA – Managed the preparation of Initial Study/Mitigated Negative Declaration, and supporting notices for the project. In addition, supervised the preparation of air quality, noise, and traffic studies.

Long Beach Unified School District, Roosevelt Elementary School Project Environmental Impact Report, Long Beach, CA – Managed and prepared an Environmental Impact Report. Also managed the preparation of technical studies for air quality impacts, greenhouse gases emissions, noise impacts, and historic resources.

Los Angeles Unified School District, South Region High School No. 8 Project Environmental Impact Report, Los Angeles, CA – Managed the preparation of the Environmental Impact Report. Also managed the preparation of technical studies for air quality impacts, greenhouse gases emissions, noise impacts, and hazards and hazardous materials.

Los Angeles Unified School District, Central Region Elementary School No. 20 Project, Environmental Impact Report, Los Angeles, CA – Managed preparation of the Environmental Impact Report. Also managed the preparation of technical studies for air quality impacts, greenhouse gases emissions, noise impacts, hazards and hazardous materials, and scoping meeting PowerPoint presentation.

Hesperia Unified School District, El Centro Elementary New School Project Initial Study/Mitigated Negative Declaration, Hesperia, CA – Managed and prepared an Initial Study/Mitigated Negative Declaration. Provided cooperative support during the District's change in facilities directors, ensuring project completion without any delays.

Montebello Unified School District, Joseph Gascon Elementary School Modernization Project Initial Study/Mitigated Negative Declaration, Montebello, CA – Managed preparation of an Initial Study/Mitigated Negative Declaration.

Beverly Hills Unified School District, Beverly Vista Elementary School Modernization Project Environmental Impact Report, Beverly Hills, CA – Assisted with the preparation of the Environmental Impact Report.

Pasadena Unified School District, Pasadena Unified School District Modernization Program Initial Studies, Pasadena, CA – Prepared 33 Initial Studies for modernization of 33 schools.

Orange County Flood Control District, SARI Abandonment and Pipe Severing Project SEA/Environmental Impact Report Addendum, Orange County, CA – Assisted with the preparation of the Supplemental Environmental Assessment/Environmental Impact Report and specifically prepared analysis for several resource topics including: water resources and hydrology; earth resources; aesthetics; safety and hazards; and public services and utilities.

TETRA TECH

Astrid Fleischer, PE

SCADA

Astrid Fleischer is an electrical and controls systems engineer with 26 years of experience in water and wastewater treatment, capital improvement and industrial control projects. Ms Fleischer's electrical and controls design experience includes projects in California and overseas involving Modicon Quantum Automation Platform, Siemens Simatic PLCs, Allen Bradley RSLogix5000 programming, installation and support services for Wonderware InTouch HMI, Wonderware Active Factory, Wonderware Historian, installation and maintenance of Marathon Endurance VTvirtual Redundant Server Systems, SNMP Network Management implementation and integration into Plant HMI and network design, configuration and troubleshooting. Additionally, Astrid is proficient in standard configuration of Schneider Electric Network Infrastructure Devices (Fiber Optic Repeaters, Switches), interface programming for Profibus DP and design and integration of Process Control Application interfacing with Variable Frequency Drives (VFDs).

EXPERIENCE

SCADA System Project, West Basin Municipal Water District, Carson, CA – I&C Engineer – Specified the project's network equipment and technology (4G cellular) as well as the SCADA application software (SCADA Expert ClearSCADA) for the new SCADA network.

Otay Water Treatment Plant, City of San Diego, CA – Project Engineer – Plant upgrade included chlorine dioxide generator and contactor, pumped backwash, new flocculation and sedimentation basin, replacement of filters, SCADA system upgrade. Designed and programmed the PLC and the Wonderware HMI application for filter level control and automated backwash sequence. Developed a comprehensive model of the plant in PICS Simulation Software to use for an in depth system test and simulation. Simulation of all IO points and modeling of all controlled systems reduced start-up time by an estimated 80 percent.

Pyrite Canyon Treatment Facility, State of California, Department of Toxic Substances Control, Glen Avon, CA – I&C Engineer – Reviewed Instrumentation & Control and Electrical Submittals from vendor supplied packaged systems such as filter presses, bag presses, air compressors, booster pumps, inclined plate clarifiers, flocculating clarifiers and others.

Alamitos Barrier Telemetry System Upgrade, County of Los Angeles Department of Public Works, Los Angeles, CA – I&C Engineer – Specified the project's Siemens S7-1200 control system and network equipment. Designed the project's control and instrumentation panels including panel load calculations and design of the photovoltaic power supply for the control panels. Prepared project documents such as conduit schedules, project drawings and project specifications.

Education:

Professional Engineer in Control System Engineering (PE), California

Bachelor of Science Electrical Engineering University of Nuremberg, Germany

Vocational College for Electrical Engineering and Data Systems Technology Erlangen, Germany

Registration/Certification:

Registered Professional Engineer in Control Systems, California No. CS 7440

Office:

Irvine, CA

Years of Experience:

26

Years with Tetra Tech:

Two

Key Areas of Experience:

Process control design, implementation, start-up and maintenance services

Project management, process control review and consultant services

Project Lead Engineer

Programming, installation and support services

EXHIBIT B

TETRA TECH

EXHIBIT A - SW
2018
HOURLY CHARGE RATE AND EXPENSE REIMBURSEMENT SCHEDULE

Project Management	
Project Manager 1	$210.00
Project Manager 2	$240.00
Sr Project Manager	$305.00
Program Manager	$305.00
Principal In Charge	$305.00
Engineers	
Engineering Technician	$37.00
Engineer 1	$96.00
Engineer 2	$115.00
Engineer 3	$130.00
Project Engineer 1	$140.00
Project Engineer 2	$155.00
Sr Engineer 1	$170.00
Sr Engineer 2	$175.00
Sr Engineer 3	$210.00
Principal Engineer	$300.00
Planners	
Planner 1	$104.00
Planner 2	$115.00
Sr Planner 1	$125.00
Sr Planner 2	$151.00
Sr Planner 3	$175.00
Designers & Technicians	
CAD Technician 1	$65.00
CAD Technician 2	$75.00
CAD Technician 3	$90.00
CAD Designer	$100.00
Sr CAD Designer 1	$125.00
Sr CAD Designer 2	$145.00
CAD Director	$150.00
Survey Tech 1	$50.00
Health & Safety	
H&S Administrator	$95.00
Sr H&S Administrator	$115.00
H&S Manager	$145.00

Construction	
Construction Project Rep 1	$78.00
Construction Project Rep 2	$85.00
Sr Constr Project Rep 1	$100.00
Sr Constr Project Rep 2	$115.00
Construction Manager 1	$165.00
Construction Manager 2	$185.00
Construction Director	$233.00
General & Administrative	
Project Assistant 1	$67.00
Project Assistant 2	$75.00
Project Administrator	$95.00
Sr Project Administrator	$120.00
Sr. Graphic Artist	$150.00
Technical Writer 1	$97.00
Technical Writer 2	$124.00
Sr Technical Writer	$155.00
Information Technology	
Systems Analyst / Programmer 1	$77.00
Systems Analyst / Programmer 2	$115.00
Sr Sys Analyst / Programmer 1	$130.00
Sr Systems Analyst / Programmer 2	$196.00
Project Accounting	
Project Analyst 1	$90.00
Project Analyst 2	$114.00
Sr Project Analyst	$155.00

Reimbursable In-House Costs:	
Photo Copies (B&W 8.5"x11")	$ 0.15/Each
Photo Copies (B&W 11"x17")	$ 0.40/Each
Color Copies (up to 8.5"x11")	$ 2.00/Each
Color Copies (to 11"x17")	$ 3.00/Each
Compact Discs	$10/each
Large format copies	$0.40 S.F.
Computer Usage: not to exceed	$3.55/hour
Mileage-Company Vehicle	$0.80/mile
Mileage-POV	$0.56/mile*

*current GSA POV mileage rate subject to change

All other direct costs, such as production, special photography, postage, delivery services, overnight mail, printing and any other services will be billed at cost plus 10%.
All sub-consultant work will be billed at cost (no mark-up).

NOTE: Rates subject to change annually.

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (GENERAL ENGINEERING)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between Huitt-Zollars, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of nine (9) consultants selected to provide services for general engineering projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $2,000,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of

performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to

Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees, for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council

City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: Huitt-Zollars, Inc.
2603 Main Street, Suite 400
Irvine, CA 92614
Attn: Miguel Hernandez, PE, PLS, QSD, Project Manager

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without

the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

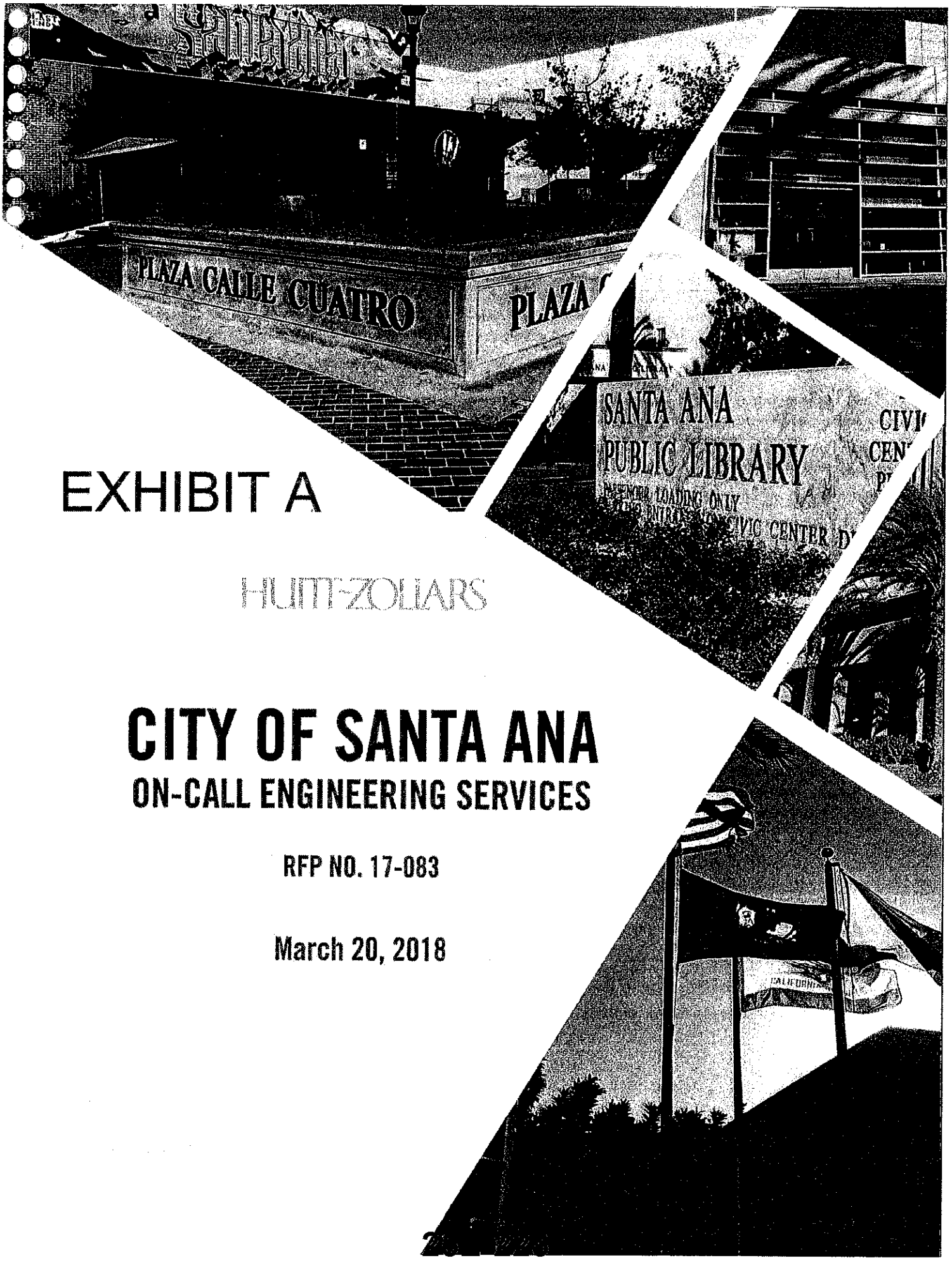


EXHIBIT A

HUITT-ZOLLARS

CITY OF SANTA ANA

ON-CALL ENGINEERING SERVICES

RFP NO. 17-083

March 20, 2018

OUR *COMMITMENT* IS TO UNDERSTAND THE NEEDS OF OUR CLIENTS AND TO MEET THOSE NEEDS BY DELIVERING PROFESSIONAL SERVICES WITH THE HIGHEST LEVEL OF *QUALITY* AND *INTEGRITY*.

HUITT-ZOLLARS

2603 MAIN STREET SUITE 400
IRVINE, CA
P: 949.988.5815 • F: 949.988.5820
www.huitt-zollars.com

A COVER LETTER

March 20, 2018

Mr. Armando Fernandez
City of Santa Ana, Public Works Agency
20 Civic Center Plaza; 3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

RE: Qualifications Proposal for RFQ No. 17-083
City of Santa Ana On-Call Engineering Services

Mr. Fernandez,

Huitt-Zollars, Inc. (HZ) has been serving in Orange County for more than 30 years and looks forward to continuing this relationship by supporting the City of Santa Ana with On-Call Engineering Services. HZ is a full-service Architecture-Engineering firm with qualified staff capable of completing the assignments described in the Water Resources and General Engineering (Options A and B).

Our recent project completions and ongoing projects highlighted in this proposal demonstrate our team's direct experience and well planned cost-effective approach with Public Works assignments. Our team has served Orange, Anaheim, Fullerton, Huntington Beach, Laguna Hills, Laguna Niguel, Mission Viejo, Santa Ana, San Clemente, San Juan Capistrano, Yorba Linda, Long Beach, Chino, Fontana, Ontario, Calabasas, and Thousand Oaks.

Our Project Manager **Miguel A. Hernandez**, PE, PLS, QSD brings a proven record in multi-disciplinary engineering assignments with Public Works entities. He served as Resident Engineer in the Mojave Solar Project that built two power plants. The power plants required sewer and water improvements including rehabilitation of several existing water wells. He also worked on the award-winning La Pata Avenue Gap Closure for Orange County Public Works. Miguel understands the importance of proactive communication and quality control in the timely delivery of a project. He will be assisted by other in-house professionals showcased in the team experience section of this proposal.

Our team is dedicated to providing high-quality products to the City of Santa Ana. This proposal is signed by an officer with authority to bind the company. Should you have any questions, please feel free to contact Miguel Hernandez at mhernandez@huitt-zollars.com or at (949) 988-5815 Extension 11169.

Sincerely,

HUITT-ZOLLARS, INC.

Marc Haslinger, PE
Office Manager / Vice-President
CA PE No. 49158

Miguel Hernandez, PE, PLS, QSD
Project Manager
CA PE No. 61378

B CONTRACT AGREEMENT

Huitt-Zollars has read and can execute the standard professional services contract included with the REQUEST FOR PROPOSALS (RFP) FOR ON-CALL ENGINEERING SERVICES RFP NO.: 17-083 issued on February 22, 2018. Upon request Huitt-Zollars will provided documents to comply with:

- EVIDENCE OF FINANCIAL CAPACITY
- LICENSES & PERMITS
- INSURANCE

All City of Santa Ana projects will be implemented in compliance with the City's policies and regulations. Huitt-Zollars is encouraged by the City's affirmative action program and will identify teaming opportunities with Minority Business Enterprises (MBE) that are approvable by the City.

C FIRM & TEAM EXPERIENCE

For more than 40 years, Huitt-Zollars, Inc. has provided professional services to support all types of right of way, design, hydrographic, and construction projects including work successfully completed for agencies such as City of Santa Ana, Orange County Transportation Authority, City of Santa Fe Springs, and the City of Downey.

Huitt-Zollars, Inc. is a full-service engineering and architectural firm with 19 regional offices. Established in 1975, the firm has a staff of more than 500 professional, technical, and support personnel with diversified skills, capable of handling highly complex multidiscipline and concurrent assignments. The firm is ranked as a top design firm by Engineering News-Record and Architectural Record.

Our full-service approach gives us a strong advantage in coordinating work on complex assignments. Our hands on management by the principals of the firm results in a client-directed sense of urgency and commitment to quality, schedule, and budget. It also affords coordination beyond the prime/consultant organization because in house lines of communication are firmly established and easy to maintain. This arrangement also provides a single focus for the project, resulting in smoother progression; efficient designs that balance function, economics and aesthetics; and construction documents that incorporate our client's objectives. Huitt-Zollars can take a project from start to finish, from initial study through design process, to construction management. With the Huitt-Zollars' engineering department's base of operations located in Irvine, our firm will be able to respond efficiently to meet Santa Ana's needs.

PARKS & TRAILS

- Walnut Grove Park
- Anaheim Cove Recreation Trail
- West San Gabriel River Trail
- Eastside Community Park Phase 2
- La Quinta Park
- Liberty Park Improvements
- Adelana, Byerrum & Valencia Park Renovations

ON-CALL CONTRACTS

- City of Santa Ana
- City of Huntington Beach Water Quality
- Riverside County FCD
- City of Mission Viejo
- City of Yorba Linda
- City of Santa Fe
- City of Downey
- City of Long Beach
- Santa Margarita Water District GIS
- OC Public Works
- Los Angeles County Department of Public Works

IMPROVEMENT PLANS

- Lost Hills/US 101 Interchange
- Montalvo Canyon Drainage Study
- El Camino Real/Paseo Peregino Wall
- Street of the Golden Lantern Median Reductions
- Maintenance Service Center Solar Canopies

AWARD WINNING PROJECTS

ORTEGA HIGHWAY (SR 74) ROAD WIDENING
- Partnership Award by the Orange County Business Council

LADERA RANCH STORM WATER SYSTEM
- Project of The Year Award

SAN JOAQUIN HILLS TRANSPORTATION CORRIDOR
- Project of the Year Award

LAGUNA BEACH STAIRWAY AND STORM DRAIN IMPROVEMENTS
- Engineering Public Works Award

SUBCONSULTANTS

Through teaming strategies, HZ has added many services including geotechnical engineering, and sub-surface investigations. Our proposal includes local MBE Firms we have worked with in the past.

C BELOW SUBSURFACE IMAGING

C Below Subsurface Imaging (C Below) offers professional locating and mapping services throughout Southern California. They locate horizontal and vertical locations of underground utilities including water, gas power, waste, communications, and cable/TV. Many different methods are used to locate these utilities including GPR, CCTV, utility locators, electromagnetic locators, and potholing.

Services:

- Subsurface Investigation
- Locating
- Mapping
- Utility Trenching

NINYO & MOORE (MBE)

Ninyo & Moore, a California Corporation, is a minority-owned, multidisciplinary consulting firm that provides high-quality geotechnical and environmental consulting services. The firm was incorporated in 1986 to provide consulting services in geotechnical engineering, construction inspection and testing, engineering geology, hydrogeology, hazardous waste remediation and environmental assessment. The firm's more than 390 professionals includes experienced and registered geotechnical engineers, civil engineers, environmental engineers, engineering geologists, hydrogeologists, environmental scientists, certified technicians and field inspectors, and hazardous waste and regulatory compliance specialists Ninyo & Moore serves its clients through offices in Los Angeles, and Irvine.

Services:

- Geology
- Geotechnical Engineering
- Water Well Engineering

NV5 BUTSKO UTILITY DESIGN

Butsko Utility Design, Inc. (Butsko) is the single source for dry utility - electrical, telephone, cable television, fiber optics and natural gas planning, management, design and engineering needs. Since 1994, Butsko has effectively contributed their skills to projects of all types, sizes and geographic regions including master planned communities, municipal improvements, commercial/industrial centers, residential subdivisions/developments, and electric substation site design.

Services:

- Utility Planning and Management
- Utility Construction Coordination

ECORP CONSULTING, INC

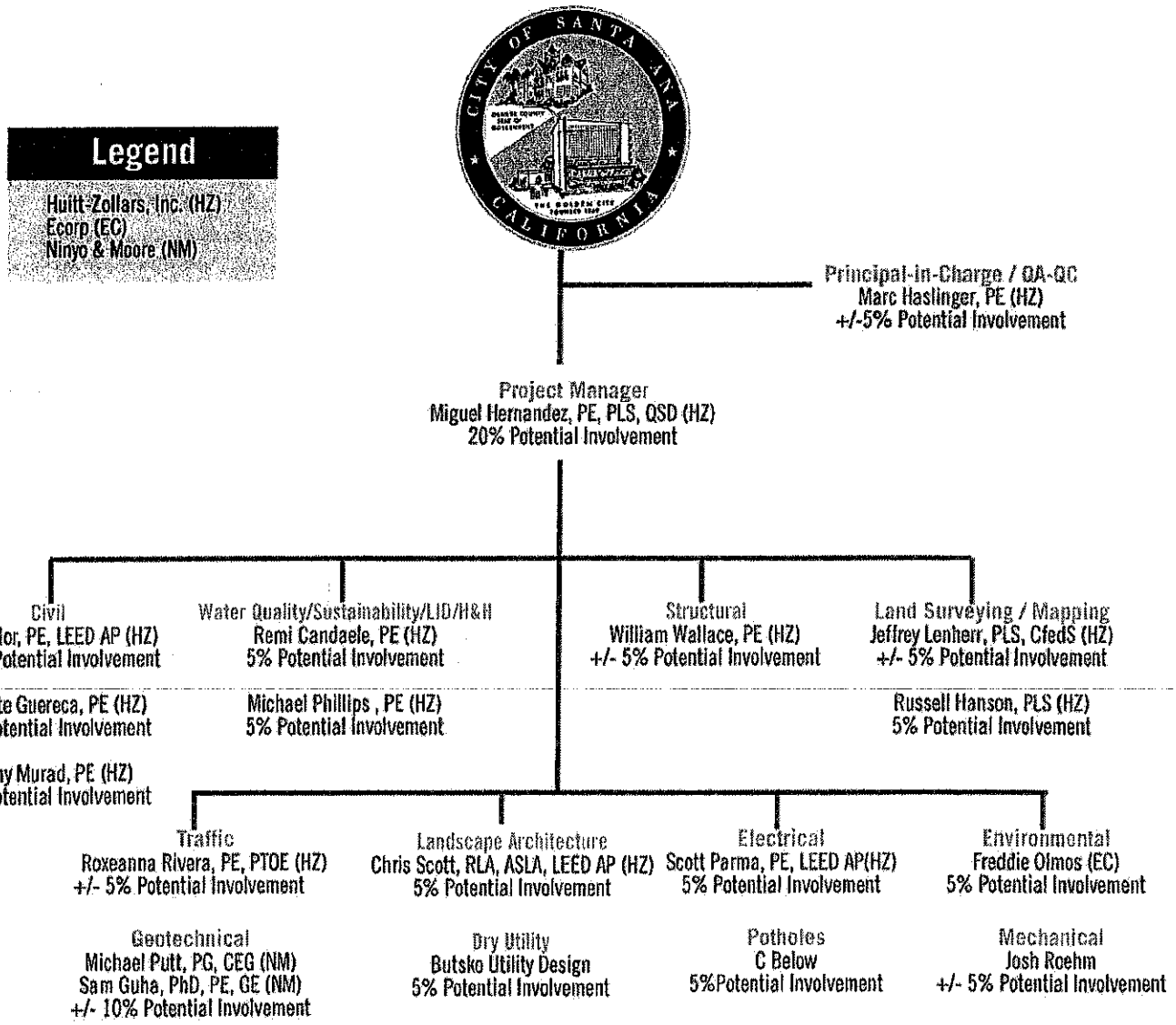
ECORP is experienced in the preparation of Preliminary Environmental Study (PES) forms for projects per Caltrans' Local Assistance Procedures (LAPM). ECORP has used the PES form to consult with Caltrans/FHWA to determine the appropriate NEPA amd CEQA document for a project. ECORP staff have prepared Categorical Exclusions/Exemptions (CE/CEs), Environmental Assessments (IS/EAs) and Mitigated Negative Declaration/Finding of No Significant Impacts (MND/FONSIs) for a series of projects with Caltrans involvement. ECORP has experience wokring on CEQA/NEPA,biological, and cultural projects for several districts, including the City of Santa Ana.

Services:

- Environmental Services

ORGANIZATION CHART

The principals and professionals you see in the organization chart will be the same professionals you will see throughout the life of the project. Keeping the continuity of information and decision-making funneled through our professionals, is critical to project success. The Huitt-Zollars' design team will be further supported by the current staff of over 500 professionals, committing our depth of resources to respond to your project. Our Project Manager will act as the single point of contact.



D UNDERSTANDING OF NEED

The City intends to retain civil engineering consultants from a pre-qualified list to provide services for a variety of projects on an as-needed basis. Projects may include:

TASK	HUITT-ZOLLARS	CONSULTANT
Civil Engineering	X	
Construction Documents (PS&E)	X	
Construction Administration	X	
Hydraulics Modeling (Storm, Water, & Sewer)	X	
Street Improvements and Rehabilitation	X	
Utility Design	X	
Right-of-Way Studies	X	
Sustainable Infrastructure Services	X	
Water Well Design	X	X
Dry Well Design	X	
Storm Water Treatment	X	
Sewage Lift Station	X	
Pressure Control Systems	X	
Financial and Economic Consulting Engineering	X	X
Grant Writing Services	X	X
Pavement Management	X	X
Fire Protection	X	
Special Engineering Studies	X	X
Regulatory Compliance	X	
Transportation/Traffic	X	
Signal Modifications	X	X
Traffic Studies	X	X
Signing and Striping	X	
Bike Path Design	X	
Structural Engineering	X	X
Land Surveying	X	
Mapping	X	
Construction Staking	X	
Landscape Architecture	X	
Construction Management	X	
Mechanical Engineering	X	
Electrical Engineering	X	
Geotechnical Engineering		X
Environmental/Planning Support		X
Instrumentation and Control Systems		X

More specifically for this proposal the City is seeking submittal of qualifications for two options. Design and construction support services for:

OPTION A: WATER RESOURCES

- Rehabilitation of a 30 year old water well
- 1500 LF of domestic water design (12" PVC)
- 600 LF of sewer design (15" Material TBD) with arterial street

PRELIMINARY ANALYSIS:

1. *Sewer Material:* Many factors should be considered when determining the best material for sewer construction. These include:

   - » Corrosion
   - » Abrasion
   - » Strength
   - » Durability
   - » Weight
   - » Imperviousness
   - » Cost
   - » Hydraulic Efficiency

   Of the many materials available each offers a set of unique advantages and disadvantages. For a 15" pipe, the material most commonly used in local cities under an arterial roadway would be vitrified clay pipe (VCP). It performs well in typical urban loading conditions and maintenance departments are well prepared to work with it. Our experience would have us assume VCP will be high on the list of options.

2. The City has determined that the existing water well performance dropped by 35%. This percent is above the 25% rule of thumb that would indicate it's time for rehabilitation. The RFP mentions that the water well is a sand producers but does not indicate if the sand production has increased. It is our assumption that the City has concluded that the sand production rate is within an acceptable range and that the information is meant to determine that the aquifer type is "Sandstone." The most prevalent water well problems for this type of aquifer would be:

   - FISSURE PLUGGING - CASING FAILURE - SAND PRODUCTION - CORROSION

   The anticipated maintenance frequency for a sandstone aquifer would average 8 years. If the well has dropped 35% over 15 years this is within the anticipated limits and sand production has not increased, casing failure is unlikely. It is also our assumption that surface equipment has been evaluated and that the well was constructed with corrosion in mind. This leaves plugging as the likely cause for loss of production! We anticipate that further evaluation will lead to the following rehabilitation methods:

A. Aqua Freed CO2 Injection: Effective at removing mineral incrustation, biological fouling, and physical plugging. Provides extensive geological penetration, it is 100% green, and environmentally sound with no adverse chemical waste stream.

B. Chemical and Acid Cleaning: Used in Conjunction with pumping and surging it is effective at dissolving minerals and impacting biological activity and physical plugging of sands. The chemical solution is tailored specifically for the plugging problem. It offers limited geological formation penetration and produces a waste stream of spent chemicals that must be neutralized and disposed of properly.

OPTION B: GENERAL ENGINEERING (OTHER THAN WATER RESOURCES)

- Conceptual street widening and rehabilitation including parkway improvements
- New bike lane
- Intersections are complete

PRELIMINARY ANALYSIS:

1. *Exclusions*
   - » Traffic signals and median design
   - » Traffic Report
   - » Right-of-Way Services

2. *Assumptions*
   - » Water, sewer, and dry utilities will be protected in place
   - » Storm drain will require retrofit to new curb and gutter alignment
   - » Must meet water quality requirements
   - » Manholes and valves will be adjusted to grade
   - » Street lights and illumination design required
   - » Sound wall required

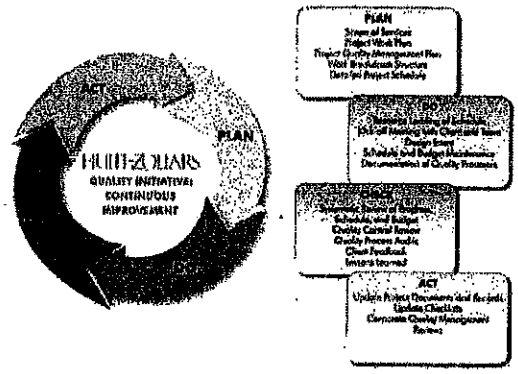
Our QA/QC program sets a procedure that ensures deliverables for both options A and B meet your expectations. As an ISO 9001:2015 compliant firm, the Quality Management Program serves as the foundation for continuous improvement in all aspects of our work. For our staff Quality Assurance is more than just a program that ensures proper internal review and documentation. It is a frame of mind with which we approach our work. The procedure will help us deliver high quality plans at 30%, 60%, and final submittal.

Our quality assurance program comprises all activities necessary to ensure that projects perform according to expectations. The QA program places emphasis on planning control, design control, computer software control and records. We institute our QA program through early involvement of experienced members. This process begins with our proposal, is formalized by project kick off, and continues through project close out via our coordination. The program will ensure that an acceptable level of quality is achieved and maintained in each design.

We are proposing a highly-specialized team of registered professionals with a history of delivering on similar projects. A team with a bench strength unmatched in the industry. Our project manager will be assisted by the principal-in-charge and supported by key personnel. The staff we are committing is organized so that redundant leadership is available in critical aspects of design. Our team offers additional value because it will rigorously analyze a design to provide sustainable cost effective solutions.

ADVANCEDESIGN – To effectively incorporate advance innovative designs into projects, it is imperative to select a team that has been properly prepared. Our team approach will explore design from all sides, meet challenges from new angles, and help uncover perspectives that are often overlooked. Our design process is interactive and responsive. It engages all stakeholders relevant to the success of the project. We have assembled the right team!

At the proposal stage overall project direction is determined, the strategy for project is specified, and general methodology is developed. Milestones are set with measurable timelines for checking progress on budget and scope completion. After award, our project manager prepares a project specific **Work Plan.** The Project Work Plan adds detail to the proposal scope of work, identifies the project team assignments and responsibilities, the project budget and schedule, and information regarding design criteria, inputs and constraints for the project. The Plan also specifies the governing design codes, guidelines and CAD standards.



The Project Work Plan includes a Project Quality Management Plan (QMP) that is specific for each project. The QMP identifies the QC Manager and constructability reviewer. It includes project deliverables, design tasks, and schedules in-house reviews. The QMP verifies that the all requirements are met. It is based on a 4-step process of Plan – Do – Check – Act. By working on continuous improvement we ensure that our services provide added value.

Work Breakdown Structure - Huitt-Zollars will develop a Work Breakdown Structure (WBS) that identifies specific tasks needed to accomplish the proposed scope of services. We will determine the level of effort required for each discipline to complete each task under the WBS. This effort is used to establish the proposed compensation for the project and helps overcome potential budget challenges.

Detailed Project Schedule – Several characteristics comprise our approach to developing and maintaining a realistic schedule. This starts with participation of the entire project team. It is imperative that the schedule be sensitive to the demands of every discipline and client review periods. A schedule must account for stakeholder considerations and include time contingencies for resolving unforeseen variables. Our PM is assigned the responsibility of developing and tracking the project schedule. Our WBS format allows our PM to review budgets against associated milestones. We require that the PM update the Principal with project progress weekly. This results in a sense of urgency that will benefit each project.

Quality project delivery can be impacted by many things. However, there are five areas that will demand our focus.
We will design both projects A and B as the City intended to design them. This will be accomplished by listening and clearly understanding your expectations. We will confirm our understanding in our negotiated scope and verify that we are on track by conducting design review meetings on a regular basis from planning through final design.

- **We will design both projects A and B as the City intended to design them.** This will be accomplished by listening and clearly understanding your expectations. We will confirm our understanding in our negotiated scope and verify that we are on track by conducting design review meetings on a regular basis from planning through final design.
- **We will meet with sub-consultants to ensure their scope is complete.**

- **We will design the project in accordance with your schedule.** This begins with development of a detailed schedule that includes critical path, agency review times, and milestones. Progress will be reviewed during our design meetings.
- **We will design a project that is within your budget.** We will develop a project budget that includes contingency, probable construction cost, and consultant fees. The probable construction cost will be prepared using current unit prices and submitted for review.
- **We strive to minimize non-client initiated change orders during construction.** Our QA/QC procedure implements a constructability reviewer. It helps us foresee and resolve potential issues before the bidding phase.

Our PM will establish the framework and ensure that we capture your expectations for quality prior to publishing our plan.

Existing Utility Inventory - Every project presents its own special design challenges. The most frequent challenge related to existing utilities we would expect in the City of Santa Ana. Is that improvement to utilities located in developed areas will generally affect or be affected by other utilities. Through experience we have learned that existing records may be non-existent, inaccurate, or lack information. This is why all projects require an effective existing utility locating approach. A precise utility inventory will:

- Equal a high quality design
- Avoid conflicts during construction
- Prevent utility interruptions
- Promote public safety
- Avoid construction change orders
- Prevent construction delays

With HZ, utilities will be located, verified, and compiled into a V8i CADD file using a "Four Tier Approach."

TIER I: SITE INVESTIGATION - Huitt-Zollars conducts a cursory site investigation that includes pictures used to formulate the scope of services. The information gather identifies utility purveyors in the project vicinity and assesses probable challenges.

TIER II: GATHER RECORD DATA - Huitt-Zollars request records from utility purveyors in the project vicinity. The City of Santa Ana will provide information in its possession relevant to the preparation of the project plans. Record information will be reviewed and compiled into a V8i CADD file. The information is further verified during the topographic survey.

TIER III: TOPOGRAPHY SURVEY – One week prior to surveying, HZ will contact Dig-Alert USA with a project exhibit to request that existing utilities be marked within the project limits. Our survey department will capture utility markings, visible surface utility features, and dip manholes as necessary. The survey shots will be compiled with the record data and used to verify utility locations, inverts, size, and flow direction. The information will help our civil team foresee potential challenges during design.

TIER IV: SUB-SURFACE INVESTIGATION - The data collected in previous tiers is used to arrive at possible utility conflicts during preliminary design. Our goal is to resolve each conflict via good research and design. But we must also prepare with a set aside budget for further sub-surface investigation shall it be necessary. A task sets aside a budget for potholing cost and incidentals. The investigation is kicked off after preliminary design so that the findings help improve the level of quality of future submittals.

Environmental Assessment – Our assumption for both project options is that the work limits are within areas with existing infrastructure. Small improvements of this nature typically qualify for environmental exclusions but if the work requires a negative declaration. Our first step would be to research existing environmental filing(s). There after our consultant and civil team would assist the City of Santa Ana with supporting studies and documentation to comply with CEQA and/or NEPA. We have assumed exclusions have been filed for both options A and B.

Topography - HZ is leading the industry with fixed wing aerial drone surveying. The new technology has a perfect platform in topography. With on board RTK the data will generate an accuracy that matches conventional aerial photography but a picture quality that is unmatched. It allows for quicker delivery and data control at a competitive fee. The data would be supplemented with a field survey(s) and tied to the most appropriate datum. HZ will acquire necessary permits to perform aerial surveys via drones. Our survey department would also provide legal descriptions, if required. Providing plans, specifications, and estimates (PS&E) for engineering projects is the backbone of our Irvine branch. We are familiar with local, state, and federal codes and regulations. This ensures that the design is in conformance with established guidelines. We are also experience with preparation of special provisions. We have been serving Southern California for over 30 years this includes projects with the City of Santa Ana. We are familiar with the City's criteria for acceptance of plans.

Encroachment – Potential encroachments would be identified in the proposal stage. The work to coordinate, design, provide temporary easements, etc. would be included in the fee proposal. Our goal during design is to make every attempt possible to avoid impact to adjacent properties but it is not always possible. With options A and B we have assumed that all work will fall within City controlled property and that encroachment is not necessary.

Water Well Expertise – Our proposed project team has a history of successfully delivering water well design services. Our Bakersfield National Cemetery Project constructed a water well for domestic and irrigation use. Our proposed PM, Mr. Hernandez, rehabilitated several water wells that were used for construction water. The same water wells were later used to feed a cooling system for the Mojave Solar Project.

Utility Services – Our project experience offers many projects with sewer, water, and storm drain design. We have also provided dry utilities coordination. We are currently working on projects that install and/or retrofit utilities.
Roadway Design Specialists – Our project team has provided roadway design services for urban, rural, primary, secondary, and major roadways. We are equipped to address all option B aspects including:

- Conceptual Design Alternatives
- Utility relocations/adjustments
- Parkway Landscaping
- Sound Wall and Retaining Walls
- Drainage
- Storm Water Management
- Rehabilitation
- Final Design PS&E packages
- Bike Path

Traffic Engineering – We offer complete traffic engineering services. HZ has completed hundreds of traffic engineering projects. Our traffic engineering staff are experts in all aspects of traffic engineering and operations. This includes:

- Signing and Striping
- Temporary Traffic Control
- School zones
- Pedestrian Safety
- Bicycle Safety
- Parking, access, and circulation
- Traffic Calming Plans

Traffic Control – Option B would include signing and striping for proposed improvements. The signing and striping would consider the proposed bike path. Both project will require temporary traffic control during construction. Temporary traffic control could be deferred to construction phase or it could be included with construction documents.

Hydrology and Hydraulics Analysis – Option B would include a hydrology and hydraulics analysis that assess drainage improvements.

Water Quality Compliance
WQMP – In accordance with MS4 Permit Guidelines
SWPPP - Prepares PRDs in accordance with the requirements set forth in the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The SWPPP may also be deferred to the construction phase.

Geotechnical Recommendations – Our consultant will provide the required analysis to determine the street section thickness, sub-surface soils classification and condition, evaluate soil properties, provide geotechnical parameters, trench stability requirements, and backfill recommendations. We will coordinate with the City to make sure quality and durability are not compromised.

Estimates – HZ will generate quantity takeoffs and an opinion of probable construction cost for proposed project improvements. Cost estimates shall include construction, engineering, inspection, administration, right-of-way, and contingency. The estimate shall tie the unit price to a cost index and provide a format that is easily updated or revised. Bid prices from recent city project shall be reviewed to verify unit prices.

Specifications – HZ will utilize the City of Santa Ana standard bid specifications and edit them to fit both project requirements. This will include a bid sheet showing the anticipated project quantities.

Construction Administration Services
1. Bid Support – Assist City with bid documents, attend bid meeting, and provide bid support.
2. Construction Support – Attend pre-construction meeting, provide ongoing support, and attend construction meetings as required.
3. Project Close Out – Utilize contractor redlines for as-built plans to prepare record plans in Micro-Station V8i CADD and pdf format.

Client Satisfaction – Huitt-Zollars achieves client satisfaction by dedicating a concise and experience team that will deliver on schedule and within budget. A key component is effective communication that begins with listening to the City's ideas, concerns, and goals. Our status reports summarize discussions, provide follow up action items, and set dates for follow up items. We will create a project work plan that includes that includes all critical tasks to deliver a design that meets expectations. We will integrate ourselves via meetings, emails, and conversations so that we become an extension of the City's vision for the project. We will attend community meeting to help gain acceptance.

E PROJECT EXPERIENCE

LA PATA AVENUE GAP CLOSURE & CAMINO DEL RIO EXTENSION

Orange County, California (COMPLETED 2017)

Huitt-Zollars prepared PS&E and right-of-way documents to close an existing gap in Orange County's Master Plan of Arterial Highways between Ortega Highway and the City of San Clemente. This 3.7 mile long, $72 million project was comprised of critical elements that came together for the project's success: working within the Prima Deshecha Landfill and designing controlled access to the landfill; widening an existing section of roadway that must remain in operation to serve the landfill and adjacent high school; and pioneering a new roadway through undeveloped, mountainous terrain with final roadway grades up to 7%. Huitt-Zollars overcame multiple challenges associated with the following critical elements: moving 15 million cubic yards of earth; performing landslide remediation; mitigating effects of constructing the roadway through a former landfill area and relocating more than one billion pounds (850K cubic yards) of municipal solid waste; relocating two steel lattice electrical transmission towers; actively communicating with impacted communities; and responding to numerous environmental mitigation measures that must be implemented during design and construction. Challenges were also associated with constructing deep drainage culverts, storm drainage systems and water quality basins, two cast in place bridge overcrossing and five 30-foot diameter steel multi-plate tunnel undercrossings. Installed approximately 3,000 LF of sewer and domestic water line.

The project included installation of approximately 3,000 LF of sewer and domestic water line and construction/extension of 22 cross culverts beneath the future roadway and a substantial roadway storm drain infrastructure comprised of more than 15,000 linear feet of reinforced concrete pipe; ranging in size from 18 to 108 inches in diameter. The roadway storm drain infrastructure segregates roadway runoff from offsite drainage areas in order to facilitate treatment of roadway impervious surfaces. To meet Orange County criteria and NPDES requirements, a total of six combined basins (to address water quality, hydromodification, and detention) were included in the project to address pollutants of concern and meet LID requirements. Flood control requirements are met by providing additional peak flow detention storage (over ten acre-feet) in these basins.

RELEVANT DESIGN COMPONENTS:

- *Sewer and Domestic Water*
- *Road Widening*
- *Gap Closure*
- *Retaining Walls*
- *Bridges and CSSP*
- *Design, Geometrics, PS&E*
- *Hydrology & Hydraulics*
- *Bridge Computer Programs*
- *Right-of-Way*
- *Value Engineering*
- *Landfill Engineering*
- *Pavement Rehabilitation & Overlay*
- *Geotechnical*
- *Storm Drain*
- *Minor Structures*
- *Traffic Signals*
- *Traffic Control/Construction Staging*
- *Signage & Striping*
- *Construction Support*
- *Utility Coordination & Relocation*

CLIENT CONTACT:

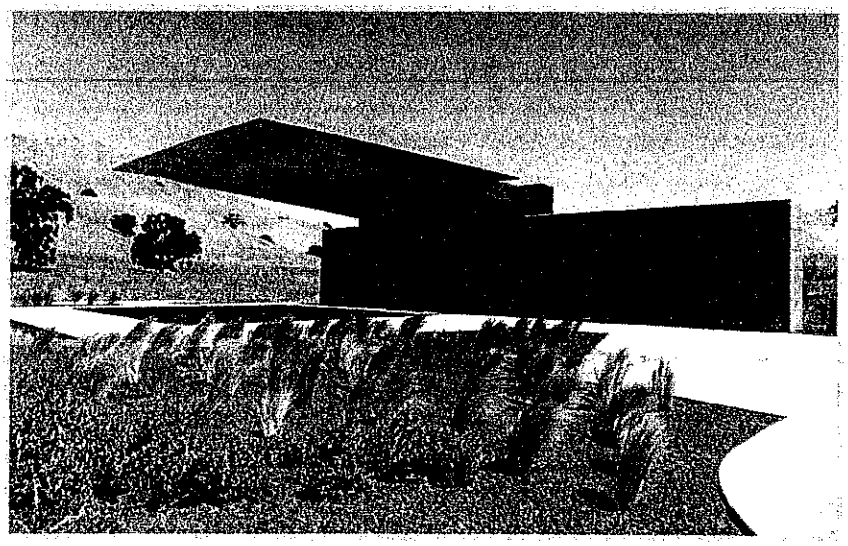
OC Public Works
Fiona Man
300 N. Flower Street
Santa Ana, CA 92702
714.647.3953

Project of The Year Award
Design Quality Partner Award for Projects $51 - $100 Million
#2 on Roads and Bridges Magazine Top 10 Roads List
B.E.S.T. Award for a Regional Transportation Project

BAKERSFIELD NATIONAL CEMETERY

Arvin, California (COMPLETED 2013)

Huitt-Zollars is leading a multi-disciplined team in the preparation of an overall Master Plan and Phase 1 construction documents for a new 500-acre national cemetery for the U.S. Department of Veterans Affairs (VA). The construction budget for Phase 1, including a "fast-track" initial Phase 1A, is $15.6 million. HZ is providing civil, structural, mechanical and electrical engineering, and plumbing design, and is coordinating the cemetery planning, architecture, landscape architecture, irrigation design, geotechnical and environmental services, and cost estimating. This cemetery will be one of six new cemeteries added to VA's 126 existing national cemeteries. Phase 1 construction will include a Public Information Center/Administration Building, a Maintenance Building and yard, an assembly area, a committal shelter, and interment areas for 1,700 traditional casket burial sites, 4,000 pre-placed concrete crypts, 500 in-ground cremain burial sites, and 3,000 columbarium niches. The challenges of this complex, large-scale project included optimizing grading with geological conditions and constraints; preparation and processing of an environmental jurisdictional determination with USACE and CDFG; coordination of utility service extensions from a proposed water well to the site; and developing landscape planting and irrigation strategies to optimize use of the limited supply of available groundwater.

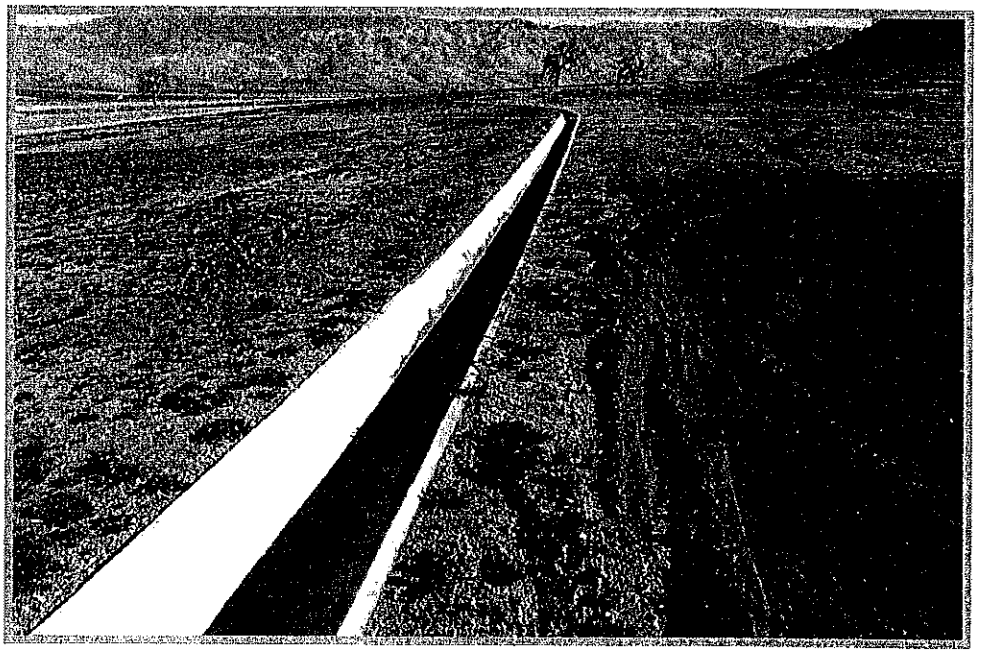


RELEVANT DESIGN COMPONENETS:

- *Water Well Design*
- *Sewer Design*
- *Domestic Water Design*
- *Irrigation Water Design*

CLIENT CONTACT:

US Department of Veterans Affairs
National Cemetery Administration
Clifford Schem
1301 Clay Street, Suite 1230N
Oakland, CA 94612
510.637.6270



ALTON AVENUE WIDENING AND SR55 OVERCROSS

Santa Ana/Irvine, California (COMPLETED 2013)

Huitt-Zollars prepared plans, specifications, estimates, and the environmental revalidation for the Alton Avenue Widening and Overcrossing at SR-55. The project is constrained in a tight urban environment where right-of-way impacts had to be evaluated on a case-by-case basis. Major Southern California Edison lines paralleled the project area and were included in the utility investigations. The project impacted an existing open trapezoidal flood control channel, which was proposed to be relocated and put in a box culvert outside of freeway right-of-way. The Army Corps of Engineers was consulted regarding jurisdiction over this facility. Existing ramps were redesigned to join the widened freeway. The project included:

- Development of local street improvements along 1.3 miles of Alton Avenue from Main Street in Santa Ana to Gillette Avenue in Irvine
- Freeway widening along 1.5 miles of SR-55 from MacArthur Blvd. to Warner Ave
- Ramp modifications at MacArthur Boulevard and Dyer Road
- A new overcrossing and structure widening
- Design of HOV drop ramps and redesign of the HOV lanes on SR-55

RELEVANT DESIGN COMPONENETS:

- *PS&E*
- *Roadwaya and Bridge*
- *Overcrossing*
- *Grading and Paving*
- *Enviornmental*
- *Landscape*

CLIENT CONTACT:

City of Santa Ana
Public Works Agency
Kenny Nguyed - Sr Civil Engineer
20 Civic Center Plaza m-36
Santa Ana, CA 92702
714.647.5632

OSO MARGUERITE PARKWAYS STREET WIDENING

Mission Viejo, California (COMPLETED 2012)

Detailed geometric studies, topographic surveys, and final construction documents were prepared by Huitt-Zollars for this $5 million project to add one through lane in each direction on Oso Parkway, right-turn-only lanes in each direction on Marguerite Parkway, and create double left-turn lanes in all four directions of the existing arterial highway intersection. Raised medians on all four legs of the intersection were completely reconfigured. Design constraints included access to existing developments, an adjacent hillside slope buttress, major water pressure reducing station, and other utility vaults and facilities. This project affected 4,600 linear feet of highway, three signalized intersections, and included 1,700 linear feet of retaining walls. Construction plans, specifications, and estimates were prepared for this $5 million project. The work of subconsultants for environmental documentation, traffic engineering, landscape architecture, and cost estimating was coordinated by Huitt-Zollars. This project involved relocation of numerous electrical, telephone, cable and gas utility facilities, and reinforcement of the underground vault for the pressure reducing station.

CLIENT CONTACT:

City of Mission Viejo Public Works
Mark Chagnon - Director
200 Civic Center Drive
Mission Viejo, CA 92691
949.470.3091

RELEVANT DESIGN COMPONENETS:

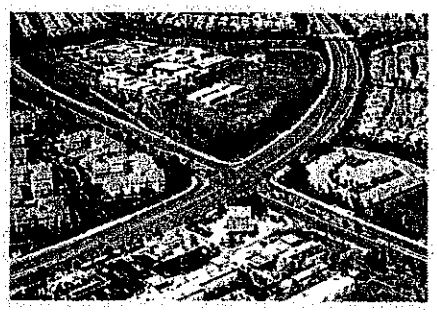
- *Road Widening*
- *Traffic Signals*
- *Signage & Striping*
- *Retaining Walls*
- *Pavement Rehabilitation & Overlay*
- *Traffic Control/Construction Phasing*
- *Right-of-Way*
- *Storm Drain*
- *Design, Geometrics & PS&E*
- *Private Property Access Modifications*

OSO/ANTONIO PARKWAYS STREET IMPROVEMENTS

Orange County, California (COMPLETED 2012)

Huitt-Zollars was retained by Orange County Public Works to prepare Letter of Design Recommendations (LODR) and final construction plans, specifications and estimates for the improvement of the Oso Parkway / Antonio Parkway intersection in South Orange County. The $2 million project's purpose was to improve the capacity of this intersection to accommodate increased traffic resulting from continued new residential development throughout the region. Capacity improvements at the intersection were as follows:

- Antonio Parkway: Addition of a fourth southbound thru lane and a third northbound left-turn lane onto Oso Parkway
- Oso Parkway: Addition of a fourth eastbound thru lane



CLIENT CONTACT:

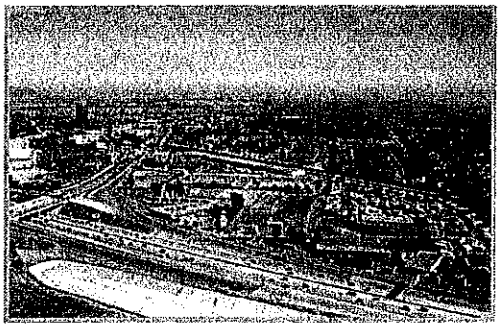
OC Public Works
Steve Soo - Project Manager
300 N. Flower Street
Santa Ana, CA 92703
714.667.9659

RELEVANT DESIGN COMPONENETS:

- *Road Widening*
- *Traffic Signal*
- *Signing & Striping*
- *Right-of-Way*
- *Traffic Control/Construction Phasing*
- *Pavement Overlay/ Rehabilitation*
- *Design, Geometrics & PS&E*

OXNARD VILLAGE WAGON WHEEL

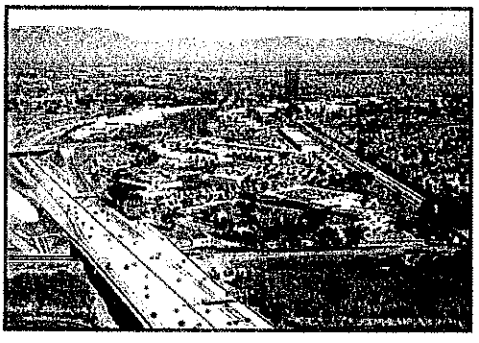
Oxnard, California (ONGOING)



Oxnard Village is an approximately 60-acre privately funded re development project located at the westerly gateway to the City of Oxnard, along the 101 Freeway. The under-utilized site contained 1950's era motel, mobile home park, retail/commercial and light manufacturing uses. This mixed use project will ultimately include 1,500 residential units with row-houses, podium stacked flats, live-work units and luxury high rise condominiums and luxury hotels. Four parking lots have already been designed which included aesthetic, decorative lighting, water quality, space, enhanced paving, vehicular, pedestrian and disabled access, as well as drainage challenges. In each case, both a functional and aesthetically pleasing built environment resulted. The project is ongoing and will continue development while serving the City of Oxnard for many decades into the future.

RELEVANT DESIGN COMPONENTS:

- *Street Improvements*
- *Sewer, Domestic Water*
- *Reclaimed Water*
- *Storm Drain*
- *Flood Control*
- *Mulitple Parking Lots*
- *Landscaping*
- *Water Quality*
- *Vehicular & Disabled Access*



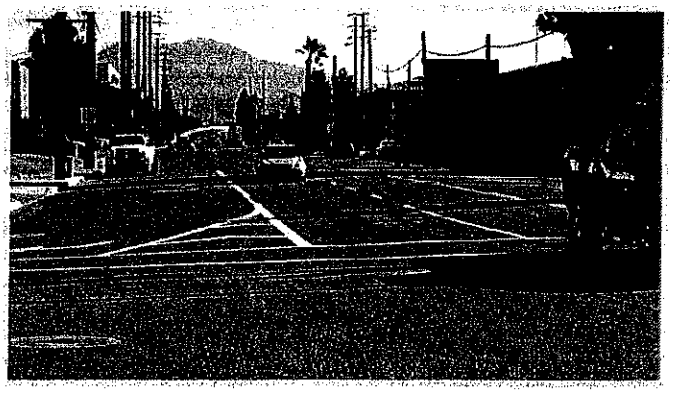
CLIENT CONTACT:

Oxnard CRFL Partners
Carl Renezeder
64 Maxwell
Irvine, CA 92618
949.719.9040

SANTA ANA ON-CALL SURVEY PROJECTS

Santa Ana, California (COMPLETED 2017)

Huitt-Zollars was responsible for the Topographic Survey for that portion of Warner Avenue from westerly of Main Street to easterly of Oak Avenue. Work included establishment of horizontal control based on the centerline of Warner Avenue and the establishment of vertical control; tying out the existing centerline monumentation prior to construction and the preparation of Pre-Construction Corner Records to be used during the construction phases of the project by surveyors doing boundary work in the area and for replacement of the monuments that were destroyed during construction; setting and control of aerial targets and photo ID points; flight, photography, and compilation of the aerial topographic mapping; cross-section survey at 25 foot intervals and a detailed design survey of all existing improvements from R/W line to R/W line; and the preparation of a Topographic Map showing the results of the work.



CLIENT CONTACT:

City of Santa Ana
Kenny Nguyen
20 Civic Center Drive
Santa Ana, CA 92702
714.647.5632

RELEVANT DESIGN COMPONENETS:

- *Topographic Survey*

SANTA MARGARITA WATER DISTRICT

Rancho Santa Margarita, California (ONGOING)

Huitt-Zollars prepared the design of approximately 6,000 of 12" HDPE highline for recycled water to assist the Water district in the transportation of recycled water through the Santa Margarita Water District. Huitt-Zollars also assisted the Santa Margarita Water district in the design and construction of a booster pump station to boost the pressure of the recycled water line through multiple pressure zones.

Additionally, Huitt-Zollars worked with Santa Margarita Water District to prepare multiple details to switch pipe materials and underground the highline into a casing and create a crossing of a secondary arterial highway. The design was completed to allow for the maintenance of the pipe without disrupting traffic on the highway.

RELEVANT DESIGN COMPONENTS:

- *Survey*
- *Engineering Estimates*
- *Water Improvements*

CLIENT CONTACT:

Santa Margarita Water District
Jamie Agullar
26111 Antonio Parkway
Rancho Santa Margarita, CA 92688
949.459.6400

REFERENCES

La Pata Avenue Closure & Del Rio Extension

Nardy Khan - Deputy Director
County of Orange Public Works
300 N. Flower Street
Santa Ana, CA 92702
714.920.7454
nardy.khan@ocpw.ocgov.com

ORANGE COUNTY OC Public Works

HZ prepared PS&E and right-of-way documents for the County's 3.7-mile-long, $75 Million La Pata Avenue gap closure and widening project.

Roadway Widening along El Prado Road

Liza Munoz, PE - Senior Office Engineer
Inland Empire Utilties Agency
6075 Kimball Avenue
Chino, CA 91708
909.993.1522
lmunoz@ieua.org

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

HZ designed a roadway widening along El Prado Road and Mountain Avenue for the City of Chino.

Ross, Walnut, & Magnolia Storm Drain Project

Lupe Camacho - City Project Engineer
City of Chino Public Works
13220 Central Avenue
Chino, CA 91710
909.334.3406
lcamacho@cityofchino.org

HZ prepared the preliminary and final drainage analysis and improvement plans for the extension of a 72-inch storm drain main along Ross Avenue, Walnut Avenue, and Magnolia Avenue from Riverside Drive to the 60 Freeway.

2 SCOPE OF SERVICES & SCHEDULE

Huitt-Zollars reviewed the RFP and provides the following as a supplemental sample scope of services. Design plans and reports would follow the City's standard format.

TASK A: **Project Management and Coordination** - After contract award HZ will prepare a Project Work Plan (PWP) and schedule a kick-off meeting. The PWP will be provided to the City for review and comment prior to the kick-off meeting date. Said PWP will expand on:

- Design Team (City of Santa Ana/HZ/Consultants)
- CADD Standards
- Scope of Work/Deliverables
- Drawing List
- Applicable Criteria/Standards/Codes
- Specification Requirements
- Schedule/Milestones
- Design Budget(s)
- Quality Control/Quality Assurance
- Value Engineering (Construction Budgets)

During the kick-off meeting the development team will review the PWP, identify key staff, and establish lines of communication. The PWP will be updated per comments provided during the kick-off meeting and publish with the City's approval. The published PWP will be used by the project manager to monitor the project during design.

Starting from the date of kick-off meeting, Huitt-Zollars will be responsible for project management and coordination of the project. This includes:

- Development team meetings between the City of Santa Ana and consulting team
- Meetings with affected community members, stakeholders, and utility companies

Sample List:

City of Santa Ana (Water, Sewer, & Storm)
Orange County Sanitation District
Union Pacific Railroad
Southern California Edison
Southern California Gas
AT & T
Time Warner Cable
Santa Ana Unified School District
Preparation of progress reports to the City of Santa Ana
Monitoring the design elements and schedule per published PWP
Securing permits – HZ will coordinate with agencies involved in the project, prepare, and file to acquire required permits on behalf of the City of Santa Ana.

TASK B: **Records Research** – The utility list will be compared to findings from Underground Service Alert. All Utility agencies will be contacted to gather and review available record data. Record information will be evaluated against the survey and compiled into a master V8 CADD file. HZ will evaluate "record" information against proposed facilities to pinpoint potential conflicts. All potential conflicts will be tagged for further investigation during the pothole investigation.

TASK C: **Survey** – The overall topography includes a design survey that captures surface information within the right-of-way and an aerial that extends the topography beyond the right-of-way to capture private property features. It is assumed that the topography limits will be sufficient for design. The City will also provide the record boundary that will be necessary to evaluate right-of-way and property encroachments.

Prior to commencing design the project manager and key personnel will walk the site to evaluate the topography and record information against the existing condition. HZ will review the topography against visible utility features, notate SCE power pole number tags, control panel types, traffic signal types, and mast arm lengths. The information will be compile into the master Micro-Station CAD file for discussion prior to the design phase.

TASK D: **Geotechnical Studies/Reports/Boring** – Review existing geotechnical report and prepare a comprehensive geotechnical investigation including adequate borings for proper design of proposed work. Obtain required permits to conduct geotechnical investigations and perform applicable lab test to provide information necessary for a comprehensive design. A draft copy of the geotechnical report will be provided for review and comment. Traffic control in accordance with W.A.T.C.H. Manual.

Sub-Task Pavement Evaluation – Excluded but maybe required for Option B
Sub-Task ESA Phase 1 – Deferred: Acquisition Services Task
Sub-Task ESA Phase 2 – Deferred: Acquisition Services Task

TASK E: **Traffic Study/Report** – Excluded

TASK F: **Environmental (CEQA)** – Exclusions for both Options.

TASK G: **Right-of-Way Acquisition and Temporary Construction Easements (TCEs)** – Right-of Way acquisition is excluded. HZ will incorporate the preferred precise alignment into the V8 CADD Files. Plans will be evaluated and TCE's would be provided, if necessary.

TASK H: **Drainage** - Huitt-Zollars proposes to implement the recommendations from the draft Citywide FLO-2D model that accounts for backwater effects on the storm drain infrastructure. Sizing of the infrastructure will be based on both hydrology and hydraulic computations to be prepared as part of the drainage report. A preliminary drainage report will be created along with the 30% submittal. A final drainage report will be provided with the final submittal.

TASK I: **Water Quality Management Plan (WQMP)**
Sub-Task I.1 – The design will account for the 50% rule in the 2009 MS4 Permit, which requires treatment for 50% of added or replaced impervious areas. It will implement green street principles to the maximum extent practicable. If the underlying soil does not infiltrate we anticipate using the parkway to provide bio-filtration. HZ will prepare a Preliminary WQMP at the 30% stage that identify potential locations for LID BMPs and their interactions with the onsite storm drain network. HZ will develop the Preliminary WQMP into a Final WQMP consistent with the County's Technical Guidance Manual to accompany the final submittal. This will include an engineer's estimate of probable costs inclusive of material, freight, and maintenance for the selected BMPs.
Sub-Task I.2 SWPPP – Deferred: Construction Bid Task

TASK J: **Plans, Specifications, and Estimates (PS&E)** - HZ will adhere to city criteria, policies, procedure, and standards. PS&E includes three milestone deliverables – 30%, 60%, and Final. Each milestone will commence after HZ has received review comments from the previous milestone submittal. HZ will meet with the City after comments have been reviewed to resolve questions. All plan sheets will be prepared at 20 scale unless otherwise approved and noted.

Sub-Task J.1 Street Improvements – HZ will match the precise alignment of the constructed street. Plans will include record information regarding utilities, obstructions, and appurtenant data.
Sub-Task J.2 Traffic Design
Street Signals – Excluded
Channelization Plan & Details – Plans will be completed to meet California MUTCD standard, signage will be evaluated and updated for proposed lane configuration.
Temporary Traffic Control Plans – Deferred: Construction Bid Task
Sub-Task J.3 Storm Drain Design - Drainage improvement plans will be prepared at the different milestones. Backbone storm drain profiles will be provided along with the 30% submittal. Profiles for lateral storm drains and storm drain detail sheets will be provided at the 60% and final submittals.
Sub-Task J.4 Wall Design – Design of masonry wall height as specified by sound report or City but not to exceed 12 feet
Sound Report – Provided by City
Sub-Task J.5 Street Lighting & Electrical Design – Typically existing street lights are owned by SCE. If the proposed improvements relocate more than three street lights the proposed lights will be owned by the City of Santa Ana. Street lighting design standards will be coordinated with the City of Santa Ana prior to commencing the design. The design will be per City of Santa Ana lighting standards and consideration will be given to salvaging the existing light fixtures.
Sub-Task J.6 Landscaping and Irrigation Design – Conceptual landscape and irrigation plans will be prepared in conformance with City of Santa Ana standards. Our landscape designers will work closely with our engineers to plan, design, and coordinate gateway features, public art, traffic, and pedestrian lighting, signage, and site amenities. Our team will coordinate with the City to responsibly design landscape and irrigation systems. Planting and irrigation will be mindful of water conservation standards.

Sub-Task J.7 Dry Utilities – Undergrounding existing powerlines is possible if SCE accepts proposed switch locations. As described in the approach coordination with SCE would occur in two phases. Our current scope is limited to street design. HZ will coordinate with third party purveyors to find feasible alignments for dry utility. The proposed alignment would be incorporated into a conflict exhibit for evaluation. The coordination is limited to the street improvement design period.

Sub-Task J.8 Specifications – HZ will utilize City of Santa Ana standard bid specifications and/or the latest edition of the Standard Specifications for Public Works Construction and edit them to fit the project requirements.

Sub-Task J.9 Estimates of Probable Cost – HZ will prepare estimates of probable cost for the proposed improvements.

Sub-Task J.10 Utility Plans - HZ will prepare utility plans this includes an option for potholes to investigate existing utility size and depth. Further investigation will be necessary where record information is unreliable and thought to cause a conflict with proposed improvements. Existing manholes will be dipped where possible to verify inverts and pipe size. Notices will be sent to impacted utility companies and every effort will be made to resolve conflicts prior to 60% submittal.

Sub-Task J.11 Disposition Plans – Removals are limited to infrastructure within project limits

Sub-Task J.12 Water Well Rehabilitation Plan

Sub-Task J.13 Offsite Improvement Plans - Excluded

Option A: Typical Street Improvement set will include:

1. Title Sheet
2. Index Sheet
3. Disposition Plan
4. Street Plans (If Required)
5. Utility Improvement Plans (2 sheets)
6. Water Well Rehabilitation Plan
7. Details and Typical Cross Sections

Option B: Typical Street Improvement set will include:

1. Title Sheet
2. Index Sheet
3. Disposition Plan
4. Street Improvement Plans (5 sheets)
5. Details & Typical Cross Sections
6. Storm Drain Improvements – (2 sheets)
7. Drainage Details
8. Signing & Striping Plans (3 sheets-double stacked)
9. Signing & Striping Details
10. Sound Wall Plan - (3 sheets)
11. Sound Wall Details
12. Streetlight Plan (3 sheets double stacked)
13. Streetlight Details
14. Landscape & Irrigation Plan (3 sheets-double stacked)
15. Landscape & Irrigation Details

TASK K: Construction Administration Services (Optional)

Sub-Task K.1 Bid Support – HZ will be available to attend the pre-bid meeting. Our team will review contractor's RFIs if requested by the City during the bidding phase.

Sub-Task K.2 Construction Support – HZ will participate in construction meetings if necessary. HZ will review submittals and shop drawings required to support the construction contract. Reviews will be completed within 10 working days of receipt. Contractor change orders will be completed within two working days of receipt. HZ will be available as requested by the City to resolve discrepancies in contract documents. HZ will furnish necessary revisions to documents due to errors and/or omission at no cost.

Sub-Task K.3 Record Drawings – The contractor shall provide as-built redlines, HZ will revise approved plans per contractor comments to produce record drawings.

Sub-Task K.4 Project Close-Out - HZ will assist in the development of the project punch list as related to the construction package prepared by our team.

DESIGN SCHEDULE

MILESTONE	DUE DATE
Kick-Off Meeting	May 4
Records Research	June 1
Base CADD File	June 29
Geotechnical Report	July 27
Drainage Report	July 27
Plans, Reports, Specifications, and Estimates 30%	September 14
Plans, Reports, Specifications, and Estimates 60%	December 7
Plans, Reports, Specifications, and Estimates 100%	March 1
Bidding Period	April-May
Kick-off Construction	June

3 FEE PROPOSAL

Please find our Fee Proposal in the separate sealed envelope labeled "Fee Proposal."

APPENDIX

Attachment 3-1 Non Collusion Affidavit
Attachment 3-2 Non-Lobbying Certification
Attachment 3-3 Non-Discrimination Certification

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____ SIGNATURE

State of California
County of _____

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

attached

_____
Notary Public Signature

Notary Public Seal

CALIFORNIA JURAT WITH AFFIANT STATEMENT **GOVERNMENT CODE § 8202**

☐ See Attached Document (Notary to cross out lines 1–6 below)
☐ See Statement Below (Lines 1–6 to be completed only by document signer[s], *not* Notary)

Signature of Document Signer No. 1 *Signature of Document Signer No. 2 (if any)*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 8 day of December 2017.
by Date Month Year
(1) Marc Harlinger
(and (2) _____),
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

JENNIFER KINNIE
Commission # 2077052
Notary Public - California
Orange County
My Comm. Expires Sep 2, 2018

Signature _____
Signature of Notary Public

Seal
Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: Appendix Att 3-1 Non-Collusion Affidavit Document Date: _____
Number of Pages: _____ Signer(s) Other Than Named Above: _____

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ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Hultt-Zollars, Inc

Signed and Printed Name: Marc Haslinger

Title Office Manager and Vice President

Date March 20, 2018

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: _____

Title: Office Manager and Vice President

Firm: Huitt-Zollars, Inc

Date: March 20, 2018

KEY PERSONNEL RESUMES

MIGUEL HERNANDEZ, PE, PLS, QSD

Project Manager - Huitt-Zollars

Miguel Hernandez has more than 20 years of experience in Public Works and is proficient with the design of streets, highways, sewer, water, storm drain, grading, hydrology and hydraulics. His experience combined with his ability to communicate will make him a valuable asset to a project. As a Project Manager he will be helpful in coordinating all design inclinations and finding the appropriate balance. When critical deadlines need to be met his proven ability to work under pressure will be invaluable.

EXPERIENCE
22 Years

EDUCATION
BS, Civil Engineering - Cal Poly San Luis Obispo

REGISTRATION
Professional Civil Engineer: California #61378

Professional Land Surveyor: California #8735

RELEVANT PROJECT EXPERIENCE

Mojave Solar Project - *Hinkley, CA*
Ensure all construction work conformed to applicable LORS, coordinated traffic detour plans, reviewed QSP activities, prepared documents to initiate revisions to approved drawings, responsible for work load reports and monitored progress of construction schedule. The project moved over 750,000 CY of soil during the grading activities that required coordination with survey crews and grading contractor. To protect the site from large storm events and balance dirt moving activity 18,000 LF of channel were cut. **The solar plant included rehabilitation of six existing water wells and drilling of four new water wells. Six existing water wells were used for construction water. After construction, two large existing wells were retrofitted and connected to four new water wells to provide water for domestic and power plant use. The two power plants included four water tanks total.**

Farragut Avenue Improvements - *Moreno Valley, CA*
Hernandez was the Project Manager for improvements that included sidewalk, curb, gutters, driveways, drainage, access ramps, utility adjustments, short property walls, missing street lights, pavement repairs, and accommodation of upgraded water line (built in advance by BSMWC) in order to enhance safety and accessibility for commuters and pedestrians on Farragut Avenue from Sherman Avenue to Ellsworth Street.

Jeffrey Road/Portola Parkway Street Improvements - *Irvine, CA*
Hernandez was the Project Manager for the civil design and survey of a new alignment of 1.5 miles of Jeffrey Road and 1.0 mile of Portola Parkway. Work included roadway rehabilitation, electrical conduits, cable/telephone improvements, right-of-way engineering, potholing, and grading. Work also included preparation of infrastructure plans, including storm drain design, 72-inches to 10-inches in diameter over 10,000 feet of pipe, hydrology and hydraulic calculations, sewer plans, dry utilities, specifications, and construction cost estimates. Jeffrey Road and Portola Parkway were designed for a six-lane highway with raised medians, new curb and gutter to replace open ditch channels, pedestrian undercrossing.

Cerritos Avenue Gap Closure - *Anaheim, CA*
Hernandez was the Project Manager for this project located on Cerritos Avenue from Euclid Street to approximately 600 feet east of Euclid Street. The project constructed a five foot wide ADA compliant sidewalk and new storm drain laterals with catch basins. The work also included the construction of block walls and fences. The new sidewalk eliminates the need for pedestrians to walk along the side of the road. Cerritos is designated as a four lane secondary arterial by the County's Master Plan of Arterial Highways (MPAH) with average daily traffic of 9,400 vehicles per day. The project will provide a safer and better access for the school children and pedestrians in general. The services included right of way acquisition.

See Section E: Relevant Project Experience for additional projects.

MARC HASLINGER, PE

Principal-In-Charge - Huitt-Zollars

EXPERIENCE
30+ Years

EDUCATION
BS, Civil Engineering - California State University at Long Beach

REGISTRATION
Professional Civil Engineer: California #49158

Having experience in both the public and private engineering sectors, Marc Haslinger brings a broad wealth of experience to his jobs. He has managed and designed numerous municipal, residential, and commercial projects throughout Southern California from initial planning and feasibility studies through final design, construction, and construction management. His experience has included residential, commercial, and industrial developments; potable and reclaimed water transmission mains and flood control facilities; roadway improvements; and construction management. Haslinger is well-versed in the tools of construction management, contract administration, planning, design, and processing.

Complementing Haslinger's project management capabilities is a hands-on approach and technical knowledge of computer programs in the area of coordinate geometry, hydraulics, hydrology, structures, spreadsheets, critical path networking, management, and other tools necessary for a successful project.

RELEVANT PROJECT EXPERIENCE

Western Avenue Rehabilitation – *Buena Park, CA*
Irvine Center Drive, Sand Canyon to Barranca Parkway – *Irvine, CA*
Irvine Center Drive, I-405 Freeway to Lake Forest Drive – *Irvine, CA*
Bake Parkway, I-405 to Irvine Center Drive – *Irvine, CA*
City of Dallas Facilities Capital Planning, Design and Construction - *Dallas, TX**
Willow Avenue Drain – *West Covina, CA*

CARL TAYLOR, PE, LEED AP

Civil Engineer - Huitt-Zollars

EXPERIENCE
40+ Years

EDUCATION
BS, Civil Engineering - University of California at Berkeley

REGISTRATION
Professional Civil Engineer: California #30924

LEED AP, 2008

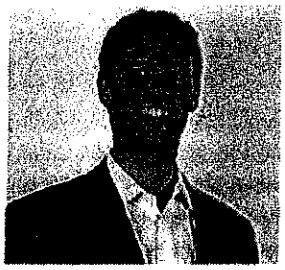
Carl Taylor has a strong background in public infrastructure projects. He has worked on arterial highways and intersections, local and neighborhood streets, master plan and local storm drains, city and community parks, trails, streetscapes, vehicular and pedestrian bridges, city halls, libraries, community centers, memorials and plazas, parking lots, sewer and water facilities, and pedestrian and bicycle/pedestrian trails. During his professional career, Taylor has provided plans, specifications, estimates, and construction administration and support for numerous city, county, redevelopment agency, federal, and community facilities district projects.

RELEVANT PROJECT EXPERIENCE

OC Parks On-Call Projects – *Orange County, CA*

- Mathis Trail Repair, Aliso & Wood Canyons
- Creek Restoration, Wagon Wheel Regional Park
- General Development Plan, OC Zoo
- Santiago Creekbank Repair at Arden Modjeska
- Historic Site, Modjeska Canyon Nature Preserve
- Tijeras Creek Trail Repair, O'Neill Regional Park
- Trail Crossing Replacement, Santiago Oaks Regional Park
- Wagon Wheel Creek Restorations, Thomas F. Riley Wilderness Park
- FEMA Repairs, Carbon Canyon Regional Park
- FEMA Repairs, Limestone / Whiting Ranch Wilderness Park
- FEMA Repairs, Upper Newport Bay Nature Preserve
- FEMA Repairs, Laguna Coast Wilderness Park
- Bakersfield National Cemetery

Oso Parkway & Antonio Parkway Intersection Improvements – *Orange County, CA*
Center Street – *Anaheim, CA*
Townsend Place – *Pasadena, CA*



REMI CANDAELE, PE

Hydrology & Hydraulics Engineer - Huitt-Zollars

Remi Candaele brings extensive experience in numerous aspects of surface water management. His expertise include hydrology, hydromodification, and water quality modeling, Best Management Practice (BMP) design and performance, engineering economics, harvest-and-use, statistical analyses and comprehensive watershed strategic plans. Remi successfully developed stormwater implementation framework and conducted compliance inspections for multiple Phase I and II MS4 agencies. He is also recognized for his technical expertise, responsiveness, leadership, and strategic initiatives. Candaele has prepared numerous publications and conference proceedings covering his wide range technical knowledge.

EXPERIENCE
13 Years

EDUCATION
MS, Civil Engineering, Water Resources - University of Texas at Austin

REGISTRATION
Professional Civil Engineer: California #77517

Qualified SWPPP Practitioner: California #20873

RELEVANT PROJECT EXPERIENCE

Huntington Beach Trash Compliance Assistance – *Orange County, CA*
Caltrans Ornamental Vegetation BMP Study
Lake Tahoe Clarity TMDL - *Caltrans*
SMR Hydromodification Management Plan, Riverside County Flood Control – *Riverside County, CA*
South Orange County Hydromodification Plan – *Orange County, CA*
Irvine Regional Park Drainage and Water Quality Improvements – *Orange County, CA*
SAR Watershed Action Plan, Riverside County Flood Control – *Riverside County, CA*
Retrofit Opportunities Water Quality Modeling – *Orange County Public Work Watersheds Division*
National Pollutant Discharge Elimination System (NPDES), Riverside County Transportation Department (RCTD) – *Riverside County, CA*

JEFFREY LENHERR, PLS, CFEDS

Land Survey - Huitt-Zollars

Jeff Lenherr is a Licensed Land Surveyor in California and Washington State. He is also one of a select few Land Surveyors in the United States to hold a Certified Federal Surveyor Certificate. He owned and operated his own Land Surveying Company for 15 years prior to joining Huitt-Zollars in September 2014. He has the experience to take a project from start to finish with minimal oversight, resulting in lower costs and on-time deliveries. He has extensive experience in map preparation and review, geodetic control, right-of-way mapping, topographic mapping, lot line adjustments, subdivisions, legal description preparation, construction staking, Global Positioning Systems, and field procedures.

EXPERIENCE
29 Years

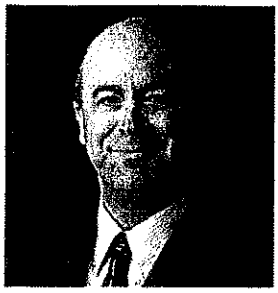
REGISTRATION
Professional Land Surveyor: Washington #35977

Certified Federal Surveyor: #1615

Professional Land Surveyor: California #9305

RELEVANT PROJECT EXPERIENCE

On-Call Surveying/Engineering Services – *Santa Ana, CA*
On-Call Surveying Services – *City of Downey Department of Public Works*
On-Call Professional Services, University of California – *Irvine, CA*
OCTA State Route 22 – *Garden Grove Freeway, CA*
On-Call Surveying/Engineering Services – *Santa Fe Springs, CA*
On-Call Surveying Services - *Orange County, CA*
Solar Canopies at Municipal Service Center – *Thousand Oaks, CA*



EXPERIENCE
25 Years

EDUCATION
BLA - Texas Tech University

REGISTRATION
Registered Landscape Architect: Texas #1976
California #5316

CNU Accredited: 2013

CHRIS SCOTT, RLA, ASLA, LEED AP

Landscape Architect - Huitt-Zollars

Chris Scott is the Team Leader for Planning and Landscape Architecture for the Huitt-Zollars Dallas office. His past project experience ranges from master planning and visioning of urban land developments, community amenity design and aesthetics, hike and bike trail development, multi-family, town home, and student housing developments, commercial and retail developments, multi-use urban developments, streetscapes, manufacturing and industrial development, private and public park development, corporate campus design, restaurant and hotel development, tree preservation and identification, and federal and military housing and urban development.

RELEVANT PROJECT EXPERIENCE

Prima Desecha Landfill Viewshed Study- OC Waste & Recycling – *Orange County, CA*
Coyote Canyon Viewshed Planting PS&E - OC Waste & Recycling – *Orance County, CA*
Irvine Regional Park & Drainage Runoff Control – *Orange County, CA*
Electric Bus Charging & Storage Lot - UCI – *Irvine, CA*
The Landing at Riverpark – *Oxnard, CA*

EXPERIENCE
19 Years

EDUCATION
MS, Environmental Engineering - University of Texas at El Paso

BS, Chemical Engineering - Texas A&M Univesity

REGISTRATION
Professional Civil Engineer: Texas #100696

ROXANNA RIVERA, PE, PTOE, LEED AP

Traffic Engineer - Huitt-Zollars

Rivera Rivera has more than 19 years of experience in design and project management for municipal public works, infrastructure, environmental, and hydrology and hydraulics projects. Her experience includes the design of water and wastewater infrastructure, storm sewer design, drainage area mapping, preparation of environmental documents, and construction management.

Rivera has completed the Texas Department of Transportation Qualificiation certification for Local Government Project Procedures (LGPP) to manage federally funded programs. She has managed several design and construction projects that were funded with federal funds. She has also worked extensively with the reporting requirements with TxDOT and FHWA so that municipalities reimbursed under the terms of the Local Project Advanced Funding Agreements (LPAFA).

RELEVANT PROJECT EXPERIENCE

Oxnard Blvd / Wagon Wheel Road Traffic Signal – *Oxnard, CA*
Oxnard Blvd / Orchard Place Traffic Signal – *Oxnard, CA*
Oxnard Blvd / Vineyard Ave Traffic Signal – *Oxnard, CA*
Vineyard Avenue at Town Center Drive Traffic Signal – *Oxnard, CA*
Lantana Traffic Circulation Study, Lantana Community – *Denton County, TX*

JOHNNY MURAD, PE, MS, QSD

Utility Design - Huitt-Zollars

Johnny Murad brings 20 years of experience in civil engineering consulting. He has assisted numerous clients in site selections, feasibility studies, preliminary construction cost estimates, earthwork estimates, plan check and permit fee estimates, conceptual site planning, final design, and construction administration. His experience gives him a good understanding of project costing techniques and calculations, which can help keep the project cost at a minimum without losing efficiency and, thereby, help his clients stay within their planned project budget and maintain their strength in the market.

EXPERIENCE
20 Years

EDUCATION
BS, Civil Engineering - California State Polytechnic

REGISTRATION
Professional Civil Engineer: California #67512

RELEVANT PROJECT EXPERIENCE

Alder Avenue, Casa Grande Drive, Summit Avenue, and Mango Avenue Sewer Improvements – *Rialto, CA*
Redlands Boulevard Sewer Improvements – *Moreno Valley, CA*
Brodiaea Avenue, Cactus Avenue, Joy Street, Gilbert Street, Rebecca Street, Frederick Street, and Heacock Street Sewer Improvements – *Moreno Valley, CA*
San Bernardino Avenue Sewer Improvements – *San Bernardino, CA*
City of Rialto, Tract No. 16304 Sewer Improvements – *Rialto, CA*

WILLIAM WALLACE, PE

Structural Engineer - Huitt-Zollars

William Wallace has more than 37 years of experience as a Structural Engineer. He has been involved in the design of many highly complex structures for flood control and soil and water conservation construction programs for the Corps of Engineers (COE) and the Natural Resources Conservation Service (NRCS). Projects have included reinforced concrete hydraulic structures such as trapezoidal channel paving, rectangular channels, impact basins, drop structures, retaining walls, and reinforced concrete for principal and auxiliary spillways of lakes and dams. Wallace provided the structural design or provided peer reviews of projects where the objectives of the project was to design modifications to dams and their appurtenant structures to mitigate risks related to dam safety concerns; and to meet current regulations and standards as provided by Conservation Districts, NRCS, COE, and various Departments of Water Resources.

EXPERIENCE
37 Years

EDUCATION
MS, Civil Engineering - University of Texas at Arlington

BS, Civil Engineering - University of Texas at Arlington

REGISTRATION
Professional Structural Engineer: Texas: 59641

RELEVANT PROJECT EXPERIENCE

Oxnard Village Flood Control Facilities - *Oxnard, CA*
Cottonwood Creek Trail and Bank Stabilization – *Allen, Texas*
Rush Creek Channel Erosion Control - *Arlington, TX*
Channel Improvement Project – *Fort Worth, TX*
Brazos River Study – *TX*
Lake Ray Roberts Outletworks Conduit and Power Penstock – *Lake Ray Roberts, TX*

JEANNETTE GUERECA, PE

Civil Engineer - Huitt-Zollars

Jeanette Guereca is a detail driven engineer with a variety of experience including five years of experience in solid waste and civil engineering, seven months in land development, and two years intern experience with public works road and sidewalk rehabilitation. Guereca has performed pre- and post-construction hydrology analyses by creating hydrology maps and using the rational method. She also has experience conducting hydraulic calculations to size existing and proposed open channels, pipes, and drainage structures. Guereca has been responsible for creating mass grading as well as precise grading designs using advanced civil CAD programs utilizing 3-D surfaces, sections, and profiles to maximize efficiency and productivity of CAD tools. ***Jeannette also interned with the City of Santa Ana from 2006-2008.***

EXPERIENCE
10 Years

EDUCATION
MS, Civil Engineering - Cal State University Fullerton

BS, Civil Engineering - University of Texas at Arlington

REGISTRATION
Professional Civil Engineer: California #82569

RELEVANT PROJECT EXPERIENCE

La Pata Ave Gap Closure & Del Rio Extension – *Orange County, San Clemente, and San Juan Capistrano, CA*
Plaza San Clemente – *San Clemente, CA*
Oxnard Village - *Oxnard, CA*
Frank R. Bowerman Landfill – *Irvine, CA*
Tajiguas Partial Final Closure – *Goleta, CA*
Vandenberg Air Force Base – *Vandenberg AFB, CA*
Newby Island – *Milipitas, CA*

MICHAEL PHILLIPS, PE

Hydrology & Hydraulics Engineer - Huitt-Zollars

Michael Phillips has experience in many aspects of surface water management. He has performed studies, calculations and produced reports on topics such as hydrology, hydraulics, hydromodification, water quality management and BMP design. He is also familiar with many surface water management software such as HEC-HMS, HEC-RAS, FlowMaster, AES, WSPGW, HY-8 and SMS TUFLOW.

EXPERIENCE
5 Years

EDUCATION
BS, Civil Engineering -California State Polytechnic University

REGISTRATION
Professional Civil Engineer: California #87909

RELEVANT PROJECT EXPERIENCE

The Westerly, 2D Flood Study for FEMA Flood Map Revision – *Simi Valley, CA*
Haven Avenue Storm Drain, 2D Modeling – *Ontario, CA*
Oxnard Village, Interior Drainage Study – *Oxnard, CA*
Hydraulic Report for Pine Avenue Extension – *Chino, CA*
VA Riverside National Cemetery Phase 5 Development – *Riverside, CA*
MR5 "Modena" Development – *Rancho Mission Viejo, CA*

JOSH ROEHM, PE, LEED AP BD+C, PMP

Mechanical Engineer - Huitt-Zollars

Josh Roehm is a highly skilled Mechanical Engineer with more than 20 years experience in complex higher education, healthcare, and specialized engineering projects. He is considered an expert on energy modeling, sustainable design, BIM, and big picture planning. His experience runs from small, one-room makeovers to very large renovation and addition projects. His strengths include overall plan thinking with a focused attention to detail, strong public presentation and communication skills, ability to negotiate fee proposals and contracts, and high client satisfaction/retention.

EXPERIENCE
20 Years

EDUCATION
BS, Architectural Engineering, Mechanical Option - Pennsylvania State University

REGISTRATION
Professional Mechanical Engineer: California #36642

RELEVANT PROJECT EXPERIENCE

Sound Transit Operations and Maintenance Satellite Facility – *Seattle, WA*
Short Circuit and ARC Flash at Various Lakes – *Fort Worth District Corp of Engineers Lakes, TX*
GSA Midland Odessa Arc Flash Study – *Midland, TX*
NAVFAC SE, Dynamic Component Rebuild Facility (DCRF) – *Corpus Christi Army Depot, TX*
USACE Albuquerque, Airman & Family Readiness Center – *Cannon AFB, NM*
USACE Fort Worth, Sustainable Infrastructure Assessments Completion

SCOTT PARMA, PE, LEED AP

Electrical Engineer - Huitt-Zollars

Scott Parma's engineering experience includes power distribution, electrical systems analysis, system planning, electrical system design, and construction administration. He has completed a wide array of facilities projects in the utility, transportation, municipal, infrastructure, and commercial sectors of construction. His main expertise is in medium-and low-voltage power systems design and analysis. He also has experience in lighting, telecommunications, and fire alarm system design.

EXPERIENCE
37 Years

EDUCATION
BS, Electrical Engineering - Texas A&M University

REGISTRATION
Professional Electrical Engineer: Texas #75690

RELEVANT PROJECT EXPERIENCE

Bakersfield National Cemetery - Phase 1 – *Arvin, CA*
Riverside National Cemetery - Phase 5 – *Riverside, CA*
Coyote Canyon Repower Electrical PS&E – *Fontana, CA*
LA Metro Division 13 Bus Maintenance and Operations Facility - *Los Angeles, CA*
UCI Lot 36 Electric Bus Yard - *Irvine, CA*
Maintenance Service Center Solar Canopies - *Thousand Oaks, CA*

RUSSELL HANSON, PLS, GISP

Land Survey/Mapping - Huitt-Zollars

Russell Hanson has in-depth experience in the preparation and processing of both surveying and engineering projects including records of survey, tract maps, legal descriptions, aerial photography, earthwork, alluvial quantities, grading, and GIS databases. He has been responsible for the planning and design for a myriad of municipal and residential projects.

EXPERIENCE
21 Years

EDUCATION
BS, Civil Surveying - California State Polytechnic University

REGISTRATION
Professional Land Surveyor: California #8873

Geographic Information System Professional: #64594

RELEVANT PROJECT EXPERIENCE

La Pata Ave Gap Closure and Camino Del Rio Extension - *Orange County, CA*
Santa Ana River Bike Trail Slurry Seal Project - *Orange County, CA*
Gobernadora Multi-Purpose Basin - *Orange County, CA*
Los Patrones Pkwy - *Orange County, CA*
Runoff Management Plan (ROMP), Rancho Mission Viejo, LLC – *Orange County, CA*
Ortega Highway Utility Relocations – *Orange County, CA*
Antonio Parkway Widening – *Orange County, CA*

MICHAEL PUTT, PG, CEG

Geotechnical - Ninyo & Moore

Michael Putt has more than 20 years of experience in Public Works and is proficient with the design of streets, basins, sewer, water, storm drain, grading, and public works projects.

EXPERIENCE
21 Years

EDUCATION
BS, Geology

REGISTRATION
Certified Engineering Geologist: California #2341

Professional Geologist: California #7581

RELEVANT PROJECT EXPERIENCE

Arden Modjeska Wood Canyon Wilderness Parks - *Orange County Parks*
La Pata Avenue Extension - *Orange County Public Works*
Smith Basin Assessment
Burris and Lincoln Basins - *Orange County Sanitation District*
Bakersfield National Cemetery

SAM GUHA, PHD, PE, GE

Geotechnical - Ninyo & Moore

EXPERIENCE
27 Years

EDUCATION
PHD, Geotechnical Engineering - Purdue

MS, Geotechnical Engineering - Asian Institute of Technology

REGISTRATION
Professional Geotechnical Engineer: California #58967

Dr. Guha is a Principal Engineer with Ninyo & Moore with diverse professional experience in geotechnical engineering design, consulting, construction, and regulatory practice. Dr. Guha coordinates and conducts geotechnical evaluations for commercial, industrial and public facilities, including airports, bridges, highways, railroads, levees, public and private buildings, various plants (e.g., water treatment, bio-refining, power), pipelines, reservoirs, retaining structures, and elevated, at-grade and below-grade tanks; provides guidance on various analytical and numerical procedures that are undertaken for a project including seismic hazard analyses (e.g., ground motion, liquefaction, dynamic settlement, lateral spread, ground subsidence, landsliding, etc.), site-specific response spectra analyses, slope stability analyses, analyses of soil settlement, bearing capacity and earth pressures, assessment of adverse effects of collapsible soil and expansive soil, and development of structural foundation, pavement sections and underground pipeline design criteria; provides geotechnical design parameters and recommendations for shallow and deep foundations, temporary and permanent retaining structures, slope stabilization techniques, mechanically stabilized earth (MSE) walls, tieback anchors, soil nails, in-situ ground remediation and earthwork; prepares and reviews geotechnical reports, proposals and transmittals; reviews laboratory test results, project plans and specifications; provides supervision and technical support to project- and staff-level engineers and geologists; conducts quality assurance/quality checks, and performs project administration and management.

RELEVANT PROJECT EXPERIENCE

Orange County Water District, Smith Basin - *Villa Park, CA*
Burris and Lincoln Basin - *Anaheim, CA*
Haster Basin/Twin Lakes Park, Proposed Pump Station and Basin Grading, Geotechnical Evaluation- *Garden Grove, CA*
I-10 Replacement of the Ellis Avenue Pump Station, Orange County Sanitation District - *Fountain Valley, CA*
Reclaimed Water Reservoir for Moulton Niguel Water District - *Aliso Viejo, CA*
Effluent Pump Station Annex – Job No. J-77, Orange County Sanitation District Plant No. 2 - *Huntington Beach, CA*
New Lateral Extension for Castaic Lake Water Agency - *Santa Clarita, CA*
Chula Vista Power Plant Modernization - *Chula Vista, CA*

JESUS "FREDDIE" OLMOS

Environmental - ECORP

EXPERIENCE
20 Years

EDUCATION
BA, Environmental Analysis & Design - University of California at Irvine

Freddie Olmos has more than 20 years of experience in Enviornmenal Engineering and is proficient with environmental undertaking of the design of streets, basins, sewer, water, storm drain, grading, and public works projects.

RELEVANT PROJECT EXPERIENCE

West Street and Citron Street Sidewalk Gap Closure Project - *Anaheim, CA*
Lincoln Avenue Widening Project - *Anaheim, CA*
La Palma Avenue at East Street Sidewalk Gap Closure Project - *Anaheim, CA*
State College Boulevard and La Palma Avenue Intersection Improvement Project - *Anaheim, CA*

EXHIBIT B

FEE PROPOSAL [redacted]

HUITT-ZOLLARS

Irvine

2017
HOURLY RATE SHEET

Engineering/Architecture	
Principal-In-Charge	$ 235.00
QA Manager	$ 215.00
Sr. Project Manager	$ 215.00
Project Manager	$ 180.00
Sr. Civil Engineer	$ 195.00
Sr. Structural Engineer	$ 200.00
Sr. Mechanical Engineer	$ 180.00
Sr. Electrical Engineer	$ 185.00
Civil Engineer	$ 155.00
Structural Engineer	$ 165.00
Mechanical Engineer	$ 165.00
Electrical Engineer	$ 165.00
Plumbing Engineer	$ 165.00
Engineer Intern	$ 120.00
Sr. Designer	$ 180.00
Designer	$ 145.00
Sr. CADD Technician	$ 125.00
CADD Technician	$ 100.00

Administrative	
Sr. Project Support	$ 100.00
Project Support	$ 65.00

Survey	
Survey Manager	$ 195.00
Sr. Project Surveyor	$ 170.00
Project Surveyor	$ 140.00
Survey Technician	$ 115.00

Survey Crews	
1-Person Survey Crew	$ 160.00
2-Person Survey Crew	$ 225.00
3-Person Survey Crew	$ 295.00

Construction	
Construction Manager	$ 175.00
Resident Engineer	$ 160.00
Sr. Project Representative	$ 120.00
Resident Project Representative	$ 95.00

Reimbursable Expenses	
Consultants	Cost + 10%
Other Direct Costs	Cost + 10%
Mileage	IRS Standard Business Mileage Rate

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (WATER RESOURCES)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between Huitt-Zollars, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the Water Resources Division of the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of five (5) consultants selected to provide services for water resources projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $1,200,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of

performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to

Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees, for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council

City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: Huitt-Zollars, Inc.
2603 Main Street, Suite 400
Irvine, CA 92614
Attn: Miguel Hernandez, PE, PLS, QSD, Project Manager

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without

the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

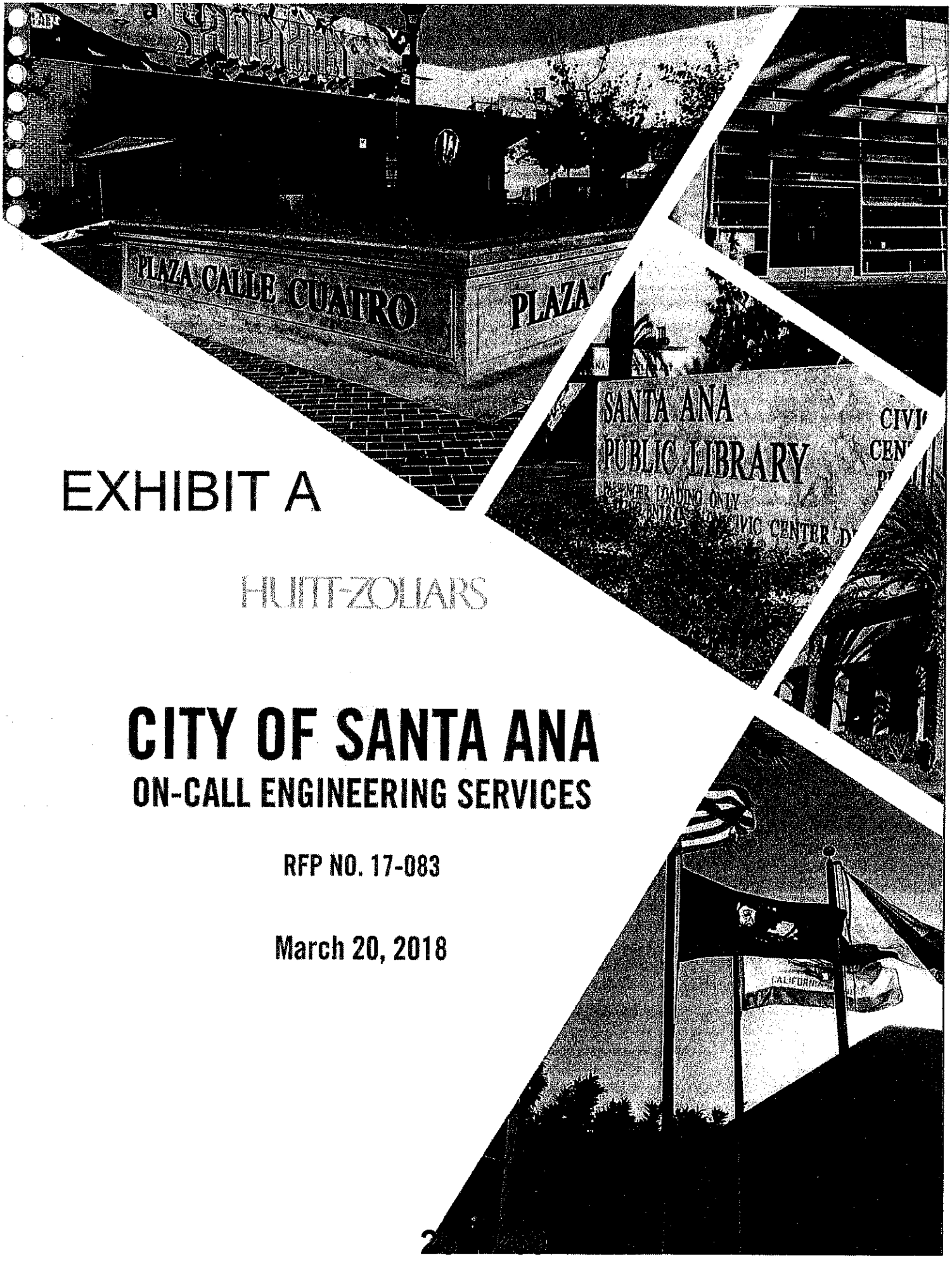


EXHIBIT A

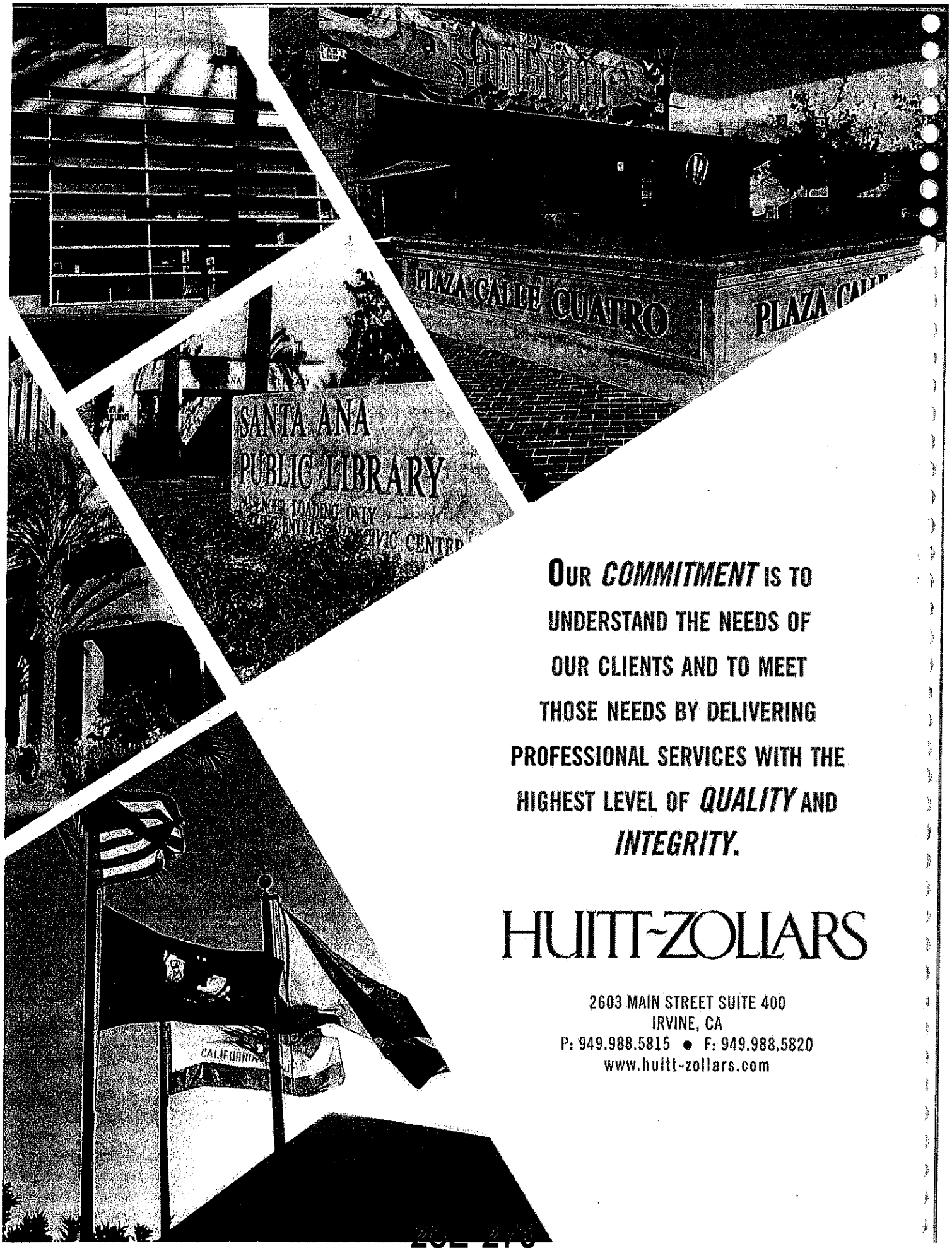
HUITT-ZOLLARS

CITY OF SANTA ANA

ON-CALL ENGINEERING SERVICES

RFP NO. 17-083

March 20, 2018



OUR *COMMITMENT* IS TO UNDERSTAND THE NEEDS OF OUR CLIENTS AND TO MEET THOSE NEEDS BY DELIVERING PROFESSIONAL SERVICES WITH THE HIGHEST LEVEL OF *QUALITY* AND *INTEGRITY*.

HUITT-ZOLLARS

2603 MAIN STREET SUITE 400
IRVINE, CA
P: 949.988.5815 • F: 949.988.5820
www.huitt-zollars.com

A COVER LETTER

March 20, 2018

Mr. Armando Fernandez
City of Santa Ana, Public Works Agency
20 Civic Center Plaza; 3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

RE: Qualifications Proposal for RFQ No. 17-083
City of Santa Ana On-Call Engineering Services

Mr. Fernandez,

Huitt-Zollars, Inc. (HZ) has been serving in Orange County for more than 30 years and looks forward to continuing this relationship by supporting the City of Santa Ana with On-Call Engineering Services. HZ is a full-service Architecture-Engineering firm with qualified staff capable of completing the assignments described in the Water Resources and General Engineering (Options A and B).

Our recent project completions and ongoing projects highlighted in this proposal demonstrate our team's direct experience and well planned cost-effective approach with Public Works assignments. Our team has served Orange, Anaheim, Fullerton, Huntington Beach, Laguna Hills, Laguna Niguel, Mission Viejo, Santa Ana, San Clemente, San Juan Capistrano, Yorba Linda, Long Beach, Chino, Fontana, Ontario, Calabasas, and Thousand Oaks.

Our Project Manager **Miguel A. Hernandez**, PE, PLS, QSD brings a proven record in multi-disciplinary engineering assignments with Public Works entities. He served as Resident Engineer in the Mojave Solar Project that built two power plants. The power plants required sewer and water improvements including rehabilitation of several existing water wells. He also worked on the award-winning La Pata Avenue Gap Closure for Orange County Public Works. Miguel understands the importance of proactive communication and quality control in the timely delivery of a project. He will be assisted by other in-house professionals showcased in the team experience section of this proposal.

Our team is dedicated to providing high-quality products to the City of Santa Ana. This proposal is signed by an officer with authority to bind the company. Should you have any questions, please feel free to contact Miguel Hernandez at mhernandez@huitt-zollars.com or at (949) 988-5815 Extension 11169.

Sincerely,

HUITT-ZOLLARS, INC.

Marc Haslinger, PE
Office Manager / Vice-President
CA PE No. 49158

Miguel Hernandez, PE, PLS, QSD
Project Manager
CA PE No. 61378

B CONTRACT AGREEMENT

Huitt-Zollars has read and can execute the standard professional services contract included with the REQUEST FOR PROPOSALS (RFP) FOR ON-CALL ENGINEERING SERVICES RFP NO.: 17-083 issued on February 22, 2018. Upon request Huitt-Zollars will provided documents to comply with:

- EVIDENCE OF FINANCIAL CAPACITY
- LICENSES & PERMITS
- INSURANCE

All City of Santa Ana projects will be implemented in compliance with the City's policies and regulations. Huitt-Zollars is encouraged by the City's affirmative action program and will identify teaming opportunities with Minority Business Enterprises (MBE) that are approvable by the City.

C FIRM & TEAM EXPERIENCE

For more than 40 years, Huitt-Zollars, Inc. has provided professional services to support all types of right of way, design, hydrographic, and construction projects including work successfully completed for agencies such as City of Santa Ana, Orange County Transportation Authority, City of Santa Fe Springs, and the City of Downey.

Huitt-Zollars, Inc. is a full-service engineering and architectural firm with 19 regional offices. Established in 1975, the firm has a staff of more than 500 professional, technical, and support personnel with diversified skills, capable of handling highly complex multidiscipline and concurrent assignments. The firm is ranked as a top design firm by Engineering News-Record and Architectural Record.

Our full-service approach gives us a strong advantage in coordinating work on complex assignments. Our hands on management by the principals of the firm results in a client-directed sense of urgency and commitment to quality, schedule, and budget. It also affords coordination beyond the prime/consultant organization because in house lines of communication are firmly established and easy to maintain. This arrangement also provides a single focus for the project, resulting in smoother progression; efficient designs that balance function, economics and aesthetics; and construction documents that incorporate our client's objectives. Huitt-Zollars can take a project from start to finish, from initial study through design process, to construction management. With the Huitt-Zollars' engineering department's base of operations located in Irvine, our firm will be able to respond efficiently to meet Santa Ana's needs.

PARKS & TRAILS

- Walnut Grove Park
- Anaheim Cove Recreation Trail
- West San Gabriel River Trail
- Eastside Community Park Phase 2
- La Quinta Park
- Liberty Park Improvements
- Adelana, Byerrum & Valencia Park Renovations

ON-CALL CONTRACTS

- City of Santa Ana
- City of Huntington Beach Water Quality
- Riverside County FCD
- City of Mission Viejo
- City of Yorba Linda
- City of Santa Fe
- City of Downey
- City of Long Beach
- Santa Margarita Water District GIS
- OC Public Works
- Los Angeles County Department of Public Works

IMPROVEMENT PLANS

- Lost Hills/US 101 Interchange
- Montalvo Canyon Drainage Study
- El Camino Real/Paseo Peregino Wall
- Street of the Golden Lantern Median Reductions
- Maintenance Service Center Solar Canopies

AWARD WINNING PROJECTS

ORTEGA HIGHWAY (SR 74) ROAD WIDENING
- Partnership Award by the Orange County Business Council

LADERA RANCH STORM WATER SYSTEM
- Project of The Year Award

SAN JOAQUIN HILLS TRANSPORTATION CORRIDOR
- Project of the Year Award

LAGUNA BEACH STAIRWAY AND STORM DRAIN IMPROVEMENTS
- Engineering Public Works Award

SUBCONSULTANTS

Through teaming strategies, HZ has added many services including geotechnical engineering, and sub-surface investigations. Our proposal includes local MBE Firms we have worked with in the past.

C BELOW SUBSURFACE IMAGING

C Below Subsurface Imaging (C Below) offers professional locating and mapping services throughout Southern California. They locate horizontal and vertical locations of underground utilities including water, gas power, waste, communications, and cable/TV. Many different methods are used to locate these utilities including GPR, CCTV, utility locators, electromagnetic locators, and potholing.

Services:

- Subsurface Investigation
- Locating
- Mapping
- Utility Trenching

NINYO & MOORE (MBE)

Ninyo & Moore, a California Corporation, is a minority-owned, multidisciplinary consulting firm that provides high-quality geotechnical and environmental consulting services. The firm was incorporated in 1986 to provide consulting services in geotechnical engineering, construction inspection and testing, engineering geology, hydrogeology, hazardous waste remediation and environmental assessment. The firm's more than 390 professionals includes experienced and registered geotechnical engineers, civil engineers, environmental engineers, engineering geologists, hydrogeologists, environmental scientists, certified technicians and field inspectors, and hazardous waste and regulatory compliance specialists Ninyo & Moore serves its clients through offices in Los Angeles, and Irvine.

Services:

- Geology
- Geotechnical Engineering
- Water Well Engineering

NV5 BUTSKO UTILITY DESIGN

Butsko Utility Design, Inc. (Butsko) is the single source for dry utility - electrical, telephone, cable television, fiber optics and natural gas planning, management, design and engineering needs. Since 1994, Butsko has effectively contributed their skills to projects of all types, sizes and geographic regions including master planned communities, municipal improvements, commercial/industrial centers, residential subdivisions/developments, and electric substation site design.

Services:

- Utility Planning and Management
- Utility Construction Coordination

ECORP CONSULTING, INC

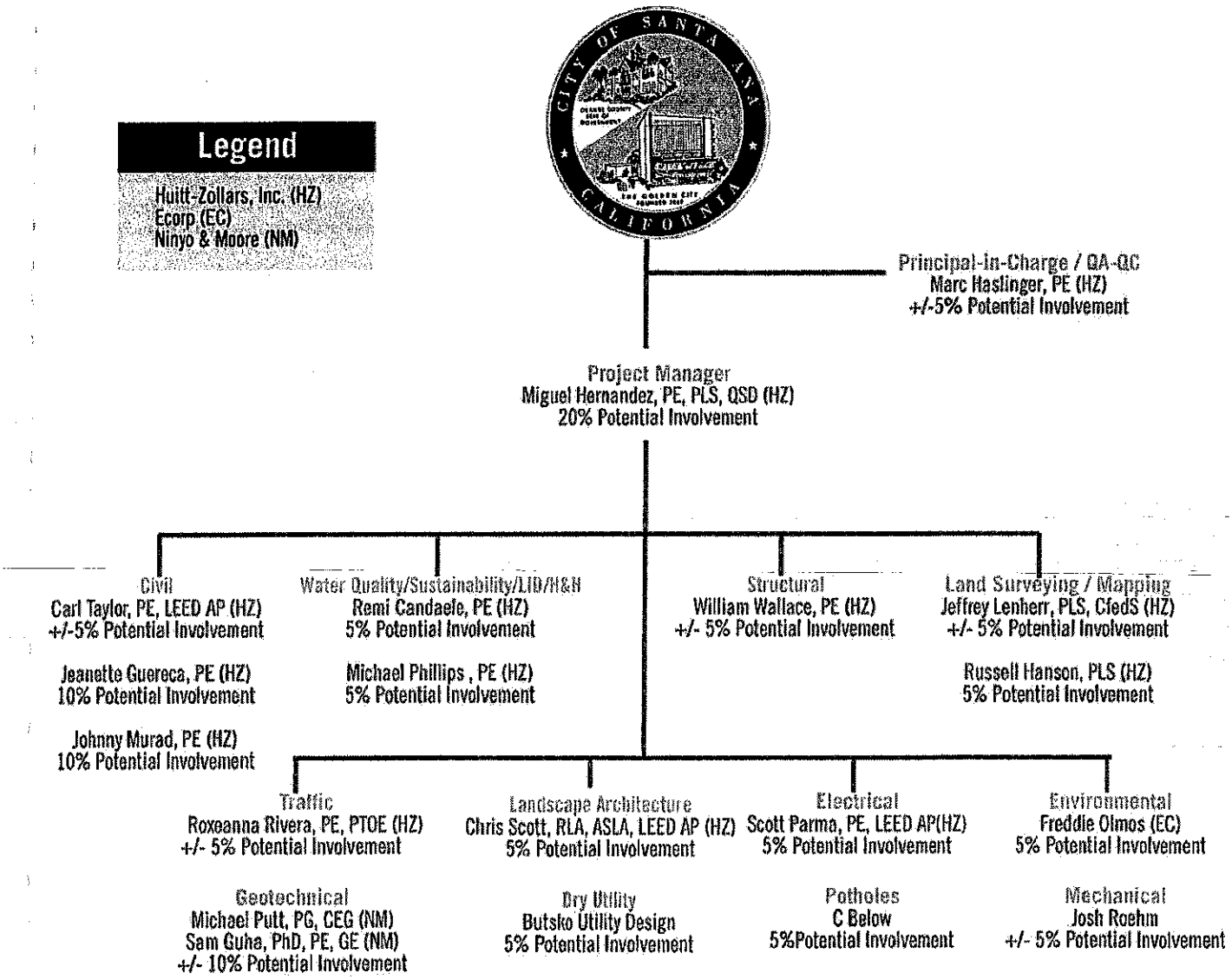
ECORP is experienced in the preparation of Preliminary Environmental Study (PES) forms for projects per Caltrans' Local Assistance Procedures (LAPM). ECORP has used the PES form to consult with Caltrans/FHWA to determine the appropriate NEPA amd CEQA document for a project. ECORP staff have prepared Categorical Exclusions/Exemptions (CE/CEs), Environmental Assessments (IS/EAs) and Mitigated Negative Declaration/Finding of No Significant Impacts (MND/FONSIs) for a series of projects with Caltrans involvement. ECORP has experience wokring on CEQA/NEPA,biological, and cultural projects for several districts, including the City of Santa Ana.

Services:

- Environmental Services

ORGANIZATION CHART

The principals and professionals you see in the organization chart will be the same professionals you will see throughout the life of the project. Keeping the continuity of information and decision-making funneled through our professionals, is critical to project success. The Huitt-Zollars' design team will be further supported by the current staff of over 500 professionals, committing our depth of resources to respond to your project. Our Project Manager will act as the single point of contact.



D UNDERSTANDING OF NEED

The City intends to retain civil engineering consultants from a pre-qualified list to provide services for a variety of projects on an as-needed basis. Projects may include:

TASK	HUITT-ZOLLARS	CONSULTANT
Civil Engineering	X	
Construction Documents (PS&E)	X	
Construction Administration	X	
Hydraulics Modeling (Storm, Water, & Sewer)	X	
Street Improvements and Rehabilitation	X	
Utility Design	X	
Right-of-Way Studies	X	
Sustainable Infrastructure Services	X	
Water Well Design	X	X
Dry Well Design	X	
Storm Water Treatment	X	
Sewage Lift Station	X	
Pressure Control Systems	X	
Financial and Economic Consulting Engineering	X	X
Grant Writing Services	X	X
Pavement Management	X	X
Fire Protection	X	
Special Engineering Studies	X	X
Regulatory Compliance	X	
Transportation/Traffic	X	
Signal Modifications	X	X
Traffic Studies	X	X
Signing and Striping	X	
Bike Path Design	X	
Structural Engineering	X	X
Land Surveying	X	
Mapping	X	
Construction Staking	X	
Landscape Architecture	X	
Construction Management	X	
Mechanical Engineering	X	
Electrical Engineering	X	
Geotechnical Engineering		X
Environmental/Planning Support		X
Instrumentation and Control Systems		X

More specifically for this proposal the City is seeking submittal of qualifications for two options. Design and construction support services for:

OPTION A: WATER RESOURCES

- Rehabilitation of a 30 year old water well
- 1500 LF of domestic water design (12" PVC)
- 600 LF of sewer design (15" Material TBD) with arterial street

PRELIMINARY ANALYSIS:

1. *Sewer Material:* Many factors should be considered when determining the best material for sewer construction. These include:

   - » Corrosion
   - » Abrasion
   - » Strength
   - » Durability
   - » Weight
   - » Imperviousness
   - » Cost
   - » Hydraulic Efficiency

   Of the many materials available each offers a set of unique advantages and disadvantages. For a 15" pipe, the material most commonly used in local cities under an arterial roadway would be vitrified clay pipe (VCP). It performs well in typical urban loading conditions and maintenance departments are well prepared to work with it. Our experience would have us assume VCP will be high on the list of options.

2. The City has determined that the existing water well performance dropped by 35%. This percent is above the 25% rule of thumb that would indicate it's time for rehabilitation. The RFP mentions that the water well is a sand producers but does not indicate if the sand production has increased. It is our assumption that the City has concluded that the sand production rate is within an acceptable range and that the information is meant to determine that the aquifer type is "Sandstone." The most prevalent water well problems for this type of aquifer would be:

   - FISSURE PLUGGING - CASING FAILURE - SAND PRODUCTION - CORROSION

   The anticipated maintenance frequency for a sandstone aquifer would average 8 years. If the well has dropped 35% over 15 years this is within the anticipated limits and sand production has not increased, casing failure is unlikely. It is also our assumption that surface equipment has been evaluated and that the well was constructed with corrosion in mind. This leaves plugging as the likely cause for loss of production! We anticipate that further evaluation will lead to the following rehabilitation methods:

A. Aqua Freed CO2 Injection: Effective at removing mineral incrustation, biological fouling, and physical plugging. Provides extensive geological penetration, it is 100% green, and environmentally sound with no adverse chemical waste stream.

B. Chemical and Acid Cleaning: Used in Conjunction with pumping and surging it is effective at dissolving minerals and impacting biological activity and physical plugging of sands. The chemical solution is tailored specifically for the plugging problem. It offers limited geological formation penetration and produces a waste stream of spent chemicals that must be neutralized and disposed of properly.

OPTION B: GENERAL ENGINEERING (OTHER THAN WATER RESOURCES)

- Conceptual street widening and rehabilitation including parkway improvements
- New bike lane
- Intersections are complete

PRELIMINARY ANALYSIS:

1. *Exclusions*
   - » Traffic signals and median design
   - » Traffic Report
   - » Right-of-Way Services

2. *Assumptions*
   - » Water, sewer, and dry utilities will be protected in place
   - » Storm drain will require retrofit to new curb and gutter alignment
   - » Must meet water quality requirements
   - » Manholes and valves will be adjusted to grade
   - » Street lights and illumination design required
   - » Sound wall required

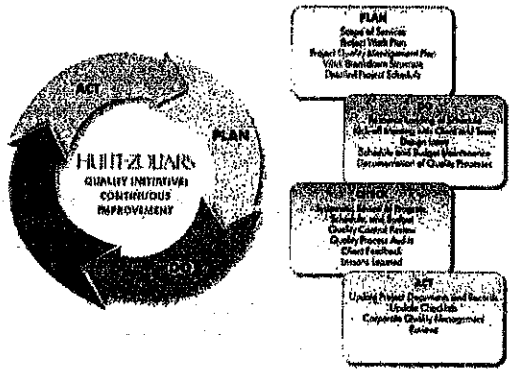
Our QA/QC program sets a procedure that ensures deliverables for both options A and B meet your expectations. As an ISO 9001:2015 compliant firm, the Quality Management Program serves as the foundation for continuous improvement in all aspects of our work. For our staff Quality Assurance is more than just a program that ensures proper internal review and documentation. It is a frame of mind with which we approach our work. The procedure will help us deliver high quality plans at 30%, 60%, and final submittal.

Our quality assurance program comprises all activities necessary to ensure that projects perform according to expectations. The QA program places emphasis on planning control, design control, computer software control and records. We institute our QA program through early involvement of experienced members. This process begins with our proposal, is formalized by project kick off, and continues through project close out via our coordination. The program will ensure that an acceptable level of quality is achieved and maintained in each design.

We are proposing a highly-specialized team of registered professionals with a history of delivering on similar projects. A team with a bench strength unmatched in the industry. Our project manager will be assisted by the principal-in-charge and supported by key personnel. The staff we are committing is organized so that redundant leadership is available in critical aspects of design. Our team offers additional value because it will rigorously analyze a design to provide sustainable cost effective solutions.

ADVANCEDESIGN – To effectively incorporate advance innovative designs into projects, it is imperative to select a team that has been properly prepared. Our team approach will explore design from all sides, meet challenges from new angles, and help uncover perspectives that are often overlooked. Our design process is interactive and responsive. It engages all stakeholders relevant to the success of the project. We have assembled the right team!

At the proposal stage overall project direction is determined, the strategy for project is specified, and general methodology is developed. Milestones are set with measurable timelines for checking progress on budget and scope completion. After award, our project manager prepares a project specific **Work Plan.** The Project Work Plan adds detail to the proposal scope of work, identifies the project team assignments and responsibilities, the project budget and schedule, and information regarding design criteria, inputs and constraints for the project. The Plan also specifies the governing design codes, guidelines and CAD standards.



The Project Work Plan includes a Project Quality Management Plan (QMP) that is specific for each project. The QMP identifies the QC Manager and constructability reviewer. It includes project deliverables, design tasks, and schedules in-house reviews. The QMP verifies that the all requirements are met. It is based on a 4-step process of Plan – Do – Check – Act. By working on continuous improvement we ensure that our services provide added value.

Work Breakdown Structure - Huitt-Zollars will develop a Work Breakdown Structure (WBS) that identifies specific tasks needed to accomplish the proposed scope of services. We will determine the level of effort required for each discipline to complete each task under the WBS. This effort is used to establish the proposed compensation for the project and helps overcome potential budget challenges.

Detailed Project Schedule – Several characteristics comprise our approach to developing and maintaining a realistic schedule. This starts with participation of the entire project team. It is imperative that the schedule be sensitive to the demands of every discipline and client review periods. A schedule must account for stakeholder considerations and include time contingencies for resolving unforeseen variables. Our PM is assigned the responsibility of developing and tracking the project schedule. Our WBS format allows our PM to review budgets against associated milestones. We require that the PM update the Principal with project progress weekly. This results in a sense of urgency that will benefit each project.

Quality project delivery can be impacted by many things. However, there are five areas that will demand our focus.
We will design both projects A and B as the City intended to design them. This will be accomplished by listening and clearly understanding your expectations. We will confirm our understanding in our negotiated scope and verify that we are on track by conducting design review meetings on a regular basis from planning through final design.

- **We will design both projects A and B as the City intended to design them.** This will be accomplished by listening and clearly understanding your expectations. We will confirm our understanding in our negotiated scope and verify that we are on track by conducting design review meetings on a regular basis from planning through final design.
- **We will meet with sub-consultants to ensure their scope is complete.**

- **We will design the project in accordance with your schedule.** This begins with development of a detailed schedule that includes critical path, agency review times, and milestones. Progress will be reviewed during our design meetings.
- **We will design a project that is within your budget.** We will develop a project budget that includes contingency, probable construction cost, and consultant fees. The probable construction cost will be prepared using current unit prices and submitted for review.
- **We strive to minimize non-client initiated change orders during construction.** Our QA/QC procedure implements a constructability reviewer. It helps us foresee and resolve potential issues before the bidding phase.

Our PM will establish the framework and ensure that we capture your expectations for quality prior to publishing our plan.

Existing Utility Inventory – Every project presents its own special design challenges. The most frequent challenge related to existing utilities we would expect in the City of Santa Ana. Is that improvement to utilities located in developed areas will generally affect or be affected by other utilities. Through experience we have learned that existing records may be non-existent, inaccurate, or lack information. This is why all projects require an effective existing utility locating approach. A precise utility inventory will:

- Equal a high quality design
- Avoid conflicts during construction
- Prevent utility interruptions
- Promote public safety
- Avoid construction change orders
- Prevent construction delays

With HZ, utilities will be located, verified, and compiled into a V8i CADD file using a "Four Tier Approach."

TIER I: SITE INVESTIGATION – Huitt-Zollars conducts a cursory site investigation that includes pictures used to formulate the scope of services. The information gather identifies utility purveyors in the project vicinity and assesses probable challenges.

TIER II: GATHER RECORD DATA – Huitt-Zollars request records from utility purveyors in the project vicinity. The City of Santa Ana will provide information in its possession relevant to the preparation of the project plans. Record information will be reviewed and compiled into a V8i CADD file. The information is further verified during the topographic survey.

TIER III: TOPOGRAPHY SURVEY – One week prior to surveying, HZ will contact Dig-Alert USA with a project exhibit to request that existing utilities be marked within the project limits. Our survey department will capture utility markings, visible surface utility features, and dip manholes as necessary. The survey shots will be compiled with the record data and used to verify utility locations, inverts, size, and flow direction. The information will help our civil team foresee potential challenges during design.

TIER IV: SUB-SURFACE INVESTIGATION – The data collected in previous tiers is used to arrive at possible utility conflicts during preliminary design. Our goal is to resolve each conflict via good research and design. But we must also prepare with a set aside budget for further sub-surface investigation shall it be necessary. A task sets aside a budget for potholing cost and incidentals. The investigation is kicked off after preliminary design so that the findings help improve the level of quality of future submittals.

Environmental Assessment – Our assumption for both project options is that the work limits are within areas with existing infrastructure. Small improvements of this nature typically qualify for environmental exclusions but if the work requires a negative declaration. Our first step would be to research existing environmental filing(s). There after our consultant and civil team would assist the City of Santa Ana with supporting studies and documentation to comply with CEQA and/or NEPA. We have assumed exclusions have been filed for both options A and B.

Topography - HZ is leading the industry with fixed wing aerial drone surveying. The new technology has a perfect platform in topography. With on board RTK the data will generate an accuracy that matches conventional aerial photography but a picture quality that is unmatched. It allows for quicker delivery and data control at a competitive fee. The data would be supplemented with a field survey(s) and tied to the most appropriate datum. HZ will acquire necessary permits to perform aerial surveys via drones. Our survey department would also provide legal descriptions, if required. Providing plans, specifications, and estimates (PS&E) for engineering projects is the backbone of our Irvine branch. We are familiar with local, state, and federal codes and regulations. This ensures that the design is in conformance with established guidelines. We are also experience with preparation of special provisions. We have been serving Southern California for over 30 years this includes projects with the City of Santa Ana. We are familiar with the City's criteria for acceptance of plans.

Encroachment – Potential encroachments would be identified in the proposal stage. The work to coordinate, design, provide temporary easements, etc. would be included in the fee proposal. Our goal during design is to make every attempt possible to avoid impact to adjacent properties but it is not always possible. With options A and B we have assumed that all work will fall within City controlled property and that encroachment is not necessary.

Water Well Expertise – Our proposed project team has a history of successfully delivering water well design services. Our Bakersfield National Cemetery Project constructed a water well for domestic and irrigation use. Our proposed PM, Mr. Hernandez, rehabilitated several water wells that were used for construction water. The same water wells were later used to feed a cooling system for the Mojave Solar Project.

25E-278

Utility Services – Our project experience offers many projects with sewer, water, and storm drain design. We have also provided dry utilities coordination. We are currently working on projects that install and/or retrofit utilities.
Roadway Design Specialists – Our project team has provided roadway design services for urban, rural, primary, secondary, and major roadways. We are equipped to address all option B aspects including:

- Conceptual Design Alternatives
- Utility relocations/adjustments
- Parkway Landscaping
- Sound Wall and Retaining Walls
- Drainage
- Storm Water Management
- Rehabilitation
- Final Design PS&E packages
- Bike Path

Traffic Engineering – We offer complete traffic engineering services. HZ has completed hundreds of traffic engineering projects. Our traffic engineering staff are experts in all aspects of traffic engineering and operations. This includes:

- Signing and Striping
- Temporary Traffic Control
- School zones
- Pedestrian Safety
- Bicycle Safety
- Parking, access, and circulation
- Traffic Calming Plans

Traffic Control – Option B would include signing and striping for proposed improvements. The signing and striping would consider the proposed bike path. Both project will require temporary traffic control during construction. Temporary traffic control could be deferred to construction phase or it could be included with construction documents.

Hydrology and Hydraulics Analysis – Option B would include a hydrology and hydraulics analysis that assess drainage improvements.

Water Quality Compliance

WQMP – In accordance with MS4 Permit Guidelines
SWPPP - Prepares PRDs in accordance with the requirements set forth in the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. The SWPPP may also be deferred to the construction phase.

Geotechnical Recommendations – Our consultant will provide the required analysis to determine the street section thickness, sub-surface soils classification and condition, evaluate soil properties, provide geotechnical parameters, trench stability requirements, and backfill recommendations. We will coordinate with the City to make sure quality and durability are not compromised.

Estimates – HZ will generate quantity takeoffs and an opinion of probable construction cost for proposed project improvements. Cost estimates shall include construction, engineering, inspection, administration, right-of-way, and contingency. The estimate shall tie the unit price to a cost index and provide a format that is easily updated or revised. Bid prices from recent city project shall be reviewed to verify unit prices.

Specifications – HZ will utilize the City of Santa Ana standard bid specifications and edit them to fit both project requirements. This will include a bid sheet showing the anticipated project quantities.

Construction Administration Services

1. Bid Support – Assist City with bid documents, attend bid meeting, and provide bid support.
2. Construction Support – Attend pre-construction meeting, provide ongoing support, and attend construction meetings as required.
3. Project Close Out – Utilize contractor redlines for as-built plans to prepare record plans in Micro-Station V8i CADD and pdf format.

Client Satisfaction – Huitt-Zollars achieves client satisfaction by dedicating a concise and experience team that will deliver on schedule and within budget. A key component is effective communication that begins with listening to the City's ideas, concerns, and goals. Our status reports summarize discussions, provide follow up action items, and set dates for follow up items. We will create a project work plan that includes that includes all critical tasks to deliver a design that meets expectations. We will integrate ourselves via meetings, emails, and conversations so that we become an extension of the City's vision for the project. We will attend community meeting to help gain acceptance.

E PROJECT EXPERIENCE

LA PATA AVENUE GAP CLOSURE & CAMINO DEL RIO EXTENSION

Orange County, California (COMPLETED 2017)

Huitt-Zollars prepared PS&E and right-of-way documents to close an existing gap in Orange County's Master Plan of Arterial Highways between Ortega Highway and the City of San Clemente. This 3.7 mile long, $72 million project was comprised of critical elements that came together for the project's success: working within the Prima Deshecha Landfill and designing controlled access to the landfill; widening an existing section of roadway that must remain in operation to serve the landfill and adjacent high school; and pioneering a new roadway through undeveloped, mountainous terrain with final roadway grades up to 7%. Huitt-Zollars overcame multiple challenges associated with the following critical elements: moving 15 million cubic yards of earth; performing landslide remediation; mitigating effects of constructing the roadway through a former landfill area and relocating more than one billion pounds (850K cubic yards) of municipal solid waste; relocating two steel lattice electrical transmission towers; actively communicating with impacted communities; and responding to numerous environmental mitigation measures that must be implemented during design and construction. Challenges were also associated with constructing deep drainage culverts, storm drainage systems and water quality basins, two cast in place bridge overcrossing and five 30-foot diameter steel multi-plate tunnel undercrossings. Installed approximately 3,000 LF of sewer and domestic water line.

The project included installation of approximately 3,000 LF of sewer and domestic water line and construction/extension of 22 cross culverts beneath the future roadway and a substantial roadway storm drain infrastructure comprised of more than 15,000 linear feet of reinforced concrete pipe; ranging in size from 18 to 108 inches in diameter. The roadway storm drain infrastructure segregates roadway runoff from offsite drainage areas in order to facilitate treatment of roadway impervious surfaces. To meet Orange County criteria and NPDES requirements, a total of six combined basins (to address water quality, hydromodification, and detention) were included in the project to address pollutants of concern and meet LID requirements. Flood control requirements are met by providing additional peak flow detention storage (over ten acre-feet) in these basins.

RELEVANT DESIGN COMPONENTS:

- *Sewer and Domestic Water*
- *Road Widening*
- *Gap Closure*
- *Retaining Walls*
- *Bridges and CSSP*
- *Design, Geometrics, PS&E*
- *Hydrology & Hydraulics*
- *Bridge Computer Programs*
- *Right-of-Way*
- *Value Engineering*
- *Landfill Engineering*
- *Pavement Rehabilitation & Overlay*
- *Geotechnical*
- *Storm Drain*
- *Minor Structures*
- *Traffic Signals*
- *Traffic Control/Construction Staging*
- *Signage & Striping*
- *Construction Support*
- *Utility Coordination & Relocation*

CLIENT CONTACT:

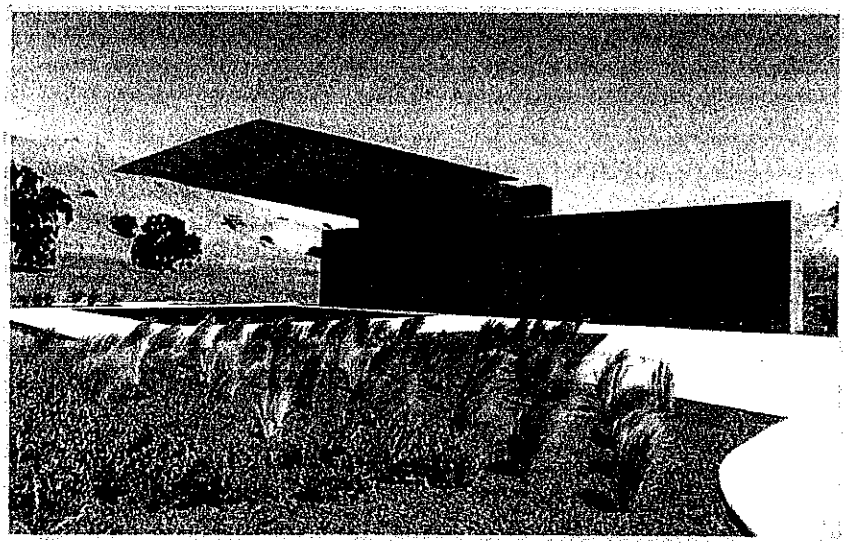
OC Public Works
Fiona Man
300 N. Flower Street
Santa Ana, CA 92702
714.647.3953

Project of The Year Award
Design Quality Partner Award for Projects $51 - $100 Million
#2 on Roads and Bridges Magazine Top 10 Roads List
B.E.S.T. Award for a Regional Transportation Project

BAKERSFIELD NATIONAL CEMETERY

Arvin, California (COMPLETED 2013)

Huitt-Zollars is leading a multi-disciplined team in the preparation of an overall Master Plan and Phase 1 construction documents for a new 500-acre national cemetery for the U.S. Department of Veterans Affairs (VA). The construction budget for Phase 1, including a "fast-track" initial Phase 1A, is $15.6 million. HZ is providing civil, structural, mechanical and electrical engineering, and plumbing design, and is coordinating the cemetery planning, architecture, landscape architecture, irrigation design, geotechnical and environmental services, and cost estimating. This cemetery will be one of six new cemeteries added to VA's 126 existing national cemeteries. Phase 1 construction will include a Public Information Center/Administration Building, a Maintenance Building and yard, an assembly area, a committal shelter, and internment areas for 1,700 traditional casket burial sites, 4,000 pre-placed concrete crypts, 500 in-ground cremain burial sites, and 3,000 columbarium niches. The challenges of this complex, large-scale project included optimizing grading with geological conditions and constraints; preparation and processing of an environmental jurisdictional determination with USACE and CDFG; coordination of utility service extensions from a proposed water well to the site; and developing landscape planting and irrigation strategies to optimize use of the limited supply of available groundwater.

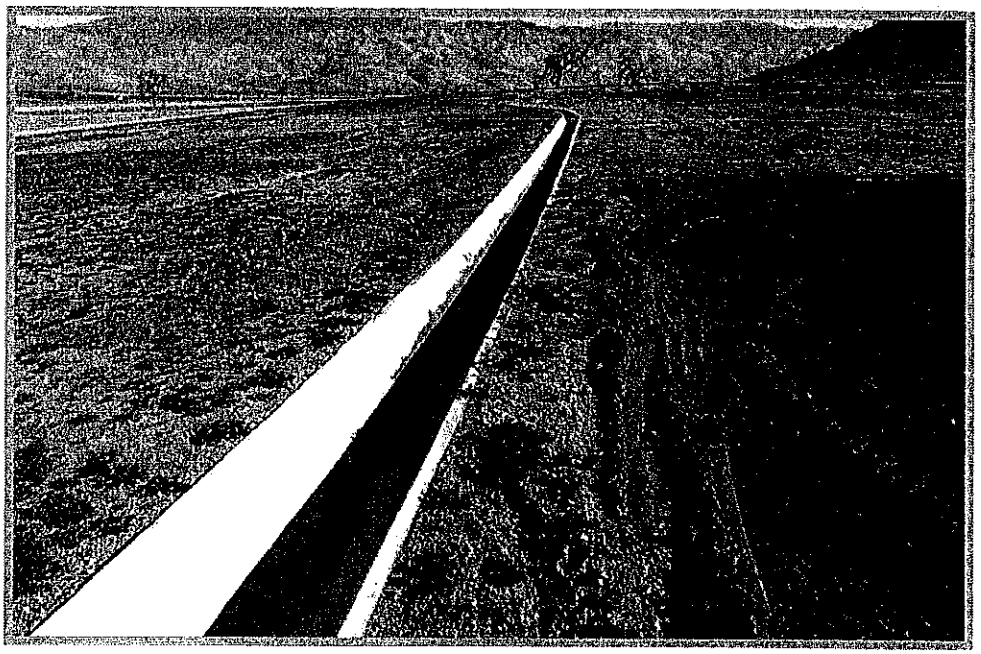


RELEVANT DESIGN COMPONENETS:

- *Water Well Design*
- *Sewer Design*
- *Domestic Water Design*
- *Irrigation Water Design*

CLIENT CONTACT:

US Department of Veterans Affairs
National Cemetery Administration
Clifford Schem
1301 Clay Street, Suite 1230N
Oakland, CA 94612
510.637.6270



ALTON AVENUE WIDENING AND SR55 OVERCROSS

Santa Ana/Irvine, California (COMPLETED 2013)

Huitt-Zollars prepared plans, specifications, estimates, and the environmental revalidation for the Alton Avenue Widening and Overcrossing at SR-55. The project is constrained in a tight urban environment where right-of-way impacts had to be evaluated on a case-by-case basis. Major Southern California Edison lines paralleled the project area and were included in the utility investigations. The project impacted an existing open trapezoidal flood control channel, which was proposed to be relocated and put in a box culvert outside of freeway right-of-way. The Army Corps of Engineers was consulted regarding jurisdiction over this facility. Existing ramps were redesigned to join the widened freeway. The project included:

- Development of local street improvements along 1.3 miles of Alton Avenue from Main Street in Santa Ana to Gillette Avenue in Irvine
- Freeway widening along 1.5 miles of SR-55 from MacArthur Blvd. to Warner Ave
- Ramp modifications at MacArthur Boulevard and Dyer Road
- A new overcrossing and structure widening
- Design of HOV drop ramps and redesign of the HOV lanes on SR-55

RELEVANT DESIGN COMPONENETS:

- *PS&E*
- *Roadwaya and Bridge*
- *Overcrossing*
- *Grading and Paving*
- *Enviornmental*
- *Landscape*

CLIENT CONTACT:

City of Santa Ana
Public Works Agency
Kenny Nguyed - Sr Civil Engineer
20 Civic Center Plaza m-36
Santa Ana, CA 92702
714.647.5632

OSO MARGUERITE PARKWAYS STREET WIDENING

Mission Viejo, California (COMPLETED 2012)

Detailed geometric studies, topographic surveys, and final construction documents were prepared by Huitt-Zollars for this $5 million project to add one through lane in each direction on Oso Parkway, right-turn-only lanes in each direction on Marguerite Parkway, and create double left-turn lanes in all four directions of the existing arterial highway intersection. Raised medians on all four legs of the intersection were completely reconfigured. Design constraints included access to existing developments, an adjacent hillside slope buttress, major water pressure reducing station, and other utility vaults and facilities. This project affected 4,600 linear feet of highway, three signalized intersections, and included 1,700 linear feet of retaining walls. Construction plans, specifications, and estimates were prepared for this $5 million project. The work of subconsultants for environmental documentation, traffic engineering, landscape architecture, and cost estimating was coordinated by Huitt-Zollars. This project involved relocation of numerous electrical, telephone, cable and gas utility facilities, and reinforcement of the underground vault for the pressure reducing station.

CLIENT CONTACT:

City of Mission Viejo Public Works
Mark Chagnon - Director
200 Civic Center Drive
Mission Viejo, CA 92691
949.470.3091

RELEVANT DESIGN COMPONENETS:

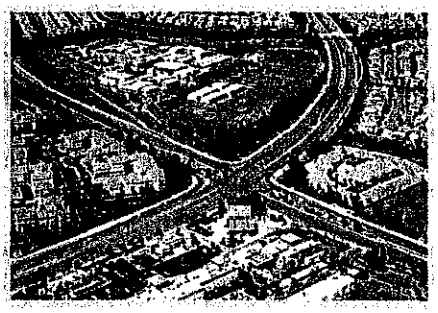
- *Road Widening*
- *Traffic Signals*
- *Signage & Striping*
- *Retaining Walls*
- *Pavement Rehabilitation & Overlay*
- *Traffic Control/Construction Phasing*
- *Right-of-Way*
- *Storm Drain*
- *Design, Geometrics & PS&E*
- *Private Property Access Modifications*

OSO/ANTONIO PARKWAYS STREET IMPROVEMENTS

Orange County, California (COMPLETED 2012)

Huitt-Zollars was retained by Orange County Public Works to prepare Letter of Design Recommendations (LODR) and final construction plans, specifications and estimates for the improvement of the Oso Parkway / Antonio Parkway intersection in South Orange County. The $2 million project's purpose was to improve the capacity of this intersection to accommodate increased traffic resulting from continued new residential development throughout the region. Capacity improvements at the intersection were as follows:

- Antonio Parkway: Addition of a fourth southbound thru lane and a third northbound left-turn lane onto Oso Parkway
- Oso Parkway: Addition of a fourth eastbound thru lane



CLIENT CONTACT:

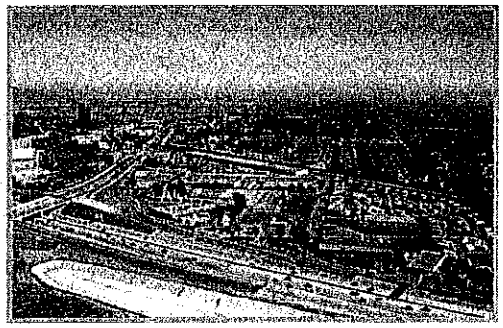
OC Public Works
Steve Soo - Project Manager
300 N. Flower Street
Santa Ana, CA 92703
714.667.9659

RELEVANT DESIGN COMPONENETS:

- *Road Widening*
- *Traffic Signal*
- *Signing & Striping*
- *Right-of-Way*
- *Traffic Control/Construction Phasing*
- *Pavement Overlay/ Rehabilitation*
- *Design, Geometrics & PS&E*

OXNARD VILLAGE WAGON WHEEL

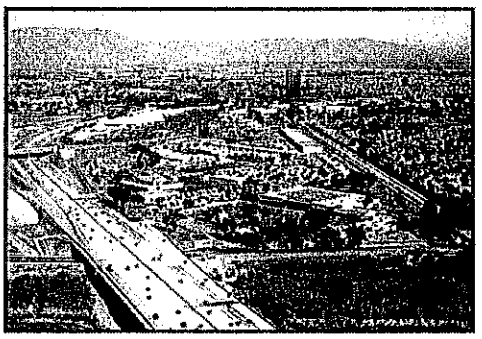
Oxnard, California (ONGOING)



Oxnard Village is an approximately 60-acre privately funded re development project located at the westerly gateway to the City of Oxnard, along the 101 Freeway. The under-utilized site contained 1950's era motel, mobile home park, retail/commercial and light manufacturing uses. This mixed use project will ultimately include 1,500 residential units with row-houses, podium stacked flats, live-work units and luxury high rise condominiums and luxury hotels. Four parking lots have already been designed which included aesthetic, decorative lighting, water quality, space, enhanced paving, vehicular, pedestrian and disabled access, as well as drainage challenges. In each case, both a functional and aesthetically pleasing built environment resulted. The project is ongoing and will continue development while serving the City of Oxnard for many decades into the future.

RELEVANT DESIGN COMPONENTS:

- *Street Improvements*
- *Sewer, Domestic Water*
- *Reclaimed Water*
- *Storm Drain*
- *Flood Control*
- *Mulitple Parking Lots*
- *Landscaping*
- *Water Quality*
- *Vehicular & Disabled Access*



CLIENT CONTACT:

Oxnard CRFL Partners
Carl Renezeder
64 Maxwell
Irvine, CA 92618
949.719.9040

SANTA ANA ON-CALL SURVEY PROJECTS

Santa Ana, California (COMPLETED 2017)

Huitt-Zollars was responsible for the Topographic Survey for that portion of Warner Avenue from westerly of Main Street to easterly of Oak Avenue. Work included establishment of horizontal control based on the centerline of Warner Avenue and the establishment of vertical control; tying out the existing centerline monumentation prior to construction and the preparation of Pre-Construction Corner Records to be used during the construction phases of the project by surveyors doing boundary work in the area and for replacement of the monuments that were destroyed during construction; setting and control of aerial targets and photo ID points; flight, photography, and compilation of the aerial topographic mapping; cross-section survey at 25 foot intervals and a detailed design survey of all existing improvements from R/W line to R/W line; and the preparation of a Topographic Map showing the results of the work.

CLIENT CONTACT:

City of Santa Ana
Kenny Nguyen
20 Civic Center Drive
Santa Ana, CA 92702
714.647.5632

RELEVANT DESIGN COMPONENETS:

- *Topographic Survey*

SANTA MARGARITA WATER DISTRICT

Rancho Santa Margarita, California (ONGOING)

Huitt-Zollars prepared the design of approximately 6,000 of 12" HDPE highline for recycled water to assist the Water district in the transportation of recycled water through the Santa Margarita Water District. Huitt-Zollars also assisted the Santa Margarita Water district in the design and construction of a booster pump station to boost the pressure of the recycled water line through multiple pressure zones.

Additionally, Huitt-Zollars worked with Santa Margarita Water District to prepare multiple details to switch pipe materials and underground the highline into a casing and create a crossing of a secondary arterial highway. The design was completed to allow for the maintenance of the pipe without disrupting traffic on the highway.

RELEVANT DESIGN COMPONENTS:

- *Survey*
- *Engineering Estimates*
- *Water Improvements*

CLIENT CONTACT:

Santa Margarita Water District
Jamie Aguilar
26111 Antonio Parkway
Rancho Santa Margarita, CA 92688
949.459.6400

REFERENCES

La Pata Avenue Closure & Del Rio Extension

Nardy Khan - Deputy Director
County of Orange Public Works
300 N. Flower Street
Santa Ana, CA 92702
714.920.7454
nardy.khan@ocpw.ocgov.com

ORANGE COUNTY OC PublicWorks

HZ prepared PS&E and right-of-way documents for the County's 3.7-mile-long, $75 Million La Pata Avenue gap closure and widening project.

Roadway Widening along El Prado Road

Liza Munoz, PE - Senior Office Engineer
Inland Empire Utilties Agency
6075 Kimball Avenue
Chino, CA 91708
909.993.1522
lmunoz@ieua.org

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

HZ designed a roadway widening along El Prado Road and Mountain Avenue for the City of Chino.

Ross, Walnut, & Magnolia Storm Drain Project

Lupe Camacho - City Project Engineer
City of Chino Public Works
13220 Central Avenue
Chino, CA 91710
909.334.3406
lcamacho@cityofchino.org

HZ prepared the preliminary and final drainage analysis and improvement plans for the extension of a 72-inch storm drain main along Ross Avenue, Walnut Avenue, and Magnolia Avenue from Riverside Drive to the 60 Freeway.

2 SCOPE OF SERVICES

Huitt-Zollars reviewed the RFP and provides the following as a supplemental sample scope of services. Design plans and reports would follow the City's standard format.

TASK A: Project Management and Coordination - After contract award HZ will prepare a Project Work Plan (PWP) and schedule a kick-off meeting. The PWP will be provided to the City for review and comment prior to the kick-off meeting date. Said PWP will expand on:

- Design Team (City of Santa Ana/HZ/Consultants)
- CADD Standards
- Scope of Work/Deliverables
- Drawing List
- Applicable Criteria/Standards/Codes
- Specification Requirements
- Schedule/Milestones
- Design Budget(s)
- Quality Control/Quality Assurance
- Value Engineering (Construction Budgets)

During the kick-off meeting the development team will review the PWP, identify key staff, and establish lines of communication. The PWP will be updated per comments provided during the kick-off meeting and publish with the City's approval. The published PWP will be used by the project manager to monitor the project during design.

Starting from the date of kick-off meeting, Huitt-Zollars will be responsible for project management and coordination of the project. This includes:

- Development team meetings between the City of Santa Ana and consulting team
- Meetings with affected community members, stakeholders, and utility companies

Sample List:

City of Santa Ana (Water, Sewer, & Storm)
Orange County Sanitation District
Union Pacific Railroad
Southern California Edison
Southern California Gas
AT & T
Time Warner Cable
Santa Ana Unified School District
Preparation of progress reports to the City of Santa Ana
Monitoring the design elements and schedule per published PWP
Securing permits – HZ will coordinate with agencies involved in the project, prepare, and file to acquire required permits on behalf of the City of Santa Ana.

TASK B: Records Research – The utility list will be compared to findings from Underground Service Alert. All Utility agencies will be contacted to gather and review available record data. Record information will be evaluated against the survey and compiled into a master Vi8 CADD file. HZ will evaluate "record" information against proposed facilities to pinpoint potential conflicts. All potential conflicts will be tagged for further investigation during the pothole investigation.

TASK C: Survey – The overall topography includes a design survey that captures surface information within the right-of-way and an aerial that extends the topography beyond the right-of-way to capture private property features. It is assumed that the topography limits will be sufficient for design. The City will also provide the record boundary that will be necessary to evaluate right-of-way and property encroachments.

Prior to commencing design the project manager and key personnel will walk the site to evaluate the topography and record information against the existing condition. HZ will review the topography against visible utility features, notate SCE power pole number tags, control panel types, traffic signal types, and mast arm lengths. The information will be compile into the master Micro-Station CAD file for discussion prior to the design phase.

TASK D: Geotechnical Studies/Reports/Boring – Review existing geotechnical report and prepare a comprehensive geotechnical investigation including adequate borings for proper design of proposed work. Obtain required permits to conduct geotechnical investigations and perform applicable lab test to provide information necessary for a comprehensive design. A draft copy of the geotechnical report will be provided for review and comment. Traffic control in accordance with W.A.T.C.H. Manual.

Sub-Task Pavement Evaluation – Excluded but maybe required for Option B
Sub-Task ESA Phase 1 – Deferred: Acquisition Services Task
Sub-Task ESA Phase 2 – Deferred: Acquisition Services Task

TASK E: Traffic Study/Report – Excluded

TASK F: Environmental (CEQA) – Exclusions for both Options.

TASK G: Right-of-Way Acquisition and Temporary Construction Easements (TCEs) – Right-of Way acquisition is excluded. HZ will incorporate the preferred precise alignment into the V8 CADD Files. Plans will be evaluated and TCE's would be provided, if necessary.

TASK H: Drainage - Huitt-Zollars proposes to implement the recommendations from the draft Citywide FLO-2D model that accounts for backwater effects on the storm drain infrastructure. Sizing of the infrastructure will be based on both hydrology and hydraulic computations to be prepared as part of the drainage report. A preliminary drainage report will be created along with the 30% submittal. A final drainage report will be provided with the final submittal.

TASK I: Water Quality Management Plan (WQMP)
Sub-Task I.1 – The design will account for the 50% rule in the 2009 MS4 Permit, which requires treatment for 50% of added or replaced impervious areas. It will implement green street principles to the maximum extent practicable. If the underlying soil does not infiltrate we anticipate using the parkway to provide bio-filtration. HZ will prepare a Preliminary WQMP at the 30% stage that identify potential locations for LID BMPs and their interactions with the onsite storm drain network. HZ will develop the Preliminary WQMP into a Final WQMP consistent with the County's Technical Guidance Manual to accompany the final submittal. This will include an engineer's estimate of probable costs inclusive of material, freight, and maintenance for the selected BMPs.
Sub-Task I.2 SWPPP – Deferred: Construction Bid Task

TASK J: Plans, Specifications, and Estimates (PS&E) - HZ will adhere to city criteria, policies, procedure, and standards. PS&E includes three milestone deliverables – 30%, 60%, and Final. Each milestone will commence after HZ has received review comments from the previous milestone submittal. HZ will meet with the City after comments have been reviewed to resolve questions. All plan sheets will be prepared at 20 scale unless otherwise approved and noted.

Sub-Task J.1 Street Improvements – HZ will match the precise alignment of the constructed street. Plans will include record information regarding utilities, obstructions, and appurtenant data.
Sub-Task J.2 Traffic Design
Street Signals – Excluded
Channelization Plan & Details – Plans will be completed to meet California MUTCD standard, signage will be evaluated and updated for proposed lane configuration.
Temporary Traffic Control Plans – Deferred: Construction Bid Task
Sub-Task J.3 Storm Drain Design - Drainage improvement plans will be prepared at the different milestones. Backbone storm drain profiles will be provided along with the 30% submittal. Profiles for lateral storm drains and storm drain detail sheets will be provided at the 60% and final submittals.
Sub-Task J.4 Wall Design – Design of masonry wall height as specified by sound report or City but not to exceed 12 feet
Sound Report – Provided by City
Sub-Task J.5 Street Lighting & Electrical Design – Typically existing street lights are owned by SCE. If the proposed improvements relocate more than three street lights the proposed lights will be owned by the City of Santa Ana. Street lighting design standards will be coordinated with the City of Santa Ana prior to commencing the design. The design will be per City of Santa Ana lighting standards and consideration will be given to salvaging the existing light fixtures.
Sub-Task J.6 Landscaping and Irrigation Design – Conceptual landscape and irrigation plans will be prepared in conformance with City of Santa Ana standards. Our landscape designers will work closely with our engineers to plan, design, and coordinate gateway features, public art, traffic, and pedestrian lighting, signage, and site amenities. Our team will coordinate with the City to responsibly design landscape and irrigation systems. Planting and irrigation will be mindful of water conservation standards.

Sub-Task J.7 Dry Utilities – Undergrounding existing powerlines is possible if SCE accepts proposed switch locations. As described in the approach coordination with SCE would occur in two phases. Our current scope is limited to street design. HZ will coordinate with third party purveyors to find feasible alignments for dry utility. The proposed alignment would be incorporated into a conflict exhibit for evaluation. The coordination is limited to the street improvement design period.

Sub-Task J.8 Specifications – HZ will utilize City of Santa Ana standard bid specifications and/or the latest edition of the Standard Specifications for Public Works Construction and edit them to fit the project requirements.

Sub-Task J.9 Estimates of Probable Cost – HZ will prepare estimates of probable cost for the proposed improvements.

Sub-Task J.10 Utility Plans - HZ will prepare utility plans this includes an option for potholes to investigate existing utility size and depth. Further investigation will be necessary where record information is unreliable and thought to cause a conflict with proposed improvements. Existing manholes will be dipped where possible to verify inverts and pipe size. Notices will be sent to impacted utility companies and every effort will be made to resolve conflicts prior to 60% submittal.

Sub-Task J.11 Disposition Plans – Removals are limited to infrastructure within project limits

Sub-Task J.12 Water Well Rehabilitation Plan

Sub-Task J.13 Offsite Improvement Plans - Excluded

Option A: Typical Street Improvement set will include:

1. Title Sheet
2. Index Sheet
3. Disposition Plan
4. Street Plans (If Required)
5. Utility Improvement Plans (2 sheets)
6. Water Well Rehabilitation Plan
7. Details and Typical Cross Sections

Option B: Typical Street Improvement set will include:

1. Title Sheet
2. Index Sheet
3. Disposition Plan
4. Street Improvement Plans (5 sheets)
5. Details & Typical Cross Sections
6. Storm Drain Improvements – (2 sheets)
7. Drainage Details
8. Signing & Striping Plans (3 sheets-double stacked)
9. Signing & Striping Details
10. Sound Wall Plan - (3 sheets)
11. Sound Wall Details
12. Streetlight Plan (3 sheets double stacked)
13. Streetlight Details
14. Landscape & Irrigation Plan (3 sheets-double stacked)
15. Landscape & Irrigation Details

TASK K: Construction Administration Services (Optional)

Sub-Task K.1 Bid Support – HZ will be available to attend the pre-bid meeting. Our team will review contractor's RFIs if requested by the City during the bidding phase.

Sub-Task K.2 Construction Support – HZ will participate in construction meetings if necessary. HZ will review submittals and shop drawings required to support the construction contract. Reviews will be completed within 10 working days of receipt. Contractor change orders will be completed within two working days of receipt. HZ will be available as requested by the City to resolve discrepancies in contract documents. HZ will furnish necessary revisions to documents due to errors and/or omission at no cost.

Sub-Task K.3 Record Drawings – The contractor shall provide as-built redlines, HZ will revise approved plans per contractor comments to produce record drawings.

Sub-Task K.4 Project Close-Out - HZ will assist in the development of the project punch list as related to the construction package prepared by our team.

DESIGN SCHEDULE

MILESTONES	DUE DATE
Kick-Off Meeting	May 4
Records Research	June 1
Base CADD File	June 29
Geotechnical Report	July 27
Drainage Report	July 27
Plans, Reports, Specifications, and Estimates 30%	September 14
Plans, Reports, Specifications, and Estimates 60%	December 7
Plans, Reports, Specifications, and Estimates 100%	March 1
Bidding Period	April-May
Kick-off Construction	June

3 FEE PROPOSAL

Please find our Fee Proposal in the separate sealed envelope labeled "Fee Proposal."

APPENDIX

Attachment 3-1 Non Collusion Affidavit
Attachment 3-2 Non-Lobbying Certification
Attachment 3-3 Non-Discrimination Certification

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____ SIGNHERE

State of California
County of _____

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

attached

_____
Notary Public Signature

Notary Public Seal

CALIFORNIA JURAT WITH AFFIANT STATEMENT **GOVERNMENT CODE § 8202**

☐ See Attached Document (Notary to cross out lines 1–6 below)
☐ See Statement Below (Lines 1–6 to be completed only by document signer[s], *not* Notary)

Signature of Document Signer No. 1 *Signature of Document Signer No. 2 (if any)*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 8 day of December 2017.
Date *Month* *Year*
by (1) Marc Hastinger
(and (2)), *Name(s) of Signer(s)*

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

JENNIFER KINNIE
Commission # 2077052
Notary Public - California
Orange County
My Comm. Expires Sep 2, 2018

Signature
Signature of Notary Public

Seal
Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: Appendix AA 3-1 Non-Collusion Affidavit Document Date:
Number of Pages: Signer(s) Other Than Named Above:

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The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Huitt-Zollars, Inc

Signed and Printed Name: Marc Haslinger

Title Office Manager and Vice President

Date March 20, 2018

Appendix A
ATTACHMENT 3-3: NON DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: _____

Title: Office Manager and Vice President

Firm: Huitt-Zollars, Inc

Date: March 20, 2018

KEY PERSONNEL RESUMES

MIGUEL HERNANDEZ, PE, PLS, QSD

Project Manager - Huitt-Zollars

Miguel Hernandez has more than 20 years of experience in Public Works and is proficient with the design of streets, highways, sewer, water, storm drain, grading, hydrology and hydraulics. His experience combined with his ability to communicate will make him a valuable asset to a project. As a Project Manager he will be helpful in coordinating all design inclinations and finding the appropriate balance. When critical deadlines need to be met his proven ability to work under pressure will be invaluable.

EXPERIENCE
22 Years

EDUCATION
BS, Civil Engineering - Cal Poly San Luis Obispo

REGISTRATION
Professional Civil Engineer: California #61378

Professional Land Surveyor: California #8735

RELEVANT PROJECT EXPERIENCE

Mojave Solar Project - *Hinkley, CA*
Ensure all construction work conformed to applicable LORS, coordinated traffic detour plans, reviewed QSP activities, prepared documents to initiate revisions to approved drawings, responsible for work load reports and monitored progress of construction schedule. The project moved over 750,000 CY of soil during the grading activities that required coordination with survey crews and grading contractor. To protect the site from large storm events and balance dirt moving activity 18,000 LF of channel were cut. **The solar plant included rehabilitation of six existing water wells and drilling of four new water wells. Six existing water wells were used for construction water. After construction, two large existing wells were retrofitted and connected to four new water wells to provide water for domestic and power plant use. The two power plants included four water tanks total.**

Farragut Avenue Improvements - *Moreno Valley, CA*
Hernandez was the Project Manager for improvements that included sidewalk, curb, gutters, driveways, drainage, access ramps, utility adjustments, short property walls, missing street lights, pavement repairs, and accommodation of upgraded water line (built in advance by BSMWC) in order to enhance safety and accessibility for commuters and pedestrians on Farragut Avenue from Sherman Avenue to Ellsworth Street.

Jeffrey Road/Portola Parkway Street Improvements - *Irvine, CA*
Hernandez was the Project Manager for the civil design and survey of a new alignment of 1.5 miles of Jeffrey Road and 1.0 mile of Portola Parkway. Work included roadway rehabilitation, electrical conduits, cable/telephone improvements, right-of-way engineering, potholing, and grading. Work also included preparation of infrastructure plans, including storm drain design, 72-inches to 10-inches in diameter over 10,000 feet of pipe, hydrology and hydraulic calculations, sewer plans, dry utilities, specifications, and construction cost estimates. Jeffrey Road and Portola Parkway were designed for a six-lane highway with raised medians, new curb and gutter to replace open ditch channels, pedestrian undercrossing.

Cerritos Avenue Gap Closure - *Anaheim, CA*
Hernandez was the Project Manager for this project located on Cerritos Avenue from Euclid Street to approximately 600 feet east of Euclid Street. The project constructed a five foot wide ADA compliant sidewalk and new storm drain laterals with catch basins. The work also included the construction of block walls and fences. The new sidewalk eliminates the need for pedestrians to walk along the side of the road. Cerritos is designated as a four lane secondary arterial by the County's Master Plan of Arterial Highways (MPAH) with average daily traffic of 9,400 vehicles per day. The project will provide a safer and better access for the school children and pedestrians in general. The services included right of way acquisition.

See Section E: Relevant Project Experience for additional projects.

MARC HASLINGER, PE

Principal-In-Charge - Huitt-Zollars

EXPERIENCE
30+ Years

EDUCATION
BS, Civil Engineering - California State University at Long Beach

REGISTRATION
Professional Civil Engineer: California #49158

Having experience in both the public and private engineering sectors, Marc Haslinger brings a broad wealth of experience to his jobs. He has managed and designed numerous municipal, residential, and commercial projects throughout Southern California from initial planning and feasibility studies through final design, construction, and construction management. His experience has included residential, commercial, and industrial developments; potable and reclaimed water transmission mains and flood control facilities; roadway improvements; and construction management. Haslinger is well-versed in the tools of construction management, contract administration, planning, design, and processing.

Complementing Haslinger's project management capabilities is a hands-on approach and technical knowledge of computer programs in the area of coordinate geometry, hydraulics, hydrology, structures, spreadsheets, critical path networking, management, and other tools necessary for a successful project.

RELEVANT PROJECT EXPERIENCE

Western Avenue Rehabilitation – *Buena Park, CA*
Irvine Center Drive, Sand Canyon to Barranca Parkway – *Irvine, CA*
Irvine Center Drive, I-405 Freeway to Lake Forest Drive – *Irvine, CA*
Bake Parkway, I-405 to Irvine Center Drive – *Irvine, CA*
City of Dallas Facilities Capital Planning, Design and Construction - *Dallas, TX**
Willow Avenue Drain – *West Covina, CA*

CARL TAYLOR, PE, LEED AP

Civil Engineer - Huitt-Zollars

EXPERIENCE
40+ Years

EDUCATION
BS, Civil Engineering - University of California at Berkeley

REGISTRATION
Professional Civil Engineer: California #30924

LEED AP, 2008

Carl Taylor has a strong background in public infrastructure projects. He has worked on arterial highways and intersections, local and neighborhood streets, master plan and local storm drains, city and community parks, trails, streetscapes, vehicular and pedestrian bridges, city halls, libraries, community centers, memorials and plazas, parking lots, sewer and water facilities, and pedestrian and bicycle/pedestrian trails. During his professional career, Taylor has provided plans, specifications, estimates, and construction administration and support for numerous city, county, redevelopment agency, federal, and community facilities district projects.

RELEVANT PROJECT EXPERIENCE

OC Parks On-Call Projects – *Orange County, CA*

- Mathis Trail Repair, Aliso & Wood Canyons
- Creek Restoration, Wagon Wheel Regional Park
- General Development Plan, OC Zoo
- Santiago Creekbank Repair at Arden Modjeska
- Historic Site, Modjeska Canyon Nature Preserve
- Tijeras Creek Trail Repair, O'Neill Regional Park
- Trail Crossing Replacement, Santiago Oaks Regional Park
- Wagon Wheel Creek Restorations, Thomas F. Riley Wilderness Park
- FEMA Repairs, Carbon Canyon Regional Park
- FEMA Repairs, Limestone / Whiting Ranch Wilderness Park
- FEMA Repairs, Upper Newport Bay Nature Preserve
- FEMA Repairs, Laguna Coast Wilderness Park
- Bakersfield National Cemetery

Oso Parkway & Antonio Parkway Intersection Improvements – *Orange County, CA*
Center Street – *Anaheim, CA*
Townsend Place – *Pasadena, CA*

REMI CANDAELE, PE

Hydrology & Hydraulics Engineer - Huitt-Zollars

Remi Candaele brings extensive experience in numerous aspects of surface water management. His expertise include hydrology, hydromodification, and water quality modeling, Best Management Practice (BMP) design and performance, engineering economics, harvest-and-use, statistical analyses and comprehensive watershed strategic plans. Remi successfully developed stormwater implementation framework and conducted compliance inspections for multiple Phase I and II MS4 agencies. He is also recognized for his technical expertise, responsiveness, leadership, and strategic initiatives. Candaele has prepared numerous publications and conference proceedings covering his wide range technical knowledge.

EXPERIENCE
13 Years

EDUCATION
MS, Civil Engineering, Water Resources - University of Texas at Austin

REGISTRATION
Professional Civil Engineer: California #77517

Qualified SWPPP Practitioner: California #20873

RELEVANT PROJECT EXPERIENCE

Huntington Beach Trash Compliance Assistance – *Orange County, CA*
Caltrans Ornamental Vegetation BMP Study
Lake Tahoe Clarity TMDL - *Caltrans*
SMR Hydromodification Management Plan, Riverside County Flood Control – *Riverside County, CA*
South Orange County Hydromodification Plan – *Orange County, CA*
Irvine Regional Park Drainage and Water Quality Improvements – *Orange County, CA*
SAR Watershed Action Plan, Riverside County Flood Control – *Riverside County, CA*
Retrofit Opportunities Water Quality Modeling – *Orange County Public Work Watersheds Division*
National Pollutant Discharge Elimination System (NPDES), Riverside County Transportation Department (RCTD) – *Riverside County, CA*

JEFFREY LENHERR, PLS, CFEDS

Land Survey - Huitt-Zollars

Jeff Lenherr is a Licensed Land Surveyor in California and Washington State. He is also one of a select few Land Surveyors in the United States to hold a Certified Federal Surveyor Certificate. He owned and operated his own Land Surveying Company for 15 years prior to joining Huitt-Zollars in September 2014. He has the experience to take a project from start to finish with minimal oversight, resulting in lower costs and on-time deliveries. He has extensive experience in map preparation and review, geodetic control, right-of-way mapping, topographic mapping, lot line adjustments, subdivisions, legal description preparation, construction staking, Global Positioning Systems, and field procedures.

EXPERIENCE
29 Years

REGISTRATION
Professional Land Surveyor: Washington #35977

Certified Federal Surveyor: #1615

Professional Land Surveyor: California #9305

RELEVANT PROJECT EXPERIENCE

On-Call Surveying/Engineering Services – *Santa Ana, CA*
On-Call Surveying Services – *City of Downey Department of Public Works*
On-Call Professional Services, University of California – *Irvine, CA*
OCTA State Route 22 – *Garden Grove Freeway, CA*
On-Call Surveying/Engineering Services – *Santa Fe Springs, CA*
On-Call Surveying Services - *Orange County, CA*
Solar Canopies at Municipal Service Center – *Thousand Oaks, CA*

EXPERIENCE
25 Years

EDUCATION
BLA - Texas Tech University

REGISTRATION
Registered Landscape Architect: Texas #1976
California #5316

CNU Accredited: 2013

CHRIS SCOTT, RLA, ASLA, LEED AP

Landscape Architect - Huitt-Zollars

Chris Scott is the Team Leader for Planning and Landscape Architecture for the Huitt-Zollars Dallas office. His past project experience ranges from master planning and visioning of urban land developments, community amenity design and aesthetics, hike and bike trail development, multi-family, town home, and student housing developments, commercial and retail developments, multi-use urban developments, streetscapes, manufacturing and industrial development, private and public park development, corporate campus design, restaurant and hotel development, tree preservation and identification, and federal and military housing and urban development.

RELEVANT PROJECT EXPERIENCE

Prima Desecha Landfill Viewshed Study- OC Waste & Recycling – *Orange County, CA*
Coyote Canyon Viewshed Planting PS&E - OC Waste & Recycling – *Orance County, CA*
Irvine Regional Park & Drainage Runoff Control – *Orange County, CA*
Electric Bus Charging & Storage Lot - UCI – *Irvine, CA*
The Landing at Riverpark – *Oxnard, CA*

EXPERIENCE
19 Years

EDUCATION
MS, Environmental Engineering - University of Texas at El Paso

BS, Chemical Engineering - Texas A&M Univesity

REGISTRATION
Professional Civil Engineer: Texas #100696

ROXANNA RIVERA, PE, PTOE, LEED AP

Traffic Engineer - Huitt-Zollars

Rivera Rivera has more than 19 years of experience in design and project management for municipal public works, infrastructure, environmental, and hydrology and hydraulics projects. Her experience includes the design of water and wastewater infrastructure, storm sewer design, drainage area mapping, preparation of environmental documents, and construction management.

Rivera has completed the Texas Department of Transportation Qualificiation certification for Local Government Project Procedures (LGPP) to manage federally funded programs. She has managed several design and construction projects that were funded with federal funds. She has also worked extensively with the reporting requirements with TxDOT and FHWA so that municipalities reimbursed under the terms of the Local Project Advanced Funding Agreements (LPAFA).

RELEVANT PROJECT EXPERIENCE

Oxnard Blvd / Wagon Wheel Road Traffic Signal – *Oxnard, CA*
Oxnard Blvd / Orchard Place Traffic Signal – *Oxnard, CA*
Oxnard Blvd / Vineyard Ave Traffic Signal – *Oxnard, CA*
Vineyard Avenue at Town Center Drive Traffic Signal – *Oxnard, CA*
Lantana Traffic Circulation Study, Lantana Community – *Denton County, TX*

JOHNNY MURAD, PE, MS, QSD

Utility Design - Huitt-Zollars

Johnny Murad brings 20 years of experience in civil engineering consulting. He has assisted numerous clients in site selections, feasibility studies, preliminary construction cost estimates, earthwork estimates, plan check and permit fee estimates, conceptual site planning, final design, and construction administration. His experience gives him a good understanding of project costing techniques and calculations, which can help keep the project cost at a minimum without losing efficiency and, thereby, help his clients stay within their planned project budget and maintain their strength in the market.

EXPERIENCE
20 Years

EDUCATION
BS, Civil Engineering - California State Polytechnic

REGISTRATION
Professional Civil Engineer: California #67512

RELEVANT PROJECT EXPERIENCE

Alder Avenue, Casa Grande Drive, Summit Avenue, and Mango Avenue Sewer Improvements – *Rialto, CA*
Redlands Boulevard Sewer Improvements – *Moreno Valley, CA*
Brodiaea Avenue, Cactus Avenue, Joy Street, Gilbert Street, Rebecca Street, Frederick Street, and Heacock Street Sewer Improvements – *Moreno Valley, CA*
San Bernardino Avenue Sewer Improvements – *San Bernardino, CA*
City of Rialto, Tract No. 16304 Sewer Improvements – *Rialto, CA*

WILLIAM WALLACE, PE

Structural Engineer - Huitt-Zollars

William Wallace has more than 37 years of experience as a Structural Engineer. He has been involved in the design of many highly complex structures for flood control and soil and water conservation construction programs for the Corps of Engineers (COE) and the Natural Resources Conservation Service (NRCS). Projects have included reinforced concrete hydraulic structures such as trapezoidal channel paving, rectangular channels, impact basins, drop structures, retaining walls, and reinforced concrete for principal and auxiliary spillways of lakes and dams. Wallace provided the structural design or provided peer reviews of projects where the objectives of the project was to design modifications to dams and their appurtenant structures to mitigate risks related to dam safety concerns; and to meet current regulations and standards as provided by Conservation Districts, NRCS, COE, and various Departments of Water Resources.

EXPERIENCE
37 Years

EDUCATION
MS, Civil Engineering - University of Texas at Arlington

BS, Civil Engineering - University of Texas at Arlington

REGISTRATION
Professional Structural Engineer: Texas: 59641

RELEVANT PROJECT EXPERIENCE

Oxnard Village Flood Control Facilities - *Oxnard, CA*
Cottonwood Creek Trail and Bank Stabilization – *Allen, Texas*
Rush Creek Channel Erosion Control - *Arlington, TX*
Channel Improvement Project – *Fort Worth, TX*
Brazos River Study – *TX*
Lake Ray Roberts Outletworks Conduit and Power Penstock – *Lake Ray Roberts, TX*

JEANNETTE GUERECA, PE

Civil Engineer - Huitt-Zollars

Jeanette Guereca is a detail driven engineer with a variety of experience including five years of experience in solid waste and civil engineering, seven months in land development, and two years intern experience with public works road and sidewalk rehabilitation. Guereca has performed pre- and post-construction hydrology analyses by creating hydrology maps and using the rational method. She also has experience conducting hydraulic calculations to size existing and proposed open channels, pipes, and drainage structures. Guereca has been responsible for creating mass grading as well as precise grading designs using advanced civil CAD programs utilizing 3-D surfaces, sections, and profiles to maximize efficiency and productivity of CAD tools. ***Jeannette also interned with the City of Santa Ana from 2006-2008.***

EXPERIENCE
10 Years

EDUCATION
MS, Civil Engineering - Cal State University Fullerton

BS, Civil Engineering - University of Texas at Arlington

REGISTRATION
Professional Civil Engineer: California #82569

RELEVANT PROJECT EXPERIENCE

La Pata Ave Gap Closure & Del Rio Extension – *Orange County, San Clemente, and San Juan Capistrano, CA*
Plaza San Clemente – *San Clemente, CA*
Oxnard Village - *Oxnard, CA*
Frank R. Bowerman Landfill – *Irvine, CA*
Tajiguas Partial Final Closure – *Goleta, CA*
Vandenberg Air Force Base – *Vandenberg AFB, CA*
Newby Island – *Milipitas, CA*

MICHAEL PHILLIPS, PE

Hydrology & Hydraulics Engineer - Huitt-Zollars

Michael Phillips has experience in many aspects of surface water management. He has performed studies, calculations and produced reports on topics such as hydrology, hydraulics, hydromodification, water quality management and BMP design. He is also familiar with many surface water management software such as HEC-HMS, HEC-RAS, FlowMaster, AES, WSPGW, HY-8 and SMS TUFLOW.

EXPERIENCE
5 Years

EDUCATION
BS, Civil Engineering -California State Polytechnic University

REGISTRATION
Professional Civil Engineer: California #87909

RELEVANT PROJECT EXPERIENCE

The Westerly, 2D Flood Study for FEMA Flood Map Revision – *Simi Valley, CA*
Haven Avenue Storm Drain, 2D Modeling – *Ontario, CA*
Oxnard Village, Interior Drainage Study – *Oxnard, CA*
Hydraulic Report for Pine Avenue Extension – *Chino, CA*
VA Riverside National Cemetery Phase 5 Development – *Riverside, CA*
MR5 "Modena" Development – *Rancho Mission Viejo, CA*

JOSH ROEHM, PE, LEED AP BD+C, PMP

Mechanical Engineer - Huitt-Zollars

Josh Roehm is a highly skilled Mechanical Engineer with more than 20 years experience in complex higher education, healthcare, and specialized engineering projects. He is considered an expert on energy modeling, sustainable design, BIM, and big picture planning. His experience runs from small, one-room makeovers to very large renovation and addition projects. His strengths include overall plan thinking with a focused attention to detail, strong public presentation and communication skills, ability to negotiate fee proposals and contracts, and high client satisfaction/retention.

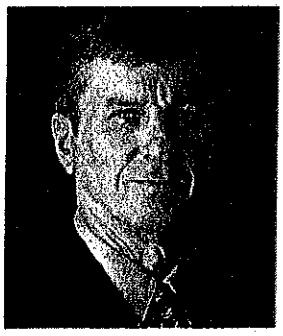
EXPERIENCE
20 Years

EDUCATION
BS, Architectural Engineering, Mechanical Option - Pennsylvania State University

REGISTRATION
Professional Mechanical Engineer: California #36642

RELEVANT PROJECT EXPERIENCE

Sound Transit Operations and Maintenance Satellite Facility – *Seattle, WA*
Short Circuit and ARC Flash at Various Lakes – *Fort Worth District Corp of Engineers Lakes, TX*
GSA Midland Odessa Arc Flash Study – *Midland, TX*
NAVFAC SE, Dynamic Component Rebuild Facility (DCRF) – *Corpus Christi Army Depot, TX*
USACE Albuquerque, Airman & Family Readiness Center – *Cannon AFB, NM*
USACE Fort Worth, Sustainable Infrastructure Assessments Completion



SCOTT PARMA, PE, LEED AP

Electrical Engineer - Huitt-Zollars

Scott Parma's engineering experience includes power distribution, electrical systems analysis, system planning, electrical system design, and construction administration. He has completed a wide array of facilities projects in the utility, transportation, municipal, infrastructure, and commercial sectors of construction. His main expertise is in medium-and low-voltage power systems design and analysis. He also has experience in lighting, telecommunications, and fire alarm system design.

EXPERIENCE
37 Years

EDUCATION
BS, Electrical Engineering - Texas A&M University

REGISTRATION
Professional Electrical Engineer: Texas #75690

RELEVANT PROJECT EXPERIENCE

Bakersfield National Cemetery - Phase 1 – *Arvin, CA*
Riverside National Cemetery - Phase 5 – *Riverside, CA*
Coyote Canyon Repower Electrical PS&E – *Fontana, CA*
LA Metro Division 13 Bus Maintenance and Operations Facility - *Los Angeles, CA*
UCI Lot 36 Electric Bus Yard - *Irvine, CA*
Maintenance Service Center Solar Canopies - *Thousand Oaks, CA*

RUSSELL HANSON, PLS, GISP

Land Survey/Mapping - Huitt-Zollars

Russell Hanson has in-depth experience in the preparation and processing of both surveying and engineering projects including records of survey, tract maps, legal descriptions, aerial photography, earthwork, alluvial quantities, grading, and GIS databases. He has been responsible for the planning and design for a myriad of municipal and residential projects.

EXPERIENCE
21 Years

EDUCATION
BS, Civil Surveying - California State Polytechnic University

REGISTRATION
Professional Land Surveyor: California #8873

Geographic Information System Professional: #64594

RELEVANT PROJECT EXPERIENCE

La Pata Ave Gap Closure and Camino Del Rio Extension - *Orange County, CA*
Santa Ana River Bike Trail Slurry Seal Project - *Orange County, CA*
Gobernadora Multi-Purpose Basin - *Orange County, CA*
Los Patrones Pkwy - *Orange County, CA*
Runoff Management Plan (ROMP), Rancho Mission Viejo, LLC -- *Orange County, CA*
Ortega Highway Utility Relocations -- *Orange County, CA*
Antonio Parkway Widening -- *Orange County, CA*

MICHAEL PUTT, PG, CEG

Geotechnical - Ninyo & Moore

Michael Putt has more than 20 years of experience in Public Works and is proficient with the design of streets, basins, sewer, water, storm drain, grading, and public works projects.

EXPERIENCE
21 Years

EDUCATION
BS, Geology

REGISTRATION
Certified Engineering Geologist: California #2341

Professional Geologist: California #7581

RELEVANT PROJECT EXPERIENCE

Arden Modjeska Wood Canyon Wilderness Parks - *Orange County Parks*
La Pata Avenue Extension - *Orange County Public Works*
Smith Basin Assessment
Burris and Lincoln Basins - *Orange County Sanitation District*
Bakersfield National Cemetery

SAM GUHA, PHD, PE, GE

Geotechnical - Ninyo & Moore

EXPERIENCE
27 Years

EDUCATION
PHD, Geotechnical Engineering - Purdue

MS, Geotechnical Engineering - Asian Institute of Technology

REGISTRATION
Professional Geotechnical Engineer: California #58967

Dr. Guha is a Principal Engineer with Ninyo & Moore with diverse professional experience in geotechnical engineering design, consulting, construction, and regulatory practice. Dr. Guha coordinates and conducts geotechnical evaluations for commercial, industrial and public facilities, including airports, bridges, highways, railroads, levees, public and private buildings, various plants (e.g., water treatment, bio-refining, power), pipelines, reservoirs, retaining structures, and elevated, at-grade and below-grade tanks; provides guidance on various analytical and numerical procedures that are undertaken for a project including seismic hazard analyses (e.g., ground motion, liquefaction, dynamic settlement, lateral spread, ground subsidence, landsliding, etc.), site-specific response spectra analyses, slope stability analyses, analyses of soil settlement, bearing capacity and earth pressures, assessment of adverse effects of collapsible soil and expansive soil, and development of structural foundation, pavement sections and underground pipeline design criteria; provides geotechnical design parameters and recommendations for shallow and deep foundations, temporary and permanent retaining structures, slope stabilization techniques, mechanically stabilized earth (MSE) walls, tieback anchors, soil nails, in-situ ground remediation and earthwork; prepares and reviews geotechnical reports, proposals and transmittals; reviews laboratory test results, project plans and specifications; provides supervision and technical support to project- and staff-level engineers and geologists; conducts quality assurance/quality checks, and performs project administration and management.

RELEVANT PROJECT EXPERIENCE

Orange County Water District, Smith Basin - *Villa Park, CA*
Burris and Lincoln Basin - *Anaheim, CA*
Haster Basin/Twin Lakes Park, Proposed Pump Station and Basin Grading, Geotechnical Evaluation- *Garden Grove, CA*
I-10 Replacement of the Ellis Avenue Pump Station, Orange County Sanitation District - *Fountain Valley, CA*
Reclaimed Water Reservoir for Moulton Niguel Water District - *Aliso Viejo, CA*
Effluent Pump Station Annex – Job No. J-77, Orange County Sanitation District Plant No. 2 - *Huntington Beach, CA*
New Lateral Extension for Castaic Lake Water Agency - *Santa Clarita, CA*
Chula Vista Power Plant Modernization - *Chula Vista, CA*

JESUS "FREDDIE" OLMOS

Environmental - ECORP

EXPERIENCE
20 Years

EDUCATION
BA, Environmental Analysis & Design - University of California at Irvine

Freddie Olmos has more than 20 years of experience in Enviornmenal Engineering and is proficient with environmental undertaking of the design of streets, basins, sewer, water, storm drain, grading, and public works projects.

RELEVANT PROJECT EXPERIENCE

West Street and Citron Street Sidewalk Gap Closure Project - *Anaheim, CA*
Lincoln Avenue Widening Project - *Anaheim, CA*
La Palma Avenue at East Street Sidewalk Gap Closure Project - *Anaheim, CA*
State College Boulevard and La Palma Avenue Intersection Improvement Project - *Anaheim, CA*

EXHIBIT B

FEE PROPOSAL

HUITT-ZOLLARS

Irvine

2017
HOURLY RATE SHEET

Engineering/Architecture

Principal-In-Charge	$ 235.00
QA Manager	$ 215.00
Sr. Project Manager	$ 215.00
Project Manager	$ 180.00
Sr. Civil Engineer	$ 195.00
Sr. Structural Engineer	$ 200.00
Sr. Mechanical Engineer	$ 180.00
Sr. Electrical Engineer	$ 185.00
Civil Engineer	$ 155.00
Structural Engineer	$ 165.00
Mechanical Engineer	$ 165.00
Electrical Engineer	$ 165.00
Plumbing Engineer	$ 165.00
Engineer Intern	$ 120.00
Sr. Designer	$ 180.00
Designer	$ 145.00
Sr. CADD Technician	$ 125.00
CADD Technician	$ 100.00

Administrative

Sr. Project Support	$ 100.00
Project Support	$ 65.00

Survey

Survey Manager	$ 195.00
Sr. Project Surveyor	$ 170.00
Project Surveyor	$ 140.00
Survey Technician	$ 115.00

Survey Crews

1-Person Survey Crew	$ 160.00
2-Person Survey Crew	$ 225.00
3-Person Survey Crew	$ 295.00

Construction

Construction Manager	$ 175.00
Resident Engineer	$ 160.00
Sr. Project Representative	$ 120.00
Resident Project Representative	$ 95.00

Reimbursable Expenses

Consultants	Cost + 10%
Other Direct Costs	Cost + 10%
Mileage	IRS Standard Business Mileage Rate

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (GENERAL ENGINEERING)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between CSG Consultants, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of nine (9) consultants selected to provide services for general engineering projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $2,000,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures.

Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement.

Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees,

for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: CSG Consultants, Inc.
3707 W. Garden Grove Blvd., Suite 100
Orange, CA 92868
Attn: Cyrus Kianpour, President

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant,

Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

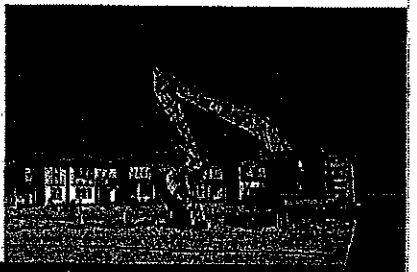
By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency



PROPOSAL TO THE

City of Santa Ana

EXHIBIT A

On-Call Engineering Services
RFP No. 17-083

MARCH 20, 2018

CSG CONSULTANTS

3707 W. Garden Grove Blvd. #100
Orange, CA 92868
714.568.1010 phone
714.568.1028 fax
www.csgengr.com

25E-315

Table of Contents

SECTION 1 Cover Letter & Contract Statement

SECTION 2 Firm and Team Experience

SECTION 3 Understanding of Need

SECTION 4 Relevant Project Experience

SECTION 5 References

SECTION 6 Scope of Services & Schedule

SECTION 7 Fee Proposal (Separate Sealed Envelope)

SECTION 8 Appendix: Resumes & Forms

Cover Letter & Contract Agreement

SECTION 1

March 20, 2018

Armando Fernandez
Project Manager
City of Santa Ana
Public Works Department
20 Civic Center Plaza
Santa Ana, CA 92701

Re: RFP No. 17-083 General Engineering other than Water Resources – Option B (Mile One Project)

CSG Consultants, Inc. (CSG) is pleased to present our proposal to provide engineering services for Mile One Street Project. Our proposed team has an assortment of project management skills and relevant experience in roadway assessment & design, complete street, pavement management, Caltrans local assistance, traffic signal design, bikeway design, public outreach, and federal grant administration. CSG has provided similar services for Many municipalities throughout California. We have developed a great understanding for the municipalities' needs and expectations, and have experience collaborating with Cities' staff to ensure successful delivery of the project.

Peykan Abbassi, PE, Principal Engineer, will serve as the Principal in Charge and Project Manager for this contract.

> **Peykan Abbassi, PE,** | Project Manager
> 3707 W. Garden Grove Blvd., Suite 100 | Orange, CA 92868
> phone (714) 568-1010| | peykana@@csgengr.com

Mr. Abbassi brings over 32 years of engineering management experience for public works projects in both municipal government and transit agencies. Mr. Abbassi previously served as the ***Project Manager / Lead Engineer representing the City of Los Angeles for EXPO II (construction phase), and Regional Connector (preliminary design phase).*** The work included establishing communication protocols and procedures to respond proactively during inherently fast-paced design-build project development and construction. Having performed Project Management tasks similar to the requirements for the City's project has provided Mr. Abbassi with the hands-on experience and knowledge required to deliver a successful project. He has managed design and construction of many infrastructure projects for the City of Los Angeles, City of Half Moon Bay and North County Transit District.

CSG has teamed with **Geo-Advantec, Wagner Engineering & Survey(WES), Summers/Murphy & Partners(SMP),** and **Transpo Group.** Geo-Advantec will assist the team with all soil and pavement related testing and reports, Wagner Engineering will provide surveying services, SMP Inc. will perform landscape architecture, and Transpo Group will assist the project with all required traffic studies.

We are excited about the opportunity to serve the City of Santa Ana and would welcome the opportunity to talk with you further. As President, I am empowered to negotiate the contract on behalf of our firm. If you have any questions or need additional information, please contact Mr. Abbassi at peykana@csgengr.com or (714) 568-1010.

Sincerely,

Cyrus Kianpour
President, CSG Consultants, Inc.

Firm & Team Experience

SECTION 2

FIRM PROFILE

CSG Consultants, Inc. (CSG) is a California company with our local office located in Orange. Additional support is available from our other offices in Redlands, Foster City, Pleasanton, Sacramento, San Jose and Newman.

CSG is a multi service civil engineering firm serving local municipalities and public agencies for over 26 years. Our firm is composed of more than 300 employees, with most of our senior-level staff having worked directly for government agencies in the past. This institutional knowledge and perspective creates a unique organizational culture that is sensitive to local agency issues, expectations, standards, and constraints. It allows us to integrate seamlessly to deliver a specific project, assist a municipality with a task order, or manage a public project. To serve the needs of our municipal clients, CSG draws upon a large pool of staff consisting of civil engineers, structural engineers, construction managers and inspectors, surveyors, program and project managers, and specialized planning, information technology, and sustainability professionals.

NAME OF FIRM: CSG Consultants, Inc.

PROJECT CONTACT: Peykan Abbassi, PE | Project Manager

LOCAL OFFICE: 3707 West Garden Grove Blvd, Suite 100, Orange, CA 92868
(714) 568-1010 *phone*, (714) 568-1028 *fax*
www.csgengr.com | info@csgengr.com

REGIONAL OFFICES: 550 Pilgrim, Foster City, CA 94404
1177 Idaho Street, Suite 120, Redlands, CA 92374
6200 Stoneridge Mall Road, Suite 300, Pleasanton, CA 94588
1022 G Street, Sacramento, CA 95814
930 Fresno Street, Newman, CA 95360
3707 W. Garden Grove Boulevard, Orange, CA 92868

YEARS IN BUSINESS: 26 • Founded in 1991

NUMBER OF EMPLOYEES: 270+ (Company Wide)

TYPE OF BUSINESS: California Corporation • Incorporated June 15, 2000 • Federal ID: 91-2053749

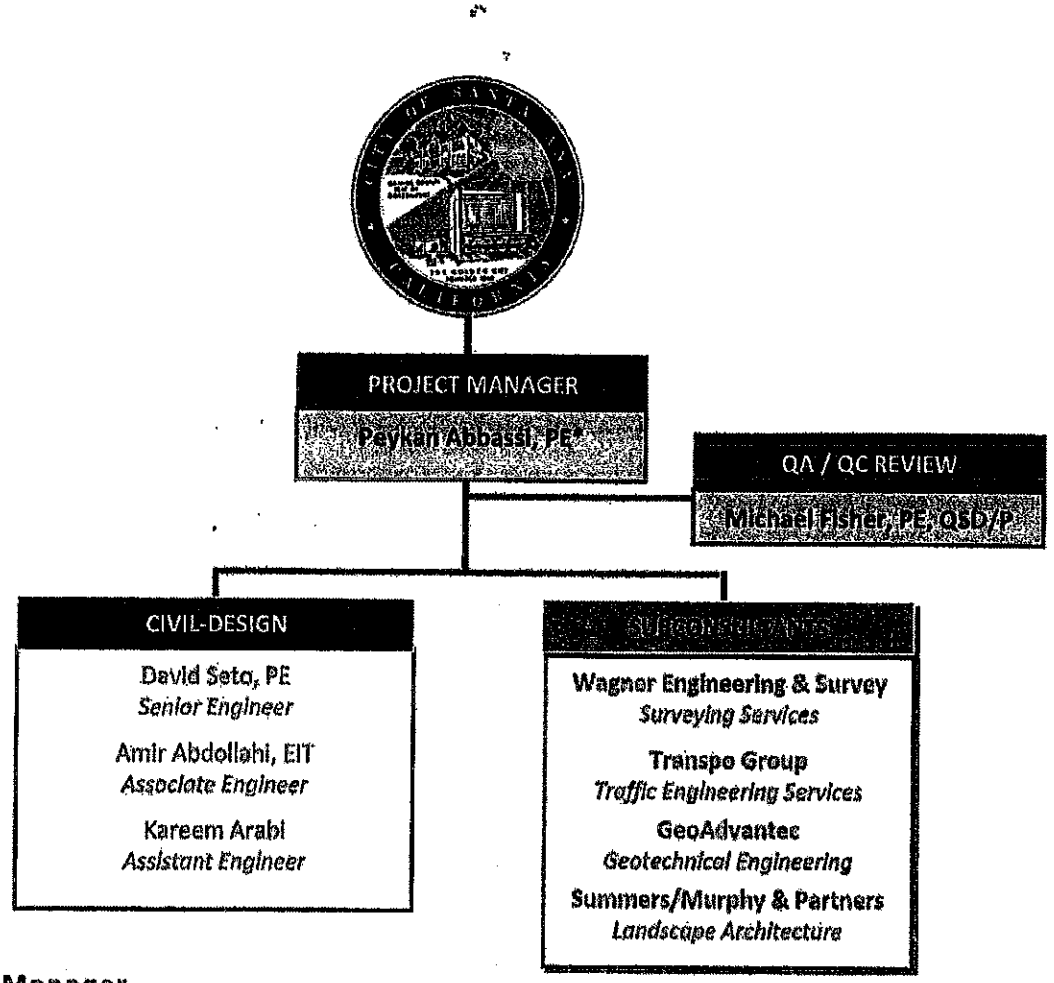
STAFF COMPOSITION

Our professional municipal services staff consists of:

- *Civil Engineers*
- *Structural Engineers*
- *Program & Project Managers*
- *Construction Managers*
- *Inspectors*
- *Information Technology Professionals*
- *Plan and Map Reviewers*
- *Transportation & Traffic Engineers*
- *CASp Professional*
- *Sustainability Professionals*
- *CIP Managers*
- *Building Plan Review Engineers*
- *ICC Certified Plan Reviewers*
- *Land Surveyors*

Proposed Project Management Team

An organizational chart with proposed CSG staff and subconsultants is provided below. Staff resumes are featured in Section 8 of the proposal.



Project Manager

Peykan Abbassi, PE, Principal Engineer, will serve as the Project Manager and main point of contact for this project. Mr. Abbassi has over 32 years of experience in Public Works and municipal improvement projects.

Quality Assurance / Quality Control

CSG's internal Quality Assurance/Quality Control (QA/QC) reviews utilize principal-level managers who have experience with infrastructure projects either as an expert working for government agency or exclusively providing services for municipalities. Mr. Fisher is responsible for directing the review of all project deliverables prior to every major milestone.

Project Engineers

CSG has an engineering group of nearly 50 engineers and designers. With specialized knowledge and experience that gives us the capacity to undertake a variety of projects. We are confident in our proposed staff for this project. Nevertheless, the availability of additional CSG staff allows us to shift more resources onto projects if necessary. We have identified specific project engineers in the organizational chart that have worked together as a team and will pull from these resources should the need arise.

Understanding of Need

SECTION 3

CSG has examined the Request for Proposal (RFP) and understands that the City of Santa Ana is seeking firms to design the Mile One Street Project. Primarily, the project involves a Complete Street Design concept with emphasize to ensure safety, accessibility, and convenience of all transportation users – pedestrians, bicyclists, transit riders, and motorists are considered. Mile One Street is a six-lane arterial (3 lanes in each direction) with a 14' wide median island to design for a bike lane with 4' buffer to be added in the east-bound direction. The addition of bicycle lanes will improve bicycle connectivity and increase bicycle travel on Mile One Street and in the surrounding area.

To accommodate a bike lane concept into the design the following bullets will be analyzed and will be reported to the City's PM:

- Roadway reconfiguration (narrowing of lanes, new roadway striping)
- Roadway resurfacing treatments (slurry seal, or to be determined pavement rehabilitation)
- Green bike lanes (typically near intersections, or in otherwise high-conflict areas)
- Bike buffers, as space allows
- Bicycle activation (including modifications to existing traffic signal hardware, new inductive loops and/or video detection for bicyclists and motorists)
- Modification of existing concrete median islands and curbs
- Installation of related signage
- Modifications to parking

Relevant Project Experience

SECTION 4

CSG has extensive experience in the design and management of complete streets and pavement rehabilitation projects throughout California. Projects have utilized various methods of pavement maintenance and rehabilitation, including digouts, full depth rehabilitation, slurry, microsurfacing, scrub, chip, and cold in-place recycling. A sampling of similar projects CSG has managed and designed is provided below, along with references.

HILLSIDE BOULEVARD REHABILITATION AND BEAUTIFICATION, PHASE 1 | TOWN OF COLMA, CA

Winner of the 2015 APWA Silicon Valley Project of the Year for Small Cities/Rural Communities

The Town of Colma selected CSG to manage the rehabilitation and beautification of Hillside Boulevard, a principal north-south arterial through the Town, which spans approximately 1.5 miles from the Daly City city limit to the South San Francisco city limit. CSG was involved in the master planning, final design and construction of this beautification project. During the master planning stage of the project, CSG conducted traffic studies, attended study sessions with various Town's departmental directors, presented our conceptual design to the community at two public meetings and effectively coordinated with project stakeholders, City staff and City Council to review and approve an aesthetically pleasing design concept which was in compliance with the Town's General Plan and Master Sign Program. CSG worked closely with the Planning Department to deliver a conceptual design that incorporated all elements of "complete streets," including sidewalks, lighting, and bike lanes. Design elements incorporated sheltered left turns to act as traffic calming measures, additional street parking, continuous bike lanes, a continuous sidewalk where none exist before, curb ramps, rectangular rapid flashing beacons, and bio-retention areas or "rain gardens". Two traffic signal modifications were completed to match the new layout and bring those signals up to current standards. The design incorporated a retrofit to all intersections and pedestrian access points throughout the corridor in order to meet ADA requirements. In addition, the entire length of roadway was rehabilitated by full-depth reconstruction.

SAFE ROUTES TO SCHOOLS | CITY OF SAN MATEO, CA

CSG Consultants was selected by the City of San Mateo to provide both topographic survey and design services for this federally-funded project. CSG acted as the prime consultant for the topographic survey effort, which included topographic survey for 13 school sites and a total of 32 local intersections. The design scope included curb extensions, curb ramps, and rectangular rapid flashing beacons at seven intersections throughout the City. CSG provided detailed curb ramp designs in accordance with the latest Caltrans Plan Preparation Manual, including station data, proposed slopes, and elevation data. CSG reviewed curb extensions impacts on drainage patterns, and prepared hydrology and hydraulics calculations to support trench drain designs and the modification of an existing drainage inlet.

In addition to preparing the PS&Es for work adjacent to three school sites, CSG helped to coordinate the work of four design consultants to assemble a single bid schedule and set of technical specifications in anticipation of the Caltrans E-76 Request to Proceed with Construction. CSG provided conformance reviews of all consultants' plans and estimates to ensure that federal requirements were met, and facilitated coordination between the City and consultants to ensure any potential project issues were addressed in advance of the E-76 Request. CSG also performed a peer review of the City's front-end specifications to ensure that the technical specifications and front-end specifications were coordinated, and that federal language was incorporated.

2016 PAVEMENT REHABILITATION PROGRAM | CITY OF SAN RAMON, CA

CSG was selected as the design consultant for the City's 2016 pavement project. The scope involved the rehabilitation of more than 60 street segments, totaling over 7.5 centerline miles, in various locations throughout the city. After performing a deflection analysis on the most severely distressed pavements, three remediation methods were chosen, consisting of Overlays, Thin Maintenance Overlays, and Micro-surfacing. CSG staff conducted site visits to assess location of digout repairs, an inventory of existing iron (manholes, valves, etc.), evaluation of curb, gutter and sidewalk in need of repair, and evaluation of curb ramps for ADA conformance. CSG was also tasked with evaluation of several areas of existing brick pavers and determining a repair methodology. All findings were documented through field notes and photographs.

JUNIPERO SERRA BLVD AT KING DRIVE INTERSECTION IMPROVEMENTS | CITY OF SOUTH SAN FRANCISCO, CA

CSG was selected by the City of South San Francisco to redesign the intersection of Junipero Serra Boulevard and King Drive. The project goal was to improve mobility for all modes, and bring the intersection up to current standards for bicyclists, pedestrians, and ADA access. CSG's team developed the project from preliminary design, lead the community outreach process with multiple public meetings, multiple agency coordination including Caltrans, City of Daly City, and the South San Francisco Bicycle and Pedestrian Advisory Committee, and completed final design while managing the federal funding process. The project scope included redesign of the existing medians and right-turn islands to improve intersection geometry and provide ADA compliance. Replacement of the existing traffic signals located in the median with mast arm signals to improve visibility; upgrade of the existing traffic signals to provide protected left-turn phasing for King Drive; addition of a speed feedback sign on southbound Junipero Serra Boulevard to increase driver awareness of the posted speed limit; installation of standard ADA curb ramps throughout the intersection to improve pedestrian accessibility; addition of pedestrian signal heads and countdown timers at all crosswalks to improve pedestrian safety; and extension of existing bike lanes along Junipero Serra Boulevard through the King Drive intersection to improve bicycle safety.

2017 MEASURE J & L AND ANNUAL PAVEMENT REHABILITATION PROJECT | CITY OF ORINDA, CA

The City of Orinda selected CSG to manage and design their 2017 Annual Pavement and Measure J & L project. The project rehabilitated 62 road segments and 10,000 linear feet of storm drain pipes at various locations throughout the City. The pavement rehabilitation methods included full depth reconstruction (FDR) utilizing a cement subgrade stabilization mix, and hot mix asphalt deep lift mill and fill replacements. Due to the depth of impact of the pavement rehabilitation methods, utility investigations and coordination were heavily conducted with PG&E, EBMUD, and AT&T during the pavement rehabilitation method selection process. Storm drain pipe improvements included pipe replacement. The supplementary improvements also included upgraded curb ramps, minor concrete replacements, striping, utility adjustments, street regarding, installation of new storm drain inlets, tree trimming, etc. CSG conducted pavement investigations (deflection testing, coring, and R-Value testing), storm drain CCTV investigations and rehabilitation recommendations, coordinated stakeholders, developed the PS&E bid package, and provided bid and construction support for the project. In addition, CSG developed a technical memo identifying a decision flow chart for stream lining the design phase of the City to identify appropriate pavement rehabilitation treatments for the future road segments included in the Measure J & L funded road rehabilitation program.

FAIR OAKS BIKEWAY AND STREETSCAPE | CITY OF SUNNYVALE, CA

The City of Sunnyvale proposed to construct safety improvements along Fair Oaks Avenue between Old San Francisco Road and Evelyn Avenue, and between Kifer Road and Ahwanee Avenue. Project scope included three public meetings and the development of several class I, II, and III bike lane alternatives along Fair Oaks

Avenue. Design work included the installation of class III bikeways with shared-lane markings, or "sharrows" and appropriate signage, bicycle loop detectors and pull boxes, camera systems at intersections on existing signal mast arms with new conduits, and pedestrian push buttons post, and foundation. Additional scope of work included upgrades existing non-ADA compliant ramps to ADA compliance, concrete improvements, including sidewalk, curb and gutter, and valley gutter replacement, drainage inlet modifications, monument adjustment, and electrical pull boxes adjustments to finished grade.

STREET RECONSTRUCTION AT VARIOUS LOCATIONS | CITY OF SAN MATEO, CA

The City of San Mateo selected CSG as their design consultants for street reconstruction at various locations. The scope of work included mobilization; traffic control; sign relocations; concrete improvements, include installation of ADA curb ramps, sidewalks, curb & gutter and driveways. Concrete road pavement removals and replacements; asphalt concrete grinding; asphalt concrete deep lift digout repairs; roadway reflective cracking mitigation via crack sealing, subgrade enhancement geotextile; hot mix asphalt paving; utility adjustments to grade; catch basin, RCP and HDPE storm drain pipe installation; tree removal; pavement striping, markings, and markers; and other related work. Work also included the preparation of Caltrans encroachment permit.

VARIOUS STREETS AND ROADS PAVEMENT PROJECT | CITY OF MILLBRAE, CA

CSG was selected by the City to perform the design of pavement rehabilitation for a major City arterial, Millbrae Avenue, and a residential street, Magnolia Avenue. The project included pavement coring sample testing, surveying, pavement recommendations report, traffic handling plans, ADA curb ramp upgrades, traffic signal repair and traffic detours. Stakeholder coordination was required with Caltrans Local Assistance for compliance with Federal funding guidelines (an E-76 was obtained for this project), as well as Caltrans Encroachment Permit Department for coordination with Caltrans design review staff regarding Caltrans owned facilities.

2016-17 STREET RESURFACING PROJECT | CITY OF STOCKTON, CA

Miner Avenue, Arch Airport Road, Pershing Avenue and March Lane are arterials and collectors which exhibit alligator cracking, block cracking, longitudinal/transverse cracking, patching and utility cuts, rutting, depressions, spalling and some progressed to base failures. In order to receive a Federal Regional Surface Transportation Program Fund for Fiscal Year 2016-17, City selected CSG to perform preliminary and final design of pavement rehabilitation, and prepare a PS&E bid package in an aggressive design schedule. The scope of the project included performing initial visual assessment of pavement conditions, conducting pavement section investigations including coring and deflection testing, selecting and recommending the most appropriate pavement treatments with consideration of costs, construction duration and potential impacts to the public, performing life cycle cost analysis for each selected pavement treatment alternative, developing a pavement recommendation report with preferred treatments identified for each roadway, locating existing survey monuments and right-of-way, assisting the City to file corner records after alterations to the survey monuments, requesting utility maps from Stockton's Municipal Utility District, Cal Water Services Company, PG&E, AT&T and Comcast and coordinating with these utility companies for adjustments to their facilities, and preparing layout, traffic handling and detour plans, construction cost estimate and specifications. The types of recommended pavement rehabilitation treatments included hot mix asphalt mill and fill replacements, pavement base failure repairs (digouts), microsurfacing, pavement patch and leveling, and crack sealing.

References

SECTION 5

Provide below are references for clients familiar with CSG's experience performing complete street and pavement design. Additional references may be provided upon request.

REFERENCE **Khee Lim** | City Engineer | City of Millbrae | (650) 259-2339
621 Magnolia Avenue | Millbrae, CA 94030

REFERENCE **Daniel Gonzales** | Deputy Public Works Director | Town of Hillsborough | (650) 375-7588
1600 Floribunda Avenue | Hillsborough, CA 94010

REFERENCE **Brian Dossey** | Town Manager | Town of Colma | (650) 997-8300
1198 El Camino Real | Colma, CA 94014

REFERENCE **Thanh Nguyen** | Civil Engineer | City of Sunnyvale | (408) 730-7512
456 W Olive Ave | Sunnyvale, CA 94086

Scope of Services & Schedule

SECTION 6

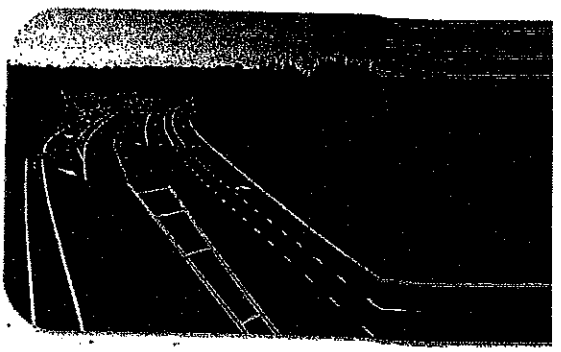
COMPLETE STREET

CSG has completed complete street engineering design for several agencies. These projects provide accommodations for pedestrians, bicyclists, vehicles, and public transportation in a safe and efficient manner. The selection of appropriate surface materials must cater to the primary user(s). Identifying optimized dimensions based on right of way restrictions, budget, and multi-usability can dictate the design's grading, edge treatments, vertical clearances, and clearing and grubbing requirements. For ADA compliance the design will meet all requirements for longitudinal and cross slopes, width and height clearances, and the use of detectable warning surfaces at vehicular crossings. Our approach to drainage design includes analysis of the drainage pattern and modifying the grading as needed, implementation of catch basins and buried pipe networks to connect to existing storm drain systems. CSG comprehensive design includes all necessary signage, striping, lighting, and/or landscaping. Providing usable and safe paths and/or trails for communities is an important part of CSG's services.

Street Improvements

CSG staff includes complete streets and active transportation prroject designers with extensive experience on class 1, 2, 3 and even the new class 4 bicycle facilities. Some key project components include:

- Right of way
- Funding (federal vs. local)
- Materials
- Shared use facilities
- Traffic Signal Integration
- Signage and channelization
- Separation (buffer) from vehicles (both high speed vehicles, and parked vehicles can present hazards)
- Crossing locations with vehicles



GENERAL PROJECT DESIGN OVERVIEW AND APPROACH

CSG has a thorough understanding of the various steps that are involved in delivering a successful bikeway and streetscape project, as outlined in the table below:

1. General Project Management and Design Development	CSG will work with City staff to deliver a successful, construction-ready project. Project management and design development efforts will include the following: • Field Investigation • Finalize design concept • Project Meetings • Preparation of reports and recommendations • Preparation of plans, specifications, and estimates (PS&E) • Manage project schedule and budget • Bidding/construction support
2. Pavement	Our staff is experienced in a variety of street rehabilitation strategies, and will review the following options for applicability on the Mile One project:

Scope of Services & Schedule

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2. Pavement	Our staff is experienced in a variety of street rehabilitation strategies, and will review the following options for applicability on the Mile One project:

Rehabilitation

- Crack sealing and repair
- Base repair patch digouts
- Cape, chip, scrub, fog & slurry seals
- Microsurfacing
- Rubberized chip seals
- Hot mix asphalt (HMA) overlay
- Rubberized HMA (RHMA) overlay
- Pavement fabric
- Mill and fills
- Cold in-place recycling (CIR)
- Full depth recycling/rehabilitation (FDR)
- Street reconstruction

3. Signal Upgrades for Bicycle Activation

Traffic signal modifications will be made to accommodate bicycle detection, and will include the following:

- Upgrades to existing traffic signal poles
- New traffic signal poles, if needed
- Video detection for bicyclists and vehicles
- Removal of existing induction loops, as needed

4. Federal Aid Requirements

Our staff is experienced providing project delivery of federally funded projects, and will assist the City in developing and submitting the following to the Caltrans Local Assistance Division:

- Project Field Review (LAPM forms)
- NEPA/CEQA Environmental Clearance
- Right of Way Certification
- Utility Certification
- E76 Request for Authorization to Proceed with Construction

5. Bikeway and Streetscape Design

CSG staff are knowledgeable in bikeway and streetscape design, and take into account considerations of all users, including motorists, pedestrians, bicyclists, and transit users. CSG will draw upon published bikeway design resources such as the AASHTO "Guide for the Development of Bicycle Facilities", the NAACTO Design Guide, the California MUTCD, and FHWA and Caltrans Guidance.

6. ADA Upgrades

CSG will design ADA upgrades at intersections when triggered by pavement resurfacing beyond normal maintenance (e.g. grind and inlay):

- Curb Ramps
- Crosswalks
- Island Passageways

7. Stakeholder Involvement/Public Outreach

CSG will work with the City to provide outreach to project stakeholders.

- Preparing exhibits for public meetings
- Leading public meetings to discuss proposed improvements
- Attendance at Bicycle and Pedestrian Advisory Committee and City Council Meetings
- Notifications prior to construction
- Providing access during construction
- Limited disruption duration

Design Approach Checklist

CSG has identified a check list for our general design approach for individual roadway design projects shown below. We make sure to address all of these items with the agencies we work with to ensure a well managed and designed project.

- ☑ Design kick off meeting with the City, and record and distribute minutes
- ☑ Identify permits required and prepare documentation
- ☑ Right of way research and mapping
- ☑ Coordination with affected property owners
- ☑ Pavement investigations and reporting
  - Coring and deflection testing (Optional Scope Addition)
  - Develop Pavement Design Memo providing rehabilitation alternatives and a preferred treatments for design

- ☑ Utility and other stakeholder coordination, mailing letters of intent, and determination and coordination of any required relocations or conflict resolutions
- ☑ AutoCAD base map development, using AutoCAD Civil 3D 2013
- ☑ Field assessments of existing features (with potential field meetings with the City)
    - Pavement reconstruction limits
    - Base failure digout locating and marking
    - Utility adjustment identification
    - Striping and pavement marking identification
    - Concrete curb ramp condition survey
    - Traffic signal detection locating and identification
    - Pedestrian & Bicycle safety and MUTCD compliance needs
- ☑ Identification of applicable City/County/Caltrans Standard Plan details or development of customized construction details
- ☑ Develop plans, specifications & estimates for construction (75%, 100%, and Final Bid Package)
    - 75% and 100% submittal files to be submitted electronically via email
    - Final submittal shall include hard copies of all documents, plus a CD or USB thumb drive containing all electronic files.
    - PS&E submittal review meetings with the City for the 60% and 90% submittals
- ☑ Utility coordination
- ☑ Attend the City's Design group to Construction group "Hand-off" meeting
- ☑ Bid phase support
- ☑ Construction phase support
- ☑ Conduct a "Lessons Learned" meeting

Project Coordination and Review Meetings

On a weekly or bi-weekly basis throughout the entire project, CSG's Project Manager will act as the single point of contact to coordinate the project with the City. Coordination efforts will consist of conference calls, emails, and any necessary in-person meetings.

Effective Communication

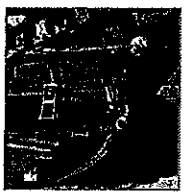
In addition to the on-going coordination, CSG will meet in-person with City staff at the kick off meeting, the 30%, 60%, and the final review meeting prior to bid document submittal. During these in-person meetings, CSG will meet with the City to review the progress of the project, discuss any review comments provided by the City and stakeholders, review the project schedule and budget, discuss any project issues with design, and identify action items for all parties. CSG will also be readily available to meet in-person during the bidding and construction phases of the project.

Pavement Investigation

CSG is familiar with several methods of pavement maintenance and rehabilitation and will identify the most feasible pavement rehabilitation method that meets the City's needs and budget.

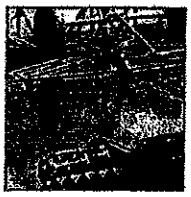
Digouts

Crack Seal/Repair


Pavement Fabric

Slurry Seal

Fog Seal


Scrub Seal

Chip Seal

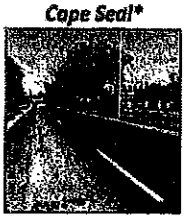
Rubber Chip Seal

*Cape Seal**

*Microsurface**

*HMA Overlay**

*Mill & Fill**


*Cold In-Place Recycling**

*These pavement rehabilitation strategies trigger upgrades of existing intersections to bring them into ADA-compliance.

ADA Upgrades

Project of this magnitude triggers the requirements to upgrade existing intersections to be ADA-compliant, and if necessary, CSG will incorporate the design of these ADA upgrades into the project.

Effective Communication

As a company, CSG prides itself on its ability to effectively communicate, build relationships, and partner with its clients. To effectively communicate throughout the project, CSG staff will actively participate in Kick Off and Submittal Review Meetings, provide project progress updates regularly and as directed by the City, and provide clear lines of communication for the City to reach us via email, office phone, cell phone, and even cell phone text messaging. Effective communication is an essential key to project success.

The other key to the project's success is often in understanding the process from which the issues will arise and the exact needs of the client. Over the years, CSG staff has been involved in hundreds of projects sponsored or reviewed by the public agencies we represent. We have learned that the following issues and guidelines are important to consider when undertaking any public works construction project.

- Understanding of the project's and the agency's primary goals and objectives
- Understanding financial constraints/opportunities and resource allocation
- Coordination with stakeholders, policy makers, and utility companies
- Realistic cost estimates with contingencies matched to each work phase
- Practical schedules and appropriate milestones with continuous monitoring
- Familiarity with applicable local codes, standards, and plans
- Partnership approach with public, agency staff, and contractors
- Periodic meetings between the CSG project manager and agency staff to monitor progress

Bidding and Construction Support

CSG provides construction support services including responding to RFI's, reviewing contractor submittals, and conducting occasional site visits for nearly every project we design. In addition, our Construction Management Department has the capability of providing part-time or full-time inspection and resident engineering services.

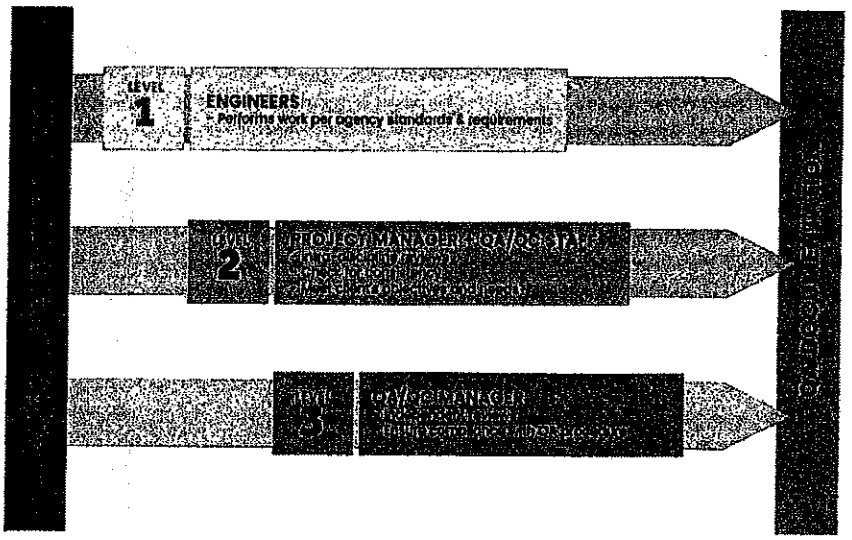
CSG views its shop drawing review role as an integral service during the project construction phase so that the City has confidence that the quality of the installed materials is comparable to the specified materials. Short turnaround of shop drawings, RFI's, and other construction documents are among our highest priorities to assure continuing progress during construction.

Quality Assurance/Quality Control (QA/QC)

CSG's in-house QA/QC program utilizes a peer review process with multi-level internal project checking. As highlighted in the organizational chart for this on-call contract we have identified highly qualified individuals, each with over 30 years of experience, ensuring that each submittal and task delivery is in conformance with the City of Santa Ana and CSG's high standards of quality. Michael Fisher, PE, QSD/P will manage and coordinate all QA/QC activities. Mr. Fisher will be responsible for the following:

- Establishing guidelines & assigning accountable personnel and responsibilities for each task.
- Assuring that all deliverables are reviewed, including products from subconsultants.
- Monitoring the process to assure that the schedule and budget are followed.
- Participating in the internal and external reviews.
- Reviewing and signing off on deliverables before submittal to the City.

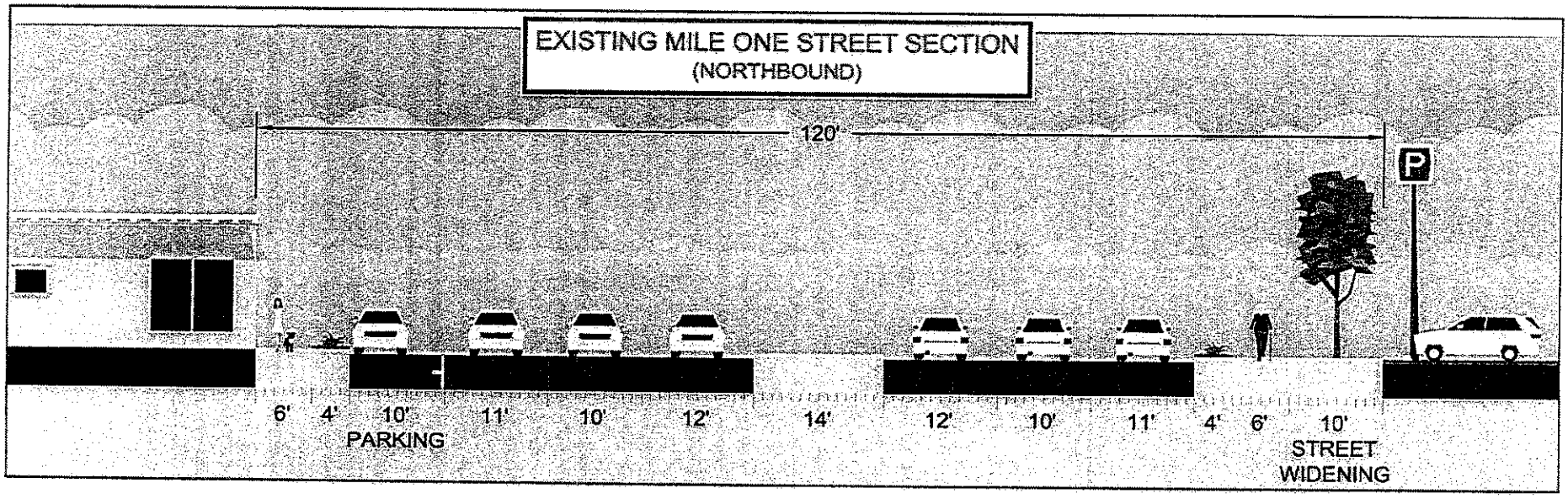
All technical products, including technical engineering reports, studies, design notes, mapping, drawings, and engineering cost estimates are subject to a multi-tiered approach for review to ensure that all products are checked for accuracy, correctness, completeness and conformity with standards. The tiers will include routine checking and scheduled reviews for the internal phase, and external reviews by the City and other affected agencies. The Project Manager will conduct periodic audits of the QA/QC review process to ensure that reviews are being properly conducted and documented by all team members. Each task we are selected for will receive formal QA/QC review at the various submittals, and reports will receive reviews at the draft and pre-final submittal stages.

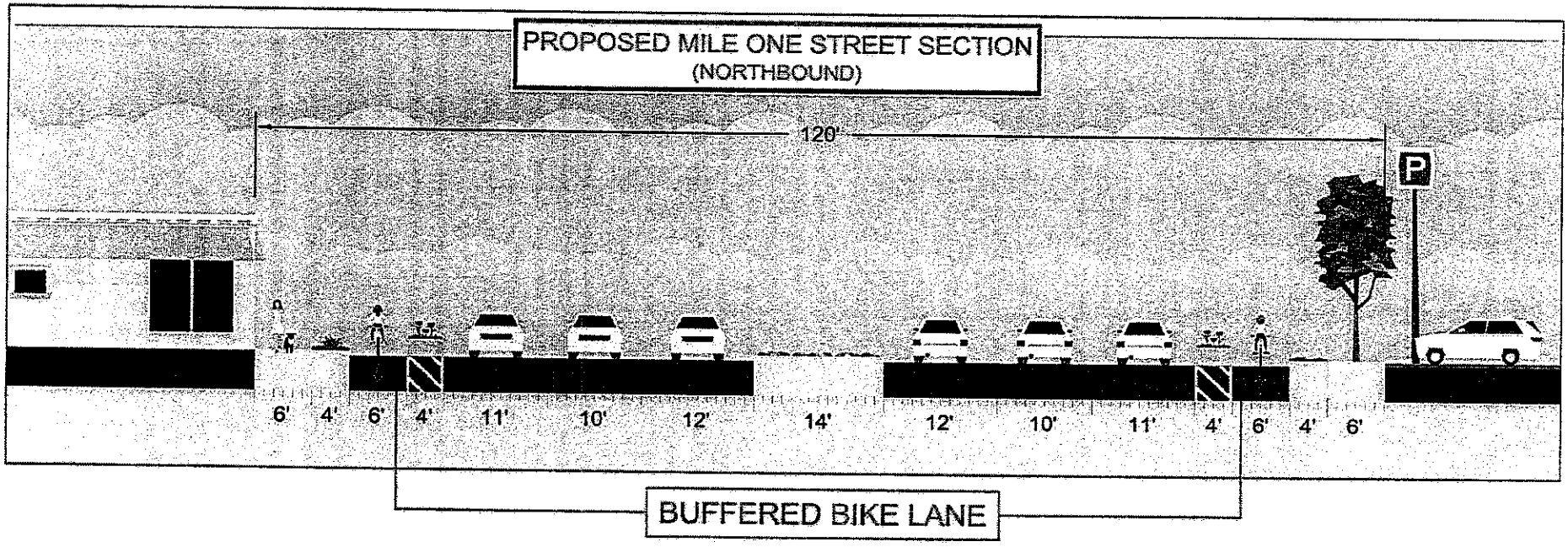


Deliverables will be reviewed for:

- Conformance to approved formats, criteria, specifications & professional standards of practice.
- Adequacy, clarity, ease of interpretation
- Constructability
- Compatibility of design discipline interfaces
- Errors and discrepancies
- Coordination with related designs and project elements
- Integration of design disciplines
- Incorporation of design changes
- Conformance to required environmental mitigation

Review comments by QC reviewers will be in writing. Comments may also be placed in the documents being reviewed, but all comments for which a response is desired will be transcribed onto the comment forms. A log to record QC measures taken during the course of the project, including corrective actions taken, will be maintained by the Project Manager.

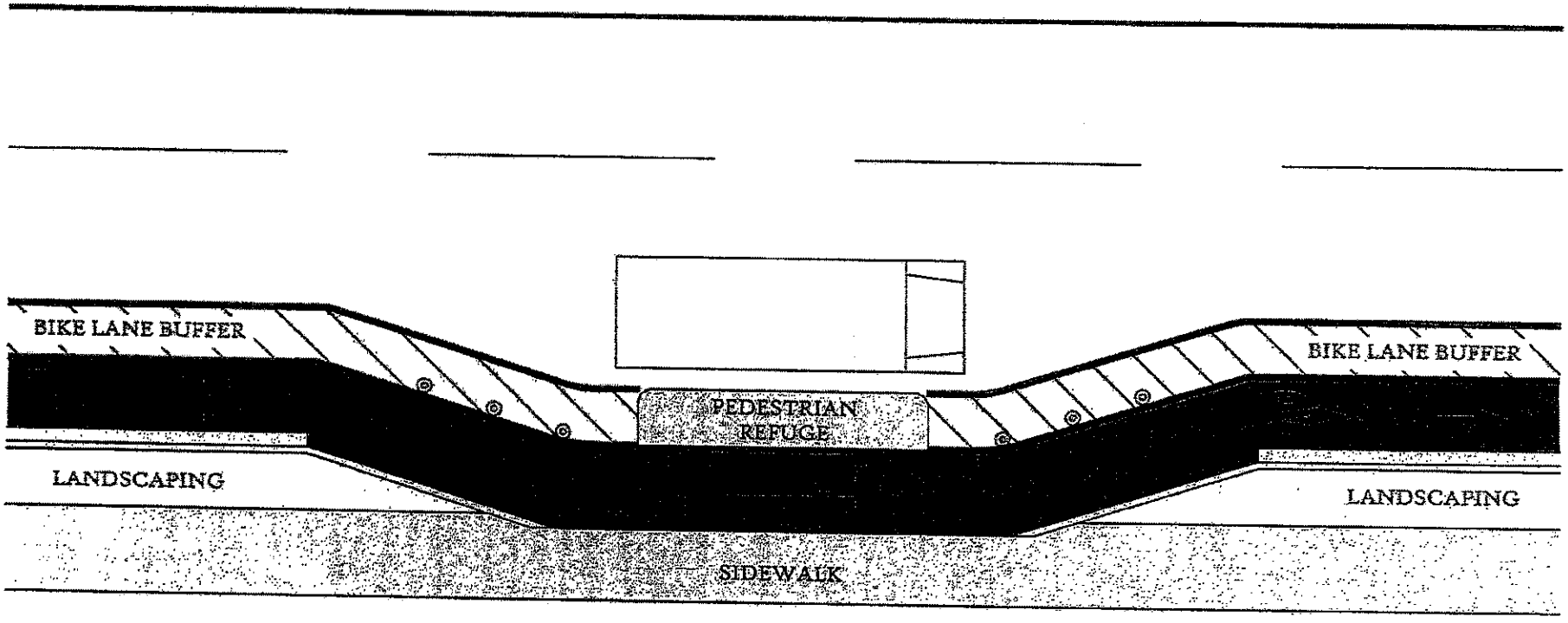




25E-337

ROADWAY TYPICAL SECTION VIEW

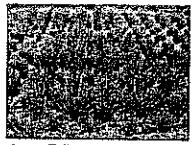
PREPARED BY CSG CONSULTANTS

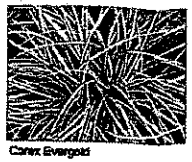

BIKE LANE BUFFER
PEDESTRIAN REFUGE
BIKE LANE BUFFER
LANDSCAPING
LANDSCAPING
SIDEWALK

25E-338

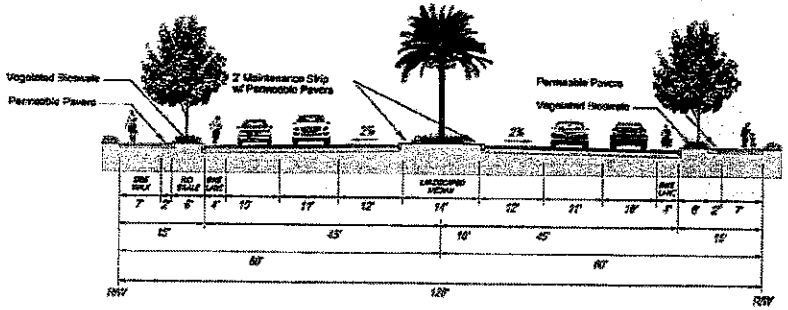
Prostrate Rosemary

Rock Purslane


Juncus Patens

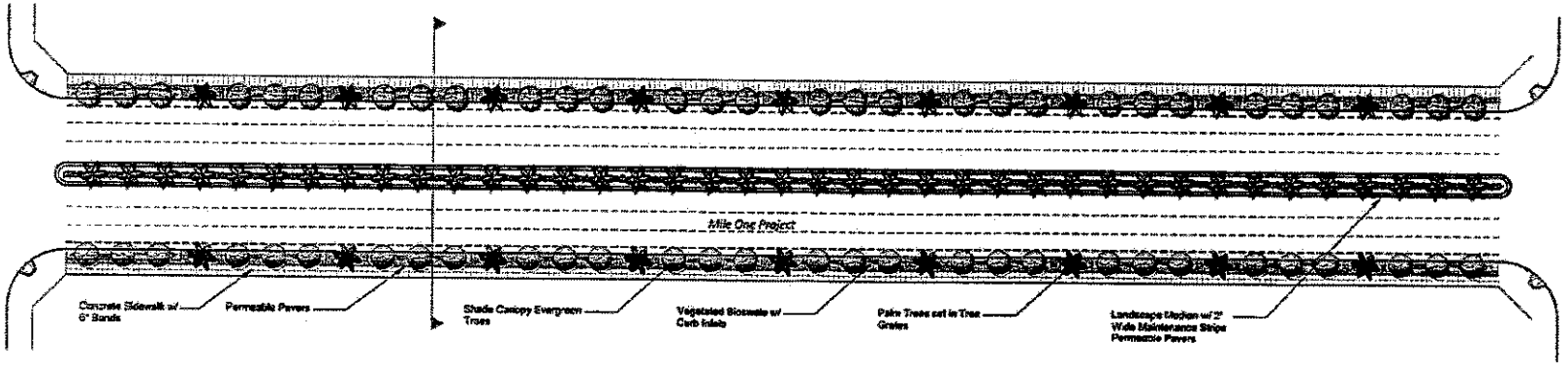

Carex Evergold

Vegetated Swale and Median Plant Palette



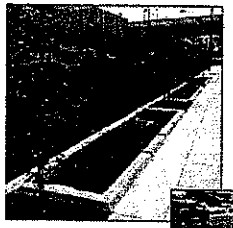
Section

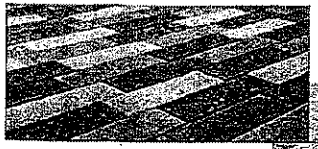
Scale: 1" = 10'

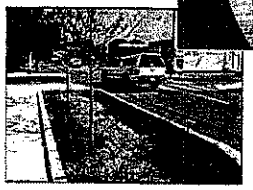


Plan View

Scale: 1" = 30'







Vegetated Swales with Curb Inlets

Permeable Pavers w/ Concrete Bands

Street Concept Project | Conceptual Landscape Streetscape

Santa Ana, CA | City of Santa Ana | 3.14.18

SMP

ENVIRONMENTAL DESIGN

SUMMERS/SUPPLY & PARTNERS, INC
LANDSCAPE ARCHITECTS
32961 COAST HWY SUITE 2C
DANA POINT CA 92629 (949) 661-4440

PROJECT SPECIFIC APPROACH

CSG has examined the Request for Proposal (RFP) and understands that the City of Santa Ana is seeking firms to design the Mile One Street Project. Primarily, the project involves a Complete Street Design concept with emphasize to ensure safety, accessibility, and convenience of all transportation users – pedestrians, bicyclists, transit riders, and motorists are considered. Mile One Street is a six-lane arterial (3 lanes in each direction) with a 14' wide median island to design for a bike lane with 4' buffer to be added in the east-bound direction. The addition of bicycle lanes will improve bicycle connectivity, and increase bicycle travel on Mile One Street and in the surrounding area.

To accommodate a bike lane concept into the design the following bullets will be analyzed and will be reported to the City's PM:

- Roadway reconfiguration (narrowing of lanes, new roadway striping)
- Roadway resurfacing treatments (slurry seal, or to be determined pavement rehabilitation)
- Green bike lanes (typically near intersections, or in otherwise high-conflict areas)
- Bike buffers, as space allows
- Bicycle activation (including modifications to existing traffic signal hardware, new inductive loops and/or video detection for bicyclists and motorists)
- Modification of existing concrete median islands and curbs
- Installation of related signage
- Modifications to parking

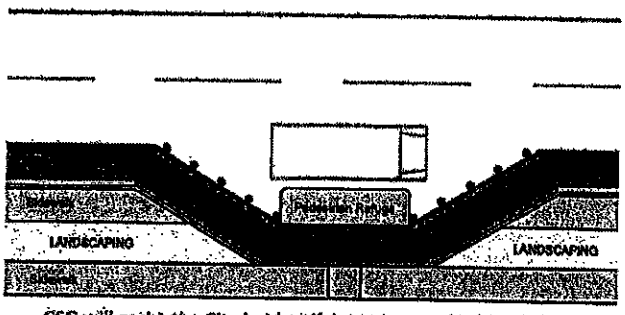
CSG has prepared Table A (provided on the following page) to show a matrix of existing conditions and potential improvements that will be considered for each road segment. The addition of Bike Lane on east side of the street, with no reduction in the number of lanes, and possibly removal of on-street parking.

TABLE A: Mile One Street Project Matrix

Street Segment	Existing Conditions										Pavement Treatment		Potential Upgrades and Improvements							
	Length (ft)	Number of Through Lanes	On Street Parking	Turn pockets	Two-way center left turn lane	Concrete Median	Designated Bus Route	Bike Lanes	Signed Bike Route	Total Street Width	Slurry Seal	Pavement Rehabilitation	Lane Width Reduction	Class 2 Bikeway (Bike Lanes)	Green Bike Lanes	Class 3 Bikeway	Parking Modifications	Modified Medians	Bike Activation	ADA Upgrades
Mile One Street	1,000	6	x	x	x	✓	✓	✓	x	120'	Y	TBD	TBD	Y	Y	Y	Y	N	TBD	Y

Note: The above table assumes that the number of lanes will not be reduced to accommodate marked bike lanes. Reduction of the number of lanes is not recommended due to potential significant impacts on traffic and associated additional studies required (environmental, traffic, level of service, etc.).

A key challenge on this project is to determine how best to address bicycle traffic at bus stops, since Mile One Street has transit stops throughout its corridor. Key options to be considered would minimize stoppage of either vehicle or bicycle traffic, and maximize safety for bicyclists and pedestrians, if space allows. One option is depicted in this figure.



CSG will assist the City in identifying concepts for bicycle lane transitions near bus stops.

Project Funding

Depending on the requirements of the funding source(s), CSG team will provide all necessary documentation for regular reporting requirements

Task Breakdown

The scope of services for this project shall consist of the following major tasks, as described in more detail below:

- Task A – Project Management and Coordination
- Task B – Caltrans Local Assistance Coordination (If required)
- Task C – Data Collection
- Task D – Preliminary Design
- Task E – Design Development
- Task F – Bid Package
- Task G – Bidding Services
- Task H – Construction Support Services

Task A - Project Management and Coordination

Work performed under this task includes project management and administration, including monthly invoicing, monitoring the project budget and schedule, supervision of in-house staff and subconsultants, implementing a QA/QC plan, and participating in project meetings. It is assumed that there will be two project meetings during design.

Other than coordination with the Caltrans Local Assistance Division for federal funding requirements, it is anticipated that the following additional permit needs will be required for this project, which CSG will assist the City in obtaining permit approval.

CSG has assumed that the following design-related meetings will be required, as outlined in the RFP:

1. Preliminary Design Progress Meeting
2. 30% Design Progress Meeting
3. 60% Design Progress Meeting
4. FINAL Design Progress Meeting

Public Outreach

CSG will prepare materials and lead two public outreach meetings to present the proposed improvements to the community. One public meeting will be held after three concepts have been prepared, to gather comments/feedback from the community. Following this meeting, the 30% submittal will be developed based on City and community feedback, before another public meeting is held. Holding public meetings and seeking community feedback early in the project design, prior to the development of the 60% submittal, will make the public feedback period more effective, by minimizing changes in the later stages of the design, which have greater impacts on project schedule and cost.

CSG has assumed that the following public outreach-related meetings will be required, as outlined in the RFP:

1. Two Public Meetings
2. Bicycle and Pedestrian Advisory Committee Meeting

3. City Council Meeting

Task Deliverables:

- *Statement of Peer Review*

Task B - Caltrans Local Assistance Coordination(If required)

CSG's staff members are familiar with federal funding requirements, have knowledge of the LAPM and LAPG manuals, are experienced in coordinating with regulatory agencies, and have a solid understanding of NEPA and CEQA document requirements, agency permit applications, and E-76 Applications.

Technical assistance to public agencies is an integral part of CSG's consultant services. In this capacity, we support various agencies by providing technical assistance in implementing federal-aid projects from preliminary engineering/environmental approval through construction completion. **Table B** (shown on the following page) lists past projects CSG has assisted with which required support of federal funding requirements.

Coordination with Caltrans Local Assistance Division

CSG has administered numerous projects with funding from several programs, such as Surface Transportation Program (STP), Safe Routes to Schools (SRTS) Program, Highway Safety Improvement Program (HSIP), Congestion Mitigation and Air Quality (CMAQ) Improvement Program, and American Recovery and Reinvestment Act (ARRA) Program. Under this task, CSG will work with the project sponsor and Caltrans Local Assistance with the "Project Field Review", "Environmental Clearance" process, "Right of Way and Utility Certification" approval process, and "E-76 Authorization to Proceed with Construction" process.

Project Field Review

CSG will coordinate with the City to complete and submit the project Field Review forms, Preliminary Environmental Studies, and supplemental documentation to Caltrans Local Assistance, and will attend and assists the project sponsor in facilitating Field Review Meetings. CSG will work with the City and Caltrans to provide Field Review documentation, listed below. All documents will be completed to the extent at which the documents will only require signatures from the project sponsor (City of Santa Ana).

- LAPM Exhibit 6-A Preliminary Environmental Study (PES) Form, & supplementary documents:
  - Regional and Location Map
  - Vicinity Map
  - Footprint ROW Maps
  - Existing Cross Section Exhibit
  - Detailed Project Description
  - Hazardous Waste Assessment
  - FEMA FIRM Map
  - Photos of Project Site
- LAPM Exhibit 7-B Field Review Form
- LAPM Exhibit 7-C Roadway Data Form
- LAPM Exhibit 7-G Field Review Attendance Roster Form

Table B: State/Federal Funded Projects & Coordination Services

STATE/FEDERAL FUNDED PROJECTS & COORDINATION SERVICES										
Client	Project Name	Fund Type	Scope Matrix							
			Planning/Scoping	Grant Application	E76 Auth for PE	PS&E Design	DBE Calculations	E76 Auth for Const	Cons Mgmt
Colma	Serramonte Blvd Overlay	STP / ARRA	✓	✓	✓	✓	✓	✓	✓
Half Moon Bay	Downtown Resurfacing Project	STP / ARRA	✓	✓	✓	✓	✓	✓	✓
Hillsborough	Asphalt Overlay Project	STP / ARRA	✓		✓	✓	✓	✓	✓
Los Altos Hills	El Monte Road Pathway	CMAQ				✓	✓	✓	
Los Altos Hills	El Monte Road Pavement Rehabilitation	STP				✓	✓	✓	✓
Los Altos Hills	Fremont Rd Pavement Rehabilitation	STP / ARRA				✓	✓	✓	
Los Altos Hills	Safe Routes to Los Altos Hills Schools	SRTS	✓	✓		✓	✓	✓	
Los Gatos	Highway 9 - University Ave Project DBE Calculations	HSIP					✓		
Marina	Imjin Parkway Bike Lane	RSTP	✓	✓		✓	✓	✓	✓
Monte Sereno	2013 Pavement Rehabilitation	STP	✓	✓		✓	✓	✓	✓
Monte Sereno	Daves Ave Road Rehabilitation	STP / ARRA	✓	✓		✓	✓	✓	✓
Mountain View	Church Street Improvements	STP				✓	✓	✓	
Orinda	Ivy Drive Pavement Rehabilitation	STP				✓	✓	✓	
Orinda	Measure J & L Pavement Rehabilitation 2015	Measure J & L				✓	✓	✓	
San Carlos	Crestview Drive Pavement Rehabilitation, Phase 1	STP				✓	✓	✓	
San Carlos	Crestview Drive Pavement Rehabilitation, Phase 2	STP				✓	✓	✓	
San Carlos	Crosswalk Enhancements at El Camino Real & Belmont Ave	HSIP				✓	✓	✓	
South San Francisco	Federal Grant Administration Project Assistance	TDA/HSIP/CMAQ/SRTS			✓				
Sunnyvale	Homestead Rd Reconstruction	STP / ARRA				✓	✓	✓	
Woodside	School Crossing Improvements	HSIP				✓	✓	✓	

NEPA/CEQA Environmental Clearance

CSG has the internal staff which can assist with the environmental services for this project. The proposed project appears to qualify for a CEQA Categorical Exclusion, and a NEPA Categorical Exemption. It is understood that the City will be obtaining CEQA clearance in this case, and LSA will complete the NEPA review and submit the associated completed forms to Caltrans.

The work includes coordination with the City, the development of technical memos, and coordinating with the Caltrans Environmental sector of Local Assistance. CSG will work with the City to ensure timely completion and submittal of the required technical memoranda to Caltrans.

CSG's scope and fee is based on the following anticipated submittals to Caltrans:

- Staging Area Technical Memo
- Traffic Technical Memo
- Hazardous Waste Technical Memo
- Water Quality Technical Memo

CSG's scope and fee is based on the following anticipated technical memoranda:

- Biological Resources
- Cultural Resources
- Noise Technical Memo
- Air Quality
- Visual Resources

Right of Way and Utility Certification

If the project requires right of way acquisition, CSG will coordinate with the right of way team in the development and submittal of the required documentation to Caltrans Right of Way Division. The Local Assistance Procedures Manual (LAPM) Exhibits and documents involved in this process may be developed by CSG to be submitted by the project sponsor. The deliverables for this subtask include:

- LAPM Exhibit 13A or 13B Right of Way Certification
- Project Engineer's Certification of Utility Facilities
- LAPM Exhibit 14D Notice to Owners (Sent to all the utility owners in the project area)
- LAPM Exhibit 14I Local Agency Utility Owner Special Agreement

E76 Request for Authorization to Proceed with Construction

Once the environmental clearance is provided and the Right of Way Certification is approved, CSG will complete the following tasks and prepare the following documents for the project sponsor to submit their "E76 Request for Authorization to Proceed with Construction." The forms will be reviewed and coordinated with the project sponsor for accuracy prior to submittal to Caltrans Local Assistance. The deliverables for this subtask include:

- LAPM Exhibit 3-D Request for Authorization to Proceed
- LAPM Exhibit 3-E Request for Authorization to Proceed Data Sheet
- LAPM Exhibit 3-O Finance Letter
- LAPM Exhibit 12-A Preliminary Cost Estimate
- LAPM Exhibit 12-C PS&E Certification
- LAPM Exhibit 12-D PS&E Checklist
- LAPM Exhibit 15-A Local Agency Construction Contract Administration
- FTIP Reference Sheet
- Project-Specific DBE Research and Calculation
- Implementation of Federal requirements into specifications, as outlined in LAPM Exhibit 12-D
- Copy of project plans, specifications, and estimate package for E76 Caltrans submittal

CSG could also assist in preparing other non-project specific documents required by Caltrans as follows:

- Quality Assurance Program (QAP)
- Annual DBE program forms (LAPM 9-A and 9-B)

- Executed Cooperative Agreement (with utility companies), Caltrans, or other municipalities

Task C - Data Collection

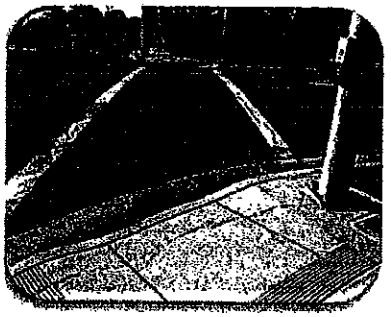
Field Reconnaissance

CSG will conduct field reconnaissance to develop base mapping for the project. Field reconnaissance efforts can be scaled up or down, to reflect whether the aerial photogrammetry task is authorized. If necessary, street and lane widths will be determined based on field measurements taken at representative cross sections to supplement available existing high-resolution orthorectified imagery. Existing utility cover locations and types will be field verified to assist in Utility Certification efforts.

Example of pavement rehabilitation needed due to recent construction

Aerial Photogrammetry Survey (Optional)

An aerial photogrammetry survey, which involves the collection of aerial photography and elevations, is a more cost effective solution for this project than a traditional topographic ground-level survey, due to the length of the segments to be improved, and their long distances apart. It is also a more accurate method of developing base mapping than the use of high-resolution orthorectified aerial imagery alone, which may be out of date by several years and must be supplemented with collected field data.

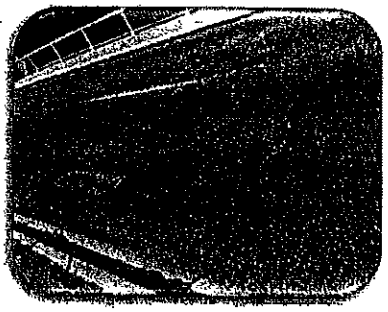


Example of Isolated Pavement Failure

Aerial photogrammetry services will be provided by an aerial photogrammetry firm in conjunction with **Wagner Engineering & Survey**. WES will set vertical and horizontal controls for the project in accordance with City standards, prior to the aerial survey. Following the aerial survey, supplemental ground shots can be collected at intersections for traffic signal modifications and ADA upgrades, as needed.

Pavement Visual Condition Survey

As a first order of work upon Notice to Proceed, CSG will conduct a visual condition survey to evaluate the existing pavement condition for the street segments identified as in need of pavement rehabilitation in the RFP. The visual condition survey will consist of photographs of the site to document the current condition of the site, and recommendations based on the visual assessment. Some assumptions would be made about the existing structural section thickness and R-values to develop design recommendations.



Example of Pitting

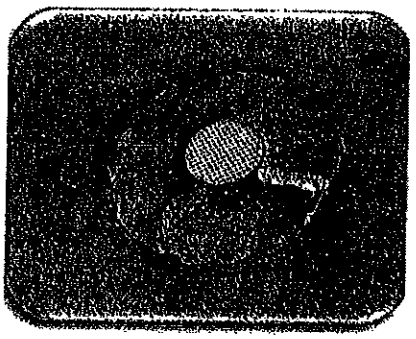
Pavement Design Report and Testing (Optional)

CSG has teamed with **GeoAdvantec Inc. (GAI)** to provide supplemental pavement services. If needed, GAI can perform deflecting testing and coring, in addition to the visual condition survey included in the base scope. If authorized, coring will be performed to determine the thickness and R-value of the existing structural section.

CSG will prepare a pavement design report identifying the analysis procedures and tests used for the investigations, a description and limitations of any pavement rehabilitation materials listed in the rehabilitation recommendations, two or more pavement rehabilitation design alternatives, the raw test data, exhibits identifying location of pavement cores taken, photos taken during the investigations, and an economic analysis of the rehabilitation alternatives based on CSG's previously designed and constructed pavement project unit costs.

Utility Coordination

CSG will coordinate with the various utility agencies that have facilities within the project area to request mapping of their facilities in the area, and notify utility companies of facilities or covers which need to be relocated or adjusted to grade as a result of the proposed improvements. Utility covers within the project area will be cataloged by either aerial photogrammetry or field reconnaissance and shown on plan. Utility coordination and mapping efforts will assist in developing the required Utility Certification.



Example of isolated pavement failure at utility cover

It is anticipated that coordination efforts with utility companies during construction to relocate or adjust their facilities will be performed by the Contractor.

Task D - Preliminary Design

Preliminary Findings Technical Memorandum

CSG will prepare a memorandum summarizing the findings of the data collection effort, including recommended pavement treatments and cost estimates based on either (1) a visual condition survey alone, or, if authorized, (2) the pavement design report and testing provided by PEI.

Task Deliverables:

- *Five (5) hard copies and an electronic PDF of the draft report*
- *Three (3) hard copies and electric PDF of the final report*

Concept Exhibits

CSG will prepare preliminary design exhibits that will be used for initial coordination efforts with City/stakeholders to identify any potential alternative methods, and assure no major changes or "surprises" occur late in the design process. The purpose of this submittal is to gain conceptual approval of the design by the City.

CSG will prepare three (3) different concept exhibits as well as a brief summary of advantages and disadvantages, and a budgetary construction cost estimate, for each option. These concept exhibits will be submitted for internal review by the City prior to finalizing the three concepts for the first public meeting.

Task Deliverables:

- *Five (5) hard copies and an electronic PDF of the concept exhibits, summary, and budgetary cost estimates*
- *Summarizing memorandum of public outreach finding from first public meeting.*

Task E - Design Development

Traffic Signal Design

Traffic signal modifications may involve modifications to the existing signals to provide bicycle detection at intersections bordering the proposed bike lanes. Video detection can be added to these intersections for bicyclists and vehicles, new conduits will be installed for traffic signal wiring, and existing induction loops will be removed. It is not anticipated that new traffic signal poles will need to be constructed, CSG will conduct an assessment of the existing traffic signal facilities to determine if new traffic signal poles are required.

Bike Lane Addition

Modified width of 5' for bike lane may be required width depends on the minimum width required for vehicle traffic lanes. This may be necessary if there are bus traffic in the area. Refinements to the basic concept will be investigated and compared to find the best option.

30% Plans and Estimate

CSG will provide plans and an estimate of the selected option for each street segment, based on comments received from the City and from project stakeholders at the first public meeting.

It is anticipated that plans will be prepared at 1"=40' scale, with two segments of approximately 1000 feet of roadway per plan sheet.

The 30% submittal plans are expected to consist of the following sheets:

PLAN DESCRIPTION	ESTIMATED NUMBER OF SHEETS
Title Sheet	1
Layouts (1"=40' Scale)	1
Signing and Striping Plans (1"=40' Scale)	1
Preliminary Traffic Signal Plans	4
TOTAL SHEETS	**7**

Task Deliverables:

- *Two (2) 24"x36" hard copies and three (3) half size hardcopies of the plans*
- *One (1) CD with digital copies of all documents in PDF and native format*
- *Cut sheets for equipment/appurtenances, as needed*
- *Documentation of outreach with utility owners with facilities to be adjusted to grade*
- *Project Schedule Update*
- *30% Construction Cost Estimate*
- *Table of Contents for Technical Specifications*

60% Plans, Specifications, and Estimate

CSG will provide plans and an estimate at the 60% level, revised per comments received from the City and project stakeholders on the 30% Plans and Estimate. The plans will provide sufficient detail to construct the proposed improvements. It is anticipated that all major project issues will be resolved prior this submittal stage, following the results of the two public meetings and City review periods.

CSG will also provide technical specifications/special provisions. The special provisions will be prepared in CSI format and in accordance with applicable City standards.

Task Deliverables:

- *Two (2) 24"x36" hard copies and four (4) half size hardcopies of the plans*
- *One (1) CD with digital copies of all documents in PDF and native format*
- *Technical Provisions/Specifications in CSI format*
- *Project Schedule Update*
- *60% Construction Cost Estimate*
- *Responses to City's comments on the 30% submittal and redlines*

Final Plans, Specifications, and Estimate

CSG will provide plans and an estimate at the 100% level, revised per comments received from the City on the 60% Submittal.

It is assumed that general provisions ("front end" boilerplate) will be provided by the City in Word document format for a similar type of project. CSG will tailor these general provisions for the project, incorporating any required specifications to conform to federal funding requirements.

Task Deliverables:

- *Two (2) 24"x36" hard copies and five (5) half size hardcopies of the plans*
- *One (1) CD with digital copies of all documents in PDF and native format*
- *100% Specifications*
- *Project Schedule Update*
- *100% Construction Cost Estimate*
- *Responses to City's comments on the 75% submittal and redlines*

Task F - Bid Package

CSG will review comments from the 100% submittal and prepare a final, construction-ready set of documents, including plans, an estimate, and specifications. A quality control review will be performed before submittal to the City. This will represent the final submittal of the PS&E for approval by the City.

The final plans are expected to consist of the following sheets:

PLAN DESCRIPTION	ESTIMATED NUMBER OF SHEETS
Title Sheet	1
Typical Sections	1
Demolition Plans (1"=40' Scale)	1
Layouts (1"=40' Scale)	1
Signing and Striping Plans (1"=40' Scale)	1
Traffic Signal Plans	4
Construction Details	4
TOTAL SHEETS	**13**

Task Deliverables:

- *One (1) 24"x36" hard copy set of the plans, signed and stamped on each sheet*
- *One hard copy set of the specifications, printed single-sided*
- *One (1) CD with digital copies of all documents in PDF and native format*
- *Final Project Schedule Update*
- *Final Construction Cost Estimate*

Task G - Bidding Services

CSG shall assist the City during bidding to respond to contractors' questions and Requests for Information (RFIs), will support the City's efforts to inform plan holders of significant responses to RFIs, and will develop addenda, as needed. As requested in the RFP, communications with any proposers shall be directed through the City's Purchasing Officer.

Task H - Construction Support Services

CSG can assist the City during construction and provide the following support services:

1. Attend construction meetings as required.
2. Participate in the final inspection and development of punch lists.
3. Provide clarifications, as required, of construction documents and respond to Contractor's Requests for Information (RFIs).

4. Review and approval of sample and material submittals specified in Contract Documents which impact the design.
5. Review of any proposed substitutions for conformance to the Contract Documents.
6. Responding to Construction Change Orders (CCOs) and review of Requests for Quotations, if needed.
7. Preparation of Record Drawings based on redlines provided by the Contractor and field reviews.

Our staff is highly responsive to requests received during construction, and understands that timely are crucial in avoiding construction delays and claims.

CSG has assumed that the following construction-related meetings will be required, as outlined in the RFP:

4. Internal Handoff Meeting between Design and Construction Team (CSG to lead this meeting)
5. Pre-Construction Meeting
6. Three (3) Construction Progress Meetings
7. Pre-Final Walk Through
8. Final Walk Through
9. "Lessons Learned Meeting", at the end of the project

Additional construction support may be provided as additional scope.

Task Deliverables:

- *Meeting Agenda for Internal Handoff Meeting*
- *Record Drawings in AutoCAD and PDF Format*

TASKS	April 2018	May 2018	June 2018	July 2018	Aug 2018	Sept 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	March 2019	April 2019	May 2019	June 2019
1. Notice to Proceed															
2. Project Management & Coordination															
3. Caltrans Local Assistance Coordination					NEPA		E-76								
4. Data Collection / Survey / Pavement Investigation															
5. Preliminary Design															
6. Public Meeting 1															
7. 30% Submittal															
8. Presentation to Bicycle and Pedestrian Advisory Committee															
9. Public Meeting 2															
10. 60% Submittal															
11. 100% Submittal															
12. Bid Package															
13. Presentation to City Council															
14. Bidding Services															
15. Construction Support Services															
16. Project Closeout															

25E-350

Fee Proposal

As stated in the Request for Proposal, CSG has provided our proposed fee in a separate sealed envelope.

Appendix: Resumes & Forms

SECTION 8

Resumes of proposed project staff are provided on the following pages for the City's review.

CSG has provided the forms during the original Statement of Qualifications period. Forms may be resubmitted to the City upon request.

Peykan **Abbassi** PE, LEED AP

Principal Engineer

LICENSES and CERTIFICATIONS

Professional Civil Engineer
State of California
| 1996

LEED AP Certificate,
United States Green Building Council

Project Management Certificate,
Bureau of Engineering,
City of Los Angeles

Certificate in Effective Negotiation,
Karrass Institute

EDUCATION

MS Civil Engineering,
University of Southern California

BS Civil Engineering,
University of Southern California

Mr. Abbassi is an experienced executive level leader for large programs in Public Works, Transportation, Development and Municipal Engineering. Through creation of a team environment and project ownership atmosphere he achieved outcomes above and beyond the expected performance levels. He consistently developed cohesive management teams, established and monitored short-range and long-range goals, budgets, and schedules. Mr. Abbassi has worked with regulatory agencies such as Army Corps of Engineers, California Coastal Commission, and California Department of Fish and Game, and has engaged with development firms to reach common grounds.

SAMPLE PROJECTS

Chief Development Officer | North County Transit District (NCTD)
Mr. Abbassi was responsible for directing and managing the activities of the Development Services Division (DSD) comprised of Engineering and Capital Programs, Facility, Real Estate, Maintenance of Way Departments and Signals and systems including Positive Train Control. The Engineering department performed the oversight of the work performed by SANDAG (San Diego Association of Governments) on LOSSAN Corridor capacity enhancement (double tracking the railroad right of way) and the replacement of 22 bridges in the 60 miles of right of way.

Private Development Plan Checking Group | West Los Angeles District Office, City of Los Angeles, CA
Mr. Abbassi helped establish Public Works Improvement Requirements and Conditions for Subdivision and Land Use projects; these included street, storm drain, sanitary sewer, grading, erosion control and review of Environmental Impact Report (EIR), preparation and review of construction bonds documents for improvements in conjunction with private development projects. Led and directed the group responsible for the issuance of over 500 private development projects' plan check permits and construction permits with a total construction cost of $120M. Had oversight of the Mapping and Records Group; which included the record maps of the district and all the improvements, which were updated continuously, the public counter activities, such as house connection locations, address verification, utilities location, legal description, and the issuance of A-permits, Excavation permits, Utility permits, and Sewer connection permits.

City Engineer | City of City of Half Moon Bay, CA
Mr. Abbassi was responsible for complex and technical tasks related to capital infrastructure, utilities, traffic studies and management, land development and other public works-related projects and programs ensuring compliance with all codes and regulations. His work included managing consultants for storm drain and sewer master plans as well as design consultants for the Capital Improvement Projects. Under his supervision, the City developed a comprehensive and robust 5-year capital program with a budget of $85 million. It included a $22 million new Net Zero and LEED certified library as well as $9.5 million Highway 1 "Safety and Operational Improvements" projects. Mr. Abbassi assisted the City with its Solid Waste contract as well managing activities with the JPA for the Wastewater Treatment Facility and pumping plants throughout the City. He also represented the City of Half Moon Bay in county-wide efforts to study and resolve Sea Level Rise (SLR) related issues and protect the City's vulnerable assets.

Michael **Fisher** PE, QSD/P

Principal Engineer

LICENSES and CERTIFICATIONS

Professional Civil Engineer
State of California
| C56550

Qualified SWPPP Developer/Practitioner
| 25565

EDUCATION

Bachelor of Science, Civil Engineering,
San Jose State University
| San Jose, CA

PROFESSIONAL AFFILIATIONS

South Bay Transportation Offices Association (SBTOA), Past President

Toastmasters International
Club: 0870677

Mr. Fisher is a civil engineer with over 25 years of experience in civil/roadway design, drainage design, traffic engineering, specification writing, engineering report writing and project management. He has managed teams of engineers, working to deliver over a dozen projects ranging in size from $20,000 to $22,000,000 with project status ranging from project initiation/feasibility/study phase to approval/environmental phase to final design and construction. Mr. Fisher has extensive experience working on roadway design, including intersection and median projects. His design work includes horizontal and vertical geometric layout, utility coordination, traffic signal design, signing and striping design and drainage design. His projects have incorporated current LID design practices including biofiltration, infiltration, and detention basins.

RELEVANT EXPERIENCE

Sunnyvale Pavement Rehabilitation 2017 | City of Sunnyvale, CA
Mr. Fisher served as the Project Manager for this annual street pavement rehabilitation project. The scope involved the rehabilitation of 2 streets in the City of Sunnyvale. Work included the design of grind and HMA overlay, digouts, utility adjustments, curb ramps, concrete sidewalk, curb, gutter and driveway replacement, and striping plans.

Fair Oaks Bikeway and Streetscape | City of Sunnyvale, CA
Mr. Fisher served as the Project Manager for the design of Class 2 Bicycle Lanes on Fair Oaks Avenue between Old San Francisco Road to Evelyn Road, Kifer Avenue to Arques Avenue, and Wolfe Road to Ahwanee Avenue. Key project elements included reconfiguring the roadway, roadway resurfacing, addition of green bike lanes, modifications to the existing concrete median islands, modification of parking, and installation of related signage. Mr. Fisher led public outreach meetings to keep the residents informed of the project.

First Street and City Alley Resurfacing Project | City of Los Altos, CA
Mr. Fisher served as the Project Manager for these two resurfacing projects, which involve rehabilitation of 20 city alleyways as well as First Street between West Edith Avenue and State Street. He oversaw preparation of the project PS&E package, Basis of Design Report, and coordinated with utility owners for adjustments of their facilities.

Junipero Serra at King Boulevard Intersection Improvements | City of South San Francisco, CA
Mr. Fisher served as the Project Manager for this bicycle and pedestrian friendly traffic signal upgrade project. The project goal was to improve mobility for all modes, and brings the intersection up to current standards for bicyclists, pedestrians, and ADA access.

Project included preliminary design, community outreach, agency coordination including Caltrans. The project scope included redesign of the existing medians and right-turn islands to improve intersection geometry and provide ADA compliance, replacement of the existing traffic signals located in the median with mast arm signals to improve visibility, addition of a speed feedback sign on southbound Junipero Serra, and extension of existing bike lanes along Junipero Serra Boulevard through the King Drive intersection to improve bicycle safety.

W. Edith and University Crosswalk Improvements | City of Los Altos, CA
Mr. Fisher served as the Project Manager for the design of traffic calming elements to allow for safe visible crossing of Edith Avenue. The design also included the installation of crosswalk signs and in-ground warning lights.

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Principal Engineer

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State of California
|51996

LEED AP Certificate,
United States Green Building Council

Project Management Certificate,
Bureau of Engineering,
City of Los Angeles

Certificate in Effective Negotiation,
Karrass Institute

EDUCATION

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University of Southern California

BS Civil Engineering,
University of Southern California

Mr. Abbassi is an experienced executive level leader for large programs in Public Works, Transportation, Development and Municipal Engineering. Through creation of a team environment and project ownership atmosphere he achieved outcomes above and beyond the expected performance levels. He consistently developed cohesive management teams, established and monitored short-range and long-range goals, budgets, and schedules. Mr. Abbassi has worked with regulatory agencies such as Army Corps of Engineers, California Coastal Commission, and California Department of Fish and Game, and has engaged with development firms to reach common grounds.

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Private Development Plan Checking Group | West Los Angeles District Office, City of Los Angeles, CA
Mr. Abbassi helped establish Public Works Improvement Requirements and Conditions for Subdivision and Land Use projects; these included street, storm drain, sanitary sewer, grading, erosion control and review of Environmental Impact Report (EIR), preparation and review of construction bonds documents for improvements in conjunction with private development projects. Led and directed the group responsible for the issuance of over 500 private development projects' plan check permits and construction permits with a total construction cost of $120M. Had oversight of the Mapping and Records Group; which included the record maps of the district and all the improvements, which were updated continuously, the public counter activities, such as house connection locations, address verification, utilities location, legal description, and the issuance of A-permits, Excavation permits, Utility permits, and Sewer connection permits.

City Engineer | City of City of Half Moon Bay, CA
Mr. Abbassi was responsible for complex and technical tasks related to capital infrastructure, utilities, traffic studies and management, land development and other public works-related projects and programs ensuring compliance with all codes and regulations. His work included managing consultants for storm drain and sewer master plans as well as design consultants for the Capital Improvement Projects. Under his supervision, the City developed a comprehensive and robust 5-year capital program with a budget of $85 million. It included a $22 million new Net Zero and LEED certified library as well as $9.5 million Highway 1 "Safety and Operational Improvements" projects. Mr. Abbassi assisted the City with its Solid Waste contract as well managing activities with the JPA for the Wastewater Treatment Facility and pumping plants throughout the City. He also represented the City of Half Moon Bay in county-wide efforts to study and resolve Sea Level Rise (SLR) related issues and protect the City's vulnerable assets.

Michael **Fisher** PE, QSD/P

Principal Engineer

LICENSES and CERTIFICATIONS

Professional Civil Engineer
State of California
| C56550

Qualified SWPPP Developer/Practitioner
| 25565

EDUCATION

Bachelor of Science, Civil Engineering,
San Jose State University
| San Jose, CA

PROFESSIONAL AFFILIATIONS

South Bay Transportation Offices Association (SBTOA), Past President

Toastmasters International
Club: 0840677

Mr. Fisher is a civil engineer with over 25 years of experience in civil/roadway design, drainage design, traffic engineering, specification writing, engineering report writing and project management. He has managed teams of engineers, working to deliver over a dozen projects ranging in size from $20,000 to $22,000,000 with project status ranging from project initiation/feasibility/study phase to approval/environmental phase to final design and construction. Mr. Fisher has extensive experience working on roadway design, including intersection and median projects. His design work includes horizontal and vertical geometric layout, utility coordination, traffic signal design, signing and striping design and drainage design. His projects have incorporated current LID design practices including biofiltration, infiltration, and detention basins.

RELEVANT EXPERIENCE

Sunnyvale Pavement Rehabilitation 2017 | City of Sunnyvale, CA
Mr. Fisher served as the Project Manager for this annual street pavement rehabilitation project. The scope involved the rehabilitation of 2 streets in the City of Sunnyvale. Work included the design of grind and HMA overlay, digouts, utility adjustments, curb ramps, concrete sidewalk, curb, gutter and driveway replacement, and striping plans.

Fair Oaks Bikeway and Streetscape | City of Sunnyvale, CA
Mr. Fisher served as the Project Manager for the design of Class 2 Bicycle Lanes on Fair Oaks Avenue between Old San Francisco Road to Evelyn Road, Kifer Avenue to Arques Avenue, and Wolfe Road to Ahwanee Avenue. Key project elements included reconfiguring the roadway, roadway resurfacing, addition of green bike lanes, modifications to the existing concrete median islands, modification of parking, and installation of related signage. Mr. Fisher led public outreach meetings to keep the residents informed of the project.

First Street and City Alley Resurfacing Project | City of Los Altos, CA
Mr. Fisher served as the Project Manager for these two resurfacing projects, which involve rehabilitation of 20 city alleyways as well as First Street between West Edith Avenue and State Street. He oversaw preparation of the project PS&E package, Basis of Design Report, and coordinated with utility owners for adjustments of their facilities.

Junipero Serra at King Boulevard Intersection Improvements | City of South San Francisco, CA
Mr. Fisher served as the Project Manager for this bicycle and pedestrian friendly traffic signal upgrade project. The project goal was to improve mobility for all modes, and brings the intersection up to current standards for bicyclists, pedestrians, and ADA access.

Project included preliminary design, community outreach, agency coordination including Caltrans. The project scope included redesign of the existing medians and right-turn islands to improve intersection geometry and provide ADA compliance, replacement of the existing traffic signals located in the median with mast arm signals to improve visibility, addition of a speed feedback sign on southbound Junipero Serra, and extension of existing bike lanes along Junipero Serra Boulevard through the King Drive intersection to improve bicycle safety.

W. Edith and University Crosswalk Improvements | City of Los Altos, CA
Mr. Fisher served as the Project Manager for the design of traffic calming elements to allow for safe visible crossing of Edith Avenue. The design also included the installation of crosswalk signs and in-ground warning lights.

David **Seto** PE

Senior Engineer

LICENSES and CERTIFICATIONS

Professional Engineer
State of California
| C78138

EDUCATION

Bachelor of Science, Civil Engineering
University of California Davis
Davis, CA

PROFESSIONAL AFFILIATIONS

American Public Works Association (APWA)

Toastmasters International
Secretary
Club: #8410677

Mr. Seto is a Senior Engineer with over 12 years of experience in the transportation field. Mr. Seto has been a project engineer for multiple transportation projects and was responsible for the preparation of plans, specifications, and estimates for traffic signals, lighting, traffic operation system, ramp metering, streetscape improvements, roadway intersection, grade separations, and stage construction projects. He is knowledgeable of and has prepared designs to Caltrans, Counties, and Cities standards. He is proficient in the use of MicroStation and AutoCad Civil 3D.

RELEVANT EXPERIENCE

Beach and Reservation Road Roundabouts | City of Marina, CA
Mr. Seto was the Project Engineer for this roundabout project for the City of Marina. The project created two roundabouts, at one of the city's main entrances adjacent to a freeway interchange. The project helped create a gateway entry statement to one of the City's main commercial corridors. The scope also included decorative lighting, bicycle and pedestrian safety improvements, and landscaping improvements to create an attractive entry to the city.

Fair Oaks Bikeway and Streetscape | City of Sunnyvale, CA
Mr. Seto served as the Project Engineer for this project. The scope involved the installation of Class III green bicycle markings and bicycle detector markings along with various intersection improvements. Work included the detailed grading design of several curb returns to meet ADA requirements, restriping of various intersections and replacement of concrete sidewalk, curb and gutter.

2017 Pavement Rehabilitation Project | City of Sunnyvale, CA
Mr. Seto served as the Project Engineer for this annual street pavement rehabilitation project. The scope involved the rehabilitation of 2 streets in the City of Sunnyvale. Work included the design of grind and HMA overlay, digouts, utility adjustments, curb ramps, concrete sidewalk, curb, gutter and driveway replacement, and striping plans.

2016 Street Reconstruction at Various Locations | City of San Mateo, CA
Mr. Seto served as the Design Engineer for street improvements at various locations throughout San Mateo. The project involved concrete road pavement removals and replacements of various streets, installation of ADA curb ramps, sidewalks, curb & gutter, and driveways. Also included were utility adjustments to grade, installation of catch basins, RCP and HDPE storm drain pipe installation, pavement striping, markings, and markers; and other related work. He also managed the preparation of Caltrans encroachment permit.

Mary Avenue Bike Lane | City of Sunnyvale, CA
Mr. Seto served as CSG's design engineer for this project. The scope involved installing a class II bike lane on both sides of Mary Ave from Fremont Ave to Maude Avenue (3 miles). Civil scope of work includes concrete improvements, asphalt concrete digout repairs, crack sealing, slurry seal, utility adjustments and other related work.

Measure J and L & Annual Pavement Rehabilitation 2015 | City of Orinda, CA
This Measure J & L project rehabilitated local/residential roads with a PCI value less than 25. The scope included identifying various depths of full depth rehabilitation to rehabilitate 23 local roads and two collector roads. As Project Engineer, Mr. Seto was responsible for the field assessments, utility company coordination, and development of PS&E documents. He also assisted in the preparation of addendums and bud support.

Amir **Abdollahi** EIT

Associate Engineer

LICENSES and CERTIFICATES
Engineer in Training
State of California

EDUCATION
Bachelor of Science, Civil Engineering
San Jose State University
| San Jose, CA

PROFESSIONAL AFFILIATIONS
American Society of Civil Engineers (ASCE)

Toastmasters International
Vice President, Education

Mr. Abdollahi has over three years of engineering design and construction inspection experience. His design background includes a variety of public works projects involving pavement rehabilitation, grading, drainage system improvements, estimates, and Standard Detail Revisions. He is knowledgeable in AutoCAD Civil 3D.

RELEVANT EXPERIENCE

2016-17 Street Resurfacing Project | City of Stockton, CA
Mr. Abdollahi served as a design engineer for the preparation of PS&E document for the pavement rehabilitation project. This pavement rehabilitation project includes hot mix asphalt mill and fill replacements, pavement base failure repairs (digouts), microsurfacing, pavement patch and crack sealing, upgrade ADA-compliant curb ramp, adjustment to existing utility facilities and monuments to proposed finished grade, replacement of existing traffic signal detector loops, trimming of tree roots and canopies, and installation of pavement markings and striping.

Various Streets & Roads Improvement Project | City of Millbrae, CA
Mr. Abdollahi served as a Design Engineer for this pavement project which involved a major City arterial, Millbrae Avenue, and a residential Street, Magnolia Avenue. The project also included pavement coring sample testing, surveying, pavement recommendations report, traffic handling plans, ADA curb ramp upgrades, traffic signal repair and traffic detours.

Measure J and L & Annual Pavement Rehabilitation 2015 | City of Orinda, CA
As Project Engineer, Mr. Abdollahi was responsible for the field assessments, utility company coordination, development of PS&E documents, and assisted in the preparation of addendums and bid support. The Measure J & L project rehabilitated local/residential roads with a PCI value less than 25. The scope included identifying various depth of full depth rehabilitation to rehabilitate 23 local roads and two collector roads within the City of Orinda.

Millbrae Various Streets and Road Preservation | City of Millbrae, CA
Mr. Abdollahi assisted in preparing the PS&E design along with the Caltrans Field Review, Environmental Clearance, Encroachment Permit, Right of Way Certification, and Caltrans E76 documents. The City had an One Bay Area Grant (OBAG) funded project that required road pavement to be rehabilitated along segments of Millbrae Avenue (From El Camino Real to Old Bayshore Highway) and Magnolia Avenue (Taylor Blvd to La Cruz Avenue).

El Monte Road Preservation Project| Town of Los Altos Hills, CA
As Project Engineer, Mr. Abdollahi conducted a series of field assessments regarding pavement reconstruction limits, road and striped lane dimensions, concrete improvements, and ADA compliance needs on project that spanned 1.5 miles. Amir also assisted with the Federal Grant Administration process and coordinated with the Caltrans Local Assistance department for the entire span of the project. Developing the Field Review, Preliminary Environmental Study (PES), E-76 Authorization for Construction, and Encroachment Permit forms. Amir was also able to perform quantity takeoffs for all streets to assist in the development of the engineer's estimate.

Dairy Knolls Stair and Pathway Improvements| Town of Tiburon, CA
In this stair and pathway improvement project, Mr. Abdollahi conducted a topographic survey to develop the plans and estimate for a pathway with a staircase that connected an after school daycare to an elementary school. During this process, Mr. Abdollahi was asked to design up to three different approaches with a recommended choice for the staircase and pathway.

transpogroup
WHAT TRANSPORTATION CAN BE.

RAWAD HANI PE, TE, PTP, PTOE
PROJECT MANAGER

Rawad is an experienced transportation and traffic engineer. He specializes in traffic engineering, parking analysis, and technology applications in transportation. Rawad has managed engineering design projects in the US and internationally where he advised public, private, and institutional clients.

His recent experience includes helping schools with enhancing site-access and parking configurations, signal designs and illumination designs, as well as planning studies. Rawad recently managed projects for the Notre Dame High School, Garden Grove Unified School District, San Ysidro Border Crossing, Cities of Commerce, Buena Park, Pasadena, and the County of San Bernardino.

Rawad understands the importance of striking the right balance between engineering (mobility and safety) and planning (livability and sustainability) considerations. He has worked on context-sensitive design projects and has helped planning and transportation agencies achieve effective solutions.

EXAMPLES OF HIS PROJECT WORK INCLUDE:

▸ Project Manager for On-Call Contracts: Rawad serves as the project manager for the Garden Grove Unified School District (GGUSD) as well as the cities of Buena Park and Commerce. He is helping GGUSD on parking lot designs, traffic circulation, and site access. He helped the City of Buena Park in the review of Artesia Blvd Traffic Signal Synchronization project. He also helped the City of Commerce put together two successful grant applications for the HSIP program as well as the ATP program.

▸ Project Manager for Traffic Engineering Projects: Rawad managed various signal design, signing, striping, and street lighting projects. These include Recology Sun Valley signal design and signing/stripping in Los Angeles, Eagle Rock Street Lighting in Los Angeles, Washington Blvd Class II Bicycle lanes signing and striping, San Ysidro Traffic Control Plans, among various others.

▸ Project Manager for Parking Studies: Rawad led Transpo in conducting a Commercial Load Zone Study for Old Pasadena which is the building block for the intended City-wide strategy. He also managed the San Bernardino County Government Center Parking Analysis and Traffic Circulation study.

AREAS OF EXPERTISE
- Transportation Planning & Engineering
- Parking Analysis
- Travel Demand and Traffic
- Transportation Technology Applications

EDUCATION
- Bachelor of Civil Engineering: American University of Beirut
- Master of Civil Engineering: American University of Beirut
- Public Policy Making Certification: University of California, Irvine

LICENSURE
- PE in California and Washington
- TE in California

CERTIFICATION
- Professional Transportation Planner (PTP)
- Professional Traffic Operations Engineer (PTOE)

OTHER RELEVANT PROJECTS
- Notre Dame High School Traffic Study, Los Angeles
- Thompson Village TIS, Riverside County
- Kittridge Development, Los Angeles
- Eco-Rapid Transit, Los Angeles
- Artesia Blvd Signal Synchronization Peer Review, Buena Park, CA
- Government Center Master Plan, San Bernardino County, CA
- Land Port of Entry Traffic Control Plans, San Ysidro, CA
- Vroman's Parking Lot Design, Pasadena
- Sun Valley Signal Designs and Illumination, Los Angeles, CA

[redacted]

Geotechnical Engineering, Earthquake Engineering, Engineering Geology

SHAWN ARIANNIA, Ph.D., P.E, G.E
PRINCIPAL GEOTECHNICAL ENGINEER

EDUCATION
- B.S., Civil Engineering (1982), University of Tehran
- M.S., Civil Engineering (1985), University of Tehran
- Ph.D., Geotechnical Engineering, University of California, Los Angeles (UCLA)

REGISTRATION
- Registered Geotechnical Engineer: California, #2824
- Professional Civil Engineer: California, #65642
- Past President, ASCE Inland Empire Geotechnical Committee

EXPERIENCE HIGHLIGHTS
- 32 years of experience in Civil Engineering and Geotechnical Engineering Projects for Public and Private Clients
- Served as the Geotechnical Engineer of Record and completed more than 200 geotechnical study for DSA projects in California, including schools and community colleges
- Saved Hundreds of Thousand Dollars for Clients by Providing High Quality yet economical alternate geotechnical engineering Solutions
- High Extent of familiarity with all the tasks involved in transportation projects
- Vast knowledge and experience in Geotechnical Seismic Rehabilitation Study and Site Specific Evaluations
- Extensive Experience in Pavement design, retrofit and management projects with various cities in Southern California
- Geotechnical engineering for various transportation, bridge, parking structures and commercial buildings

Dr. Ariannia has more than 32 years of experience in design, supervision and technical management for projects in the structural and geotechnical fields. He possesses extensive and responsible experience in design, supervision, and technical management of major projects in both structural and geotechnical fields. He has been involved in major projects such as transportation/transit, highway and railroad bridges, tunnels, power plants, cooling towers, silos, and medium to high-rise multi story structures. The breadth of his experience includes geotechnical analysis, field and laboratory test management, slope stability and liquefaction analysis, seismic hazard evaluation, pile and earth retaining structures design, design and implementation of soils and slope stabilization, repair and retrofit methods relevant to soils, foundation, and structural behavior for different types of structures. During last two decades, he has actively practiced geotechnical engineering and consulting in southern California and has been the Geotechnical Engineer of Record for numerous road, highway and transportation projects, educational projects, multi-story buildings, and parking structures.

He served as the principal geotechnical engineer for various types of projects including:

- Transportation, Pavement Engineering, Bridges, and Parking Structures
- Aviation, Ports and Harbors
- Public works, Cities, and Municipalities
- Schools and Educational Facilities
- Hospitals and Medical Facilities

RELEVANT EXPERIENCES

- Principal geotechnical engineer of Washington Boulevard rehabilitation project for the city of Commerce
- Principal geotechnical engineer for the pavement rehabilitation of Eastern Avenue for the city of Commerce
- Principal geotechnical engineer of citywide pavement study for the city of Pomona
- Principal geotechnical engineer for the city of Torrance transit park and ride regional terminal, Phase I, rough grading
- Principal geotechnical engineer of City of Long Beach Geotechnical, Geologic, and Geohazard Study for Queen Mary Waterfront Development at Port of Long Beach, City of Long Beach
- Principal geotechnical engineer and reviewer of geotechnical constructability review project for the Port of Los Angeles developments including C Street/I-110 Freeway Access Ramp Improvements, Harry Bridges Boulevard Undercrossing, Bridge No. 53-3048S and retaining walls 318 and 320
- Principal geotechnical engineer of Valley Blvd. Sewer Replacement for the city of Alhambra
- Project manager and principal geotechnical engineer of Yorba Substation site investigation project for the city of Anaheim

WES **WAGNER ENGINEERING & SURVEY, INC.**

CIVIL ENGINEERS • SURVEYORS • RIGHT-OF-WAYS SBE • WBE • DBE • CERTIFIED

Stephanie A. Wagner, PE, PLS, LEED®AP, FACEC

Principal Surveyor / Engineer

Areas of Expertise
- Civil Engineering
- Survey & Mapping
- Right-of-Way Engineering

Years of Experience
- WES 26 | Other 15 Years

Education
- 1974 BS Civil Engineering, Nicholls State University, LA
- Graduate Courses, Tulane and LSU

Registration/Certification
- 1990 Registered Civil Engineer CA #46979
- 1982 PE in Civil Engineering LA #20270
- 1987 Licensed Land Surveyor CA #5752
- 1989 Lifetime Instructor Credential, Engineering, CA Community College System
- 2004 LEED® Accredited Professional

Professional Societies/ Affiliates
- 1998 LA Chapter President, 1993 - Present, Board Member & State Director American Council of Engineering Companies (ACEC)
- US Green Building Council
- CA Land Surveyors Association (CLSA)
- ACEC, Trustee, Business Insurance Trust

Awards
- 1996 National Association of Women Business Owners (NAWBO) Woman of the Year in Construction
- 2005 & 2011 ACEC Member Firm of the Year
- **2010 ACEC Engineering Excellence Award Metro I-710 Corridor Project**
- **2014 ACEC Engineering Excellence Award** LABOE White Point Landslide Project
- 2015 Fellow - ACEC

Ms. Wagner is a well-known leader in the civil engineering and land surveying professions. She is the dedicated founder of her firm and has managed civil design and construction surveys for LAUSD, CALTRANS, Metro, Alameda Corridor East, City and County of Los Angeles and numerous other municipalities. She has a diverse project and task management background with over 35 years of experience. She has led a civil design team for 26 years with Wagner Engineering & Survey, Inc. (WES) and stresses sustainable design for all projects. Her knowledge in mapping and field survey formats, boundary establishments, datum compatibility, design and construction methods is an invaluable asset.

Project Specific Experience

Los Angeles County Six Public Parks, Los Angeles, CA
Ms. Wagner managed and supervised the field surveying, mapping and civil design for six parks throughout the county. All mapping and contours were CADD generated. Ms. Wagner supervised grading, hydrology and ADA-compliant construction plans. Cost estimates were generated and assistance was given to contractors in the bidding process.

Metro Northern Canoga Extension of the Orange Line EIR & PE, San Fernando Valley, CA
Ms. Wagner supervised the survey and right-of-way portion of the project, which included a 4-mile bike path. She managed the photogrammetric field surveying, aerial mapping and right-of-way engineering for the 4-mile north-ern extension of existing Orange Line from the Canoga Station to the Chatsworth Metrolink Station. The mapping & digital terrain models (DTM's) were delivered to the Metro certified to exceed National Mapping Accuracy Standards. Ms. Wagner supervised the 10 topographic station surveys along the route and the legal descriptions and plats of the design-identified acquisition areas.

San Fernando Class 1 Bikeway, Burbank CA
Ms. Wagner managed the field survey and right-of-way engineering effort for the Preliminary Engineering phase of this proposed bike path. She supervised the production of the preliminary right-of-way map which was mathematically compiled from detailed research of existing records including documents and maps from the City of Burbank, UP/MTA/SCRRA railroad Right-of-Way, County Flood Control Right-of-Way, and private parcels determined from the County of Los Angeles Assessor Maps, recorded Tract and Parcel Maps and Records of Survey and Corner records.

County of Los Angeles Hollywood Bowl Renovation/Expansion Project, Los Angeles, CA
Ms. Wagner as the Civil Project Manager provided the civil engineering design services for the construction of the three additional escalators at the Hollywood Bowl. She also oversaw the field survey and topographic survey mapping tasks that were performed for the elevator designs. The WES team also provided construction staking.

City of Santa Monica Ishihara (Buffer) Park
Ms. Wagner managed the construction surveying services for this new park built between Stewart Street and Dorchester Avenue in Santa Monica. Eight unique room-like garden spaces were created. WES established a control network, located utilities, performed rough grade and fine grade pavement surveys under the supervision of Ms. Wagner.

PATRICK CM MURPHY - PRESIDENT/CEO

Mr. Murphy has been with SMP for 40 years and has been instrumental in the formation of the firms design philosophy, standards of excellence and award-winning projects. He is actively responsible for marketing and business development, client liaison and presentations and brings to the firm an expertise in plant material design, particularly for conditions requiring extensive erosion control and special plant material for adverse soils, as well as irrigation system design, analysis, and management.

EDUCATION: Bachelor of Science Degree, Landscape Architecture
California State Polytechnic University, Pomona

RICK HAGEMEYER - VICE PRESIDENT/DIRECTOR OF DESIGN

Mr. Hagemeyer's talent and experience in landscape architectural design has been instrumental in the formation of the firm's design philosophy, standards of excellence and award-winning projects. As Director of Design, he is responsible for heading the design team, channeling individual creativity and focusing on client/team vision. He has been with Summer/Murphy & Partners, Inc. for 28 years.

EDUCATION: Bachelor of Science Degree, Landscape Architecture
California State Polytechnic University, Pomona

WIL PINAROC - SENIOR PRINCIPAL

Wil's career in the professional practice of Landscape Architecture spans over 25 years in Southern California. He has extensive experience in both private and large scale residential projects. His expertise extends also into a broad base knowledgs of projects for municpalities and the public sector. Mr. Pinaroc has been with Summers/Murphy & Partners, Inc. since 1997 and uses his diverse background in planned community development, apartment and condominium complexes, commercial complexes and community parks to lead current projects.

EDUCATION: Bachelor of Science Degree, Environmental Design
University of Oklahoma, Norman

JIM L. BURROWS - PRINCIPAL

Mr. Burrows brings a well-rounded practice of 32 years as a licensed landscape architect to Summers/Murphy & Partners. Jim has lived in San Luis Obispo for 20 years, where his landscape architecture expertise spans from conceptual design and program development through project management, construction document preparation and implementation. He enjoys working closely with clients and consultants, promoting a collaborative team approach to achieve high-quality design. Jim was with SMP from 1978 to 1995 and returns after 20 years as a landscape architect with Firma in San Luis Obispo.

EDUCATION: Bachelor of Science Degree, Landscape Architecture
California Polytechnic State University, San Luis Obispo

EXHIBIT B

Fee Schedule

CSG services are billed on a time-and-materials basis according to our Standard Rates, shown below.

Professional Services	Hourly Rate
Engineering Designer	$125
Construction Inspector	$125
Senior Analyst	$135
Assistant Resident Engineer	$150
Assistant Engineer	$135
Associate Engineer	$155
Senior Construction Inspector	$145
Senior Engineer	$180
Resident Engineer	$180
Structure Representative	$180
Senior Structural Engineer	$185
Senior Project Manager	$185
Principal Engineer	$200
Senior Principal Engineer	$225
Two-Person Survey Crew	$300

Rates reflect and include administrative costs and routine expenses such as local mileage, copying, fax, telephone, mail, in-house printing, software, and computer usage. Reproduction and subconsultants are billed at cost plus 15%. Rates will remain effective through June 30, 2018. Rates are subject to an annual 3% increase.

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (GENERAL ENGINEERING)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between AndersonPenna Partners, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of nine (9) consultants selected to provide services for general engineering projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $2,000,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures.

Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement.

Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees,

for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: AndersonPenna Partners, Inc.
3737 Birch Street, Suite 250
Newport Beach, CA 92660
Attn: Lisa M. Penna, PE, F. ASCE, QSD, President & CEO

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant,

Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

EXHIBIT A

Proposal to Provide

Professional On-call Engineering Services

RFP No. 17-083

City of Santa Ana Public Works Agency

March 20, 2018

Submitted by

ANDERSON · PENNA

· PARTNERS IN PROJECT DELIVERY ·

3737 Birch Street, Suite 250 • Newport Beach, CA 92660 • 949 428 1500
1225 W. 190th Street, Suite 255 • Gardena, CA 90248 • 310 359 1203
16801 Van Buren Boulevard • Riverside, CA 92504 • 951 200 3021
WWW.ANDPEN.COM

25E-375

ANDERSON · PENNA

· PARTNERS IN PROJECT DELIVERY ·

March 20, 2018

City of Santa Ana
Attn: Armando Fernandez, PE
Public Works Agency
20 Civic Center Plaza
3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

Subject: Professional On-call Engineering Services, RFP No. 17-083

APP Contract Agreement Statement
Modifications to the Agreement, as outlined in the RFP's Appendix as Attachment 2, have been included in the Appendix of this proposal.

Dear Mr. Fernandez,

AndersonPenna Partners, Inc. (APP), welcomes this opportunity to present our proposal to the City of Santa Ana (City) for Professional On-call Engineering Design Services for Option B – Design and Construction Support Services for Mile One Street.

APP realizes the City has several qualified consulting teams to choose from when evaluating proposals, and we present herein why we believe the APP team is well suited for this On-call Civil Engineering Design Services contract:

- **Project Manager, Chris Bretall, PE,** who has more than 30 years of experience designing and managing street and storm drain improvement projects. He brings an extensive background working with local municipalities.
- A local team of **seasoned engineers** and subconsultants who have delivered successful engineering services for complex projects throughout Southern California.

We believe that APP is uniquely qualified to perform **cost-effective, timely and high-quality engineering services.** The following points highlight our team's qualifications and reasons to choose APP for your on-call needs:

- Technical expertise via registered and certified personnel with extensive municipal experience;
- Attention to detail with established, proven quality control practices;
- Commitment to excellent customer service through responsive staffing, strong communications and client feedback;
- Excellent references listed with our relevant projects;
- Competitive fees.

We look forward to being invited to further discuss our team's qualifications and to provide the City with services on an on-call basis. Should you have any questions or desire additional information, please do not hesitate to contact Chris Bretall, PE at (949) 239-5034 or cbretall@andpen.com.

Respectfully submitted,
AndersonPenna Partners, Inc.

Lisa M. Penna, PE, F.ASCE, QSD
President and CEO

Stephen G. Badum, PE
Vice President, Municipal and Engineering Service

3737 Birch Street, Suite 250 * Newport Beach, CA 92660 * 949 428 1500 www.andpen.com
1225 W. 190th Street, Suite 255 * Gardena, CA 90248 * 310 359 1203
16801 Van Buren Boulevard * Riverside, CA 92504 * 951 200 3021 Certified DBE

1. Firm and Team Experience

AndersonPenna Partners, Inc.

APP specializes in project delivery for local and regional public agencies and special districts throughout Southern California. With an emphasis on practical, experienced and cost-effective solutions, APP capabilities range from local agency public works improvements to managing multi-project capital improvement programs for public agencies. Our team of professionals provides civil engineering design including NPDES and right-of-way engineering, survey, plan review and plan check services, construction oversight and inspection, project and construction management and grant application and management. Our clients range from various cities and counties to transportation agencies and special districts. APP also provides staff augmentation for public works and planning departments, federal compliance for ARRA and other federally funded projects.

We are a California corporation that has been in business since 2005, and are a woman-owned DBE and Certified SBE. We are headquartered in Newport Beach, CA with more than 65 employees operating out of Southern California. We have expanded to open offices in Los Angeles County and Riverside County.

Our staff is comprised of professionals with extensive experience working directly for public agencies. We currently have contracts with 61 public agencies. Our familiarity and know-how – gained by working side-by-side with local and regional agency staff, in developing collaborative relationships with community and business stakeholders, and by partnering effectively with state and federal regulatory agencies – delivers successfully completed projects and services, well-managed budgets and thoroughly satisfied stakeholders and clients.

APP tailors its management approach to carefully monitor program effectiveness, and closely track work quality, quantity, and cost. Delivering projects under aggressive schedules requires careful management, administration, and oversight of project development teams from inception to completion with committed, complete ownership of all aspects.

Year founded
2005

Type of Organization
California Corporation

Location of Additional Offices
1225 W. 190th Street, Suite 255
Gardena, CA 90248

16801 Van Buren Blvd., Bldg. B
Riverside, CA 92504

Total No. of Employees
65

Contractual Contact:
Stephen G. Badum, PE
Vice President, Engineering and Municipal Services
(949) 524-5198
sbadum@andpen.com

Management and Key Personnel Contact:
Chris Bretall, PE
Project Manager
(949) 239-5034
cbretall@andpen.com

Firm and Team Experience

The APP Team is completely qualified and looking forward to the opportunity to provide general civil engineering and construction engineering services for the City's on-call contract. We will provide the City with an experienced team committed to delivering and maintaining a high level of customer service and reduce peak turn-around timeframes and for the prompt and successful delivery of all engineering projects.

Project Manager

Project Manager Chris Bretall, PE will be the City's primary point of contact and the APP team project manager. Chris has more than 30 years of project management, design and oversight experience on a wide variety of transportation projects for various Southern California municipalities, counties and transportation agencies such as Caltrans, OCTA and the Los Angeles County Metropolitan Transit Authority (LA Metro). He has designed and managed development of street and freeway improvements,

major interchanges and grade separations. Chris manages diverse teams delivering project study reports, project reports and PS&E packages and provide engineering services during construction. He has extensive knowledge of agency standards and regulatory and third-party coordination requirements.

Project Manager

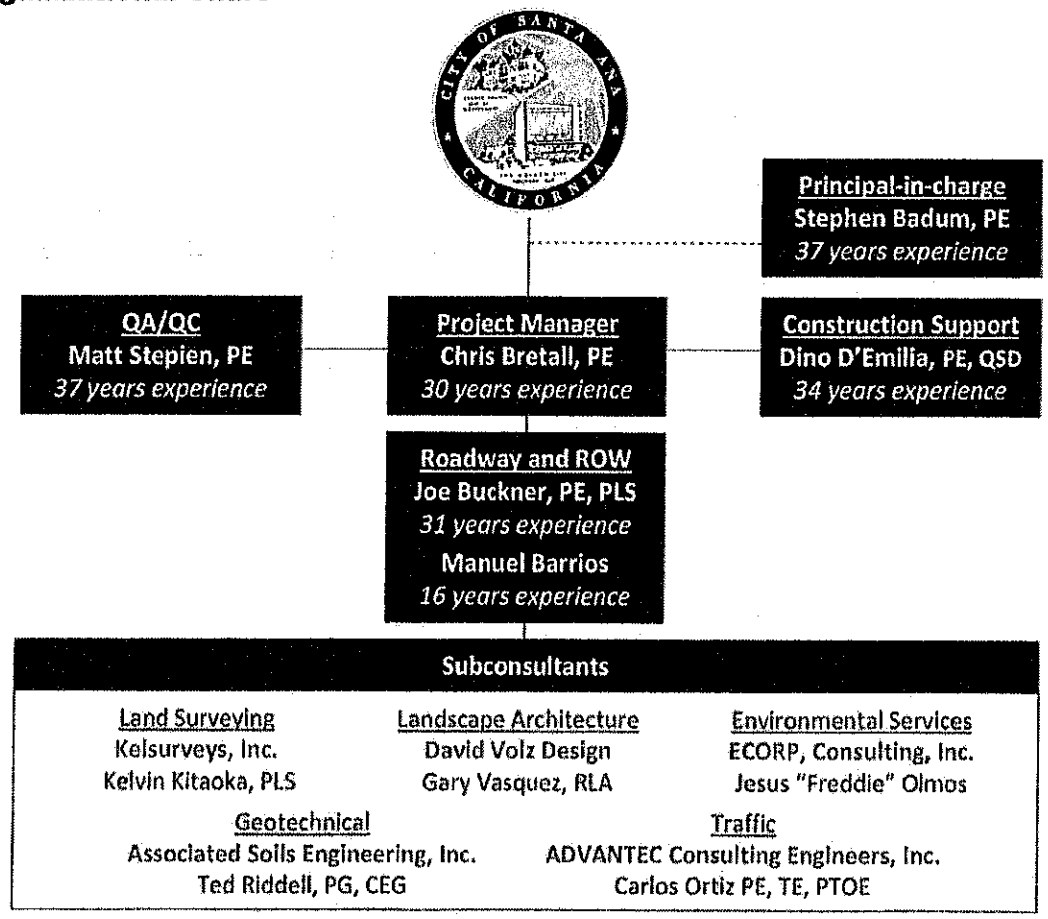
Chris Bretall, PE has more than 30 years of project management, design and oversight experience on transportation projects for Southern California cities, including the City of Santa Ana, counties and transportation agencies, such as Caltrans and OCTA. He offers extensive knowledge of agency standards, regulatory and third-party requirements. He has designed and managed development of street and storm drain improvements, interchanges and grade separations.

Project Manager's Representative Project Experience

Chris has provided design and project management services for the following projects:

- Bristol Street Widening, PS&E, Santa Ana
- Downtown Traffic Calming, Laguna Beach
- Lincoln Avenue Widening Design, Anaheim
- La Palma Avenue/State College Blvd. Widening, Anaheim
- El Toro Road/Glenneyre Street Rehabilitation, Laguna Beach
- Birch Street/State College Intersection Widening, PS&E, Brea
- Safe Routes to School Projects, Cycle 1 and Cycle 7, Burbank
- Atherton Street/Magnolia Avenue St. Rehabilitation, Long Beach
- Cloverfield Blvd. Widening/ Improvements, PS&E, Santa Monica
- Columbia Avenue/Iowa Avenue Improvements, PS&E, Riverside
- I-605 Arterial Hotspots, PS&E, La Mirada and Santa Fe Springs

Organizational Chart



Subconsultants

The following subconsultants have worked together with the APP team on several similar civil engineering projects. Each has been selected for the specific experience and talent they will bring to the City's as-needed projects.

Subconsultant	Contact	Phone	Project Function
ADVANTEC Consulting Engineers, Inc. 1200 Roosevelt, Irvine, 92620	Carlos Ortiz, PE, TE	(949) 861-4999	Traffic
Associated Soils Engineering, Inc. 2860 Walnut Avenue Signal Hill, CA 90755	Edward C. (Ted) Riddell, PG, CEG	(562) 426-7990	Geotechnical Engineering
David Volz Design 151 Kalmus Drive Costa Mesa, CA 92626	Gary Vasquez, RLA	(714) 641-1300	Landscape Architecture
Kelsurveys 1740 E. Garry Ave., #110 Santa Ana, CA 92705	Kelvin Kitaoka, PLS	949-660-8016	Survey
ECORP Consulting, Inc. 215 North 5th Street Redlands, CA 92374	Jesus "Freddie" Olmos	(909) 307-0046	Environmental

ADVANTEC Consulting Engineers

ADVANTEC Consulting Engineers, (ADVANTEC) a California Corporation, is a DBE/SBE consulting firm specializing in traffic engineering, traffic studies, transportation planning and engineering, traffic signal timing, coordination and operations, intelligent transportation systems (ITS), active transportation, public works, and civil engineering. Founded in 1998, ADVANTEC is a consulting firm specializing in planning, engineering and technology services. ADVANTEC has assisted more than 110 local municipalities, regional transportation agencies and state governments in meeting their transportation and city engineering needs. **Previous Projects with APP: Tustin/La Palma Widening, City of Anaheim; Lakewood Blvd. Widening, City of Downey; Whittier Boulevard Widening, City of La Habra; Imperial Highway Smart Street, City of La Habra**

ASSOCIATED SOILS ENGINEERING, INC.

Geotechnical services will be provided by **Associated Soils Engineering, Inc. (ASE),** a California Corporation, incorporated in 1974. Headquartered in Signal Hill, ASE has been in business for 38 years providing services to many municipalities and special districts as well as private industry throughout Southern California. ASE's in-house laboratory has been certified by the State of California Department of Transportation (Caltrans), accepted by the State of California Division of State Architect (DSA) under the Laboratory Evaluation and Acceptance program (LEA 224), as well as AASHTO/CCRL and AMRL (Hot Mix Asphalt, Aggregate, Soil, & Portland Cement Concrete) and the City of Los Angeles. ASE is committed to providing Geotechnical Engineering and soils and materials testing services with a high degree of professional excellence and proficiency.

DVD Landscape Architects and Park Planners

David Volz Design (DVD) is committed to the creative design of outstanding public spaces. The firm develops streetscapes and all types of public landscapes to meet the needs of their client communities. They work within environmentally sound parameters while taking full advantage of the site and its surroundings to best serve community needs. DVD's design philosophy includes careful consideration of realistic maintenance requirements and construction costs. **DVD is a LEED-accredited firm and a Qualified Stormwater Designer (QSD) company.** The philosophy also embraces any opportunity to

interact with the public to create environments. DVD's proven approach and the input from clients and client communities provide the inspiration that leads to DVD's most creative and innovative work.

ECORP Consulting, Inc. has assisted public and private land owners with environmental regulation compliance since 1987. The firm offers full service capabilities, from initial baseline environmental studies through environmental planning review, permitting negotiation, liaison to obtain legal agreements, mitigation design, construction supervision and monitoring and compliance reporting. ECORP maintains an experienced, multidisciplinary team of storm water, environmental and regulatory specialists, engineers, hydrologists, biologists, wetland specialists, archaeologists and geographic information systems specialists. **Previous Projects with APP: Camino Capistrano Improvements, City of San Juan Capistrano; Bellflower Boulevard/Imperial Widening, City of Downey.**

Kelsurveys, Inc., is a S-Corp., a Nevada Corporation formed in 2001, operated by Kelvin Kitaoka, President. Kelsurveys performs a wide range of survey tasks, such as: GPS Network Controls, Boundary, ALTA, Record Mapping, Topography, Design Street Surveys, Construction, Aerial Controls, Legals and Sketch, Lot Line Adjustments and As-Built Surveys. **Previous Projects with APP: Camino Capistrano Improvements, City of San Juan Capistrano; Ocean Avenue Alley Waterline and Sewer Replacements, City of Seal Beach.**

The APP Team Continues to Successfully Complete Projects on Time and within Budget
♦ Comprised of professionals with extensive experience working directly for public agencies
♦ Possesses familiarity and know-how gained by working side-by-side with local and regional agency staff
♦ Develops collaborative relationships with community and business stakeholders
♦ Partners effectively with state and federal regulatory agencies
♦ Delivers successfully completed projects, services and well-managed budgets

2. Understanding of Need

Project Understanding

The City of Santa Ana is proposing improvements to Mile One Street which will include the widening for approximately 1000' on one side of the street to accommodate a new bicycle lane. Mile One Street is classified as a major arterial highway with an existing right-of-way of 120 feet which can accommodate the proposed widening. The roadway has three (3) traffic lanes of 12', 10' and 11' in each direction with a 14' wide existing median. Work consists of street rehabilitation, bicycle lane and sidewalk replacement and a landscaped parkway. The intersections at each end of the project have been improved as part of a separate project, therefore, the proposed project will join the existing BCR's/ECR's at the intersections. Typical sections of the existing and proposed improvements are shown on Exhibit 2 on Page 19.

Key Issues

COMPLETE STREETS

The City is implementing this project as part of its Complete Streets program. Complete streets improve safety and accessibility for all users: pedestrians, bicyclists and motorists. Typically, a complete street can include sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe pedestrian crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, and roundabouts. During the Preliminary Design stage, we look at alternatives to implement these features into the design. Specific areas that the APP Team will review will include the following:

- ADA - Verify that the impacted sidewalks and curb ramps are compliant with the most-current standards;
- Curb Extensions – Review areas where curb extensions can be introduced that will improve pedestrian access and safety;
- Bike Lanes - Review bike lane configuration to account for appropriate bike and vehicular movements, driveways, and pedestrians

PAVEMENT REHABILITATION As illustrated in **Exhibit 1: Roadway Reconstruction/Rehabilitation Cost Alternatives** on the following page, optimizing the pavement rehabilitation strategy for Mile One Street can result in significant cost savings to the City. APP excels at evaluating and considering refinements to the recommendations in pavement reports to develop economical rehabilitation strategies and is an industry leader in the design and implementation of cost-effective pavement rehabilitation strategies including cold-in-place recycling, full depth recycling and maintaining the existing aggregate base in place.

We will explore options and provide the City with the best pavement solutions to maximize its construction budget. Depending on the application, these pavement alternatives can reduce project costs up to 50 percent or more over traditional paving methods. Exhibit 1 on the following page provides a relative cost comparison for traditional asphalt concrete on aggregate base pavement section (6" AC over 12" aggregate base) to four (4) other less costly paving/rehabilitation options:

- Full depth reclamation of the existing asphalt section
- Reconstruction of asphalt over recompacted existing aggregate base
- In-place cold recycling of existing asphalt
- Cold milling and replacing with AC surface

These paving options include construction cost estimates for the various materials (asphalt, base) and field operations (excavation, cold mill, compaction) as well as an allowance for miscellaneous concrete improvements and a comparison of the costs options that we can investigate with the City and incorporate into the project documents as applicable.

ENVIRONMENTAL

To implement the improvements, the City of Santa Ana will be using local and federal funds for the project. Caltrans' Division of Local Assistance will be the administering agency for the approval and dispersal of the federal funds. As such, both state and federal environmental documentation will be required to satisfy CEQA and NEPA, in compliance with Caltrans' Local Assistance Program. Projects that receive federal funding through Caltrans are required to complete a Caltrans Preliminary Environmental Study (PES) form which will recommend the appropriate NEPA documentation. In our experience these types of projects would have a minimal environmental impact; therefore, it is assumed that the recommended document will be a NEPA Categorical Exclusion (CE). The CEQA Lead Agency will be the City of Santa Ana. CEQA documentation will consist of at CEQA Categorical Exemption (CE).

Exhibit 1: Roadway Reconstruction/Rehabilitation Cost Alternatives

Traditional AC/AB Reconstruct

Item	Unit cost	Cost/SF	
18" excavation	$30/CY	$1.70	
6 " AC pavement	$75/T	$2.80	
12" AB	$25/T	$1.90	
concrete imp	10%	$0.60	
Subtotal		$7.00	
50% Contingency		$3.50	
Total		**$10.50**	**100%**

Full Depth Reclamation

Item	Unit cost	Cost/SF	
6" AC cold mill	$0.50/SF	$0.50	
12" FDR	$0.95/SF	$0.95	
6" AC surface	$75/T	$2.80	
concrete imp	10%	$0.60	
Subtotal		$4.85	
50% Contingency		$2.43	
Total		**$7.28**	**70%**

Recompact AB/Reconstruct AC

Item	Unit cost	Cost/SF	
6" AC cold mill	$0.50/SF	$0.50	
recompact AB	$0.50/SF	$0.50	
6" AC surface	$75/T	$2.80	
concrete imp	10%	$0.60	
Subtotal		$4.40	
50% Contingency		$2.20	
Total		**$6.60**	**63%**

2" AC/Cold In-Place Recycle

Item	Uunit cost	Cost/SF	
2" AC cold mill	$0.20/SF	$0.20	
3.5" CIR	$0.90/SF	$0.90	
2" AC surface	$75/T	$1.00	
concrete imp	10%	$0.60	
Subtotal		$2.70	
50% Contingency		$1.35	
Total		**$4.05**	**39%**

2" Mill & Fill

Item	Unit cost	Cost/SF	
2" AC cold mill	$0.20/SF	$0.20	
2" AC surface	$75/T	$1.00	
concrete imp	10%	$0.60	
Subtotal		$1.80	
50% Contingency		$0.90	
Total		**$2.70**	**26%**

3. Relevant Project Experience

On-call Civil Engineering, City of Long Beach, CA (APP)

City of Long Beach Sean Crumby, PE, Deputy PW Director, (562) 570-6383 Sean.Crumby@longbeach.gov	**Services:** PS&E **Start:** 2009 **Completed:** 2017/ongoing	Matt Stepien, PE – PM Chris Bretall, PE – PM Joe Buckner, PE– Project Eng. Bart Mink, PE - Utilities

As part of an on-call contract with the City of Long Beach, APP staff has prepared plans, specifications and cost estimates for more than $15 million in improvements since 2009 and is continuing to work with the City until at least 2017. The projects encompassed roadway, storm drain, parking lot, traffic, lighting, and landscape improvements, design of more than 100 ADA-compliant curb and ramps and focused on many of the major roadways within the City. APP staff has consistently provided the City with well-designed projects facilitating smooth construction.

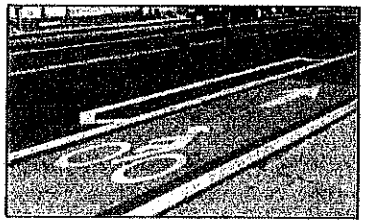
COMPLETE STREETS

- Road diet
- Improved safety
- Added Class II and Class IV bike lanes
- Added bulbouts
- Enhanced pedestrian facilities
- ADA-compliance

Recent projects include:

Atherton Street and Magnolia Avenue Street Rehabilitation, City of Long Beach, CA. Preparation of three separate PS&E packages. The plans include roadway rehabilitation, the design of ADA-compliant ramps at ten intersections, sidewalk repair to eliminate tripping hazards and traffic signing and striping.

Pavement Rehabilitation Ximeno Avenue and Redondo Avenue, City of Long Beach, CA. Engineering services for the pavement rehabilitation of Ximeno Avenue (from Atherton Street to Los Coyotes Diagonal) and Redondo Avenue (from Reservoir Drive to Stearns Street). Design services include the design of ADA-compliant ramps at five intersections and sidewalk repair to eliminate tripping hazards throughout the project limits.



Alamitos Avenue Rehabilitation Improvements - Traffic engineering for signing, striping, and traffic signal improvements for a one-mile segment of Alamitos Avenue and the design of ADA-compliant ramps.

Santa Fe Avenue Rehabilitation - Street, utility, signing/striping plans for the rehabilitation of 0.9 miles of Santa Fe Avenue, including the design of pedestrian bulbouts and curb ramps.

Atlantic Avenue Rehabilitation – Street, utility and signing/striping plans for the rehabilitation of the intersection with Pacific Coast Highway including curb ramp design.

Spring Street Rehabilitation - Street, utility, signing/striping plans for the rehabilitation of a three-mile segment of Spring Street including the design of ADA-compliant curb ramps.

Los Coyotes Diagonal Rehabilitation - Street, utility, signing/striping plans for the rehabilitation of a three-mile segment of Los Coyotes Diagonal and curb ramp design.

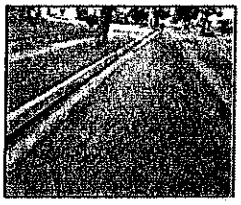
Long Beach Boulevard Rehabilitation - Street, utility, signing/striping plans for the rehabilitation of a one-mile segment of Long Beach Boulevard, including extensive reconstruction of uplifted curb and gutter and curb ramps.

On-call Engineering Services, City of Santa Fe Springs, CA (APP)

City of Santa Fe Spring Noe Negrete, Director of PW (562) 868-0511 nnegrete@santafesprings.org	**Services:** Engineering **Start:** 2015 **Complete:** Ongoing	Matt Stepien, PE – PM Joe Buckner, PE– Roadway Eng. Miguel Hurtado, PE – Design Bart Mink, PE – Project Eng.

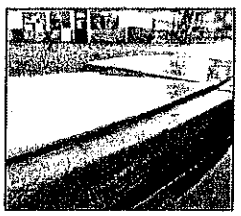
APP is providing a broad range of professional engineering services in support of and in close coordination with the City's Public Works/Engineering Division. These services will be provided on an as-needed basis through a Request for Quote for each specific project. The APP team will provide all services required for this on-call professional engineering services contract including: engineering; structural engineering; engineering staff augmentation; construction management and inspection; architecture; and landscape architecture. Projects to date include:

Florence Avenue Widening (Orr and Day Road to Pioneer Boulevard) – APP is preparing PS&E for this roadway design project to accommodate three lanes of travel in the westbound and eastbound directions. APP is responsible for performing street cores samples and percolation test data; design survey; designing a longitudinal bioswale; storm drain relocations; designing options for pavement, curb, and gutter sidewalk, driveway; construction estimates for each design option in Microsoft Excel; water main replacement; signing, striping and traffic signal revisions; obtaining UPRR permits; and preparing construction specifications.



Parkmead Street Improvement Design - APP provided street design services for Parkmead Street from Jersey Avenue to Pioneer Boulevard in Santa Fe Springs. The project entailed the total reconstruction of the curb/gutter, pavement rehabilitation, reconstruction of deteriorated sidewalk and driveways and replacement of the street trees (which had contributed significantly to pavement and curb uplift). The recommended pavement rehabilitation resulted in significant construction cost savings by avoiding the total reconstruction of the existing pavement section.

Citywide Pavement Evaluation and Analysis - APP is evaluating, analyzing and prioritizing the City's entire roadway system. The project involves field work to evaluate the roads, pavement corings to determine the existing street structural section, identifying recommended strategies to rehabilitate the streets, development of construction cost estimates and a 3-year prioritization of the various projects based on the City's budget of $17 million. In conjunction with APP's recommendations, we are proposing an extensive amount of pavement recycling (FDR, CIR, CCPR) which will save the City up to 50% on the pavement construction costs, allowing the City to significantly stretch their pavement resources. Additionally, for several the streets, we are proposing to reutilize the existing base material and just recycle the A.C. portion of the pavement.



Citywide Sidewalk Evaluation and Analyses - APP is providing engineering services for sidewalk inspection of the City's entire sidewalk system. The scope of work includes: development of recommendations to remedy tripping hazards and non-ADA compliant sidewalks; preparation of a summary report including construction cost estimates; and incorporation of the evaluation results and recommendations into the City's existing GIS system. The project requires extensive experience and familiarity with the maintenance and repair of local sidewalks. APP is responsible for providing data that is compatible with the City's existing XY-Maps GIS-based system.

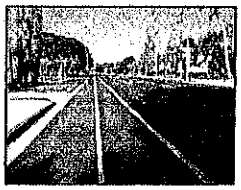
Del Amo Boulevard Widening Project, City of Torrance, CA (APP)

City of Torrance 20500 Madrona Avenue Torrance, CA 90503 Craig Bilezerian, PE, City Engineer cbilezerian@torranceca.gov (310) 618-3054	**Services:** Construction Support/Inspection **Start:** 02/2011 **Complete:** 08/2012 **Construction Cost:** $10,969,000	Dino D'Emilia, PE, QSD - CM Tony Plante - Inspector

APP provided construction support and inspection for this major project to widen portions of Del Amo Boulevard into a four-lane divided roadway, creating a streamlined additional east-west route through Torrance. The construction represented the second phase of an overall infrastructure project costing $32 million, including right-of-way acquisitions. The widening project installed new and upgraded traffic signals at four intersections, as well as a new street lighting system. As part of the improvements, a bridge was constructed across the BNSF Railway's main tracks and mechanically stabilized-earth retaining walls and drainage improvements were added. The project also moved a railroad spur track and reconstructed off-site facilities. APP performed the necessary federal funding administration, ensuring compliance with governmental transparency standards and the Caltrans Local Assistance Procedures Manual. APP also provided coordination with Southern California Edison and ExxonMobil for the utility relocations required for the project.

Arterial Pavement Rehabilitation Project, FY 2014-15 and 2015-16, City of San Juan Capistrano, CA (APP/ECORP/Kelsurveys)

City of San Juan Capistrano PW and Utilities Department George Alvarez, PE City Engineer/Traffic Engineer Galvarez@sanjuancaistrano.org (949) 443-6339	**Services:** Engineering design **Start:** 5/2015 **Complete:** Ongoing	Matt Stephen, PE – PM Joe Buckner, PE, PLS – Project Eng. Kelvin Kitaoka, PLS - Survey



APP is providing engineering design services for Pavement Rehabilitation Projects for the City of San Juan Capistrano. The project includes preparing street rehabilitation plans, ADA compliance for existing curb ramps including the design of 16 ramps at eight (8) intersections, striping plans, specifications and cost estimates (PS&E) for the rehabilitation and resurfacing of four streets as part of the City's Arterial Pavement Rehabilitation Project (CIP 15109) for Fiscal Years 2014-15 and 2015-2016. Funding for these Projects will provide through Measure "M" and Gas Tax funds only and is not federally funded. The exception was Camino Capistrano from La Zanja Street to Oro Road. Funding for this segment involved Federal Funds, APP provided assistance for obtaining the E-76 approval as well as incorporating the appropriate documents from the LAPM.

Bullis Road Rehabilitation Project, City of Lynwood, CA (ADVANTEC)

Client/Reference:	**City of Lynwood** **Jorge Roque, Public Works Associate** **310-603-0220** **jroque@lynwood.ca.us**
Project Dates:	**Start: 2011 Complete: 2015**
Services:	**Traffic Design**
Project Value:	**Construction: $1 million**
Team Members:	**Edward Miller (ADVANTEC) - Project Director**

ADVANTEC produced the PS&E for the street beautification and enhancement for Bullis Road, located in front of City Hall. Work included:

- **Pavement Rehabilitation**
- **Median and Parkway Landscaping Improvements**
- **City of Lynwood Monument signs**
- **Curb, ramp and sidewalk following City ADA standards**
- **Traffic Controls**
- **Signing and Striping**
- **Utilities Coordination**

Balboa Boulevard Landscape enhancements, City of Newport Beach (David Volz Design)

City of Newport Beach 100 Civic Center Drive Newport Beach, CA Iris Lee, Senior Civil Engineer (949) 644-3323 ilee@newportbeach.gov	**Services:** Community Outreach, Master Plan, Design Development, Construction Documents, Bidding Assistance, Construction Services **Complete:** 01/2015 **Construction Cost:** $2 million **Design Cost:** $279,000	**David Volz – Landscaping Project Manager**

David Volz Design was commissioned by the City of Newport Beach to lead a Citizen's Advisory Panel (CAP) to design new and improved western gateway landscapes for the city. The panel included the mayor pro-tem and a select committee of local residents and business owners. The project included 5 miles of arterial streets and the critical intersection of West Coast Highway and Balboa Boulevard. Through a series of public meetings, the ideas for a new aesthetic treatment along these streets emerged. A new major gateway with entry monuments, walls, upgraded sidewalks, and beautiful new landscape enhancements were envisioned and approved. The two-mile stretch of West Coast Highway is to receive all new landscape treatments with new medians, and right-of-way plantings. The planned scheme calls for palm trees to define the intersections, flowering trees to accent the medians and street edges with waves of colorful shrubs rolling through the landscape. Innovative storm water retention and cleaning strategies will be a part of the envisioned low impact design implementation. The project was named APWA Project of the Year and ASCE Community Enhancement Project of the Year.

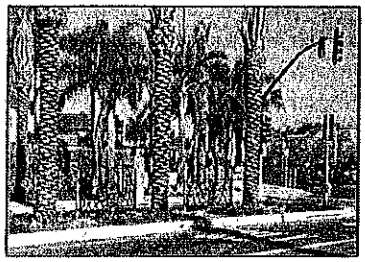
Harbor Boulevard and Bike Trail Improvements, City of Costa Mesa, CA (David Volz Design)

City of Costa Mesa Baltazar Mejia, Sr. Civil Engineer (714) 754-5291 baltazar.mejia@costamesaca.gov	**Services:** Design Development, Construction Documents, Construction Period Services **Start:** 2011 **Complete:** 10/2016	David Volz – PIC Gary Vasquez – Director of Design Paul Cassar – Project Manager

David Volz Design was commissioned to design a bold new streetscape and bike trail for Harbor Boulevard in Costa Mesa. Harbor Boulevard, a main commercial thoroughfare just off the I-405 Freeway, is a major gateway into the city. Street improvements were designed to enhance the overall experience of the street whether by driving in a car or walking through the commercial district on the sidewalk. The high water-use turf was removed and replaced with shade trees and low water-use plantings. New Strawberry Trees, Forest Pansy Redbuds, and Australian Willows were added between the existing sycamores. New plantings include a mix of succulents, ornamental grasses and shrubs. A striking range of colors and textures are achieved by a variety of plants while decorative boulders and cobble weave through the new planting design. The large boulders are grouped together, working as retaining walls to create subtle elevation changes within the medians. The old asphalt bike trail was dilapidated and unsafe, constructed with long swaths of turf grass on either side. The turf grass was removed and replaced with attractive planting and sustainable materials that required less water and -maintenance. This 12-foot-wide colored concrete trail construction and beautification project achieved more than what was initially planned for. The bike trail connects to the Joann Street Bike Trail to the 208-Fairview Park Trail, connecting riders to the Santa Ana River Trail for a 3-mile ride to the Ocean.

Balboa Boulevard Landscape Enhancements, City of Newport Beach, CA (David Volz Design)

City of Newport Beach Iris Lee, Senior Civil Engineer (949) 644-3323 ilee@newportbeach.gov	**Services:** Community Outreach, Master Plan, Design Development, Construction Documents, Bidding Assistance, Construction Period Services **Start:** 2011 **Complete:** 01/2015	David Volz – PIC Gary Vasquez – Director of Design Paul Cassar – Project Manager



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4. References

Noe Negrete, PE, Director of Public Works/City Engineer
Agency: City of Santa Fe Springs
Phone: (562) 409-7611 **Email:** noenegrete@santafesprings.org
Names of Projects: Parkmead Reconstruction, Citywide Pavement and Sidewalk Evaluation
Description of Services Provided: Survey, field work, reports, street and utility PS&E, geotech, cost estimates, traffic, WQMP, storm drain

Sean Crumby, PE, Deputy Public Works Director
Agency: City of Long Beach
Phone: (562) 570-6383 **Email:** Sean.Crumby@LongBeach.gov
Names of Projects: Santa Fe Rehabilitation, Seaside Storm Drain, East 20th Street Intersection Improvements, 6th Street Storm Darin
Description of Services Provided: Aerial mapping, design survey, cross-sections, geotech, street and storm drain PS&E, traffic planning and engineering

Rowena Jarcia, PE, Associate Engineer
Agency: City of Anaheim
Phone: (714) 765-4913 **Email:** RJarcia@anaheim.net
Names of Projects: La Palma/State College Intersection Improvements
Description of Services Provided: Aerial mapping, design survey, cross-sections, legal descriptions and plats, geotech, street and storm drain PS&E, wall design, traffic planning and engineering

Mark Trestik, PE
Agency: City of Laguna Beach
Phone: (949) 497-0300 **Email:** mtrestik@lagunabeachcity.net
Names of Projects: Broadway Pedestrian and Safety Improvements, Hillcrest Sidewalk, Park Avenue Sidewalk, Storm Drain Master Plan, Temple Hills Sidewalk
Description of Services Provided: Design survey, cross-sections, geotech, street and storm drain PS&E, sidewalk PS&E, wall design, traffic planning and engineering

5. Scope of Work

PHASE 1: PRELIMINARY ENGINEERING

Research and Field Review

A thorough search of the available records will be conducted to acquire relevant data to assist in the design of the project. The information accumulated will include as-built drawings, utility information, and horizontal and vertical control data.

The Project Team will review the project in the field and take photographs of potential problem areas or items that need special attention. Particular emphasis will typically be given to identifying areas where existing improvements are in a deteriorated condition, pose a significant design constraint or could be impacted by the widening (utilities, walls, structures, driveways, etc.).

Utility Coordination

Information will be collected from all the utility companies. Coordination with the utilities will continue throughout the design of the project. A copy of the utility file will be provided to the City. For this project we have assumed no utility potholing will be required.

Survey

The APP Team will provide the necessary ground survey information required to design the project including topographical features and cross-section data. Cross-sections will be taken at 25-foot intervals for the length of the project from right-of-way to right-of-way. Additionally, we are proposing aerial mapping be performed for use as the base map to minimize survey costs.

Geotechnical Investigation

Perform review of available geotechnical data on and adjacent to the site. Geologic reconnaissance of the site to establish location and accessibility of planned cores and identify any localized failed pavement areas. Mark boring locations and notify Underground Service Alert 72 hours in advance of drilling.

Obtain any necessary (no fee) permits from the City of Santa Ana. Because Mile One Street is a major arterial highway, we have assumed that Traffic Control will be necessary, but a Traffic Control Plan will not be required. It is assumed that traffic control, per the WATCH Manual or MUTCD, would be sufficient for our investigation.

Coring of the existing pavement at twelve (12) locations (6 in each direction of travel) to approximately 2 to 5 feet below existing pavement grades to determine existing pavement and base thickness, general subsurface conditions, and to delineate any other soil parameters that may affect the proposed rehabilitation project. We will obtain representative bulk samples of the excavated materials from selected borings and relatively undisturbed samples will be obtained at subgrade and two to three feet below subgrade. Upon completion, each of the borings will be backfilled with the native materials from the boring, and patched with cold patch asphalt, as necessary to match existing. We have assumed that the drilling operations can be completed in two (2) days.

Appropriate laboratory testing including determination of classification, natural moisture content of soils, field densities of undisturbed samples, laboratory maximum densities, corrosive characteristics and "R" value of soil and bedrock materials encountered, as necessary.

Prepare a single Geotechnical Investigation Report for the subject portion of existing street addressing the geotechnical parameters outlined above and including log of the borings, the laboratory test results, and recommendations for new asphalt pavement construction and pavement rehabilitation.

Alternative preliminary pavement strategies will be developed consisting of varying methods of constructing the improvements (overlay, total reconstruction, pavement fabric, asphalt rubber, etc.). A matrix will be prepared for each alternative comparing the advantages, including cost, impacts to existing improvements, duration of construction, and traffic control requirements.

Preliminary Design

The preliminary design phase will include the following tasks:

- Attend project scoping meeting with City Staff to review project concept
- Develop up to 2 additional alternatives that incorporate the City's Complete Streets policy
- Prepare concept plans for plantings in the street parkway. The concept plans will be rendered colored plans and profile views of the proposed new plantings. A plant materials palette will accompany the concept plans.
- Prepare Preliminary Design Report (PDR) that provides alternative analysis, recommendation for preferred alternative and preliminary cost estimate

We have assumed that the preferred alternative conceptual plan will constitute the 30% design level.

Environmental

Task 1 – Preliminary Environmental Study (PES)
Prepare the PES form in accordance with the Local Assistance Procedures Manual (LAPM). The PES form will be used to consult with Caltrans/FHWA to determine the appropriate NEPA document for the project (in this case, a CE). The LAPM requires the following steps for this process:

Step 1: Develop Complete Project Description and Detailed Map. Prepare a description of the project including the location of the project area (including a project map); a brief description of the environmental setting; and identification of environmental effects using the PES.

Step 2: Review Relevant Literature, Maps, and Inventories. Review existing environmental and planning information, such as the City's General Plan and General Plan EIR, soil surveys, and the California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI). We have also assumed that technical studies prepared for this project will be provided to us for use in the PES, as applicable.

Step 3: Request Technical Information from Resource and Regulatory Agencies. This step will be completed concurrently with Step 2.

Step 4: Verify Research Findings in the Field (Site Visit). A site visit will be conducted by an Environmental Scientist.

Step 5: Complete PES Form. Complete the PES form and provide an electronic copy to the City for internal review. We will revise the PES based on comments from the City prior to submittal to Caltrans.

We will complete the PES form and provide an electronic copy to the City for internal review and revise based on comments from the City prior to submittal to Caltrans. It is assumed that since impacts would be minimal, detailed technical studies would not be required and the project would qualify as a Screened Undertaking for cultural resources under Section 106 of the National Historic Preservation Act. Screened undertakings are classes of projects that have the potential to affect historic properties, but may be determined exempt from review under the Section 106 Programmatic Agreement. Exempt classes include (but are not limited to):

1. Minor widening of less than one-half-lane width, adding lanes in the median, or adding paved shoulders.
2. Channelization of intersections or addition of auxiliary lanes.
3. Minor utility installation or relocation.
4. Addition of bicycle lanes or pedestrian walkways.
5. Modification of existing features, such as slopes, ditches, curbs, sidewalks, driveways, dikes, or headwalls, within or adjacent to the right of way.

Task 2 – NEPA Categorical Exclusion and CEQA Categorical Exemption

NEPA Categorical Exclusion
Prepare a Draft CE checklist form in the most recent Caltrans format included in Caltrans' Standard Environmental Reference (SER), Chapter 30 – Categorical Exclusions. The Draft CE Checklist will be provided to the City for review. We will make any revisions to the CE Checklist and provide a Revised Draft CE Checklist to the City for submittal to Caltrans. After Caltrans review, we will revise the document and provide the Final document to the City for submittal to Caltrans.

This scope of work and cost estimate assumes one round of comments and responses for each version of the document (Draft and Revised Draft) and that no additional analysis or technical studies are required to respond to comments.

CEQA Categorical Exemption

After an initial review, it appears that the Proposed Project is likely exempt from CEQA under Class 1: minor alteration of existing facilities (CEQA Guidelines Section 15301) or Class 2: replacement or reconstruction (CEQA Guidelines Section 15302). ECORP will prepare the Exemption Form from Appendix E of the CEQA Guidelines. This form will be filed at the County Clerk's office and the State Clearinghouse. A receipt of filing will be obtained from both entities.

PHASE 2: CONSTRUCTION DOCUMENTS (PS&E)

Plans and cost estimates will be prepared and submitted to the City for review at the 60 and 100 (final) percent levels. Based on feedback from the review from City staff during the preliminary design phase, detailed construction plans will be prepared. Sheets for the street improvements include title sheet, typical section/detail sheet, street plan and profile, signing and striping, and landscape/irrigation. All plans will be prepared in AutoCAD. Digital files and one set of original mylars shall be provided to the City upon final approval.

Special provisions will be prepared based on the Standard Specifications for Public Works Construction and the City's boilerplate, supplemented with Caltrans specifications. All submittals will be in Microsoft Word format. Preliminary cost estimates will be prepared for the proposed improvements and included with the first plan check submittal. Final construction cost estimates will be prepared based on the final improvement plans.

Street Improvement Plans

Twenty-scale street improvement plans will be prepared using the topographic survey data and record utility information for the base sheets. Appropriate joins will be provided at all side streets, driveways and intersections. Street improvements will show the rehabilitation of the existing pavement and the widening of the existing roadway. The use of cross-sections will be critical to assure that the reasonable cross-falls are maintained for the new roadway surface. For the portion of any roadway to be widened, the key issue is to minimize the impacts to the existing properties by joining the existing grades at the right-of-way line as closely as possible. As is the case in the rehabilitation areas, the survey cross-section will be critical to the design of the widened curb and new roadway cross-falls.

Signing and Striping Plans

Signing and striping plans will be prepared at 40-scale showing the replacement of existing striping, raised pavement markers and pavement markings. New signing, striping and pavement markings, including the bicycle lane, will also be shown. The plans will show all driveways, curbs, medians and other features that affect turning movements. The plan will include general, construction notes, and other details necessary to construct the proposed signing and striping and will detail the joining of the proposed signing and striping features with those existing on either side of the project limits. Signing and striping features will be designed in accordance with the 2014 California Manual on Uniform Traffic Control Devices and the 2015 Caltrans Standard Plans.

Landscape/Irrigation

The landscape architectural construction documents will be prepared to meet the city prescribed standards including the City's Parkway Improvement Guidelines. Planting and irrigation plans will comply with current water conservation standards.

Drainage
We have assumed that there are no drainage facilities (existing or proposed) within the project limits.

Traffic Control
We have assumed that traffic control plans will not be prepared by our team but will be addressed in the project specifications with construction phasing specified in a manner which minimizes traffic disruption, public inconvenience and lost work time. Detailed traffic control plans will be prepared by the contractor which will detail each phase of construction including construction work hours, maintenance of pedestrian facilities, access to businesses, and emergency vehicle access. The location of construction signs, barricades, delineators and flashing arrow signs will also be detailed on the plans. The Contractor-prepared traffic control plans will be prepared in accordance with the most current MUTCD.

Meetings
Regularly scheduled meetings are a key to keeping projects on schedule, avoiding pitfalls, and keeping the lines of communication open with the City so that surprises do not occur during the final stages of the project. We anticipate monthly PDT meetings throughout the duration of the project.

Project Management/ QA/QC
The Project Management task is directed at the organization, planning and control of the project team. Activities include scheduling and monitoring of the project team, cost control and an active quality control program. Quality Control will be an ongoing task throughout the duration of the project. Our approach to Quality Assurance/Quality Control is presented on the following page.

Description	# of Sheets
Title Sheet	1
Typical Sections and Details	1
Roadway Plan and Profile (20-scale)	2
Signing and Striping	1
Landscape/Irrigation	5
Cross Sections	1
Total Sheets	**11**

ASSUMPTIONS
We have excluded the following items from our proposal, however, we can include these if requested:

- Water Quality (SUSMP)
- Potholing
- Hydrology/Hydraulics/Drainage Design
- Traffic Control Plans
- Traffic Signal Plans
- Street Lighting

PHASE 3: BIDDING STAGE
During the bidding stage of the project, APP will assist the City in answering questions from Contractors, and prepare any addenda that may be required. APP will also attend the pre-bid conference and job walks as necessary. Once the bids are received, we will assist the City in analyzing the bids and providing recommendation for award.

PHASE 4: CONSTRUCTION STAGE

During the construction phase of the projects, APP will typically provide the following services on an as-needed basis:

- Respond to RFI's
- Visit site for progress and conformance to PS&E
- Interpret plans and specifications as necessary
- Analyze changed field conditions
- Prepare revisions to plans as necessary
- Review shop drawings and other required submittals
- Prepare "as-built" drawings

Quality Assurance/Quality Control (QA/QC) Management Process

QA/QC is a key component to any project, and a critical component for this project that encompasses numerous property owners, temporary encroachment permits and design elements. Quality Control will be an ongoing task throughout the project. The initial effort will be in the development of a project specific checklist that will establish specific tasks that need to be accomplished, the estimated completion date and a signature block for the project manager to sign that the task has been completed and reviewed. Matt Stepien, PE, is responsible for overall QA/QC, and will ensure that all checklist items are addressed by the project manager.

Submittals: For each of the milestone submittals, the project manager will be responsible to ensure that the submittal meets the scope requirements. In addition to plan and specification review, the Project Manager will evaluate progress and review the results and, if necessary, develop a plan to keep the project within budget and on time.

Schedule: We will prepare and maintain a Microsoft Project schedule that focuses on delivering the project. The schedule, task lists and progress reports will be used to list each task in the project to enable our Project Manager to hold members accountable for delivery. We will provide a summary report regularly that shows tasks completed, items that have changed, and schedule updates.

Our Strategic Approach to a Quality Product:

Understand the Project

Quality control starts at the beginning of the project through planning and controls. At the forefront of the project, our project manager will discuss the proposed scope of work, projected schedule, and estimated costs in detail with the City to ensure that the project scope and goals are fully understood from the onset.

The Right People for the Project

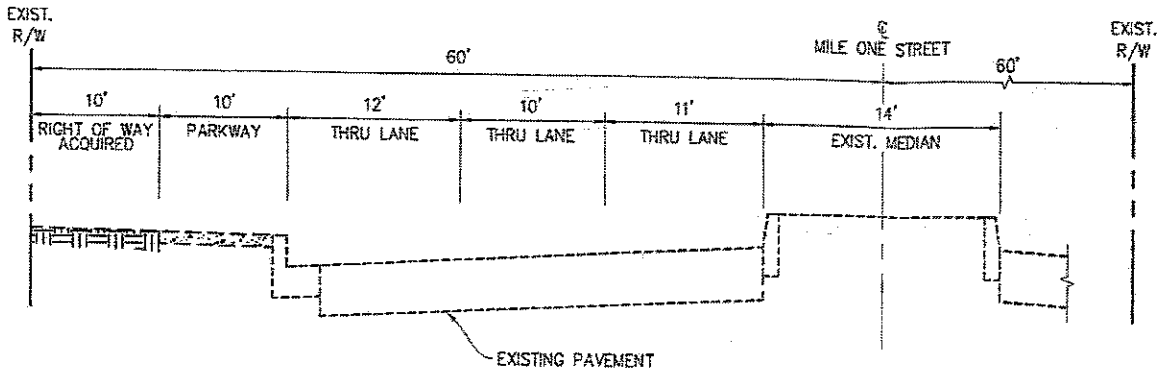
Our project team has extensive, relevant experience in completing public works infrastructure projects in Southern California. The team that has been formed will hit the ground running, delivering on schedule and within budget.

Communication

Our project manager has an excellent track record communicating with clients, subconsultants, staff, and stakeholders. Frequent communication and tracking of project progress is integral to his approach to every project.

Familiar Subconsultants

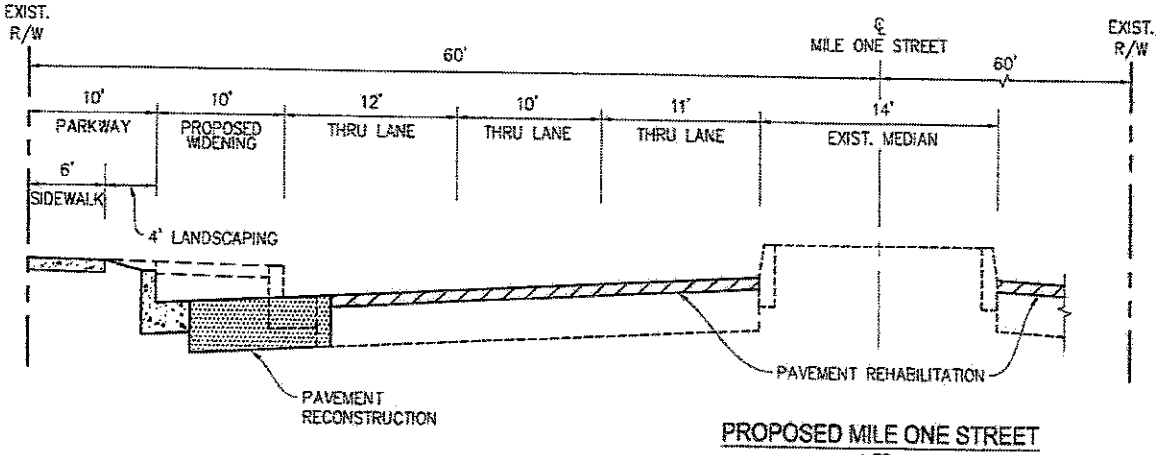
The subconsultants for this team have been selected because of their expertise, their prior performance, and we have successfully completed other projects together.



EXISTING MILE ONE STREET
NTS

EXISTING CONDITIONS

- 3 THROUGH LANES IN EACH DIRECTION (33' CURB TO CURB)
- 14' WIDE MEDIAN
- 10' WIDE PARKWAY



PROPOSED MILE ONE STREET
NTS

PROPOSED PROJECT

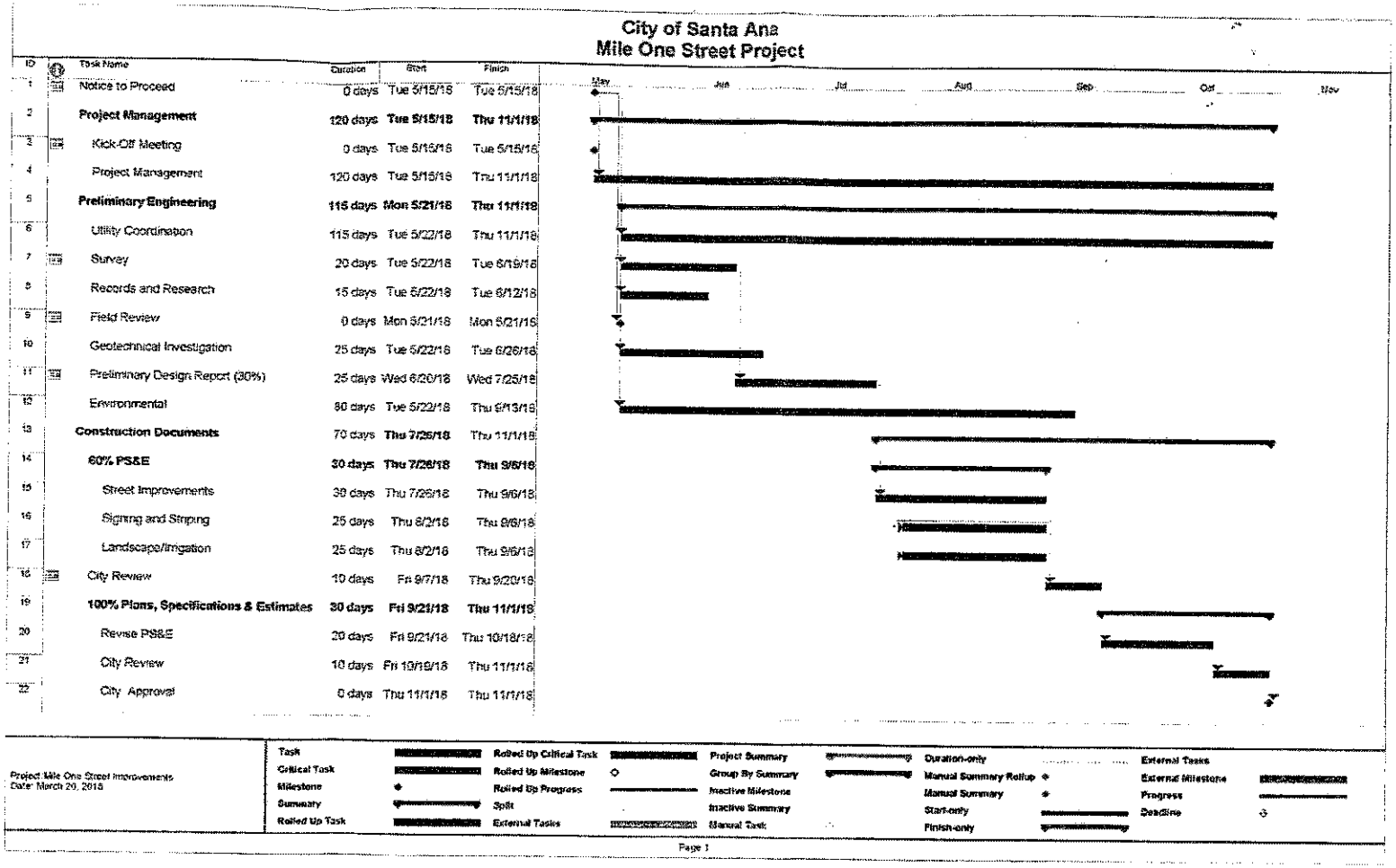
- WIDEN STREET (ONE SIDE ONLY)
- 3 THROUGH LANES IN EACH DIRECTION (43' CURB TO CURB)
- PAVEMENT REHABILITATION

COMPLETE STREET ELEMENTS

1. 6' BIKE LANE WITH 4' BUFFER
2. 14' LANDSCAPED MEDIAN
3. 10' LANDSCAPED PARKWAY
4. CURB EXTENSIONS (IF REQUIRED)

25E-394

Exhibit 3: Schedule



ID	Task Name	Duration	Start	Finish
1	Notice to Proceed	0 days	Tue 5/15/18	Tue 5/15/18
2	**Project Management**	**120 days**	**Tue 5/15/18**	**Thu 11/1/18**
3	Kick-Off Meeting	0 days	Tue 5/15/18	Tue 5/15/18
4	Project Management	120 days	Tue 5/15/18	Thu 11/1/18
5	**Preliminary Engineering**	**115 days**	**Mon 5/21/18**	**Thu 11/1/18**
6	Utility Coordination	115 days	Tue 5/22/18	Thu 11/1/18
7	Survey	20 days	Tue 5/22/18	Tue 6/19/18
8	Records and Research	15 days	Tue 5/22/18	Tue 6/12/18
9	Field Review	0 days	Mon 5/21/18	Mon 5/21/18
10	Geotechnical Investigation	25 days	Tue 5/22/18	Tue 6/26/18
11	Preliminary Design Report (30%)	25 days	Wed 6/20/18	Wed 7/25/18
12	Environmental	80 days	Tue 5/22/18	Thu 9/13/18
13	**Construction Documents**	70 days	**Thu 7/26/18**	Thu 11/1/18
14	**60% PS&E**	**30 days**	**Thu 7/26/18**	**Thu 9/6/18**
15	Street Improvements	30 days	Thu 7/26/18	Thu 9/6/18
16	Signing and Striping	25 days	Thu 8/2/18	Thu 9/6/18
17	Landscape/Irrigation	25 days	Thu 8/2/18	Thu 9/6/18
18	City Review	10 days	Fri 9/7/18	Thu 9/20/18
19	**100% Plans, Specifications & Estimates**	**30 days**	**Fri 9/21/18**	**Thu 11/1/18**
20	Revise PS&E	20 days	Fri 9/21/18	Thu 10/18/18
21	City Review	10 days	Fri 10/19/18	Thu 11/1/18
22	City Approval	0 days	Thu 11/1/18	Thu 11/1/18

Task, Critical Task, Milestone, Summary, Rolled Up Task, Rolled Up Critical Task, Rolled Up Milestone, Rolled Up Progress, Split, External Tasks, Project Summary, Group By Summary, Inactive Milestone, Inactive Summary, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Start-only, Finish-only, External Tasks, External Milestone, Progress, Deadline

25E-395

Resumes

ANDERSON·PENNA
PARTNERS IN PROJECT DELIVERY

Stephen G. Badum, PE	**Principal-in-charge**
Education:	MPA/1997/Public Administration, California State University, Long Beach BS/1980/Civil Engineering/ University of Massachusetts, Amherst
Registration:	1983/PE/Civil/CA # C36106
Years' Experience:	37
Professional Affiliations:	American Society of Civil Engineers; American Public Works Association; International City Managers Association

Stephen G. (Steve) Badum, PE, brings an extraordinary depth of experience in municipal management and engineering. His project types have included: public works administration/management; engineering planning and design; general maintenance and operations; water and sewer maintenance and operations; construction administration, inspection and resident engineer; land development design, plan check, subdivision and environmental processing; and consultant procurement and management. Steve recently retired as the assistant city manager for the City of Newport Beach, where he worked with all City departments to improve and streamline City services. Recent accomplishments include managing the $140-million Civic Center and Park project, highlighted by a 16-acre park/wetlands/dog park, a 17,000-square-foot library expansion, a 100,000 square-foot City Hall Office building and a 450-space parking structure.

RELEVANT EXPERIENCE

On-Call City Engineering Services, City of Signal Hill, CA. Currently under a multi-year contract reporting to the public works director and serving as City Engineer providing city engineering services including capital improvement program management, development services review, assessment district program management, preliminary engineering, capital project planning, budgeting and scheduling, permit and grant administration and general engineering support services with a team of seasoned municipal managers, engineers, designers, project managers, construction managers and inspectors, grant administration and support specialists.

City Engineering and Project Management Services, City of Signal Hill, CA. Provided city engineer and project management services for the City of Signal Hill include overseeing activities of various divisions within the Public Works Department on a temporary basis during the recruitment to fill the permanent public works director position. These divisions include administration, engineering, capital programs, water, stormwater/water quality, and parks, streets and right of way maintenance. This position oversaw departmental activities and supports programs that enabled the community to continue to function during the recruitment process. This assignment was under the direction of and provided administrative assistance to the city manager. Another key responsibility was to ensure the ongoing implementation of the City's capital improvement program during the recruitment process and transitioning to the new director.

Public Works Engineering Bureau Staff Liaison, City of Long Beach, CA. Serving as public works staff liaison responsible for preparing a study to address current organizational, operational, and staffing issues for the improvement of the City's development services program. Responsible for facilitating project processing and assisting in the implementation of the study's findings for development clients in the City. The goal is to most effectively support the City's vision of sustainable development and re-development.

On-call Municipal Engineering Services, Opportunity Studies Area (OSA) Projects, City of Lake Forest, CA. Management contact for this $3,585,000 project involving a multi-year contract with the City to provide services for general municipal engineering, review of land use development applications, plan check for proposed developments, public works encroachment permit inspections, capital improvement project design, construction management and inspection, and water quality program management.

Chris Bretall, PE	**Project Manager**
Education:	BS/1987/Civil Engineering/California State University, Fullerton
Registration:	1987/PE/Civil/CA C41824
Years' Experience:	30

Chris Bretall, PE, has 30 years of project management, design and oversight experience on a wide variety of transportation projects for Southern California municipalities, including the City of Santa Ana, and such transportation agencies as Caltrans and OCTA. He brings strong expertise in the design and project management of street and utility improvements. Chris manages diverse teams delivering project study reports, project reports and PS&E packages. He also provides engineering services during construction. In assisting clients, he leverages deep knowledge of agency standards and regulatory and third-party coordination requirements.

RELEVANT EXPERIENCE

On-call Civil Engineering, City of Long Beach, CA. Project manager for the preparation of plans, specifications and cost estimates for more than $15-million in improvements since 2009 and is continuing to work with the City until at least 2017. The projects encompassed roadway, storm drain, parking lot, traffic, lighting, and landscape improvements and focused on many of the major roadways within the City – Atherton Street, Magnolia Avenue., Atlantic Avenue, Spring Street, Long Beach Boulevard, Carson Street, Los Coyotes Diagonal and Wardlow Street.

Bristol Street Widening, PS&E, City of Santa Ana, CA. Project manager for the widening of a one-mile existing four-lane roadway to six lanes. The project included bridge widening/rehabilitation, channel improvements, drainage modifications, traffic signal modifications, median landscaping/ irrigation and the construction of a linear park adjacent to the street right-of-way that included landscaping and soundwall design.

I-605 Arterial Hotspots in the Cities of La Mirada and Santa Fe Springs, Los Angeles County Metropolitan Transportation Authority (LA Metro), CA. Quality control manager for the preparation of PS&E for two intersection improvement projects led by LA Metro in collaboration with the Cities of La Mirada and Santa Fe Springs. The intersection improvements are at two Valley View Avenue locations, Alondra Boulevard and Rosecrans Avenue.

Lincoln Avenue Widening Design, City of Anaheim, CA. Quality control manager for engineering design for project to widen 3,000 feet of Lincoln Avenue from East Street to Evergreen Street. Project work includes designing median, street, traffic, storm drain, landscape and private property improvements as well as preparing an alignment study, traffic study, legal descriptions and Water QMP.

El Toro Road/Glenneyre Street Rehabilitation, City of Laguna Beach, CA. Project manager for the rehabilitation of approximately three miles of roadway from Aliso Creek Road to Laguna Canyon Road and within the City's downtown area, which involved asphalt rubber overlay of the entire street, plus some A/C removal and replacement. Coordination with Caltrans was required due to affected areas around the SR-73 toll road underpass and federal funding associated with this project. Coordination with the City of Aliso Viejo was also required.

La Palma Avenue and State College Boulevard Widening, City of Anaheim, CA. Quality assurance/quality control manager for preparation of plans, specifications and cost estimates for the widening of this key arterial intersection in the City of Anaheim. The final Precise Alignment Plan resulted in significant right-of-way cost savings. The project included the design of a raised, landscaped median, bike lanes, parkway landscaping and redesign of private property improvements impacted by the roadway widening. Other elements of the project included the design of private sign relocations, water quality and utility improvements.

Birch Street/State College Intersection Widening, PS&E, City of Brea, CA. Project manager responsible for this project that added left turn lanes to provide dual left turn movements in the EB and WB directions on Birch and extended the length of the SB dual left turn lanes on State College. The project also added right turn lanes for EB, WB and NB traffic, and removed/modified and replaced the raised median curbs. Right-of-way acquisition was also required.

Columbia Avenue/Iowa Avenue Improvements, PS&E, City of Riverside, CA. Project manager for the planning and final design of a new grade separation at the BNSF tracks. The project included construction of a precast box girder bridge overpass with MSE walls. Services included traffic signal design, new sewer, water line, electrical undergrounding, storm drain, construction of a new RCB box culvert for the Riverside Canal, extensive utility relocations and right-of-way acquisition.

Safe Routes to Schools (SRTS) Pedestrian Improvements at Four Schools, Santa Monica, CA. Project manager for engineering design services for the City of Santa Monica's Safe Routes to School (SRTS) Pedestrian program, which includes SRTS improvements at four schools: John Adams and Lincoln Middle Schools, Roosevelt Elementary School, and the Will Rogers Learning Community. The improvements include curb extensions (bulbouts), upgraded crosswalks, rectangular rapid flashing beacons and revised traffic signal operations. The City is utilizing Capital Improvement Project (CIP) Funds to implement the improvements.

McBean Parkway Median Alignment, City of Santa Clarita, CA. Project manager for the preparation of an updated concept plan, final plans, technical specifications and estimate (PS&E) for proposed street improvements of the McBean Parkway, a major six-lane arterial highway in the City of Santa Clarita that extends from Interstate 5 (I-5) on the west to Copper Hill Drive on the east with a posted speed limit of 45 mph within the project limits.

Six ATP Projects, Bureau of Engineering, City of Los Angeles, CA. Provided staff augmentation to City staff for the pre-design, design and provision for technical assistance during construction associated with the delivery of six projects funded through the ATP that have a combined construction cost of $23 million. The effort included four Safe Routes to Schools infrastructure improvements projects, Hollywood Western Pedestrian Improvements and City of Los Angeles Little Tokyo Pedestrian Safety Improvements.

Cloverfield Boulevard Widening and Improvements, PS&E, City of Santa Monica, CA. Project manager for the widening of Cloverfield Boulevard to allow for three travel lanes in each direction. This project was the second phase of a two-phase project and included Cloverfield Boulevard from Michigan Avenue to Colorado Avenue. Work included street design, traffic signals, right-of-way engineering, property appraisals, landscape and irrigation, street lighting and widening/narrowing of streets to improve circulation.

Railroad Avenue Improvements, PS&E, City of Santa Clarita, CA. Project manager for design and right-of-way services for improvements to Railroad Avenue. The project included the realignment of Railroad Avenue, pavement reconstruction, drainage improvements, the installation of new traffic signals/street lighting, landscaping and right-of-way acquisition.

Via Princessa Extension, Project Study Report Equivalent (PSRE), City of Santa Clarita, CA. Project manager responsible for the preparation of a PSRE for a 3.0-mile extension of the Via Princessa between Claibourne Lane and Rainbow Glen Drive. This new arterial roadway is a critical link in the City's transportation network. The PSRE was prepared in response to LA Metro's Call for Projects and included alternative alignment studies, cost estimates, environmental analysis and traffic studies.

Matt Stepien, PE	**Quality Assurance/Quality Control Manager**
Education:	BS/1979/Civil Engineering/California Polytechnic University, Pomona
Registration:	1982/ PE/ CA #35500
Years' Experience:	37

A Registered Civil Engineer, Matt Stepien, PE, has extensive civil engineering experience with an emphasis on the design and management of municipal roadway and infrastructure improvement projects. Matt has substantial project experience with Los Angeles County cities, including Downey, Long Beach, Santa Fe Springs, Palos Verdes Estates, and unincorporated Los Angeles County. Since 2009, Matt has led on-call civil engineering efforts for the Cities of Long Beach and Downey, overseeing more than ten miles of roadway rehabilitation projects in Long Beach and four miles of roadway widening and rehabilitation in Downey. He is a leader in the private engineering sector for pavement recycling.

RELEVANT EXPERIENCE

Richmond Street Arterial Improvements, City of El Segundo, CA. Project manager providing engineering for downtown area arterial improvements involving 1,600 linear feet with 60 feet of street and sidewalk width. Design work centered on the street, sidewalk, parking, survey, traffic and landscaping upgrades. Resolved a key issue, an acute downtown parking problem, by engaging community in outreach meetings and creating street, sidewalk and parking design solutions.

I-605 Arterial Hotspots, Los Angeles County Metropolitan Transportation Authority (LA Metro), La Mirada and Santa Fe Springs, CA. Project manager overseeing engineering services to complete PS&E for two intersection improvement projects led by LA Metro, in collaboration with the Cities of La Mirada and Santa Fe Springs. The improvements involve two Valley View Avenue locations, one at Alondra Boulevard, the other at Rosecrans Avenue.

Lincoln Avenue Widening Design, City of Anaheim, CA. Project manager providing engineering design for project to widen 3,000 feet of Lincoln Avenue from East Street to Evergreen Street. Design work includes median, street, traffic, storm drain, landscape and private property improvements. Other work includes preparing an alignment and traffic studies, legal descriptions and Water Quality Management Plan.

Seaside Way and Lew Davis Storm Drain, City of Long Beach, CA. Project manager for preparation of storm drain construction documents for new storm drain in Lew Davis Street. Per records, the existing storm drain in Clark Street is significantly undersized, causing flooding. As a solution, the flow on Lew Davis will be conveyed to a new storm drain which will outlet to Heather Channel.

On-call Engineering Services, City of Downey, CA. Project manager for preparing PS&E for more than $20 million in improvements under this on-call contract. Projects include roadway, storm drain, parking lot, traffic, lighting, landscape and private property improvements. Others involve additional lanes, median and parkway improvements, decorative lighting and street furniture, and enhanced colored-concrete intersections and parkway paving. Projects to date include:

- **Firestone Boulevard Median Project, City of Downey, CA.** Project engineer for raised median islands, entry monument sign, street rehabilitation and water facilities improvements on Firestone Boulevard between Old River School Road and West City Limits. Work includes preparation of traffic study, complete plans, PS&E for the proposed improvements, providing the bidding document and construction support.
- **Brookshire Avenue Pavement Rehabilitation, City of Downey, CA.** Project engineer assisting the project engineer on the road rehabilitation project. The project included rehabilitation of the street to a new centerline profile while utilizing the existing curb and gutter location and elevation.

On-call Civil Engineering, City of Long Beach, CA. Project manager for the preparation of PS&E for more than $15 million in improvements since 2009.

Dino D'Emilia, PE, QSD	**Construction Support**
Education:	BS/1991/Civil Engineering, Northeastern University, Boston, MA
Registration:	1996/PE/CA #55453
Certification:	Qualified SWPPP Developer (QSD)/Qualified SWPPP Practitioner (QSP): Certification #C55453
Years' Experience:	30

Dino D'Emilia, PE, QSD brings extensive experience in project leadership, construction management and civil engineering. He has completed nearly $1 billion in local agency public works projects in Southern California. Dino is known as a project manager and construction manager who directly engages in both the intricacies of projects as well as overall quality, timely completion and cost-effectiveness. He brings expert-level knowledge of the Caltrans "Local Assistance Procedures Manual" and relevant federal regulations and documentation.

RELEVANT EXPERIENCE

Cherry Avenue Widening, 19th Street to 230 Feet South of PCH, City of Signal Hill, CA. Resident engineer for $1.6-million federally funded project to increase the overall efficiency of the Cherry Avenue-PCH intersection. Services were provided in accordance with federal standards and requirements, as outlined in the Caltrans LAPM. The project added two traffic lanes, one southbound, the other northbound, on Cherry between PCH and 19th Street, new traffic signals requiring pendulum hung temporary traffic signals over PCH, 300 linear feet of new 24-inch storm drain with two catch basins, three manholes and a tie-in to an existing 60-inch L.A. County storm drain. The improvements extended the two-lane configuration along Cherry south to PCH to resolve a major bottleneck between Long Beach and Signal Hill. The project required public relations and coordination of temporary construction easements on 13 residential and commercial properties, as well as moving large commercial signs on a fueling station project being condemned. Close coordination was required with the cities of Long Beach and Signal Hill, the Los Angeles County Flood Control District, Caltrans (for permitting and local assistance), Long Beach Transit, Long Beach Oil and Gas and five additional affected utilities.

Drake Soccer Field, City of Long Beach, CA. Project manager overseeing construction of soccer field. The project involves demolition and grading, installation of drainage system for new park, basketball court, synthetic soccer field, constructing Portland cement concrete curbs, gutters, sidewalks, curb ramps, driveways, replacing and overlaying pavement with asphalt paving, park furnishings, lighting and electrical service, landscape and irrigation for an 8-acre site.

Oso Creek Multi-Use Trail, City of Laguna Niguel, CA. Quality assurance/quality control manager for this $3-million project providing construction management and inspection services for this project. The project includes new contiguous bicycle and pedestrian/equestrian trails, stormwater control and treatment best management practices, landscaping, lighting and street improvements. The project extends on Oso Creek Channel between the Laguna Niguel Metrolink station and the Three Flags commercial center. The location is partially on city street right-of-way and partially on Orange County Flood Control District right-of-way. APP has provided grant funding services primarily using an Orange County Transportation Authority Tier 2 Environmental Cleanup Program and a State Water Resources Control Board Proposition 84 stormwater grant.

Broadway (SR-133) Streetscape Improvements (CIP Project No. 249), City of Laguna Beach, CA. Resident engineer for this $321,000 federally funded landscaping and scenic beautification project that included a storm drain, hardscape, landscape and irrigation, public art and pedestrian improvements along Broadway Street/SR-133 from Cliff Drive to Forest Avenue.

Joe Buckner, PE, PLS, QSD	**Roadway and ROW**
Education:	BS/1986/Civil Engineering/California State University, Fullerton
Registration:	1989/ PE/CA #45531 1995/ PLS/CA #7206 Qualified SWPPP Developer (QSD)/Qualified SWPPP Practitioner (QSP): Certification #C45531
Years' Experience:	31

Joe Buckner, PE, PLS, QSD has more than 30 years of experience in planning and design of local streets arterial streets, right-of-way engineering, grading, sewer, water and storm drains. As project engineer, Joe has been responsible for the preparation of street rehabilitation plans and drainage improvements for numerous cities throughout Los Angeles and Orange Counties. Joe has substantial experience with engineering of public works improvements, CAD drafting, and preparing survey and right-of-way legal mapping.

RELEVANT EXPERIENCE

On-call Engineering Services, City of Downey, CA. Project engineer preparing PS&E for more than $20 million in improvements under this on-call contract. Projects include roadway, storm drain, parking lot, traffic, lighting, landscape and private property improvements. Others involve additional lanes, median and parkway improvements, decorative lighting and street furniture, and enhanced colored-concrete intersections and parkway paving.

Richmond Street Arterial Improvements, El Segundo, CA. Project engineer responsible for providing engineering services for Richmond Street arterial improvements located between El Segundo Blvd. and Holly Ave. within the downtown area for 1,600 lineal feet with 60 feet of street and sidewalk width. Design work includes street, sidewalk, parking, survey, traffic and landscape improvements. A critical issue is solving the impacted downtown parking problem by engaging the community in outreach meetings and providing street, sidewalk, and parking design solutions.

Seaside Way and Lew Davis Storm Drain, City of Long Beach, CA. Project engineer for preparing storm drain construction documents for a new storm drain in Lew Davis Street from about 500 feet east of Clark Avenue to the Heather Channel. Per records, the existing storm drain in Clark Street is significantly undersized, and has resulted in flooding on Lew Davis Street at the Frontier Communications complex. To remedy the flooding problems at Frontier, the flow on Lew Davis Street will be conveyed to a new storm drain which will outlet to Heather Channel.

I-605 Arterial Hotspots, Los Angeles County Metropolitan Transportation Authority (LA Metro), La Mirada and Santa Fe Springs, CA. Project engineer completing PS&E for two intersection improvement projects led by LA Metro in collaboration with the Cities of La Mirada and Santa Fe Springs.

On-call Engineering Services, City of Santa Fe Springs, CA. Roadway engineer for broad range of professional engineering services in support of the City's Public Works/Engineering Division. The APP team will provide all services required for this on-call professional engineering services contract including: engineering; structural engineering; engineering staff augmentation; construction management and inspection; architecture; and landscape architecture.

Miraleste Plaza Storm Drain, City of Rancho Palos Verdes, CA. Project engineer responsible for the design of a new storm drain replacing an undersized and deteriorating system previously constructed in the early 1950's. The work involved designing the system within a confined right-of-way and through many interfering utilities.

Underground District No. 49 (Sunkist), City of Anaheim Public Utilities Department, CA. Project manager responsible for meeting with City and property owners, research and prepare legal description and plats for public utility easements, coordination with property owners for execution of PUE deeds.

Manuel Barrios	**Roadway**
Education:	BS/2000/Civil Engineering/ University of California, Irvine
Years' Experience:	16

Serving as a lead engineer, Manuel Barrios has worked on a variety of public agency projects involving roadway design and plan preparation and a wide range of public works, capital improvement and land development projects for various cities throughout Los Angeles and Orange Counties. Manuel has delivered projects for both horizontal and vertical design for public agencies such as the Los Angeles County Metropolitan Transportation Authority (Metro) and the Los Angeles Bureau of Engineering/Department of Engineering (LABOE/DOT). He has served as project engineer for several public agencies to construct, widen and improve roadways, determine utility relocations, design and prepare grading, drainage, sewer and water utility and site improvement plans. Manuel has extensive experience and knowledge of Orange County and Los Angeles County Public Works Standard Plans as well as Greenbook Standard Specifications for Public Works Construction in order to deliver projects from the preliminary stage through final construction. Manuel has a consistent track record of successful project completion well within time and budget constraints.

RELEVANT EXPERIENCE

I-605 Arterial Hotspots, Los Angeles County Metropolitan Transportation Authority (LA Metro), La Mirada and Santa Fe Springs, CA. Design engineer for professional engineering services to complete the PS&E for two intersection improvement projects led by LA Metro in collaboration with the Cities of La Mirada and Santa Fe Springs. The intersection improvements are at two Valley View Avenue locations, Alondra Boulevard and Rosecrans Avenue.

Phase 2 Neighborhood Street Rehabilitation, City of La Mirada, CA. Design engineer for roadway improvements, street resurfacing and appurtenant infrastructure repairs. Provided PS&E for bidding and construction of the proposed improvements. The intent of this project was to renovate the roadway pavement and hardscape leaving the neighborhood with a like new appearance. APP's initial recommendation was to mill half an inch of the existing pavement (avoiding impacting the existing macadam), construct 2 inches of new pavement for most of the roadway, remove 4 inches of the outside 6 feet of asphalt concrete (AC) macadam and construct 4 inches of new AC pavement and resulted in significant cost savings for the City relative to the approach they used in previous years.

Arterial Pavement Rehabilitation, City of San Juan Capistrano, CA. Design engineer for engineering design services. The project includes preparing plans, specifications and cost estimates (PS&E) for the rehabilitation and resurfacing of streets as part of the City's Arterial Pavement Rehabilitation Project (CIP 15109) for Fiscal Years 2014-15 and 2015-2016.

Hacienda/Whittier Intersection Improvements, City of La Habra, CA. Design engineer for the design of roadway improvements in the City of La Habra. Project included the design of roadway widening, median, sidewalk and offsite improvements, preparation of TCEs and plats, and processing through Caltrans for Fact Sheet and encroachment permit approvals.

On Call Design Pavement Rehabilitation, Atherton Street, City of Long Beach, CA. Project engineer helping the project team and City to determine street rehabilitation recommendations based on visual field inspections for approximately 2,000 feet along Atherton Street. The project consists on determining the limits of concrete improvements to be replaced (curb, curb and gutter, sidewalk and cross gutters) along with also evaluating ADA compliance and replacing ramps if nonconforming. The overall work will include the construction bid documents in the form of final plans along with providing specifications and estimates.

Temple Hills Sidewalk, City of Laguna Beach, CA. Design engineer for the development of conceptual and final plans for the addition of 1,500 feet of new sidewalk.

Carlos Ortiz, PE, TE	**Traffic**
Education:	B.S./1989/Civil Engineering /California State Polytechnic University, Pomona
Registration:	1997 / Civil Engineer / CA #57535; 1999 / Traffic Engineer / CA #2025 1999 / Professional Traffic; Operations Engineer / US #426
Years' Experience:	29

ADVANTEC Consulting Engineers

Carlos Ortiz PE, TE, has extensive experience managing Traffic Engineering and Intelligent Transportation System (ITS) projects for numerous agencies throughout California. Carlos has worked on many complex projects and has the ability to resolve problems quickly and efficiently by drawing on his 29 years of experience, exclusively in the field of ITS and traffic engineering. He has recently elected to serve at ITE International Board of Direction and to serve as International Director, representing ITE Western District. Carlos is a member of the Board and Past-President of the Institute of Transportation Engineers (ITE) Western District. He also serves on the Board at ITS California, where he serves as the Southern California Section Chair and Partnership Chair.

RELEVANT EXPERIENCE

Kraemer Boulevard-Glassell Street-Grand Avenue Regional Traffic Signal Synchronization (RTSS) Project, Orange County Transportation Authority (OCTA), CA. As part of an on-call traffic engineering services, served as subconsultant project manager for the 15-mile Kraemer Boulevard-Glassell Street-Grand Avenue (KGG) Regional Traffic Signal Synchronization (RTSS) project, which involves 61 traffic signals through four agencies including the Cities of Anaheim, Brea, Orange, Placentia and Santa Ana. The project objective is to improve arterial traffic flow, reduce travel times and stops, and increase average speed, along the KGG Corridor through the synchronization of 61 traffic signals. Benefits to be gained by improving traffic flow included reduced fuel consumption and improved air quality. The project also includes the preparation of fiber optic plans at different roadway segments.

Ball Road Traffic Signal Synchronization Program (TSSP) Project, Orange County, CA. As part of an on-call traffic engineering services, served as subconsultant project manager for the 11-mile Ball Road Traffic Signal Synchronization Program (TSSP) project, which involves 39 traffic signals through four agencies including the Cities of Buena Park, Anaheim, and Orange and Caltrans. The project objective is to improve arterial traffic flow, reduce travel times and stops, and increase average speed, along the Ball Road Corridor through the synchronization of 39 traffic signals. Benefits to be gained by improving traffic flow included reduced fuel consumption and improved air quality.

Marguerite Parkway Traffic Signal Synchronization Program (TSSP) Project, Orange County, CA. As part of an on-call traffic engineering services, served as subconsultant project manager for the synchronization of 32 traffic signals in the cities of Mission Viejo and San Juan Capistrano. Benefits to be gained by improving traffic flow include reduction in fuel consumption and improved air quality. The project consisted of reviewing the geometric layout, existing traffic signal equipment, signal synchronization related infrastructure and development of the model using Synchro software. An additional project objective was to identify deficiencies with the existing traffic signal control equipment and intersection operations, and provide recommendations towards simple, low-cost solutions that may be implemented to correct such deficiencies, with a view of assisting the traffic operations along this corridor.

Barranca Parkway/Red Hill Avenue/Dyer Road Intersection Widening, Irvine, CA. Traffic manager prepared final plans, specification s and estimates for the City of Irvine, in cooperation with the Cities of Tustin and Santa Ana to widen this heavily traveled intersection. The improvements included: street widening, utility relocations, signal modifications, traffic control, storm drain basin, design for water quality management basins, and parking landscaping.

Gary Vasquez, RLA	**Landscape Architecture**
Education:	MLA/1989/Landscape Architecture, California State Polytechnic University, Pomona
	BS/1986/Ornamental Horticulture, California State Polytechnic University, San Luis Obispo
Registration:	1992/RLA/Landscape Architect, California #3883
Years' Experience:	25

Gary Vasquez, RLA, is the director of design at David Volz Design and will draw upon his 25 years of professional experience to provide hands on leadership for this project. His design abilities have proven to be innovative, unique, and award-winning. He will work closely with David Volz providing creative design solutions to the challenges and opportunities that are posed by this project. He has provided project management on many of the firm's most successful and acclaimed projects.

Gary has extensive experience in the development process from inception through master plan development, construction document preparation, contract administration, and on-site inspection. He manages projects to ensure adherence to established project budgets, and schedules. His recent work includes project management, design, construction drawings and construction oversight for Balboa Boulevard medians and right-of-way landscape enhancements in Newport Beach, the round-a-bout and commercial streetscape developments in La Quinta, and the downtown aesthetic treatments for medians, street, and sidewalk and right-of-way currently in construction on Diamond Bar Boulevard and Grand Avenue in Diamond Bar.

RELEVANT EXPERIENCE

Balboa Boulevard Landscape Enhancements, City of Newport Beach, CA. Project manager focusing on the development process from inception through master plan development, construction document preparation, contract administration, and on-site inspection. He managed the project to ensure adherence to established project budget, and schedules.

Harbor Boulevard Improvements, City of Costa Mesa, CA. Project manager working extensively on the development process from inception through master plan development, construction document preparation, contract administration, and on-site inspection. He managed the project to ensure adherence to established project budgets, and schedules.

Crescent Avenue Bike Trail, City of Anaheim, CA. Project manager working extensively on the development process from inception through master plan development, construction document preparation, contract administration, and on-site inspection. He managed the project to ensure adherence to established project budgets, and schedules.

Diamond Bar Blvd/Grand Ave Intersection, City of Diamond Bar, CA. Senior landscape architect/director of design for this project. At Grand Avenue and Longview, the city's eastern gateway, a large new city entry sign highlights a beautiful and grand gateway into the city. New street trees, enhanced crosswalks, decorative parkway and median railings enrich the overall aesthetic image and provide a cohesive set of elements along this important Grand Avenue corridor. The materials, colors, design elements and detailing of these aesthetic street improvement projects are being incorporated into other sites throughout the city.

Turf Reduction Study, City of Cypress, CA. Senior landscape architect/director of design for this project. Prepared a report and exhibits that will explore reducing manicured grassland at all the city parks. This study will review the parks to ascertain the potential for reducing turf and installing a new low water use landscape in areas where turf is not needed.

Jesus "Freddie" Olmos	**Environmental**
Education:	BA/1999/Environmental Analysis and Design, Minor Urban and Regional Planning/ University of California, Irvine, California
Years of Experience:	18 years

Mr. Olmos' professional experience involves CEQA and NEPA analysis and document preparation for government agencies and private clients. He has prepared and managed a variety of environmental documents, including Initial Studies/Negative Declarations (ISs/NDs), Mitigated Negative Declarations (MNDs), Environmental Impact Reports (EIRs), Environmental Impact Statements (EISs), Addendum/Supplemental EISs/EIRs, Environmental Assessments (EAs), and Findings of No Significant Impact (FONSIs). While his experience focuses on environmental report writing and permit preparation, he also has experience with biological resources monitoring and surveying for public facilities construction and research projects. Mr. Olmos is experienced in the bilingual English-Spanish translation of notices, documents, and handouts for CEQA and biological/cultural resources projects.

RELEVANT EXPERIENCE

Lincoln Avenue Widening Project (from East Street to Evergreen Street), AndersonPenna, Anaheim, CA. Project manager that prepared an IS/MND and oversaw the preparation of a Cultural Resources Technical Report for the project. The Lincoln Avenue Widening Project would improve the Level of Service for a segment of Lincoln Avenue between East Street and Evergreen Street.

IS/MND for the Whittier Boulevard at Beach Boulevard Intersection Improvements, City of La Habra, CA. As a subconsultant to a local engineering firm, served as project manager for the preparation of an IS/MND for intersection improvements. The project will create a dedicated right turn lane on the eastbound approach of Whittier Boulevard, construct three left turn pockets on the westbound direction of Whittier Boulevard and reconstruct all four curb returns. Coordination with Caltrans was required for the portion of the project that involved Beach Boulevard (SR-39) right-of-way.

IS/MND for the Whittier Boulevard and Hacienda Road Intersection Improvement Project, City of La Habra, CA. As a subconsultant to a local engineering firm, served as project manager for the preparation of an IS/MND for intersection improvements to increase the vehicular capacity and improve the level of service of the intersection. Proposed improvements would include widening and restriping a portion of Whittier Boulevard, widening and restriping the southbound approach of Hacienda Road and restriping the northbound approach of Hacienda Road.

Ganahl Lumber Costa Mesa Relocation Project, Ganahl Lumber Company, Costa Mesa, CA. Project manager for the preparation of an IS/MND for the Ganahl Lumber Costa Mesa Relocation

CEQA IS/MND for Temple Hills Drive Sidewalk Project, APP, Laguna Beach, CA. Project manager for the preparation of an IS/MND for the Temple Hills Drive Sidewalk Project. The proposed improvements would start at Palm Drive and terminate at Dunning Drive. Noise was the primary environmental concern due to the proximity of the proposed sidewalk to residential development.

IS/MND and Cultural Resources Technical Report for the Lincoln Avenue Widening Project (from East Street to Evergreen Street), APP, Public Works Department, City of Anaheim, CA. As a subconsultant to APP served as a project manager for environmental compliance. The Project would widen an approximate 2,700-foot segment of Lincoln Avenue from East Street to Evergreen Street and convert this segment of Lincoln Avenue from a four to a six-lane divided arterial. Prepared an IS/MND and supporting Cultural Resources Technical Report which included the historic evaluation of 22 properties along the transportation corridor.

Ted Riddell, PG, CEG	**Geotechnical Engineering**
Education:	BA/1985/Geologic Science, University of California, Santa Barbara
Registrations:	1987/PG/CA #5657; 1990/CEG/CA #1775

Ted Riddell, PG, CEG, has more than 30 years of experience in all phases of geotechnical projects. Ted has managed or worked on projects for private and public sectors including planning, geologic mapping, coordinating, conducting and writing of preliminary investigations, supervision, direction of field personnel and site inspections during grading to final drafting and report writing of completed projects.

RELEVANT EXPERIENCE

Beach Blvd/Whittier Blvd Intersection Improvement Project, City of La Habra, CA. Geotechnical project manager for the pavement recommendations and percolation tests, including obtaining permits from Caltrans to conduct the testing and sampling.

Firestone Boulevard Improvements, City of Downey, CA. Geotechnical project manager for the pavement and utility recommendations, including pavement recycling alternatives.

Broadway Improvements, City of Laguna Beach, CA. Geotechnical project manager for grading, pavement and utility recommendations, including obtaining permits from the County of Orange to conduct the testing and sampling.

Imperial Highway Improvements, City of Anaheim, CA. Geotechnical project manager for the pavement and retaining wall recommendations.

Pavement Rehabilitation/Reconstruction of Beverly Manor Drive, City of Seal Beach, Orange County, CA. Responsible for existing pavement evaluation and recommendations for Full Depth Reclamation (FDR), coordinate AC coring and soil borings, analyze laboratory data, **preparation of report including evaluation of subgrade soils, pavement overlays and new pavement sections.**

City of Garden Gove, Orange County, CA. Project manager/engineering geologist for Twintree/Chossier/ Greentree Storm Drain and Sewer Improvement Project, coordinate drilling of soil borings, analyze laboratory data, preparation of report including shoring recommendations, evaluation of subgrade soils, and new pavement sections. Subsequently managed the observation and testing during the construction of the storm drain, sewer and pavement improvements.

Castaic Lake Water Agency, Los Angeles County, CA. Project manager/engineering geologist for geotechnical investigation addressing the geotechnical conditions at the site relative to the planning and design phase of the Castaic Conduit Bypass Pipeline project. Coordinated drilling program within major thoroughfares and pipe jacking across San Francisquito Wash, completed detailed Geotechnical Report for several alignment options, including shoring options, jack and bore recommendations and general earthwork guidelines and specifications.

La Habra, Orange County, CA. As project geologist, performed a geotechnical investigation for a 400+ acre master planned residential/golf community on a former oil field, followed by management of the operations of the geotechnical personnel during the rough grading of the project. Duties during grading included field geologic mapping, large ancient landslide complex removals and stabilization, slope stability analyses, in- grading recommendations for remedial grading, and preparation of geotechnical reports and geologic maps.

Rancho Mission Viejo, Orange County, CA. As project geologist, performed a geotechnical investigation for a sand and gravel mining operation. The investigation was done to determine the extent of the remaining minable material as well as a geotechnical review of the potential reclamation plan. Utilized field geologic mapping, subsurface analyses and seismic refraction surveys in preparing the analyses.

Kelvin Kitaoka, PLS Survey

KelSurveys, Inc.

Education: AS/Land Engineering-Surveying and Mapping/1990/Land Surveyor/ Rancho Santiago College, Santa Ana, CA

Registration: 1989/LS/Land Surveyor/CA #6178

Kelvin Kitaoka, PLS, Founder and President of Kelsurveys, Inc. brings more than 35 years to the surveying profession. His extensive experience has specialized in topography and boundary surveys on the Big Island of Hawaii and California. He has been involved in numerous pre-design base mapping surveys so other professional disciplines responsible for the planning, engineering, feasibility studies, design and preparation of plans and specifications, can utilize his base mapping information. The accumulated knowledge and experience is applied to ensure high quality and timely delivery of final survey documents. It's common for Kelvin to work alongside his field crew as well as office tasks such as CADD work and legal description preparation.

RELEVANT EXPERIENCE

Arterial Pavement Rehabilitation, City of San Juan Capistrano, CA. Provided survey services for cross sections, survey of existing cross gutters to be replaced as well as curb ramps. The project includes preparing plans, specifications and cost estimates (PS&E) for the rehabilitation and resurfacing of streets as part of the City's Arterial Pavement Rehabilitation Project (CIP 15109) for Fiscal Years 2014-15 and 2015-2016.

LRS Federal, Riverside, CA. Principal surveyor for the 780-acre aerial and ground edit project that included approximately one mile of existing sewer line that required establishing existing flow grades.

Saint John Vianney Church, Del Amo Construction, Hacienda Heights, CA. Principal surveyor for the construction staking of a proposed sewer line.

Residential Streets Rehabilitation Program for Year 2015-16, City of Buena Park, CA. Performed as surveyor-in-charge for the $2-million, Topographic Street Design Survey, Construction Staking and Monument Preservation tasks covering the pre- and post-construction corner record survey and filings in compliance with the Professional Land Surveyor's Act. The coverage consisted of streets within approximately 10 subdivision tracts.

Irvine Business Center, CIP # 316310, City of Irvine CA. Principal surveyor for construction staking of sidewalks, driveways and comprehensive pre- and post- construction monument preservation consisting of corner records and a final record of survey map that were filed and recorded, respectively.

Irvine Business Center, CIP # 319100, Irvine CA. Principal surveyor for the construction staking for I-5 staging and on-ramp at Culver Drive. Comprehensive pre- and post- construction monument preservation consisted of corner records that were filed.

Industrial Street Rehabilitation Surveys, City of Buena Park, CA. Principal surveyor for the planning phase of a street rehabilitation, which included survey records research, horizontal and vertical control establishment, topography, monument preservation and delivery coordination with the civil engineers towards the design phase.

Rosecrans Avenue, Cities of Englewood to Manhattan Beach (6 Miles), CA. Principal surveyor for the detailed ground-topographic survey, verification for the existing centerline monuments for record map compilation for six (6) miles of roadway from the Englewood to Manhattan Beach. Provided base mapping and contouring along with all of the base mapping attributes.

Certifications

ANDERSON · PENNA
· PARTNERS IN PROJECT DELIVERY ·

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 20th day of March, 2018 by Antonio J. Belello, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

ANTONIO JOSEPH BELELLO
COMM # 2125847
ORANGE COUNTY
NOTARY PUBLIC-CALIFORNIA
MY COMMISSION EXPIRES
SEP. 04, 2019

_____
Notary Public Signature

Notary Public Seal

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm AndersonPenna Partners, Inc.

Signed and Printed Name: Lisa M. Penna LISA M. PENNA

Title President/CEO

Date March 20, 2018

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

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Firm ADVANTEC Consulting Engineers, Inc.

Signed and Printed Name: Leo Lee

Title Chief Executive Officer

Date March 16, 2018

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

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2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

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The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm ASSOCIATED SOILS ENGINEER, INC, FNF

Signed and Printed Name: TED RIDDELL

Title PRESIDENT

Date 3/15/18

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

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Firm David Volz Design Landscape Architects, Inc.

Signed and Printed Name: David Volz

Title President

Date March 15, 2018

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

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The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm ECORP Consulting, Inc.

Signed and Printed Name: Brant A. Brechbiel

Title Vice President/Contracting officer

Date 3/14/2018

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

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The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm KELSURVEYS, INC

Signed and Printed Name: [signature] KELVIN KITAOKA

Title PRESIDENT

Date 3/19/18

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: _____

Title: President/CEO

Firm: AndersonPenna Partners, Inc.

Date: March 20, 2018

* The City of Santa Ana did not agree to the below stated contract changes, and they were not included in the final agreement considered for approval by the City Council.

Contract Modifications

ANDERSON·PENNA
·PARTNERS IN PROJECT DELIVERY·

* The City of Santa Ana did not agree to the below stated contract changes, and they were not included in the final agreement considered for approval by the City Council.

b. Payment by City shall be made within 45 days (forty-five) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals which may reasonably be expected by City.

3. **TERM**

This Agreement shall commence on the date first written above for a number (#) year term with the option for the City to grant up to a number (#)-year renewals, exercisable by a writing by the City Manager and the City Attorney, unless terminated earlier in accordance with Section 16, below.

4. **PREVAILING WAGES**

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. **INDEPENDENT CONTRACTOR**

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. **OWNERSHIP OF MATERIALS**

This Agreement creates a non-exclusive and perpetual license for City to copy, use, ~~modify,~~ reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subcontractors to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not

* The City of Santa Ana did not agree to the below stated contract changes, and they were not included in the final agreement considered for approval by the City Council.

be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement or any modification without the involvement of Consultant shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subcontractors, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, and representatives as additional insured(s); (b) be primary and not contributory with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the provisions of Section 3700 of the Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:
   i. Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.
   ii. Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.
   iii. Certificates and policies shall state that the policies shall not be canceled ~~or reduced in coverage or changed in any other material aspect~~ without thirty (30) days prior written notice to the City (or ten (10) days if cancellation is due to nonpayment of premiums).
   iv. Consultant shall supply City with a fully executed additional insured endorsement.

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f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to ~~defend, and shall~~ indemnify and hold harmless the City, its officers, ~~agents,~~ employees, contractors, special counsel, and representatives from liability: ~~(1)~~ for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, ~~which may arise from~~to the extent such claims are caused by the negligence, recklessness or willful misconduct~~t operations~~ of the Consultant, its subcontractors, agents, employees, or other persons for whom Consultant is legally liable~~acting on its behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement.~~ This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, ~~by reason of~~to the extent caused by the events referred to in this Section ~~or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, t~~To the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend and indemnify the City, its officers, agents, representatives, and employees against any and all liability, including costs, for infringement of any United States' letters patent, trademark, or copyright infringement, including costs, contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours.

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otherwise, have been made by any party, or anyone acting on behalf of any party, which is not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. TERMINATION

This Agreement may be terminated by the City or Consultant upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to ~~receipt of such~~ notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product(s) completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate, subject to the provisions of Section 6.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

17. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

18. JURISDICTION - VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

EXHIBIT B

AndersonPenna Partners, Inc.

Effective January 1, 2018 Standard Billing Rate Schedule[4]

Engineering Services

Staff	Hourly Rate
Principal	$230
Project Manager	$185
Quality Assurance Manager	$185
Senior Engineer	$160
Project Engineer	$150
Traffic Engineer	$145
Associate Engineer	$125
Design Engineer*	$110
CADD Drafter*	$90
Administration*	$85

Municipal Services

Staff	Hourly Rate
Principal	$230
Project Executive	$195
Program/Project Manager	$185
Assistant Project Manager	$145
Sr. Plan Check Engineer	$170
Plan Check Engineer	$130
Planner	$110
Public Works Technician*	$110
Code Enforcement Consultant	$150
Code Enforcement Officer*	$75
Permit Technician*	$65

Funding Services

Staff	Hourly Rate
Project Manager	$160
Assessment Engineer	$160
Analyst*	$125
Administration	$85

* Positions noted with an asterisk are subject to overtime rates billed at 1.5 times regular rates for all time over 8 hours in a single day or work performed on Saturday; and double time rates for work performed on Sundays and Holidays.

Construction Services

	Regular Time	Overtime		
Staff	Rate[1]	Mon – Fri[2]	Sat.[3]	Sun./Holiday
Principal/Project Executive	$220	n.a.	n.a.	n.a.
Project/Construction Manager, Resident Engineer	$180	n.a.	n.a.	n.a.
Project Manager	$160	n.a.	n.a.	n.a.
Structures Representative	$175	n.a.	n.a.	n.a.
Project Controls Engineer	$140	n.a.	n.a.	n.a.
Document Controls/Assistant Construction Manager	$130	n.a.	n.a.	n.a.
Labor Compliance / Documents Control	$105	n.a.	n.a.	n.a.
Public Works Inspector *(Prevailing Wage)*[5]	$130	$182	$182	$234
Deputy Inspection (Prevailing Wage)[5]	$98	$137	$137	$176
Public Works Inspector *(Non-Prevailing Wage)*	$110	$154	$154	$198

[1] The above hourly rates include wages, fringe and general and administrative overhead and fee, as well as typical supplies, tools and equipment required to perform services. A four-hour minimum callout applies to Inspection staff.

[2] Rate applies to the first four hours of overtime during the week; all overtime in excess of four hours is paid at the Sunday/Holiday rate.

[3] Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

[4] Regular Time Rates are subject to a three percent (3%) per year escalation.

[5] Prevailing Wage Rates are subject to increases pursuant to the State of California's Department of Industrial Relations Wage Rate Determinations. APP's Billing Rates will increase in proportion to the DIR increase.

Other Direct Costs: Reimbursement of identifiable non-salary costs that are directly attributable to the project such as oversized and/or color reproduction costs, site facility hard phone line and/or internet service charges, and/or other travel expenses to remote fabrication yards / batch plants, overnight postage/couriers, etc., are billed at actual cost plus five percent (5%) to cover overhead and administration. Travel charges to a casting/fabrication yard/batch plant will include the hourly billing rate plus travel expenses as listed in the Caltrans Travel Guide (State rates). Non-commuting mileage required for travel on the project and to and from locations other than the project site are billed at the allowable IRS mileage reimbursement rate (currently $0.535 per mile).

Fees for subconsultant services: Billed at actual cost plus 10 percent (10%) to cover overhead and administration.

Payment Terms: A late payment finance charge at a rate of 12 percent (12%) per annum will be applied to any unpaid balance commencing 30 days after the date of original invoice.

Escalation: This rate schedule is effective through June 30, 2019. Should the Contract duration be extended beyond June 30, 2019, rates will be subject to annual and/or periodic revisions as necessary to accommodate inflationary trends, salary adjustments and the general cost of doing business, as mutually agreeable to the parties and approved via Contract amendment prior to implementing higher rates. In the event the contract is subject to delays that are beyond APP's control, a request will be made to increase the billing rates to APP's current standard rates, and the Client will use all reasonable effort to allow such billing rate increase.

Exclusions to Scope and Fee: The following items are specifically excluded:

- Legal advice
- Specialized Software (other than MS Office Suite and MS Project)
- Building Code Inspection
- Surveying
- Design services and responsibilities
- Materials, soils and/or hazardous materials testing or monitoring
- Construction Labor, Materials and/or Equipment
- Copies of plan and specifications or other oversized drawings
- Work hours/level of effort over and above those initially approved for the Scope of Work / Project assigned or for delays to the contract time beyond the scope and control of APP.
- Construction management and/or labor compliance services unless otherwise specifically called for in the Scope of Work, or specifically added by City
- Additional services not specifically called for in the proposal
- Expert witness services
- Standby services

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (GENERAL ENGINEERING)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between NV5, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of nine (9) consultants selected to provide services for general engineering projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $2,000,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of

performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all

Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of

this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees, for infringement of any United States' letters patent, trademark, or copyright contained in the work

product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: NV5, Inc.
9890 Irvine Center Drive
Irvine, CA 92618
Attn: Amy Amirani, PE, Principal-In-Charge / Vice President

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant,

Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

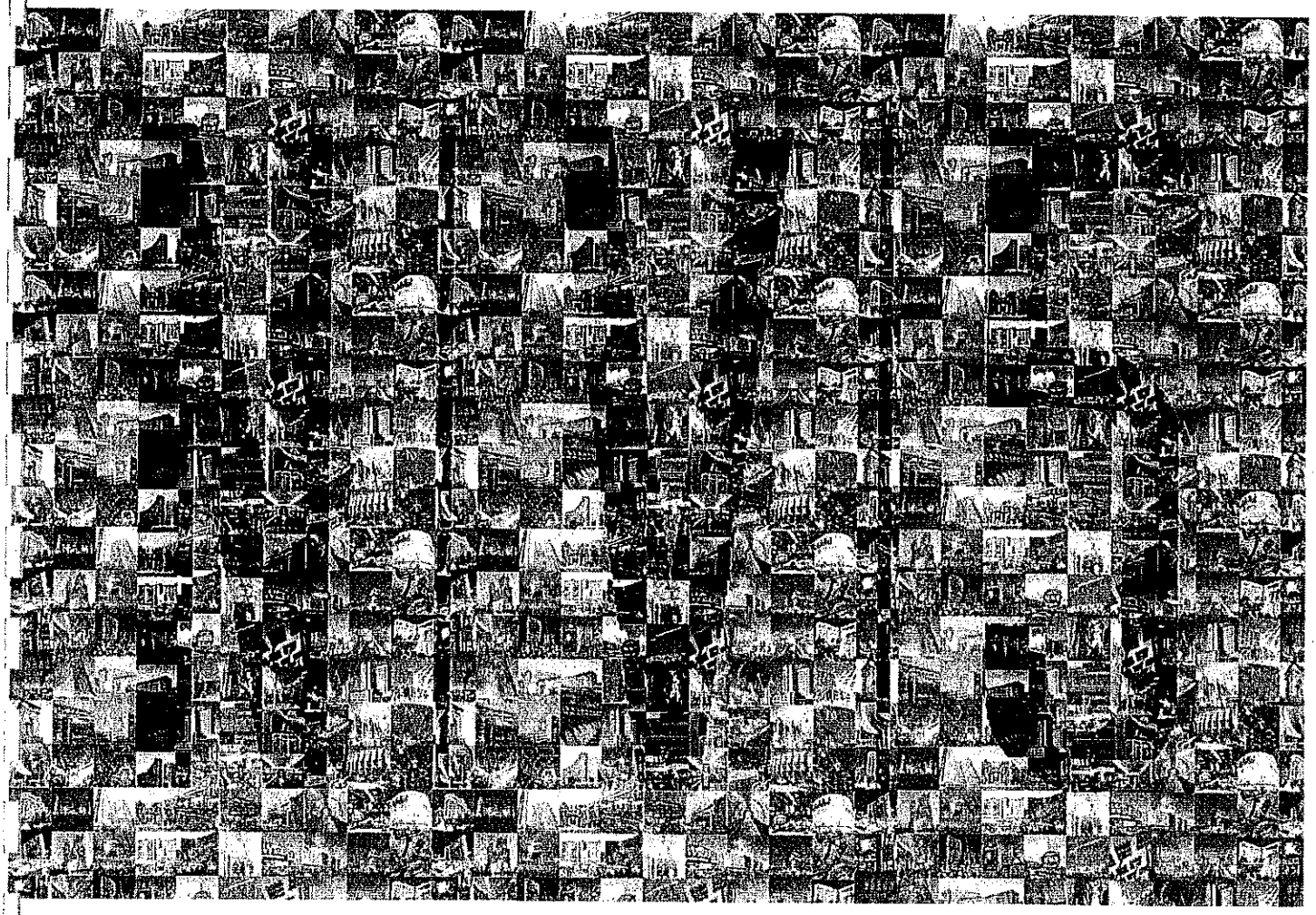
By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency



NV5

PROPOSAL

Submitted by NV5

9890 Irvine Center Drive, Irvine, CA 92618

City of Santa Ana

On-Call Engineering Services – RFP No. 17-083 (Option A and B)

March 20, 2018

TABLE OF CONTENTS

Cover Letter	01
Contract Agreement Statement	01
Firm and Team Experience	02
Understanding of Need	05
Relevant Project Experience	07
References	11
Scope of Services and Schedule	12
Appendix — Certifications	
Appendix — Resumes	

PN: P2270180719

March 20, 2018

City of Santa Ana
Public Works Department
Attn: Armando Fernandez, Project Manager
20 Civic Center Plaza
Santa Ana, CA 92701

NV5

SUBJECT: Proposal for On-Call Engineering Services, RFP No. 17-083 (Option A and B)

Dear Mr. Fernandez,

At NV5, we acknowledge that design engineering projects are vital to the community, and we have **more than 10 years of experience** partnering with many cities and agencies across Southern California to provide on-call services on projects of similar scope. We are excited to have the opportunity to provide these services to the City of Santa Ana (City). We have prepared this proposal to demonstrate how our team is best suited to deliver the requested services and offer the following:

Relevant Experience: At NV5 we believe that past experience and success are a key indicator of future performance. We are committed to providing high-quality service and believe that commitment is one reason why over 90% of our work comes from repeat clients – an obvious indicator of client satisfaction. We have included references, as requested, as well as relevant project experience to demonstrate our success in fulfilling similar efforts and encourage the City to contact our references to confirm our successful track record.

Personnel: NV5 offers the City a highly competent team with an unparalleled reputation and proven capability and expertise. We have chosen **Project Manager Charlie McKinley, PE** to lead the **Water Resources (Option A)** projects. Mr. McKinley has more than 30 years of experience in water and wastewater design engineering for both large-scale capital improvement projects and small infrastructure improvement projects. He has a broad range of project experience with a focus on pipelines, pump stations, reservoirs, and treatment.

Understanding both the project requirements and scope of work requested by the City, we have selected **Project Manager David Niknafs, PE** as your team leader for project under **General Engineering other than Water Resources (Option B)**. Mr. Niknafs has both managed and directed similar projects throughout Southern California and has more than 30 years of civil design engineering experience with a focus on street improvements, including rehabilitation, reconstruction, intersection widening and parkway improvements. He is supported by a team of highly educated engineers and designers as well as our carefully chosen subconsultants, most of which have been working with us for the past eight years. Should the need arise; our entire staff of dedicated professionals could be made available to be of service to the City.

Resources: We are equipped with the personnel and resources required to meet the City's schedule for any projects we undertake, and we have never missed a project deadline. We are financially viable, and there are no conditions that may impede our ability to complete the City's projects. As a part of NV5, Inc., an international company with the local personality and presence to quickly and creatively address your engineering, design, and staff augmentation needs, we have the ability to assist our clients in an expanded role with access to more than 2,000 professionals from 100 locations. **All services will be provided from our offices in Irvine, located less than 15 miles from the City.**

Quality and Cost Control: We have a proven work plan to complete projects on time, within budget, and with minimal impact to the surrounding businesses and residents. Our quality, cost, and schedule control measures will result in timely and successful completion of the City's projects. This successful track record provides the basis for our quick and reasonably priced project delivery.

Amy Amirani, PE, Vice President of NV5 has the authority to contractually bind the team and may be contacted during the proposal evaluation process.

We look forward to the opportunity to work with the City and help you achieve your goals and objectives. If you need further information, I may be reached by phone at (949) 585-0477, or electronically at amy.amirani@nv5.com. Thank you for your time and consideration.

Sincerely,
NV5

Amy Amirani

Amy Amirani, PE
Principal-In-Charge / Vice President

David Niknafs, PE
Director of Operations

CONTRACT AGREEMENT STATEMENT
NV5 concurs with all provisions as contained in the sample agreement as included in the RFP.

9890 Irvine Center Drive | Irvine, CA 92618 | www.NV5.com | Office: 949.585.0477 | Fax: 949.585.0433

FIRM PROFILE

Established in 2006, our team specializes in the engineering design, construction management and inspection of capital improvement projects, including: streets, traffic systems, water and wastewater systems, drainage and flood control, parks and recreational facilities, vertical construction, and landscaping and grading. Based in Irvine, California, we offer a large network of experts from a variety of engineering fields. Our team includes licensed civil engineers, licensed contractors, construction managers, certified inspectors and experienced public works professionals. All team members have extensive experience working within the structure of municipal government and public construction policy and will seamlessly integrate with the City's team.

As a part of NV5, Inc., an international company with the local personality and presence to quickly and creatively address your engineering, design, and staff augmentation needs, we now have the ability to assist our clients in an expanded role with access to more than 2,000 professionals from 100 locations. We have also added a wide range of additional services in the areas of infrastructure, construction quality assurance, energy, environmental, and program management.

KEY SERVICES

In the past 10 years, our successful delivery of our products and services has resulted in repeat clients for a broad range of municipal projects. Our key services are:

CIVIL ENGINEERING DESIGN

CONSTRUCTION MANAGEMENT AND INSPECTION

PLAN CHECK AND REVIEW

FEDERAL FUNDING MANAGEMENT

BUILDING AND SAFETY SERVICES

CONSTRUCTABILITY REVIEW

STAFF AUGMENTATION

PROJECT MANAGEMENT

LABOR COMPLIANCE

PUBLIC OUTREACH

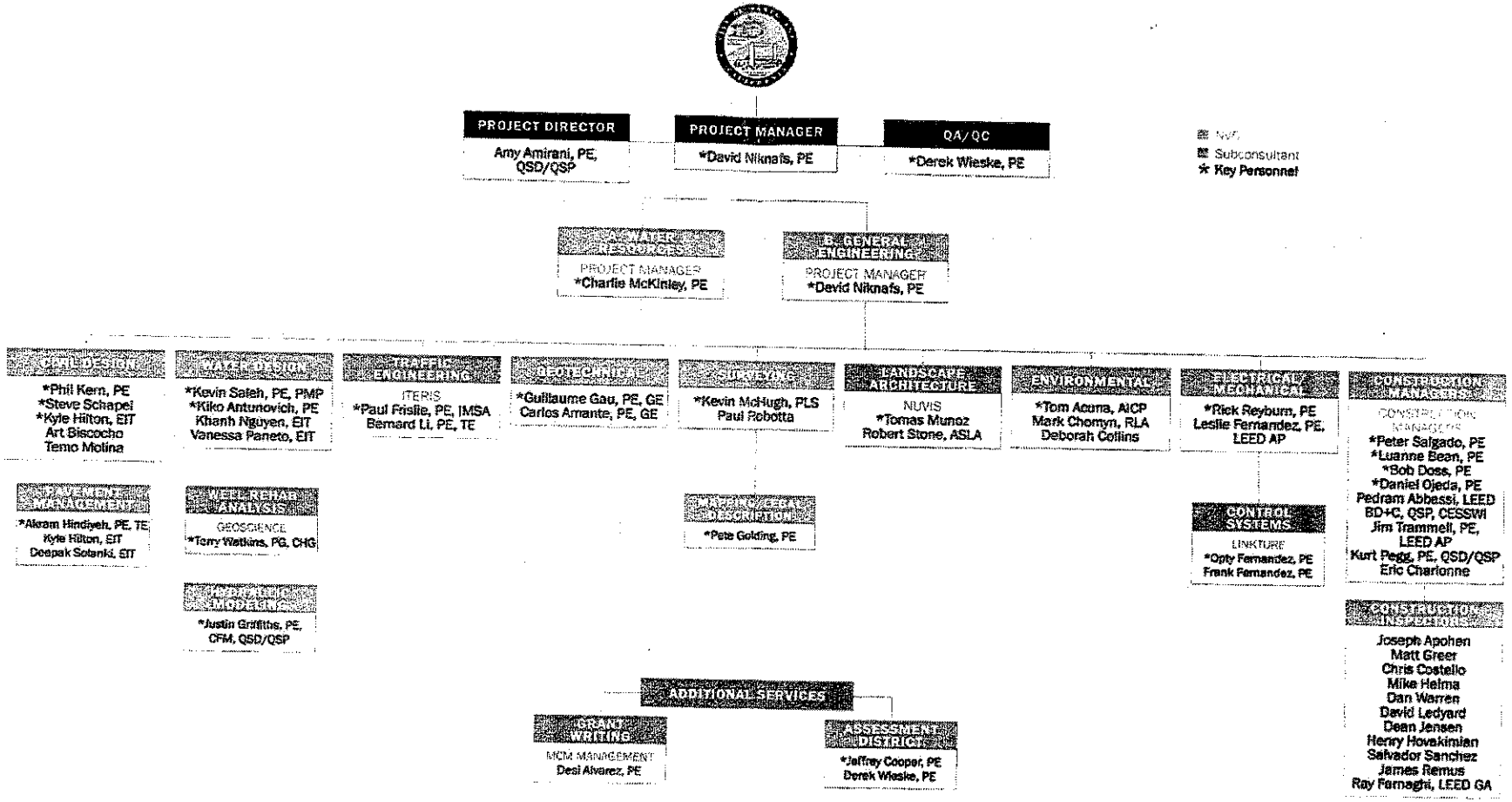
We maintain an extensive history of working with various local agencies. Throughout the course of completing a myriad of public works capital improvement projects, we have demonstrated an unparalleled ability to work well with local agency staff, project stakeholders, engineers and contractors. We have successfully delivered projects in a timely and cost-effective manner, and we have acquired a keen understanding of local agency requirements, a critical element in the facilitation and resolve of project issues. Our team is excited about the opportunity to serve the City and committed to establishing and maintaining effective working relationships with your staff, relevant government agencies and project stakeholders.

With a demonstrated ability to address public concerns, we are experts in a broad range of governmental interface, public outreach and community involvement, and we are genuinely committed to public participation as a way of planning and completing projects. We routinely perform these services as part of our delivery of public works projects and regard them as a vital component to project success. We look forward to extending this level of service to the City.

FIRM AND TEAM EXPERIENCE

ORGANIZATIONAL CHART

For this on-call assignment, we have assembled a team of experts with direct, relevant, successful and current experience working on projects of similar scope and complexity. We are equipped with the resources to provide the City with the requested engineering services. Shown below are team roles and responsibilities. Brief personnel qualifications are listed on the following page and resumes for key personnel are provided in the appendix. Full resumes for all personnel are available upon request.



25E-439

FIRM AND TEAM EXPERIENCE

Name	Years	Role/Availability	Education, Certifications & Licenses
Amy Amirani, PE, QSD/QSP	37	Principal-in-Charge (20%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 34283 Qualified SWPPP Developer/Practitioner
David Niknafs, PE	30	Project Manager (30%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 42697
Charlie McKinley, PE	30	Project Manager/ Water (30%)	BS, Civil Engineering Civil Engineer CA, No.38484
Derek Wieske, PE	25	Quality Assurance/ Quality Control (20%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 49872
Phil Kern, PE	30	Project Engineer (20%)	BS, Civil Engineering Civil Engineer CA, No. 40831
Steve Schapel	25	Project Engineer (20%)	Engineering Courses
Kyle Hilton, EIT	6	Project Engineer (20%)	BS, Civil Engineering Engineer-in-Training OCTA Prequalified Pavement Inspector
Art Biscocho	22	Project Engineer (20%)	AA, Mechanical Engineering
Temo Molina	7	Project Engineer (20%)	BS, Civil Engineering Engineer-in-Training
Kevin Saish, PE, PMP	24	Project Engineer/ Water (20%)	BS, Civil Engineering Civil Engineer MD, No. 36759 Project Management Professional
Kiko Antunovich, PE	3	Project Engineer/ Water (20%)	BS, Civil Engineering Civil Engineer CA, No. 87904
Khanh Nguyen, EIT	17	Project Engineer/ Water (20%)	BS, Civil Engineering Engineer-in-Training
Vanessa Paneto, EIT	2	Project Engineer/ Water (20%)	MS, Civil Engineering BS, Civil Engineering Engineer-in-Training
Guillaume Gau, PE, GE	16	Geotechnical Engineering (10%)	MS, Civil Engineering/Geotechnical BS, Civil Engineering Civil Engineer CA, No. 70015 Geotechnical Engineer CA, No. 2936
Carlos Amante, PE, GE	23	Geotechnical Engineering (10%)	MS, Civil Engineering/Geotechnical MS, Civil Engineering/Earthquake Engineering BS, Civil Engineering Civil Engineer CA, No. 57631 Geotechnical Engineer CA, No. 2724
Kevin McHugh, PLS	35	Surveying (10%)	AA Mathematics Professional Land Surveyor CA, No. 6310
Paul Robotta	32	Surveying (10%)	BA, English JD Law Professional Land Surveyor CA, No. 6310

Name	Years	Role/Availability	Education, Certifications & Licenses
Tomi Asuma, AICP	35	Environmental (10%)	BA, Business Administration AICP, No. 016529 Certified Environmental Surveyor SDG&E Hazardous Materials and Site Assessment Certification
Mark Chomyn, RLA	40	Environmental (10%)	BS, University of Massachusetts AA, Stockbridge School of Agriculture Registered Landscape Architect CA, No. 2157 Certified Environmental Surveyor SDG&E
Deborah Collins	38	Environmental (10%)	BA, Geography
Rick Reyburn, PE	30	Electrical/Mechanical (10%)	BS, Electrical Engineering Electrical Engineering Licenses (multiple states)
Leslie Fernandez, PE, LEED AP	28	Electrical/Mechanical (10%)	BS, Electrical Engineering
Peter Salgado, PE	20	Construction Manager (20%)	BS, Civil Engineering Civil Engineer CA, No. 63159
Dianne Bean, PE	30	Construction Manager Water (30%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 50129
Bob Doss, PE	36	Construction Manager (30%)	MBA, Management BS, Civil Engineering Civil Engineer CA, No. 31236
Daniel Ojeda, PE	40	Construction Manager (30%)	BS, Civil Engineering Civil Engineer CA, No. 36968 CM Certificate Program, UCLA
Pedram Abbassi, LEED BD+C, QSP, CESSWI	13	Construction Manager (30%)	BS, Civil Engineering LEED BD+C Qualified SWPPP Practitioner
Akram Hindiyeh, PE, TE	40	Pavement Management (30%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 28510 Traffic Engineer CA, No. 1452 OCTA Prequalified Pavement Inspector
Deepak Solanki, EIT	28	Pavement Management (20%)	BS, Civil Engineering MS, Technology and Engineering OCTA Prequalified Pavement Inspector
Justin Griffin, PE, CFM, QSD/QSP	15	Hydraulic Modeling (20%)	BS, Civil Engineering Civil Engineer CA, No. 69994
Pete Golding, PE	43	Mapping/Legal Descriptions (20%)	BA, Mathematics Professional Land Surveyor CA, No. 4768
Jeffrey Cooper, PE	40	Assessment District Engineering (30%)	MS, Civil Engineering BS, Civil Engineering BA, Economics Civil Engineer CA, No. 51572

25E-440

PROJECT UNDERSTANDING WATER RESOURCES (OPTION A)

We understand that the City is seeking the design and construction support services for the **Santa Ana Water Project.** This project includes the rehabilitation of an existing water well approximately 30 years old, and the design of 1500-feet of 12-inch PVC water main and the construction of 600-feet of 15-inch sewer main on an arterial street. The City would like for the consultant to provide feedback regarding the material of choice for the sewer main improvements. Also, the City would like to connect this well to the water system, as of right now it does connect to an existing onsite reservoir. This well is a sand producer, and currently the capacity has dropped by approximately 35% of its maximum yield of 2000 GPM. The depth of the well is approximately 1100-feet, it has a vertical turbine pump with a 250hp motor. In addition, the screens are made of mild steel. No video or any other preventive maintenance has been done in the past 15 years.

Well Rehabilitation

Our proposed scope of work is divided into a two-phase approach. Phase I will include reconnaissance of the well to characterize the current condition and develop a rehabilitation plan. Phase II will be to perform the rehabilitation necessary to restore the well to proper working order.

Since the rehabilitated well is to be connected to the distribution system, NV5's design will include considerations for the following required appurtenances:

- Flow control valve
- Pump to waste system
- Chlorination
- SCADA connection

It is assumed that the well will be re-equipped with a new pump, motor, MCC, and appurtenances.

Water and Sewer Mains

Both the water main and sewer extensions will be designed according to City standards. NV5 would typically specify high-strength VCP for the proposed 15-inch sewer.

PROJECT UNDERSTANDING GENERAL ENGINEERING (OPTION B)

We understand that the City is seeking the design and construction support services for the **Mile One Street Project.** This project will follow a complete street concept. The length of the project is approximately 1,000 linear feet. Both intersections at the outer limits of the project

have been modified as part of the complete street project under previous phase. The proposed project consists of street rehabilitation, bicycle lane, sidewalk, and parkway improvements. The sidewalks are 6 feet wide and the parkways are 4 feet wide. The project also includes widening of the east side of the street to accommodate a new bicycle lane. The right of way is approximately 12 feet wide with three traffic lanes in each direction with a 14 foot wide median. The required right of way has been acquired by the City.

GENERAL APPROACH

Work Breakdown Structure

Upon issuance of a notice to proceed, our project manager will meet with team members to review the requirements, prepare a Work Breakdown Structure and make team assignments for maximum efficiency of resources. The detailed WBS will describe all of the work tasks necessary to complete the project. A master project schedule will be prepared following the WBS to show the relationship between tasks, the expected start date and duration for each item. This schedule will serve as a guide to conducting and monitoring the progress of the work and to ensure projects are completed on time and within budget. To ensure accurate monitoring and tracking of documents, revisions and progress, a document tracking and control system will be developed. We will meet with City project representatives regularly and maintain constant communication to ensure successful and timely delivery of the project. Meeting minutes will be distributed within one week of the meeting identifying actions, items, assignments and due dates.

Cost Control

We are able to continually review and evaluate a project's cost through all project phases to enable informed and

timely decision-making by our clients and the entire project team. Cost control techniques include: program budget analysis; value engineering; life-cycle cost analysis; and quantity-based estimating. We rely on an open-book, inclusive process that demonstrates the costs and benefits of varying design options. This budget confirmation process starts in the earliest stages of the project, when design and engineering alternatives have the greatest potential impact on costs. Our design teams analyze client goals, technical requirements, alternative building concepts, construction costs and long-term operational costs to define the optimum scope within the budget, ensuring long-term flexibility and value.

Schedule Control

The key to effective schedule control is to measure actual progress and compare it to planned progress on a regular basis and to take necessary corrective action immediately. We propose to supplement each major task as identified in the master project schedule with a supplemental schedule to keep careful track of where each individual component stands. We identify problems that may result from delays and readily provide the opportunity to modify the schedule, as required. This process ensures the completion of your projects on schedule.

Innovative and Successful Approaches

Our team focuses on providing safe, cost-effective, reliable, and sustainable improvements using innovative design and contracting techniques that meet the needs of the taxpayers, meet or exceed the minimum standards based on design improvements, and minimizes impacts to adjacent properties and vehicular and pedestrian traffic. Our experience engineering staff provides lower-cost or lower-impact alternatives in order to develop the least disruptive and least expensive designs.

In addition, the NV5 team utilizes the latest in civil engineering design software to facilitate timely, efficient, and innovative engineering solutions for our clients. Our team relies on a host of computer resources, including up-to-date, state-of-the-art technology that is in use today throughout the engineering industry. We make maximum use of PC-based CADD systems that allow for the storage of typical details, establish similarity of plan layouts, and enable rapid duplications for the efficient preparation of plan sheets.

Our team also provides construction management for public works projects to several local agencies. We will have our in-house construction management staff review plans and specifications for constructability. This is a good opportunity to obtain the view of those from the field and reduce potential difficulties that may be encountered during the construction of a project.

Quality Assurance/Quality Control

For every design project, our team uses a time-tested and proven project quality manual, which describes the project quality process to be followed during the development of the design documents and other project deliverables. In general, we undergo the following quality reviews:

Project Concept Review: Reviews basic concepts for feasibility and conformance to project criteria and evaluates engineering decisions based on cost, constructability and risk management.

Discipline Review: Verifies the work for each of the technical disciplines, including subconsultants. Each subconsultant discipline has a review checklist for each submittal to ensure technical accuracy and that there are no conflicts with the civil design and other disciplines.

Graphics/CAD Standards Review: Verifies that drawings meet graphic and CAD standards for each project, taking into consideration: color; weight; level style; and level.

Project Manager Review: Confirms that project deliverables conform to the scope of work and that documents supplied by others (i.e., client, subconsultants, etc.) are properly incorporated.

In-House Constructability Review: In-house construction managers and inspectors review the plans to ensure feasibility of construction and coordination of drawings.

Client Comment Review: Assures that client comments have been addressed; we will either use our standard comment letter response or one provided by the City.

Coordination Review Meeting: Coordinate all work of the disciplines.

QA/QC Review: Independent review to verify the accuracy, completeness and coordination of drawings, specifications and cost estimates for all design disciplines.

RELEVANT PROJECT EXPERIENCE

A. WATER RESOURCES - RELEVANT PROJECT EXPERIENCE AND REFERENCES

PACIFIC COAST HIGHWAY WATER MAIN | CITY OF LOMITA

Our team is currently providing design engineering services for the preparation of plans, specifications, and cost estimates for the Pacific Coast Highway water main replacement project from Narbonne Avenue to Eshelman Avenue. This project consists of replacing the existing dual 6-inch water mains, including the installation of fire hydrants, service laterals, valves, blow-offs, air release valves, and other associated water appurtenances. The City's 2015 Water Master Plan recommended replacement of the existing with new 6-inch Polyvinyl Chloride (PVC), but the City is requesting that proposers consider 8-inch water mains for replacement.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Lomita	24300 Narbonne Avenue Lomita, CA 90717	September 2017 COMPLETION DATE Current	TBD CONTRACT $55k	Amy Amirani, Kiko Antunovich, David Azim

SERVICES PROVIDED
- Engineering design

PASEO DE VALENCIA LIFT STATION | MOULTON NIGUEL WATER DISTRICT

Our team is currently providing design engineering services for the preparation of plans, specifications, estimates and construction support to rehabilitate and upgrade the existing lift station by replacing the existing pumps, mechanical, electrical and associated equipment. Plans will include provisions for a future odor control system in the new electrical equipment and for a portable generator plug-in connection and associated equipment.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
Moulton Niguel Water District Dave Larsen, Principal Engineer	27500 La Paz Road Laguna Niguel, CA 92677	May 2017 COMPLETION DATE Current	TBD CONTRACT $120,000	Amy Amirani, Kevin Saleh, Khanh Nguyen, Kiko Antunovich

SERVICES PROVIDED
- Engineering design

CORRYNE AND SLAUSON AREA MAIN REPLACEMENTS | GOLDEN STATE WATER COMPANY

Our team completed the engineering design of waterline improvements for GSWC in its Culver City Water System, located in Los Angeles County. The design consisted of replacing and abandoning 1,600 LF of undersized pipe with 8-inch and 12-inch PVC, connections to existing mains, and replacement of existing fire hydrants and water services. The project was located in the public right of way (ROW) along with a portion in the Caltrans ROW. Significant coordination with Caltrans took place throughout the project as a section was located under the freeway overpass. The CivilSource team also created in-house traffic control plans and obtained Caltrans Encroachment Permit.

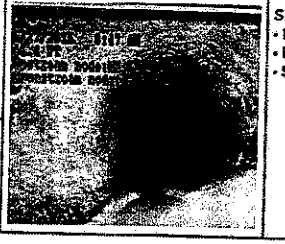
OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
Golden State Water Company Joe Farah	2143 Convention Center Way, Ste 110, Ontario, CA 91764	February 2017 COMPLETION DATE December 2017	TBD CONTRACT $47,000	Amy Amirani, Kevin Saleh, Khanh Nguyen, Kiko Antunovich

SERVICES PROVIDED
- Engineering design

RANDOLPH AVENUE AND IMPERIAL HIGHWAY SEWER MAIN REPLACEMENT | CITY OF BREA

Our team provided professional design engineering services for sewer improvements on Randolph Avenue from the Brea Mall across Imperial Highway to Randolph Creek and then to State College Boulevard, and also on State College Boulevard from approximately 160 feet north of Lambert Road (Brea United Methodist Church) to approximately 360 feet southerly across the intersection. CivilSource was also responsible for preparing applications and securing permits for the construction of the proposed facilities from the City of Brea, Caltrans District 12, Union Pacific Railroad, Army Corps of Engineers, State of California Department of Fish and Wildlife, and Orange County Flood Control.
Project Highlight: Innovative design for construction within Brea Creek and coordination with USACOA. 4 Alternative alignments were studied.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Brea Hsing Chao, Associate Engineer	1 Civic Center Circle Brea, CA 92821	February 2015 COMPLETION DATE November 2015	$1.5M CONTRACT $110,000	Amy Amirani, Steve Schapel, Kevin Saleh, Khanh Nguyen, Tyler Pham



SERVICES PROVIDED
- Engineering design
- Environmental/permitting
- Subsurface utility engineering

25E-443

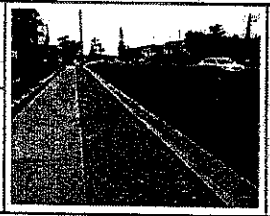
RELEVANT PROJECT EXPERIENCE

A. WATER RESOURCES - RELEVANT PROJECT EXPERIENCE AND REFERENCES

LINCOLN AVENUE 12-INCH WATERLINE REPLACEMENT | CITY OF ANAHEIM PUBLIC UTILITIES DEPARTMENT

Our team provided design engineering services for waterline improvements in the City of Anaheim. The project included installing 3,000 LF of new 12-inch ductile iron pipe (DIP) water main; connections to existing mains; abandonment of 1,300 LF of existing 6-inch and 1,650 LF of existing 8-inch cast iron pipe (CIP) water main; and replacement of existing fire hydrants, water service lines, and meters. The designed improvements considered two future connections to a proposed looped 8-inch DIP tract main of an adjacent town home community in the design development phase.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Anaheim **Public Utilities Department** **Rudy Emami** **Public Works Director**	**200 S. Anaheim Boulevard, Suite 276** **Anaheim, CA 92805** **(714) 765-5148** **remami@anaheim.net**	**January 2015** COMPLETION DATE **July 2015**	**$1M** CONTRACT **$80,000**	***Amy Amirani, Safa Kamangar, Kevin Saleh, Khanh Nguyen, Hooman Jalaie***

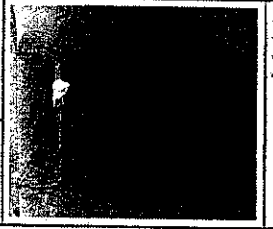


SERVICES PROVIDED
- **Engineering design**
- **Planning studies, system optimization, hydraulic modeling**
- **Land surveying**
- **Subsurface utility engineering**

ANNUAL SEWER REHABILITATION PROGRAM | CITY OF FOUNTAIN VALLEY

Our team prepared plans to replace or repair approximately 20 manholes, including inspecting and evaluating deficiencies. The improvements included concrete repair around manholes; power wash of manholes; CCTV inspection of sewer installation; pavement restoration per City standards; potholing as required to identify location of crossing utilities or conflicts; and traffic control per City standards; and relining with a polyurethane coating. The project also included spot repair and cured in place pipe (CIPP) lining of several pipe segments, only CIPP lining of sewer segments, and removal and replacement of sewer pipeline. The project consisted of more than 30 pipeline segments throughout the City. CivilSource provided project studies and recommendations; plans, specifications and estimates; and construction support.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Fountain Valley **Temo Galvez, Deputy City Engineer**	**10200 Slater Avenue** **Fountain Valley, CA 92708**	**August 2014** COMPLETION DATE **August 2015**	**$1.3M** CONTRACT **$90,000**	***Amy Amirani, Safa Kamangar, Kevin Saleh, Khanh Nguyen, Tyler Pham***



SERVICES PROVIDED
- **Engineering design**
- **Land surveying**
- **Subsurface utility engineering**

WESTERN AVENUE SEWER IMPROVEMENTS | CITY OF STANTON

Our team provided plans, specifications and cost estimates for the replacement of approximately 1,400 LF of existing 12-inch diameter VCP gravity sewer with hydraulic deficiencies and structural defects. The sewer was replaced with a 15-inch diameter VCP gravity pipe. Improvements also included street improvements. Project Highlight: Design of the by-pass system, traffic control plans, and gravity sewer line.

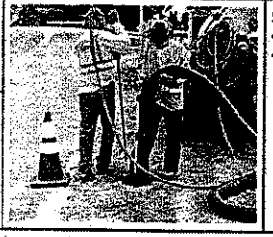
OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Stanton **Allan Rigg** **Public Works Director**	**7800 Katella Avenue** **Stanton, CA 90680** **(714) 890-4203** **arigg@ci.stanton.ca.us**	**January 2014** COMPLETION DATE **April 2015**	**$800,000** CONTRACT **$42,000**	***Amy Amirani, Safa Kamangar, Khanh Nguyen, Art Biscocho***

SERVICES PROVIDED
- **Engineering design**
- **Land surveying**

SILVERADO CANYON ROAD DOMESTIC WATER PIPELINE IMPROVEMENTS | IRVINE RANCH WATER DISTRICT

Our team provided design services for approximately 8,500 LF of 12-inch PVC DR 14 waterline construction in the County of Orange unincorporated area to replace existing old and deteriorated Cement-Mortar Lined & Coated Steel pipeline.
Project Highlight: More than one mile of new 12-inch PVC pipe to replace existing 8-inch CMCFC pipe in unincorporated areas of County of Orange. Special trenching and backfill due to bedrock. No change order. Named IRWDs Best Pipeline Project by staff. .

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
Irvine Ranch Water District **Jeffrey Smyth, Engineer**	**15600 Sand Canyon Avenue** **Irvine, CA 92619-7000** **(949) 453-5751**	**December 2013** COMPLETION DATE **April 2014**	**$1.2M** CONTRACT **$110,000**	***Amy Amirani, Safa Kamangar, Thom Coughran, Jeff Carvey, Khanh Nguyen***



SERVICES PROVIDED
- **Engineering design**
- **Land surveying**

25E-444

RELEVANT PROJECT EXPERIENCE

B. GENERAL ENGINEERING OTHER THAN WATER RESOURCES

PACIFIC COAST HIGHWAY ARTERIAL IMPROVEMENTS | CITY OF REDONDO BEACH

Our team is conducting a comprehensive traffic analysis and preparing design recommendations to reduce congestion and increase safety on Pacific Coast Highway. Project limits are between Anita Street to the north and Palos Verdes Boulevard to the south. CivilSource is preparing final plans, specifications and cost estimates for the intersection widening for a right-turn-only lane on southbound Pacific Coast Highway and Torrance Boulevard. CivilSource will provide design and support services during bidding and construction phases.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Redondo Beach Didar Khandker Project Manager	415 Diamond Street Redondo Beach, CA 90277 (310) 318-0661 didar.khandker@redondo.org	November 2016 COMPLETION DATE Current	$1.4M CONTRACT $235K	Amy Amirani, David Niknafs, Steve Schapel, Tyler Pham, Art Biscocho, Kyle Hilton

SERVICES PROVIDED
- Street Design
- Drainage/Catch Basin Improvements
- Bike Lane Improvements
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping
- Traffic/Signal Modifications

HARBOR BOULEVARD MEDIAN & LANDSCAPING IMPROVEMENTS | CITY OF COSTA MESA

Our team provided professional engineering and environmental services for the design of improvements on Harbor Boulevard. The City was awarded Federal Highway Safety Improvement Program (HSIP) funds to install medians, landscaping, and associated improvements along Harbor Boulevard to improve pedestrian and traffic safety. The project is structured in the four following phases:

- Phase 1: Existing Plan Review, Survey and Preliminary Design, which consists of defining the physical conditions and utilities within the project limits, preparation of preliminary design plans, establishing the proposed design features, and participating in public dialogue and meetings.
- Phase 2: Environmental Analysis and Approval, which consists of preparation of a Preliminary Environmental Studies document and all associated work required to receive environmental compliance.
- Phase 3: Final Civil Engineering Design, which consists of preparation of the final plans, specifications and estimates necessary to construct the improvements.
- Phase 4: Federal Approval for Construction and Construction Support, which consists of preparing all federal forms required to obtain State and Federal E76 certification.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Costa Mesa Bart Mejia City Engineer	77 Fair Drive Costa Mesa, CA 92626 (714) 754-5378 bart.mejia@costamesaca.gov	March 2016 COMPLETION DATE Current	$675K CONTRACT $160K	Amy Amirani, David Niknafs, Art Biscocho, Reynaldo Ycu

SERVICES PROVIDED
- Street Design
- Landscaping/Irrigation
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping
- Funding Oversight

REHABILITATION OF VARIOUS STREETS | CITY OF LYNWOOD

Our team provided street improvement design plans, contract documents, specifications, estimates, and other appurtenant work for the rehabilitation of Wisconsin Avenue (from Long Beach Boulevard to State Street), Sequoia Drive (from Long Beach Boulevard to State Street) and Cornish Avenue (from Le sage Avenue to Shirley Avenue) in the City of Lynwood, California. Improvements included rehabilitation of asphalt concrete, reconstruction of concrete curb and gutters, sidewalks, cross-gutters, curb ramps and drive approaches, tree removal and parkway restoration, removal of existing and non-functional street lights and footing, removal and replacement of regulatory and other street signs, removal and installation of new fire hydrants, traffic striping, utility and other agency coordination, and bid assistance.

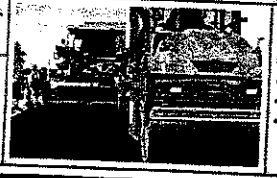
OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Lynwood Elias Saikaly CIP Manager	11330 Bullis Road Lynwood, CA 90262 (310) 603-0220 esaikaly@lynwood.ca.us	March 2016 COMPLETION DATE August 2016	$800K CONTRACT $50K	Amy Amirani, David Niknafs, Safa Kamangar, Steve Schapel, Tyler Pham, Art Biscocho

SERVICES PROVIDED
- Street Design
- Pedestrian Improvements
- Bicycle Lane Improvements
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping
- Traffic/Signal Modifications

177TH STREET IMPROVEMENTS | CITY OF TORRANCE

Our team prepared the plans, specifications, and estimates for the rehabilitation of 177th Street, from Prairie Avenue to Hawthorne Boulevard. Improvements include pavement rehabilitation, construction of missing and/or damaged concrete curb, gutter, sidewalks, ADA ramps, and cross-gutters; and removal and replacement of trees, and sewer and manhole repairs.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Torrance Craig Bilezerian Deputy Public Works Director/ City Engineer	20500 Madrona Avenue Torrance, CA 90503 (310) 781-6900 cbilezerian@torranceca.gov	March 2016 COMPLETION DATE August 2017	$1M CONTRACT $65K	Amy Amirani, David Niknafs, Steve Schapel, Tyler Pham, Kyle Hilton, Art Biscocho



SERVICES PROVIDED
- Street Design
- Landscaping/Irrigation
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping

25E-445

RELEVANT PROJECT EXPERIENCE

B. GENERAL ENGINEERING OTHER THAN WATER RESOURCES

NORTH LA BREA AVENUE "GREEN STREET" IMPROVEMENTS | CITY OF INGLEWOOD

Our team is currently providing comprehensive design services and will deliver final PS&E for this "Green Street" improvement project for the City of Inglewood. The project consists of the street rehabilitation of North La Brea Avenue from the northerly side of Florence Avenue to the City limits located north of 64th Street. The purpose of the project is to mitigate existing distressed asphalt paving to the maximum extent possible and address stormwater runoff issues. As part of the design process, our team evaluated all available design alternatives and developed an NPDES/MS4-compliant stormwater management plan that takes advantage of a network of pervious surfaces within the parking lanes and green areas with the median and parkway. Other improvements included: repair of damaged sidewalks, curbs and gutters, cross-gutters, alley gutters and driveway approaches; assessments of curb ramps for ADA compliance; relocation of water meter and other utility boxes into street parkways; landscape and root pruning; installation of pavement markers and striping to current standards; reconstruction of bus stop pads and channelization islands.

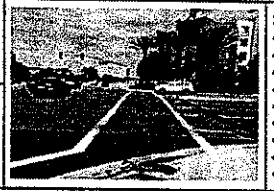
OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Inglewood Eloy Castillo Principal Engineer	One Manchester Boulevard Inglewood, CA 90301 (310) 412-8716 ecastillo@cityofinglewood.org	February 2017 COMPLETION DATE March 2018	$2.7M CONTRACT $190K	Amy Amirani, David Niknafs, Art Biscocho, Kyle Hilton, Reynaldo Ycu

SERVICES PROVIDED
- Street Design
- Stormdrains
- NPDES/MS4 Compliance
- Landscaping/Irrigation
- ADA Sidewalks/Curb/Cutters
- Utility Coordination
- Signing/Striping
- Bus Pads

JAMBOREE WIDENING (FROM MAIN STREET TO BARRANCA) | CITY OF IRVINE

Our team is currently providing project management services for the widening of Jamboree Road from Main Street to Barranca Parkway. The project will widen Jamboree Road from four to five through lanes in each direction. Intersection improvements at Jamboree/Main and Jamboree/Barranca are currently in the design and right of way phases and shall be constructed along with the widening. Preliminary concept plans have been developed. Scope of work includes providing staff, technical expertise, and project management and administration to complete environmental, design, right-of-way, utility coordination, bidding and construction activities.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Irvine Manuel Gomez Director of Public Works	1 Civic Center Plaza Irvine, CA 92606 (949) 724-6000 mgomez@ci.irvine.ca.us	February 2016 COMPLETION DATE Current	$10M CONTRACT $950K	Amy Amirani, David Niknafs, Safa Kamangar, Tyler Pham, Kyle Hilton



SERVICES PROVIDED
- Street Design
- Pedestrian Improvements
- Bicycle Lane Improvements
- ADA Sidewalks/Curb/Cutters
- Utility Coordination
- Signing/Striping
- Traffic/Signal Modifications
- Environmental Services
- Right-of-Way

WILMINGTON AVENUE PEDESTRIAN AND BICYCLE IMPROVEMENTS | CITY OF COMPTON

Our team provided professional design engineering services, including plans, specifications, cost estimates and related bid documents, for this Safe Routes to School project. The project included pavement rehabilitation, various pedestrian and bicycle improvements, the installation of wider and colored crosswalks, countdown pedestrian signals, enhanced pedestrian lighting, the installation of Class II bike lanes with wayfinding signage and Class I bike paths, the installation of four solar-powered speed feedback signs for speed control and attainment.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Compton Glen Kau Public Works Director	205 South Willowbrook Avenue Compton, CA 90220 (310) 605-5505 gkau@comptoncity.org	August 2016 COMPLETION DATE January 2017	$1.4M CONTRACT $84K	Amy Amirani, David Niknafs, Art Biscocho, Kyle Hilton, Cody Partovi

SERVICES PROVIDED
- Street Design
- Pedestrian Improvements
- Bicycle Lane Improvements
- ADA Sidewalks/Curb/Cutters
- Utility Coordination
- Signing/Striping
- Traffic/Signal Modifications

INDUSTRIAL WAY WATER QUALITY AND STORM DRAIN IMPROVEMENTS | CITY OF COSTA MESA

Design of the Industrial Way Water Quality and Storm Drain Improvements with the objective to eliminate the flooding and current water quality problems caused by the deficiencies within the existing storm drain system. The project consisted of installing an underground detention/infiltration facility within an open grass field located south of the Anaheim Avenue and 19th Street intersection. The detention/infiltration area measures 190 ft. wide by 160 ft. long with a depth of 3 ft. A 2'X8' RCB inflow and an 18-inch diameter outlet pipe will connect to the existing storm drain system located within Anaheim Avenue. The proposed basin will accommodate 1.5 acre-ft. to 2.0 acre-ft. Next to the existing 30-inch pipeline, a parallel storm drain facility within Anaheim Avenue will be constructed. The storm drain system will consist of 1,000 lineal ft. of 10ft. by 3 ft. RCB. Work also included improvements to sewer lines owned by Costa Mesa Sanitary District.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Costa Mesa Bart Mejia City Engineer	77 Fair Drive Costa Mesa, CA 92626 (714) 754-5378 bart.mejia@costamesaca.gov	July 2014 COMPLETION DATE January 2015	$1.2M CONTRACT $90K	Safa Kamangar, Khanh Nguyen, Art Biscocho, Steve Schapel

SERVICES PROVIDED
- Water Quality Improvements
- Storm Drain Improvements

25E-446

REFERENCES

Client	Contact/Title	Phone / Email	Address
City of Costa Mesa	Bart Mejia, City Engineer	714.754.5378 bart.mejia@costamesaca.gov	77 Fair Drive Costa Mesa, CA 92626
City of Hermosa Beach	Glen Kau, Public Works Director/ City Engineer	310.318.0222 gkau@hermosabch.org	1315 Valley Drive Hermosa Beach, CA 90254
City of Stanton	Allan Rigg, Public Works Director/ City Engineer	714.890.4203 arigg@ci.stanton.ca.us	7800 Katella Avenue Stanton, CA 90680

SCOPE OF SERVICES
WATER RESOURCES (OPTION A)

Our Scope of Services incorporates the tasks identified by the City in the RFP, and as expanded below.

Well Rehabilitation

PHASE I – WELL RECONNAISSANCE

1. Dynamic Well Evaluation

a. Perform Aquifer Pumping Tests

In order to evaluate the current health of the well, and to provide a baseline from which to measure the effectiveness of the Phase II work, aquifer pumping tests should be performed. These tests will provide current well and aquifer characteristics along with providing sand readings over time from start of pumping. Recovery measurements should be collected for a minimum of two (2) hours following the constant rate pumping test. The recommended aquifer pumping tests are as follows:

- Step Drawdown Pumping Tests - to determine specific capacity and well efficiency relationships. Typically three to four rates are selected for pumping beginning at the lowest rate and working up to the highest.
- Constant Rate Pumping Test & Recovery Test - time drawdown and recovery measurements will be made to determine aquifer parameters such as transmissivity and storativity. It is recommended that the constant rate test be conducted for a minimum of 12 hours with 2 hours of recovery measurements.

Our subconsultant, GEOSCIENCE will provide full-time inspection during pumping and recovery tests.

2. Static Well Evaluation

a. Remove Existing Pump and Equipment From Well

GEOSCIENCE has teamed with Best Drilling and Pump, Inc. (Best) to perform work associated with removal of equipment from the well. Best will remove the existing pumps, motors, and column pipes from the well and store this equipment in the immediate area around the well site. At the completion of all activities, Best will reinstall the pump and equipment to their original depths. Our cost proposal for this task includes Contractor fees.

b. Perform Initial Video Inspection

Once the pump is removed, Pacific Surveys, LLC (Pacific) under the supervision of GEOSCIENCE personnel, will perform a dual-scan downhole video survey of the well. The purpose of the video surveys will be to document the current condition and look for areas of damage and/or plugging in the well screen. GEOSCIENCE will provide full-time inspection during each video survey. The cost for the surveying Contractor is included in the proposal.

3. Results and recommendations

At the conclusion of the Phase I evaluation, GEOSCIENCE will prepare a letter report that summarizes the details and results of the work performed. This report will include:

- Chronology of field activities,
- Analysis of aquifer pumping tests,
- Evaluation of current well conditions, and
- Recommendations for further rehabilitation procedures.

The letter report will be presented to the City in 100% DRAFT electronic format for review and comment. City comments will be incorporated and GEOSCIENCE will issue a 100% FINAL version in electronic format, as well as three (3) hard copies. For cost estimating purposes, it is assumed that one round of comments will be addressed before a 100% FINAL version is prepared.

PHASE II – WELL REHABILITATION

Based on the results of the activities described in Phase I, some or all of the following tasks may be appropriate for the proper rehabilitation of the well. Regardless of what tasks are decided upon, it will be necessary for the City to contract directly with a licensed C-57 drilling Contractor to perform this work. The following scope items are for GEOSCIENCE to assist the City with procuring a qualified Contractor and providing field supervision during Contractor activities.

1. Project Construction Management

GEOSCIENCE will provide construction management services during Phase II of the well rehabilitation to ensure that all aspects of the project are carried out in a proper and efficient manner. Construction management activities will include, but not limited to, attending a pre-construction meeting with prospective Contractors, responding to Contractor RFI's, review of Contractor submittals and invoices, review of change order requests, and providing status updates to City personnel. In addition we will ensure that all work is performed to the satisfaction of regulatory agencies. In addition, GEOSCIENCE will assist, as necessary, with the procurement of any permitting required to perform this work, including NPDES requirements.

2. Pre-Construction Meeting and Pre-Mobilization Coordination with Contractor

GEOSCIENCE will attend one pre-construction meeting with the selected Contractor and City personnel to review key issues within the contract documents and technical specifications. In addition, questions will be addressed regarding hydrogeologic and logistical matters. Items to be discussed at the meeting will include (but not be limited to) required submittals and inspections, permitting, discharge issues, work schedule, invoicing, and communication protocols. Additionally, at the time of the pre-construction meeting, the prospective Contractor will have the opportunity to visit the well site to satisfy themselves regarding conditions that may affect equipment set up. At the time of the meeting, the Contractor will have the opportunity to point out any issues that they may have regarding preparation of the site for the work. GEOSCIENCE will coordinate Contractor activities prior to mobilization. This will include verifying that the Contractor has provided all submittals required by the technical specifications and that equipment delivered to the site meets the requirements of the specifications. It is assumed that all rehabilitation work will be bid under one contract and that attendance at only one pre-construction meeting for this Phase will be necessary.

3. Technical Plans and Specifications

GEOSCIENCE will prepare detailed technical plans and specifications for the rehabilitation of the City well based on observations obtained in Phase I, including a detailed bid schedule with specific line items showing units and unit quantities for the work. Items included in the technical specifications will include (but are not limited to) the following:

- Well location, depth, dimensions, and materials;
- Permits and regulatory requirements;
- Compliance with discharge requirements (as necessary);
- Job conditions (e.g., noise suppression, waste materials, runoff management, power, lighting, water, security, sanitation, parking, traffic control, and work damage);
- Mobilization, demobilization, clearing, grubbing, and site cleanup;
- Equipment, materials, and records to be furnished by the Contractor;
- Records to be kept by the Contractor;
- Well repair by swaging;
- Well cleaning by brushing and bailing;
- Well cleaning by chemical injection;
- Well redevelopment by airlifting and swabbing;
- Well redevelopment by pumping and surging;
- Aquifer pumping and recovery test protocol;
- Flowmeter survey;
- Field ground water quality monitoring protocol;
- Ground water sampling protocol;
- Post-rehabilitation "dual-cam" downhole video survey; and
- Final well disinfection.

GEOSCIENCE will submit an electronic copy of a 100% DRAFT version of the technical plans and specifications to the City for review and comment. Comments to the draft will be incorporated and GEOSCIENCE will submit one (1) electronic copy and three (3) bound hard copies of the 100% FINAL technical specifications.

4. Field Inspection

a. Well Modification by Swaging

If any damage to the well casing and screen is observed from the downhole video survey, it may be necessary to swag a patch to stabilize filter pack and formation material from entering the well during operation. If this is deemed necessary, GEOSCIENCE will provide full-time inspection while any patches or repairs are made.

b. Initial Brushing and Bailing of Well Casing and Screen

A vigorous mechanical brushing procedure should be implemented to loosen and dislodge a maximum amount of surface encrustation and/or bio-fouling materials. GEOSCIENCE will provide part-time inspection during brushing and bailing of the well to monitor the progress of the task and to ensure that the proper methods and equipment are employed. GEOSCIENCE will provide direction to Contractor regarding problem areas of the well screen that may require additional work.

c. Chemical Rehabilitation

Following mechanical rehabilitation, the well should undergo chemical cleaning to remove biofilm produced by bacteria, clays and fine-grained sediments, as well as assisting in removing biological and mineral deposits that may be clogging the perforations and near-well zone. The exact nature of the chemicals to be used shall be recommended based on the results of the downhole video survey (Phase I) and review of the wells water chemistry. GEOSCIENCE will provide full-time inspection during mixing and application of the chemical mixture to ensure proper chemical concentrations and proper dispersal throughout the well casing and screen.

d. Initial Redevelopment by Swabbing and Airlifting

Initial well redevelopment by swabbing and airlifting is an extremely important component of the well redevelopment process. GEOSCIENCE anticipates that at least 60 hours of redevelopment by swabbing and airlifting will be necessary to properly remove and neutralize the chemicals introduced in Task 6.3, and to redevelop the filter pack and near well zone. GEOSCIENCE will provide part-time inspection during the airlift development process and will closely monitor discharge water turbidity and sand content to track the development progress of the well. GEOSCIENCE will carefully follow sand concentrations within the discharge throughout the process and will provide direction to the Contractor should particular areas of the screen require additional work to reduce the sand to a minimum.

e. Final Redevelopment by Pumping and Surging

Final redevelopment by pumping and surging is a particularly important part of the redevelopment process and requires close monitoring of water level and discharge data as well as sand content. GEOSCIENCE will monitor final development on a part-time basis. Tests for sand content and specific capacity will be performed frequently to measure the advancement of the development process and to ensure that the well is fully developed before beginning the aquifer pumping tests. GEOSCIENCE anticipates that a minimum of 40 hours will be necessary for thorough redevelopment.

f. Step Drawdown and Constant Rate Pumping Tests

Once final redevelopment is determined to be complete, pumping tests will be performed on the well to determine any changes to well and aquifer characteristics and to document sand readings over time from start of pumping. Recovery measurements should be collected for a minimum of four (4) hours following the constant rate pumping test. The recommended aquifer pumping tests are as follows:

- Step Drawdown Pumping Tests - to determine specific capacity and well efficiency relationships. Typically three to four rates are selected for pumping, beginning at the lowest rate and working up to the highest.
- Constant Rate Pumping Test & Recovery Test - time drawdown and recovery measurements will be made to determine aquifer parameters such as transmissivity and storativity. It is recommended that the constant rate test be conducted for 24 hours with 4 hours of recovery measurements.

GEOSCIENCE will provide full-time inspection during the step drawdown test and part-time inspection during the 24-hour constant rate and recovery test.

g. Post-Redevelopment Downhole Video Survey and Well Disinfection

It is recommended that a dual-scan downhole video survey be conducted within the well following redevelopment and testing to serve as a record of the post-redevelopment condition of the well casing and screen. GEOSCIENCE will provide full-time inspection during the video survey.

The well should be disinfected as soon as redevelopment and aquifer pumping tests have been performed. A strong chlorine solution should be added to the well following removal of the test pump to obtain a required minimum concentration of 200 milligrams per liter (mg/L) free chlorine concentration. GEOSCIENCE will provide full-time inspection of well disinfection to ensure that the proper concentrations of chlorine are used and that the chlorine is properly injected and dispersed within the well.

5. Prepare summary letter report

At the conclusion of rehabilitation activities, GEOSCIENCE will prepare a letter report in 100% FINAL format that summarizes the details of the redevelopment and testing process. The report will, at a minimum, include the following:

- Pre-redevelopment well condition,
- Chronology of activities,
- Description of methods used during well redevelopment,
- Well redevelopment results and post-redevelopment well condition,
- Analysis and results of aquifer pumping tests, and
- Other pertinent data, analytical results, recommendations and conclusions.

Water and Sewer Pipeline Design

TASK 1 – PROJECT ADMINISTRATION

Prior to the start of the project, we will have a kick-off meeting with City Staff and the project team to review the project objectives, schedule, the scope and approach. At this meeting, we will establish a point of contact for the project and request all available information related to the project. In addition, the NV5 Project Manager will coordinate all aspects of the project and manage the schedule and costs to ensure the project's completion to the satisfaction of the City.

TASK 2 – RESEARCH EXISTING CONDITIONS

A) Research – Perform research of records including utilities, other agency records as necessary to secure information required to identify, locate, and accurately layout all existing utilities, improvements, easements, and rights-of-way within project limits that may interfere with the proposed improvements. The information to be researched will be, as a minimum, the following:

1. Review existing utility and street record drawing plans.
2. Perform utility investigation/utility coordination and provide utility relocation recommendations, if necessary.
3. Perform field investigation and measurement to assess existing site conditions.
4. Provide a copy of all utility notifications and responses prior to first progress payment request.

B) Surveying – Perform a topographic survey along the pipe alignment to include the following:

1. Provide topographic survey using City standard North American Datum 1983.
2. Provide one (1)-foot contours based on City of Santa Ana vertical datum (NGVD 88).
3. Provide spot elevations at critical locations along the alignment to verify vertical control, check existing utilities, such as sewer manholes and storm drain junction structures.
4. Survey flow-line elevations of existing underground sewer and storm drain utilities crossing proposed pipeline.
5. Provide spot elevations at all locations where existing utilities are potholed.
6. Show surface features and visible indications of existing utilities to include curbs and gutters, sidewalks, and other elements relevant to prepare a comprehensive topographic map suitable for pipeline design and construction.
7. Establish street centerlines, right-of-way lines, and easements from available record information.
8. Provide the basis-of-bearing and benchmark information used for the survey and necessary for construction.

C) Utility Locating/Potholing – Perform necessary research to identify all existing utilities and potential conflicts. Pothole existing utilities to verify depth and location (assume 15 potholes). Measure and identify in the potholing report the depth of pavement and base material at each location potholed. Provide all required traffic control and surface repair necessary for potholing work.

TASK 3 – PRELIMINARY DESIGN

Develop a preliminary design of the project site to review with City staff. An approximate 30% design level will constitute a Preliminary Design for this project. Preliminary design will include, but not limited to the following:

- Existing utilities
- Existing pavement, curb, gutter, sidewalk, driveways
- Permitting requirements
- Traffic impacts
- Easement requirements
- Proposed pipe alignment and connections
- Proposed pavement, curb, gutter, sidewalk, driveways
- Based on survey results and City input, NV5 will design proposed water and sewer improvements
- Preliminary construction cost estimate
- Schedule

TASK 4 – FINAL ENGINEERING AND PREPARATION OF CONSTRUCTION CONTRACT DOCUMENTS

Final Engineering will include detailed engineering calculations, design, construction plans, and engineer's construction cost estimate for the project that will enable the City to advertise and award the construction contract for the project. Components of this task include:

A) Plan and Project Documents Preparations (75%, 100%, and Final) – NV5 will submit one (1) set of 24-inch x 36-inch and two (2) sets of 11-inch x 17-inch plans on bond paper for each submittal. Paper submittals will be accompanied by a CD with scanned images (PDF files) of submittals. The final submittal will include one (1) set of 24-inch x 36-inch original signed/sealed plans on bond paper, one (1) set of bid form, opinion of construction cost, and electronic files as described herein.

City will review and return 60% plans with comments pertaining to required improvements for the project. Plans and project documents submitted as 100% will incorporate all comments. NV5 will provide a digital copy of the approved project plans in Microstation V8i and PDF to the City on a compact disc.

B) Engineer's Construction Cost Opinion

1. Engineer's construction cost opinion and quantity takeoff (in MS Excel format) for use by the City to advertise for bid.
2. Bid schedule/measurement and payment.

3. Estimated bidding/construction schedule.

C) Preparation of Record Documents – The construction contractor will provide to the City as-built plans showing changes made during the course of construction. NV5 will prepare record drawings using as-built drawings provided by contractor and reviewed by construction inspector, as well as additional inspector markups, and field notes. NV5 will use City-provided record drawing stamp and will sign final record drawings. Submit the following:

1. One (1) set of 24-inch x 36-inch mylar "Record Drawings"
2. One (1) DVD with the record drawing files saved in Microstation V8i and PDF formats

Anticipated plan sheets include the following:

SHEET NO.		TITLE
1	T-1	Cover Title Sheet
2	G-1	General Notes, Construction Notes, Legend
3	G-2	Horizontal Control
4-5	C-1 to 2	12-Inch PVC Plan & Profile
6	C-3	15-Inch PVC Sewer Plan & Profile
7	C-4	Waterline Connection and Standard Details
8	C-5	Sanitary Sewer Details
10-12	C-6 to 8	Well Site and Details
13-14	M-1 to 2	Well Equipping and Details
Optional Plans		
15	T-1	Traffic Control Title Sheet
16	T-2	Traffic Control Plan
17	T-3	Traffic Control - Standard Signage

TASK 5 – BIDDING SERVICES

A) Bidding Phase Support - Assist the City in providing clarification and prepare information to be used in addenda as needed for ten (10) questions that may arise during the bidding process. City will prepare and make available to plan holders any required addenda. Attend the pre-bid meeting, and assist the City with bid evaluations and recommendation of bid award.

B) Conformed Plans - Prepare conformed plans for use in constructing the project. The conformed plans will reflect changes made during bidding, and will be noted as a revision to the final design plans.

TASK 6 – ENGINEERING CONSTRUCTION SERVICES

NV5 will assist the City during the construction of the project by performing the items below:

A) Engineering Support – Assist the City with the following:

1. Provide professional engineering services to address and respond to up to fifteen (15) Requests for Information (RFI's) from the contractor,
2. Review up to twenty-five (25) shop drawing and materials submittals,
3. Prepare supplementary sketches and details as required to resolve field construction problems that may be encountered,
4. Review and provide recommendations regarding proposed change orders, as needed, and
5. Attend pre-construction meeting and up to one (1) additional office or construction site meetings during construction.

B) Minor Plan Revisions – Required minor plan revisions will be completed.

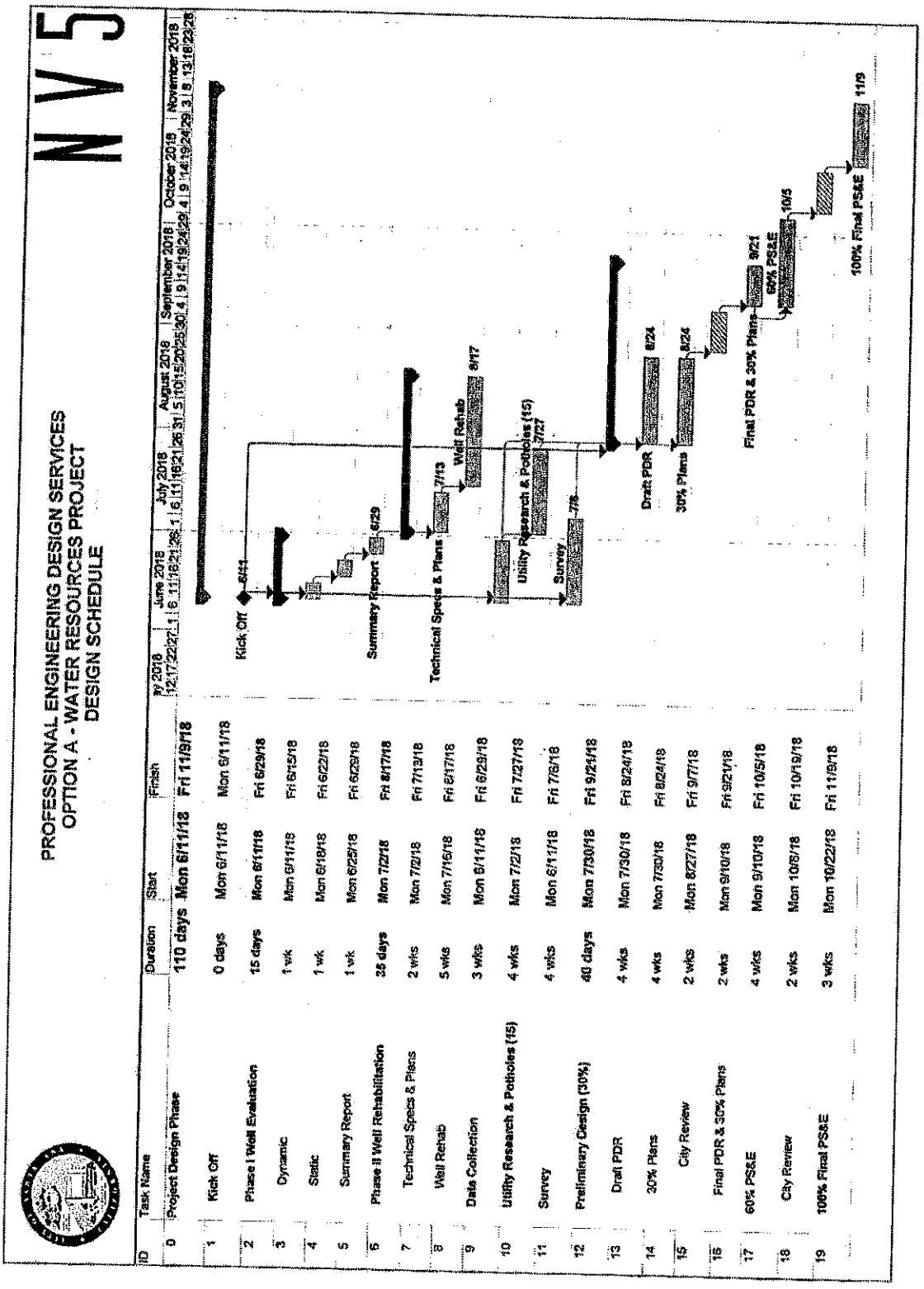
C) Preparation of Record Documents (As-Builts) – The construction contract will require the contractor to provide to the City for review and approval one set of as-built plans showing the design changes made during the course of construction. NV5 will prepare record drawings from contractor and construction inspector as-built drawing, markups, and field notes. Submit the following:

1. One (1) set of 24-inch x 36-inch mylar "Record Drawings"
2. One (1) CD (or DVD) with the record drawing files saved in Microstation v8i and PDF formats.

TASK 7 – OPTIONAL SERVICES

NV5 will provide separate line items in the cost proposal for the "Optional Services". City may exclude or include the optional services as part of the awarded contract at City's discretion. The "Optional Services" will include the following activities:

- If required, Traffic Control Plans will be prepared by a California Registered Traffic Engineer.


PROFESSIONAL ENGINEERING DESIGN SERVICES
OPTION A - WATER RESOURCES PROJECT
DESIGN SCHEDULE
NV5
ID
Task Name
Duration
Start
Finish
2018
June 2018
July 2018
August 2018
September 2018
October 2018
November 2018
0 Project Design Phase 110 days Mon 6/11/18 Fri 11/9/18
1 Kick Off 0 days Mon 6/11/18 Mon 6/11/18
2 Phase I Well Evaluation 15 days Mon 6/11/18 Fri 6/29/18
3 Dynamic 1 wk Mon 6/11/18 Fri 6/15/18
4 Static 1 wk Mon 6/18/18 Fri 6/22/18
5 Summary Report 1 wk Mon 6/25/18 Fri 6/29/18
6 Phase II Well Rehabilitation 35 days Mon 7/2/18 Fri 8/17/18
7 Technical Specs & Plans 2 wks Mon 7/2/18 Fri 7/13/18
8 Well Rehab 5 wks Mon 7/16/18 Fri 8/17/18
9 Data Collection 3 wks Mon 6/11/18 Fri 6/29/18
10 Utility Research & Potholes (15) 4 wks Mon 7/2/18 Fri 7/27/18
11 Survey 4 wks Mon 6/11/18 Fri 7/6/18
12 Preliminary Design (30%) 40 days Mon 7/30/18 Fri 9/24/18
13 Draft PDR 4 wks Mon 7/30/18 Fri 8/24/18
14 30% Plans 4 wks Mon 7/30/18 Fri 8/24/18
15 City Review 2 wks Mon 8/27/18 Fri 9/7/18
16 Final PDR & 30% Plans 2 wks Mon 9/10/18 Fri 9/21/18
17 60% PS&E 4 wks Mon 9/10/18 Fri 10/5/18
18 City Review 2 wks Mon 10/8/18 Fri 10/19/18
19 100% Final PS&E 3 wks Mon 10/22/18 Fri 11/9/18
Kick Off
6/11
Summary Report
6/29
Technical Specs & Plans
7/13
Well Rehab
8/17
Utility Research & Potholes (15)
7/27
Survey
7/6
Draft PDR
8/24
30% Plans
8/24
Final PDR & 30% Plans
9/21
60% PS&E
10/5
100% Final PS&E
11/9

SCOPE OF SERVICES
GENERAL ENGINEERING (OPTION B)

Preliminary Design

A. KICK-OFF MEETING

Prior to the start of the project, we will have a kick-off meeting with City Staff and the project team to review the project objectives, schedule, the scope and approach. At this meeting, we will establish a point of contact for the project and request all available information related to the project. In addition, the NV5 Project Manager will coordinate all aspects of the project and manage the schedule and costs to ensure the project's completion to the satisfaction of the City.

B. DATA COLLECTION AND PROJECT DOCUMENTATION

We will research all information pertinent to the project such as the latest street improvement plans, right of way maps, previous intersections and median improvement plans, storm drain, water and sewer plans, and utility plans in order to include this information in the project plans.

C. DESIGN SURVEY

The survey tasks include, but are not limited to, the following:

We will perform a topographic survey and prepare base maps. We will make sure our base maps show the right of way, curb and gutter, sidewalk, parkway, street centerline, access ramps, driveways, signs, poles, etc. In addition, we will include all information obtained from all affected utility companies within the roadway and parkways. The base maps will then be confirmed during our field walks. The main objective is to have all existing improvements accurately depicted in our base maps so that all constraints are considered during our design of the project. The survey will include cross sections the street to adequately show the condition of the project site prior to construction.

D. UTILITY INVESTIGATION AND COORDINATION

We will research and establish record location of all utilities and utility easements, as necessary. Utility coordination on the project will be ongoing and will generally consist of the following sub tasks:

- Notify each utility purveyor, in writing, of the City's proposed plans and schedule and request copies of record drawings or atlas maps of existing and proposed facilities within the project boundary.
- Obtain existing dry and wet utility plans/records within the project limits. It also includes the coordination of the adjustment of any utilities per city or other agency standards. Once the plans are completed we will send them to all utility companies affected by the project.
- Coordinate all utilities and obtain approval in writing from affected utility companies regarding conflicts, relocations and improvements.
- Access the Underground Service Alert's website and compile a list of member agencies that own facilities within the project limits.
- Augment and/or refine the above list based on available information at the City Records Department and from field investigation.
- Utilities shown on the record drawings will be surface verified, and added to the base map, along with the most recent easement lines shown for each facility.
- Identify interfaces between existing facilities and future project construction.
- Consult with the service planners and others as necessary within each utility company to resolve any conflicts.
- Keep City staff informed on all discussions with utility companies via written meeting minutes or records of telephone conversation.
- Prepare a Utility Notification Log to track utility company contacts and responses including contact information and dates of all outgoing and incoming correspondence.

E. PAVEMENT EVALUATION

We will provide geotechnical investigation, recommendations, and reports to determine the exact rehabilitation methods including but not to limited to reconstruction areas and the proper pavement thickness for reconstruction areas and overlay. We will perform a geotechnical reconnaissance of the site and take up to six borings samples at strategic locations within the project area to observe the existing pavement thickness and soil conditions beneath and to facilitate collection of sub-grade soil samples for lab testing. The results of our field and laboratory testing will be provided in a report which will include; thickness of pavement section, site soil characterization, R-Value of sub-grade soils, and pavement improvements recommendations.

F. PRELIMINARY PLANS

Utilizing the above data and base plans, we will prepare a preliminary street improvement plans and profiles using 1" = 40' horizontal and 1" = 4' vertical scale. In

addition, the plans will include the sidewalk, and parkway improvements. The bike lane, signing and striping plans will be prepared at a 1" = 40' scale. These designs will be supplemented by our field review of the project area to visually confirm and assess the project condition and identify specific improvements to be included in the project. These plans will then be used to evaluate the cost of the project, and ascertain the impact on the adjacent property owners other private improvements.

G. MEETINGS/SCHEDULES

We will be available to attend team meetings, City Council meetings and any other meetings with staff, agencies, and the public as required. Utilizing Microsoft Software Project, we will maintain updated project design schedules for use by the City staff.

Final Design: Plans, Specifications and Estimates

This task involves the completion of construction documents in the form of final PS&E.

A. FINAL IMPROVEMENT PLANS

Upon City approval of the preliminary design, we will proceed with the preparation of final design plans, specifications and cost estimate for submittal to the City at the preliminary and final completion levels process. All plans, reports, and documents will be submitted in the format acceptable to the City.

The plans will be prepared to conform to the general requirements of the City with consideration for the needs of the contractor's construction operations. We will deliver completed and approved construction drawings on or ahead of approved schedules. All designs shall be prepared and submitted in a manner that ensures a complete design approved by the City. Where applicable, the construction drawings will conform to the appropriate applicable standards such as City, county, state standard plans and specifications, APWA Standard Specifications for Public Works Construction "Greenbook," and Manual of Traffic Uniform Control Devices.

The following drawings will be prepared for the project and will be part of the plan set:

- Title Sheet
- Detail Sheet
- Street Widening and Rehabilitation Plans & Profiles
- Sidewalk and Parkway Improvement Plans
- Bike Lane, Signing and Striping Plans

SHEET NO.	TITLE
1	T-1	Title Sheet
2	C-2	General Notes, Construction Notes, Legend
3-4	C-3 & C-4	Street, Sidewalk, Parkway Improvement Plans and Profiles
5-6	SP-5 & SP-6	Bike Lane, Signing, Striping & Markings Plans

B. SPECIFICATIONS

We will prepare complete project specifications, including special provisions that specifies traffic control, construction notification and posting information per City's format and direction. Copies of the Standard General Provisions and Construction Contract Agreement shall be supplied by the City to incorporate into the construction documents.

C. QUANTITY AND COST ESTIMATES

We will provide complete construction quantity and cost estimates for the project. Estimates will be provided at preliminary and final completion submittals, and a final estimate with the final submittal. Excel files will be submitted with each submittal. Quantities will match the Bid Proposal final quantities.

Bidding and Construction Services

We will provide support services during construction.

A. BIDDING SERVICES

Once the plans are approved and advertised, we will assist City staff with bid/award activities, including responding to bidder questions. We will be available to attend pre-bid meetings and other meetings with staff as required. We will also be available to clarify design-related issues at all times.

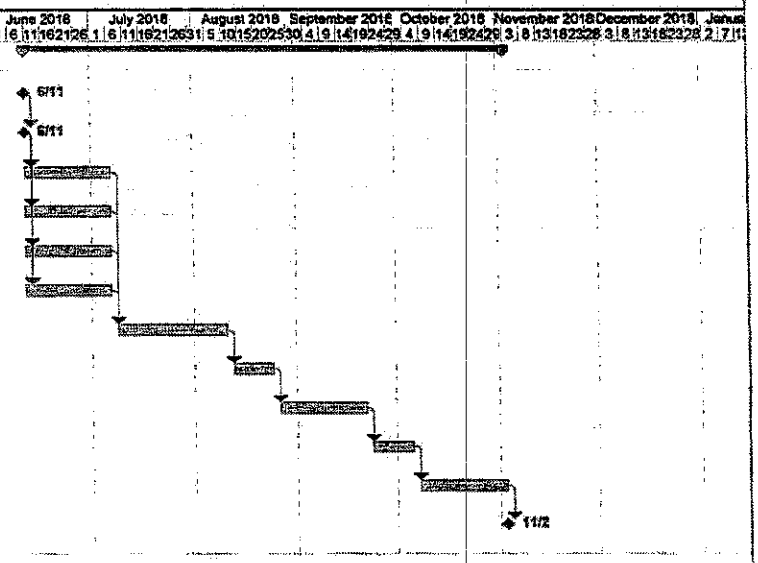
B. CONSTRUCTION SERVICES

We will be available to attend pre-construction meetings and other meetings with staff, agencies, and the public as required. We will provide responses to Requests for Information. We will attend any required site meetings and we will incorporate all redline comments prepared by the Contractor and project inspector and provide the as-built plans.

PROFESSIONAL ENGINEERING DESIGN SERVICES
OPTION B - MILE ONE STREET REHABILITAION PROJECT
DESIGN SCHEDULE

NV5

ID	Task Name	Duration	Start	Finish
0	Project Design Phase	165 days	Mon 6/11/18	Fri 11/2/18
1	NTP	0 days	Mon 6/11/18	Mon 6/11/18
2	Kick Off Meeting	0 days	Mon 6/11/18	Mon 6/11/18
3	Obtain & Review Records Drawings	4 wks	Mon 6/11/18	Fri 7/6/18
4	Utility Notification & Coordination	4 wks	Mon 6/11/18	Fri 7/6/18
5	Topographic Survey	4 wks	Mon 6/11/18	Fri 7/6/18
6	Pavement Investigation & Report	4 wks	Mon 6/11/18	Fri 7/6/18
7	Prelinimary Plans (70%)	5 wks	Mon 7/9/18	Fri 8/10/18
8	City Review of Preliminary Plans (70%)	2 wks	Mon 8/13/18	Fri 8/24/18
9	Prepare PS&E (90%)	4 wks	Mon 8/27/18	Fri 9/21/18
10	City Review of PS&E (90%)	2 wks	Mon 9/24/18	Fri 10/5/18
11	Prepare Final PS&E	4 wks	Mon 10/8/18	Fri 11/2/18
12	Submit Final PS&E	0 wks	Fri 11/2/18	Fri 11/2/18



March 20, 2018

Task	External Milestone	Duration-only	External Milestone
Split	Inactive Task	Manual Summary Rollup	Progress
Milestone	Inactive Milestone	Manual Summary	Deadline
Summary	Inactive Milestone	Start-only
Project Summary	Inactive Summary	Finish-only
External Tasks	Manual Task	External Tasks

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 15 day of March, 2018 by David Nikraftar, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Notary Public Signature

Notary Public Seal

NATHAN LOPEZ
Commission # 2138413
Notary Public - California
Orange County
My Comm. Expires Sep 28, 2019

* See Attached Jurat *

CALIFORNIA JURAT WITH AFFIANT STATEMENT **GOVERNMENT CODE § 8202**

☑ See Attached Document (Notary to cross out lines 1–6 below)
☐ See Statement Below (Lines 1–6 to be completed only by document signer(s), *not* Notary)

1
2
3
4
5
6

Signature of Document Signer No. 1 *Signature of Document Signer No. 2 (if any)*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me
on this 15 day of March 20 18
Date *Month* *Year*
by
(1) David Niknafs
(and (2)),
Name(s) of Signer(s)
proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

NATHAN LOPEZ
Commission # 2178423
Notary Public - California
Orange County
My Comm. Expires Sep 26, 2019

Signature
Signature of Notary Public

Seal
Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: Non-Collusion Affidavit Document Date:
Number of Pages: Signer(s) Other Than Named Above:

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Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm NV5

Signed and Printed Name: Amy Amirani Amy Amirani, PE

Title Principal-in-Charge/Vice President

Date 03/05/18

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: Amy Amiani

Title: Principal-In-Charge/Vice President

Firm: NV5

Date: 03/15/18

CONTACT INFO
david.niknafs@nv5.com
949.585.0477

EXPERIENCE
30 years

EDUCATION
M.S. Civil Engineering

B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 42697

AFFILIATIONS
American Public Works Association (APWA)

American Society of Civil Engineers (ASCE)

Transportation & Development Institute

DAVID NIKNAFS, PE

Project Manager

Mr. Niknafs has more than 30 years of civil engineering experience in the public and private sectors working on various capital improvement projects and has extensive experience working as a project manager and senior engineer. He has managed numerous public works and development projects including roadways, bridges, drainage, sewer, water, underground utilities, building facilities and related infrastructure improvement projects.

He is in charge of providing overall project direction to the project technical team and providing resource allocation; preparing and administering budgets; preparing and monitoring project schedules; managing production of preliminary design and final design; preparing various detailed technical reports; providing oversight and performing quality control; managing and monitoring construction activities; establishing, coordinating and maintaining working relationships with owners, developers, and other agencies.

Project Experience

"H" Street Widening Project

CITY OF SAN BERNARDINO | SAN BERNARDINO, CA

Project Manager. Mr. Niknafs is responsible for providing professional design engineering services including plans, specifications, cost estimates and related bid documents for the widening of "H" Street from Kendall Drive to 40th Street. The project will increase H Street from two lanes to four lanes and upgrade the existing traffic signals at 40th Street and Kendall Drive. The plans will include roadway, drainage, sewer, signing and striping, street lighting, modification to traffic signals, and demolition plans. We are coordinating with utility companies, identifying existing right-of-way, conducting pavement investigation and preparing a report, and preparing all required environmental studies and documents for clearance under CEQA. The street improvements will include ADA-compliant curb ramps.

Pacific Coast Highway Arterial Improvements

CITY OF REDONDO BEACH | REDONDO BEACH, CA

Project Manager. Mr. Niknafs is managing a comprehensive traffic analysis and the preparation of preliminary design recommendations to reduce congestion and increase safety on Pacific Coast Highway. Our team is preparing final plans, specifications and cost estimates for the intersection widening for a right-turn-only lane on southbound Pacific Coast Highway and Torrance Boulevard. We will also provide design and support services during bidding and construction phases.

Jamboree Road and Intersection Widening

CITY OF IRVINE | IRVINE, CA

Project Manager/Contract Manager. Mr. Niknafs is responsible for providing program and contract management services for the widening of Jamboree Road from Main Street to Barranca Parkway. The project will widen Jamboree Road from four to five through lanes in each direction. Intersection improvements at Jamboree/Main and Jamboree/Barranca are currently in the design and right of way phases and will be constructed along with the widening. Mr. Niknafs is also responsible for coordination and monitoring required for all phases of work.

NV5

Harbor Boulevard Street, Median and Landscape Improvements
CITY OF COSTA MESA | COSTA MESA, CA
Project Manager. Mr. Niknafs managed the preparation of plans, specifications, and cost estimates for the design of improvements on Harbor Boulevard, including street and median landscaping improvements. The City was awarded Federal Highway Safety Improvement Program funds to install medians, landscaping, and associated improvements to improve pedestrian and traffic safety. A traffic analysis was conducted to establish median openings and turn pocket lane lengths. Our team coordinated with stakeholders including the residents and business owners, and public outreach community meetings were scheduled so the conceptual plans could be presented to the community.

East 19th Street Design Improvements
CITY OF COSTA MESA | COSTA MESA, CA
Project Manager. Mr. Niknafs was responsible for the design of this roadway, median and parkway landscaping improvements project. The project included the removal of reconstruction of pavement; and reconstruction of curb, gutter, cross gutter, sidewalk, wheelchair ramp and driveway. His responsibilities included managing the preparation of the plans, specifications and cost estimates; and assisting the City with the preparation of PES and E-76 certification, as well as with the submittal and processing through Caltrans.

Wilmington Avenue Pedestrian and Bicycle Improvements
CITY OF COMPTON | COMPTON, CA
Project Manager. Mr. Niknafs was responsible for providing professional design engineering services including plans, specifications, cost estimates and related bid documents for the Wilmington Avenue Safe Streets Pedestrian/Bicycle Improvement Project. The project included pavement rehabilitation on Wilmington Avenue from El Segundo Boulevard to Rosecrans Avenue. Scope of work consisted of various pedestrian and bicycle improvements; the installation of wider and colored crosswalks; countdown pedestrian signals; enhanced pedestrian lighting; the installation of Class II bike lanes with wayfinding signage and Class I bike paths; and the installation of four solar-powered speed feedback signs for speed control and attainment.

FY 2017-18 Annual Street Rehabilitation
CITY OF VILLA PARK VILLA PARK, CA
Project Manager. Mr. Niknafs is responsible for providing plans, specifications, and estimates for the annual rehabilitation project. The improvements may include the removal and replacement of deteriorated sections of the streets by repaving or slurry seal the streets; construction of curb and gutter or AC burn at certain locations of these streets; and the replacement of curb and gutters as needed to provide adequate drainage.

Colonial Avenue Alley Pavement Project
CITY OF CULVER CITY | CULVER CITY, CA
Project Manager. Mr. Niknafs is responsible for providing professional design services for the Colonial Avenue Alleyway. As part of the Community Development Block Grant (CDBG) program, the Colonial Avenue Alleyway Paving project includes the paving of approximately 800 LF by 20 feet wide of the alleyway. The scope of work also involves field review, topographic survey, design plans, bid schedule and technical specifications, quantity and cost estimates.

Expo Line Bus Stop Enhancement Project
CITY OF SANTA MONICA | SANTA MONICA, CA
Project Manager. Our team was selected to provide engineering design services for the Expo Line Bus Stop Enhancement Project in Santa Monica. Phase II of the Expo Line extends the line to Santa Monica. As a result, Big Blue Bus is implementing a comprehensive redesign of its transit system to connect passengers with the Expo Line stations in attempt to create a more efficient commute for passengers. These initiatives also include the inclusion of signage, bus berths and overall pedestrian improvements. Our team is providing preliminary, schematic and final design to include construction documents detailing bus pads, ADA-compliant wheelchair pads, sidewalk extensions and the location of bus stops. The work consisted of coordination with various agencies and utility organizations.

CONTACT INFO
charlie.mckinley@nv5.com
949.585.0477

EXPERIENCE
30 years

EDUCATION
B.S. Biomedical Engineering

LICENSES
Civil Engineer (CA)
No. C38484

AFFILIATIONS
Member, Board of Directors, Society of American Military Engineers, Orange County Post

Member, American Public Works Association

Inland Empire Chapter President, WateReuse Association

CHARLIE McKINLEY, PE

Project Manager

Mr. McKinley has more than 30 years of experience as a professional engineer for both large-scale capital improvement projects and small infrastructure improvement projects. He has a broad range of project experience with a focus on pipelines, pump stations, reservoirs, and treatment. Mr. McKinley brings an enthusiastic approach to planning, regulatory permitting, detailed design and operations review to facilitate civil and environmental engineering projects.

Project Experience

Coronado Cays Sewage Lift Station

CITY OF CORONADO | CORONADO, CA

Task Leader. Mr. McKinley was the task leader for the design of a complete overhaul of an 870 gpm submersible pump station. Pumps, controls, wetwell configuration, and various facility elements were replaced with current technology as part of the project.

Back Basin Storm Water Pump Station

ELSINORE VALLEY MUNICIPAL WATER DISTRICT | LAKE ELSINORE, CA

Project Manager. This project consisted of the preliminary and final design of a 2,500 gpm stormwater pump station to accommodate the evacuation of stormwater from the back basin wetlands during an overflow event from Lake Elsinore.

Mountain Belle Pump Station and Water Main

VISTA IRRIGATION DISTRICT | VISTA, CA

Project Engineer. As project engineer, Mr. McKinley was responsible for the design of an inter-zone transmission main. Challenging terrain alignments and steep slope installations were evaluated, as well as surge and hydraulics.

Fullerton Road Grade Separation Stormwater and Groundwater Pump Stations

ROWLAND WATER DISTRICT | INDUSTRY, CA

Project Manager. Responsible for the design of a 20,500 gpm stormwater pump station and a 200 gpm groundwater pump station for the depression of Fullerton Road under UPRR railroad tracks. The project included a hydraulic analyses of storm and groundwater inflow conditions to match with outflow hydrographs, and mechanical, electrical, and structural design. Main pump station was permitted by the LACDPW.

Dudley Sewer Commission Consulting

TOWN OF DUDLEY | DUDLEY, MA

Project Manager. Development of design plans and specifications for three separate sewer extension projects involving approximately 18,000 feet of gravity sewer, 7,000 feet of force main, and four duplex submersible pump stations with emergency power, odor control, and several low-pressure service areas with individual grinder pumps and small diameter force mains. Also completed a town-wide Comprehensive Wastewater Management Plan, including obtaining State Revolving Fund loans and performance of hydraulic modeling of the sewer system, as well as an on-site system survey.

NV5

Sewer Rehabilitation and Reconstruction Study
CITY OF COMPTON | COMPTON, CA
Project Engineer. Work consisted of hydraulic and physical evaluations of the City's major sewers (approximately 46,000 feet of 8- to 12-inch pipe). The objective was to evaluate segments for replacement, repair, or rehabilitation (lining). Sewer CCTV data was reviewed, and interviews were conducted with operations and maintenance personnel. Spreadsheets were developed to prioritize the improvements for a multiyear program. Finally, opinions of probable costs were provided, and the work was presented in a Project Study Report.

Wastewater Collection System Upgrade Program
CITY OF TORRANCE | TORRANCE, CA
Project Manager. Work consisted of the completion of several projects to upgrade the City's sewer system. The program included sewer rehabilitation initiated by a system-wide video program, preparation of sewer replacement and extension designs, and development of a concept design for alley sewers. A grease control ordinance was also developed for the City Code.

Fillmore Sewer Interceptors
CITY OF FILLMORE | FILLMORE, CA
Project Engineer. Mr. McKinley was responsible for the conceptual design of new sewer interceptors to route all flow to a new wastewater treatment plant site. Associated diversion facilities and roadway infrastructure for the new alignment were also designed as part of this project.

Mentone Boulevard Sewer
CITY OF REDLANDS | REDLANDS, CA
Project Manager. As project manager, Mr. McKinley lead the planning and design of a sewer extension on Mentone Boulevard (SR-38), which is a major access route to Arrowhead/Big Bear. Utility coordination and traffic control were key challenges addressed. As a separate project, he also completed the design of 5,000 feet of sewer extension. Project components included the Sewer Master Plan Update, Preliminary Design Report, and plans, specifications, and estimates.

Bushard Trunk Sewer
ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY, CA
Project Manager. Work consisted of the design and construction management of replacing the existing 54-inch pipeline with approximately 22,000 LF of new 108-inch concrete-reinforced pipe. The project included geotechnical and structural pipe design, and coordination with involved cities for traffic control.

University of Connecticut WWTP Upgrade and Sewer System Facilities Plan
UNIVERSITY OF CONNECTICUT | STORRS, CT
Project Engineer. Completion of a sewer system evaluation survey to identify reaches with excessive inflow and infiltration in the University collection system. An analysis of flows at the treatment plant was completed, as well as a projection of future flows within the study period. A treatment plant upgrade conceptual plan was also developed.

Lakewood Boulevard Recycled Water Pipeline
CITY OF DOWNEY | DOWNEY, CA
Project Manager. Installation of a recycled water main, potable water meter adjustments, and other miscellaneous utility relocations and adjustments associated with the design and construction of street improvements and enhancements along Lakewood Boulevard from Florence Avenue to Telegraph Road. Project was divided into two segments: Lakewood Boulevard between Florence Avenue and Gallatin Road (2,800 feet); and Lakewood Boulevard between Gallatin Road and Telegraph Road (2,700 feet).

CONTACT INFO
derek.wieske@nv5.com
949.585.0477

EXPERIENCE
25 years

EDUCATION
M.B.A.

M.S. Civil Engineering

B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 49872

AFFILIATIONS
Member, American Society of Civil Engineers

Member (1993-1994), Standards Setting Committee for the California State Board of Registration for Professional Engineers and Land Surveyors

Member (2002), Countrywide New Development and Construction Water Quality Task Force

DEREK WIESKE, PE

Quality Assurance/Quality Control

Mr. Wieske has more than 25 years of hands-on experience in the development, design and construction of capital improvement projects for public agencies. His vast catalog of projects includes roadways and pedestrian improvements, parks and landscaping, water and sewer infrastructure, and buildings. Mr. Wieske has served in a variety of roles from City Engineer to Director of Public Works for agencies throughout Southern California including the cities of Long Beach, Laguna Beach, and Lake Forest.

Project Experience

Downtown Area Resurfacing
CITY OF LAGUNA BEACH | LAGUNA BEACH, CA
Project Manager. Mr. Wieske oversaw the design and construction of the resurfacing of the downtown area of Laguna Beach and coordinated with local businesses to minimize economic impacts of construction. In addition to street resurfacing, the project included installation of various traffic-calming features, such as bulbouts. Mr. Wieske introduced a bonus clause into the specifications, which significantly accelerated project construction, resulting in praise from local shop owners for a successful project.

Stormwater Diversion Systems Installation
CITY OF LAGUNA BEACH | LAGUNA BEACH, CA
Project Manager. Mr. Wieske was responsible for the design and construction of stormwater separators (CDS Units) to divert urban runoff from roadways, and the City stormdrain system to the municipal sewer collection system. Challenges included working with sewer systems without disrupting service, and the design of a system that can be maintained with relative ease.

Lexington Drive Road Improvements
CITY OF LOS ALAMITOS | LOS ALAMITOS, CA
Project Manager. Mr. Wieske was responsible for the installation of a half-mile section of arterial highway from Katella Avenue to Cerritos Avenue. He reviewed and approved plans and specifications and oversaw all construction management/ inspection activities for this project. The project involved close coordination with the representatives from the City of Cypress and an adjacent community church that was funding the roadway improvements.

Ball Road and Bloomfield Street Intersection and Drainage Improvements
CITY OF LOS ALAMITOS | LOS ALAMITOS, CA
Project Manager. Mr. Wieske served as the project manager for the installation of 1,400 LF of storm drain and roadway rehabilitation. The design alignment of the storm drain conflicted with multiple utilities, including sewer, water, gas, electric, and oil pipelines. He oversaw the design of the project, including significant value engineering, plan and specification quality control, bidding process, and coordination with partnering funding agency. The project required extensive coordination with utility agencies to either relocate or adjust conflicting utilities.

NV5

CONTACT INFO
phil.kern@nv5.com
949.585.0477

EXPERIENCE
More than 30 years

EDUCATION

BS Civil Engineering - San Diego State University (1983)

Certificate CalEMA Safety Assessment Program Evaluator - #68105

LICENSES
Professional Engineer - CA #40831

Professional Engineer - NV #9144

PHIL KERN, PE

Project Engineer

Phil has more than 30 years of experience designing and processing public works projects. He has performed in the capacity of Project Manager on a wide variety of civil engineering projects involving transportation facilities, utility repairs and upgrades, and site work. He has been directly responsible for the preparation of grading plans, infrastructure improvement plans, specifications, traffic control/phasing plans, and construction administration for numerous complex civil engineering projects. In addition to having special technical emphasis in the areas of hydrology, hydraulics, site and transportation design, Phil's capabilities are enhanced by his eye for detail and skills in organization, project planning, and written communication.

Project Experience

East Valley Parkway Widening | City of Escondido

Project Manager for design of one half mile widening of East Valley Parkway and Valley Center Road to prime arterial standards between Beven Drive and the northerly city limits where it joined improvements previously constructed by the County. This $6M project will eliminate a traffic bottleneck and features a bridge widening, traffic signal modifications, streetscape design, and preparation of right of way documents and environmental services. The designers took special care during the geometric approval phase of the project to ensure that the improvements were no more than needed to accommodate future traffic projections, saving the City capital funds that could be applied to other needs.

Melrose Drive Extension | City of Oceanside

QA/QC officer for the design of the missing link of Melrose Drive between Spur Avenue, located about one-half mile south of State Route 76, and North Santa Fe Avenue, 300 feet north of Willowbrook Drive. This 3,000-foot roadway extension includes the design of a proposed bridge crossing over Guajome Lake Road and some wetland habitat. Additionally, Melrose Drive will be widened for 1,900 feet between North Santa Fe Avenue and Sagewood Drive.

College Boulevard Widening | City of Oceanside

Project manager for preliminary design of widening of College Boulevard from four to six lanes between Olive Avenue and Camino de la Plata in the City of Oceanside. Efforts included geometric design, detailed field surveying of constraints, siting water quality BMPs and environmental coordination.

San Diego County Women's Detention Facility | County of San Diego

Project manager for preliminary and final civil engineering of a design-build project to replace the existing women's detention facility with a state-of-the-art, $221 million, 478,000-square-foot facility on a 45-acre site. Design challenges include maintaining operations at the existing Las Colinas facility during construction of Phase 1, stormwater compliance at the riverside site, and obtaining approvals by the local municipality and utilities.

NV5

CONTACT INFO
steve.schapel@nv5.com
949.585.0477

EXPERIENCE
25 years

EDUCATION
Engineering courses

STEVE SCHAPEL

Project Engineer

Mr. Schapel has more than 25 years of civil engineering experience in Southern California. He is an experienced manager who has been responsible for the successful completion of environmentally and politically sensitive design improvement projects. His experience includes serving as the project manager and project engineer responsible for preparing project studies and recommendations, plans and specifications, and support during construction.

Project Experience

Baker Street Rehabilitation | City of Costa Mesa

Mr. Schapel was responsible for preparation of plans, specifications and estimates for the Baker Street Rehabilitation from Badds Street to Bear Street. The project consisted of approximately 1400 LF of pavement rehabilitation, reconstruction of damaged curb and gutter, sidewalk, and driveway, construction of ADA compliant curb ramps, and all appurtenant work.

Central Avenue Street Reconstruction | City of Chino

Mr. Schapel was responsible for preparation of plans, specifications and estimates for 1800 LF of pavement reconstruction. Improvements included total pavement reconstruction, redesign of existing cross sections as needed to improve drainage and driveability, and repair of damaged sections of the asphalt.

Alley Pavement Rehabilitation Projects | City of Costa Mesa

Mr. Schapel was responsible for overseeing the preparation of plans, specifications and estimates for the total reconstruction or pavement rehabilitation of 11 alleys. Work included soil testing; structural section design; field surveying; replacement of alley entrance, damaged curb and gutters, cross gutters and spandrels, sidewalks, driveway and approaches, turf and irrigation; wheel chair ramp (WCR) designs meeting ADA requirements; planting and trimming trees; determining right-of-way; and providing traffic control and striping plans.

Temescal Canyon Road Rehabilitation | County of Riverside

Mr. Schapel was responsible for preparation of plans, specifications and estimates for 2,000 LF of pavement rehabilitation. Improvements included grind and asphalt overlay, redesign of existing cross sections as needed to improve drainage and driveability, repair of damaged sections of the asphalt, and reconstruction of concrete improvements (sidewalk, curb and gutter).

Industrial Way Water Quality and Storm Drain Improvements | City of Costa Mesa

Mr. Schapel was responsible for the preparation of plans, specifications, and estimates for the design of the Industrial Way Water Quality and Storm Drain Improvements with the objective to eliminate the flooding and current water quality problems caused by the deficiencies within the existing storm drain system. The project consists of installing an underground detention/infiltration facility within an open grass field located south of the Anaheim Avenue and 19th Street intersection. The project included a hydraulic analysis of the entire storm drain system.

NV5

CONTACT INFO
kyle.hilton@nv5.com
949.585.0477

EXPERIENCE
6 years

EDUCATION
B.S. Civil & Environmental Engineering

LICENSES/CERTIFICATES
Civil Engineer-In-Training

KYLE HILTON, EIT

Project Engineer

Mr. Hilton has more than six years of experience in public works improvements, including planning and design of streets, arterial streets, right-of-way engineering, and storm drain design. His professional experience also includes CAD drafting, bridge rating, Water Quality Management Plans (WQMP), Environmental Impact Reports (EIR), and Storm Water Pollution Prevention Plans (SWPPP). He also has also served various roles for staff augmentation assignments.

Project Experience

Rancho Palos Verdes Area 9 New Striping and Signing

CITY OF RANCHO PALOS VERDES | RANCHO PALOS VERDES, CA

Design Engineer. Mr. Hilton was responsible for striping and signing plans for a large neighborhood community. The project consisted of adding new signs and striping on the streets of a neighborhood community.

Bristol Street Widening from 3rd Street to Civic Center

CITY OF SANTA ANA | SANTA ANA, CA

Design Engineer. Mr. Hilton was responsible for the design of the street widening plans, landscape plans and irrigation plans for this project. The project consisted of adding an additional lane in each direction. Also, a median was constructed with a decomposed granite walkway and a dry stream bed was constructed in place of a gutter.

Grand Street Widening from 1st to 4th Street

CITY OF SANTA ANA | SANTA ANA, CA

Design Engineer. Mr. Hilton was responsible for the design of the street widening plans, landscape plans and irrigation plans for this project. The project consisted of adding an additional lane in each direction. Also, a median was constructed with a dry stream bed in the middle to allow for runoff to percolate into the soil.

Memorial Park Walkway, Basketball Courts, and Volleyball Courts Renovation

CITY OF SANTA ANA | SANTA ANA, CA

Design Engineer. Mr. Hilton was responsible for the design of the walkway, basketball courts, and volleyball courts reconstruction plans for this project.

Expo Line Bus Stop Enhancement Project

CITY OF SANTA MONICA | SANTA MONICA, CA

Design Engineer. Our team was selected to provide engineering design services and Mr. Hilton is responsible for providing the final design of the bus stops while satisfying the needs of multiple government agencies. Phase II of the Expo Line is expected to be completed in late 2015 and will extend the line to Santa Monica. As a result, Big Blue Bus is implementing a comprehensive redesign of its transit system to connect passengers with the Expo Line stations in attempt to create a more efficient commute for passengers; these initiatives also include the inclusion of signage, bus berths and overall pedestrian improvements. Specifically, our team is providing preliminary, schematic and final design, to include construction documents detailing bus pads, ADA-compliant wheelchair pads, sidewalk extensions and the location of bus stop

NV5

CONTACT INFO
kevin.saleh@nv5.com
949.585.0477

EXPERIENCE
24 years

EDUCATION
B.S. Civil Engineering

Diploma, Computer Programming

LICENSES
Civil Engineer (MD) No. 36759

Project Management Professional

AFFILIATIONS
Member of Engineers without borders, UCI Chapter

American Membrane Technology Association

KEVIN SALEH, PE, PMP

Project Engineer

Mr. Saleh has 24 years of experience as a civil engineer. His professional experience includes planning, design, construction management, and construction support services for a variety of public works projects, with specific areas of practice in water and wastewater. His relevant experience includes water distribution and treatment facilities, pumping facilities, treatment plant projects/processes, reservoirs, pressure reducing and surge facilities, blending facilities, disinfection facilities, and flow metering facilities. Wastewater projects include conveyance systems, pumping stations, and treatment plant projects and processes.

Project Experience

UCI Recycled Water Line

IRVINE RANCH WATER DISTRICT | IRVINE, CA

Senior Project Engineer. Mr. Saleh is currently providing the plans, specifications, and estimates for the design as well as providing engineering construction services for approximately 5,700 LF of 16-inch and 12-inch pipeline in California Avenue from University Drive to Theory Lane and on Academy Way and Peltason Drive from California Avenue to the cooling towers. In addition, a new metering vault will be installed at the intersection of California Avenue and Academy Way.

Downtown Anaheim Recycled Water Expansion Design-Build Project

CITY OF ANAHEIM | ANAHEIM, CA

Senior Project Engineer. Mr. Saleh was the designer for this design-build effort in conjunction with Arnaz Engineering for a new pump and tank system to replace the existing irrigation pump supply system. The new system is designed to store (on-site) recycled water in generated from the WRDF and will irrigate Pearson Park. The new pump and tank system will connect to and operate with the existing irrigation sprinkler and controller system.

8-inch and 6-inch Water Main Replacement in Westford Street, Ardmore Street and Calle del Norte Street

CITY OF ANAHEIM | ANAHEIM, CA

Senior Project Engineer. Mr. Saleh was responsible for the design of abandonment and replacement of existing, aging 4-inch and 8-inch DIP main with new 6-inch and 8-inch PVC C-900 located in Westford, Ardmore and Calle del Norte Streets. Designs also include the replacement of several service lines, meters, appurtenances, hydrants and valves.

Culver Boulevard Area Main Replacement

GOLDEN STATE WATER COMPANY | CULVER CITY, CA

Senior Project Engineer. Mr. Saleh was responsible for the design of replacement of existing, aging 4-inch and 6-inch cast iron water main with 8-inch DIP or PVC in Culver Boulevard from Sepulveda Boulevard to Overland Avenue and in Wagner Street from Sepulveda Boulevard to Coombs Avenue (approximately 7,000 feet). The project also includes relocation of 1-inch and 2-inch services and meters and abandonment of the existing water mains in the alley east of Culver Boulevard and in Wagner Street.

NV5

CONTACT INFO
kiko.antunovich@nv5.com
949.585.0477

EXPERIENCE
3 years

EDUCATION
B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 87904

KIKO ANTUNOVICH, PE

Project Engineer

Mr. Antunovich has more than three years of experience as a civil engineer. His professional experience includes project engineer, design engineer and CAD designer. He is adept at managing multiple municipal and agency projects. His qualifications include the ability to design and draft complex water and wastewater projects including reservoirs, pump stations, water mains and sewer pipelines.

Project Experience

Paseo De Valencia Lift Station Rehabilitation

MOULTON NIGUEL WATER DISTRICT | LAGUNA HILLS, CA

Project Engineer. Mr. Antunovich is providing project engineering to develop plans to replace aging pumps and motors to increase system reliability, update and replace aged electrical equipment, retrofit piping, rehabilitate facility for better ventilation, and legal descriptions and plats.

Corryne and Slauson Area Main Replacements and Abandonment

GOLDEN STATE WATER COMPANY | CULVER CITY, CA

Project Engineer. Mr. Antunovich is acting as project engineer to develop plans and specifications for the design of a potable water pipeline replacement project located in its Culver City Water System. This project includes replacing and abandoning 1,600 LF of undersized and old 4-inch, 6-inch, and 10-inch cast iron water mains with 8-inch and 12-inch PVC in the public right of way (ROW). The purpose of this project is to improve water quality, increase fire flows, reduce maintenance costs, and improve system reliability within the GSWC service area. This project is set to be constructed in 5 sequences.

Azusa Sewer Lift Station

CITY OF WEST COVINA | WEST COVINA, CA

Project Engineer. Mr. Antunovich is acting as project engineer to develop plans to upgrade the exiting sewer pumps and controls to comply with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems; provide sufficient storage capacity during emergency/power outages; provide backup power systems; and SCADA monitoring system to pump data and status.

Alley Water Main Conversion, Liberty Court

LONG BEACH WATER DEPARTMENT | LONG BEACH, CA

Lead Designer. Mr. Antunovich designed and drafted the plans for the project. This project included the relocation of two waterlines and approximately 26 services within two alleys to the adjacent streets. The project consisted of the design of approximately 3750 LF of 8-inch DI pipe and 500' LF of 4-inch DI pipe. The project required extensive field investigation and coordination between the Long Beach Water Department and property owners. The project construction was also split between the Water Department constructing the pipe in the side streets and the contractor constructing the main within Atlantic Ave and reconnecting the service laterals.

NV5

PAUL M. FRISLIE, PE, IMSA
Senior Engineer

iteris

EDUCATION
- MBA, University of Phoenix, 2011
- BS, Civil Engineering, University of California, Irvine, 2008

REGISTRATIONS
- Civil Engineer (PE):
  - CA #72982, 2008
- International Municipal Signal Association (IMSA):
  - Traffic Signal Level II, #BB97189, 2012
  - Traffic Signal Level I, #AA97189, 2012
  - Signal Inspector Level I, #SI97189, 2014
  - Work Zone Safety, #ZZ97189, 2010

YEARS OF EXPERIENCE 17

CORE COMPETENCIES
- Traffic Engineering & Operations
- ITS Planning, Design & Integration
- Traffic Signal Design
- Construction Assistance
- Transit

AFFILIATIONS
- Orange County Traffic Engineering Council (OCTEC)

Mr. Frislie serves as a Senior Engineer of Iteris' Transportation Systems division and has been with firm since January 2001. For over 17 years, Mr. Frislie has been involved in several transportation and traffic engineering projects that include both planning as well as design and deployment of ITS, systems integration, and traffic signal design. Recently, he has served as the Project Manager for the Rosecrans Avenue Arterial Improvement Project, Cypress Phase 1 through 3 ITS Projects, the Newport Beach ITS Phase 5 through 8 Projects, the Santa Monica ATMS Phase 4c project. He has also been the Lead Design Engineer for the development of design plans for the Oxnard ITS Master Plan Design Project, Vermont Avenue Arterial Improvement project, the Santa Monica ATMS 4a/4b Project, SR-710 ITS Design Project, Newport Beach ITS Phase 1, 2, 3, 4 and 7 Projects and the Fountain Valley Phase IV project, as well as the Signal Construction Inspector for completion of the Oxnard ITS Master Plan and the Rosecrans and Vermont Arterial Improvements.

Project Experience

Harbor Boulevard Traffic Signal Synchronization (TSS) Project – Orange County Transportation Authority (OCTA) and City of Santa Ana, CA
Mr. Frislie served as QA/QC lead and Construction Manager to provide construction support and perform all necessary integration, implementation, and fine-tuning tasks for the Harbor Blvd TSS project. This project involved signal synchronization and equipment upgrade along Harbor Blvd from Chapman Ave to Newport Blvd, spanning across the Cities of Garden Grove, Santa Ana, Fountain Valley and Costa Mesa, as well as freeway on/off ramps at SR-22 and I-405 within Caltrans jurisdiction. In addition to generating PS&E packages for equipment upgrades, the project also included the development, implementation and fine-tuning of the AM, PM, midday, off-peak and weekend traffic signal coordination timing plans for all 46 intersections along the corridor. Iteris will also provide Traffic Management Center (TMC) upgrades to the cities of Costa Mesa and Santa Ana, which spans from Closed-Circuit Television (CCTV) licenses and workstations to designing and replacing the City's existing video wall system with newer and more advanced capabilities.

Barranca Pkwy/Muirlands Blvd Regional Traffic Signal Synchronization Project – Cities of Irvine, Lake Forest & Mission Viejo, CA
Mr. Frislie is the QA/QC Leader to provide traffic/ITS design improvements and traffic signal synchronization for 44 intersections along a 13-mile segment of Barranca Parkway/Muirlands Blvd. The project involves design of new fiber optic cables (multi and single mode), conduits, pull boxes, cabinets and controller upgrade in City of Irvine; New conduits, pull boxes, twisted pair interconnect, and wireless radio in City of Lake Forest; New cabinets, pedestrian signals and loop detection in City of Mission Viejo. In addition to the traffic signal infrastructure improvements, Iteris also develops signal coordination plans for AM, noon, off-peak, PM, "after-hours" and weekend for all project traffic signals along the corridor.

Newport/Balboa Boulevard Regional Traffic Signal Synchronization Project – Cities of Costa Mesa and Newport Beach, CA
Mr. Frislie serves as the QA/QC leader and Engineer of Record to OCTA to provide turn-key traffic/ITS improvements and traffic signal synchronization for 33 intersections along Newport/Balboa Boulevard corridor from Bristol Street in Costa Mesa to Main Street in Newport Beach.

Innovating Through Informatics™

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858.385.0500

EXPERIENCE
16 years

EDUCATION
M.S. Civil Engineering (Geotechnical)

M.S. Civil Engineering and Construction Management

LICENSES
Civil Engineer (CA) No. 70015

Geotechnical Engineer, CA No. 2986

GUILLAUME GAU, PE, GE

Geotechnical Engineer

Mr. Gau's experience includes roadways, electric and gas lines, water pipelines, residential, commercial, schools, transportation, rail, landslide remediation and forensics projects. He also provides field engineering services and laboratory supervision for the testing and inspection for concrete, structural steel, masonry, soils, asphalt, and civil construction.

Project Experience

On-Call Materials Testing and Inspection Services

CITY OF VISALIA | VISALIA, CA

Geotechnical Engineer for annual on-call construction materials testing services for various infrastructure improvement projects comprising geotechnical and material testing, overlay and resurfacing (Cape Seal & Reclamite) projects, utilities projects, Independent Assurance services for federally funded projects, pavement evaluation services, and concrete structures. Materials testing services covered soils, concrete, HMA, Cape Seals, reclamite, and miscellaneous testing services.

Melrose Drive Extension and Improvements

CITY OF OCEANSIDE | OCEANSIDE, CA

Geotechnical Engineer for the design and construction of the extension including grading recommendations, pavement, culvert, pipeline and shoring design.

State Route 178 Widening Project

CALTRANS | STATE OF CALIFORNIA

Geotechnical Engineer for field and laboratory materials tester, plant inspector and source inspection services for the widening of SR-178. The project included grading observation, field density testing, asphalt testing and plant inspection and source inspection of 112,000 CY roadway excavation and fill placement, 62,000 CY of aggregate base and subbase and 83,000 ton HMA

C1090 Installation along Highway 79

SAN DIEGO GAS & ELECTRIC

Geotechnical Engineer for the installation of 7 miles of underground 39kv line to bring power to the new Jamul casino. Work included excavation monitoring and placement of structural backfill, aggregate base and subbase and HMA along Highway 79.

Various Projects

SAN DIEGO GAS & ELECTRIC | SAN DIEGO COUNTY

Geotechnical Engineer for multiple projects including underground transmission lines, drilled pier foundation and gas line relocation. Key geological/geotechnical issues included deep foundations, rippability studies, seismic refraction surveys, horizontal directional drilling, jack and bore, retaining walls and shoring.

Black Canyon Road

SAN DIEGO COUNTY, CA

Senior Engineer and Project Manager responsible for the geotechnical investigation and design of a section of roadway between the San Vicente Reservoir and adjacent Indian Reservation. Key geotechnical issues included slope stability, rock rippability, retaining wall and pavement design consisting of asphalt concrete over soil-cement base.

CONTACT INFO
kevin.mchugh@nv5.com
949.585.0477

EXPERIENCE
35 years

EDUCATION
AA Mathematics

LICENSES
Professional Land Surveyor - CA #6310

KEVIN McHUGH, Jr., PLS

Surveying Project Manager

Mr. McHugh is a licensed land surveyor with more than 35 years of experience. Kevin manages NV5's surveying operations in our Southern California Region. As survey manager, he supervises all surveying and mapping operations. This role includes oversight of field surveys, construction staking, field crew supervision, field and aerial topographic surveys, the preparation and quality control of final maps, record of surveys, legal descriptions, right of way maps, appraisal maps, boundary surveys and analysis, ALTA surveys, lot line adjustments, constraint maps, condominium plans, and corner records.

Project Experience

SR-261 and SR-241 - Eastern Transportation Corridor | Caltrans

Kevin provided all boundary analysis and right-of-way CADD project coordination for this 26-mile transportation corridor project in Orange County. His responsibilities included supervision and approval and preparation of more than 500 legal descriptions and exhibits for right-of-way acquisition. He supervised preparation of all appraisal maps, right-of-way maps, records of surveys, survey-control maps, horizontal-control calculations, and CADD-file management. Kevin served as the project manager for right of way for this challenging project, which covered the full spectrum of right-of-way mapping and engineering elements. Under his direction, the right of way/ mapping team evaluated title report restrictions and prepared project Constraint Maps; developed Property Binders containing all information and legal data used to for appraisals and subsequent parcel acquisitions; prepared legal descriptions and exhibits for various types of property rights acquisition including fee acquisitions, slope, drainage, roadway and utility easements, temporary construction easements, and Joint Use Agreements and Consent to Common Use Agreements for more than 50-utility facilities.

I-5/I-405 and Bake Parkway Interchange | Caltrans

As land surveyor-in-charge for this project, Kevin's duties covered densification of horizontal and vertical control, design surveys, aerial mapping, right-of-way base mapping and survey control maps for three miles of design cross sections. His work on the project included preparation of legal description and plats for right-of-way takes, and preparation of appraisal maps and right-of-way maps.

Foothill Transportation Corridor - Oso Segment | Caltrans

Provided all boundary analysis and right of way CADD project coordination for the five mile segment of the Foothill Transportation Corridor project. Responsibilities included supervision and approval of preparation of more than 35 legal descriptions and exhibits for right of way acquisition as well as supervision of preparation of all appraisal maps, right of way maps, records of surveys, survey control maps, horizontal control calculations, and CADD file management.

Newhope Street Expansion | Caltrans

Surveyor in charge responsible for completing the boundary survey and analysis to determine the existing street right of way, Caltrans right of way, and private ownership boundaries, as well as the preparation and oversight of all legal descriptions and exhibits required for the City of Fountain Valley to acquire the additional necessary right of way for the project.

NUVIS
LANDSCAPE ARCHITECTURE AND PLANNING

TOMAS MUNOZ

Principal
Recreation Planner

Tom shares his talents and passion for our profession with the Boy Scouts as a Merit Badge Counselor for Landscape Architecture, Environmental Science, and Wilderness Survival. His emphasis is in urban design projects and public- and private-oriented park/recreation planning. As the project director for the $15 million Sports Complex in Huntington Beach, Tom facilitated extensive team collaboration and managed the design from conceptuals thru construction documentation. Client relations, pictorial graphic exhibits, technical direction of construction documents, and multi-team/agency coordination are his strengths. Mr Munoz was the Project Manager as subconsultant to DEA for Caltrans (D8) on-call three year contract, and also the Project Manager for NUVIS as prime consultant to Caltrans (D8) on-call for three years.

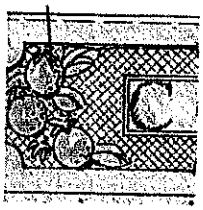
With NUVIS since 1978

Other Professional Experience
Boy Scouts of America, Assistant Scout Master, 1997 National Jamboree

Licensure:
CA 1997

Professional Affiliations
American Society of Landscape Architects
California Park and Recreation Society

North Gaffey Street Beautification, San Pedro, CA
Port of Los Angeles, Directive 1 & 3
Concept scenarios, illustrative perspectives, and PS&E for .75 miles of right-of-way with multi-purpose path serving as a continuation of the bicycle route along N. Gaffey Street. Design process of this community open space included coordination with Chevron, adjacent property owner, and an on-site community meeting with local police to discuss security issues and neighborhood desires.



Green River Road & State Route 91, Corona, CA
Caltrans Dist. 8 with the City of Corona & DEA
Part of On-Call as prime consultant with Caltrans providing Conceptual Designs and Construction Drawings for east and west bound on and off ramps, elevations and sections for Green River overpass, freeway abutments, and construction details for enriched fencing on State Route 91 in Corona. Task Order 9.

State Route 40 Interchange J, Needles, CA
David Evans & Associates for Caltrans District 8
Landscape architectural design support for a 1/2 mile section at Interchange 'J' in the City of Needles including reliminary plan view sketch and perspective imagery utilizing desert/native plantings and colorful decomposed granite, while allowing a comprehensive understanding of the necessary construction budget. Scope also included preparation of final PS&E's for the Interchange improvements.

CONTACT INFO
tom.acuna@nv5.com
949.585.0477

EXPERIENCE
35 years

EDUCATION
BA, Business Administration

Associates Arts Degree

LICENSES
American Institute of Certified Planners Llc. 016829

Hazardous Materials & Site Assessment Certification, University of California San Diego Extension - 1996

Certified Environmental Surveyor SDG&E - 1994

TOM ACUNA, AICP
Environmental Manager

Mr. Acuna currently directs the efforts of NV5's Environmental Group, performing all aspects of environmental support. He has more than 35 years of experience obtaining local, state, and federal approvals for electric and gas projects. Duties include supervising eight Field Environmental Specialists specializing in biological and environmental permitting. He was responsible for preparing regulatory strategies to obtain permits, reviewing and editing technical reports, preparing environmental releases, coordination of construction monitoring, tracking and assigning projects, and program administration of state and federal permits, clearing the way for SCG operations in California's central valley and desert regions.

Project Experience

Escondido Expedited Battery 30 MW/120MWH and El Cajon | SDG&E
Tom was responsible for ensuring environmental and safety compliance for two large lithium ion battery storage systems. This technology is relatively new to investor utilities and required comprehensive review of manufacture specifications and operational requirements to minimize SDG&E risk.

ECO Substation PTC Application | SDG&E
Prepared the Eco Substation Proponent Environmental Assessment and oversaw the Joint EIR/EIS. This document described and evaluated proposed improvements consisting of a new 100-acre substation/switchyard, expansion to an existing substation, and construction of a 13-mile transmission line to connect them. The PTC granted the application in June 2012.

Mountain Empire Major Use Permit | County of San Diego
Tom worked with this team obtain Major Use Permit from the County of San Diego to allow a heavy equipment training facility. Key CEQA issues were visual and noise impacts. At this direction, Tom conducted a CEQA Initial study and employed measures so that the project qualified for a Mitigated Negative Declaration. Project completed in 2011.

Hazardous Material Assessment | City of Coachella
Tom developed and provided a hazardous material assessment (Phase I) related to the removal of water line 48 from a street position and private property. The Phase I identified historical contamination and its relationship to hazardous material related to the water line. Completed June 2017.

San Diego Natural Gas Pipeline CPCN Application | SDG&E
Supported the project during the routing phase of a new 42-mile gas line. Provided opportunities and constraint mapping, identified feasible alternatives, identified regulatory requirements at multiple locations, and oversaw efforts of environmental team in 2015 to prepare a project Proponents Environmental Assessment. The CPCN application is currently under consideration at CPUC).

NV5

CONTACT INFO
rick.reyburn@nv5.com
949.585.0477

EXPERIENCE
30 years

EDUCATION
BS in Electrical Engineering,

LICENSES

Electrical Engineering: AK, AL, AZ, CA, CO, CT, DC, FL, ID, IL, IA, IN, KS, KY, LA, MD, MI, MO, MS, NV, ND, NJ, NM, NY, OK, OR, TN, TX, UT, VA, WA, WI

RICK REYBURN, PE

Electrical/Mechanical Engineer

Mr. Reyburn has been an electrical engineer for more than 30 years, designing for commercial, industrial, governmental, healthcare and institutional facilities. Mr. Reyburn specializes in the casino and hospitality industry, working on small projects to facilities costing more than $2 billion. He has been an active senior associate member of the International Association of Electrical Inspectors for more than 20 years.

He has provided electrical engineering for projects all over the United States and is currently a registered professional engineer in 32 states. Mr. Reyburn's specialties include electrical engineering for master planning, schematic design, design development, construction documents and construction administration, including design book specifications.

Project Experience

REGIONAL JUSTICE CENTER, 3RD FLOOR
Las Vegas, NV

ATRIUM BUILDING RENOVATION
Las Vegas, NV

PHOENIX BUILDING, MODIFICATIONS
Las Vegas, NV

CLARK COUNTY CORONER'S OFFICE, MODIFICATIONS
Las Vegas, NV

JEAN PRISON, MODIFICATIONS
Jean, NV

INDIAN SPRINGS PRISON MODIFICATIONS
Las Vegas, NV

CITY OF LAS VEGAS WATER POLLUTION CONTROL FACILITY
Las Vegas, NV

ZAPPOS (LEED GOLD)
Las Vegas, NV

LAS VEGAS CLARK COUNTY LIBRARY
Las Vegas, NV

LAUGHLIN LIBRARY HVAC MODIFICATIONS
Laughlin, NV

SUMMERLIN LIBRARY BOILER REPLACEMENT
Summerlin, NV

SUMMERLIN LIBRARY CENTRAL PLANT REPLACEMENT
Summerlin, NV

WEST SAHARA LIBRARY
Las Vegas, NV

NV5

CONTACT INFO
peter.salgado@nv5.com
949.585.0477

EXPERIENCE
20 years

EDUCATION
B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 63159

PETER SALGADO, PE

Construction Manager

With more than 20 years of experience, Mr. Salgado has managed and delivered a variety of public works projects including street improvements; vertical construction and tenant improvements; parks and landscaping improvements; and water, sewer, and storm drain improvements. Working with a variety of agencies, he is thoroughly familiar with local, state, and federal procedures.

Project Experience

STREET IMPROVEMENTS

Bellflower Boulevard Pedestrian Enhancements
CITY OF BELLFLOWER | BELLFLOWER, CA
Construction Manager. Mr. Salgado managed this $1.2M street traffic signal and parkways improvements project. The scope of work included roadway reconstruction and resurfacing; reconstruction of sidewalks (including decorative paving); driveways, curbs, gutters, cross gutters, and ADA curb ramps; installation of traffic signals, controller cabinets, and flashing beacon; landscaping and irrigation; and traffic striping and signage (including decorative crosswalks at the intersections).

FY 2013-2014, and FY 2015-2016 Annual Pavement Rehabilitation
CITY OF YORBA LINDA | YORBA LINDA, CA
Construction Manager. Mr. Salgado managed this $2.5M citywide street improvement program. Specifically, the scope of work included reconstruction of sidewalks, driveways, curb, gutter, and ADA curb ramps; roadway section repairs and resurfacing; crack seal and slurry seal; and, traffic striping and signage.

Corporate Center Drive Street Lights Project
CITY OF POMONA | POMONA, CA
Construction Manager. Mr. Salgado managed this $250,000 street lights project that included the removal and installation of approximately 50 street lights in several residential areas.

FY 2008 through 2016 Annual Citywide & Street Improvement Projects
CITY OF SANTA MONICA | SANTA MONICA, CA
Construction Manager. Mr. Salgado provided construction management, inspection, and public outreach for this annual citywide project. Work consisted of pavement resurfacing of streets and parking lots (including slurry seal and crack seal treatments); full pavement reconstruction; traffic signal modifications; and construction of new sidewalks, driveways and ADA ramps. Key services included all facets of construction management and inspection including: utility and multiple agency coordination; project budget and accounts tracking; engineering plan and specification review; traffic management and control; submittal, schedule, request for information (RFI), progress payment review and processing; field observation; negotiating and processing change orders; document control; and project closeout, which consisted of warranties, guarantees, recommending notices of completion and the release of retention. Total construction cost varied between $1M and $3M.

NV5

CONTACT INFO
luanne.bean@nv5.com
949.585.0477

EXPERIENCE
30 years

EDUCATION
M.S. Civil Engineering

B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 50129

REGISTRATIONS
FEMA OPS - I

HAZMAT First Responder/ Operations Level

DOT Offers of Bulk and Non-Bulk HAZMAT Packages

Nuclear Waste Safety for Workers

LUANNE BEAN, PE
Construction Manager

Ms. Bean has more than 30 years of experience in the design and management of water and wastewater projects. Her technical skills include structural analysis and design, mechanical analysis, instrumentation and control, the preparation of plans, specifications, and cost estimates as well as construction management. She has held various positions with many public agencies including the Long Beach Water Department, Victor Valley Wastewater Reclamation Authority, Indio Water Authority, Metropolitan Water District, and FEMA. Ms. Bean's technical experience includes large scale public works projects for capital improvement programs including construction oversight, contract administration, document control, cost and schedule control, quality control, structural analysis, and design.

Project Experience

Alley Water Main Conversion, Phase II/Lewis & Lemon
LONG BEACH WATER DEPARTMENT | LONG BEACH, CA
Construction Manager/Inspector. Ms. Bean completed full service Construction Management and Inspection Services for the Phase II Alley Water Main Conversion project. The services included full time construction observation, materials testing, review of Contractor's progress payments, resolution of design issues, shop drawing review, RFI resolution, change order management and resolution, meetings, public notifications and LBWD coordination for shutdowns for this project. Our Construction Management team resolved public complaints and problems from the local businesses and residence before they become problems for City Hall and LBWD. Ms. Bean also checked NPDES and BMP measures, traffic control, and safety measured during construction.

J. W. Johnson Reservoir Facility Valve Replacements and Site Improvements Project
LONG BEACH WATER DEPARTMENT | COMPTON, CA
Resident Engineer/Construction Manager. Ms. Bean was responsible for overseeing this project, which involved replacement of four underground water main valves, installation of five storm drain inlets, construction of a containment cell for an indoor above-ground chlorine tank, construction of a large concrete reinforced storage pad, trenching for the installation of electrical conduit, and re-paving of surface areas to allow for proper drainage.

Group 12 CIPP Sewer Relining Program
LONG BEACH WATER DEPARTMENT | LONG BEACH, CA
Construction Manager. Ms. Bean was the Construction Manager for the Long Beach Water Department's Group 12 CIPP sewer relining program. This involved providing construction oversight and observation of LBWD's contractor to install almost 15,000 of 8-inch, 10-inch, and 12-inch cured-in-place sewer cleaning, pre-lining video, lining, and post-lining video. Point repairs and manhole rehabilitations were also undertaken. Once the installation of the CIPP began, Ms. Bean coordinated with the LBWD for shutting off water services for the various residents and businesses along the sewer line routes. Once curing was completed, a post lining video was run, followed by re-installation of the laterals and top hat installation on select laterals.

NV5

CONTACT INFO
robert.doss@nv5.com
949.585.0477

EXPERIENCE
35 years

EDUCATION
M.B.A Management

B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 31236

Caltrans Resident Engineer Academy

Caltrans Office Engineers Academy

ROBERT H. DOSS, PE

Construction Manager

Mr. Doss has more than 35 years of experience in civil engineering. As a results-oriented project manager, Robert's strengths include strong analytical skills, proven successful negotiating, consistency in quality performance, demonstrated positive proactive actions, composure while under pressure, consistency in delivering superior service tailored to individual customer needs, superb leadership traits, organizational scheduling and planning skills, quick problem solving, work prioritizing, productivity maximization, and great foresight.

Project Experience

City of Stanton Public Works Department and Engineering Department

CITY OF STANTON | STANTON, CA

Public Works Director and City Engineer. Mr. Doss managed the Public Works Department and Engineering Department for a city with a population of 40,000. Robert directed personnel, made City Council presentations, interacted with public citizens and controlled a budget of over $12 million annually. In addition, Robert managed the construction of $16 million in capital improvement projects, including design, budgeting, and construction; the projects were completed ahead of schedule with a savings of $1 million dollars.

Beach Boulevard Sound Wall

CITY OF STANTON | STANTON, CA

Construction Manager. Mr. Doss managed this retaining wall and sound wall construction project that included CIDH piles. The project involved poured concrete retaining walls with masonry sound walls on top of the retaining walls.

State Route 55

CALTRANS DISTRICT 12 – STATE OF CALIFORNIA

Resident Engineer. Mr. Doss oversaw this retaining wall and sound wall freeway construction project, including 25 CIDH piles. The project involved poured concrete retaining walls with masonry sound walls on top of the retaining walls.

State Route 91

CALTRANS DISTRICT 12 – STATE OF CALIFORNIA

Resident Engineer. Mr. Doss oversaw this retaining wall and sound wall freeway construction project, including 42 CIDH piles. The project involved poured concrete retaining walls with masonry sound walls on top of the retaining walls.

Interstate 5/Red Hill

CALTRANS DISTRICT 12 – STATE OF CALIFORNIA | ORANGE COUNTY, CA

Resident Engineer. Mr. Doss oversaw this $20M freeway construction project, including demolition and construction of a new bridge. The project involved major night work because freeway lanes could only be closed between 11 p.m. and 5 a.m. This bridge expansion was a cast-in-place concrete box girder span.

NV5

CONTACT INFO
daniel.ojeda@nv5.com
949.585.0477

EXPERIENCE
40 years

EDUCATION
B.S. Civil Engineering

Construction Management Certificate Program, UCLA

LICENSES
Civil Engineer (CA)
No. 36988

DAN OJEDA, PE
Construction Manager

Mr. Ojeda is a highly qualified professional engineer with 40 years of experience in public works and city engineering with various Southern California public agencies. He has successfully completed numerous small and large-scale capital improvement projects. He also has extensive experience in land development and permitting; traffic engineering; transportation planning; and grant implementation.

As construction manager, Mr. Ojeda's responsibilities include construction oversight; reviewing project plans, specifications, and cost estimates; maintaining cost and schedule control including developing and updating the master schedule; managing the bid/award process; administering consultant and construction contracts; overseeing the resident inspection team, as well as materials testing and deputy inspection teams; conducting weekly progress meetings; processing and tracking project correspondence and documentation including RFIs, submittals, shop drawings and RFQs; reviewing, evaluating, and negotiating construction change orders; facilitating work related to warranties; and managing project closeout.

Project Experience

Citywide Street Rehabilitation
CITY OF WEST COVINA | WEST COVINA, CA
Construction Manager/Inspector. Mr. Ojeda provided construction management and inspection services for a federally funded citywide street rehabilitation project. The scope of work included roadway reconstruction and resurfacing; reconstruction of sidewalks, driveways, curb, gutter, and ADA curb ramps; and traffic signage and striping. All services were administered in compliance with the Caltrans Local Assistance Procedures Manual.

Atlantic Avenue (From I-5 Freeway to South City Limits), Federal Project No. ESPL-5250(013)
CITY OF LYNWOOD | LYNWOOD, CA
Construction Manager. Mr. Ojeda served as construction manager on this street improvement project. The scope of work included roadway reconstruction and resurfacing; reconstruction of sidewalks, driveways, curb, gutter, and ADA curb ramps; and traffic signage and striping. The project was funded with the American Recovery and Reinvestment Act funds.

Abbott Road Improvements, Federal Project STPL-5250(010)
CITY OF LYNWOOD | LYNWOOD, CA
Construction Manager. Mr. Ojeda served as construction manager on this federally funded street improvement project. The scope of work included roadway reconstruction and resurfacing; reconstruction of sidewalks, driveways, curb, gutter, cross gutters, and ADA curb ramps; and traffic signage and striping

Industry Way Improvements
CITY OF LYNWOOD | LYNWOOD, CA
Construction Manager. Mr. Ojeda served as construction manager on this street improvement project. The scope of work consisted of roadway reconstruction and resurfacing; reconstruction of sidewalks, driveways, curb, gutter and ADA curb ramps; and traffic signage and striping.

NV5

CONTACT INFO
akram.hindiyeh@nv5.com
949.585.0477

EXPERIENCE
40 years

EDUCATION
M.S. Civil Engineering

B.S. Civil Engineering

LICENSES/CERTIFICATES
Civil Engineer (CA)
No. 28510

Traffic Engineer (CA)
No. 1452

AKRAM HINDIYEH, PE, TE

Pavement Management Manager

Mr. Hindiyeh has more than 40 years of civil engineering experience in the public and private sectors. His experience includes developing and implementing Pavement Management System Programs, Sidewalk Inventory Programs, Street Improvement Programs, Major Street Maintenance Programs, and Traffic Signals Operation and Maintenance Programs.

Mr. Hindiyeh is a seasoned traffic engineer, currently acting as a technical advisor to several local elected officials and to various Traffic and Transportation Committees/ Commissions, regarding local and regional transportation planning programs and issues. His traffic engineering expertise includes neighborhood traffic management, traffic circulation, traffic studies, traffic signal, signing and striping design. He is instrumental in generating a number of traffic management studies, traffic impact reports and/or offering technical advice for traffic engineering, and large transportation planning projects.

Project Experience

Pavement Management Project (PMP) Update 2012, 2014, 2016

CITY OF VILLA PARK | VILLA PARK, CA

Project Manager/OCTA Prequalified Pavement Inspector. The PMP Update project consisted of 68 miles of AC paved streets. All roadways were surveyed, inspected, and reviewed for conformance with OCTA guidelines. The final reports were approved by the City and OCTA on schedule.

Pavement Management Project (PMP) Update 2012, 2014, 2016

CITY OF LAGUNA WOODS | LAGUNA WOODS, CA

Project Manager/OCTA Prequalified Pavement Inspector. Our team provided data collection and field assessment for the street pavement condition of 11 MPAH miles. Final reports were submitted and approved by the City and OCTA on schedule.

Pavement Management Project (PMP) Update 2015, 2017

CITY OF CYPRESS | CYPRESS, CA

Project Manager/OCTA Prequalified Pavement Inspector. Our team provided data collection and field assessment for the street pavement condition of 112 MPAH miles. Several year Capital Improvement Programs were developed based on the analysis of the street pavements. Final reports were submitted and approved by the City and OCTA on schedule.

Annual Citywide Street Rehabilitation

CITY OF VILLA PARK | VILLA PARK, CA

City Engineer. Mr. Hindiyeh provides administration and management for the City's annual street rehabilitation program. He is responsible for obtaining grants, plan design management, acting as owner/agent to conduct bids for projects, and administration of construction improvements. Our team provided data collection and field assessment for the rehabilitation of several streets within the City of Villa Park. The team was responsible for completing the plans, specifications and cost estimates associated with the recommended street improvements and for inspection oversight during construction

GEOSCIENCE

TERRY A. WATKINS, JR. PG, CHG
Senior Geohydrologist

Mr. Watkins has over fourteen years of experience in many different types of projects, including geohydrologic investigations, ground water quality studies, artificial recharge projects, water well test drilling programs, sea water desalination programs, and the management and supervision of water well projects including: siting, design, aquifer pumping test analyses and well construction. Listed below are various examples of Mr. Watkins' experience:

City of South Pasadena – Rehabilitation of Wilson Well #2. 2016
Developed rehabilitation recommendations and work plan for contractor activities. Served as project and construction manager during rehabilitation, redevelopment, and testing of the well. This work successfully doubled production capability of this well.

City of Huntington Beach – Replacement of Well No. 1
2014 to Present
Prepared preliminary design documents and drawings as well as technical plans and specifications for the drilling, construction, development, and testing of the City of Huntington Beach Replacement Well No. 1. Will provide construction management services, including well design recommendations, during construction activities which should begin second quarter of 2017.

West Valley Water District – Rialto Colton Monitoring Well No. 1.
2015 to 2016
Project manager for the drilling, design, construction, and development of a 910 ft stainless steel monitoring well to serve as a sentinel well monitoring perchlorate migration.

Pico Water District. 2016 to Present
Project manager overseeing all aspects of this project. Tasks completed to date include well siting assessment and recommendation, drafting of technical plans and specifications, contractor bid assistance, and permitting with regulatory agencies. Construction and testing are scheduled to begin in March, 2017

Years of Experience: 14
Years with GEOSCIENCE: 12

Expertise:
Water Well Siting, Design, Construction, Management and Testing
Ground Water Hydrology
Water Resource Management
Water Quality Studies

Education:
B.S., Geology.
California State Polytechnic University, Pomona, 2003.

Professional Registrations:
California Professional Geologist (No. 9046)

Certified California Hydrogeologist, (No. 1038)

CONTACT INFO
justin.griffiths@nv5.com
949.585.0477

EXPERIENCE
15 years

EDUCATION
BS Civil Engineering - California Polytechnic State University - San Luis Obispo

LICENSES
Professional Engineer - CA #69994

Certified Floodplain Manager - CA #US-05-01352

Certified QSD/QSP - #00717 - CASQA

JUSTIN GRIFFITHS, PE

Water/Wastewater Engineer

Mr. Griffiths technical background includes steady and unsteady hydraulic modeling, encompassing one- and two-dimensional models; river mechanics; scour analysis; revetment design, hydraulic analysis of bridges and other structures, floodplain mapping, storm drain and energy dissipating structure designs. Additionally, he is experienced in hydrologic modeling, flood routing, retention/detention basin design, hydromodification analysis, and erosion control design. He assists project managers with a variety of water-related projects including Storm Water Pollution Prevention Plans (SWPPPs), Storm Water Management Plans (SWMPs), Water Quality Technical Reports, drainage designs and report preparation. He has performed site inspections to monitor Best Management Practices (BMPs).

Project Experience

Quarry Road Hydrology/Hydraulics and Alignment Study | County of San Diego

Project engineer responsible for performing hydrologic, hydraulic, and scour calculations for a proposed bridge and roadway realignment over Spring Valley Creek at the Quarry Road crossing for the San Diego County Department of Public Works. Hydrologic calculations were performed according to the County of San Diego Hydrology Manual requirements using HEC-HMS for the highly urbanized 11.6 square-mile watershed. The 10-, 50-, 100-, and 500-year, 24-hour hydrographs were computed for use in the subsequent hydraulic modeling. Hydraulic modeling was performed using HEC-RAS and consisted of evaluating the existing conditions to determine baseline hydraulic values. Various roadway alignments, bridge geometries, and channel grading options were modeled and evaluated using HEC-RAS to determine the optimum configuration which met the County's design objectives.

Stone Canyon Creek LOMR | City of Poway

Project engineer responsible for performing hydrologic and hydraulic calculations for Stone Canyon Creek within the City of Poway. Hydrologic calculations were performed using HEC-HMS to generate inflow hydrographs at various points of interest for use in the subsequent hydraulic modeling. The hydraulic analyses consisted of modeling storm drains, culverts, Stone Canyon Creek, and its tributary using XP-SWMM. Storm drains, culverts, and the main channel of Stone Canyon Creek and its tributary were analyzed under unsteady, one-dimensional flow assumptions. Shallow flow resulting from culvert and storm drain overflow and Stone Canyon Creek overbank flow were modeled in two-dimensions.

Camarillo Center Hydrologic/Hydraulics Study | California Conservation Corps

Project engineer who assisted in performing hydrologic and hydraulic analyses to evaluate various flood control mitigation alternatives for the existing facilities at the California Conservation Corps' (CCC) Camarillo Center in Ventura County, California. In March 2011, the Camarillo Center experienced a rain event that generated approximately 5-6 inches of precipitation. The off-site drainage conditions created significant flooding issues as off-site drainage ditches lacked adequate capacity for this large event. The hydrologic and hydraulic portions of the study evaluated various storm events, including the 100-year, 24-hour storm.

NV5

CONTACT INFO
pete.golding@nv5.com
949.585.0477

EXPERIENCE
43 years

EDUCATION
BA Mathematics

LICENSES
Professional Land Surveyor, CA #LS4768

PETE GOLDING, PLS
Survey/Mapping

Mr. Golding brings 43 years of experience that includes a wide variety of projects in both land development and public works projects. He has completed surveying projects in California, Nevada and Wisconsin and his expertise includes hundreds of boundary retracements, many involving the Public Land Survey System, GPS surveying, map and ALTA production, and construction surveying. He has extensive office and field experience supporting his clients. He has prepared hundreds of plats and legal descriptions. He has prepared and been in responsible charge of many Parcel Maps, Final Maps and Records of Survey. He has also performed many topographic surveys, by photogrammetric methods as well as by field collection methods.

Project Experience

Sunrise Powerlink Project | San Diego Gas & Electric | San Diego County, CA
Project manager for survey and acquisition drawings for approximately 138 miles of new transmission corridors through San Diego County. Project included the subdivision of approximately 86 sections through 20 townships. Field crews recovered more than 100 GLO/BLM monuments, many from the surveys performed in the 1880s. ALTA surveys were performed on mitigation properties purchased by SDG&E, followed by filing records of survey with the county surveyor.

Qualcomm Stadium Expansion | Qualcomm Stadium | San Diego, CA
Project surveyor for topographic survey of Qualcomm stadium and surrounding parking lot and facilities. Set and tied pre-marks to California Coordinate System and to existing stadium control geometry. Provided additional survey data from field shots on columns, walls, seating levels.

International Boundary Water Commission | US/Mexico Border
Responsible for survey projects on the US/Mexico border involving sewer and drainage issues affecting both countries. Provided survey control for construction of the new Sewage Treatment Plant.

Beach Restoration | County of San Diego | San Diego, CA
Set and tied survey control points for photogrammetric survey of several of San Diego County's beaches including Imperial Beach and north county beaches from La Jolla to Oceanside. After restoration design, provided survey control for fill sand dredged from offshore and pumped onto the beaches.

The Crosby Estate | The Crosby Family | Rancho Santa Fe, CA
Responsible for construction staking at new golf course community in Rancho Santa Fe. The project included a new golf course, driving range, golf club, tennis and swim club as well as a mix of residential units including single family homes and condominiums. Performed staking for new hiking trail along the San Dieguito River.

Navy Clean II | Bechtel Corporation | Southern California
Survey Manager for projects performed under contract with the Bechtel Corporation for the federal program to remove environmental hazards from military bases throughout Southern California. Much of the work involved GPS Surveying to set up control on the bases for investigative/exploratory work by environmental teams.

NV5

LINKTURE
CONSULTING ENGINEERS

RÉSUMÉ FOR
OPTY N. FERNANDEZ
Chief Electrical Engineer

EDUCATION
B.S., Electrical Engineering, California State University, Long Beach, CA 1982

PROFESSIONAL REGISTRATION
Registered Electrical Engineer, California E-012496

PROJECT EXPERIENCE
Mr. Fernandez has over 30 years of diverse experience in all facets of electrical engineering, including low and medium voltage power distribution, process instrumentation and controls, power quality studies, and value engineering. He has experience in water and wastewater, municipal, industrial, commercial, high technology industrial and institutional facilities. Mr. Fernandez has been responsible for technical studies, construction management, quality assurance, conceptual designs, construction plans and specifications, submittal reviews, and cost estimates. Mr. Fernandez's recent design experience includes medium (up to 65KV) and low voltage power distribution, process and equipment controls, PLC integration design and programming, DCS, SCADA, telemetry, HMI screen development using popular software such as Wonderware and RSView, emergency and stand-by power generation, UPS and battery power, and indoor and outdoor lighting.

REPRESENTATIVE PROJECTS
City of Camarillo, Wastewater Pumping Station No. 6
Project Status: Operating since 06/06. The project is a new wastewater pumping lift station for a new housing development in the City of Camarillo. The lift station is capable of pumping 1100 gallons per minute and is equipped with three (3) 25 horsepower pump. All the electrical equipment is installed outdoor in a NEMA 4 enclosure including the main switchboard, the motor control center and the control panel. Each pump is controlled by a variable frequency drive which operates to match in incoming flow. An integrated PLC, OIT and telemetry system controls the lift station and communicates the station status, controls, and alarm points to an existing SCADA system. The lift station is equipped with a 100 kW standby generator in the event of utility power failure.

Los Alamitos Wastewater Pump Station
Project Status: Operating since 12/08. Prepared a preliminary design report and final design plans for the Developer funded Storm Water Pump Station in the Los Alamitos Race Track Parking Lot. Facility includes 1800 gpm submersible pumps in wet well with valve vaults, the MCC, Control System. The facility pump the collected storm water runoff from the parking lot into a local storm drain system.

Coachella Valley Water District, Indian Well Lift Station
Project Status: Operating since 03/06. The lift station consists of two 60 hp submersible pumps controlled by variable frequency drives to modulate the pumps and match the incoming flow. A 200 kW diesel generator provide emergency power in the event of utility power outage. The station is monitored and controlled locally a local PLC and remotely via an existing SCADA system.

Walnut Park Water District Booster Pump Station Replacement
Project Status: Operating since 03/04. The project encompasses the replacement of a closed system booster pump station and associated equipment which includes the replacement of existing electrical service equipment, pumps and motors, motor control center and provisions for a future 1500 gpm well. In addition, a new PLC based control system and instruments were provided to control the new booster station, the existing two (2) 125 hp well pumps and the future well pump. Furthermore, the existing 400 kW diesel generator and automatic transfer switch were salvaged and integrated with the new electrical system as well as feed to the existing well pumps and chlorination facility.

CONTACT INFO
jeff.cooper@nv5.com
949.585.0477

EXPERIENCE
40 years

EDUCATION
M.S. Environmental Engineering

B.S. Civil Engineering

B.A. Economics

LICENSES/CERTIFICATES
Civil Engineer (CA)
No. 31672

AFFILIATIONS
American Public Works Association

American Council of Engineering Companies

Construction Management Association of America

American Society of Civil Engineers

WTS

JEFFREY COOPER, PE

Assessment District Manager

Mr. Cooper has more than 40 years of professional consulting engineering experience providing the management of planning, design, construction, and inspection services for transportation and municipal road projects, park projects, master plans and designs for drainage, sewers, water and overhead utility undergrounding projects which have included inventory work and condition assessment. He has also provided QA/QC and oversight for numerous municipal engineering design contracts, including major roadways, drainage, water and sewer projects. Mr. Cooper has also provided Assessment District Engineering services throughout Southern California for over 30 years.

Project Experience

On-Call Professional Services for Assessment Engineering Services
CITY OF NEWPORT BEACH | NEWPORT BEACH, CA
Project Director/Assessment Engineer. Mr. Cooper is providing on-call Assessment Engineering services for formation and administration of assessment districts for the City of Newport Beach. We recently completed a new undergrounding assessment district, AD-117 with 250 parcels. We are currently working on the Engineer's Report for AD-113, West Balboa Island. Previous undergrounding districts completed by Jeff Cooper for the City of Newport Beach are the following: Undergrounding Assessment District No. 63 (Newport Island), Undergrounding Assessment District No. 64 (Channel Road), Undergrounding Assessment District No. 72 (Balboa Coves) and McFadden Square Assessment District No. 59.

On-Call Assessment Engineering
CITY OF SANTA MONICA | SANTA MONICA, CA
Project Director/Assessment Engineer. Mr. Cooper provided professional consulting services for street lighting assessment district formation for the City of Santa Monica.

Assessment & Financial Engineering
- San Joaquin County Flood Control & Water Conservation District, CA - Water Investigation Zone 2 Water Protection and Development Assessment
- City of Ontario, CA - Parkway Maintenance District No. 4
- City of Ontario, CA - Street Lighting Maintenance District No. 2
- City of San Marcos, CA - Vallecitos Town Center Street Maintenance Assessment District
- City of Perris, CA - Community Park Maintenance District
- City of Oceanside, CA - Vandegrift Landscape Maintenance District
- Mountains Recreation and Conservation Authority, State of California - Proposition "A" Los Angeles Countywide Park and Open Space Maintenance District
- Los Angeles County Department of Parks & Recreation, CA - Park Maintenance Districts
- Contra Costa County, CA - County Landscape and Lighting District No. 19793 (LL2)
- Santa Clara County Open Space Authority, CA - Open Space District No. 941
- County of Sacramento, CA - Park and Open Space District
- Valley Wide Recreation and Park District, CA - Districtwide Lighting and Landscape Maintenance District
- City of Clovis, CA - Landscape Maintenance District No 1

EXHIBIT B

Rate Schedule

Effective January 1, 2018 through December 31, 2018. If contract assignment extends beyond that date, a new rate schedule will be added to the contract.

NV5

ENGINEERING SERVICES	HOURLY RATE
Principal	$185
Project Manager	$160
Quality Assurance Manager	$150
Senior Engineer	$135
Project Engineer	$130
Traffic Engineer	$125
Associate Engineer	$115
Assistant Engineer	$110
Engineering Technician	$90
Designer	$110
CADD Drafter	$85
Administration	$75
MUNICIPAL SERVICES	**HOURLY RATE**
Principal	$230
Project Executive	$195
Program/Project Director	$175
Assistant Project Manager	$135
City Engineer	$135
Plan Check Engineer	$120
Planner	$100
Public Works Technician	$90
Permit Technician	$65
CONSTRUCTION SERVICES	**HOURLY RATE**
Senior Construction Manager	$165
Construction Manager	$145
Project Manager	$135
Resident Engineer	$140
Office Engineer	$120
Project Controls Engineer	$100
Labor Compliance/Documents Control	$78
Construction Observer (Non Prevailing Wage)	$98
Construction Observer (Prevailing Wage)	$118
Building Inspector (Non Prevailing Wage)	$85
Surveying (2-person survey crew)	$250*
REIMBURSABLE EXPENSES	**COST**
Reproduction	Cost
Consultant Services	Cost + 15%
Automobile Transportation	$.54 per mile
Delivery, Freight, Courier	Cost
Agency Fees	Cost
Commercial Travel	Cost

*Assumes prevailing wages are applicable for field work.

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (WATER RESOURCES)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between NV5, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the Water Resources Division of the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of five (5) consultants selected to provide services for water resources projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $1,200,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of

performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to

Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees, for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council

City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: NV5, Inc.
9890 Irvine Center Drive
Irvine, CA 92618
Attn: Amy Amirani, PE, Principal-In-Charge / Vice President

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without

the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

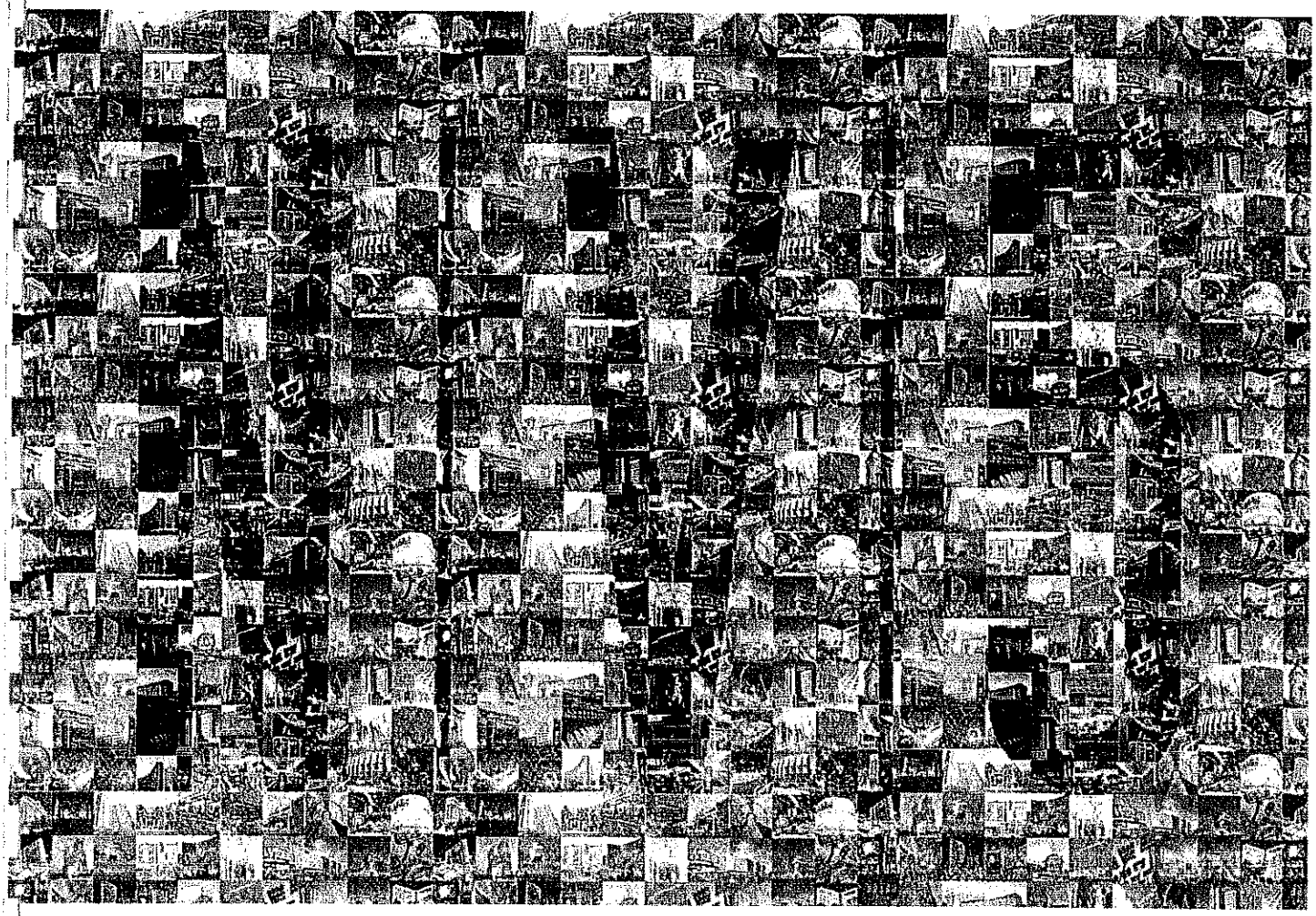
CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

[redacted]



NV5

PROPOSAL

Submitted by NV5

9890 Irvine Center Drive, Irvine, CA 92618

City of Santa Ana

On-Call Engineering Services – RFP No. 17-083 (Option A and B)

March 20, 2018

EXHIBIT A

25E-497

TABLE OF CONTENTS

Cover Letter	01
Contract Agreement Statement	01
Firm and Team Experience	02
Understanding of Need	05
Relevant Project Experience	07
References	11
Scope of Services and Schedule	12
Appendix – Certifications	
Appendix – Resumes	

PN: P2270180719

March 20, 2018

City of Santa Ana
Public Works Department
Attn: Armando Fernandez, Project Manager
20 Civic Center Plaza
Santa Ana, CA 92701

NV5

SUBJECT: Proposal for On-Call Engineering Services, RFP No. 17-083 (Option A and B)

Dear Mr. Fernandez,

At NV5, we acknowledge that design engineering projects are vital to the community, and we have **more than 10 years of experience** partnering with many cities and agencies across Southern California to provide on-call services on projects of similar scope. We are excited to have the opportunity to provide these services to the City of Santa Ana (City). We have prepared this proposal to demonstrate how our team is best suited to deliver the requested services and offer the following:

Relevant Experience: At NV5 we believe that past experience and success are a key indicator of future performance. We are committed to providing high-quality service and believe that commitment is one reason why over 90% of our work comes from repeat clients – an obvious indicator of client satisfaction. We have included references, as requested, as well as relevant project experience to demonstrate our success in fulfilling similar efforts and encourage the City to contact our references to confirm our successful track record.

Personnel: NV5 offers the City a highly competent team with an unparalleled reputation and proven capability and expertise. We have chosen **Project Manager Charlie McKinley, PE** to lead the **Water Resources (Option A)** projects. Mr. McKinley has more than 30 years of experience in water and wastewater design engineering for both large-scale capital improvement projects and small infrastructure improvement projects. He has a broad range of project experience with a focus on pipelines, pump stations, reservoirs, and treatment.

Understanding both the project requirements and scope of work requested by the City, we have selected **Project Manager David Niknafs, PE** as your team leader for project under **General Engineering other than Water Resources (Option B)**. Mr. Niknafs has both managed and directed similar projects throughout Southern California and has more than 30 years of civil design engineering experience with a focus on street improvements, including rehabilitation, reconstruction, intersection widening and parkway improvements. He is supported by a team of highly educated engineers and designers as well as our carefully chosen subconsultants, most of which have been working with us for the past eight years. Should the need arise; our entire staff of dedicated professionals could be made available to be of service to the City.

Resources: We are equipped with the personnel and resources required to meet the City's schedule for any projects we undertake, and we have never missed a project deadline. We are financially viable, and there are no conditions that may impede our ability to complete the City's projects. As a part of NV5, Inc., an international company with the local personality and presence to quickly and creatively address your engineering, design, and staff augmentation needs, we have the ability to assist our clients in an expanded role with access to more than 2,000 professionals from 100 locations. **All services will be provided from our offices in Irvine, located less than 15 miles from the City.**

Quality and Cost Control: We have a proven work plan to complete projects on time, within budget, and with minimal impact to the surrounding businesses and residents. Our quality, cost, and schedule control measures will result in timely and successful completion of the City's projects. This successful track record provides the basis for our quick and reasonably priced project delivery.

Amy Amirani, PE, Vice President of NV5 has the authority to contractually bind the team and may be contacted during the proposal evaluation process.

We look forward to the opportunity to work with the City and help you achieve your goals and objectives. If you need further information, I may be reached by phone at (949) 585-0477, or electronically at amy.amirani@nv5.com. Thank you for your time and consideration.

Sincerely,
NV5

Amy Amirani

Amy Amirani, PE
Principal-In-Charge / Vice President

David Niknafs, PE
Director of Operations

CONTRACT AGREEMENT STATEMENT
NV5 concurs with all provisions as contained in the sample agreement as included in the RFP.

9890 Irvine Center Drive | Irvine, CA 92618 | www.NV5.com | Office: 949.585.0477 | Fax: 949.585.0433

FIRM PROFILE

Established in 2006, our team specializes in the engineering design, construction management and inspection of capital improvement projects, including: streets, traffic systems, water and wastewater systems, drainage and flood control, parks and recreational facilities, vertical construction, and landscaping and grading. Based in Irvine, California, we offer a large network of experts from a variety of engineering fields. Our team includes licensed civil engineers, licensed contractors, construction managers, certified inspectors and experienced public works professionals. All team members have extensive experience working within the structure of municipal government and public construction policy and will seamlessly integrate with the City's team.

As a part of NV5, Inc., an international company with the local personality and presence to quickly and creatively address your engineering, design, and staff augmentation needs, we now have the ability to assist our clients in an expanded role with access to more than 2,000 professionals from 100 locations. We have also added a wide range of additional services in the areas of infrastructure, construction quality assurance, energy, environmental, and program management.

KEY SERVICES

In the past 10 years, our successful delivery of our products and services has resulted in repeat clients for a broad range of municipal projects. Our key services are:

CIVIL ENGINEERING DESIGN | CONSTRUCTION MANAGEMENT AND INSPECTION | PLAN CHECK AND REVIEW | FEDERAL FUNDING MANAGEMENT | BUILDING AND SAFETY SERVICES

CONSTRUCTABILITY REVIEW | STAFF AUGMENTATION | PROJECT MANAGEMENT | LABOR COMPLIANCE | PUBLIC OUTREACH

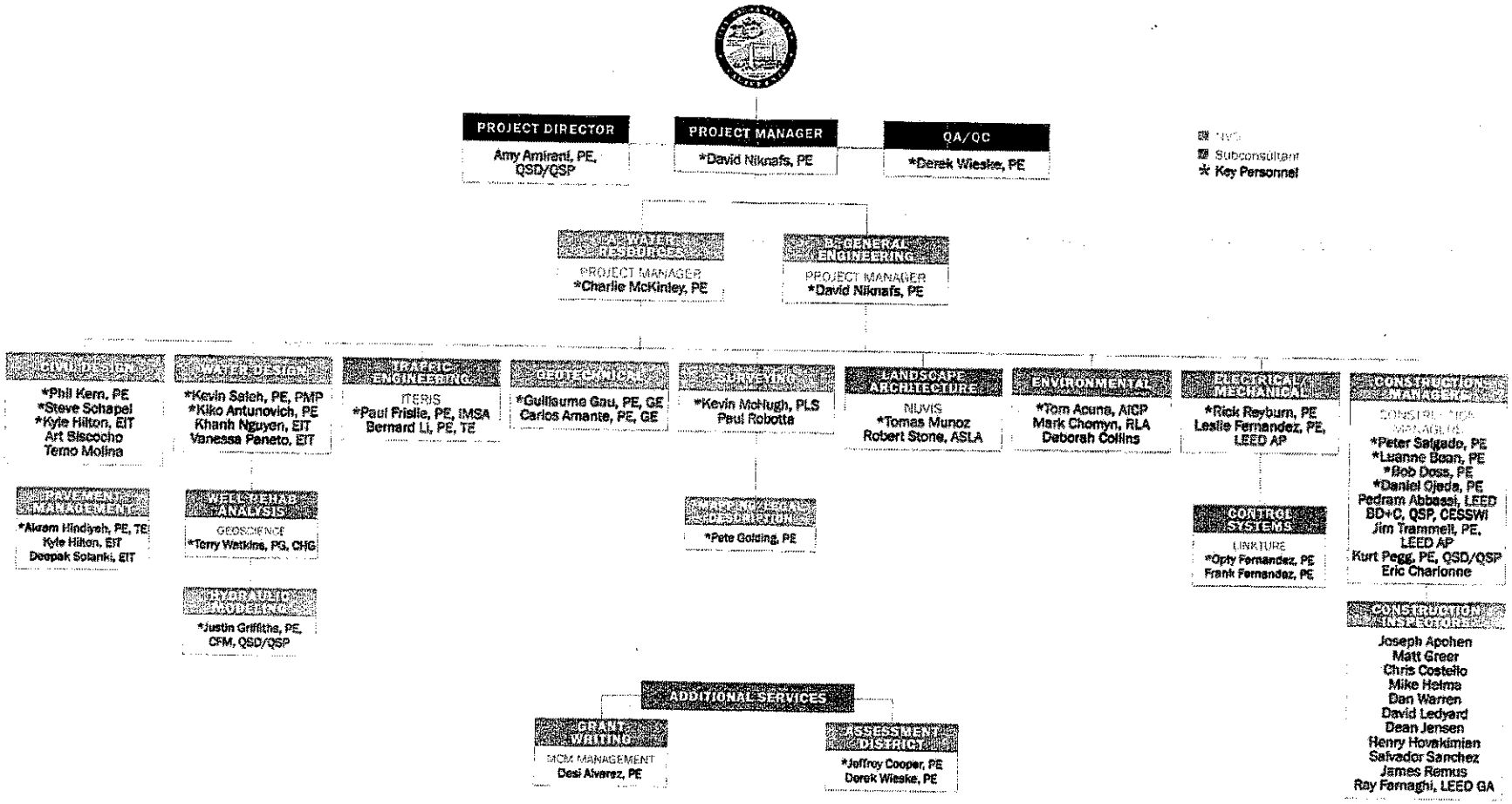
We maintain an extensive history of working with various local agencies. Throughout the course of completing a myriad of public works capital improvement projects, we have demonstrated an unparalleled ability to work well with local agency staff, project stakeholders, engineers and contractors. We have successfully delivered projects in a timely and cost-effective manner, and we have acquired a keen understanding of local agency requirements, a critical element in the facilitation and resolve of project issues. Our team is excited about the opportunity to serve the City and committed to establishing and maintaining effective working relationships with your staff, relevant government agencies and project stakeholders.

With a demonstrated ability to address public concerns, we are experts in a broad range of governmental interface, public outreach and community involvement, and we are genuinely committed to public participation as a way of planning and completing projects. We routinely perform these services as part of our delivery of public works projects and regard them as a vital component to project success. We look forward to extending this level of service to the City.

FIRM AND TEAM EXPERIENCE

ORGANIZATIONAL CHART

For this on-call assignment, we have assembled a team of experts with direct, relevant, successful and current experience working on projects of similar scope and complexity. We are equipped with the resources to provide the City with the requested engineering services. Shown below are team roles and responsibilities. Brief personnel qualifications are listed on the following page and resumes for key personnel are provided in the appendix. Full resumes for all personnel are available upon request.



25E-501

FIRM AND TEAM EXPERIENCE

Name	Years	Role/Availability	Education, Certifications & Licenses
Amy Amirani, PE, QSD/QSP	37	Principal-in-Charge (20%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 34283 Qualified SWPPP Developer/Practitioner
David Nikoafa, PE	30	Project Manager (30%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 42697
Charlie McKinley, PE	30	Project Manager/ Water (30%)	BS, Civil Engineering Civil Engineer CA, No.39484
Derek Wieske, PE	25	Quality Assurance/ Quality Control (20%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 49872
Phil Kern, PE	30	Project Engineer (20%)	BS, Civil Engineering Civil Engineer CA, No. 40831
Steve Schapel	25	Project Engineer (20%)	Engineering Courses
Kyle Hilton, EIT	6	Project Engineer (20%)	BS, Civil Engineering Engineer-in-Training OCTA Prequalified Pavement Inspector
Art Biscocho	22	Project Engineer (20%)	AA, Mechanical Engineering
Temo Molina	7	Project Engineer (20%)	BS, Civil Engineering Engineer-in-Training
Kevin Saleh, PE, PMP	24	Project Engineer/ Water (20%)	BS, Civil Engineering Civil Engineer MD, No. 36759 Project Management Professional
Kiko Antunovich, PE	3	Project Engineer/ Water (20%)	BS, Civil Engineering Civil Engineer CA, No. 87904
Khanh Nguyen, EIT	17	Project Engineer/ Water (20%)	BS, Civil Engineering Engineer-in-Training
Vanessa Pareto, EIT	2	Project Engineer/ Water (20%)	MS, Civil Engineering BS, Civil Engineering Engineer-in-Training
Guillaume Gau, PE, GE	16	Geotechnical Engineering (10%)	MS, Civil Engineering/Geotechnical BS, Civil Engineering Civil Engineer CA, No. 70015 Geotechnical Engineer CA, No. 2986
Carlos Amante, PE, GE	23	Geotechnical Engineering (10%)	MS, Civil Engineering/Geotechnical MS, Civil Engineering/Earthquake Engineering BS, Civil Engineering Civil Engineer CA, No. 57831 Geotechnical Engineer CA, No. 2724
Kevin McHugh, PLS	35	Surveying (10%)	AA Mathematics Professional Land Surveyor CA, No. 8310
Paul Robotta	32	Surveying (10%)	BA, English JD Law Professional Land Surveyor CA, No. 6310

Name	Years	Role/Availability	Education, Certifications & Licenses
Tom Acuna, AICP	35	Environmental (10%)	BA, Business Administration AICP, No. 016629 Certified Environmental Surveyor SDG&E Hazardous Materials and Site Assessment Certification
Mark Chernyn, RLA	40	Environmental (10%)	BS, University of Massachusetts AA, Stockbridge School of Agriculture Registered Landscape Architect CA, No. 2157 Certified Environmental Surveyor SDG&E
Deborah Collins	38	Environmental (10%)	BA, Geography
Rick Reyburn, PE	30	Electrical/Mechanical (10%)	BS, Electrical Engineering Electrical Engineering Licenses (multiple states)
Leslie Fernandez, PE, LEED AP	28	Electrical/Mechanical (10%)	BS, Electrical Engineering
Peter Salgado, PE	20	Construction Manager (30%)	BS, Civil Engineering Civil Engineer CA, No. 63159
Luanne Bean, PE	30	Construction Manager Water (30%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 50129
Bob Doss, PE	35	Construction Manager (30%)	MBA, Management BS, Civil Engineering Civil Engineer CA, No. 31238
Daniel Ojeda, PE	40	Construction Manager (30%)	BS, Civil Engineering Civil Engineer CA, No. 36863 CM Certificate Program, UCLA
Pedram Abbassi, LEED BD+C, QSP, CESSWI	13	Construction Manager (30%)	BS, Civil Engineering LEED BD+C Qualified SWPPP Practitioner
Aleem Hindiyeh, PE, TE	40	Pavement Management (30%)	MS, Civil Engineering BS, Civil Engineering Civil Engineer CA, No. 28610 Traffic Engineer CA, No. 1452 OCTA Prequalified Pavement Inspector
Deepak Solanki, EIT	28	Pavement Management (20%)	BS, Civil Engineering MS, Technology and Engineering OCTA Prequalified Pavement Inspector
Justin Griffiths, PE, CFM, QSD/QSP	15	Hydraulic Modeling (20%)	BS, Civil Engineering Civil Engineer CA, No. 69994
Pete Golding, PE	43	Mapping/Legal Descriptions (20%)	BA, Mathematics Professional Land Surveyor CA, No. 4788
Jeffrey Copper, PE	40	Assessment District Engineering (30%)	MS, Civil Engineering BS, Civil Engineering BA, Economics Civil Engineer CA, No. 31572

25E-502

PROJECT UNDERSTANDING WATER RESOURCES (OPTION A)

We understand that the City is seeking the design and construction support services for the **Santa Ana Water Project.** This project includes the rehabilitation of an existing water well approximately 30 years old, and the design of 1500-feet of 12-inch PVC water main and the construction of 600-feet of 15-inch sewer main on an arterial street. The City would like for the consultant to provide feedback regarding the material of choice for the sewer main improvements. Also, the City would like to connect this well to the water system, as of right now it does connect to an existing onsite reservoir. This well is a sand producer, and currently the capacity has dropped by approximately 35% of its maximum yield of 2000 GPM. The depth of the well is approximately 1100-feet, it has a vertical turbine pump with a 250hp motor. In addition, the screens are made of mild steel. No video or any other preventive maintenance has been done in the past 15 years.

Well Rehabilitation

Our proposed scope of work is divided into a two-phase approach. Phase I will include reconnaissance of the well to characterize the current condition and develop a rehabilitation plan. Phase II will be to perform the rehabilitation necessary to restore the well to proper working order.

Since the rehabilitated well is to be connected to the distribution system, NV5's design will include considerations for the following required appurtenances:

- Flow control valve
- Pump to waste system
- Chlorination
- SCADA connection

It is assumed that the well will be re-equipped with a new pump, motor, MCC, and appurtenances.

Water and Sewer Mains

Both the water main and sewer extensions will be designed according to City standards. NV5 would typically specify high-strength VCP for the proposed 15-inch sewer.

PROJECT UNDERSTANDING GENERAL ENGINEERING (OPTION B)

We understand that the City is seeking the design and construction support services for the **Mile One Street Project.** This project will follow a complete street concept. The length of the project is approximately 1,000 linear feet. Both intersections at the outer limits of the project

Mile One Street Project

have been modified as part of the complete street project under previous phase. The proposed project consists of street rehabilitation, bicycle lane, sidewalk, and parkway improvements. The sidewalks are 6 feet wide and the parkways are 4 feet wide. The project also includes widening of the east side of the street to accommodate a new bicycle lane. The right of way is approximately 12 feet wide with three traffic lanes in each direction with a 14 foot wide median. The required right of way has been acquired by the City.

GENERAL APPROACH

Work Breakdown Structure

Upon issuance of a notice to proceed, our project manager will meet with team members to review the requirements, prepare a Work Breakdown Structure and make team assignments for maximum efficiency of resources. The detailed WBS will describe all of the work tasks necessary to complete the project. A master project schedule will be prepared following the WBS to show the relationship between tasks, the expected start date and duration for each item. This schedule will serve as a guide to conducting and monitoring the progress of the work and to ensure projects are completed on time and within budget. To ensure accurate monitoring and tracking of documents, revisions and progress, a document tracking and control system will be developed. We will meet with City project representatives regularly and maintain constant communication to ensure successful and timely delivery of the project. Meeting minutes will be distributed within one week of the meeting identifying actions, items, assignments and due dates.

Cost Control

We are able to continually review and evaluate a project's cost through all project phases to enable informed and

timely decision-making by our clients and the entire project team. Cost control techniques include: program budget analysis; value engineering; life-cycle cost analysis; and quantity-based estimating. We rely on an open-book, inclusive process that demonstrates the costs and benefits of varying design options. This budget confirmation process starts in the earliest stages of the project, when design and engineering alternatives have the greatest potential impact on costs. Our design teams analyze client goals, technical requirements, alternative building concepts, construction costs and long-term operational costs to define the optimum scope within the budget, ensuring long-term flexibility and value.

Schedule Control

The key to effective schedule control is to measure actual progress and compare it to planned progress on a regular basis and to take necessary corrective action immediately. We propose to supplement each major task as identified in the master project schedule with a supplemental schedule to keep careful track of where each individual component stands. We identify problems that may result from delays and readily provide the opportunity to modify the schedule, as required. This process ensures the completion of your projects on schedule.

Innovative and Successful Approaches

Our team focuses on providing safe, cost-effective, reliable, and sustainable improvements using innovative design and contracting techniques that meet the needs of the taxpayers, meet or exceed the minimum standards based on design improvements, and minimizes impacts to adjacent properties and vehicular and pedestrian traffic. Our experience engineering staff provides lower-cost or lower-impact alternatives in order to develop the least disruptive and least expensive designs.

In addition, the NV5 team utilizes the latest in civil engineering design software to facilitate timely, efficient, and innovative engineering solutions for our clients. Our team relies on a host of computer resources, including up-to-date, state-of-the-art technology that is in use today throughout the engineering industry. We make maximum use of PC-based CADD systems that allow for the storage of typical details, establish similarity of plan layouts, and enable rapid duplications for the efficient preparation of plan sheets.

Our team also provides construction management for public works projects to several local agencies. We will have our in-house construction management staff review plans and specifications for constructability. This is a good opportunity to obtain the view of those from the field and reduce potential difficulties that may be encountered during the construction of a project.

Quality Assurance/Quality Control

For every design project, our team uses a time-tested and proven project quality manual, which describes the project quality process to be followed during the development of the design documents and other project deliverables. In general, we undergo the following quality reviews:

Project Concept Review: Reviews basic concepts for feasibility and conformance to project criteria and evaluates engineering decisions based on cost, constructability and risk management.

Discipline Review: Verifies the work for each of the technical disciplines, including subconsultants. Each subconsultant discipline has a review checklist for each submittal to ensure technical accuracy and that there are no conflicts with the civil design and other disciplines.

Graphics/CAD Standards Review: Verifies that drawings meet graphic and CAD standards for each project, taking into consideration: color; weight; level style; and level.

Project Manager Review: Confirms that project deliverables conform to the scope of work and that documents supplied by others (i.e., client, subconsultants, etc.) are properly incorporated.

In-House Constructability Review: In-house construction managers and inspectors review the plans to ensure feasibility of construction and coordination of drawings.

Client Comment Review: Assures that client comments have been addressed; we will either use our standard comment letter response or one provided by the City.

Coordination Review Meeting: Coordinate all work of the disciplines.

QA/QC Review: Independent review to verify the accuracy, completeness and coordination of drawings, specifications and cost estimates for all design disciplines.

RELEVANT PROJECT EXPERIENCE

A. WATER RESOURCES - RELEVANT PROJECT EXPERIENCE AND REFERENCES

PACIFIC COAST HIGHWAY WATER MAIN | CITY OF LOMITA

Our team is currently providing design engineering services for the preparation of plans, specifications, and cost estimates for the Pacific Coast Highway water main replacement project from Narbonne Avenue to Eshelman Avenue. This project consists of replacing the existing dual 8-inch water mains, including the installation of fire hydrants, service laterals, valves, blow-offs, air release valves, and other associated water appurtenances. The City's 2015 Water Master Plan recommended replacement of the existing with new 6-inch Polyvinyl Chloride (PVC), but the City is requesting that proposers consider 8-inch water mains for replacement.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Lomita	24300 Narbonne Avenue Lomita, CA 90717	September 2017 COMPLETION DATE Current	TBD CONTRACT $55k	Amy Amirani, Kiko Antunovich, David Azim

SERVICES PROVIDED
- Engineering design

PASEO DE VALENCIA LIFT STATION | MOULTON NIGUEL WATER DISTRICT

Our team is currently providing design engineering services for the preparation of plans, specifications, estimates and construction support to rehabilitate and upgrade the existing lift station by replacing the existing pumps, mechanical, electrical and associated equipment. Plans will include provisions for a future odor control system in the new electrical equipment and for a portable generator plug-in connection and associated equipment.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
Moulton Niguel Water District Dave Larsen, Principal Engineer	27500 La Paz Road Laguna Niguel, CA 92677	May 2017 COMPLETION DATE Current	TBD CONTRACT $126,000	Amy Amirani, Kevin Saleh, Khanh Nguyen, Kiko Antunovich

SERVICES PROVIDED
- Engineering design

CORRYNE AND SLAUSON AREA MAIN REPLACEMENTS | GOLDEN STATE WATER COMPANY

Our team completed the engineering design of waterline improvements for GSWC in its Culver City Water System, located in Los Angeles County. The design consisted of replacing and abandoning 1,500 LF of undersized pipe with 8-inch and 12-inch PVC, connections to existing mains, and replacement of existing fire hydrants and water services. The project was located in the public right of way (ROW) along with a portion in the Caltrans ROW. Significant coordination with Caltrans took place throughout the project as a section was located under the freeway overpass. The CivilSource team also created in-house traffic control plans and obtained Caltrans Encroachment Permit.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
Golden State Water Company Joe Farah	2143 Convention Center Way, Ste 110, Ontario, CA 91764	February 2017 COMPLETION DATE December 2017	TBD CONTRACT $47,000	Amy Amirani, Kevin Saleh, Khanh Nguyen, Kiko Antunovich

SERVICES PROVIDED
- Engineering design

RANDOLPH AVENUE AND IMPERIAL HIGHWAY SEWER MAIN REPLACEMENT | CITY OF BREA

Our team provided professional design engineering services for sewer improvements on Randolph Avenue from the Brea Mall across Imperial Highway to Randolph Creek and then to State College Boulevard, and also on State College Boulevard from approximately 160 feet north of Lambert Road (Brea United Methodist Church) to approximately 360 feet southerly across the intersection. CivilSource was also responsible for preparing applications and securing permits for the construction of the proposed facilities from the City of Brea, Caltrans District 12, Union Pacific Railroad, Army Corps of Engineers, State of California Department of Fish and Wildlife, and Orange County Flood Control.

Project Highlight: Innovative design for construction within Brea Creek and coordination with USACOE. 4 Alternative alignments were studied.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Brea Hsing Chao, Associate Engineer	1 Civic Center Circle Brea, CA 92821	February 2015 COMPLETION DATE November 2015	$1.5M CONTRACT $170,000	Amy Amirani, Steve Schapel, Kevin Saleh, Khanh Nguyen, Tyler Pham

SERVICES PROVIDED
- Engineering design
- Environmental/permitting
- Subsurface utility engineering

25E-505

RELEVANT PROJECT EXPERIENCE

A. WATER RESOURCES - RELEVANT PROJECT EXPERIENCE AND REFERENCES

LINCOLN AVENUE 12-INCH WATERLINE REPLACEMENT | CITY OF ANAHEIM PUBLIC UTILITIES DEPARTMENT

Our team provided design engineering services for waterline improvements in the City of Anaheim. The project included installing 3,000 LF of new 12-inch ductile iron pipe (DIP) water main; connections to existing mains; abandonment of 1,300 LF of existing 6-inch and 1,650 LF of existing 8-inch cast iron pipe (CIP) water main; and replacement of existing fire hydrants, water service lines, and meters. The designed improvements considered two future connections to a proposed looped 8-inch DIP tract main of an adjacent town home community in the design development phase.

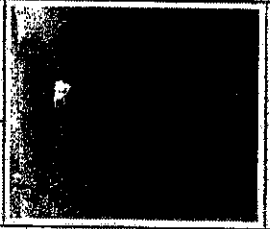
OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Anaheim Public Utilities Department Rudy Emami Public Works Director	200 S. Anaheim Boulevard, Suite 276 Anaheim, CA 92805 (714) 765-5148 remami@anaheim.net	January 2015 COMPLETION DATE July 2015	$1M CONTRACT $80,000	Amy Amirani, Safa Kamangar, Kevin Saleh, Khanh Nguyen, Hooman Jalale

SERVICES PROVIDED
- Engineering design
- Planning studies, system optimization, hydraulic modeling
- Land surveying
- Subsurface utility engineering

ANNUAL SEWER REHABILITATION PROGRAM | CITY OF FOUNTAIN VALLEY

Our team prepared plans to replace or repair approximately 20 manholes, including inspecting and evaluating deficiencies. The improvements included concrete repair around manholes; power wash of manholes; CCTV inspection of sewer installation; pavement restoration per City standards; potholing as required to identify location of crossing utilities or conflicts; and traffic control per City standards; and relining with a polyurethane coating. The project also included spot repair and cured in place pipe (CIPP) lining of several pipe segments, only CIPP lining of sewer segments, and removal and replacement of sewer pipeline. The project consisted of more than 30 pipeline segments throughout the City. CivilSource provided project studies and recommendations; plans, specifications and estimates; and construction support.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Fountain Valley Temo Galvez, Deputy City Engineer	10200 Slater Avenue Fountain Valley, CA 92708	August 2014 COMPLETION DATE August 2015	$1.3M CONTRACT $90,000	Amy Amirani, Safa Kamangar, Kevin Saleh, Khanh Nguyen, Tyler Pham



SERVICES PROVIDED
- Engineering design
- Land surveying
- Subsurface utility engineering

WESTERN AVENUE SEWER IMPROVEMENTS | CITY OF STANTON

Our team provided plans, specifications and cost estimates for the replacement of approximately 1,400 LF of existing 12-inch diameter VCP gravity sewer with hydraulic deficiencies and structural defects. The sewer was replaced with a 15-inch diameter VCP gravity pipe. Improvements also included street improvements. **Project Highlight:** Design of the by-pass system, traffic control plans, and gravity sewer line.

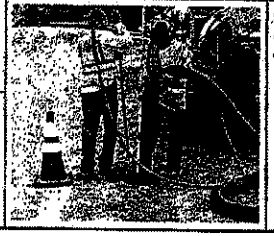
OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Stanton Allan Rigg Public Works Director	7800 Katella Avenue Stanton, CA 90680 (714) 890-4205 arigg@ci.stanton.ca.us	January 2014 COMPLETION DATE April 2015	$800,000 CONTRACT $42,000	Amy Amirani, Safa Kamangar, Khanh Nguyen, Art Biscocho

SERVICES PROVIDED
- Engineering design
- Land surveying

SILVERADO CANYON ROAD DOMESTIC WATER PIPELINE IMPROVEMENTS | IRVINE RANCH WATER DISTRICT

Our team provided design services for approximately 8,300 LF of 12-inch PVC DR 14 waterline construction in the County of Orange unincorporated area to replace existing old and deteriorated Cement-Mortar Lined & Coated Steel pipeline.
Project Highlight: More than one mile of new 12-inch PVC pipe to replace existing 8-inch CMCFC pipe in unincorporated areas of County of Oranga. Special trenching and backfill due to bedrock. No change order. Named IRWDs Best Pipeline Project by staff.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
Irvine Ranch Water District Jeffrey Smyth, Engineer	15600 Sand Canyon Avenue Irvine, CA 92619-7000 (949) 453-5751	December 2013 COMPLETION DATE April 2014	$1.2M CONTRACT $110,000	Amy Amirani, Safa Kamangar, Thom Coughran, Jeff Garvey, Khanh Nguyen



SERVICES PROVIDED
- Engineering design
- Land surveying

25E-506

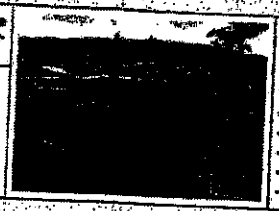
RELEVANT PROJECT EXPERIENCE

B. GENERAL ENGINEERING OTHER THAN WATER RESOURCES

PACIFIC COAST HIGHWAY ARTERIAL IMPROVEMENTS | CITY OF REDONDO BEACH

Our team is conducting a comprehensive traffic analysis and preparing design recommendations to reduce congestion and increase safety on Pacific Coast Highway. Project limits are between Anita Street to the north and Palos Verdes Boulevard to the south. CivilSource is preparing final plans, specifications and cost estimates for the intersection widening for a right-turn-only lane on southbound Pacific Coast Highway and Torrance Boulevard. CivilSource will provide design and support services during bidding and construction phases.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Redondo Beach Didar Khandker Project Manager	415 Diamond Street Redondo Beach, CA 90277 (310) 318-0661 didar.khandker@redondo.org	November 2016 COMPLETION DATE Current	$1.4M CONTRACT $235K	Amy Amirani, David Niknafs, Steve Schapel, Tyler Pham, Art Biscocho, Kyle Hilton



SERVICES PROVIDED
- Street Design
- Drainage/Catch Basin Improvements
- Bike Lane Improvements
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping
- Traffic/Signal Modifications

HARBOR BOULEVARD MEDIAN & LANDSCAPING IMPROVEMENTS | CITY OF COSTA MESA

Our team provided professional engineering and environmental services for the design of improvements on Harbor Boulevard. The City was awarded Federal Highway Safety Improvement Program (HSIP) funds to install medians, landscaping, and associated improvements along Harbor Boulevard to improve pedestrian and traffic safety. The project is structured in the four following phases:
- Phase 1: Existing Plan Review, Survey and Preliminary Design, which consists of defining the physical conditions and utilities within the project limits, preparation of preliminary design plans, establishing the proposed design features, and participating in public dialogue and meetings.
- Phase 2: Environmental Analysis and Approval, which consists of preparation of a Preliminary Environmental Studies document and all associated work required to receive environmental compliance.
- Phase 3: Final Civil Engineering Design, which consists of preparation of the final plans, specifications and estimates necessary to construct the improvements.
- Phase 4: Federal Approval for Construction and Construction Support, which consists of preparing all federal forms required to obtain State and Federal E76 certification.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Costa Mesa Bart Mejia City Engineer	77 Fair Drive Costa Mesa, CA 92626 (714) 754-5378 bart.mejia@costamesaca.gov	March 2016 COMPLETION DATE Current	$675K CONTRACT $160K	Amy Amirani, David Niknafs, Art Biscocho, Reynaldo Yeu

SERVICES PROVIDED
- Street Design
- Landscaping/Irrigation
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping
- Funding Oversight

REHABILITATION OF VARIOUS STREETS | CITY OF LYNWOOD

Our team provided street improvement design plans, contract documents, specifications, estimates, and other appurtenant work for the rehabilitation of Wisconsin Avenue (from Long Beach Boulevard to State Street), Sequoia Drive (from Long Beach Boulevard to State Street), Michigan Avenue (from Long Beach Boulevard to State Street) and Cornish Avenue (from Le sage Avenue to Shirley Avenue) in the City of Lynwood, California. Improvements included rehabilitation of asphalt concrete, reconstruction of concrete curb and gutters, sidewalks; cross-gutters, curb ramps and drive approaches, tree removal and parkway restoration, removal of existing and non-functional street lights and footing, removal and replacement of regulatory and other street signs, removal and installation of new fire hydrants, traffic striping, utility and other agency coordination, and bid assistance.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Lynwood Elias Saikaly CIP Manager	11330 Bullis Road Lynwood, CA 90262 (310) 603-0220 esaikaly@lynwood.ca.us	March 2016 COMPLETION DATE August 2016	$800K CONTRACT $50K	Amy Amirani, David Niknafs, Safa Kamangar, Steve Schapel, Tyler Pham, Art Biscocho

SERVICES PROVIDED
- Street Design
- Pedestrian Improvements
- Bicycle Lane Improvements
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping
- Traffic/Signal Modifications

177TH STREET IMPROVEMENTS | CITY OF TORRANCE

Our team prepared the plans, specifications, and estimates for the rehabilitation of 177th Street, from Prairie Avenue to Hawthorne Boulevard. Improvements include pavement rehabilitation, construction of missing and/or damaged concrete curb, gutter, sidewalks, ADA ramps, and cross-gutters; and removal and replacement of trees, and sewer and manhole repairs.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Torrance Craig Bliozerian Deputy Public Works Director/ City Engineer	20500 Madrona Avenue Torrance, CA 90503 (310) 781-6980 cbliozerian@torrancaca.gov	March 2016 COMPLETION DATE August 2017	$1M CONTRACT $65K	Amy Amirani, David Niknafs, Steve Schapel, Tyler Pham, Kyle Hilton, Art Biscocho

SERVICES PROVIDED
- Street Design
- Landscaping/Irrigation
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping

25E-507

RELEVANT PROJECT EXPERIENCE

B. GENERAL ENGINEERING OTHER THAN WATER RESOURCES

NORTH LA BREA AVENUE "GREEN STREET" IMPROVEMENTS | CITY OF INGLEWOOD

Our team is currently providing comprehensive design services and will deliver final PS&E for this "Green Street" improvement project for the City of Inglewood. The project consists of the street rehabilitation of North La Brea Avenue from the northerly side of Florence Avenue to the City limits located north of 64th Street. The purpose of the project is to mitigate existing distressed asphalt paving to the maximum extent possible and address stormwater runoff issues. As part of the design process, our team evaluated all available design alternatives and developed an NPDES/MS4-compliant stormwater management plan that takes advantage of a network of pervious surfaces within the parking lanes and green areas with the median and parkway. Other improvements included: repair of damaged sidewalks, curbs and gutters, cross-gutters, alley gutters and driveway approaches; assessments of curb ramps for ADA compliance; relocation of water meter and other utility boxes into street parkways; landscape and root pruning; installation of pavement markers and striping to current standards; reconstruction of bus stop pads and channelization islands.

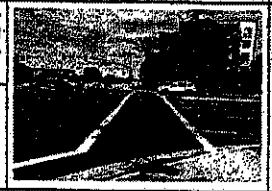
OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Inglewood Eloy Castillo Principal Engineer	One Manchester Boulevard Inglewood, CA 90301 (510) 412-8716 ecastillo@cityofinglewood.org	February 2017 COMPLETION DATE March 2018	$2.7M CONTRACT $190K	Amy Amirani, David Niknafs, Art Biscocho, Kyle Hilton, Reynaldo Yau

SERVICES PROVIDED
- Street Design
- Stormdrains
- NPDES/MS4 Compliance
- Landscaping/Irrigation
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping
- Bus Pads

JAMBOREE WIDENING (FROM MAIN STREET TO BARRANCA) | CITY OF IRVINE

Our team is currently providing project management services for the widening of Jamboree Road from Main Street to Barranca Parkway. The project will widen Jamboree Road from four to five through lanes in each direction. Intersection improvements at Jamboree/Main and Jamboree/Barranca are currently in the design and right of way phases and shall be constructed along with the widening. Preliminary concept plans have been developed. Scope of work includes providing staff, technical expertise, and project management and administration to complete environmental, design, right-of-way, utility coordination, bidding and construction activities.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Irvine Manuel Gomez Director of Public Works	1 Civic Center Plaza Irvine, CA 92606 (949) 724-6000 mgomez@cl.irvine.ca.us	February 2016 COMPLETION DATE Current	$10M CONTRACT $950K	Amy Amirani, David Niknafs, Safa Kamangar, Tyler Pham, Kyle Hilton



SERVICES PROVIDED
- Street Design
- Pedestrian Improvements
- Bicycle Lane Improvements
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping
- Traffic/Signal Modifications
- Environmental Services
- Right-of-Way

WILMINGTON AVENUE PEDESTRIAN AND BICYCLE IMPROVEMENTS | CITY OF COMPTON

Our team provided professional design engineering services, including plans, specifications, cost estimates and related bid documents, for this Safe Routes to School project. The project included pavement rehabilitation, various pedestrian and bicycle improvements, the installation of wider and colored crosswalks, countdown pedestrian signals, enhanced pedestrian lighting, the installation of Class II bike lanes with wayfinding signage and Class I bike paths, the installation of four solar-powered speed feedback signs for speed control and attainment.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Compton Glen Kau Public Works Director	205 South Willowbrook Avenue Compton, CA 90220 (310) 605-5505 gkau@comptoncity.org	August 2016 COMPLETION DATE January 2017	$1.4M CONTRACT $84K	Amy Amirani, David Niknafs, Art Biscocho, Kyle Hilton, Cody Partovi

SERVICES PROVIDED
- Street Design
- Pedestrian Improvements
- Bicycle Lane Improvements
- ADA Sidewalks/Curb/Gutters
- Utility Coordination
- Signing/Striping
- Traffic/Signal Modifications

INDUSTRIAL WAY WATER QUALITY AND STORM DRAIN IMPROVEMENTS | CITY OF COSTA MESA

Design of the Industrial Way Water Quality and Storm Drain Improvements with the objective to eliminate the flooding and current water quality problems caused by the deficiencies within the existing storm drain system. The project consisted of installing an underground detention/infiltration facility within an open grass field located south of the Anaheim Avenue and 19th Street intersection. The detention/infiltration area measures 190 ft. wide by 160 ft. long with a depth of 3 ft. A 2'X10' RCB inflow and an 18-inch diameter outlet pipe will connect to the existing storm drain system located within Anaheim Avenue. The proposed basin will accommodate 1.5 acre-ft. to 2.0 acre-ft. Next to the existing 30-inch pipeline, a parallel storm drain facility within Anaheim Avenue will be constructed. The storm drain system will consist of 1,000 lineal ft. of 10ft. by 3 ft. RCB. Work also included improvements to sewer lines owned by Costa Mesa Sanitary District.

OWNER/CONTACT	ADDRESS/PHONE/EMAIL	START DATE	CONSTRUCTION COST	KEY STAFF
City of Costa Mesa Bart Mejia City Engineer	77 Fair Drive Costa Mesa, CA 92626 (714) 754-5378 bart.mejia@costamesaca.gov	July 2014 COMPLETION DATE January 2015	$1.2M CONTRACT $90K	Safa Kamangar, Khanh Nguyen, Art Biscocho, Steve Schapel

SERVICES PROVIDED
- Water Quality Improvements
- Storm Drain Improvements

25E-508

REFERENCES

Client	Contact/Title	Phone / Email	Address
City of Costa Mesa	Bart Mejia, City Engineer	714.754.5378 bart.mejia@costamesaca.gov	77 Fair Drive Costa Mesa, CA 92626
City of Hermosa Beach	Glen Kau, Public Works Director/ City Engineer	310.318.0222 gkau@hermosabch.org	1315 Valley Drive Hermosa Beach, CA 90254
City of Stanton	Allan Rigg, Public Works Director/ City Engineer	714.890.4203 arigg@ci.stanton.ca.us	7800 Katella Avenue Stanton, CA 90680

SCOPE OF SERVICES
WATER RESOURCES (OPTION A)

Our Scope of Services incorporates the tasks identified by the City in the RFP, and as expanded below.

Well Rehabilitation

PHASE I – WELL RECONNAISSANCE

1. Dynamic Well Evaluation

a. Perform Aquifer Pumping Tests

In order to evaluate the current health of the well, and to provide a baseline from which to measure the effectiveness of the Phase II work, aquifer pumping tests should be performed. These tests will provide current well and aquifer characteristics along with providing sand readings over time from start of pumping. Recovery measurements should be collected for a minimum of two (2) hours following the constant rate pumping test. The recommended aquifer pumping tests are as follows:

- Step Drawdown Pumping Tests - to determine specific capacity and well efficiency relationships. Typically three to four rates are selected for pumping beginning at the lowest rate and working up to the highest.
- Constant Rate Pumping Test & Recovery Test - time drawdown and recovery measurements will be made to determine aquifer parameters such as transmissivity and storativity. It is recommended that the constant rate test be conducted for a minimum of 12 hours with 2 hours of recovery measurements.

Our subconsultant, GEOSCIENCE will provide full-time inspection during pumping and recovery tests.

2. Static Well Evaluation

a. Remove Existing Pump and Equipment From Well

GEOSCIENCE has teamed with Best Drilling and Pump, Inc. (Best) to perform work associated with removal of equipment from the well. Best will remove the existing pumps, motors, and column pipes from the well and store this equipment in the immediate area around the well site. At the completion of all activities, Best will reinstall the pump and equipment to their original depths. Our cost proposal for this task includes Contractor fees.

b. Perform Initial Video Inspection

Once the pump is removed, Pacific Surveys, LLC (Pacific) under the supervision of GEOSCIENCE personnel, will perform a dual-scan downhole video survey of the well. The purpose of the video surveys will be to document the current condition and look for areas of damage and/or plugging in the well screen. GEOSCIENCE will provide full-time inspection during each video survey. The cost for the surveying Contractor is included in the proposal.

3. Results and recommendations

At the conclusion of the Phase I evaluation, GEOSCIENCE will prepare a letter report that summarizes the details and results of the work performed. This report will include:

- Chronology of field activities,
- Analysis of aquifer pumping tests,
- Evaluation of current well conditions, and
- Recommendations for further rehabilitation procedures.

The letter report will be presented to the City in 100% DRAFT electronic format for review and comment. City comments will be incorporated and GEOSCIENCE will issue a 100% FINAL version in electronic format, as well as three (3) hard copies. For cost estimating purposes, it is assumed that one round of comments will be addressed before a 100% FINAL version is prepared.

PHASE II – WELL REHABILITATION

Based on the results of the activities described in Phase I, some or all of the following tasks may be appropriate for the proper rehabilitation of the well. Regardless of what tasks are decided upon, it will be necessary for the City to contract directly with a licensed C-57 drilling Contractor to perform this work. The following scope items are for GEOSCIENCE to assist the City with procuring a qualified Contractor and providing field supervision during Contractor activities.

1. Project Construction Management

GEOSCIENCE will provide construction management services during Phase II of the well rehabilitation to ensure that all aspects of the project are carried out in a proper and efficient manner. Construction management activities will include, but not limited to, attending a pre-construction meeting with prospective Contractors, responding to Contractor RFI's, review of Contractor submittals and invoices, review of change order requests, and providing status updates to City personnel. In addition we will ensure that all work is performed to the satisfaction of regulatory agencies. In addition, GEOSCIENCE will assist, as necessary, with the procurement of any permitting required to perform this work, including NPDES requirements.

2. Pre-Construction Meeting and Pre-Mobilization Coordination with Contractor

GEOSCIENCE will attend one pre-construction meeting with the selected Contractor and City personnel to review key issues within the contract documents and technical specifications. In addition, questions will be addressed regarding hydrogeologic and logistical matters. Items to be discussed at the meeting will include (but not be limited to) required submittals and inspections, permitting, discharge issues, work schedule, invoicing, and communication protocols. Additionally, at the time of the pre-construction meeting, the prospective Contractor will have the opportunity to visit the well site to satisfy themselves regarding conditions that may affect equipment set up. At the time of the meeting, the Contractor will have the opportunity to point out any issues that they may have regarding preparation of the site for the work. GEOSCIENCE will coordinate Contractor activities prior to mobilization. This will include verifying that the Contractor has provided all submittals required by the technical specifications and that equipment delivered to the site meets the requirements of the specifications. It is assumed that all rehabilitation work will be bid under one contract and that attendance at only one pre-construction meeting for this Phase will be necessary.

3. Technical Plans and Specifications

GEOSCIENCE will prepare detailed technical plans and specifications for the rehabilitation of the City well based on observations obtained in Phase I, including a detailed bid schedule with specific line items showing units and unit quantities for the work. Items included in the technical specifications will include (but are not limited to) the following:

- Well location, depth, dimensions, and materials;
- Permits and regulatory requirements;
- Compliance with discharge requirements (as necessary);
- Job conditions (e.g., noise suppression, waste materials, runoff management, power, lighting, water, security, sanitation, parking, traffic control, and work damage);
- Mobilization, demobilization, clearing, grubbing, and site cleanup;
- Equipment, materials, and records to be furnished by the Contractor;
- Records to be kept by the Contractor;
- Well repair by swaging;
- Well cleaning by brushing and bailing;
- Well cleaning by chemical injection;
- Well redevelopment by airlifting and swabbing;
- Well redevelopment by pumping and surging;
- Aquifer pumping and recovery test protocol;
- Flowmeter survey;
- Field ground water quality monitoring protocol;
- Ground water sampling protocol;
- Post-rehabilitation "dual-cam" downhole video survey; and
- Final well disinfection.

GEOSCIENCE will submit an electronic copy of a 100% DRAFT version of the technical plans and specifications to the City for review and comment. Comments to the draft will be incorporated and GEOSCIENCE will submit one (1) electronic copy and three (3) bound hard copies of the 100% FINAL technical specifications.

4. Field Inspection

a. Well Modification by Swaging

If any damage to the well casing and screen is observed from the downhole video survey, it may be necessary to swag a patch to stabilize filter pack and formation material from entering the well during operation. If this is deemed necessary, GEOSCIENCE will provide full-time inspection while any patches or repairs are made.

b. Initial Brushing and Bailing of Well Casing and Screen

A vigorous mechanical brushing procedure should be implemented to loosen and dislodge a maximum amount of surface encrustation and/or bio-fouling materials. GEOSCIENCE will provide part-time inspection during brushing and bailing of the well to monitor the progress of the task and to ensure that the proper methods and equipment are employed. GEOSCIENCE will provide direction to Contractor regarding problem areas of the well screen that may require additional work.

c. Chemical Rehabilitation

Following mechanical rehabilitation, the well should undergo chemical cleaning to remove biofilm produced by bacteria, clays and fine-grained sediments, as well as assisting in removing biological and mineral deposits that may be clogging the perforations and near-well zone. The exact nature of the chemicals to be used shall be recommended based on the results of the downhole video survey (Phase I) and review of the wells water chemistry. GEOSCIENCE will provide full-time inspection during mixing and application of the chemical mixture to ensure proper chemical concentrations and proper dispersal throughout the well casing and screen.

d. Initial Redevelopment by Swabbing and Airlifting

Initial well redevelopment by swabbing and airlifting is an extremely important component of the well redevelopment process. GEOSCIENCE anticipates that at least 60 hours of redevelopment by swabbing and airlifting will be necessary to properly remove and neutralize the chemicals introduced in Task 6.3, and to redevelop the filter pack and near well zone. GEOSCIENCE will provide part-time inspection during the airlift development process and will closely monitor discharge water turbidity and sand content to track the development progress of the well. GEOSCIENCE will carefully follow sand concentrations within the discharge throughout the process and will provide direction to the Contractor should particular areas of the screen require additional work to reduce the sand to a minimum.

e. Final Redevelopment by Pumping and Surging

Final redevelopment by pumping and surging is a particularly important part of the redevelopment process and requires close monitoring of water level and discharge data as well as sand content. GEOSCIENCE will monitor final development on a part-time basis. Tests for sand content and specific capacity will be performed frequently to measure the advancement of the development process and to ensure that the well is fully developed before beginning the aquifer pumping tests. GEOSCIENCE anticipates that a minimum of 40 hours will be necessary for thorough redevelopment.

f. Step Drawdown and Constant Rate Pumping Tests

Once final redevelopment is determined to be complete, pumping tests will be performed on the well to determine any changes to well and aquifer characteristics and to document sand readings over time from start of pumping. Recovery measurements should be collected for a minimum of four (4) hours following the constant rate pumping test. The recommended aquifer pumping tests are as follows:

- Step Drawdown Pumping Tests - to determine specific capacity and well efficiency relationships. Typically three to four rates are selected for pumping, beginning at the lowest rate and working up to the highest.
- Constant Rate Pumping Test & Recovery Test - time drawdown and recovery measurements will be made to determine aquifer parameters such as transmissivity and storativity. It is recommended that the constant rate test be conducted for 24 hours with 4 hours of recovery measurements.

GEOSCIENCE will provide full-time inspection during the step drawdown test and part-time inspection during the 24-hour constant rate and recovery test.

g. Post-Redevelopment Downhole Video Survey and Well Disinfection

It is recommended that a dual-scan downhole video survey be conducted within the well following redevelopment and testing to serve as a record of the post-redevelopment condition of the well casing and screen. GEOSCIENCE will provide full-time inspection during the video survey.

The well should be disinfected as soon as redevelopment and aquifer pumping tests have been performed. A strong chlorine solution should be added to the well following removal of the test pump to obtain a required minimum concentration of 200 milligrams per liter (mg/L) free chlorine concentration. GEOSCIENCE will provide full-time inspection of well disinfection to ensure that the proper concentrations of chlorine are used and that the chlorine is properly injected and dispersed within the well.

5. Prepare summary letter report

At the conclusion of rehabilitation activities, GEOSCIENCE will prepare a letter report in 100% FINAL format that summarizes the details of the redevelopment and testing process. The report will, at a minimum, include the following:

- Pre-redevelopment well condition,
- Chronology of activities,
- Description of methods used during well redevelopment,
- Well redevelopment results and post-redevelopment well condition,
- Analysis and results of aquifer pumping tests, and
- Other pertinent data, analytical results, recommendations and conclusions.

Water and Sewer Pipeline Design

TASK 1 – PROJECT ADMINISTRATION

Prior to the start of the project, we will have a kick-off meeting with City Staff and the project team to review the project objectives, schedule, the scope and approach. At this meeting, we will establish a point of contact for the project and request all available information related to the project. In addition, the NV5 Project Manager will coordinate all aspects of the project and manage the schedule and costs to ensure the project's completion to the satisfaction of the City.

TASK 2 – RESEARCH EXISTING CONDITIONS

A) Research – Perform research of records including utilities, other agency records as necessary to secure information required to identify, locate, and accurately layout all existing utilities, improvements, easements, and rights-of-way within project limits that may interfere with the proposed improvements. The information to be researched will be, as a minimum, the following:

1. Review existing utility and street record drawing plans.
2. Perform utility investigation/utility coordination and provide utility relocation recommendations, if necessary.
3. Perform field investigation and measurement to assess existing site conditions.
4. Provide a copy of all utility notifications and responses prior to first progress payment request.

B) Surveying – Perform a topographic survey along the pipe alignment to include the following:

1. Provide topographic survey using City standard North American Datum 1983.
2. Provide one (1)-foot contours based on City of Santa Ana vertical datum (NGVD 88).
3. Provide spot elevations at critical locations along the alignment to verify vertical control, check existing utilities, such as sewer manholes and storm drain junction structures.
4. Survey flow-line elevations of existing underground sewer and storm drain utilities crossing proposed pipeline.
5. Provide spot elevations at all locations where existing utilities are potholed.
6. Show surface features and visible indications of existing utilities to include curbs and gutters, sidewalks, and other elements relevant to prepare a comprehensive topographic map suitable for pipeline design and construction.
7. Establish street centerlines, right-of-way lines, and easements from available record information.
8. Provide the basis-of-bearing and benchmark information used for the survey and necessary for construction.

C) Utility Locating/Potholing – Perform necessary research to identify all existing utilities and potential conflicts. Pothole existing utilities to verify depth and location (assume 15 potholes). Measure and identify in the potholing report the depth of pavement and base material at each location potholed. Provide all required traffic control and surface repair necessary for potholing work.

TASK 3 – PRELIMINARY DESIGN

Develop a preliminary design of the project site to review with City staff. An approximate 30% design level will constitute a Preliminary Design for this project. Preliminary design will include, but not limited to the following:

- Existing utilities
- Existing pavement, curb, gutter, sidewalk, driveways
- Permitting requirements
- Traffic impacts
- Easement requirements
- Proposed pipe alignment and connections
- Proposed pavement, curb, gutter, sidewalk, driveways
- Based on survey results and City input, NV5 will design proposed water and sewer improvements
- Preliminary construction cost estimate
- Schedule

TASK 4 – FINAL ENGINEERING AND PREPARATION OF CONSTRUCTION CONTRACT DOCUMENTS

Final Engineering will include detailed engineering calculations, design, construction plans, and engineer's construction cost estimate for the project that will enable the City to advertise and award the construction contract for the project. Components of this task include:

A) Plan and Project Documents Preparations (75%, 100%, and Final) – NV5 will submit one (1) set of 24-inch x 36-inch and two (2) sets of 11-inch x 17-inch plans on bond paper for each submittal. Paper submittals will be accompanied by a CD with scanned images (PDF files) of submittals. The final submittal will include one (1) set of 24-inch x 36-inch original signed/sealed plans on bond paper, one (1) set of bid form, opinion of construction cost, and electronic files as described herein.

City will review and return 60% plans with comments pertaining to required improvements for the project. Plans and project documents submitted as 100% will incorporate all comments. NV5 will provide a digital copy of the approved project plans in Microstation V8i and PDF to the City on a compact disc.

B) Engineer's Construction Cost Opinion

1. Engineer's construction cost opinion and quantity takeoff (in MS Excel format) for use by the City to advertise for bid.
2. Bid schedule/measurement and payment.

3. Estimated bidding/construction schedule.

C) Preparation of Record Documents – The construction contractor will provide to the City as-built plans showing changes made during the course of construction. NV5 will prepare record drawings using as-built drawings provided by contractor and reviewed by construction inspector, as well as additional inspector markups, and field notes. NV5 will use City-provided record drawing stamp and will sign final record drawings. Submit the following:

1. One (1) set of 24-inch x 36-inch mylar "Record Drawings"
2. One (1) DVD with the record drawing files saved in Microstation V8i and PDF formats

Anticipated plan sheets include the following:

SHEET NO.		TITLE
1	T-1	Title Sheet
2	G-1	General Notes, Construction Notes, Legend
3	HC-2	Horizontal Control
4-5	C-1 to 2	12-inch PVC Plan & Profile
6	C-3	15-inch PVC Sewer Plan & Profile
7	C-4	Waterline Connection and Standard Details
8	C-5	Sanitary Sewer Details
10-12	C-6 to 8	Well Site and Details
13-14	M-1 to 2	Well Equipping and Details
Optional Plans		
15	T-1	Traffic Control Title Sheet
16	T-2	Traffic Control Plan
17	T-3	Traffic Control - Standard Signage

TASK 5 – BIDDING SERVICES

A) Bidding Phase Support - Assist the City in providing clarification and prepare information to be used in addenda as needed for ten (10) questions that may arise during the bidding process. City will prepare and make available to plan holders any required addenda. Attend the pre-bid meeting, and assist the City with bid evaluations and recommendation of bid award.

B) Conformed Plans - Prepare conformed plans for use in constructing the project. The conformed plans will reflect changes made during bidding, and will be noted as a revision to the final design plans.

TASK 6 – ENGINEERING CONSTRUCTION SERVICES

NV5 will assist the City during the construction of the project by performing the items below:

A) Engineering Support – Assist the City with the following:

1. Provide professional engineering services to address and respond to up to fifteen (15) Requests for Information (RFI's) from the contractor,
2. Review up to twenty-five (25) shop drawing and materials submittals,
3. Prepare supplementary sketches and details as required to resolve field construction problems that may be encountered,
4. Review and provide recommendations regarding proposed change orders, as needed, and
5. Attend pre-construction meeting and up to one (1) additional office or construction site meetings during construction.

B) Minor Plan Revisions – Required minor plan revisions will be completed.

C) Preparation of Record Documents (As-Builts) – The construction contract will require the contractor to provide to the City for review and approval one set of as-built plans showing the design changes made during the course of construction. NV5 will prepare record drawings from contractor and construction inspector as-built drawing, markups, and field notes. Submit the following:

1. One (1) set of 24-inch x 36-inch mylar "Record Drawings"
2. One (1) CD (or DVD) with the record drawing files saved in Microstation v8i and PDF formats.

TASK 7 – OPTIONAL SERVICES

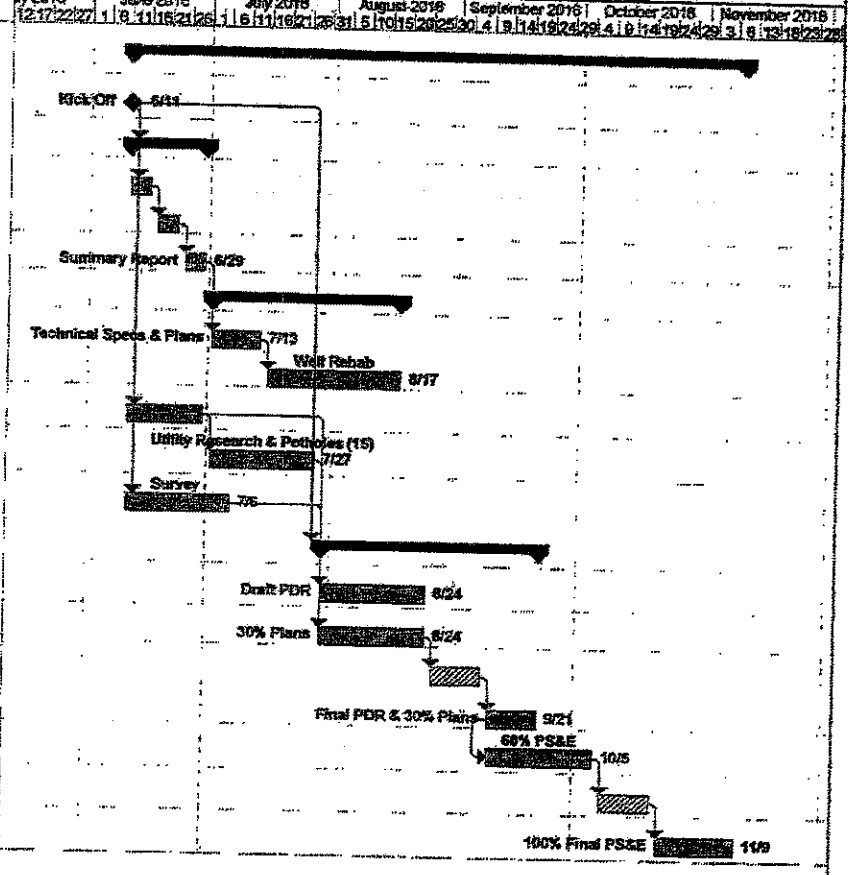
NV5 will provide separate line items in the cost proposal for the "Optional Services". City may exclude or include the optional services as part of the awarded contract at City's discretion. The "Optional Services" will include the following activities:

- If required, Traffic Control Plans will be prepared by a California Registered Traffic Engineer.

PROFESSIONAL ENGINEERING DESIGN SERVICES
OPTION A - WATER RESOURCES PROJECT
DESIGN SCHEDULE

NV5

ID	Task Name	Duration	Start	Finish
0	Project Design Phase	110 days	Mon 6/11/18	Fri 11/9/18
1	Kick Off	0 days	Mon 6/11/18	Mon 6/11/18
2	Phase I Well Evaluation	15 days	Mon 6/11/18	Fri 6/29/18
3	Dynamic	1 wk	Mon 6/11/18	Fri 6/15/18
4	Static	1 wk	Mon 6/18/18	Fri 6/22/18
5	Summary Report	1 wk	Mon 6/25/18	Fri 6/29/18
6	Phase II Well Rehabilitation	35 days	Mon 7/2/18	Fri 8/17/18
7	Technical Specs & Plans	2 wks	Mon 7/2/18	Fri 7/13/18
8	Well Reheb	5 wks	Mon 7/16/18	Fri 8/17/18
9	Data Collection	3 wks	Mon 6/11/18	Fri 6/29/18
10	Utility Research & Potholes (15)	4 wks	Mon 7/2/18	Fri 7/27/18
11	Survey	4 wks	Mon 6/11/18	Fri 7/6/18
12	Preliminary Design (30%)	40 days	Mon 7/30/18	Fri 9/21/18
13	Draft PDR	4 wks	Mon 7/30/18	Fri 8/24/18
14	30% Plans	4 wks	Mon 7/30/18	Fri 8/24/18
15	City Review	2 wks	Mon 8/27/18	Fri 9/7/18
16	Final PDR & 30% Plans	2 wks	Mon 9/10/18	Fri 9/21/18
17	60% PS&E	4 wks	Mon 9/10/18	Fri 10/5/18
18	City Review	2 wks	Mon 10/8/18	Fri 10/19/18
19	100% Final PS&E	3 wks	Mon 10/22/18	Fri 11/9/18



SCOPE OF SERVICES
GENERAL ENGINEERING (OPTION B)

Preliminary Design

A. KICK-OFF MEETING

Prior to the start of the project, we will have a kick-off meeting with City Staff and the project team to review the project objectives, schedule, the scope and approach. At this meeting, we will establish a point of contact for the project and request all available information related to the project. In addition, the NV5 Project Manager will coordinate all aspects of the project and manage the schedule and costs to ensure the project's completion to the satisfaction of the City.

B. DATA COLLECTION AND PROJECT DOCUMENTATION

We will research all information pertinent to the project such as the latest street improvement plans, right of way maps, previous intersections and median improvement plans, storm drain, water and sewer plans, and utility plans in order to include this information in the project plans.

C. DESIGN SURVEY

The survey tasks include, but are not limited to, the following:

We will perform a topographic survey and prepare base maps. We will make sure our base maps show the right of way, curb and gutter, sidewalk, parkway, street centerline, access ramps, driveways, signs, poles, etc. In addition, we will include all information obtained from all affected utility companies within the roadway and parkways. The base maps will then be confirmed during our field walks. The main objective is to have all existing improvements accurately depicted in our base maps so that all constraints are considered during our design of the project. The survey will include cross sections the street to adequately show the condition of the project site prior to construction.

D. UTILITY INVESTIGATION AND COORDINATION

We will research and establish record location of all utilities and utility easements, as necessary. Utility coordination on the project will be ongoing and will generally consist of the following sub tasks:

- Notify each utility purveyor, in writing, of the City's proposed plans and schedule and request copies of record drawings or atlas maps of existing and proposed facilities within the project boundary.
- Obtain existing dry and wet utility plans/records within the project limits. It also includes the coordination of the adjustment of any utilities per city or other agency standards. Once the plans are completed we will send them to all utility companies affected by the project.
- Coordinate all utilities and obtain approval in writing from affected utility companies regarding conflicts, relocations and improvements.
- Access the Underground Service Alert's website and compile a list of member agencies that own facilities within the project limits.
- Augment and/or refine the above list based on available information at the City Records Department and from field investigation.
- Utilities shown on the record drawings will be surface verified, and added to the base map, along with the most recent easement lines shown for each facility.
- Identify interfaces between existing facilities and future project construction.
- Consult with the service planners and others as necessary within each utility company to resolve any conflicts.
- Keep City staff informed on all discussions with utility companies via written meeting minutes or records of telephone conversation.
- Prepare a Utility Notification Log to track utility company contacts and responses including contact information and dates of all outgoing and incoming correspondence.

E. PAVEMENT EVALUATION

We will provide geotechnical investigation, recommendations, and reports to determine the exact rehabilitation methods including but not to limited to reconstruction areas and the proper pavement thickness for reconstruction areas and overlay. We will perform a geotechnical reconnaissance of the site and take up to six borings samples at strategic locations within the project area to observe the existing pavement thickness and soil conditions beneath and to facilitate collection of sub-grade soil samples for lab testing. The results of our field and laboratory testing will be provided in a report which will include; thickness of pavement section, site soil characterization, R-Value of sub-grade soils, and pavement improvements recommendations.

F. PRELIMINARY PLANS

Utilizing the above data and base plans, we will prepare a preliminary street improvement plans and profiles using 1" = 40' horizontal and 1" = 4' vertical scale. In

addition, the plans will include the sidewalk, and parkway improvements. The bike lane, signing and striping plans will be prepared at a 1" = 40' scale. These designs will be supplemented by our field review of the project area to visually confirm and assess the project condition and identify specific improvements to be included in the project. These plans will then be used to evaluate the cost of the project, and ascertain the impact on the adjacent property owners other private improvements.

G. MEETINGS/SCHEDULES

We will be available to attend team meetings, City Council meetings and any other meetings with staff, agencies, and the public as required. Utilizing Microsoft Software Project, we will maintain updated project design schedules for use by the City staff.

Final Design: Plans, Specifications and Estimates

This task involves the completion of construction documents in the form of final PS&E.

A. FINAL IMPROVEMENT PLANS

Upon City approval of the preliminary design, we will proceed with the preparation of final design plans, specifications and cost estimate for submittal to the City at the preliminary and final completion levels process. All plans, reports, and documents will be submitted in the format acceptable to the City.

The plans will be prepared to conform to the general requirements of the City with consideration for the needs of the contractor's construction operations. We will deliver completed and approved construction drawings on or ahead of approved schedules. All designs shall be prepared and submitted in a manner that ensures a complete design approved by the City. Where applicable, the construction drawings will conform to the appropriate applicable standards such as City, county, state standard plans and specifications, APWA Standard Specifications for Public Works Construction "Greenbook," and Manual of Traffic Uniform Control Devices.

The following drawings will be prepared for the project and will be part of the plan set:

- Title Sheet
- Detail Sheet
- Street Widening and Rehabilitation Plans & Profiles
- Sidewalk and Parkway Improvement Plans
- Bike Lane, Signing and Striping Plans

SHEET NO.		TITLE
1	C-1	Title Sheet
2	C-2	General Notes, Construction Notes, Legend
3-4	C-3 & C-4	Street, Sidewalk, Parkway Improvement Plans and Profiles
5-6	SP-5 & SP-6	Bike Lane, Signing, Striping & Markings Plans

B. SPECIFICATIONS

We will prepare complete project specifications, including special provisions that specifies traffic control, construction notification and posting information per City's format and direction. Copies of the Standard General Provisions and Construction Contract Agreement shall be supplied by the City to incorporate into the construction documents.

C. QUANTITY AND COST ESTIMATES

We will provide complete construction quantity and cost estimates for the project. Estimates will be provided at preliminary and final completion submittals, and a final estimate with the final submittal. Excel files will be submitted with each submittal. Quantities will match the Bid Proposal final quantities.

Bidding and Construction Services

We will provide support services during construction.

A. BIDDING SERVICES

Once the plans are approved and advertised, we will assist City staff with bid/award activities, including responding to bidder questions. We will be available to attend pre-bid meetings and other meetings with staff as required. We will also be available to clarify design-related issues at all times.

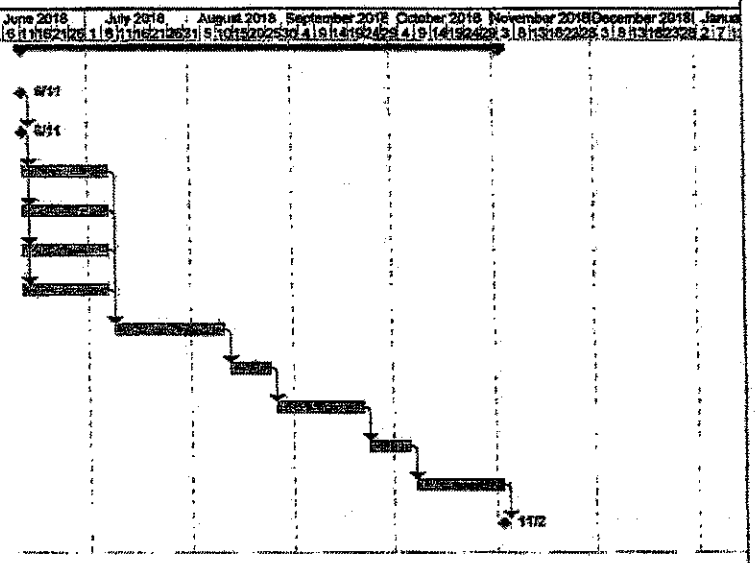
B. CONSTRUCTION SERVICES

We will be available to attend pre-construction meetings and other meetings with staff, agencies, and the public as required. We will provide responses to Requests for Information. We will attend any required site meetings and we will incorporate all redline comments prepared by the Contractor and project inspector and provide the as-built plans.

PROFESSIONAL ENGINEERING DESIGN SERVICES
OPTION B - MILE ONE STREET REHABILITAION PROJECT
DESIGN SCHEDULE

NV5

ID	Task Name	Duration	Start	Finish
0	Project Design Phase	105 days	Mon 6/11/18	Fri 11/2/18
1	NTP	0 days	Mon 6/11/18	Mon 6/11/18
2	Kick Off Meeting	0 days	Mon 6/11/18	Mon 6/11/18
3	Obtain & Review Records Drawings	4 wks	Mon 6/11/18	Fri 7/6/18
4	Utility Notification & Coordination	4 wks	Mon 6/11/18	Fri 7/6/18
5	Topographic Survey	4 wks	Mon 6/11/18	Fri 7/6/18
6	Pavement Investigation & Report	4 wks	Mon 6/11/18	Fri 7/6/18
7	Preliminary Plans (70%)	5 wks	Mon 7/9/18	Fri 8/10/18
8	City Review of Preliminary Plans (70%)	2 wks	Mon 8/13/18	Fri 8/24/18
9	Prepare PS&E (90%)	4 wks	Mon 8/27/18	Fri 9/21/18
10	City Review of PS&E (90%)	2 wks	Mon 9/24/18	Fri 10/5/18
11	Prepare Final PS&E	4 wks	Mon 10/8/18	Fri 11/2/18
12	Submit Final PS&E	0 wks	Fri 11/2/18	Fri 11/2/18



March 20, 2018

Task		External Milestone		Duration-only		External Milestone	
Split		Inactive Task		Manual Summary Rollup		Progress	
Milestone		Inactive Milestone		Manual Summary		Deadline	
Summary		Inactive Milestone		Start-only			
Project Summary		Inactive Summary		Finish-only			
External Tasks		Manual Task		External Tasks			

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 15 day of March, 2018, by David Nikraftar, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Notary Public Signature

NATHAN LOPEZ
Commission # 2128418
Notary Public - California
Orange County
My Comm. Expires Sep 28, 2019

Notary Public Seal

If Sole Attorney Joint JV

CALIFORNIA JURAT WITH AFFIANT STATEMENT **GOVERNMENT CODE § 8202**

☑ See Attached Document (Notary to cross out lines 1–6 below)
☐ See Statement Below (Lines 1–6 to be completed only by document signer[s], *not* Notary)

1
2
3
4
5
6

Signature of Document Signer No. 1 *Signature of Document Signer No. 2 (if any)*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 15 day of March, 2016
by (1) David Nikmanfs
(and (2) _____),
Name(s) of Signer(s)
proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

NATHAN LOPEZ
Commission # 2139413
Notary Public - California
Orange County
My Comm. Expires Sep 28, 2019

Signature _____
Signature of Notary Public

Seal
Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: Non-Collusion Affidavit Document Date: _____
Number of Pages: _____ Signer(s) Other Than Named Above: _____

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Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm NV5

Signed and Printed Name: Amy Amirani Amy Amirani, PE

Title Principal-in-Charge/Vice President

Date 03/05/18

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: Amy Amiani

Title: Principal-In-Charge/Vice President

Firm: NV5

Date: 03/15/18

CONTACT INFO
david.niknafs@nv5.com
949.585.0477

EXPERIENCE
30 years

EDUCATION
M.S. Civil Engineering

B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 42697

AFFILIATIONS
American Public Works Association (APWA)

American Society of Civil Engineers (ASCE)

Transportation & Development Institute

DAVID NIKNAFS, PE

Project Manager

Mr. Niknafs has more than 30 years of civil engineering experience in the public and private sectors working on various capital improvement projects and has extensive experience working as a project manager and senior engineer. He has managed numerous public works and development projects including roadways, bridges, drainage, sewer, water, underground utilities, building facilities and related infrastructure improvement projects.

He is in charge of providing overall project direction to the project technical team and providing resource allocation; preparing and administering budgets; preparing and monitoring project schedules; managing production of preliminary design and final design; preparing various detailed technical reports; providing oversight and performing quality control; managing and monitoring construction activities; establishing, coordinating and maintaining working relationships with owners, developers, and other agencies.

Project Experience

"H" Street Widening Project

CITY OF SAN BERNARDINO | SAN BERNARDINO, CA

Project Manager. Mr. Niknafs is responsible for providing professional design engineering services including plans, specifications, cost estimates and related bid documents for the widening of "H" Street from Kendall Drive to 40th Street. The project will increase H Street from two lanes to four lanes and upgrade the existing traffic signals at 40th Street and Kendall Drive. The plans will include roadway, drainage, sewer, signing and striping, street lighting, modification to traffic signals, and demolition plans. We are coordinating with utility companies, identifying existing right-of-way, conducting pavement investigation and preparing a report, and preparing all required environmental studies and documents for clearance under CEQA. The street improvements will include ADA-compliant curb ramps.

Pacific Coast Highway Arterial Improvements

CITY OF REDONDO BEACH | REDONDO BEACH, CA

Project Manager. Mr. Niknafs is managing a comprehensive traffic analysis and the preparation of preliminary design recommendations to reduce congestion and increase safety on Pacific Coast Highway. Our team is preparing final plans, specifications and cost estimates for the intersection widening for a right-turn-only lane on southbound Pacific Coast Highway and Torrance Boulevard. We will also provide design and support services during bidding and construction phases.

Jamboree Road and Intersection Widening

CITY OF IRVINE | IRVINE, CA

Project Manager/Contract Manager. Mr. Niknafs is responsible for providing program and contract management services for the widening of Jamboree Road from Main Street to Barranca Parkway. The project will widen Jamboree Road from four to five through lanes in each direction. Intersection improvements at Jamboree/Main and Jamboree/Barranca are currently in the design and right of way phases and will be constructed along with the widening. Mr. Niknafs is also responsible for coordination and monitoring required for all phases of work.

NV5

Harbor Boulevard Street, Median and Landscape Improvements

CITY OF COSTA MESA | COSTA MESA, CA

Project Manager. Mr. Niknafs managed the preparation of plans, specifications, and cost estimates for the design of improvements on Harbor Boulevard, including street and median landscaping improvements. The City was awarded Federal Highway Safety Improvement Program funds to install medians, landscaping, and associated improvements to improve pedestrian and traffic safety. A traffic analysis was conducted to establish median openings and turn pocket lane lengths. Our team coordinated with stakeholders including the residents and business owners, and public outreach community meetings were scheduled so the conceptual plans could be presented to the community.

East 19th Street Design Improvements

CITY OF COSTA MESA | COSTA MESA, CA

Project Manager. Mr. Niknafs was responsible for the design of this roadway, median and parkway landscaping improvements project. The project included the removal of reconstruction of pavement; and reconstruction of curb, gutter, cross gutter, sidewalk, wheelchair ramp and driveway. His responsibilities included managing the preparation of the plans, specifications and cost estimates; and assisting the City with the preparation of PES and E-76 certification, as well as with the submittal and processing through Caltrans.

Wilmington Avenue Pedestrian and Bicycle Improvements

CITY OF COMPTON | COMPTON, CA

Project Manager. Mr. Niknafs was responsible for providing professional design engineering services including plans, specifications, cost estimates and related bid documents for the Wilmington Avenue Safe Streets Pedestrian/Bicycle Improvement Project. The project included pavement rehabilitation on Wilmington Avenue from El Segundo Boulevard to Rosecrans Avenue. Scope of work consisted of various pedestrian and bicycle improvements; the installation of wider and colored crosswalks; countdown pedestrian signals; enhanced pedestrian lighting; the installation of Class II bike lanes with wayfinding signage and Class I bike paths; and the installation of four solar-powered speed feedback signs for speed control and attainment.

FY 2017-18 Annual Street Rehabilitation

CITY OF VILLA PARK VILLA PARK, CA

Project Manager. Mr. Niknafs is responsible for providing plans, specifications, and estimates for the annual rehabilitation project. The improvements may include the removal and replacement of deteriorated sections of the streets by repaving or slurry seal the streets; construction of curb and gutter or AC burm at certain locations of these streets; and the replacement of curb and gutters as needed to provide adequate drainage.

Colonial Avenue Alley Pavement Project

CITY OF CULVER CITY | CULVER CITY, CA

Project Manager. Mr. Niknafs is responsible for providing professional design services for the Colonial Avenue Alleyway. As part of the Community Development Block Grant (CDBG) program, the Colonial Avenue Alleyway Paving project includes the paving of approximately 800 LF by 20 feet wide of the alleyway. The scope of work also involves field review, topographic survey, design plans, bid schedule and technical specifications, quantity and cost estimates.

Expo Line Bus Stop Enhancement Project

CITY OF SANTA MONICA | SANTA MONICA, CA

Project Manager. Our team was selected to provide engineering design services for the Expo Line Bus Stop Enhancement Project in Santa Monica. Phase II of the Expo Line extends the line to Santa Monica. As a result, Big Blue Bus is implementing a comprehensive redesign of its transit system to connect passengers with the Expo Line stations in attempt to create a more efficient commute for passengers. These initiatives also include the inclusion of signage, bus berths and overall pedestrian improvements. Our team is providing preliminary, schematic and final design to include construction documents detailing bus pads, ADA-compliant wheelchair pads, sidewalk extensions and the location of bus stops. The work consisted of coordination with various agencies and utility organizations.

CONTACT INFO
charlie.mckinley@nv5.com
949.585.0477

EXPERIENCE
30 years

EDUCATION
B.S. Biomedical Engineering

LICENSES
Civil Engineer (CA)
No. C38484

AFFILIATIONS
Member, Board of Directors, Society of American Military Engineers, Orange County Post

Member, American Public Works Association

Inland Empire Chapter President, WateReuse Association

CHARLIE McKINLEY, PE

Project Manager

Mr. McKinley has more than 30 years of experience as a professional engineer for both large-scale capital improvement projects and small infrastructure improvement projects. He has a broad range of project experience with a focus on pipelines, pump stations, reservoirs, and treatment. Mr. McKinley brings an enthusiastic approach to planning, regulatory permitting, detailed design and operations review to facilitate civil and environmental engineering projects.

Project Experience

Coronado Cays Sewage Lift Station

CITY OF CORONADO | CORONADO, CA

Task Leader. Mr. McKinley was the task leader for the design of a complete overhaul of an 870 gpm submersible pump station. Pumps, controls, wetwell configuration, and various facility elements were replaced with current technology as part of the project.

Back Basin Storm Water Pump Station

ELSINORE VALLEY MUNICIPAL WATER DISTRICT | LAKE ELSINORE, CA

Project Manager. This project consisted of the preliminary and final design of a 2,500 gpm stormwater pump station to accommodate the evacuation of stormwater from the back basin wetlands during an overflow event from Lake Elsinore.

Mountain Belle Pump Station and Water Main

VISTA IRRIGATION DISTRICT | VISTA, CA

Project Engineer. As project engineer, Mr. McKinley was responsible for the design of an inter-zone transmission main. Challenging terrain alignments and steep slope installations were evaluated, as well as surge and hydraulics.

Fullerton Road Grade Separation Stormwater and Groundwater Pump Stations

ROWLAND WATER DISTRICT | INDUSTRY, CA

Project Manager. Responsible for the design of a 20,500 gpm stormwater pump station and a 200 gpm groundwater pump station for the depression of Fullerton Road under UPRR railroad tracks. The project included a hydraulic analyses of storm and groundwater inflow conditions to match with outflow hydrographs, and mechanical, electrical, and structural design. Main pump station was permitted by the LACDPW.

Dudley Sewer Commission Consulting

TOWN OF DUDLEY | DUDLEY, MA

Project Manager. Development of design plans and specifications for three separate sewer extension projects involving approximately 18,000 feet of gravity sewer, 7,000 feet of force main, and four duplex submersible pump stations with emergency power, odor control, and several low-pressure service areas with individual grinder pumps and small diameter force mains. Also completed a town-wide Comprehensive Wastewater Management Plan, including obtaining State Revolving Fund loans and performance of hydraulic modeling of the sewer system, as well as an on-site system survey.

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Sewer Rehabilitation and Reconstruction Study
CITY OF COMPTON | COMPTON, CA
Project Engineer. Work consisted of hydraulic and physical evaluations of the City's major sewers (approximately 46,000 feet of 8- to 12-inch pipe). The objective was to evaluate segments for replacement, repair, or rehabilitation (lining). Sewer CCTV data was reviewed, and interviews were conducted with operations and maintenance personnel. Spreadsheets were developed to prioritize the improvements for a multiyear program. Finally, opinions of probable costs were provided, and the work was presented in a Project Study Report.

Wastewater Collection System Upgrade Program
CITY OF TORRANCE | TORRANCE, CA
Project Manager. Work consisted of the completion of several projects to upgrade the City's sewer system. The program included sewer rehabilitation initiated by a system-wide video program, preparation of sewer replacement and extension designs, and development of a concept design for alley sewers. A grease control ordinance was also developed for the City Code.

Fillmore Sewer Interceptors
CITY OF FILLMORE | FILLMORE, CA
Project Engineer. Mr. McKinley was responsible for the conceptual design of new sewer interceptors to route all flow to a new wastewater treatment plant site. Associated diversion facilities and roadway infrastructure for the new alignment were also designed as part of this project.

Mentone Boulevard Sewer
CITY OF REDLANDS | REDLANDS, CA
Project Manager. As project manager, Mr. McKinley lead the planning and design of a sewer extension on Mentone Boulevard (SR-38), which is a major access route to Arrowhead/Big Bear. Utility coordination and traffic control were key challenges addressed. As a separate project, he also completed the design of 5,000 feet of sewer extension. Project components included the Sewer Master Plan Update, Preliminary Design Report, and plans, specifications, and estimates.

Bushard Trunk Sewer
ORANGE COUNTY SANITATION DISTRICT | FOUNTAIN VALLEY, CA
Project Manager. Work consisted of the design and construction management of replacing the existing 54-inch pipeline with approximately 22,000 LF of new 108-inch concrete-reinforced pipe. The project included geotechnical and structural pipe design, and coordination with involved cities for traffic control.

University of Connecticut WWTP Upgrade and Sewer System Facilities Plan
UNIVERSITY OF CONNECTICUT | STORRS, CT
Project Engineer. Completion of a sewer system evaluation survey to identify reaches with excessive inflow and infiltration in the University collection system. An analysis of flows at the treatment plant was completed, as well as a projection of future flows within the study period. A treatment plant upgrade conceptual plan was also developed.

Lakewood Boulevard Recycled Water Pipeline
CITY OF DOWNEY | DOWNEY, CA
Project Manager. Installation of a recycled water main, potable water meter adjustments, and other miscellaneous utility relocations and adjustments associated with the design and construction of street improvements and enhancements along Lakewood Boulevard from Florence Avenue to Telegraph Road. Project was divided into two segments: Lakewood Boulevard between Florence Avenue and Gallatin Road (2,800 feet); and Lakewood Boulevard between Gallatin Road and Telegraph Road (2,700 feet).

CONTACT INFO
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949.585.0477

EXPERIENCE
25 years

EDUCATION
M.B.A,

M.S. Civil Engineering

B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 49872

AFFILIATIONS
Member, American Society of Civil Engineers

Member (1993-1994), Standards Setting Committee for the California State Board of Registration for Professional Engineers and Land Surveyors

Member (2002), Countrywide New Development and Construction Water Quality Task Force

DEREK WIESKE, PE

Quality Assurance/Quality Control

Mr. Wieske has more than 25 years of hands-on experience in the development, design and construction of capital improvement projects for public agencies. His vast catalog of projects includes roadways and pedestrian improvements, parks and landscaping, water and sewer infrastructure, and buildings. Mr. Wieske has served in a variety of roles from City Engineer to Director of Public Works for agencies throughout Southern California including the cities of Long Beach, Laguna Beach, and Lake Forest.

Project Experience

Downtown Area Resurfacing

CITY OF LAGUNA BEACH | LAGUNA BEACH, CA

Project Manager. Mr. Wieske oversaw the design and construction of the resurfacing of the downtown area of Laguna Beach and coordinated with local businesses to minimize economic impacts of construction. In addition to street resurfacing, the project included installation of various traffic-calming features, such as bulbouts. Mr. Wieske introduced a bonus clause into the specifications, which significantly accelerated project construction, resulting in praise from local shop owners for a successful project.

Stormwater Diversion Systems Installation

CITY OF LAGUNA BEACH | LAGUNA BEACH, CA

Project Manager. Mr. Wieske was responsible for the design and construction of stormwater separators (CDS Units) to divert urban runoff from roadways, and the City stormdrain system to the municipal sewer collection system. Challenges included working with sewer systems without disrupting service, and the design of a system that can be maintained with relative ease.

Lexington Drive Road Improvements

CITY OF LOS ALAMITOS | LOS ALAMITOS, CA

Project Manager. Mr. Wieske was responsible for the installation of a half-mile section of arterial highway from Katella Avenue to Cerritos Avenue. He reviewed and approved plans and specifications and oversaw all construction management/ inspection activities for this project. The project involved close coordination with the representatives from the City of Cypress and an adjacent community church that was funding the roadway improvements.

Ball Road and Bloomfield Street Intersection and Drainage Improvements

CITY OF LOS ALAMITOS | LOS ALAMITOS, CA

Project Manager. Mr. Wieske served as the project manager for the installation of 1,400 LF of storm drain and roadway rehabilitation. The design alignment of the storm drain conflicted with multiple utilities, including sewer, water, gas, electric, and oil pipelines. He oversaw the design of the project, including significant value engineering, plan and specification quality control, bidding process, and coordination with partnering funding agency. The project required extensive coordination with utility agencies to either relocate or adjust conflicting utilities.

NV5

CONTACT INFO
phil.kern@nv5.com
949.585.0477

EXPERIENCE
More than 30 years

EDUCATION

BS Civil Engineering - San Diego State University (1983)

Certificate CalEMA Safety Assessment Program Evaluator - #68105

LICENSES
Professional Engineer - CA #40831

Professional Engineer - NV #9144

PHIL KERN, PE

Project Engineer

Phil has more than 30 years of experience designing and processing public works projects. He has performed in the capacity of Project Manager on a wide variety of civil engineering projects involving transportation facilities, utility repairs and upgrades, and site work. He has been directly responsible for the preparation of grading plans, infrastructure improvement plans, specifications, traffic control/phasing plans, and construction administration for numerous complex civil engineering projects. In addition to having special technical emphasis in the areas of hydrology, hydraulics, site and transportation design, Phil's capabilities are enhanced by his eye for detail and skills in organization, project planning, and written communication.

Project Experience

East Valley Parkway Widening | City of Escondido

Project Manager for design of one half mile widening of East Valley Parkway and Valley Center Road to prime arterial standards between Beven Drive and the northerly city limits where it joined improvements previously constructed by the County. This $6M project will eliminate a traffic bottleneck and features a bridge widening, traffic signal modifications, streetscape design, and preparation of right of way documents and environmental services. The designers took special care during the geometric approval phase of the project to ensure that the improvements were no more than needed to accommodate future traffic projections, saving the City capital funds that could be applied to other needs.

Melrose Drive Extension | City of Oceanside

QA/QC officer for the design of the missing link of Melrose Drive between Spur Avenue, located about one-half mile south of State Route 76, and North Santa Fe Avenue, 300 feet north of Willowbrook Drive. This 3,000-foot roadway extension includes the design of a proposed bridge crossing over Guajome Lake Road and some wetland habitat. Additionally, Melrose Drive will be widened for 1,900 feet between North Santa Fe Avenue and Sagewood Drive.

College Boulevard Widening | City of Oceanside

Project manager for preliminary design of widening of College Boulevard from four to six lanes between Olive Avenue and Camino de la Plata in the City of Oceanside. Efforts included geometric design, detailed field surveying of constraints, siting water quality BMPs and environmental coordination.

San Diego County Women's Detention Facility | County of San Diego

Project manager for preliminary and final civil engineering of a design-build project to replace the existing women's detention facility with a state-of-the-art, $221 million, 478,000-square-foot facility on a 45-acre site. Design challenges include maintaining operations at the existing Las Colinas facility during construction of Phase 1, stormwater compliance at the riverside site, and obtaining approvals by the local municipality and utilities.

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steve.schapel@nv5.com
949.585.0477

EXPERIENCE
25 years

EDUCATION
Engineering courses

STEVE SCHAPEL

Project Engineer

Mr. Schapel has more than 25 years of civil engineering experience in Southern California. He is an experienced manager who has been responsible for the successful completion of environmentally and politically sensitive design improvement projects. His experience includes serving as the project manager and project engineer responsible for preparing project studies and recommendations, plans and specifications, and support during construction.

Project Experience

Baker Street Rehabilitation | City of Costa Mesa

Mr. Schapel was responsible for preparation of plans, specifications and estimates for the Baker Street Rehabilitation from Badda Street to Bear Street. The project consisted of approximately 1400 LF of pavement rehabilitation, reconstruction of damaged curb and gutter, sidewalk, and driveway, construction of ADA compliant curb ramps, and all appurtenant work.

Central Avenue Street Reconstruction | City of Chino

Mr. Schapel was responsible for preparation of plans, specifications and estimates for 1800 LF of pavement reconstruction. Improvements included total pavement reconstruction, redesign of existing cross sections as needed to improve drainage and driveability, and repair of damaged sections of the asphalt.

Alley Pavement Rehabilitation Projects | City of Costa Mesa

Mr. Schapel was responsible for overseeing the preparation of plans, specifications and estimates for the total reconstruction or pavement rehabilitation of 11 alleys. Work included soil testing; structural section design; field surveying; replacement of alley entrance, damaged curb and gutters, cross gutters and spandrels, sidewalks, driveway and approaches, turf and irrigation; wheel chair ramp (WCR) designs meeting ADA requirements; planting and trimming trees; determining right-of-way; and providing traffic control and striping plans.

Temescal Canyon Road Rehabilitation | County of Riverside

Mr. Schapel was responsible for preparation of plans, specifications and estimates for 2,000 LF of pavement rehabilitation. Improvements included grind and asphalt overlay, redesign of existing cross sections as needed to improve drainage and driveability, repair of damaged sections of the asphalt, and reconstruction of concrete improvements (sidewalk, curb and gutter).

Industrial Way Water Quality and Storm Drain Improvements | City of Costa Mesa

Mr. Schapel was responsible for the preparation of plans, specifications, and estimates for the design of the Industrial Way Water Quality and Storm Drain Improvements with the objective to eliminate the flooding and current water quality problems caused by the deficiencies within the existing storm drain system. The project consists of installing an underground detention/infiltration facility within an open grass field located south of the Anaheim Avenue and 19th Street intersection. The project included a hydraulic analysis of the entire storm drain system.

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CONTACT INFO
kyle.hilton@nv5.com
949.585.0477

EXPERIENCE
6 years

EDUCATION
B.S. Civil & Environmental Engineering

LICENSES/CERTIFICATES
Civil Engineer-In-Training

KYLE HILTON, EIT

Project Engineer

Mr. Hilton has more than six years of experience in public works improvements, including planning and design of streets, arterial streets, right-of-way engineering, and storm drain design. His professional experience also includes CAD drafting, bridge rating, Water Quality Management Plans (WQMP), Environmental Impact Reports (EIR), and Storm Water Pollution Prevention Plans (SWPPP). He also has also served various roles for staff augmentation assignments.

Project Experience

Rancho Palos Verdes Area 9 New Striping and Signing

CITY OF RANCHO PALOS VERDES | RANCHO PALOS VERDES, CA

Design Engineer. Mr. Hilton was responsible for striping and signing plans for a large neighborhood community. The project consisted of adding new signs and striping on the streets of a neighborhood community.

Bristol Street Widening from 3rd Street to Civic Center

CITY OF SANTA ANA | SANTA ANA, CA

Design Engineer. Mr. Hilton was responsible for the design of the street widening plans, landscape plans and irrigation plans for this project. The project consisted of adding an additional lane in each direction. Also, a median was constructed with a decomposed granite walkway and a dry stream bed was constructed in place of a gutter.

Grand Street Widening from 1st to 4th Street

CITY OF SANTA ANA | SANTA ANA, CA

Design Engineer. Mr. Hilton was responsible for the design of the street widening plans, landscape plans and irrigation plans for this project. The project consisted of adding an additional lane in each direction. Also, a median was constructed with a dry stream bed in the middle to allow for runoff to percolate into the soil.

Memorial Park Walkway, Basketball Courts, and Volleyball Courts Renovation

CITY OF SANTA ANA | SANTA ANA, CA

Design Engineer. Mr. Hilton was responsible for the design of the walkway, basketball courts, and volleyball courts reconstruction plans for this project.

Expo Line Bus Stop Enhancement Project

CITY OF SANTA MONICA | SANTA MONICA, CA

Design Engineer. Our team was selected to provide engineering design services and Mr. Hilton is responsible for providing the final design of the bus stops while satisfying the needs of multiple government agencies. Phase II of the Expo Line is expected to be completed in late 2015 and will extend the line to Santa Monica. As a result, Big Blue Bus is implementing a comprehensive redesign of its transit system to connect passengers with the Expo Line stations in attempt to create a more efficient commute for passengers; these initiatives also include the inclusion of signage, bus berths and overall pedestrian improvements. Specifically, our team is providing preliminary, schematic and final design, to include construction documents detailing bus pads, ADA-compliant wheelchair pads, sidewalk extensions and the location of bus stop

NV5

CONTACT INFO
kevin.saleh@nv5.com
949.585.0477

EXPERIENCE
24 years

EDUCATION
B.S. Civil Engineering

Diploma, Computer Programming

LICENSES
Civil Engineer (MD) No. 36759

Project Management Professional

AFFILIATIONS
Member of Engineers without borders, UCI Chapter

American Membrane Technology Association

KEVIN SALEH, PE, PMP

Project Engineer

Mr. Saleh has 24 years of experience as a civil engineer. His professional experience includes planning, design, construction management, and construction support services for a variety of public works projects, with specific areas of practice in water and wastewater. His relevant experience includes water distribution and treatment facilities, pumping facilities, treatment plant projects/processes, reservoirs, pressure reducing and surge facilities, blending facilities, disinfection facilities, and flow metering facilities. Wastewater projects include conveyance systems, pumping stations, and treatment plant projects and processes.

Project Experience

UCI Recycled Water Line

IRVINE RANCH WATER DISTRICT | IRVINE, CA

Senior Project Engineer. Mr. Saleh is currently providing the plans, specifications, and estimates for the design as well as providing engineering construction services for approximately 5,700 LF of 16-inch and 12-inch pipeline in California Avenue from University Drive to Theory Lane and on Academy Way and Peltason Drive from California Avenue to the cooling towers. In addition, a new metering vault will be installed at the intersection of California Avenue and Academy Way.

Downtown Anaheim Recycled Water Expansion Design-Build Project

CITY OF ANAHEIM | ANAHEIM, CA

Senior Project Engineer. Mr. Saleh was the designer for this design-build effort in conjunction with Arnaz Engineering for a new pump and tank system to replace the existing irrigation pump supply system. The new system is designed to store (on-site) recycled water in generated from the WRDF and will irrigate Pearson Park. The new pump and tank system will connect to and operate with the existing irrigation sprinkler and controller system.

8-inch and 6-inch Water Main Replacement in Westford Street, Ardmore Street and Calle del Norte Street

CITY OF ANAHEIM | ANAHEIM, CA

Senior Project Engineer. Mr. Saleh was responsible for the design of abandonment and replacement of existing, aging 4-inch and 8-inch DIP main with new 6-inch and 8-inch PVC C-900 located in Westford, Ardmore and Calle del Norte Streets. Designs also include the replacement of several service lines, meters, appurtenances, hydrants and valves.

Culver Boulevard Area Main Replacement

GOLDEN STATE WATER COMPANY | CULVER CITY, CA

Senior Project Engineer. Mr. Saleh was responsible for the design of replacement of existing, aging 4-inch and 6-inch cast iron water main with 8-inch DIP or PVC in Culver Boulevard from Sepulveda Boulevard to Overland Avenue and in Wagner Street from Sepulveda Boulevard to Coombs Avenue (approximately 7,000 feet). The project also includes relocation of 1-inch and 2-inch services and meters and abandonment of the existing water mains in the alley east of Culver Boulevard and in Wagner Street.

CONTACT INFO
kiko.antunovich@nv5.com
949.585.0477

EXPERIENCE
3 years

EDUCATION
B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 87904

KIKO ANTUNOVICH, PE

Project Engineer

Mr. Antunovich has more than three years of experience as a civil engineer. His professional experience includes project engineer, design engineer and CAD designer. He is adept at managing multiple municipal and agency projects. His qualifications include the ability to design and draft complex water and wastewater projects including reservoirs, pump stations, water mains and sewer pipelines.

Project Experience

Paseo De Valencia Lift Station Rehabilitation

MOULTON NIGUEL WATER DISTRICT | LAGUNA HILLS, CA

Project Engineer. Mr. Antunovich is providing project engineering to develop plans to replace aging pumps and motors to increase system reliability, update and replace aged electrical equipment, retrofit piping, rehabilitate facility for better ventilation, and legal descriptions and plats.

Corryne and Slauson Area Main Replacements and Abandonment

GOLDEN STATE WATER COMPANY | CULVER CITY, CA

Project Engineer. Mr. Antunovich is acting as project engineer to develop plans and specifications for the design of a potable water pipeline replacement project located in its Culver City Water System. This project includes replacing and abandoning 1,600 LF of undersized and old 4-inch, 6-inch, and 10-inch cast iron water mains with 8-inch and 12-inch PVC in the public right of way (ROW). The purpose of this project is to improve water quality, increase fire flows, reduce maintenance costs, and improve system reliability within the GSWC service area. This project is set to be constructed in 5 sequences.

Azusa Sewer Lift Station

CITY OF WEST COVINA | WEST COVINA, CA

Project Engineer. Mr. Antunovich is acting as project engineer to develop plans to upgrade the exiting sewer pumps and controls to comply with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems; provide sufficient storage capacity during emergency/power outages; provide backup power systems; and SCADA monitoring system to pump data and status.

Alley Water Main Conversion, Liberty Court

LONG BEACH WATER DEPARTMENT | LONG BEACH, CA

Lead Designer. Mr. Antunovich designed and drafted the plans for the project. This project included the relocation of two waterlines and approximately 26 services within two alleys to the adjacent streets. The project consisted of the design of approximately 3750 LF of 8-inch DI pipe and 500' LF of 4-inch DI pipe. The project required extensive field investigation and coordination between the Long Beach Water Department and property owners. The project construction was also split between the Water Department constructing the pipe in the side streets and the contractor constructing the main within Atlantic Ave and reconnecting the service laterals.

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PAUL M. FRISLIE, PE, IMSA
Senior Engineer

iteris

EDUCATION
- MBA, University of Phoenix, 2011
- BS, Civil Engineering, University of California, Irvine, 2008

REGISTRATIONS
- Civil Engineer (PE):
  - CA #72982, 2008
- International Municipal Signal Association (IMSA):
  - Traffic Signal Level II, #BB97189, 2012
  - Traffic Signal Level I, #AA97189, 2012
  - Signal Inspector Level I, #SI97189, 2014
  - Work Zone Safety, #ZZ97189, 2010

YEARS OF EXPERIENCE 17

CORE COMPETENCIES
- Traffic Engineering & Operations
- ITS Planning, Design & Integration
- Traffic Signal Design
- Construction Assistance
- Transit

AFFILIATIONS
- Orange County Traffic Engineering Council (OCTEC)

Mr. Frislie serves as a Senior Engineer of Iteris' Transportation Systems division and has been with firm since January 2001. For over 17 years, Mr. Frislie has been involved in several transportation and traffic engineering projects that include both planning as well as design and deployment of ITS, systems integration, and traffic signal design. Recently, he has served as the Project Manager for the Rosecrans Avenue Arterial Improvement Project, Cypress Phase 1 through 3 ITS Projects, the Newport Beach ITS Phase 5 through 8 Projects, the Santa Monica ATMS Phase 4c project. He has also been the Lead Design Engineer for the development of design plans for the Oxnard ITS Master Plan Design Project, Vermont Avenue Arterial Improvement project, the Santa Monica ATMS 4a/4b Project, SR-710 ITS Design Project, Newport Beach ITS Phase 1, 2, 3, 4 and 7 Projects and the Fountain Valley Phase IV project, as well as the Signal Construction Inspector for completion of the Oxnard ITS Master Plan and the Rosecrans and Vermont Arterial Improvements.

Project Experience

Harbor Boulevard Traffic Signal Synchronization (TSS) Project – Orange County Transportation Authority (OCTA) and City of Santa Ana, CA
Mr. Frislie served as QA/QC lead and Construction Manager to provide construction support and perform all necessary integration, implementation, and fine-tuning tasks for the Harbor Blvd TSS project. This project involved signal synchronization and equipment upgrade along Harbor Blvd from Chapman Ave to Newport Blvd, spanning across the Cities of Garden Grove, Santa Ana, Fountain Valley and Costa Mesa, as well as freeway on/off ramps at SR-22 and I-405 within Caltrans jurisdiction. In addition to generating PS&E packages for equipment upgrades, the project also included the development, implementation and fine-tuning of the AM, PM, midday, off-peak and weekend traffic signal coordination timing plans for all 46 intersections along the corridor. Iteris will also provide Traffic Management Center (TMC) upgrades to the cities of Costa Mesa and Santa Ana, which spans from Closed-Circuit Television (CCTV) licenses and workstations to designing and replacing the City's existing video wall system with newer and more advanced capabilities.

Barranca Pkwy/Muirlands Blvd Regional Traffic Signal Synchronization Project – Cities of Irvine, Lake Forest & Mission Viejo, CA
Mr. Frislie is the QA/QC Leader to provide traffic/ITS design improvements and traffic signal synchronization for 44 intersections along a 13-mile segment of Barranca Parkway/Muirlands Blvd. The project involves design of new fiber optic cables (multi and single mode), conduits, pull boxes, cabinets and controller upgrade in City of Irvine; New conduits, pull boxes, twisted pair interconnect, and wireless radio in City of Lake Forest; New cabinets, pedestrian signals and loop detection in City of Mission Viejo. In addition to the traffic signal infrastructure improvements, Iteris also develops signal coordination plans for AM, noon, off-peak, PM, "after-hours" and weekend for all project traffic signals along the corridor.

Newport/Balboa Boulevard Regional Traffic Signal Synchronization Project – Cities of Costa Mesa and Newport Beach, CA
Mr. Frislie serves as the QA/QC leader and Engineer of Record to OCTA to provide turn-key traffic/ITS improvements and traffic signal synchronization for 33 intersections along Newport/Balboa Boulevard corridor from Bristol Street in Costa Mesa to Main Street in Newport Beach.

Innovating Through Informatics™

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858.386.0500

EXPERIENCE
16 years

EDUCATION
M.S. Civil Engineering (Geotechnical)

M.S. Civil Engineering and Construction Management

LICENSES
Civil Engineer (CA) No. 70015

Geotechnical Engineer, CA No. 2986

GUILLAUME GAU, PE, GE

Geotechnical Engineer

Mr. Gau's experience includes roadways, electric and gas lines, water pipelines, residential, commercial, schools, transportation, rail, landslide remediation and forensics projects. He also provides field engineering services and laboratory supervision for the testing and inspection for concrete, structural steel, masonry, soils, asphalt, and civil construction.

Project Experience

On-Call Materials Testing and Inspection Services

CITY OF VISALIA | VISALIA, CA

Geotechnical Engineer for annual on-call construction materials testing services for various infrastructure improvement projects comprising geotechnical and material testing, overlay and resurfacing (Cape Seal & Reclamite) projects, utilities projects, Independent Assurance services for federally funded projects, pavement evaluation services, and concrete structures. Materials testing services covered soils, concrete, HMA, Cape Seals, reclamite, and miscellaneous testing services.

Melrose Drive Extension and Improvements

CITY OF OCEANSIDE | OCEANSIDE, CA

Geotechnical Engineer for the design and construction of the extension including grading recommendations, pavement, culvert, pipeline and shoring design.

State Route 178 Widening Project

CALTRANS | STATE OF CALIFORNIA

Geotechnical Engineer for field and laboratory materials tester, plant inspector and source inspection services for the widening of SR-178. The project included grading observation, field density testing, asphalt testing and plant inspection and source inspection of 112,000 CY roadway excavation and fill placement, 62,000 CY of aggregate base and subbase and 83,000 ton HMA

C1090 Installation along Highway 79

SAN DIEGO GAS & ELECTRIC

Geotechnical Engineer for the installation of 7 miles of underground 39kv line to bring power to the new Jamul casino. Work included excavation monitoring and placement of structural backfill, aggregate base and subbase and HMA along Highway 79.

Various Projects

SAN DIEGO GAS & ELECTRIC | SAN DIEGO COUNTY

Geotechnical Engineer for multiple projects including underground transmission lines, drilled pier foundation and gas line relocation. Key geological/geotechnical issues included deep foundations, rippability studies, seismic refraction surveys, horizontal directional drilling, jack and bore, retaining walls and shoring.

Black Canyon Road

SAN DIEGO COUNTY, CA

Senior Engineer and Project Manager responsible for the geotechnical investigation and design of a section of roadway between the San Vicente Reservoir and adjacent Indian Reservation. Key geotechnical issues included slope stability, rock rippability, retaining wall and pavement design consisting of asphalt concrete over soil-cement base.

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949.585.0477

EXPERIENCE
35 years

EDUCATION
AA Mathematics

LICENSES
Professional Land Surveyor - CA #6310

KEVIN McHUGH, Jr., PLS

Surveying Project Manager

Mr. McHugh is a licensed land surveyor with more than 35 years of experience. Kevin manages NV5's surveying operations in our Southern California Region. As survey manager, he supervises all surveying and mapping operations. This role includes oversight of field surveys, construction staking, field crew supervision, field and aerial topographic surveys, the preparation and quality control of final maps, record of surveys, legal descriptions, right of way maps, appraisal maps, boundary surveys and analysis, ALTA surveys, lot line adjustments, constraint maps, condominium plans, and corner records.

Project Experience

SR-261 and SR-241 - Eastern Transportation Corridor | Caltrans

Kevin provided all boundary analysis and right-of-way CADD project coordination for this 26-mile transportation corridor project in Orange County. His responsibilities included supervision and approval and preparation of more than 500 legal descriptions and exhibits for right-of-way acquisition. He supervised preparation of all appraisal maps, right-of-way maps, records of surveys, survey-control maps, horizontal-control calculations, and CADD-file management. Kevin served as the project manager for right of way for this challenging project, which covered the full spectrum of right-of-way mapping and engineering elements. Under his direction, the right of way/ mapping team evaluated title report restrictions and prepared project Constraint Maps; developed Property Binders containing all information and legal data used to for appraisals and subsequent parcel acquisitions; prepared legal descriptions and exhibits for various types of property rights acquisition including fee acquisitions, slope, drainage, roadway and utility easements, temporary construction easements, and Joint Use Agreements and Consent to Common Use Agreements for more than 50-utility facilities.

I-5/I-405 and Bake Parkway Interchange | Caltrans

As land surveyor-in-charge for this project, Kevin's duties covered densification of horizontal and vertical control, design surveys, aerial mapping, right-of-way base mapping and survey control maps for three miles of design cross sections. His work on the project included preparation of legal description and plats for right-of-way takes, and preparation of appraisal maps and right-of-way maps.

Foothill Transportation Corridor - Oso Segment | Caltrans

Provided all boundary analysis and right of way CADD project coordination for the five mile segment of the Foothill Transportation Corridor project. Responsibilities included supervision and approval of preparation of more than 35 legal descriptions and exhibits for right of way acquisition as well as supervision of preparation of all appraisal maps, right of way maps, records of surveys, survey control maps, horizontal control calculations, and CADD file management.

Newhope Street Expansion | Caltrans

Surveyor in charge responsible for completing the boundary survey and analysis to determine the existing street right of way, Caltrans right of way, and private ownership boundaries, as well as the preparation and oversight of all legal descriptions and exhibits required for the City of Fountain Valley to acquire the additional necessary right of way for the project.

NV5

NŪVIS
LANDSCAPE ARCHITECTURE AND PLANNING

TOMAS MUNOZ

Principal
Recreation Planner

Tom shares his talents and passion for our profession with the Boy Scouts as a Merit Badge Counselor for Landscape Architecture, Environmental Science, and Wilderness Survival. His emphasis is in urban design projects and public- and private-oriented park/recreation planning. As the project director for the $15 million Sports Complex in Huntington Beach, Tom facilitated extensive team collaboration and managed the design from conceptuals thru construction documentation. Client relations, pictorial graphic exhibits, technical direction of construction documents, and multi-team/agency coordination are his strengths. Mr Munoz was the Project Manager as subconsultant to DEA for Caltrans (D8) on-call three year contract, and also the Project Manager for NUVIS as prime consultant to Caltrans (D8) on-call for three years.

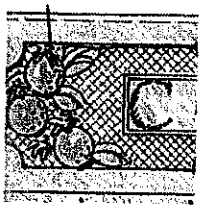
With NUVIS since 1978

Other Professional Experience
Boy Scouts of America, Assistant Scout Master, 1997 National Jamboree

Licensure:
CA 1997

Professional Affiliations
American Society of Landscape Architects
California Park and Recreation Society

North Gaffey Street Beautification, San Pedro, CA
Port of Los Angeles, Directive 1 & 3
Concept scenarios, illustrative perspectives, and PS&E for .75 miles of right-of-way with multi-purpose path serving as a continuation of the bicycle route along N. Gaffey Street. Design process of this community open space included coordination with Chevron, adjacent property owner, and an on-site community meeting with local police to discuss security issues and neighborhood desires.



Green River Road & State Route 91, Corona, CA
Caltrans Dist. 8 with the City of Corona & DEA
Part of On-Call as prime consultant with Caltrans providing Conceptual Designs and Construction Drawings for east and west bound on and off ramps, elevations and sections for Green River overpass, freeway abutments, and construction details for enriched fencing on State Route 91 in Corona. Task Order 9.

State Route 40 Interchange J, Needles, CA
David Evans & Associates for Caltrans District 8
Landscape architectural design support for a 1/2 mile section at Interchange 'J' in the City of Needles including reliminary plan view sketch and perspective imagery utilizing desert/native plantings and colorful decomposed granite, while allowing a comprehensive understanding of the necessary construction budget. Scope also included preparation of final PS&E's for the Interchange improvements.

CONTACT INFO
tom.acuna@nv5.com
949.585.0477

EXPERIENCE
35 years

EDUCATION
BA, Business Administration

Associates Arts Degree

LICENSES
American Institute of Certified Planners Llc. 016829

Hazardous Materials & Site Assessment Certification, University of California San Diego Extension - 1996

Certified Environmental Surveyor SDG&E - 1994

TOM ACUNA, AICP

Environmental Manager

Mr. Acuna currently directs the efforts of NV5's Environmental Group, performing all aspects of environmental support. He has more than 35 years of experience obtaining local, state, and federal approvals for electric and gas projects. Duties include supervising eight Field Environmental Specialists specializing in biological and environmental permitting. He was responsible for preparing regulatory strategies to obtain permits, reviewing and editing technical reports, preparing environmental releases, coordination of construction monitoring, tracking and assigning projects, and program administration of state and federal permits, clearing the way for SCG operations in California's central valley and desert regions.

Project Experience

Escondido Expedited Battery 30 MW/120MWH and El Cajon | SDG&E

Tom was responsible for ensuring environmental and safety compliance for two large lithium ion battery storage systems. This technology is relatively new to investor utilities and required comprehensive review of manufacture specifications and operational requirements to minimize SDG&E risk.

ECO Substation PTC Application | SDG&E

Prepared the Eco Substation Proponent Environmental Assessment and oversaw the Joint EIR/EIS. This document described and evaluated proposed improvements consisting of a new 100-acre substation/switchyard, expansion to an existing substation, and construction of a 13-mile transmission line to connect them. The PTC granted the application in June 2012.

Mountain Empire Major Use Permit | County of San Diego

Tom worked with this team obtain Major Use Permit from the County of San Diego to allow a heavy equipment training facility. Key CEQA issues were visual and noise impacts. At this direction, Tom conducted a CEQA initial study and employed measures so that the project qualified for a Mitigated Negative Declaration. Project completed in 2011.

Hazardous Material Assessment | City of Coachella

Tom developed and provided a hazardous material assessment (Phase I) related to the removal of water line 48 from a street position and private property. The Phase I identified historical contamination and its relationship to hazardous material related to the water line. Completed June 2017.

San Diego Natural Gas Pipeline CPCN Application | SDG&E

Supported the project during the routing phase of a new 42-mile gas line. Provided opportunities and constraint mapping, identified feasible alternatives, identified regulatory requirements at multiple locations, and oversaw efforts of environmental team in 2015 to prepare a project Proponents Environmental Assessment. The CPCN application is currently under consideration at CPUC).

NV5

CONTACT INFO
rick.reyburn@nv5.com
949.585.0477

EXPERIENCE
30 years

EDUCATION
BS In Electrical Engineering,

LICENSES

Electrical Engineering: AK, AL, AZ, CA, CO, CT, DC, FL, ID, IL, IA, IN, KS, KY, LA, MD, MI, MO, MS, NV, ND, NJ, NM, NY, OK, OR, TN, TX, UT, VA, WA, WI

RICK REYBURN, PE

Electrical/Mechanical Engineer

Mr. Reyburn has been an electrical engineer for more than 30 years, designing for commercial, industrial, governmental, healthcare and institutional facilities. Mr. Reyburn specializes in the casino and hospitality industry, working on small projects to facilities costing more than $2 billion. He has been an active senior associate member of the International Association of Electrical Inspectors for more than 20 years.

He has provided electrical engineering for projects all over the United States and is currently a registered professional engineer in 32 states. Mr. Reyburn's specialties include electrical engineering for master planning, schematic design, design development, construction documents and construction administration, including design book specifications.

Project Experience

REGIONAL JUSTICE CENTER, 3RD FLOOR
Las Vegas, NV

ATRIUM BUILDING RENOVATION
Las Vegas, NV

PHOENIX BUILDING, MODIFICATIONS
Las Vegas, NV

CLARK COUNTY CORONER'S OFFICE, MODIFICATIONS
Las Vegas, NV

JEAN PRISON, MODIFICATIONS
Jean, NV

INDIAN SPRINGS PRISON MODIFICATIONS
Las Vegas, NV

CITY OF LAS VEGAS WATER POLLUTION CONTROL FACILITY
Las Vegas, NV

ZAPPOS (LEED GOLD)
Las Vegas, NV

LAS VEGAS CLARK COUNTY LIBRARY
Las Vegas, NV

LAUGHLIN LIBRARY HVAC MODIFICATIONS
Laughlin, NV

SUMMERLIN LIBRARY BOILER REPLACEMENT
Summerlin, NV

SUMMERLIN LIBRARY CENTRAL PLANT REPLACEMENT
Summerlin, NV

WEST SAHARA LIBRARY
Las Vegas, NV

NV5

CONTACT INFO
peter.salgado@nv5.com
949.585.0477

EXPERIENCE
20 years

EDUCATION
B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 63159

PETER SALGADO, PE

Construction Manager

With more than 20 years of experience, Mr. Salgado has managed and delivered a variety of public works projects including street improvements; vertical construction and tenant improvements; parks and landscaping improvements; and water, sewer, and storm drain improvements. Working with a variety of agencies, he is thoroughly familiar with local, state, and federal procedures.

Project Experience

STREET IMPROVEMENTS

Bellflower Boulevard Pedestrian Enhancements
CITY OF BELLFLOWER | BELLFLOWER, CA
Construction Manager. Mr. Salgado managed this $1.2M street traffic signal and parkways improvements project. The scope of work included roadway reconstruction and resurfacing; reconstruction of sidewalks (including decorative paving); driveways, curbs, gutters, cross gutters, and ADA curb ramps; installation of traffic signals, controller cabinets, and flashing beacon; landscaping and irrigation; and traffic striping and signage (including decorative crosswalks at the intersections).

FY 2013-2014, and FY 2015-2016 Annual Pavement Rehabilitation
CITY OF YORBA LINDA | YORBA LINDA, CA
Construction Manager. Mr. Salgado managed this $2.5M citywide street improvement program. Specifically, the scope of work included reconstruction of sidewalks, driveways, curb, gutter, and ADA curb ramps; roadway section repairs and resurfacing; crack seal and slurry seal; and, traffic striping and signage.

Corporate Center Drive Street Lights Project
CITY OF POMONA | POMONA, CA
Construction Manager. Mr. Salgado managed this $250,000 street lights project that included the removal and installation of approximately 50 street lights in several residential areas.

FY 2008 through 2016 Annual Citywide & Street Improvement Projects
CITY OF SANTA MONICA | SANTA MONICA, CA
Construction Manager. Mr. Salgado provided construction management, inspection, and public outreach for this annual citywide project. Work consisted of pavement resurfacing of streets and parking lots (including slurry seal and crack seal treatments); full pavement reconstruction; traffic signal modifications; and construction of new sidewalks, driveways and ADA ramps. Key services included all facets of construction management and inspection including: utility and multiple agency coordination; project budget and accounts tracking; engineering plan and specification review; traffic management and control; submittal, schedule, request for information (RFI), progress payment review and processing; field observation; negotiating and processing change orders; document control; and project closeout, which consisted of warranties, guarantees, recommending notices of completion and the release of retention. Total construction cost varied between $1M and $3M.

NV5

CONTACT INFO
luanne.bean@nv5.com
949.585.0477

EXPERIENCE
30 years

EDUCATION
M.S. Civil Engineering

B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 50129

REGISTRATIONS
FEMA OPS - I

HAZMAT First Responder/ Operations Level

DOT Offers of Bulk and Non-Bulk HAZMAT Packages

Nuclear Waste Safety for Workers

LUANNE BEAN, PE

Construction Manager

Ms. Bean has more than 30 years of experience in the design and management of water and wastewater projects. Her technical skills include structural analysis and design, mechanical analysis, instrumentation and control, the preparation of plans, specifications, and cost estimates as well as construction management. She has held various positions with many public agencies including the Long Beach Water Department, Victor Valley Wastewater Reclamation Authority, Indio Water Authority, Metropolitan Water District, and FEMA. Ms. Bean's technical experience includes large scale public works projects for capital improvement programs including construction oversight, contract administration, document control, cost and schedule control, quality control, structural analysis, and design.

Project Experience

Alley Water Main Conversion, Phase II/Lewis & Lemon

LONG BEACH WATER DEPARTMENT | LONG BEACH, CA

Construction Manager/Inspector. Ms. Bean completed full service Construction Management and Inspection Services for the Phase II Alley Water Main Conversion project. The services included full time construction observation, materials testing, review of Contractor's progress payments, resolution of design issues, shop drawing review, RFI resolution, change order management and resolution, meetings, public notifications and LBWD coordination for shutdowns for this project. Our Construction Management team resolved public complaints and problems from the local businesses and residence before they become problems for City Hall and LBWD. Ms. Bean also checked NPDES and BMP measures, traffic control, and safety measured during construction.

J. W. Johnson Reservoir Facility Valve Replacements and Site Improvements Project

LONG BEACH WATER DEPARTMENT | COMPTON, CA

Resident Engineer/Construction Manager. Ms. Bean was responsible for overseeing this project, which involved replacement of four underground water main valves, installation of five storm drain inlets, construction of a containment cell for an indoor above-ground chlorine tank, construction of a large concrete reinforced storage pad, trenching for the installation of electrical conduit, and re-paving of surface areas to allow for proper drainage.

Group 12 CIPP Sewer Relining Program

LONG BEACH WATER DEPARTMENT | LONG BEACH, CA

Construction Manager. Ms. Bean was the Construction Manager for the Long Beach Water Department's Group 12 CIPP sewer relining program. This involved providing construction oversight and observation of LBWD's contractor to install almost 15,000 of 8-inch, 10-inch, and 12-inch cured-in-place sewer cleaning, pre-lining video, lining, and post-lining video. Point repairs and manhole rehabilitations were also undertaken. Once the installation of the CIPP began, Ms. Bean coordinated with the LBWD for shutting off water services for the various residents and businesses along the sewer line routes. Once curing was completed, a post lining video was run, followed by re-installation of the laterals and top hat installation on select laterals.

NV5

CONTACT INFO
robert.doss@nv5.com
949.585.0477

EXPERIENCE
35 years

EDUCATION
M.B.A Management

B.S. Civil Engineering

LICENSES
Civil Engineer (CA)
No. 31236

Caltrans Resident Engineer Academy

Caltrans Office Engineers Academy

ROBERT H. DOSS, PE

Construction Manager

Mr. Doss has more than 35 years of experience in civil engineering. As a results-oriented project manager, Robert's strengths include strong analytical skills, proven successful negotiating, consistency in quality performance, demonstrated positive proactive actions, composure while under pressure, consistency in delivering superior service tailored to individual customer needs, superb leadership traits, organizational scheduling and planning skills, quick problem solving, work prioritizing, productivity maximization, and great foresight.

Project Experience

City of Stanton Public Works Department and Engineering Department

CITY OF STANTON | STANTON, CA

Public Works Director and City Engineer. Mr. Doss managed the Public Works Department and Engineering Department for a city with a population of 40,000. Robert directed personnel, made City Council presentations, interacted with public citizens and controlled a budget of over $12 million annually. In addition, Robert managed the construction of $16 million in capital improvement projects, including design, budgeting, and construction; the projects were completed ahead of schedule with a savings of $1 million dollars.

Beach Boulevard Sound Wall

CITY OF STANTON | STANTON, CA

Construction Manager. Mr. Doss managed this retaining wall and sound wall construction project that included CIDH piles. The project involved poured concrete retaining walls with masonry sound walls on top of the retaining walls.

State Route 55

CALTRANS DISTRICT 12 – STATE OF CALIFORNIA

Resident Engineer. Mr. Doss oversaw this retaining wall and sound wall freeway construction project, including 25 CIDH piles. The project involved poured concrete retaining walls with masonry sound walls on top of the retaining walls.

State Route 91

CALTRANS DISTRICT 12 – STATE OF CALIFORNIA

Resident Engineer. Mr. Doss oversaw this retaining wall and sound wall freeway construction project, including 42 CIDH piles. The project involved poured concrete retaining walls with masonry sound walls on top of the retaining walls.

Interstate 5/Red Hill

CALTRANS DISTRICT 12 – STATE OF CALIFORNIA | ORANGE COUNTY, CA

Resident Engineer. Mr. Doss oversaw this $20M freeway construction project, including demolition and construction of a new bridge. The project involved major night work because freeway lanes could only be closed between 11 p.m. and 5 a.m. This bridge expansion was a cast-in-place concrete box girder span.

NV5

CONTACT INFO
daniel.ojeda@nv5.com
949.586.0477

EXPERIENCE
40 years

EDUCATION
B.S. Civil Engineering

Construction Management Certificate Program, UCLA

LICENSES
Civil Engineer (CA)
No. 36988

DAN OJEDA, PE

Construction Manager

Mr. Ojeda is a highly qualified professional engineer with 40 years of experience in public works and city engineering with various Southern California public agencies. He has successfully completed numerous small and large-scale capital improvement projects. He also has extensive experience in land development and permitting; traffic engineering; transportation planning; and grant implementation.

As construction manager, Mr. Ojeda's responsibilities include construction oversight; reviewing project plans, specifications, and cost estimates; maintaining cost and schedule control including developing and updating the master schedule; managing the bid/award process; administering consultant and construction contracts; overseeing the resident inspection team, as well as materials testing and deputy inspection teams; conducting weekly progress meetings; processing and tracking project correspondence and documentation including RFIs, submittals, shop drawings and RFQs; reviewing, evaluating, and negotiating construction change orders; facilitating work related to warranties; and managing project closeout.

Project Experience

Citywide Street Rehabilitation
CITY OF WEST COVINA | WEST COVINA, CA
Construction Manager/Inspector. Mr. Ojeda provided construction management and inspection services for a federally funded citywide street rehabilitation project. The scope of work included roadway reconstruction and resurfacing; reconstruction of sidewalks, driveways, curb, gutter, and ADA curb ramps; and traffic signage and striping. All services were administered in compliance with the Caltrans Local Assistance Procedures Manual.

Atlantic Avenue (From I-5 Freeway to South City Limits), Federal Project No. ESPL-5250(013)
CITY OF LYNWOOD | LYNWOOD, CA
Construction Manager. Mr. Ojeda served as construction manager on this street improvement project. The scope of work included roadway reconstruction and resurfacing; reconstruction of sidewalks, driveways, curb, gutter, and ADA curb ramps; and traffic signage and striping. The project was funded with the American Recovery and Reinvestment Act funds.

Abbott Road Improvements, Federal Project STPL-5250(010)
CITY OF LYNWOOD | LYNWOOD, CA
Construction Manager. Mr. Ojeda served as construction manager on this federally funded street improvement project. The scope of work included roadway reconstruction and resurfacing; reconstruction of sidewalks, driveways, curb, gutter, cross gutters, and ADA curb ramps; and traffic signage and striping

Industry Way Improvements
CITY OF LYNWOOD | LYNWOOD, CA
Construction Manager. Mr. Ojeda served as construction manager on this street improvement project. The scope of work consisted of roadway reconstruction and resurfacing; reconstruction of sidewalks, driveways, curb, gutter and ADA curb ramps; and traffic signage and striping.

NV5

CONTACT INFO
akram.hindiyeh@nv5.com
949.585.0477

EXPERIENCE
40 years

EDUCATION
M.S. Civil Engineering

B.S. Civil Engineering

LICENSES/CERTIFICATES
Civil Engineer (CA)
No. 28510

Traffic Engineer (CA)
No. 1452

AKRAM HINDIYEH, PE, TE

Pavement Management Manager

Mr. Hindiyeh has more than 40 years of civil engineering experience in the public and private sectors. His experience includes developing and implementing Pavement Management System Programs, Sidewalk Inventory Programs, Street Improvement Programs, Major Street Maintenance Programs, and Traffic Signals Operation and Maintenance Programs.

Mr. Hindiyeh is a seasoned traffic engineer, currently acting as a technical advisor to several local elected officials and to various Traffic and Transportation Committees/ Commissions, regarding local and regional transportation planning programs and issues. His traffic engineering expertise includes neighborhood traffic management, traffic circulation, traffic studies, traffic signal, signing and striping design. He is instrumental in generating a number of traffic management studies, traffic impact reports and/or offering technical advice for traffic engineering, and large transportation planning projects.

Project Experience

Pavement Management Project (PMP) Update 2012, 2014, 2016
CITY OF VILLA PARK | VILLA PARK, CA
Project Manager/OCTA Prequalified Pavement Inspector. The PMP Update project consisted of 68 miles of AC paved streets. All roadways were surveyed, inspected, and reviewed for conformance with OCTA guidelines. The final reports were approved by the City and OCTA on schedule.

Pavement Management Project (PMP) Update 2012, 2014, 2016
CITY OF LAGUNA WOODS | LAGUNA WOODS, CA
Project Manager/OCTA Prequalified Pavement Inspector. Our team provided data collection and field assessment for the street pavement condition of 11 MPAH miles. Final reports were submitted and approved by the City and OCTA on schedule.

Pavement Management Project (PMP) Update 2015, 2017
CITY OF CYPRESS | CYPRESS, CA
Project Manager/OCTA Prequalified Pavement Inspector. Our team provided data collection and field assessment for the street pavement condition of 112 MPAH miles. Several year Capital Improvement Programs were developed based on the analysis of the street pavements. Final reports were submitted and approved by the City and OCTA on schedule.

Annual Citywide Street Rehabilitation
CITY OF VILLA PARK | VILLA PARK, CA
City Engineer. Mr. Hindiyeh provides administration and management for the City's annual street rehabilitation program. He is responsible for obtaining grants, plan design management, acting as owner/agent to conduct bids for projects, and administration of construction improvements. Our team provided data collection and field assessment for the rehabilitation of several streets within the City of Villa Park. The team was responsible for completing the plans, specifications and cost estimates associated with the recommended street improvements and for inspection oversight during construction

NV5

GEOSCIENCE

TERRY A. WATKINS, JR. PG, CHG
Senior Geohydrologist

Mr. Watkins has over fourteen years of experience in many different types of projects, including geohydrologic investigations, ground water quality studies, artificial recharge projects, water well test drilling programs, sea water desalination programs, and the management and supervision of water well projects including: siting, design, aquifer pumping test analyses and well construction. Listed below are various examples of Mr. Watkins' experience:

City of South Pasadena – Rehabilitation of Wilson Well #2. 2016
Developed rehabilitation recommendations and work plan for contractor activities. Served as project and construction manager during rehabilitation, redevelopment, and testing of the well. This work successfully doubled production capability of this well.

City of Huntington Beach – Replacement of Well No. 1
2014 to Present
Prepared preliminary design documents and drawings as well as technical plans and specifications for the drilling, construction, development, and testing of the City of Huntington Beach Replacement Well No. 1. Will provide construction management services, including well design recommendations, during construction activities which should begin second quarter of 2017.

West Valley Water District – Rialto Colton Monitoring Well No. 1.
2015 to 2016
Project manager for the drilling, design, construction, and development of a 910 ft stainless steel monitoring well to serve as a sentinel well monitoring perchlorate migration.

Pico Water District. 2016 to Present
Project manager overseeing all aspects of this project. Tasks completed to date include well siting assessment and recommendation, drafting of technical plans and specifications, contractor bid assistance, and permitting with regulatory agencies. Construction and testing are scheduled to begin in March, 2017

Years of Experience: 14
Years with GEOSCIENCE: 12

Expertise:
Water Well Siting, Design, Construction, Management and Testing
Ground Water Hydrology
Water Resource Management
Water Quality Studies

Education:
B.S., Geology.
California State Polytechnic University, Pomona, 2003.

Professional Registrations:
California Professional Geologist (No. 9046)

Certified California Hydrogeologist, (No. 1038)

CONTACT INFO
justin.griffiths@nv5.com
949.585.0477

EXPERIENCE
15 years

EDUCATION
BS Civil Engineering - California Polytechnic State University - San Luis Obispo

LICENSES
Professional Engineer - CA #69994

Certified Floodplain Manager - CA #US-05-01352

Certified QSD/QSP - #00717 - CASQA

JUSTIN GRIFFITHS, PE

Water/Wastewater Engineer

Mr. Griffiths technical background includes steady and unsteady hydraulic modeling, encompassing one- and two-dimensional models; river mechanics; scour analysis, revetment design, hydraulic analysis of bridges and other structures, floodplain mapping, storm drain and energy dissipating structure designs. Additionally, he is experienced in hydrologic modeling, flood routing, retention/detention basin design, hydromodification analysis, and erosion control design. He assists project managers with a variety of water-related projects including Storm Water Pollution Prevention Plans (SWPPPs), Storm Water Management Plans (SWMPs), Water Quality Technical Reports, drainage designs and report preparation. He has performed site inspections to monitor Best Management Practices (BMPs).

Project Experience

Quarry Road Hydrology/Hydraulics and Alignment Study | County of San Diego

Project engineer responsible for performing hydrologic, hydraulic, and scour calculations for a proposed bridge and roadway realignment over Spring Valley Creek at the Quarry Road crossing for the San Diego County Department of Public Works. Hydrologic calculations were performed according to the County of San Diego Hydrology Manual requirements using HEC-HMS for the highly urbanized 11.6 square-mile watershed. The 10-, 50-, 100-, and 500-year, 24-hour hydrographs were computed for use in the subsequent hydraulic modeling. Hydraulic modeling was performed using HEC-RAS and consisted of evaluating the existing conditions to determine baseline hydraulic values. Various roadway alignments, bridge geometries, and channel grading options were modeled and evaluated using HEC-RAS to determine the optimum configuration which met the County's design objectives.

Stone Canyon Creek LOMR | City of Poway

Project engineer responsible for performing hydrologic and hydraulic calculations for Stone Canyon Creek within the City of Poway. Hydrologic calculations were performed using HEC-HMS to generate inflow hydrographs at various points of interest for use in the subsequent hydraulic modeling. The hydraulic analyses consisted of modeling storm drains, culverts, Stone Canyon Creek, and its tributary using XP-SWMM. Storm drains, culverts, and the main channel of Stone Canyon Creek and its tributary were analyzed under unsteady, one-dimensional flow assumptions. Shallow flow resulting from culvert and storm drain overflow and Stone Canyon Creek overbank flow were modeled in two-dimensions.

Camarillo Center Hydrologic/Hydraulics Study | California Conservation Corps

Project engineer who assisted in performing hydrologic and hydraulic analyses to evaluate various flood control mitigation alternatives for the existing facilities at the California Conservation Corps' (CCC) Camarillo Center in Ventura County, California. In March 2011, the Camarillo Center experienced a rain event that generated approximately 5-6 inches of precipitation. The off-site drainage conditions created significant flooding issues as off-site drainage ditches lacked adequate capacity for this large event. The hydrologic and hydraulic portions of the study evaluated various storm events, including the 100-year, 24-hour storm.

NV5

CONTACT INFO
pete.golding@nv5.com
949.585.0477

EXPERIENCE
43 years

EDUCATION
BA Mathematics

LICENSES
Professional Land Surveyor, CA #LS4768

PETE GOLDING, PLS

Survey/Mapping

Mr. Golding brings 43 years of experience that includes a wide variety of projects in both land development and public works projects. He has completed surveying projects in California, Nevada and Wisconsin and his expertise includes hundreds of boundary retracements, many involving the Public Land Survey System, GPS surveying, map and ALTA production, and construction surveying. He has extensive office and field experience supporting his clients. He has prepared hundreds of plats and legal descriptions. He has prepared and been in responsible charge of many Parcel Maps, Final Maps and Records of Survey. He has also performed many topographic surveys, by photogrammetric methods as well as by field collection methods.

Project Experience

Sunrise Powerlink Project | San Diego Gas & Electric | San Diego County, CA
Project manager for survey and acquisition drawings for approximately 138 miles of new transmission corridors through San Diego County. Project included the subdivision of approximately 86 sections through 20 townships. Field crews recovered more than 100 GLO/BLM monuments, many from the surveys performed in the 1880s. ALTA surveys were performed on mitigation properties purchased by SDG&E, followed by filing records of survey with the county surveyor.

Qualcomm Stadium Expansion | Qualcomm Stadium | San Diego, CA
Project surveyor for topographic survey of Qualcomm stadium and surrounding parking lot and facilities. Set and tied pre-marks to California Coordinate System and to existing stadium control geometry. Provided additional survey data from field shots on columns, walls, seating levels.

International Boundary Water Commission | US/Mexico Border
Responsible for survey projects on the US/Mexico border involving sewer and drainage issues affecting both countries. Provided survey control for construction of the new Sewage Treatment Plant.

Beach Restoration | County of San Diego | San Diego, CA
Set and tied survey control points for photogrammetric survey of several of San Diego County's beaches including Imperial Beach and north county beaches from La Jolla to Oceanside. After restoration design, provided survey control for fill sand dredged from offshore and pumped onto the beaches.

The Crosby Estate | The Crosby Family | Rancho Santa Fe, CA
Responsible for construction staking at new golf course community in Rancho Santa Fe. The project included a new golf course, driving range, golf club, tennis and swim club as well as a mix of residential units including single family homes and condominiums. Performed staking for new hiking trail along the San Dieguito River.

Navy Clean II | Bechtel Corporation | Southern California
Survey Manager for projects performed under contract with the Bechtel Corporation for the federal program to remove environmental hazards from military bases throughout Southern California. Much of the work involved GPS Surveying to set up control on the bases for investigative/exploratory work by environmental teams.

NV5

LINKTURE CONSULTING ENGINEERS

RÉSUMÉ FOR
OPTY N. FERNANDEZ
Chief Electrical Engineer

EDUCATION
B.S., Electrical Engineering, California State University, Long Beach, CA 1982

PROFESSIONAL REGISTRATION
Registered Electrical Engineer, California E-012496

PROJECT EXPERIENCE
Mr. Fernandez has over 30 years of diverse experience in all facets of electrical engineering, including low and medium voltage power distribution, process instrumentation and controls, power quality studies, and value engineering. He has experience in water and wastewater, municipal, industrial, commercial, high technology industrial and institutional facilities. Mr. Fernandez has been responsible for technical studies, construction management, quality assurance, conceptual designs, construction plans and specifications, submittal reviews, and cost estimates. Mr. Fernandez's recent design experience includes medium (up to 65KV) and low voltage power distribution, process and equipment controls, PLC integration design and programming, DCS, SCADA, telemetry, HMI screen development using popular software such as Wonderware and RSView, emergency and stand-by power generation, UPS and battery power, and indoor and outdoor lighting.

REPRESENTATIVE PROJECTS
City of Camarillo, Wastewater Pumping Station No. 6
Project Status: Operating since 06/05. The project is a new wastewater pumping lift station for a new housing development in the City of Camarillo. The lift station is capable of pumping 1100 gallons per minute and is equipped with three (3) 25 horsepower pump. All the electrical equipment is installed outdoor in a NEMA 4 enclosure including the main switchboard, the motor control center and the control panel. Each pump is controlled by a variable frequency drive which operates to match in incoming flow. An integrated PLC, OIT and telemetry system controls the lift station and communicates the station status, controls, and alarm points to an existing SCADA system. The lift station is equipped with a 100 kW standby generator in the event of utility power failure.

Los Alamitos Wastewater Pump Station
Project Status: Operating since 12/08. Prepared a preliminary design report and final design plans for the Developer funded Storm Water Pump Station in the Los Alamitos Race Track Parking Lot. Facility includes 1800 gpm submersible pumps in wet well with valve vaults, the MCC, Control System. The facility pump the collected storm water runoff from the parking lot into a local storm drain system.

Coachella Valley Water District, Indian Well Lift Station
Project Status: Operating since 03/06. The lift station consists of two 60 hp submersible pumps controlled by variable frequency drives to modulate the pumps and match the incoming flow. A 200 kW diesel generator provide emergency power in the event of utility power outage. The station is monitored and controlled locally a local PLC and remotely via an existing SCADA system.

Walnut Park Water District Booster Pump Station Replacement
Project Status: Operating since 03/04. The project encompasses the replacement of a closed system booster pump station and associated equipment which includes the replacement of existing electrical service equipment, pumps and motors, motor control center and provisions for a future 1500 gpm well. In addition, a new PLC based control system and instruments were provided to control the new booster station, the existing two (2) 125 hp well pumps and the future well pump. Furthermore, the existing 400 kW diesel generator and automatic transfer switch were salvaged and integrated with the new electrical system as well as feed to the existing well pumps and chlorination facility.

CONTACT INFO
Jeff.cooper@nv5.com
949.585.0477

EXPERIENCE
40 years

EDUCATION
M.S. Environmental Engineering

B.S. Civil Engineering

B.A. Economics

LICENSES/CERTIFICATES
Civil Engineer (CA)
No. 31572

AFFILIATIONS
American Public Works Association

American Council of Engineering Companies

Construction Management Association of America

American Society of Civil Engineers

WTS

JEFFREY COOPER, PE

Assessment District Manager

Mr. Cooper has more than 40 years of professional consulting engineering experience providing the management of planning, design, construction, and inspection services for transportation and municipal road projects, park projects, master plans and designs for drainage, sewers, water and overhead utility undergrounding projects which have included inventory work and condition assessment. He has also provided QA/QC and oversight for numerous municipal engineering design contracts, including major roadways, drainage, water and sewer projects. Mr. Cooper has also provided Assessment District Engineering services throughout Southern California for over 30 years.

Project Experience

On-Call Professional Services for Assessment Engineering Services

CITY OF NEWPORT BEACH | NEWPORT BEACH, CA

Project Director/Assessment Engineer. Mr. Cooper is providing on-call Assessment Engineering services for formation and administration of assessment districts for the City of Newport Beach. We recently completed a new undergrounding assessment district, AD-117 with 250 parcels. We are currently working on the Engineer's Report for AD-113, West Balboa Island. Previous undergrounding districts completed by Jeff Cooper for the City of Newport Beach are the following: Undergrounding Assessment District No. 63 (Newport Island), Undergrounding Assessment District No. 64 (Channel Road), Undergrounding Assessment District No. 72 (Balboa Coves) and McFadden Square Assessment District No. 59.

On-Call Assessment Engineering

CITY OF SANTA MONICA | SANTA MONICA, CA

Project Director/Assessment Engineer. Mr. Cooper provided professional consulting services for street lighting assessment district formation for the City of Santa Monica.

Assessment & Financial Engineering

- San Joaquin County Flood Control & Water Conservation District, CA - Water Investigation Zone 2 Water Protection and Development Assessment
- City of Ontario, CA - Parkway Maintenance District No. 4
- City of Ontario, CA - Street Lighting Maintenance District No. 2
- City of San Marcos, CA - Vallecitos Town Center Street Maintenance Assessment District
- City of Perris, CA - Community Park Maintenance District
- City of Oceanside, CA - Vandegrift Landscape Maintenance District
- Mountains Recreation and Conservation Authority, State of California - Proposition "A" Los Angeles Countywide Park and Open Space Maintenance District
- Los Angeles County Department of Parks & Recreation, CA - Park Maintenance Districts
- Contra Costa County, CA - County Landscape and Lighting District No. 19793 (LL2)
- Santa Clara County Open Space Authority, CA - Open Space District No. 941
- County of Sacramento, CA - Park and Open Space District
- Valley Wide Recreation and Park District, CA - Districtwide Lighting and Landscape Maintenance District
- City of Clovis, CA - Landscape Maintenance District No 1

NV5

EXHIBIT B

Rate Schedule

Effective January 1, 2018 through December 31, 2018. If contract assignment extends beyond that date, a new rate schedule will be added to the contract.

NV5

ENGINEERING SERVICES	HOURLY RATE
Principal	$185
Project Manager	$160
Quality Assurance Manager	$150
Senior Engineer	$135
Project Engineer	$130
Traffic Engineer	$125
Associate Engineer	$115
Assistant Engineer	$110
Engineering Technician	$90
Designer	$110
CADD Drafter	$85
Administration	$75
MUNICIPAL SERVICES	**HOURLY RATE**
Principal	$230
Project Executive	$195
Program/Project Director	$175
Assistant Project Manager	$135
City Engineer	$135
Plan Check Engineer	$120
Planner	$100
Public Works Technician	$90
Permit Technician	$65
CONSTRUCTION SERVICES	**HOURLY RATE**
Senior Construction Manager	$165
Construction Manager	$145
Project Manager	$135
Resident Engineer	$140
Office Engineer	$120
Project Controls Engineer	$100
Labor Compliance/Documents Control	$78
Construction Observer (Non Prevailing Wage)	$98
Construction Observer (Prevailing Wage)	$118
Building Inspector (Non Prevailing Wage)	$85
Surveying (2-person survey crew)	$250*
REIMBURSABLE EXPENSES	**COST**
Reproduction	Cost
Consultant Services	Cost + 15%
Automobile Transportation	$.54 per mile
Delivery, Freight, Courier	Cost
Agency Fees	Cost
Commercial Travel	Cost

*Assumes prevailing wages are applicable for field work.

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (GENERAL ENGINEERING)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between TAIT & Associates, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of nine (9) consultants selected to provide services for general engineering projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $2,000,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures.

Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement.

Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees,

for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: TAIT & Associates, Inc.
701 Park Center Drive
Santa Ana, CA 92705
Attn: Jacob Vandervis, P.E., Chief Operations Officer & Vice President

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant,

Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

EXHIBIT A

TAIT
SINCE 1964

March 20, 2018

Submitted To:
City of Santa Ana
Attn.: Armando Fernandez
Public Works Agency
20 Civic Center Plaza; 3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

Submitted By:
TAIT & Associates, Inc.
701 Park Center Drive.
Santa Ana, CA 92705
(714) 560-8200

www.tait.com

TAIT & ASSOCIATES, INC. PROPOSAL FOR ON-CALL ENGINEERING SERVICES, RFP NO.: 17-083

25E-559

TAIT
RISING TO THE CHALLENGE

701 N. Parkcenter Drive, Santa Ana, CA 92705

p:714/560/8200 www.tait.com

Cover Letter

March 20, 2018

City of Santa Ana
Attn.: Armando Fernandez
Public Works Agency
20 Civic Center Plaza; 3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

RE: Request for Qualifications (RFP) for On-Call Engineering Services, RFP No.: 17-083

Dear Mr. Fernandez,

TAIT & Associates, Inc. (TAIT) is pleased to submit the enclosed Proposal in response to the City of Santa Ana's (City) RFP for On-Call Engineering Services. We have provided a proposal for sample project Option B, The Mile Street One Project.

TAIT at a Glance. At TAIT, we have provided innovative engineering solutions to our clients for more than 50 years, with local headquarters right here in Santa Ana, CA. We understand that public projects have their own specific issues, and with 150 associates, we have the right blend of professional engineers, architects, surveyors, environmental assessors, and construction personnel with the experience necessary to address critical and big picture concerns. Since TAIT was founded in 1964 in Orange County, we have built mature relationships with state and local agencies throughout Southern California, and consistently create successful partnerships with the agencies for which we work.

Expertise and Experience. TAIT's experienced personnel have expertise in the many facets of civil engineering, planning, and design services including: roadways, utilities, drainage, surveying, mapping, water quality, water, and waste water, site development, site remediation, asbestos and lead paint investigation, Phase I and II environmental assessments, and fueling systems. We have extensive relevant design experience, including recent projects such as the Portola Parkway Resurfacing Project for City of Lake Forest, City of Newport Beach's Newport Heights Alley and Sewer Replacement Project, City of Diamond Bar's Citywide Drainage Analysis and Reagan & Peterson Parking Lot Rehabilitation, the Harbor Boulevard Street & Waterline Improvements for the City of Garden Grove, the Beaudry Terrace Water Main Replacement Project for Glendale Water & Power, Chino Quadrant III Water Line Replacements, City of Irvine Underground Fuel Tank Project, OCTA Tustin Metrolink Station Rehabilitation, and County of Orange's new Animal Care Facility Design-Build project.

We are a selected consultant to provide similar On-Call Civil Engineering Services to the Port of Long Beach, The County of Orange—OC Public Works, OC Facilities, OC Parks, and the Orange County Sheriff Department—The Orange County Sanitation District, Cities of Newport Beach, Lake Forest, Irvine, Lake Elsinore, and Mission Viejo, as well as providing On-call Plan Check Services to the OCPW, among other agencies. Recently, TAIT has been selected by the City of San Diego Public Works Division to provide On-Call Civil Engineering Services to the City, County, and Port of San Diego.

Project Team. TAIT has carefully analyzed and hand selected our proposed team for this on-call contract in order to provide the best services to the City of Santa Ana. The leadership includes **Jacob Vandervis, PE**, who is the Chief Operations Officer, will be the Principal-in-Charge/Project Manager, having the authority and experience to negotiate the contract and lead the team to success.

TAIT
26E-560

TAIT
RISING TO THE CHALLENGE

701 N. Parkcenter Drive, Santa Ana, CA 92705

p:714/560/8200 www.tait.com

David Sloan, PE, Director of Engineering for TAIT will serve as an Alternate/Deputy Project Manager for the City's projects. David's career has been rooted exclusively in the public sector. His background and experience with local federally funded public works projects, especially roadway improvements, will be invaluable to the City.

Mr. D. Todd Schmieder, PE, QSD/P will act as TAIT's QA/QC Manager for this contract. Todd will also act as the Alternate Project Manager should it be deemed necessary based on the project's specific requirements. Todd, who currently serves as the County of Orange plan check manager for TAIT, has 38 years of experience in a variety of public works projects. He is also a certified QSD/P and is the best candidate to review the design documents for the City to ensure they are to the standards required and free of error prior to submittal to the City. Mr. Schmieder's broad background ranges from planning and design of the Orange County Toll Roads to preparing construction documents to Orange County' new Animal Care Facility in Tustin.

In addition to the noted Key Staff, TAIT boasts a wide array of 150 associates including Engineers, Architects, Surveyors, Storm Water Practitioners, Geologists, Contractor's, and quality design engineers. The City can be assured that the necessary support and availability of staff will be provided on each contract that is assigned to us. For our as-needed sub-consultants, we've teamed with tried and true partners who have worked with TAIT on numerous projects. TJW offers thorough Traffic Engineering services, LAE provides Federal Funding assistance, BTL performs precise Potholing and other subsurface investigations, GMU supplies expert geotechnical services, and RJM is our experienced Landscape Architecture consultant.

Scope of Work. It is understood that this engineering proposal is for an on-call contract that includes potential design services including street improvements, traffic engineering, storm drain improvements, sewer, water and wastewater improvements, as well as plan checks of the above-mentioned, and other engineering services associated with municipal public works. TAIT's noted diverse staffing and background in multifaceted projects are ideally suited for the City's wide range of anticipated needs and projects. Upon issuance of an RFP, TAIT will actively review the project requirements and will provide a project specific proposal for the City's consideration.

Commitment to Service. We aim to act as an extension of the City's staff and place an emphasis on Customer Service which has been and will remain one of TAIT's Corporate Goals **"To Completely Satisfy our Customers".**

Contract Agreement Statement. TAIT concurs with all provisions as contained in the Agreement in Attachment 2 of the RFP.

Jacob Vandervis is the authorized main point of contact for TAIT's services and can be reached in our Santa Ana office at phone number 714-560-8200 ext. 677, email jacobv@tait.com, and address 701 Park Center Drive, Santa Ana, CA, where the contract will be managed. We thank you for this opportunity to submit our qualifications and look forward to further discussing with you our capabilities and commitment to working with the City of Santa Ana.

TAIT's legal name is Tait & Associates, Inc., and we are a California Corporation (C0495510) headquartered at 701 Parkcenter Drive in the city of Santa Ana, CA.

Very truly yours,

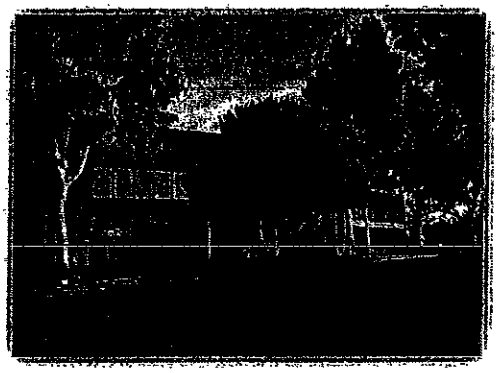
TAIT & ASSOCIATES, INC.

Jacob Vandervis, P.E.
Chief Operations Officer and Vice President

FIRM AND TEAM EXPERIENCE

Firm Profile

TAIT is a Southern California based, family owned engineering firm founded by Dr. Kenneth E. Tait, P.E., established in 1964, and incorporated in the State of California. TAIT began as a design consulting engineering and land surveying firm dedicated to providing a range of quality services to our clients.



Our Corporate Headquarters—Santa Ana, CA

In the past 54 years, TAIT has grown to have 8 offices throughout the Western United States, namely our headquarter office in Santa Ana and regional offices in San Diego, Sacramento, Norco, Boise, Denver, Atlanta, and Dallas. We have approximately 150 associates who work together as a team to provide quality design services throughout the Western United States.

Each project presents new challenges, and we use them as an opportunity to learn something new and apply that knowledge to future projects. Whether it is a new technical approach, a better management system, or simply improving our communication with clients, the end result is always improved service while strengthening our existing relationships with our clients. Our goal is to determine our client's needs while acting as an extension of their staff. Our prime objective is to provide the highest quality professional and technical services in a responsive, cost effective, timely, and personalized manner.

COMPANY CAPABILITIES

TAIT's multi-disciplined firm offers a full array of consulting services to public agencies and private development clients. More specifically, we offer project management, civil engineering, surveying, planning, entitlement, right of way engineering, and environmental investigation and remediation services. Within the Engineering Group, our in-house design and management services include:

- ✓ ***Public Roadway Rehabilitation, Widening, and New Construction***
- ✓ ***Storm Drain Design and Hydrologic & Hydraulic Analysis***
- ✓ ***Parks & Trails Planning and Design***
- ✓ ***Water Quality Design & Review (LID Plan, SWPPP, etc.)***
- ✓ ***Water & Waste Water Rehabilitation & New Construction***
- ✓ ***ADA Accessibility Studies***
- ✓ ***Structural Design & Architectural Services***
- ✓ ***Public Improvement & Private Development Plan Checking***
- ✓ ***Design Survey and Mapping Services***
- ✓ ***Construction Management, Inspection & Surveying Services***

We have built a reputation of successfully managing projects from concept to completion. We have specific expertise in public infrastructure development, land development, natural resource preservation, and environmental management. We also understand the tight time and money constraints under which our clients frequently operate, and strive to provide unique solutions that allow our client's projects to be completed on time and within budget.

For this proposal we have focused our response on providing quality Civil Design Services. We can also offer other services, including, water resources engineering surveying, project management, planning, entitlement, right of way engineering, and environmental site investigations and remediation. Our company's diverse expertise is expansive.

Recent Relevant Experience

Some of the most recent projects that we are under contract for or have recently completed are:

- ✓ *Irvine Campus Drive Pavement Rehabilitation, City of Irvine (Roadway Rehab & Reconstruction)*
- ✓ *Quadrant III Water Line Replacement, City of Chino (Water Distribution)*
- ✓ *Street Overlay, Alley Reconst. & Cerritos Widening, City of Stanton (Roadway Rehab & Reconst.)*
- ✓ *Portola Parkway Resurfacing Project, City of Lake Forest (Roadway Resurfacing)*
- ✓ *Pier F-G Sewer Line Improvement, Port of Long Beach (Sewer and Roadway)*
- ✓ *Newport Heights Alley & Sewer Replacement, City of Newport Beach (Alley & Sewer)*
- ✓ *FY13/14 Major Street Rehabilitation, City of Pomona (Arterial Rehabilitation)*
- ✓ *Citywide Comprehensive Drainage Studies, City of Diamond Bar (H&H & Storm Drain)*
- ✓ *SR 395 Regional Storm Drain Improvements, City of Victorville (H&H & Storm Drain)*
- ✓ *Reagan & Peterson Park Parking Lot Rehabilitation, City of Diamond Bar (Parks & Recreation)*
- ✓ *Library of the Canyons, OC Public Library (Site Design/Facilities)*
- ✓ *OC Sheriff Headquarters Security Upgrades, OC Sheriff Department (Site Design/Facilities)*
- ✓ *OCACF Facility Design, Survey, and Construction Staking, OC Animal Care (Site Design/Facilities)*
- ✓ *Water Main Replacement Design Build Projects, Glendale Water & Power (Water Distribution)*
- ✓ *Water Main Replacement Design Build Projects, Golden State Water District (Water Distribution)*
- ✓ *Harbor Boulevard Street Reconfiguration, City of Garden Grove (Roadway Utilities)*
- ✓ *A Town Street Widening & Sewer Improvements, City of Anaheim (Roadway & Sewer)*
- ✓ *Tustin Metrolink Facility Redevelopment, OCTA (Transportation Facility)*
- ✓ *On-Call Plan Checking Services, Orange County Public Works (Plan Checking)*
- ✓ *Irvine USD Site Topography and Campus Expansion, City of Irvine (Design & Survey)*
- ✓ *Irvine City Hall UST Replacement, City of Irvine (Site Design, Survey & Environmental)*

A key component of TAIT's strength is based upon our ability to focus on solutions that are not only cost-effective, but are also constructible. We know when to look for feedback from our clients and other approving agencies, especially when budget constraints restrict a project's direction. When multiple solutions or options are available, a request for input/feedback along with our recommended alternative is presented to our clients ensure that our client's sometimes limited resources and time is efficiently utilized.

Company Location and Contact

We are headquartered in the City of Santa Ana, which is where the majority of our civil and surveying staff is located, including all of the staff identified in this SOQ. Our main office address and contact information is:

Jake Vandervis, PIC/Project Manager
Vice President/COO
701 N. Park Center Dr.
Santa Ana, CA 92705
p: 714/560/8200 ext. 677
e: jacoby@tait.com
www.tait.com

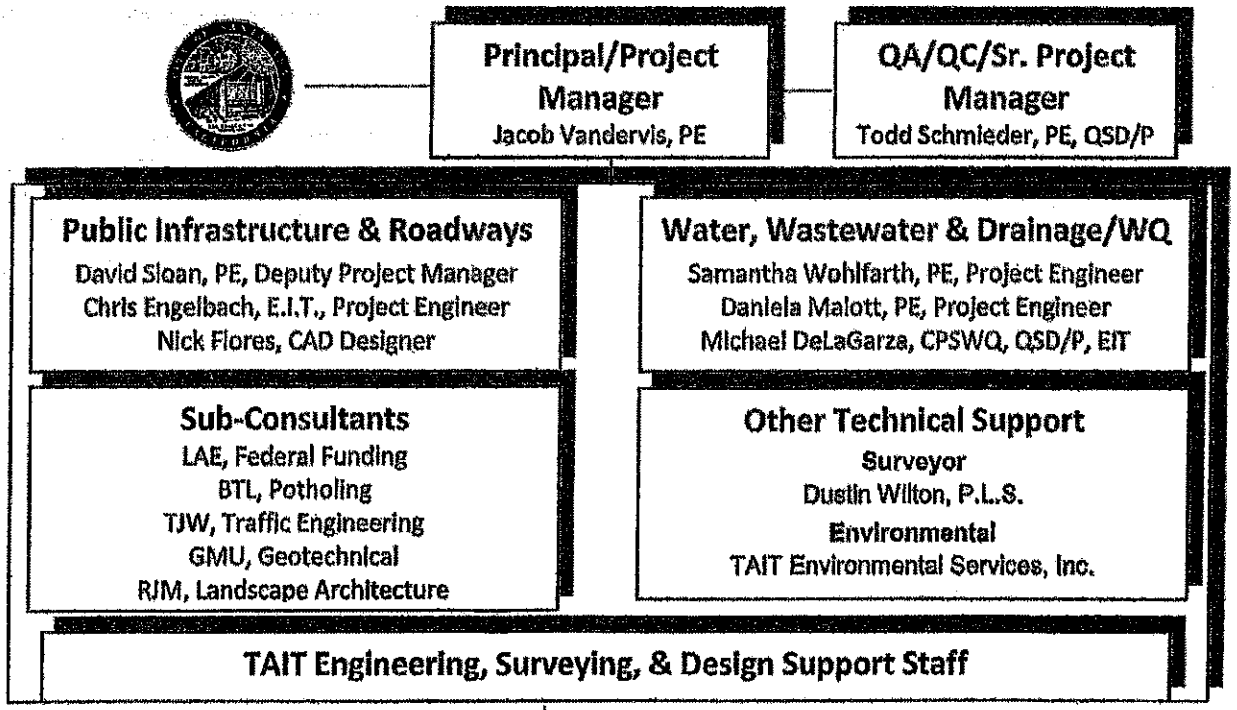
Project Team

Our local Key Personnel and Sub-Consultants for the TAIT Team are listed below with their positions and qualifications. **Resumes of our team our located in the Appendix.** We understand that team members may only be substituted with written permission from the City.

Name	Classification/Designation	Licenses/Registration	Years of Experience	Time with Firm
Jacob Vandervis, P.E.	PIC/Project Manager	CA No. C46301	32	21
Todd Schmieder, P.E., QSD/P	QA/QC Manager/ Sr. Project Manager	CA No. C37167	38	13
David Sloan, P.E.	Alternate/Deputy PM	CA No. C82595	11	4
Samantha Wohlfarth, P.E.	Project Engineer	CA No. C86126	6	6
Daniela Malott, P.E.	Project Engineer	CA No. C86581	6	1
Christopher Engelbach, E.I.T.	Project Engineer	E.I.T.	9	2
Michael Delagarza, E.I.T. QSD/P	Proj. Engineer/Inspector	CPSWQ No. 500	16	16
Nick Flores	CAD Designer	n/a	13	2
Dustin Wilton	Surveyor of Record	CA PLS No. 8080	17	7
TAIT Environmental Services				
Sub-Consultants: TJW–Traffic Engineering, LAE–Federal Funding, BTL–Subsurface Investigations, GMU–Geotechnical, RJM-Landscape Architect				

ORGANIZATION CHART

The chart below summarizes our key personnel and their expertise and positions for this contract



25E-564

UNDERSTANDING OF NEED

Option B Project Understanding–Mile One Street Project

Public Works engineering contracts require careful planning, effective communication, and precise execution in order to avoid costly contract change orders or delays during the construction phase. In an effort to ensure consistent and excellent services, TAIT employs our proven 5 step project management protocol (*Understand→Assign→ Plan→Execute→QA/QC*) on each assigned contract. The scope and fee for this proposal has been presented in this manner in order to show our full understanding and commitment for the City's planned project.

STEP 1 → UNDERSTAND:

Understanding the City's Needs

To best understand the projects specifics needs, we first focus on what the City's overall needs are for this contract and future contracts that will be required as part of the On-Call Contract. Based on our review of the City's RFP, the following is our understanding of the City needs on this and future projects as compared to TAITs capabilities:

City of Santa Ana Needs:	The TAIT Team Has:
➢ ...a full services design consultant with local experience who understands the City's needs, standards, and design requirements.	✓ ...Over 50 years of extensive local public works design experience and understands the City's needs on this contract.
➢ ...A Consultant who understands street design as well as local pavement rehabilitation needs and methodologies for best implementation of the City's project requirements.	✓ ...Assigned a design team and project manager that have the extensive experience implementing PMP/Geotechnical investigations on projects. Further, Assigned a qualified PM has worked for numerous Cities on multiple types of contracts.
➢ ...a consultant to prepare detailed and accurate roadway design PS&E.	✓ ...successfully completed multiple recent local and federally funded street PS&E design contracts
➢ ...a consultant who can maintain the proposed project schedule.	✓ ... the staffing necessary to allocated the required resources to meet and exceed the City's scheduling needs
➢ ...a cost effective and high quality design.	✓ ...placed and emphasis on design and construction costs are emphasized throughout the design and is included in TAIT's QA/QC Program in order to ensure maximum value is retained by the City.

Understanding the Project's Needs

TAIT will conduct a cursory project review and researched existing conditions prior to conducting the Project Kick-off meeting in order to ensure we have a good understanding of the required scope when we initially meet with the city to review our final Scope, Fee Proposal and a preliminary project Design Schedule. The following pages provide a brief outline of our understanding of the sample project scope based on the RFP described project.

The City of Santa Ana is seeking a civil engineering firm to provide design engineering for approximately 1000 feet of street improvements. The street improvements include implementation of the City's "Complete Street" program that has already been implemented at the existing street intersections, widening on one side and pavement rehabilitation. The existing roadway median was improved to it ultimate condition on a previous project, but this assumption will be verified as part of the project's preliminary design and reconfirmed at the 65% design phase. Since the Project's right of way has already been acquired based on the City's "Complete Street "program; the environmental assumption for this project assumes that the preparation of supporting documents for a Negative Declaration will be required. TAIT will prepare a preliminary striping plan and typical street section to obtain the preliminary approvals and identify potential impacts to the adjacent private properties.

Depending on the specific project location some drainage improvements may be required, which would typically include the extension of existing street storm drain laterals and new street catch basins and local depressions. The construction requirements for these improvements can typically be addressed with the preparation of special construction details. The preparation of a detailed drainage hydrology and hydraulic study is not warranted or proposed for this project. Also, since the proposed improvements will cover less than one acre the preparation of a Storm Water Pollutant Prevention Plan (SWPPP) and a Water Quality Management Plan (WQMP) will not be required. TAIT will incorporate any water quality provisions of the city's Complete Street program that may apply for this street segment and prepare specification to address construction storm water runoff.

Utility notices will be distributed and record data will be incorporated into the project's Base Map. Utility impacts will include coordination with SCE for relocation of street lights on the side of the street being widened; however based on the city's RFP Scope of Work Description no other utility relocations are anticipated. This assumption will be confirmed prior to the City Kick off Meeting. For the street repaving typically utility adjustments for sewer and storm drain manholes, water and gas valves, and other utility appurtenances are anticipated and will be identified on the plans.

The scope of work required on this contract includes monthly Project Team Meetings, Design Review Meetings (after the City competes their reviews), two design field walks (one for base map preparation and a second prior to 90% PS&E QC review), implementation of the City's Complete Street program, geotechnical investigations, PS&E preparation and construction engineering support services. In addition if necessary the TAIT team can prepare Traffic Control Plans and provide federal funding assistance during design and construction as optional services. Agency coordination or processing of another agency encroachment permits is not anticipated as part of this project; however, this assumption will be confirmed prior to conducting the project's Kick off Meeting.

Roadway Signing & Striping plans will also be prepared for the street segment incorporating bike lanes based on the following street typical section for the existing 120-foot right of way width.

- Two 10-foot wide parkways with a six foot sidewalk and 4- foot of landscaped parkway
- Two 4-foot wide curb adjacent bike lanes with a 4-foot buffer separation.
- 36-foot wide pavement area for three traffic lanes in both sides of the existing median
- The remaining 12 feet of the total 120-foot ROW is assumed to include the existing street median.

It is TAIT's understanding that the roadway signing will be replaced in kind and any existing damaged roadway signs will be noted for removal and replacement based on City directions. New signing will include bike lane signing and "NO PARKING" signs.

STEP 2 → ASSIGN:

TAIT will carefully reviewed the staffing needs and staff assignments for this project. Of notable importance in our approach to assignment a project-specific Project Manager who will best meet the City's needs for the particular project assignment. Secondly, TAIT will select sub-consultant team members that we have successfully work with on other projects. As an example: LAE Associates could be designated to provide federal funding assistance consultant to ensure the City's documents are processed and approved in a timely manner by Caltrans.

STEP 3 → PLAN (SCOPE OF WORK):

Upon selection of the design team for the contract, TAIT initiates the preparation of the detailed project scope of work tailored to the needs of the specific project requirements. (See Scope of Services section)

STEP 4 → EXECUTE:

Upon issuance of the Notice to Proceed, TAIT will actively and effectively execute the scope of work for this contract. Our assigned project manager will stay in constant contact with the City and will remain available and responsive to the City's needs through the life of the project. At the heart of each relationship and team member is effective communication of the **roles & responsibilities**, **quality requirements** and **scheduling needs**.

Finally, TAIT has clearly defined the scheduling needs on this contract and will communicate the deadlines and needs to each of the team members.

STEP 5 → QUALITY ASSURANCE/QUALITY CONTROL PROGRAM:

An important feature of our design process is our Quality Assurance/Quality Control (QA/QC) Program. TAIT has established **clearly defined quality control and quality assurance protocols** set in place in the office. As part of our scope of services and fee proposal, we have set aside time to ensure that quality control is incorporated in to the contract.

TAIT assigns a QA/QC Manager to each project to ensure reviews occur prior to making submittals to the reviewing agency and the City is provided a quality design. Mr. D. Todd Schmieder, P.E. has been assigned to oversee TAIT's QA/QC Program for this project. TAIT's QA/QC Program focuses on the following four primary objectives:

- To ensure that a quality design has been provided by following our in-house design checklists
- To verify that different design disciplines have been coordinated
- To verify that the proposed improvements are constructible, and
- To verify that a cost effective analysis approach was followed in achieving the client's specific project goals and objectives.

TAIT utilizes a Total Quality Management approach. - TAIT's philosophy is that quality control begins at day one and does not end until the project is constructed.

Quality Control is the responsibility of each and every team member. - It includes the selection of project team members who have demonstrated the ability to understand and apply the project objectives to achieve a specific goal. It requires continuous communications between all parties.

TAIT has developed internal design checklists. - Design checklists are used by our design team members as a component of our firm's design process and not solely part of the QC process.

Timely Quality Control Reviews are provided. -Before plans are submitted to outside parties, TAIT's QA/QC Manager or his designated QC team member conducts a thorough review to verify the quality, constructability and completeness of the submittal.

A typical TAIT QA/QC Program includes the following steps:

- **Project Manager (PM) Transmits Design Documents to the QA/QC Manager** - PM initiates the QC process at agreed upon project milestones.
- **QA/QC Manager conducts initial review** - The QA/QC Manager reviews the submittal with the PM to obtain project information and conducts a limited review on the submittal's completeness.
- **Review of the Submittal** – The submittal is reviewed using TAIT's internal checklists. Necessary corrections are identified on the submittal which is returned to the PM.
- **PM to Addresses QC Comments** - The QA/QC Manager and PM review the QC comments to set a course of action. Any proposed Value Engineering (VE) measures are reviewed to determine the appropriate next step (i.e.: implement the VE measure, review the VE measure with the City, or conduct additional analysis to determine the feasibility and potential cost savings). The reviewed submitted is then returned to the design team.
- **PM finalizes Design Documents for Submittal to the Agency** - The PM meets with the design team to monitor progress and verify incorporation of the QC comments into the design documents. Deviations from the QC comment are reviewed for acceptance.

RELEVANT PROJECT EXPERIENCE

On-Call Engineering Contracts

EX: ORANGE COUNTY PUBLIC WORKS—ON-CALL LAND PLANNING AND ENGINEERING SERVICES

County of Orange, CA

TAIT & Associates, Inc. (TAIT) was retained by the County of Orange to provide On-call Land Planning and Engineering Services. TAIT also assists OCPW - OC Planned Communities in the review of development applications for new planned communities in South County, and in the evaluation of County owned properties for redevelopment opportunities.

Reference:
James Campbell
(714) 567-7742
Key Staff:
PIC: Jacob Vandervis
PM: Todd Schmieder
PE Chris Engelbach
Client:
OC Public Works
Costs: Various
Project Dates
2011-Present

OTHER ON-CALL ENGINEERING CONTRACTS

- On-Call Engineering, City, County, & Port of San Diego
- On-Call Engineering, City of Newport Beach
- On-Call Engineering, City of Lake Forest
- On-Call Engineering, City of Irvine
- On-Call Engineering, Port of Long Beach
- On-Call Engineering, Orange County Sanitation District
- On-Call Surveying, SOCCCD
- On-Call Engineering, City of Lake Elsinore
- On-Call Engineering, City of Mission Viejo

Portola Parkway Resurfacing Project

Lake Forest, CA

TAIT was selected by the City of Lake Forest to provide civil engineering, surveying, geotechnical engineering and federal funding assistance services on the Portola Parkway Resurfacing Project from Alton Parkway to El Toro Road. The project limits include a total of 2 miles of arterial roadway rehabilitation on Portola Parkway which a 6 lane arterial roadway with bike lanes extending through the City of Lake Forest.

The project includes the design of pavement rehabilitation strategies as well as the identification and replacement of non-ADA compliant curb ramps, sidewalk, replacement of damaged curb and gutter, and the identification and adjustment/protection of utility facilities. The City has recently expanded the scope of the project to include improvements within SR-241 Caltrans right-of-way. This project also included the relocation of an existing median at Portola Parkway and Bake Parkway in order to construct an additional left turn lane. The scope of the reconstruction included design of plan and profiles and design sections as well as the analysis of the existing and proposed traffic signal system to ensure adequate capacity is available in the existing conduits/system.

Reference:
Doug Erdman, PE
Tel: 949-282-5233
Key Staff
PIC: Jacob Vandervis
PM: David Sloan
QA/QC: Todd Schmieder
Client:
City of Lake Forest
Construction Cost:
$1.5 M
Project Dates
Design: 2015-2016
Construction: 2016

Overlay, Alley Reconstruction, and Cerritos Ave. Widening Project – Stanton, CA

TAIT & Associates was selected by the City of Stanton to provide roadway and drainage design services on three separate project areas: (1) Cerritos Avenue Widening & Drainage Improvement Project, (2) Palais Alley Reconstruction Project and (3) Bradford Community and Rutledge Avenue Rehabilitation Project

Cerritos avenue widening project required the widening of Cerritos avenue from Rose Ave to Flower Street which included removal and reconstruction of existing parkway improvements, relocation of power poles, fire hydrant, water meter, and roadway signs, construction of new curb and gutter, curb ramps, and alley approach, and the relocation and construction of a new storm drain catch basin and lateral. The existing storm drain lateral was discovered to be extremely shallow which required special design and consideration for the relocated condition. TAIT checked the capacity and flows of the existing inlets to ensure proposed conditions were not constrained.

Reference:
Allan Rigg
(714) 890-4203
Key Staff:
PIC: Jacob Vandervis
PM: David Sloan
QA/QC: Todd Schmieder
PE: Chris Engelbach
Client:
City of Stanton
Construction Cost:
$1.3 M
Project Dates
Design: Jan-May, 2017
Construction: Summer, 2017

Newport Heights Alley and Sewer Replacement Project -Newport Beach, CA

TAIT was selected by the City of Newport Beach to provide civil engineering services on Newport Height Alley and Sewer Replacement Projects. The project limits spanned across an entire neighborhood in the City's coastal community of Newport Heights and include a total of 3+ miles of alley reconstructions as well as the review and repair of existing alley sewer and lateral connections. In order to facilitate the City's budget and timelines, the design project was split in to three phases which required separate design PS&E for each project.

Phase 1 included all sewer main replacements while Phases 2 and 3 included the alley removal and replacements in the neighborhoods. The proposed design includes the preparation of design plan and profile for

Reference:
Frank Tran, PE
(949) 644-3340
Key Staff:
PIC: Jacob Vandervis
PM: David Sloan
QA/QC: Todd Schmieder
PE: Chris Engelbach
Client: City of Newport Beach
Construction Cost:
$1.3 M (Sewer)
TBD $1.8 M (Alley)
Project Dates: 2016-2017

each alley, prepare of design cross sections at 25' intervals for review of proposed cross falls, preparation of sewer main replacement and lateral replacement plans, field review of all alley locations to field locate existing utilities, conflicts, and join locations, identification of sewer laterals that have been recently been replaced for protection, and the detailing of all alley approaches for ADA compliance.

Citywide Comprehensive Drainage Analysis and CIP Design Projections

Diamond Bar, CA

TAIT was hired by the City of Diamond Bar to analyze, design and recommend pavement and drainage solutions for 11 locations throughout the City which currently experience groundwater seepage problems. The analysis included field investigations, geotechnical testing and reporting, pavement design, and the preliminary design and cost estimating for multiple design scenarios at each project location. The cost estimate included estimation of the design consultant fees as well as the construction costs for the ultimate design scenarios.

Extensive coordination was required on this contract with City, Utility, LACFCD Staff, and private residences in order to understand the existing conditions and to project the required design and permitting efforts for the design and construction phase. Upon completion of the report, the City will utilize TAIT's recommendations for future CIP budget and project planning efforts in order to justify the cost and importance of each location.

Reference:
Christian Malpica
Tel: 909-839-7042
Key Staff:
PIC: Jacob Vandervis
PM: David Sloan
PE Michael Delagarza
Client:
City of Diamond Bar
Construction Cost:
Approx. $1.5 M
Project Dates
2014-2015

Harbor Boulevard Water & Street Reconfiguration Project - Garden Grove, CA

This project included street reconfiguration (approximately 1/3-mile total length), improvements to an existing raised median, a new traffic signal, abandonment of existing 8-inch ACP and 12-inch DIP City water lines, installation of a 800 LF of 16-inch water line, relocation of SCE and AT&T main distribution service lines, and the installation of new public storm drains and sewer and water services to accommodate a future redevelopment project along Harbor Boulevard from Palm Street to Lampson Avenue in the City of Garden Grove. Engineering services required extensive research, review, and a potholing program for the installation of the new utilities and storm drain improvements within the existing six-lane Harbor Boulevard roadway. TAIT, working with City Water Department, proposed the installation of a cut-in valve to ensure continuous water service to a medical facility during the construction of the water line improvements. The Construction Bid cost was approximately $1,400,000 with a 2013 completion.

Reference:
Bill Murray, P.E.
Tel: 714-741-5379
Key Staff:
PIC: Jacob Vandervis
PM: Todd Schmieder
Client:
City of Garden Grove
Construction Cost:
$1.4 M
Project Dates
2012-2013

Reagan & Peterson Park Parking Lot Rehabilitation Project - Diamond Bar, CA

TAIT was hired by the City of Diamond Bar to analyze, design and conduct construction management and inspection services for the expansion of two public park parking lots. The design services included topographic survey, geotechnical investigation, water quality management design, Los Angeles County Flood Control District storm drain permit processing, and the preparation of detailed PS&E for the construction of the park improvements. Design analysis included addition of handicapped parking stalls, design of optimal cross and longitudinal grades and the installation of retaining curbs to optimize the parking stall configuration. Extensive coordination between the City's public works and Park Maintenance Division was required in order to ensure the design was both in compliance with public works standards as well as the park division's ultimate master plan.

Reference:
John Beshay
Tel: (909) 839-7043
Key Staff:
PIC: Jacob Vandervis
QA/QC: Todd Schmieder
PM/CM: David Sloan
Inspector: Michael Delagarza
Client:
City of Diamond Bar
Construction Cost:
$575 K
Project Dates
2014-2015

OC Animal Care Facility - Tustin, CA

TAIT prepared rough and precise grading plans, street plans, sewer and water plans, fire water protection plans, Water Quality Management Plan and the Storm Water Pollution Prevention Plan for a 10-acre site on the former MCAS-Tustin. This County of Orange project was the first Design-Build project by the County. The contract was award in the spring of 2016 and a Rough Grading Permit was issued by the City of Tustin in July 2016 while the OC Animal Care and the Design-Build Contractor finalized the facility ands site improvements. As part of the Design TAIT coordinated the project's containment wall and fence locations and develop a site accessibility plan for the overall project. The facility includes a 2-story 40,000 SF administration building with state of the art veterinary facilities, six dog kennels, special cat housing quarters and a small corral. Separate parking lots provide for the public and staff parking lots which repurposed nearly 1-acre of existing concrete tarmac. The project also includes eight stormwater bio-filtration basins to treat storm water runoff from the site before it enters the public storm drain system. Const was completed and the facility was opened to the public in March 2018.

Reference:
Joe Seybold, Sr. PM
Tel: 714-667-4921
Key Staff:
PIC: Jacob Vandervis
PM: Todd Schmieder
PE: Michael Delagarza
PE: Chris Engelbach
Client:
County of Orange
Construction Cost:
$35 M
Project Dates
2016-2018

REFERENCES

City of Lake Forest
Doug Erdman, PE
(949) 282-5233
25550 Commercentre Drive,
Lake Forest, CA 92630
Projects: Portola Parkway Resurfacing

City of Newport Beach
Frank Tran, PE
(949) 644-3340
100 Civic Center Drive
Newport Beach, CA 92660
Projects: Newport Heights Alley & Sewer Imp.

City of Diamond Bar
Ms. Kimberly Young, PE
(909) 839-7044
21810 Copley Drive
Diamond Bar, CA 91765
Projects: Reagan & Peterson Park Parking Lot Rehabilitation, and Citywide Comprehensive Drainage Analysis and CIP Design

County of Orange
James Campbell
(714) 834-3767
333 W. Santa Ana Blvd., Suite 144
Santa Ana, CA 92701
Projects: Site Feasibility Studies for reuse County's existing properties, Site Planning and Design for County's 100-Acre Development Plan and Alton Parcel Development Plan.

SCOPE OF SERVICES AND SCHEDULE

Option B Scope of Services–Mile One Street Project

TAIT takes no exceptions to the City's proposed scope of work. Based on our review of the City's RFP, and project site, the following is our proposed scope of work for successfully completing the City's design contract. In order to simplify the RFP review process, all sub-tasks have been organized and included within the RFP's stated work items.

Kick-off Meeting

After receiving notice of the award of the project from the City TAIT will initiate our services in fully developing a detailed understanding of the project scope. *Initial design recommendations, field walk observations,* design parameters and project schedule will be discussed at the kick-off meeting in order to ensure the design is processed per the City's requirements.

Deliverables:
- ✓ Meeting Agenda & Minutes
- ✓ Updated Project Schedule

Records Research & Design Field Walk

Records Research & Compilation

This sub-task includes all hours necessary to conduct on line research and to coordinate with City and County staff in order to obtain existing roadway, right of way and any sub-surface records.

Design Field Walk

This sub-task includes field review to observe and document the existing conditions of the pavement, curb and gutter, parkway, curb ramp and all other anticipated work items. Existing damaged curbs and sidewalk will be noted. The existing curb ramps located at the existing intersections at the project limits along with any other within the project limits will be reviewed for existing grades, lip condition and gutter conditions and the presence of truncated domes. Existing condition photos will be taken of along the project limits in order to assist the Design team and aid the City in construction coordination to verify any existing damage to private or public facilities.

Deliverables:
- ✓ Compiled Existing Records (Design Files)
- ✓ Field Notes & Photos

Field Design Survey

TAIT will conduct a localized field pickup topographic survey of the project site plus 25 feet outside of the roadway ROW to detail the existing topographic features and elevations. Temporary benchmarks and basis of bearing data will be set if control is not readily available. The survey for this project assumes a half day to tie down horizontal and vertical control and no more than one day of field topographical survey conducted over two site visits . The 2nd field survey occurs once the 65% design has been completed in order to pick up supplemental field join information.

Field work associated with TAIT's Field Design Surveys will be provide based on the current prevailing Wage rates established by the state of California

Deliverables:

- ✓ Topographic Survey Data
- ✓ Temporary Benchmark & Basis of Bearing Notes, If required
- ✓ State-required Prevailing Wage Documentation

Base Mapping

For this 1000-foot long street widening project TAIT is proposing to prepare the project's Base Map at a horizontal scale of 1-inch equals 20 feet to provide a higher level of detail for edge conditions. The base mapping for this project will be prepared using the following items:

- ✓ Roadway Base Map (record based and supplemented with the field design survey)
- ✓ Right of Way (record based or GIS based R/W, if available from the city)
- ✓ Utility (record based line work using utility Atlas maps and other record drawings)
- ✓ Google Maps street view supplement by TAIT Site Walk field notes and photographs

All base maps will be prepared in accordance with the City's project needs and will identify the project limits and existing features which will be impacted by the proposed improvements.

Deliverables:

- ✓ 20-scale Base Map

Utility Information Requests and Coordination

TAIT will prepare three utility notices as part of this task as described below:

1st Utility Notice: This sub-task includes the hours associated with the initial utility research and the issue of notices to obtain record data. TAIT will compile and track all responses in a utility tracking matrix and will conducts follow ups with all non-responsive utilities.

2nd Utility Notice: This sub-task includes the hours associated with the preparation and distribution of the 2nd utility notice per RFP requirements.

Final Utility Notice: This sub-task includes the hours associated with the preparation and distribution of the 3rd utility notice per RFP requirements.

Deliverables:

- ✓ Utility Information Matrix
- ✓ Utility Coordination Log & Records
- ✓ 1st, 2nd & Final Utility Notices

Geotechnical Investigations

TAIT will retain GMU, a Geotechnical Engineering firm, to serve as the project's geotechnical sub-consultant and conduct the necessary field investigations to determine the project requirements which may include, but not be limited to, subgrade evaluation and development of pavement structural sections recommendations.

Deliverable:

- ✓ Final Geotechnical Investigation Report (Hard copy and PDF)

Roadway Plans

Preliminary Layout Plan

Utilizing the project's Base Map, Field Design Survey and City requirements for lane configuration and street widening TAIT will prepare a Preliminary Layout Plan reflecting the proposed street widening and striping and the existing adjoining intersections. As part of this plan potential improvements to private property will be reviewed and discussed with the City. Comments received from the City will be reviewed with the City to determine required corrective actions and, if requested, a final Preliminary Layout Plan incorporating the city's comments will be prepared for City review and approval.

Deliverable:

- ✓ Preliminary Layout Plan (Hard copy and PDF)
- ✓ Design Review Meeting Notes (Digital PDF format only)

Final Roadway Plans

Based on our review of the project limits and scope of work, the following is a brief description of each sub-task and the anticipated page count for the design plans:

[redacted]	[redacted]	[redacted]
Title Sheet	N/A	1 Sheet
Details, Typical Sections & Notes	Varies	1 Sheet
Roadway Plans and profile (Plan View Only)	1" = 20'	2 Sheets
Signing & Striping Plans	1"=20'	1 Sheets
Landscape Details for 4-foot Parkway	varies	1 sheet
Total Sheet Count		**6 Sheets**

Title Sheet

The title sheet will be prepared on the City's standard title block and will include a vicinity map, legend, sheet index, general notes, and signature blocks for all applicable agency and project management staff. Utility contact info, and other City requested items will be added to the title sheet as needed. If required details for drainage improvements (plan and profile as necessary) would be included on this sheet (as well as depicted in plan view on the Roadway Plan sheet).

Construction Notes, Typical Sections & Construction Details

General project notes, a master list of construction notes, typical project details and typical roadway sections will be included on these sheets.

Roadway Plan and Profile

Roadway plan and profile sheets s will be prepared at a 1" = 20' in horizontal and at 1" = 2' in vertical scales. A stationing system will be set up along the roadway centerline and all applicable pavement, sidewalk and curb and gutter items will be tied to the stationing system. Location and limits of all work items will be detailed on the plans with length/width callouts. Existing utilities will also be shown and identified by ownership, size and type.

Signing & Striping Plans

Signing & striping plans will be prepared at 20-scale in accordance with City and the most recent CA-MUTCD document and be double stacked on a single sheet.

Landscape Details

For the purposes of this proposal TAIT is assuming that landscape improvements would be limited to preparation of details and construction notes and would not require the preparation of detailed construction drawings. The proposed landscape improvements would be limited to the 4-foot wide non-sidewalk area in the 10-foot wide street parkway on the side of the street to be widened. For proposing purposes the assumed landscape improvements are assumed to be a continuation of the streetscape concept applied for the street segments adjacent to the project limits.

QA/QC Review & Submittal Coordination

As part of our scope of work, TAIT has included the necessary labor effort for conducting in-house QA/QC reviews and coordinating the necessary plan review prior to the 65% & 100% submittals.

Environmental Documentation

As part of the final design Tait will work with the city to prepare the project's necessary environmental documentation.

Deliverables:

- ✓ Preliminary layout Plan
- ✓ 65% Plans, 100% PS&E and Final PS&E Bid Documents (Hard Copy, PDF & Microstation formats)
- ✓ Geotechnical Investigation Report (Hard Copy and PDF)
- ✓ Environmental Documentation

Engineer's Cost Estimate

TAIT will prepare an engineer's cost estimate at the 65%, 100%, and Final PS&E submittal stage for City review and input. Unit prices will be checked against recent City of Rosemead projects. Work items will be prepared to correlate with the preliminary specifications, and will include all work items including mobilization, storm water compliance, traffic control, and striping. The cost estimate will be reviewed by the QA/QC Manager prior to each submittal per the quality assurance program. Further, the engineers cost estimate will be formatted per LAPM requirements in order to aid in the City's expedited approval of the RFA Package.

Deliverables:

- ✓ 65%, 100% and Final Cost Estimates (PDF & Excel Spread Sheet)
- ✓ PES, R/W Cert., & RFA Supporting Calculations/Documents, if federally funded

Project Specifications

TAIT will prepare project specifications for the proposed project based on the City's boilerplate specifications. Each work item will have a clear measurement and payment clause in order to avoid costly change orders during the construction phase. Specifications will also include clear delineation of the traffic control requirements and parameters as well as coordination requirements with utilities. Finally, the project specifications will be reviewed by the QA/QC Manager prior to each submittal per the quality assurance program. If requested all required federal provisions, forms and work items will be included in the specifications based on the most recent versions uploaded to the LAPM website.

Deliverables:

- ✓ 65% Specifications Table of Content/Outline
- ✓ 100% and Final Project Specifications (PDF and Word.doc Copies)

Project Management, Coordination and Meetings

Project Team meetings with the City will be held, at a minimum, on a monthly basis. In addition as indicated in the Preliminary Project Schedule, Design Review Meetings will be held after the City completes its review of the Preliminary Plans 65% and 100% to review and develop recommendations

based on City comments. These meeting may also serve as a Monthly Project Team Meeting. All meetings will be held at City Hall and TAIT will prepare necessary agendas/meeting minutes.

Deliverables:

- ✓ Meeting Attendance Rosters
- ✓ Meeting Agenda & Minutes

Bid Support & Construction Support Services (City-Requested Time and Material Services)

Per the RFP requirements and for the City's budgetary purposes a fee proposal has been included for providing time and material related services for both Bid Support and Construction Engineering Support services.

For Bid Support TAIT services may include: City-requested attendance at a Pre-bid meeting, review of Contractor RFIs, preparing support documents for Bid Addendums, and review of Contractor Cost Estimates. A total 16 labor hours has been included for this support subtask.

For Construction Engineering Support TAIT's service may include: City-requested attendance at the Pre-Construction Meeting, review of and preparing responses to Contractor RFIs and Material Submittals, conducting site visits, reviewing Contractor invoices and potential contract change orders, conducting a final punch walk, and preparing As-built plans based on Contractor and City construction Manager redlined plans. A total of 40 labor hours for providing Construction Engineering Support services during the construction phase has been included in developing TAIT's fee proposal for this project. Should additional hours be required, TAIT would notify the City of the anticipated additional effort to obtain City authorization of any additional hours and fees.

Deliverables:

- ✓ Responses to Contractor RFIs and Material Submittals
- ✓ Punch List
- ✓ As-built plans

OPTIONAL SERVICES

Traffic Control Plans – Optional Service

If requested by the City and in an effort to provide an expedited and high quality traffic control design for this project, TAIT would retain the services of TJW to prepare any required traffic control plans. The following items define the scope of services for this task.

1. Review the existing site conditions and proposed street improvement plans.
2. Develop a conceptual traffic control program and meet with the City to discuss the project.
3. Field review the existing conditions at the intersections, such as the existing geometry, sight distance, existing traffic signal equipment, signing, striping, traffic patterns, and above ground utilities and incorporate the findings into the final traffic control plans.
4. Prepare a traffic control phasing plan and submit to the City for review. (Two-phased are assumed.)
5. Prepare the detailed 100% traffic control plans at a scale of 1"=40' based on an approved construction phasing plan for the project.
6. Revise the plans and specifications address TAIT's QC comments and City Review comments and submit final signed and sealed Traffic Control Plans to the City for approval signatures.

Deliverables:

- ✓ 100% and Final Traffic Control Plans

Design Phase Federal Funding Assistance (PES, R/W Cert, & RFA) – Optional Service

TAIT has partnered with LAE Associates, on previous projects, to assist TAIT with providing expedited federal funding documentation processing services. The same services can also be made available to the City of Santa Ana if requested. The project's federal funding documentation scope is based on processing a project that meets the requirements for a Programmatic Categorical Exclusion Environmental Document. It is our understanding that the proposed project will be constructed within the existing City acquired Right-of-Way (R/W). Based on the project's scope, the preparation of any special environmental investigation and/or preparation of technical environmental studies has been excluded.

The following sub-tasks have been outlined in order to capture the typical work items necessary to provide federal funding documentation support services:

Prepare & Submit PES & NEPA NOE:

This sub-task includes all hours necessary to complete and obtain approval for the PES package. The federal documentation process will be initiated by conducting the following introductory tasks:

- Review the City's funding documentation
- Attend project kick off meeting
- Ensure the project is properly programmed in the FTIP
- Prepare exhibits to obtain a Federal Project Number from CT
- Ensure that the City has an updated Quality Assurance Program (QAP); If not, update City's QAP

The environmental approval (PES) process will include the following tasks:

- Visit the project site; take photographs and notes
- Prepare the Preliminary Environmental Studies (PES) form
- Review the PES form with the City
- Revise the PES form based on CT's comments
- Coordinate with CT to obtain a NEPA approval

Deliverables:

- ✓ Site photos & Field Review Form
- ✓ PES package & Revisions (As needed)
- ✓ NEPA NOE Documentation

Prepare & Submit R/W Certification:

This sub-task includes all hours necessary to complete and obtain approval for the R/W Certification package. The items of work included in this sub-task are:

- Review CT R/W certification requirements with design team
- Compile all utility coordination records & work items
- Compile approved CT encroachment permit documentation
- Prepare the required R/W certification package

Deliverables:

- ✓ R/W Certification Package & Revisions (As Needed)

Prepare & Submit E-76 Application:

This sub-task includes all hours necessary to complete and obtain approval for the RFA/E-76 Application Package. The items of work included in this sub-task are:

- Ensure that City has approved DBE documentations for FFY 15/16
- Review final Engineer's Estimates for DBE sub-contracting opportunities
- Prepare a contract specific Construction Management (CM) and construction DBE goals (If CM services will be funded with Federal funds)
- Review the plans

- Review the final Engineer's Estimate for APM eligibility
- Incorporate federal provisions in the final specifications
- Ensure compliance with LAPM Chapter 11 for design compliance (design exceptions, proprietary items, etc.)
- Identify Participating and Non-participating items and incorporate federal trainee requirements
- Prepare the RFA package in accordance with LAPM requirements
- Review the RFA and final PS&E package with the City
- Coordinate and incorporate comments to obtain E-76 to advertise project for construction

Deliverables:

✓ RFA Package (Completed Forms & PS&E) & Revisions (As Needed)

Construction Federal Funding Assistance – Optional Service

As requested by the City of Lake Forest (City), we are submitting this fee proposal to prepare the required contract award package, two Caltrans (CT) reimbursement invoices, final invoice, and the required closure package for the subject project. The services will consist of the following:

Award Package:

- Preliminary estimate of cost
- Resident engineer's contract administration checklist
- Bid tabulation summary sheet
- Local agency bidder Disadvantaged Business Enterprises (DBE) commitment
- Local agency bid opening check list, local agency contract award check list
- Detail estimate
- Finance letter
- A copy of contractor 's bid proposal and addenda
- Proof of publication/advertisement,
- A set of advertised plans and specifications

DBE Note: On construction contracts over $2 million, if the DBE goal is not met, CT's Office of Policy Development and Quality Assurance shall approve the GFE before contract award.

Two CT Progress Reimbursement Invoices:

We will prepare the required Exhibits/documentation for City review, signature, and submission to CT (based on the Contractor's paid progress invoice(s) and City invoice number, if required by the City).

Final Invoice and Closure Package:

We will prepare the final invoice and closure package, which will consist of the following:

- Final Detail Estimate and Detail Estimate Summary
- Cover Letter and Federal Report of Expenditures Checklist
- Final Inspection Form
- Federal-Aid Final Invoice
- Local Agency Invoice Review Checklist
- Billing Summary- Construction Capital
- Change Order Summary
- Final Report - Utilization of Disadvantage Business Enterprises
- Material Certificates
- DBE Certification Status Change
- Contract Change Orders
- Notice of Completion

✓ Response to RFIs (memo format)

✓ Field Walk/meeting Notes (As Needed)

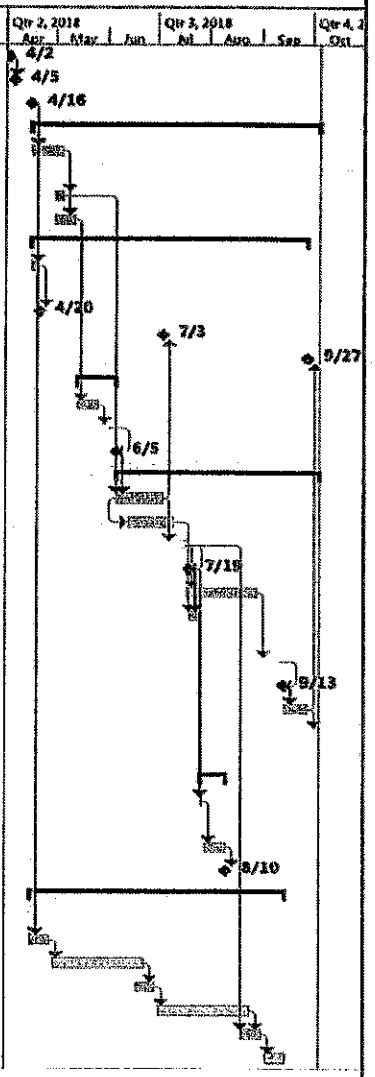
Project Schedule

The following represents a preliminary project schedule for the development of construction documents for the Mile One project. This preliminary schedule will be reviewed with the City at the project's Kick Off meeting and a final project schedule will be issued based on those discussions.

The Project schedule will be made available to all design team members and will monitored on a continuous basis through the project's design life. Any changes to the Schedule will be reviewed with the City and action plans, if necessary, will be developed to prevent schedule delays. The following schedule has been developed based on previous project experiences:

Project Schedule
City of Santa Ana - Mile One Street Project
Preliminary Schedule

ID	Task Name	Duration	Start	Finish
1	Award of Contract	0 days	Mon 4/2/18	Mon 4/2/18
2	Kickoff Meeting	0 days	Thu 4/5/18	Thu 4/5/18
3	NTP Is Issued	0 days	Mon 4/16/18	Mon 4/16/18
4	Prepare & Issue Bid Documents	124 days	Mon 4/16/18	Thu 10/4/18
5	Records Research & Initial Design Field Walk	15 days	Mon 4/16/18	Fri 5/4/18
6	Field Design Survey Services	5 days	Mon 4/30/18	Fri 5/4/18
7	Prepare Base Map	10 days	Mon 4/30/18	Fri 5/11/18
8	Utility Research,Coordination & Notices	119 days	Mon 4/16/18	Thu 9/27/18
9	Utility Contact List & Notice Preparation	5 days	Mon 4/16/18	Fri 4/20/18
10	Send 1st Utility Notice	0 days	Fri 4/20/18	Fri 4/20/18
11	Send 2nd Utility Notices	0 days	Tue 7/3/18	Tue 7/3/18
12	Send 3rd Utility Notice (As Needed)	0 days	Thu 9/27/18	Thu 9/27/18
13	Preliminary Design	17 days	Mon 5/14/18	Tue 6/5/18
14	Prepare Preliminary Layout Plan	10 days	Mon 5/14/18	Fri 5/25/18
15	City Review Preliminary Layout Plan	5 days	Mon 5/28/18	Fri 6/1/18
16	Design Review Meeting	0 days	Tue 6/5/18	Tue 6/5/18
17	Plans, Specifications, & Estimates	87 days	Wed 6/6/18	Thu 10/4/18
18	Prepare 65% PS&E	20 days	Wed 6/6/18	Tue 7/3/18
19	Conduct Geotechnical Investigations	20 days	Wed 6/13/18	Tue 7/10/18
20	City Review 65% PS&E	10 days	Wed 7/4/18	Tue 7/17/18
21	65% Design Review Meeting	0 days	Thu 7/19/18	Thu 7/19/18
22	Prepare 100% PS&E	30 days	Wed 7/18/18	Tue 8/28/18
23	Incorporate Geotechnical Recommendations	5 days	Fri 7/20/18	Thu 7/26/18
24	City Review 100% PS&E	10 days	Wed 8/29/18	Tue 9/11/18
25	100% Design Review Meeting	0 days	Thu 9/13/18	Thu 9/13/18
26	Prepare Final PS&E	10 days	Fri 9/14/18	Thu 9/27/18
27	City Review & Approve Final PS&E Bid Documents	5 days	Fri 9/28/18	Thu 10/4/18
28	Environmental Documentation	11 days	Fri 7/27/18	Fri 8/10/18
29	Conduct Environmental Kick Off Meeting	1 day	Fri 7/27/18	Fri 7/27/18
30	Prepare Environmental Documentation	10 days	Mon 7/30/18	Fri 8/10/18
31	Submit Envir. Documentation to City	0 days	Fri 8/10/18	Fri 8/10/18
32	Federal Funding Assistance (Optional Service)	110 days	Mon 4/16/18	Fri 9/14/18
33	Prepare & Submit PES	10 days	Mon 4/16/18	Fri 4/27/18
34	Caltrans Review & Approve PES	40 days	Mon 4/30/18	Fri 6/22/18
35	Prepare & Submit R/W Cert	10 days	Mon 6/18/18	Fri 6/29/18
36	Caltrans Review & Approve R/W Cert	40 days	Mon 7/2/18	Fri 8/24/18
37	Prepare & Submit RFA/E-76 Application	10 days	Mon 8/20/18	Fri 8/31/18
38	Caltrans Review & Approve RFA/E-76	10 days	Mon 9/3/18	Fri 9/14/18



Tait Team Task
City Task
Caltrans Task
Milestone
Summary

APPENDIX

Resumes

Jacob Vandervis, PE

PRINCIPAL-IN-CHARGE/PROJECT MANAGER

Mr. Vandervis currently serves as a Vice President/Chief Operations Officer in TAIT's Corporate Office in Santa Ana. In addition to his management duties, he acts as the primary point of contact for several national retail and residential developers. Mr. Vandervis is a licensed civil engineer with over 32 years of experience with land development projects in the western United States. He has been a member of the TAIT team for the past 21 years. His areas of expertise include site design, grading design, drainage studies, water pollution control plans, erosion & sediment control plans, as well as street improvement plans. He is experienced in site design of all sizes for commercial development, involved in preliminary design to develop cost estimates & due diligence packages, as well as experienced in the entitlement phase of projects. His surveying experience includes the preparation of ALTA and topographic surveys, parcel maps, record of survey and legal descriptions. He is a certified Qualified SWPP Developer (QSD), Certified Development, Design & Construction Professional (CDP) and Certified Retail Property Executive (CRX)

Education

B.S. -- Civil Engineering

California State University, Long Beach

Year of TAIT Team Enlistment

1997

Total Experience

32

Certifications

Registered Professional Engineer, Civil -- California, Oregon, Arizona, Utah, Nevada, North Dakota, Washington, Hawaii, and Alaska.

Professional Engineer California No. C46301

Harbor Blvd. Reconfiguration, Water Main Replacement & Utility Relocations, City of Garden Grove, Principal-In-Charge, 2013

Principal-In-Charge of the work being conducted by all TAIT staff to provide Design Engineering Service for then $500 K water main replacement and utility relocation project and the $ 1 M Street Reconfiguration Project in the City of Garden Grove. Primary responsibilities were to ensure the project was properly staffed and that the work was completed to the satisfaction of both TAIT & Associates as well as the City of Garden Grove.

Phase 1, 2 & 3 Water Main Replacement Design Build Project, Los Angeles County, Golden State Water Company, Project Manager, 2013

Project Manager & Principal In Charge of the work being conducted by all TAIT staff to provide Design Engineering Service for then $2.5 M water main replacement project throughout six locations in Los Angeles County for Golden State Water. Primary responsibilities were to review and stamp design PS&E, and supervise all staff, contract requirements, and construction coordination on project.

Beaudry Terrace Water Main Design Build Project, Glendale Water & Power, Project Manager, 2014

Principal-In-Charge to provide Design Engineering Service for then $1.5 M water main replacement project in the Beaudry Terrace Neighborhood in the City of

Glendale for Glendale Water and Power. Primary responsibilities were to review and stamp plans and specifications, supervise design engineers and coordinate with client and contractor through the design and construction phases.

Monterey Park Plaza, Monterey Park, CA, Project Manager, 2015 – Present
The design of the development includes slope stabilization, retaining wall design, street improvement design, utility installation, overall site development, and over 400,000 cubic yards of dirt removal and regrading. The project involves three geotechnical analysis. The geotechnical analysis included recommendations for the design on and near the landfill; for the slope stabilization throughout the site; and for the overall site development and construction. The project utilized detailed retaining wall designs and in some areas, pile designs. These retaining walls and pile designs were specially designed near SCE facilities and towers. Unique construction equipment has been detailed out and coordinated for this construction.

On-Call Engineering Services, Orange County Public Works, Principal-In-Charge, 2010 - Present
Principal-In-Charge of the work being conducted by all TAIT staff and sub-consultants to provide Plan Check and On-Call Engineering Services for the County of Orange Planned Communities. Primary responsibilities were to ensure the project is properly staffed and that the work is completed to the satisfaction of both TAIT & Associates as well as the County of Orange.

100 Acre Parcel Development El Toro Marine Base, Orange County Public Works, Irvine, CA, Project Director, 2009 – Present
Prepared infrastructure assessment of the existing Marine Corps base facilities on the southerly 100-acres that had been closed in recent years. Reviewed existing record documents, met with utility purveyors, inspected existing structures and roadways, and prepared executive summary for presentation to the County of Orange for potential reuse of the facilities.

FBI Training Center, Orange County Public Works, Irvine, CA, Principal-In-Charge and Structural Engineer, 2007 -2008
Provided structural design for a 1,480 square foot masonry block structure to be constructed at new FBI training facility on the former El Toro Marine Base. The site improvements were to include the construction of a new classroom and a covered training area adjacent to an existing structure. The site was a former USMC shooting range and was being upgraded by the FBI. To help minimize the overall construction cost and to speed up construction, the use of a pre-manufactured roof truss for the structure was proposed. The design/build construction of the facility was completed in August 2008.

Abridged List of Additional Project Experience by Jake:

- City Hall Underground Fuel Storage Tank Removal and Replacement, City of Irvine, Principal-In-Charge
- Foothill Crossing, City of Rancho Cucamonga (Principal-In-Charge)
- Columbus Square Infrastructure Improvements, City of Tustin, (Principal-In-Charge)
- Entertainment Park, City of Anaheim (Senior Project Manager)

Todd Schmieder, PE

QA-QC Manager/Sr. Project Manager

Mr. Schmieder has worked on numerous public infrastructure and private development projects ranging from small residential and commercial projects to a 30-mile long toll road, a 40-acre commercial center, and 1000-home master planned communities. His project experience includes plan check services, preparation of feasibility, and site assessment studies, site planning studies and preliminary and final design plans, tentative and final maps, and environmental studies and reports. Mr. Schmieder's technical experience also includes conducting design reviews, development of traffic signing and striping plans, preparation of traffic control and construction staging plans, preparation of construction specifications and cost estimates, and providing construction management and inspection. His project management experience includes utility coordination, master planning, and project scheduling.

Education
B.S. – Civil Engineering
Ohio State University, 1980

Year of TAIT Team Enlistment
2005

Total Experience
38

Certifications
Professional Engineer
California No. C37167

Certificate program in light construction and development management

University of California—Irvine Extension, 2004

Affiliations
American Society of Civil Engineers, Member

Building Industry Association of Orange

Orange County Animal Care Facility, County of Orange, Sr. Project Manager, 2016- Present
Oversaw the preparation of rough and precise grading plans, street plans, sewer and water plans, fire water protection plans, Water Quality Management Plan (WQMP) and Storm Water Pollution Prevention Plan (SWPPP) for a 10-acre site on the former USMC Tustin Air Station for the new Orange County Animal Care Facility. This project is the first Design-Build project being implemented in by the County. TAIT & Associates, Inc. is the Civil Engineering Consultant to Snyder Langston, the County's Design-Build Contractor. The contract was award in the spring of 2016 and a Rough Grading Permit was issued by the City of Tustin in July 2016 while the County Animal Care and the Design-Build Contractor finalized the building and kennel improvements. Construction of the $28 million facility is scheduled to be completed by August 2016. When completed the facility will include a 2-story 40,000 SF administration building with state of the art veterinary facilities, six dog kennels, special cat housing quarters and a small corral. Separate parking lots are provide for the public and staff with the staff parking lot repurposing nearly 1-acre of existing concrete tarmac. The project also includes eight storm water bio-filtration basins to treat storm water runoff from the site before it enters the public storm drain system.

The Commons at Quartz Hill, City of Lancaster, Project Engineer, 2015-Present
Served as the Senior Project Manager for this retail center that includes an 185,000 SF Walmart Supercenter and 14 outparcels and is located at the NWC of Avenue L and 60th Street West in the City of Lancaster. The project includes approximately one mile of roadway improvements, construction of two new traffic signals and modification to one existing traffic signal, construction of 1500 LF of City master plan 60-inch storm drain system, approximately 1.5 miles on new LACWD water lines improvements and grading, paving and storm drain

improvements for a 36.5-acre retail center. Because of downstream storm water concerns the site was design to capture and infiltration over 95% of the project's on-site storm water runoff with multiple small basins along the perimeter, a 1000-foot long linear basin along the project's western boundary and a 3-acre basin capable of detaining and infiltrating a 100-year storm event. The Site improvements also included a half-mile of dry utility distribution services undergrounding and new installation along the project's perimeter. The Project's Parcel Map also included the dedication of roadway right of way for the widening of Avenue L and 670th Street west and the construction of Avenue K-12 (a new public street).

Harbor Boulevard Street Reconfiguration, Water Main Replacement & Utility Relocations, City of Garden Grove, Senior Project Manager, 2013
Project Manager of the work being conducted by all TAIT staff to provide Design Engineering Service for then $500 K water main replacement and utility relocation project and the $ 1 M Street Reconfiguration Project in the City of Garden Grove. Primary responsibilities were to review and stamp the plans, supervise engineering team, and attend and coordinate project meetings with City staff and other stakeholders. Project included Providing Plans Specifications and Cost estimate for City improvements to Harbor Boulevard that will accommodate the future redevelopment of several city-owned parcels. This project included reconfiguration of Harbor Boulevard from Palm Street to Lampson Avenue (approximately 1/3-mile total length), improvements to an existing raised median, abandonment of existing 8-inch ACP and 12-inch DIP City water lines, installation of a 800 LF of new 16-inch water line, relocation of SCE and AT&T main distribution service lines, and the installation of new public storm drains, sewer and water services.

A-Town Street Widening and Sewer Capacity Improvements, City of Anaheim, Sr. Project Manager, 2007
Engineering design services included the design of sewer capacity enhancements for over 2 miles on new 15-inch and 21-inch sewer lines in Katella Ave., Gene Autry Way and Santa Cruz Rd. in the City's Platinum Triangle area. Encroachment permits were obtained from the Orange County Sanitation District for connections to a district sewer line and with Caltrans District 12 (Orange County) for work within Interstate I-5 right of way. The engineering design services also included the preparation street widening plans for Katella Avenue, State College Boulevard and Gene Autry Way (approximately one-mile) that included a new raised landscape median in Katella Avenue, and the reconstruction of a City Changeable Message Sign.

Abridged List of Additional Project Experience by Todd:

- Quadrant III Water Line Replacements, City of Chino, QA/QC Manager
- Tustin Metrolink Station Redevelopment, City of Tustin/OCTA, Sr. Project Manager
- Red Hill Median & Streetscape Feasibility Study, City of Tustin, Sr. Project Manager
- County Regional Park, OC Parks, City of Tustin, Sr. Project Manager
- Yorba Linda Water District Sewer Main Replacement, Yorba Linda, CA
- Normandie Avenue Water Line Replacement Project, Golden State Water Company
- Antonio Parkway Widening Improvements, County of Orange

David Sloan, P.E.

PROJECT MANAGER

As a Project Manager, David is responsible for supervising staff at TAIT on the preparation of public and private development projects. David has performed and coordinated detailed designs on federally funded arterial roadways, conducted utility coordination for major relocations on high profile projects and conducted project management efforts on multiple projects throughout the Sothern California region. David has designed and managed the construction for multiple projects in the southern California region and is an ideal candidate to manage this project for the City. David is an effective communicator and actively stays in contact with his clients throughout the life of his projects. David has also managed multiple public works construction projects and understands the methods and costs of construction.

Education

BS Civil Engineering – Tau Beta PI Honor Society & Chi Epsilon, University of Southern California

BS Physical Science, Biola

Year of TAIT Team Enlistment

2014

Total Experience

11

Certifications

Professional Engineer
California No. 82595

Newport Height Alley & Sewer Reconstruction Project, City of Newport Beach, Project Manager, 2015

David is currently acting as the Project Manager to the City of Newport Beach for the Newport Heights Alley & Sewer Reconstruction Project. The project includes the survey, design, and reconstruction of over three miles of residential alleys. The project is designed in three phases with phase 1 being sewer main replacements, and phase 2 & 3 being alley reconstructions within select neighborhoods. The alley replacement design included the geometric and profile analysis of each alley along with the preparation of design plan and profile sheets for each alley segment. The design also included the preparation and analysis of design cross sections (via use of Civil 3D corridors) to ensure design crossfalls along the alley are appropriate. The project is scheduled to complete phase 1 design in April, 2016, and phase 2 & 3 design in July, 2016.

Portola Parkway Resurfacing Project, Project Manager, 2015

David is currently serving as the Project Manager to the City of Lake Forest on this federally funded arterial pavement rehabilitation project which included design engineering, geotechnical engineering, surveying, and federal documentation/ approvals. The project included the rehabilitation of the arterial roadway as well as the identification and replacement of non-ADA compliant or non-functional PCC sidewalk, curb ramp, curb and gutter and other improvements. The design also included the replacement and updating of the roadway and bike lane striping throughout the project limits. The project also included the relocation and reconstruction of an existing median at Bake parkway in order to construct an additional left turn pocket.

Bay Street Alley Reconstruction Project (CDBG) – City of Costa Mesa, Project Engineer, 2010
David served as Project Engineer, providing design engineering and coordinating Topographic Survey and Geotechnical Investigation services for this CDBG-funded alley reconstruction project. The project spanned roughly 1,000 LF along Bay Street Alley and Ford Road Alley. Plans included plan and profile, cross sections and special details. A cost analysis was conducted to provide the City of Costa Mesa with cost-to-lifespan design alternatives, including Asphalt Rubber Aggregate Membrane (ARAM), Asphalt Rubber Hot Mix (ARHM), Cold-In-Place Recycling (CIR), Full Depth Reclamation & Sub-grade treatments. Full-depth PCC reconstruction with rebar reinforcement was determined to be the most cost effective solution.

Jamboree Road Roadway Rehabilitation Project, City of Irvine, Project Engineer, 2013
David served as Project Engineer for the City of Irvine to rehabilitate Jamboree Road, from MacArthur to Camp. The project was located in the City of Irvine as well as the City of Newport Beach which required extensive correspondence with both agencies during the design phase. Funding deadlines required an expedited design, and the design was modified mid-way through to eliminate anticipated median island improvements on this 119-foot-wide major arterial. The design included grind and ARHM overlay, 2,232 tons of 10-inch FDR, upgrading 9 ramps to meet ADA compliance, loop installation, and video detection at 2 intersections.

FY13/14 Major Street Rehabilitation, City of Pomona, Project Manager, 2015
David served as the Project Manager to the City of Pomona for their annual major street rehabilitation project. The project includes the rehabilitation of eight arterial and collector segments of roadway throughout the City. The project required analysis of the existing pavement conditions, recommendation of alternate rehabilitation methods by use of recycled pavement options, obtaining an SCRRA railroad encroachment permits, upgrading of 4 roadway segments in add new bike lanes and the analysis and replacement of all curb ramps along the project limits.

Parking Lot Rehabilitation for the City of Diamond Bar, Project Manager, 2015

David served as the Project Manager and Construction Manager to the City of Diamond Bar for expansion and reconstruction of two public park parking lots. The design included the analysis of traffic flow, preparation of a geotechnical investigation, design of water quality management plan and hydrology, and the preparation of detail PS&E for the construction of the proposed improvements.

Culver Drive Pavement Rehabilitation Project – City of Irvine, Project Engineer, 2011
David served as Project Engineer, providing PS&E to the City of Irvine on the Culver Drive Rehabilitation Project. The project spanned 1,800 LF along Culver Drive, from the north railroad tracks to Walnut Avenue. Culver Drive is a principal arterial roadway, providing northeast/southwest access through the western portions of the City of Irvine, while also serving as a primary travel route through a variety of commercial, residential and institutional zoning areas. David designed localized pavement reconstruction at the Northbound #3 lane and the Southbound #1 lane, where pavement conditions were considerably worse than adjacent lanes; the length of the project was treated with full width 2-inch grind, a 2-inch AC leveling course and 2-inch ARHM overlay. The project also entailed removing and replacing the existing median shed gutter with a standard 8-inch median curb, median island landscape improvements, and ensuring ramps throughout the project were ADA compliant.

Irvine Center Drive Rehabilitation Project – City of Irvine, Project Engineer, 2009

David served as Project Engineer, providing design engineering and construction support services to rehabilitate 1.5 miles of this 6 lane arterial and major thoroughfare in Irvine. The project spanned Irvine Center Drive, from Jeffrey Road to Culver Drive, and the design phase included stretches of full depth reconstruction combined with a grind and overlay of the entire roadway, 6,300 SF of sidewalk, 15,800 LF of median curb, 136 traffic loops, 30,000 SF of landscaping and irrigation, and upgrading ramps to meet ADA compliance. Along with the design, David also provided Construction Support Services, including responding to RFI's, attending meetings, providing assistance related to Change Orders, and reviewing Contractor's submittals for conformance with contract documents. David also prepared As-Built documentation.

STPL Woodruff Ave. & Palo Verde Ave. Rehab. Project, City of Bellflower, Project Engineer, 2013

As Project Engineer, David provided Design engineering and Federal Aid Documentation services to the City of Bellflower for this STPL-funded project. The project spanned 5,200 LF of arterial roadway, along Woodruff Avenue, from Alondra Boulevard to Somerset Boulevard and Palo Verdes Avenue, from the South City Limits to Artesia Boulevard. The project was designed as a single project, but split for construction. The scope included full-width grind and ARHM overlay, localized full-depth reconstruction, PCC sidewalk, curb & gutter, driveway, installing 16 ADA-compliant curb ramps, as well as extensive traffic control to allow access to open businesses during construction. David prepared an E-76 Construction Authorization Package to obtain Caltrans approval on the project and to secure funding. David continued to coordinate with Caltrans for the duration of this contract.

STPL Bellflower Blvd. & Woodruff Ave. Rehabilitation, City of Bellflower, Project Engineer, 2011

Phase 1 & 2 Water Main Replacement Project, City of Norwalk, Project Engineer, 2010

David served as Project Engineer for the City of Norwalk on Phase 1 & Phase 2 of this water main replacement project. Phase 1 spanned from Alondra Boulevard to 166th Street, and various other streets, and included the installation of 4,512 LF of 8-inch DIP pipe, 27 gate valves, 125 new house meters with re-connections, and the repaving and capping of all excavated areas. Phase 2 included 6,200 LF of 8-inch DIP water main replacement between Elmhurst Drive and Harvard Drive, and Gridley Road and Gard Avenue. David was also responsible for analyzing fire hydrant spacing to ensure adequate fire water coverage was available at all residential and commercial blocks. All phases of the water main replacement project were designed to fit the City's CIP funding needs.

Abridged List of Additional Project Experience by David:

- Pier F-G Sewer Improvement Project ,Port of Long Beach, Project Manager
- STPL Bellflower Blvd. & Woodruff Ave. Rehabilitation, City of Bellflower, Project Engineer
- SRTS Campus Drive Class I Bikeway Project, City of Irvine, Project Engineer
- Citywide Comprehensive Drainage Study, Diamond Bar, Project Manager
- FTA-Administrated 2010 Bus Shelter Replacement Project – Norwalk Transit, Project Engineer
- Area 2 & Zone 1 Roadway Maintenance Project, City of Diamond Bar, Project Engineer
- Berry Street & Imperial Highway Sewer Main Replacement Project, City of Brea, Project Engineer

Samantha A. Wohlfarth, PE

PROJECT ENGINEER

Ms. Wohlfarth has professional experience that includes the preparation of grading plans, water main replacement plans, storm drain plans and drainage reports, sewer plans, cost estimates and storm water management reports for public and private developments throughout Southern California, Western Washington, and North Dakota. Her project experience also includes the preparation of storm water quality reports such as SWPPP, WQMP, SUSMP and LID as mandated by the state and local municipalities. Ms. McGee has technical knowledge with multiple software programs including AutoCAD 2014, Civil 3D, Land Desktop, Microstation, GeoPak, WWHM2012, RetainPro, and additional specialty programs.

Education
B.S. -- Civil Engineering
Valparaiso University
Valparaiso, IN, 2012

Year of TAIT Team Enlistment
2012

Total Experience
6

Certifications
Professional Engineer

California No. 86126

Beaudry Terrace Water Main Replacement Project, Glendale Water and Power, Project Design Engineer, 2014
The Beaudry Terrace water main replacement project included four phases, six streets, and approximately 5,300 linear feet of water line that was designed to replace existing service pipe mains with ductile iron pipe. The project included new services, hydrants, inverts, tie-ins, and other appurtenances. Department of Public Health waiver exhibits were prepared for select non-potable and water crossings. The project included a community outreach meetings, service survey coordination, as well as detailed final As-Built submittals.

Silverado Campus Conversion, County of Orange, Project Engineer, 2013-Present
TAIT's current task order assignment with OC Parks includes preparing plans for the demolition of several existing campus structures with the conversion of the former classrooms and office space into a County Library, offices for County Park staff, and community meeting rooms that cover 3500 square feet of usable enclosed space. Site work in the initial phase will consist of implementing Code-required ADA improvements for public access at the campus and for public restrooms, upgrading of the existing parking lot, and provisions to provide security lighting for night-time use of the facility.

State Street (Highway 83), North Dakota Department of Transportation, Bismarck, North Dakota, Design Engineer, 2014
The State Street improvement project consisted of adding, extending, and modifying left and right turn lanes, and other existing geometry along the 1.6 mile long road in Bismarck, ND. The project improved traffic flow, reduced turning movement conflict points, and improved driver expectancy. The project included the survey, right of way, utility coordination, drainage studies and improvements, and layout and design of the street, sidewalk, and geometry.

Bentley Microstation and Geopak software was primarily used in the design and preparation of plans. The project was directed by the North Dakota Department of Transportation.

Adams Hill Water Main Replacement Project, Glendale Water and Power, Design Engineer, 2014
The Adams Hill water main replacement project included six phases, 13 streets, and approximately 10,620 linear feet of water line that was designed to replace existing service pipe mains with ductile iron pipe. The project included new services, hydrants, inverts, tie-ins, and other appurtenances. As well, the project included different pressure zones and the installation of a division gate. Department of Public Health waiver exhibits were prepared for select non-potable and water crossings. The project included a community outreach meetings, service survey coordination, as well as detailed final As-Built submittals.

Monterey Park Marketplace Site Development, Monterey Park Retail Partners, LLC/City of Monterey Park, Design Engineer/Project Coordinator, 2015
TAIT was awarded a contract with the developer, Monterey Park Retail Partners, LLC for the design of a 41 acre retail development within the City of Monterey Park and the City of Montebello. The design of the development includes slope stabilization, retaining wall design, street improvement design, utility installation, overall site development, and over 400,000 cubic yards of dirt removal and regrading. The project involves three geotechnical analysis. The geotechnical analysis included recommendations for the design on and near the landfill; for the slope stabilization throughout the site; and for the overall site development and construction. The project utilized detailed retaining wall designs and in some areas, pile designs. These retaining walls and pile designs were specially designed near SCE facilities and towers. Unique construction equipment has been detailed out and coordinated for this construction.

Foothill Water Line Improvement Projects, Golden State Water Company, Design Engineer, 2013
The Foothill Improvements included six projects that were designed to replace existing service pipe mains with 8" ductile iron pipe. One of the six projects included replacement of the transmission line and reconnection to three existing wells. The total pipe replacement was approximately 13,200 linear feet. Multiple agencies reviewed the design plans, including City of San Dimas, City of Claremont, City of Arcadia and the County of Los Angeles in addition to Golden State Water.

Freeman Ave. Water Line Improvement Projects, Golden State Water Company, Project Design Engineer, 2013
The Freeman Avenue Water Line Improvement included approximately 3600 linear feet of water line that was designed to replace existing service pipe mains with 8" ductile iron pipe. The project included new services, hydrants, inverts, tie-ins, and other appurtenances. Department of Public Health waiver exhibits were prepared to the satisfaction of Golden State Water Company for select non-potable and water crossings.

Normandie Ave. Water Line Improvements, Golden State Water Company, Design Engineer, 2013
The project encompassed the planning and design for a 12" water main replacement in Normandie Ave. in the County of Los Angeles, approximately 1400' linear feet. Project included new services, hydrants, inverts, tie-ins and other appurtenances. Existing 14" pipe was designed for abandonment. Department of Public Health waiver exhibits were prepared to the satisfaction of Golden State Water Company for select non-potable and water crossings. GWSC project engineer: Conde Ventura.

Daniela Malott, P.E.

PROJECT ENGINEER

Ms. Malott has a strong civil engineering background with a water resources and surface runoff focus. Her engineering experience includes hydrology, storm drain design, and hydraulics. Her computer modeling background includes the application of the U.S. Army Corps of Engineers HEC-HMS (Hydraulic Modeling System), HEC-SSP (Statistical Software package), and HEC-RAS (River Analysis Software), Watershed Modeling System (WMS), Advanced Engineering Software (AES) for hydrologic/hydraulic analysis in Southern California, Water Surface Pressure Gradient (WSPGW) Software, XP-Solutions Storm Water and Wastewater Management Model (XP-SWMM), AutoCAD Civil 3D, and ArcGIS. She has worked for projects in the County of Los Angeles, County of Orange, and San Bernardino County. The projects she has been involved with are both in the private and public sector. In the private sector she worked on projects for developers including Rancho Mission Viejo and the Irvine Company. Her public sector experience includes working on projects for the County of Orange, the City of Rancho Palos Verdes, the City of Chino, the City of Chino Hills, and the City of Santa Ana. She is an out of the box thinker with great energy and a hard working ethic. She has great communication, writing, organizational and leadership skills.

Education
M.S. - Civil Engineering (Hydrology and Water Resources), University of California at Irvine

B.S. - Civil Engineering, California State University, Long Beach

Year of TAIT Team Enlistment
2017

Total Experience
6

Certifications
Professional Engineer, California No. C86581

Affiliations
American Society of Civil Engineers (ASCE), OC YMF

Rancho Mission Viejo Planning Area 3 Runoff Management Plan, Rancho Mission Viejo, LLC, Project Engineer, 2015-2017
Task managed the hydrology and hydraulics portion for the initial phases of the Planning Area (PA3) Runoff Management Plan (ROMP) for Rancho Mission Viejo. The PA3 ROMP is a comprehensive watershed planning document that supports the future design and planning within PA3. The primary focus of this study is to provide a framework for the implementation of the project drainage patterns and storm water management facilities. Updated the hydrology models using the Advance Engineer Software (AES) for the Rational Method and the Unit Hydrograph models following the Orange County Hydrology Manual requirements and the unique modeling procedures for the San Juan Creek Watershed. Prepared studies for flood control and water quality regional basin analyses and studied alternatives to optimize the basin location and sizes.

Rancho Palos Verdes Storm Drain Repair, City of Rancho Palos Verdes, Project Engineer, 2016-2017
Prepared the hydrologic and hydraulic analyses using a hydrodynamic modeling approach in XP-SWMM. Identify and analyzed the storm drain systems that were determined hydraulically deficient per the 2015 Master Plan of Drainage. Completed street flooded width calculations and catch basins sizing analysis using FlowMaster. Prepared the Basis of Design Report for the proposed improvements satisfying the client's time constraints and goals.

TAIT

25E-589

Santiago Hills II, Irvine Community Development Company, Engineering Technician, 2015-2016
Completed the storm drain design plans for the on-site improvements for Santiago Hills II Tract 16199 and for the off-site Street Improvements within Santiago Canyon Drive and Jamboree Road. Tract 16199 is a 200 acre development located in the City of Orange. The project comprise a water quality basin system that included a combination of emergent marshes, extended detention basins and biofiltration basins that supported the future development. This water quality system was designed to tie comply with all the regulations and to satisfy the client needs. Prepared the Hydrology and Hydraulics Basis of Design Report for both the on-site and the off-site studies. The Report included hydrology analysis using AES, hydraulics using WSPGW, catch basin design using AES and FlowMaster, hydraulics calculations for the Water Quality Piping System design.

Subarea 2 Agricultural Preserve Master Plan of Drainage, City of Chino, Project Engineer, 2015-2016
Prepared the Master Plan of Drainage (MPD) Report and Analysis for the Agricultural Preserve storm drain system. The 2016 MPD incorporated amendments and updates to the Agricultural Preserve storm drain system that were completed after the 2001 MPD. The 2016 MPD included hydrologic and hydraulic analysis following the County of San Bernardino standards. The analysis was prepared for the existing, interim and ultimate condition. The analysis provided alternatives for the master plan storm drain systems in order to accommodate the City of Chino requirements. The MPD included studies for regional water quality basin preliminary design following the Santa Ana Region Water Quality Board Control and the San Bernardino County requirements. The storm drain design and regional water quality basin design optimized the basin location and sizes to maximize the developable land within the area.

Storm Water Master Plan, City of Rancho Palos Verdes, Project Engineer, 2014-2015
The Rancho Palos Verdes Storm Water Master Plan includes the development of a GIS database for the storm drain inventory including a Facility Mapping Tool which is being utilized to gather field data and keep the City informed of the field work schedule and findings. Data gathering for the project includes filling in missing as-built data such as inverts and facility naming. The hydrology and hydraulics modeling is being completed utilizing GIS, XPSWMM, and XPWSPGW. This master plan includes the integration of stormwater quality retrofit opportunities. The Master Plan will ultimately provide the City with a comprehensive "living" storm water master plan. The master plan also includes a project prioritization scheme and a Capital Improvement Plan.

Santa Ana Storm Drain Master Plan, City of Santa Ana, Designer, 2013
Responsible for CADD design. Provided professional engineering services to update the city's storm drain master plan. The city has an established drainage system with some segments over 50 years old and other segments recently constructed. Michael Baker analyzed the main line drainage system and prepared a hydrology study along with maps for the entire city boundary and for individual sub-areas for 2-, 10-, 25- and 100-year storm events. The capacity of the existing storm drainage was evaluated to determine system capacity sufficiency using a hydrodynamic hydraulic model. A comprehensive list of needed storm drainage improvements was then generated. Performed a hydraulic analysis to size sufficient storm drain lines and provided an ESRI ARCGIS geodatabase of city storm drain facilities, including storm drain pipes, city-owned drainage channels, manholes, catch basins, and culverts. Michael Baker used the Bentley software hydrodynamic hydraulic model CivilStorm, which uses hydrographs with in the hydraulic model to determine adequate pipe sizing.

Christopher Engelbach, E.I.T.

PROJECT ENGINEER

Chris is an experienced Project Engineer in design, approval, and quality control of residential and commercial land development as well as public work projects. He has expertise in preparation of tentative tract maps, street, rough grading, erosion control, storm drain, sewer and water, and precise grading plans; hydrology and hydraulic calculations utilizing Civil-D and WSPG; WQMP employing new low impact development methods; coordination with clients, sub-consultants, site managers, contractors, and survey crew. Chris technical skills include AutoCAD Civil 3D, Water Surface Profile Gradient Software (WSPG), Civil-D, and Microsoft Project.

Education
BS Civil Engineering, California State Polytechnic University, Pomona

Year of TAIT Team Enlistment
2016

Total Experience
9

Certifications
E.I.T.

Orange County Engineering Plan Check, County of Orange, Project Engineer, 2016
Chris currently provides plan check services for the County of Orange including review of Tentative Tract Maps, Site Development Plans, and Street Improvement Plans. Plans are reviewed for compliance with various codes and regulations including California Building Code, the Americans with Disabilities Act, and community specific development standards.

Newport Heights Alley Replacement, City of Newport Beach, Project Engineer, 2016
Chris is currently a Project Engineer on this alley rehabilitation project which includes design engineering, utility research and sewer replacement. Chris is responsible for rehabilitation of the alley-ways as well as the addition of ADA compliant PCC sidewalks, curb ramps, curb and gutter and other improvements.

Redlands Packing House, City of Redlands, Project Engineer, 2016
Chris is currently a Project Engineer on this 10 acre commercial development in the City of Redlands which includes design engineering, utility research, and coordination with consultants and field crew. The project includes Street Improvements, and on-site Rough Grading and Stockpile, Utilities, Water Quality, and Precise Grading. Chris is responsible for Street Improvements including relocation and reconstruction of medians, traffic signal relocation, identification and replacement of non-ADA complaint curb ramps, and updated crosswalks and landings designed to enhance urban feel, encourage pedestrian traffic, and increase safety.

Limonite Sumner Retail Development, City of Eastvale, Project Engineer, 2016
Chris is currently a Project Engineer on this 7 acre commercial development in the City of Eastvale. The project includes Off-site Street Improvements, Rough Grading, Water Quality, Precise Grading, Utility, and on-site Storm Drain design. Chris is responsible for street improvements including relocation and reconstruction of existing medians and updated signing and striping as well as

On-site Storm Drain design including Hydraulic calculations and utilization of the most current Low Impact BMPs.

Orange County Animal Care Facility, City of Tustin, Project Engineer, 2016
Chris is currently a Project Engineer on this Orange County Animal Care Facility in the City of Tustin. The project includes Public Sewer, Water, Fire Water, Water Quality, On-site Utilities, and Grading plans. Chris is responsible for the public Sewer, Water, and Fire Water plans

Vons-Albertsons Distribution Center, City of El Monte, Project Engineer, 2016
Chris is currently the Project Engineer on this 36 acre Industrial Project which includes Demolition, Grading, and Utility Research. Chris is responsible for the Demotion, and Grading Plans as well as coordination with Utility Providers. These plans include the removal and disposal of Hazardous materials as well as the protection of existing ground-water monitoring wells and grading design which duplicates existing flow patterns.

Limonite Marketplace, City of Jurupa Valley, Assistant Project Manager, 2015
Chris was the Assistant Project Manager and Engineer for this 39 acre mixed use development in the City of Jurupa Valley. This mixed use project combined Retail development with private, high-density, residential. Chris was responsible for the Tentative Tract and Parcel Maps, Site Development Plan, on and off-site Street Improvements, Water Quality, Hydrology, Storm Drain, Rough Grading, and Precise Grading Plans. Off-site Street Improvement Plans included relocation of traffic signals, roadway widening, new signing and striping, addition of ADA ramps, bus turn-outs, and horse trails, and development of 1 mile of unpaved rural dirt road.

Stoneridge, County of Riverside, Assistant Project Manager, 2015
Chris was the Assistant Project Manager and Engineer for this 700 acre Master-Planned residential community in Riverside County. This project included Tentative Maps, Phasing Exhibits, Street Improvements, Water Quality, Hydrology, Storm Drain, Rough Grading, Precise Grading, and Traffic Studies. Chris was responsible for Street Improvement, Rough Grading, Storm Drain, and Phasing of this project. Street Improvement plans included the development of 20 miles of new roadway along with signing, stripping and signalization.

Crossroads at Chino Hills, City of Chino Hills, Assistant Project Manager, 2015
Chris was the Assistant Project Manager and Engineer for this 15 acre high density residential development. This project included on-site Street, Utility, Storm Drain, Water Quality, and Grading. Chris was responsible for on-site Street, Sewer, Water, Grading and Storm Drain design.

Michael DeLaGarza, CPESC, CPSWQ, QSD/QSP, E.I.T.

PROJECT ENGINEER

Mr. DeLaGarza has professional experience in the civil engineering and water quality design and inspection field. He is a Stormwater Treatment and Management Plan specialist and has prepared and inspected Water Quality and Stormwater Management Plans throughout Southern California on projects ranging from single acre development sites to large master planned communities. His technical background and areas of expertise include the preparation of NPDES documents now mandated by State of California. In addition to serving as the firm's storm water quality design specialist and erosion control design professional, Mr. DeLaGarza also provides design services as a project engineer on various public and private development projects.

Education

B.S. -- Civil Engineering, Tulane University, 2001

Year of Tait Team Enlistment

2002

Total Experience

16

Certifications

Certified Professional in Erosion and Sediment Control (CPESC), 2007 License No. 4606

Certified Professional in Storm Water Quality (CPSWQ), 2008 License No. 500

Qualified SWPPP Developer (QSD)/Practitioner (QSP), 2012 Cert. No. 22544

NPDES Construction Water Pollution Control Training (24 Training Hours), 2006

Sample Collection and Measurement Training for SWPPP Requirements, 2012

Engineer-In-Training -- California, 2005

OC Plan Checking Service, Project Engineer, 2014 - Present
Project Engineer service the county of Orange responsible for review and comment on water quality, grading, erosion control, and utility design plans. Assist project manager with preparation and transmittal of plan check documentation per county development standards.

County of Orange El Toro & Alton Infrastructure Development, Irvine, Project Engineer, 03/2015 - Present
Project Engineer responsible for the water quality system design on a 100 acre and 34 acre site owned by the County of Orange in the City of Irvine. Water quality design included preparation of water quality management plans in compliance with the most recent NPDES requirements, the design and sizing of the required treatment devices, and the calculation and analysis of the storm water flows required for water quality treatment.

Mesa Verde Senior Housing, Costa Mesa, Project Engineer, 07/2011 – 01/2015
Project Engineer responsible for development of entire project design plan set including water quality management plan, hydrology report, grading plans, storm drain plans, wet utility plans, striping plans, fire protection plans, and then preparation and submittal of the SWPPP. Project required construction observation and inspection during the construction phase in order to verify property pouring and construction of car port footings and slabs. Interacted and coordinated with Contractor to ensure compliance with plans.

Abridged List of Additional Project Experience by Michael:

- Stormwater Management Plan/WQMP for Orange County Animal Care Facility, Tustin, CA, Project Engineer
- Kilroy Development, San Diego, Project Engineer
- Kaiser Medical Office Building, Temecula, Project Engineer
- Great Wolf Waterpark & Lodge, Project Engineer

Nicholas Flores

CAD DESIGNER

Nicholas is a CAD Designer with more than a decade of professional experience on projects ranging from private and public colleges, hospitals, U.S. embassies, pedestrian plazas, streetscapes, libraries, airport, museums, and private residences. He specializes in 3D design, BIM coordination, and creating and maintaining construction documents following project and jurisdictional standards.

Education

AS Drafting Technologies, High-Tech Institute, Phoenix, AZ

Year of TAIT Team Enlistment

2016

Total Experience

13

The Commons at Quartz Hill, City of Lancaster - CAD Designer, 2015-Present
Nick is currently the CAD Designer for the 40-acre retail center that includes an 185,000 square-foot Walmart Supercenter, 14 outparcels and over $7 million of off-site improvements. He worked on designing and preparing plans for street sections for lane widening and median improvement for W Ave L and 60th St W and street sections for the new Ave K-12, east of 60th St. The off-site improvements include approximately one mile of roadway improvements, construction of two new traffic signals and modification to one existing traffic signal, construction of 1500 LF of City master plan 60 to 72-inch storm drain line, and approximately 1.5 miles on new LACWD water lines improvements. The project also includes undergounding of nearly 1,500 linear feet of existing Southern California Edison (SCE) distribution lines and protection of existing SCE transmission lines. The intersection of Avenue L and 60th Street West was designed to accommodate an existing SCE street transmission pole within the intersection's roadway improvements. Plan's standards, details, specification and design criteria were in accordance with public works standards and to the satisfaction of city plan checkers.

ACE, Phase II Grade Separations (Fullerton Road/Gale Avenue), City of Industry, CA - CAD Designer, 2015
Nick was responsible for onsite regrading, drainage analysis, utility redesign, final paving layout, and 3D model coordination for 5 sites (a bank, fast food business, an office building, and 2 industrial where houses) at the intersections of Fullerton Road, Gale Avenue, and Railroad Street. Fullerton Road is being regraded to pass under existing Union Pacific Railroad at the same time the railroad is being bridged to gain additional underpass clearance. Additional improvements Nick coordinated with, and provided support for, include 2 street intersections, an 80-foot wide railroad embankment regrade, 2 bridging structures, 60-inch and 72-inch storm drain realignments and all gravity utilities under the regraded streets.

Broad Museum (Downtown Los Angeles – Grand Ave/Hope St), Los Angeles, CA - CAD Designer, 2013
Nick was responsible for generating and coordinating on-site construction documents and off-site street improvement plans improving all streets

surrounding the museum including Upper and Lower Grand Avenues (Upper Grand is bridged directly over Lower Grand) and an extension of the bridge deck from Upper Grand over GTK Way to form a new plaza between Broad and an adjacent high-rise condominium. Coordination of numerous existing and proposed structural elements and phasing were critical to the completion of these construction documents. Plan's standards, details, specification and design criteria were in accordance with public works standards and to the satisfaction of city plan checkers.

City of West Hollywood Library and Garage, West Hollywood, CA - CAD Designer, 2008
Nick was responsible for generating and coordinating on-site construction documents and off-site street improvement plans for this existing library's frontage and a new below-ground parking structure which has a green roof that expands and adjacent park footprint. Nick prepared a storm drain connection plan for an onsite storm water treatment system. B-permit plan and profiles improving all of San Vicente Blvd and alley surrounding building, reconstruction of alley driveway and pedestrian ramps. Plan's standards, details, specification and design criteria were in accordance with public works standards and to the satisfaction of city plan checkers.

Santa Monica Street Scape, Third Street Promenade, Santa Monica, CA - CAD Designer, 2008
Nick was responsible for generating off-site street scape plans for 2nd Street, 4th Street and 5th Street between Wilshire Blvd and Colorado Ave. Nick prepared control plans for an A-permit that relocated tree wells, benches, trash can, light poles, and closed driveways. Plan's standards, details, specification and design criteria were in accordance with public works standards and to the satisfaction of city plan checkers.

Emerson College Los Angeles Center, Los Angeles, CA - CAD Designer, 2010
Nick was responsible for generating and coordinating on-site construction documents and off-site street improvement plans for this private college's all new 107,000 SF state-of-the-art facility. Nick prepared B-permit plans improving all of Sunset Blvd and Gordon St along the north and west sides of the site, adding ramps and relocating driveways. Plan's standards, details, specification and design criteria were in accordance with public works standards and to the satisfaction of city plan checkers.

TAIT
RISING TO THE CHALLENGE

Dustin Wilton

SURVEY MANAGER

Mr. Wilton is a Senior Land Surveyor licensed in the State of California and has a wide distribution of different types of projects where he has acted as the Surveyor of Record including residential, commercial, water infrastructure, public works, and other site development and infrastructure related projects.

Education

San Joaquin Delta College
AA Civil Engineering Technology

Year of Tait Team Enlistment

2011

Total Experience

16

Certifications

CA PLS 8080

Experience

2011 – Present Tait and Associates

2006 – 2011 DB Wilton Land Surveying

2005 – 2006 Associated Engineering

2004 – 2005 Giuliani & Kull

2000 – 2005 State of California – Dept. of Water Resources

1997 – 2000 Baumbach & Piazza

Equipment

Topcon Total Stations, GPS, Levels (TDS) Trimble GPS, Leica Total Stations, Electronic Levels, AutoCAD, and Microstation

Selected project experience:

Public Works Related Projects

- City of Lancaster Parcel Maps and Roadway Easement Dedication (Lancaster, CA)
- Mather Airport Fuel Farm Construction Staking (Sacramento, CA)
- Lawrence Elementary School Addition (Lodi, CA)
- Argus High School Relocatables Addition (Ceres, CA)
- Dublin High School Humanities Addition (Dublin, CA)
- Valley High School Relocatables Addition (Dublin, CA)
- San Leandro High School Library Expansion (San Leandro, CA)
- Wanlass Park Phase 1 (San Pablo, CA)
- United States Coast Guard Sector Command - San Francisco headquarters building and related site work (Yerba Buena Island, San Francisco, CA)
- Paterson Fire Station #2
- Ceres Fire Station #4
- San Jose Fire Station #2

Water Infrastructure Projects

- South San Joaquin Delta aerial mapping project
- Suisun Marsh GPS subsidence leveling project
- South Bay Aqueduct landslide monitoring (Milpitas, CA)
- California Aqueduct (San Luis Canal Reach) 14 mi. topographic survey for asbestos intrusion retrofit (Huron, CA)
- Merced River Salmon Enhancement Project (Snelling, CA)
- Topographic mapping of Webb Tract (island) in San Joaquin Delta
- California Aqueduct Tehachapi After bay design aerial mapping project-Gorman (Lebec area, CA)

Subdivisions

- Interlake Square (Lodi, CA)
- Hammertown Estates (Stockton, CA)
- Wind Wood (Woodbridge, CA)
- Mills Bridge (Lodi, CA
- Labaron Estates (Stockton, CA)

TAIT

25E-596

Thomas Wheat

TRAFFIC ENGINEER

Education

B.S. - Civil Engineering
1995
Clemson University

Graduate Courses in
Advance Transportation
Engineering
1999
Virginia Tech University

Registrations:

Licensed Professional
Civil Engineer
California No. 69467

Licensed Traffic Engineer
California No. 2565

Professional Affiliations:

American Society of Civil
Engineers (ASCE)
Member

Institute of Transportation
Engineers (ITE)
Member

Mr. Thomas J. Wheat, P.E., T.E., has been involved in the traffic engineering profession for over twenty years managing and designing traffic engineering related projects for both the public and private sectors. Mr. Wheat has worked professionally in Southern California for since 2003 after working as an engineer in the Washington D.C. and Chicago land areas since 1995. While in California, Mr. Wheat has designed hundreds of traffic engineering design plans and transportation planning studies for a variety of clients. He holds Professional Engineer license in Civil Engineering and is a registered Traffic Engineer in the State of California.

His versatile experience includes, but not limited to, leading and assisting in the design and construction of traffic signal plans, worksite temporary traffic control plans, traffic signal systems, ITS design, signing and striping plans, and traffic calming design. In the past twelve years alone, Mr. Wheat has designed several hundred design plans for various public and private entities in Southern California. Using his design experience, Mr. Wheat has also provided plan check services to Orange County Public Works and the cities of Canyon Lake, Perris, and San Jacinto in Riverside County. Acting as an extension of County/City staff, Mr. Wheat has provided traffic-engineering review of other firms' design plans ensuring the final product met the standards of the City and County.

In addition to design work, Mr. Wheat has also prepared a variety of transportation planning studies including safety studies, warrant analyses, traffic impact studies, and access management studies, to name a few, for various clients and agencies throughout Southern California as well as for public agencies on the East Coast.

Mr. Wheat also has substantial experience in the operations side of traffic signals where he has created timing plans for individual signalized intersections, as well as signal systems by using modeling programs, such as Synchro and SimTraffic. He has had the opportunity to adjust and implement timing plans into individual field controllers, as well as a city's centralized signal system computer.

LAE ASSOCIATES, INC.

Fred Alamolhoda, P.E.
Senior Project Manager

EDUCATION: M.S. Civil Engineering, 1990; B.S. Civil Engineering, 1982 California State Polytechnic University, Pomona

PROFESSIONAL DATA: California Professional Civil Engineer - License No. 41685
QSP/QSD – Certificate No. 25835

KEY QUALIFICATIONS: Over thirty-four (34) years of Project Management (PM), Program Management, and Construction Management (CM) experience working for Cities, Caltrans, Los Angeles County Community Development Commission (CDC), as well as consulting firms. Over twenty-five (25) years of PM experience managing transportation, street, parks, and recreation projects with Cities, Counties, Caltrans, and other State/Federal agencies. Experience working with Design, Environmental, Geotechnical, CM, and other teams, in addition to traffic consultants, Railroads Companies, Utility Companies, Contractors, and the General Public. Qualifications include managing a variety of federally funded projects, as well as inter-acting with Caltrans, Federal Highway Administration (FHWA), and other agencies involved. Experience also includes participation in Caltrans/FHWA's review/audit meetings and successfully completing the review/audit processes.

EXPERIENCE:

As a Project Manager (PM), have been involved in all project phases from inception to completion. As a City staff or Consultant PM (as prime consultant or sub-consultant to design firms) responsibilities included field review of projects, attending kick-off meetings, project review meetings, providing design review, verifying estimates, independent review of 60% completed plans, 90% completed plans, constructability reviews, obtaining permits from Caltrans or other jurisdictions; other responsibilities have been identifying project funds, scope, preparing funding applications, budgetary estimates, schedule, Request for Proposals/Request for Qualifications (RFPs /RFQs), review of proposals, interviewing consultants, attending kick-off and Project Development Team (PDT) meetings, coordinating with other agencies such as Orange County Transportation Authority (OCTA), San Bernardino Transportation Agency (SBCTS), Metro, Caltrans, Los Angeles County Department of Public Works, other Cities, and utility companies; coordinating environmental (NEPA and CEQA processes) approvals, Right of Way (R/W) and permit activities, Caltrans R/W Certification process; preparing Request for Authorization (RFA/E-76 application) to Proceed with the Preliminary Engineering (PE), R/W activities, Utility Coordination, Construction and Construction Engineering of federally funded projects; preparing Quality Assurance Programs (QAPs), Disadvantaged Business Enterprise (DBE) documentations and goals for Caltrans approvals; preparing projects for advertisement, responding to contractor inquiries during bid process, reviewing bid proposal for federal, state and city requirement compliance (licensing, references, debarment, DBE, sub-contracting ratio, etc.); recommending construction award, preparing City Council Staff Reports, scheduling pre-construction meetings, preparing agendas, conducting pre-construction meetings, and preparing minutes, and preparing construction award package for federally funded projects and award information for state funded projects for submission to Caltrans.

Construction Phase: On an as-needed basis, attend construction progress meetings; coordinate project activities with the Design and CM teams; discuss and provide information regarding Traffic Management Plans (TMPs), SWPPP, Utility Company issues, Geo-Technical concerns, Traffic and Traffic Control issues, R/W and permit concerns, schedules of other on-going construction adjacent to the project; CCO requests, submittals, and other project inquiries; preparing progress invoices for the reimbursement of federal and state funds from Caltrans/FHWA.

Post Construction Phase: Attend and participate in final job walkthroughs, communicate with CM, City staff, various departments, Caltrans, Counties, other cities/agencies, Utility Companies involved in the project construction; ensure timely completion of the "As-Built" Plans and obtain final project submittals, O & M Manuals, turn-over items and documentations; prepare final invoices for reimbursement of federal/state funds; prepare project closure packages for federally and state funded projects for submission to Caltrans.

State, Federal, and Local Fund Experience: Over twenty (20) years of experience managing special grant funded projects. Recent experience managing projects funded with local, various state (Gas Tax, ATP, Safe Routes to School, Measure M, Prop. C, Measure I, Measure A, Measure R) and federal ATP funds, Safe Routes to Schools, HSIP, Highway Bridge Program, FNRS, STP-Local, SAFETEA-LU DEMO funds, CDBG, Metro Call for Project, and other Funds).

Project and Program Management Clients since 2005: Cities of Azusa, Chino, Claremont, Compton, Diamond Bar, Duarte, Jurupa Valley, Lake Forest, Laguna Niguel, La Mirada, Long Beach, Montclair, Pomona, San Dimas, Signal Hill, as well as SBCTA.

Project and Program Management Experience as City/Agency Staff: Caltrans, Cities of Bellflower, Diamond Bar, Ontario, Redlands as well as Los Angeles County Community Development Commission (CDC).

AFFILIATIONS / ASSOCIATIONS:

- American Public Works Association, Member
- American Society of Civil Engineers, Member
- City County Engineers Association (CCEA) – LA Region, Member
- Southern California Local Assistance Management (SCLAM) Meetings Attendee
- San Gabriel Valley Technical Advisory Committee (TAC) Meetings' Attendee
- SBCTA TAC Meetings' Attendee
- RCTC TAC Meetings' Attendee

BESS TESTLAB, INC.
2463 Tripaldi Way, Hayward, CA 94545 Tel (408) 988-0101 - Fax (408) 988-0103 www.besstestlab.com
GPR Concrete Scanning - Utility Locating - Potholing - Mobile LiDAR 3D Scanning - 3D GPR Imaging

Donald Whitman

Project Manager – Bess Testlab, Inc.

Education
U.S. Marine Corps, MCRD San Diego CA 1992
Claremont CA, San Antonio High School Diploma 1992

Registrations/Certifications
40 hour HAZPOWER 2001
Confined Spaces Safety Training 2001
Project Management 2000
San Diego Work Zone Traffic Control 2001

Experience
With BTL 1 year with other firms 18 years

Professional Summary

As Project Manager, Mr. Whitman has worked on well over 1000 projects performing the following tasks:

- Generate and execute scope and/or fee proposals, agreements, master service contracts, including amendments and scope changes for projects involving various quality levels of Subsurface Utility Engineering.
- Collect and/or direct the collection of utility records and as-built utility data from private and municipal agencies for use by field and office personnel.
- Establish work plans including staffing and resources for each phase of projects and directed recruitment or assignment of project personnel.
- Perform field work for all quality levels of Subsurface Utility Engineering projects to meet clients' needs and expectations within prescribed time frames and funding parameters.
- Direct and coordinate activities of field and office personnel to ensure timely project progression within the prescribed budgets.
- Establish and maintain quality assurance plans and perform in-field and office quality control tasks to ensure field work and deliverables are in compliance with American Society of Civil Engineers "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" CI/ASCE 38-02. Perform final quality assurance / quality control review prior to delivery to client.
- Oversee performance data (financial, budgets, sales and activity reports) to monitor, control and measure overhead costs, personnel productivity, goal progress and activity levels of projects and project personnel.

Project Experience

LA County Department of Public Works On Call Potholing Services Contract
Client: Los Angeles Department of Public Works
Duration: April 2013 – Sept 2016
Contract Value: $1,500,000.00
Project Manager – Furnish all labor, materials, parts and equipment necessary to provide routine positive location (potholing) services using vacuum excavation, hand excavation, or comparable methods to locate underground utilities, including but not limited to; petroleum, data transmission, telephone, gas, electric, water and sewer pipelines, and perform other related services. Provide a written report stating the date for the exact location of each work assignment site. The report shall contain detailed findings, including but not limited to the type, size, and depth of the utility facility and, if present, the thickness of pavement in inches.

SCRRA Contract No. E740A-14, On Call Professional Services
Client: HDR
Duration: June 2014 – Present
Current Contract Value: $500,000.00
Project Manager – Role is as stated above - Furnish all labor, materials, parts and equipment necessary to provide routine positive location (potholing) services using vacuum excavation, hand excavation, or comparable methods to locate underground utilities, including but not limited to; petroleum, data transmission, telephone, gas, electric, water and sewer pipelines, and perform other related services. Provide a written report stating the date for the exact location of each work assignment site. The report shall contain detailed findings, including but not limited to the type, size, and depth of the utility facility and, if present, the thickness of pavement in inches.

Ali Bastani, PE, GE, PhD | Lead Geotechnical Engineer

Summary

Dr. Bastani, an adjunct faculty member at Cal Poly Pomona, has more than 20 years of diversified experience in geotechnical and earthquake engineering. His experience covers a wide variety of transportation projects including design and construction support for roadways, bridges, and retaining structures (cantilever, tieback, soil nail, and MSE walls) within and beyond the County of Orange. He has served the County during various on-call geotechnical engineering contracts since 2006. Dr. Bastani's technical expertise and extensive experience enhances the team capability to economically address the geotechnical aspects of the Type Selection, Foundation, and Materials Reports for the County's upcoming transportation projects in a timely manner using the most recent FHWA and Caltrans approaches.

Key Skills

Project Management
Slope Stability
Seismic Hazard Analysis
Shoring
Stabilization
Foundation Design
Landslide Analysis
Bridge Pile Design

Education

2003 Doctor of Philosophy Civil and Environmental Engineering, University of California, Davis

1991 Master of Science Civil and Environmental Engineering, University of California, Davis

1988 Bachelor of Science Civil Engineering, Polytechnic of Tehran

Registration

Professional Geotechnical Engineer
1999/California No. GE 2458

Professional Civil Engineer
1995/California No. C 53924

Relevant Experience

Los Patrones Parkway, County of Orange – Rancho Mission Viejo, CA
Huitt-Zollars, Inc. and GMU closely collaborated during design and construction of this project. Dr. Bastani served as the Project Geotechnical Engineer of Record in charge of the design and construction of approximately 5-mile long Los Patrones Parkway project in Orange County, California. This new roadway is aligned to extend the Route 241 Freeway from Oso Parkway to Ortega Highway. Geotechnical design of this project included embankment stabilization using deep soil mixing against lateral spreading, large mass grading, slope stability of high cut/fill slopes, settlement evaluation, and pavement design recommendations for approximately 2 million square feet of the proposed road. Conventional methods for pavement design were compared with alternative design recommendations, including soil-cement treatment, geogrid, full-depth asphalt concrete, and composite asphalt concrete with aggregate base. Each option was also evaluated for construction cost, construction scheduling, and the estimated number of trucks required to transport materials. Based on this analysis, the preferred recommendation was the soil-cement option as it resulted in an estimated $6 million savings or nearly 40 percent savings over the conventional pavement method.

Chiquita Canyon Bridge, Planning Area 2, County of Orange – Rancho Mission Viejo, CA
Provided peer review services during design and geotechnical engineering services during construction of the 8-span, 1,400-foot long, and 80-foot high bridge. Worked collaboratively with the structural engineer to complete the foundation design. The bridge bents were supported by 9- and 10-foot diameter CIDH piles while the abutment walls were supported on 1.5-foot diameter CIDH piles. Bent piles were supported by skin friction within the bedrock and were designed to resist the potential loads due to lateral spreading. Bridge foundations were affected by liquefaction, earthquake-induced settlement, and lateral spreading of the underlying alluvial soils. Our analyses included vertical and lateral capacity design of the large diameter shafts with consideration of lateral spreading.

Alton Parkway Gap Closure, Lake Forest – City of Lake Forest, CA
Project Manager in charge of the geotechnical design and construction quality assurance of Alton Parkway Gap Closure project. This project included approximately one mile of six-lane roadway through natural hillsides of Orange County. The design efforts included slope stability analyses, evaluation of unsuitable hydro-collapsible alluvium depth, and roadway pavement structural section. Dr. Bastani also managed the geotechnical observation, testing, and material inspection of this APWA and ASCE award-winning project.

Eric Chastain (L.A. LEED AP (BD+C)

Principal Landscape Architect/Project Manager
RJM Design Group, Inc.

Eric Chastain has been a Project Manager for RJM Design Group since 1997. He is experienced in all phases of the design process from program development and site analysis, to conceptual design, construction documentation and construction observation. Mr. Chastain's project experience in planning and landscape architecture includes urban design and rehabilitation, streetscape master planning and final development, and park design and development. He has worked with many municipalities in southern California and has experience on several public works projects.

Licenses/Registrations

- Landscape Architect / CA 3411
- LEED Accredited Professional (Building, Design and Construction)

Education

- Bachelor of Science in Landscape Architecture - California State Polytechnic University, Pomona
- Minor in Irrigation Design - California Polytechnic State University, Pomona

Related Project Experience

AQUATIC CENTERS

- Marguerite Tennis & Aquatic Center, Mission Viejo, CA
- Montanoso (Spray Play) Rec. Center, Mission Viejo, CA
- Norwalk Aquatic Pavilion, Norwalk, CA
- Pacific Park Pool, Glendale, CA

PARKS

- Aliso Viejo Ranch Site Master Plan, Aliso Viejo, CA
- Encinitas Community Park, Encinitas, CA
- Florence Joyner Olympiad Park, Mission Viejo, CA
- Foxfield Park, Westlake Village, CA
- Mariners Park Improvements, Newport Beach, CA
- Pines Park Memorial Plaza, Dana Point, CA
- San Gabriel Riverview Park, Bellflower, CA
- Sea Terrace Park, Dana Point, CA
- Sunset Park Tot Lot Renovation, Dana Point, CA
- The Park at River Walk, Bakersfield, Ca

SPORTS FACILITIES

- Ballfield Renovations at Handy Park, Orange, CA
- Ballfield Renovations at Hart Park, Orange, CA
- Youth Athletic Park, Mission Viejo, CA

STREETSCAPES

- Alicia Parkway Widening, Mission Viejo, CA
- Crown Valley Parkway, Laguna Niguel, CA
- La Paz Road Concept, Mission Viejo, CA
- La Paz Roadway and Bridge Widening, Mission Viejo, CA
- La Paz Roadway Beautification Improvements, Mission Viejo, CA
- Lakeside Promenade, Mission Viejo, CA
- Lantern Bay Park Entry, Dana Point, CA
- Marguerite Parkway Barcelona Wall, Mission Viejo, CA
- Marguerite Parkway-Master Slope Planting Plan, Mission Viejo, CA
- Muirlands Boulevard, Mission Viejo, CA
- Olympiad Road Monument, Mission Viejo, CA
- Pilaster Sign Program, Mission Viejo, CA

OTHER

- Animal Care Facility, County of Orange, CA

Certifications

NON-COLLUSION AFFIDAVIT

Appendix A
ATTACHMENT A-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California
County of _____

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

_____
Notary Public Signature

Notary Public Seal

* See Attached Certificate

CALIFORNIA JURAT WITH AFFIANT STATEMENT **GOVERNMENT CODE § 8202**

☒ See Attached Document (Notary to cross out lines 1–6 below)
☐ See Statement Below (Lines 1–6 to be completed only by document signer[s], *not* Notary)

Signature of Document Signer No. 1 *Signature of Document Signer No. 2 (if any)*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange

Subscribed and sworn to (~~or affirmed~~) before me on this 19th day of March, 2017 by (1) Jacob Vandewiele (and (2) _____).
Date *Month* *Year* *Name(s) of Signer(s)*

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

ADRIANA MENDOZA
Commission # 2117682
Notary Public - California
Orange County
My Comm. Expires Jun 26, 2019

Signature Adriana Mendoza
Signature of Notary Public

Seal
Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: non-collusion Affidavit Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

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NON-LOBBYING CERTIFICATION

Appendix A
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm TAIT & Associates, Inc.

Signed and Printed Name: Jake Vandervis

Title Vice President/COO

Date 3-19-18

NON-DISCRIMINATION CERTIFICATION

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: _____

Title: Vice President/COO

Firm: TAIT & Associates, Inc.

Date: 3-19-18

EXHIBIT B

TAIT
RISING TO THE CHALLENGE

Schedule of Fees

1. **Employee Classification** — **Hourly Rate**

06 – Engineering/Architect Assistant	70.00
18 – Project Administrator	90.00
04 - Designer I	110.00
10 - Designer II	135.00
03 - Project Engineer / Project Architect / Senior Environmental Scientist	155.00
02 – Project Manager / Licensed Surveyor	180.00
17 - Senior Project Manager / Senior Surveyor / Senior Architect	200.00
01 - Principal	210.00
11 - Permit Specialist / Environmental Scientist I / CADD Technician	100.00
09 - Research Analyst / Lead-Asbestos Technician / Environmental Scientist II	110.00
07 – Field Surveyor	90.00
08 – Field Surveyor Party Chief	125.00
00 - Two man survey crew	310.00**
22 - One Man Survey Crew with Robotics	200.00**
00 – Three Man Survey Crew	400.00**

The hourly rate for client authorized overtime and for representation at hearings and meetings after 6:00 p.m. will be invoiced at 1.5 times the posted rate.

The above rates are inclusive of phone charges, fax charges, software and licensing fees, and photocopying charges.

** Survey hourly rates based on Prevailing Wage Rates as of 6/15/2017.

2. **Mileage, Travel and Per Diem**
Auto Mileage: IRS Rate plus 15 percent
Air Travel and Auto Rental: Actual cost plus 15 percent
Per Diem: Actual cost of lodging and meals, plus 15 percent

3. **Materials and Supplies**
Office and CADD supplies are included in the hourly rates. Prints, plots and reproductions are charged at cost plus 15 percent from commercial blueprint companies. In-house reproduction charges are as follows:

	Prints	Plots	Color Plots
Bond	$ .95/s.f.	$.95/s.f.	$6.00/s.f.
Vellum	1.35/s.f.	1.65/s.f.	7.50/s.f.

4. **Reimbursable Expenses**
Will be billed at cost plus 15 percent. Client will pay directly for all permit and agency fees; otherwise cost plus 15%. Subconsultant invoices will be billed at cost plus 15%.

5. **Insurance Coverage**
General Liability: $5,000,000
Errors/Omissions: $1,000,000
California Workers' Compensation - Statutory
Certificates of Insurance coverage will be provided upon request.
Waivers of Subrogation (if required) will be billed as a 2% surcharge on all invoices.
Special endorsements will be billed to the client at cost plus 15% on the first project.

INTEREST OF 1-1/2 PERCENT PER MONTH WILL BE CHARGED ON ALL PAST DUE ACCOUNTS.
:Fees57

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (GENERAL ENGINEERING)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between Mark Thomas & Company, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of nine (9) consultants selected to provide services for general engineering projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $2,000,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures.

Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement.

Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees,

for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: Mark Thomas & Company, Inc.
16795 Von Karman Avenue, Suite 240
Irvine, CA 92606
Attn: Robert Himes, President

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant,

Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

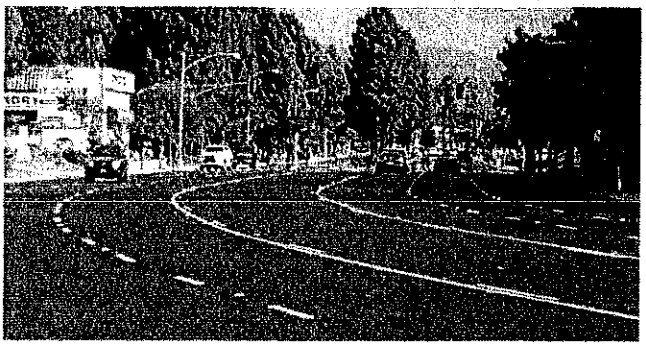
CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

PROPOSAL



SUBMISSION DATE

MARCH 20, 2018

PROJECT

ON-CALL ENGINEERING SERVICES RFP NO. 17-083

PREPARED FOR

City of Santa Ana

MARK THOMAS

252-019

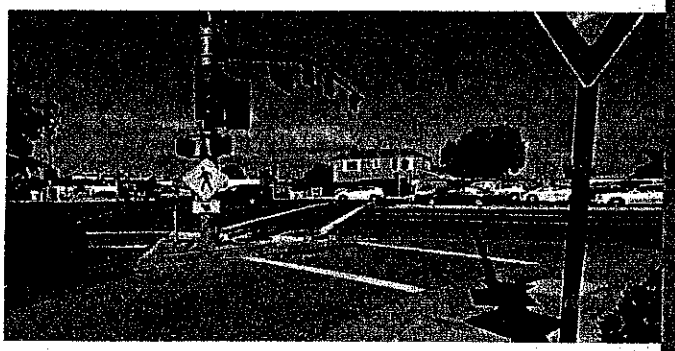
Move Forward

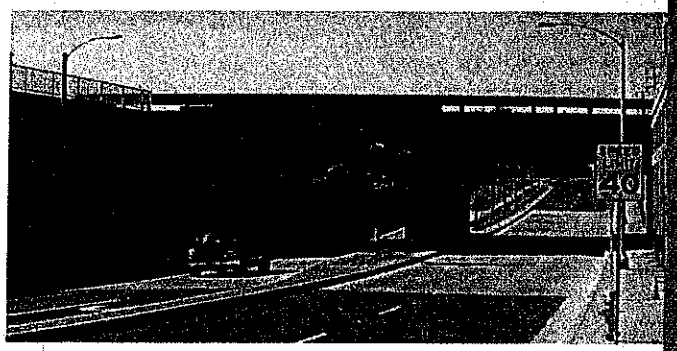
MARK THOMAS

IRVINE

16795 Von Karman Avenue, Suite 240
Irvine, CA 92606
(949) 477-9000

San José • Carmel • Cupertino
Fresno • Irvine • Los Angeles
Oakland • Sacramento
San Carlos • Walnut Creek





markthomas.com

MARK THOMAS

March 20, 2018

Armando Fernandez, Project Manager
City of Santa Ana, Public Works Agency
20 Civic Center Plaza
Santa Ana, CA 92701

Dear Mr. Fernandez,

The City of Santa Ana (City) is seeking qualified Civil Engineering Consultants to retain on an on-call basis to provide professional services for a variety of projects. Funding sources for each project/task order might vary, and types of projects could include roadway rehabilitations and improvements; sidewalks, bike paths, and curb and gutter replacement; signing, striping, traffic studies, and traffic signal modifications; landscaping and irrigation systems; park and recreational design, grant application writing, and other related projects.

Mark Thomas has completed hundreds of projects similar to those that may arise from this on-call contract, and we have extensive experience delivering projects for public agencies on an on-call basis. We are excited to present our proposal for the City's On-Call Engineering Services RFQ, No. 17-083, demonstrating our qualifications and technical expertise to provide services for Option B, General Engineering (other than Water Resources).

Firm Qualifications

Mark Thomas is a full-service planning and engineering firm specializing in transportation and municipal infrastructure projects, and we employ over 180 professionals throughout California. We bring a design team with unmatched experience in project management, civil and structural engineering, surveying services, traffic planning, utility and agency coordination. We provide design services for transportation, public agency, and infrastructure improvement projects ranging from roadway rehabilitations, reconstructions, and widenings; to active transportation planning, complete streets/streetscape design and ADA improvements; to grant writing and application support; to preparation of plans, specifications and estimates (PS&E); to construction support, assistance with construction bidding, and project closeout.

We have extensive experience working with public agencies and our staff are well-versed in public agency procedures and requirements. We have also delivered numerous of federally-funded projects, including projects funded through the Highway Bridge Program (HBP), Highway Safety Improvement Program (HSIP), and Active Transportation Program (ATP). Our staff is knowledgeable of the Caltrans Local Assistance Procedures Manual (LAPM) and have provided grant funding assistance.

Public Works Project Delivery Expertise

We have a broad depth of experience providing civil engineering and land surveying services for public works projects, giving our team the background to deliver similar projects anticipated by the City. These projects have included complete streets design, local roadway and intersection improvements, pavement rehabilitations, active transportation planning and improvements (including Class I multi-use trails, bike lanes, sidewalks, curb and gutter, etc.), and stormwater quality treatments.

Experience with the City and Other Similar Agencies

We have extensive experience working with the City and a number of other public agencies. Mark Thomas is currently on the City's on-call list, and have worked on projects such as the Warner Avenue Improvements and Santa Ana Stadium Repair. Through our previous experience, we have developed a thorough understanding of the City's standards and preferences. Additionally, we have been working closely with other agencies to deliver similar projects, providing our clients with on time delivery and cost-effective designs for transportation infrastructure enhancements, including complete streets design, roadway rehabilitations, intersection modifications, active transportation facilities, grade separations, and interchanges. Some of our local clients include the cities of Newport Beach, Fullerton, Anaheim, Irvine, and Carlsbad; as well as Orange County Transportation Authority, and Los Angeles County Metropolitan Transportation Authority.

The Mark Thomas Team

The City's project will be managed by Arturo Vivar, PE. As our project manager and primary contact, Arturo brings more than 16 years of transportation and municipal engineering experience. He has worked with numerous municipalities, public agencies, private agencies, and Caltrans to bring much needed roadway, transportation and infrastructure improvements throughout California. Arturo specializes in project management and design for roadway rehabilitations and reconstructions, and street, highway, and interchange improvements. Arturo will be supported by an experienced and dedicated project team. These staff excel at the design of transportation infrastructure, roadway widenings, street rehabilitations and improvements, gap closures, and specialty walls.

In addition to our in-house professionals, we have included hand-selected subconsultants to further supplement our team. These include Diaz Yourman & Associates to provide geotechnical engineering support and CL Surveying and Mapping (DBE) to provide surveying services.

By submitting this proposal, we commit to providing an experienced, available team whose time will be dedicated to serving the City. Rob Himes, President of Mark Thomas, is authorized to enter into an agreement with the City and represent on behalf of our organization.

We look forward to the opportunity in continuing our relationship with the City. If you have any questions about our proposal, please contact Arturo directly at (949) 247-3928, or via email at avivar@markthomas.com.

Sincerely,
MARK THOMAS

Rob Himes, PE
President/Principal In Charge

Arturo Vivar, PE
Project Manager

* The City of Santa Ana did not agree to the below stated contract changes, and they were not included in the final agreement considered for approval by the City Council.

CONTRACT AGREEMENT STATEMENT

Mark Thomas has reviewed the City's Standard Consulting Services Agreement, and we respectfully note the following:

7. INSURANCE

e.iii. ~~Certificates and policies shall state that the policies shall not be canceled or reduced in coverage or changed in any other material aspect without thirty (30) days prior written notice to the City.~~

Carriers can no longer provide 30 days prior notice when there is a reduction in coverage.

8. INDEMNIFICATION

The indemnity language included in the sample agreement in Section 8 is not compliant with Sentate Bill No. 496. It is our assumption that this verbiage will be updated to reflect the change in State law.

We request that the City utilizes the indemnification language shown below:

Notwithstanding any clause or provision in this Agreement or any other applicable Agreement to the contrary, Consultant agrees to indemnify and hold harmless (but not defend) the Client, its officers, directors and employees from and against damages and costs that Client is legally obligated to pay, to the extent caused by the negligent act, error or omission of the Consultant or anyone for whom the Consultant is legally responsible, subject to any limitations of liability contained in this Agreement. Consultant shall have liability for reasonable and necessary defense costs incurred by persons indemnified to the extent caused by Consultant's negligence herein and recoverable under applicable law on account of negligence.

* The City of Santa Ana did not agree to the below stated contract changes, and they were not included in the final agreement considered for approval by the City Council.

FIRM AND TEAM EXPERIENCE

FIRM INTRODUCTION

Since 1927, Mark Thomas has provided project management, civil and structures engineering, landscape architecture, and surveying services to clients throughout California. As a California corporation, our stability throughout the years is founded on our client service focus, and delivering projects with a tailored approach to meet our clients' goals. This reputation is realized through the efforts of more than 180 professionals within offices strategically located throughout the state. Originating in San Jose, our firm has grown to establish offices in Irvine, Los Angeles, Carmel, Cupertino, Fresno, Oakland, Sacramento, San Carlos, and Walnut Creek.

Mark Thomas is built on providing sound, innovative engineering solutions and high-quality customer service for transportation, public works, and infrastructure improvement projects. Our solutions have benefited all types of transportation improvements projects including complete streets/streetscape design, active transportation planning (sidewalks, curb, and gutter), roadway widenings and reconstructions, pavement rehabilitations, ADA improvements, and highways and interchanges.

On-Call and Public Agency Expertise

We have significant experience providing on-call services. We know the importance of being responsive and flexible when meeting project needs. We have expertise in providing task order driven services with limited budgets and fast-track schedules. In addition to responsiveness, we offer a depth of highly qualified transportation project-focused staff. With more than 100 engineers in California, most focused on the delivery of transportation projects, we can easily staff multiple concurrent projects.

We have served clients throughout California, including cities, counties, local municipalities, Caltrans and other various public agencies. Our staff has extensive experience working as an extension of our clients' staff, and brings an unmatched understanding of public agency procedures and requirements.

We apply a flexible and progressive approach that balances the needs of stakeholders and the community. Our unique ability to understand each project and develop designs that fit within the context of the neighborhood and community has been the hallmark of many of our projects.

Primary Contact

As Project Manager, Arturo Vivar will be the primary contact for the City. His complete contact information is shown below.

MARK THOMAS AT A GLANCE

- California Corporation
- 90+ years in business
- 180 employees
- 10 offices in California:
  - Irvine
  - Los Angeles
  - Carmel
  - Cupertino
  - Fresno
  - Oakland
  - Sacramento
  - San Carlos
  - San Jose
  - Walnut Creek

KEY EXPERIENCE:

- Roadway Improvements and Rehabilitation/ Reconstruction
- Complete Streets/ Streetscape
- Bicycle/Pedestrian Facility Enhancements
- ADA Improvements/ Upgrades
- Active Transportation Planning
- Traffic Signal/Lighting Design and Improvements
- Utility Improvements/ Agency Coordination
- Signing/Striping
- Landscape Architecture
- Coordination with Caltrans, Local Agencies, and Resource & Permitting Agencies
- Grant Application Writing

Arturo Vivar, PE, Project Manager
16795 Von Karman Avenue, Suite #240 I Irvine, CA 92606 I T: 949.247.3928 (Direct)

Mark Thomas' Organizational Stability and Strength

Mark Thomas provides clients with an assurance of stability that few other firms can offer, even during changing economic times. As a privately owned, California Corporation, we are positioned to ride out the financial downturns that impact larger, publicly-traded companies in our industry. Mark Thomas is rated financially strong by Dun & Bradstreet and has never borrowed or used our line of credit to maintain company operations. Our firm has never experienced receivership or other financial difficulties since its founding. In 2017, our revenue exceeded $45 million and we currently enjoy a gross backlog of $45 million.

The bottom line benefit -- a reliable firm with committed staff that will see through the City's project through to completion.

SUBCONSULTANTS

To further supplement our in-house capabilities, we have selected a team of subconsultants with whom we have successfully worked on similar types of projects.

CL Survey and Mapping, Inc.

Land Surveying Support

CL Surveying and Mapping, Inc. (CL Survey), is a California Certified UDBE/DBE/MBE survey consultant company that provides surveying, mapping and construction support services. They provide field and office survey services for construction staking of utilities, street construction and site developments. They prepare Design Surveys as base mapping for Street Improvement Plans, utility routing, drainage studies and site development or redevelopment.

They also prepare Records of Survey, Parcel Maps and Parcel Map Exemption Applications, Tract Maps, Legal Descriptions and ALTA Surveys. They bring extensive experience in researching record information utilizing web based records, written requests from agencies and utility companies and onsite review and research. Working with the various title companies, cities, and public agencies, they prepare submittal packages for Parcel Maps, Records of Survey, Tract Maps and Lot Line Adjustments including metes and bounds legal descriptions.

Diaz Yourman & Associates

Geotechnical Engineering

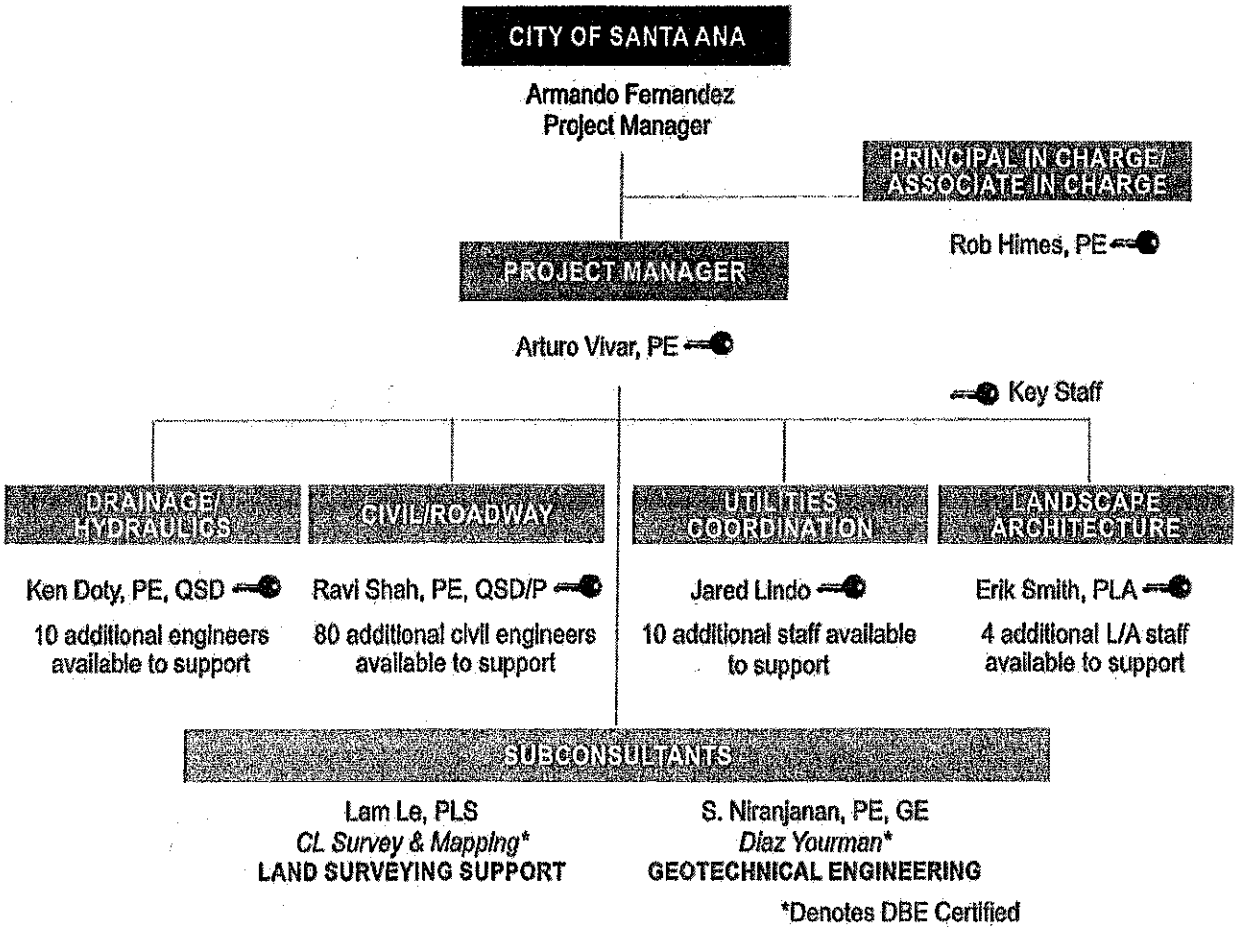
Diaz Yourman & Associates (DYA), a certified MBE/DBE, is a privately held geotechnical consulting services corporation, founded in December 1992. They provide expert geotechnical design, environmental, construction, and forensic services to public agencies, owners, and the U.S. Government for a wide array of project types, including highways, streets and roads, bridges, rail, grade separations, bike paths, and other transportation infrastructure; ports, harbors, and airports; water treatment plants, reservoirs, pipelines, and pump stations; commercial and industrial buildings; and schools, hospitals, and other facilities.

They are experienced in all phases of geotechnical engineering, including geotechnical/geologic site risk analysis, pre-design investigations, seismic design criteria, slope stability, grading, sub-drainage, infiltration, geotechnical design criteria, ground improvement, and foundations.

DYA has performed task orders on numerous on-call contracts for several agencies, including the Cities of El Monte, Irvine, Los Angeles, and San Diego; the Counties of Orange, Riverside, and Los Angeles; Metropolitan Transportation Authority; Caltrans; the Port of Long Beach; US Army Corps of Engineers; and public utilities including Southern California Edison and Southern California Gas Company.

ORGANIZATIONAL CHART

Mark Thomas has assembled a highly experienced team dedicated to successfully delivering the City's projects. Our organization chart below depicts the lines of communication and structure we propose to implement for this contract.



KEY STAFF AVAILABILITY

Below is a table identifying the staff members assigned to this project, and their percentage of availability. Resumes are attached as an Appendix, located at the end of our proposal.

Team Member	Firm	Role	Availability
Arturo Vivar, PE	Mark Thomas	Project Manager	70%
Rob Himes, PE	Mark Thomas	Principal in Charge/Associate in Charge	30%
Ravi Shah, PE	Mark Thomas	Civil/Roadway Lead	50%
Ken Doty, PE	Mark Thomas	Drainage/Hydraulics Lead	60%
Jared Lindo	Mark Thomas	Utilities Coordination	60%
Erik Smith, PLA	Mark Thomas	Landscape Architecture Lead	50%

UNDERSTANDING OF NEED

The City is currently undergoing a series of enhancements to Mile One Street which will improve the multi-modal mobility of all users. Portions of Mile One Street have already been improved and the subject project is the remaining 1,000 linear feet of improvements needed in order to covert Mile One Street into a complete street.

Mark Thomas understands the components of a complete street project and has a proven track record of successfully delivering the planning, design and construction support of similar complete street projects. The Mile One Street Improvement project is expected to include separated bike lanes, continuous ADA paths/ walkways, stormwater treatment BMP's, and a sustainable pavement design.

The proposed improvements to this segment of Mile One Street will:

- **Improve multi-modal mobility** by installing separated bike lanes and enhancing the walkways and parkways.
- **Improve corridor safety** with the installation of raised buffer between vehicular traffic and bicyclists.
- **Increase capacity** since the widening will create a six-lane separated roadway which was not possible with the existing facility.

PROJECT APPROACH

The Mark Thomas team has extensive experience in the planning and design of complete streets, streetscapes and bicycle facilities, including the development of standards and delivering PS&E for a variety of facilities. We bring an unmatched expertise to projects that require innovative solutions for bicycle, pedestrian, and multi-modal improvements, landscape master plans, median and gateway enhancements, environmental design, and Caltrans coordination.

Our experience with similar projects such as Warner Avenue Improvements - Phase 1, has proven to be vital to the understanding of the design needs for the City and the preferred options for each element of design. Mark Thomas will utilize the experience from our previous work with the City as well as with golden bike cities such as City of Davis and City of San Jose for the development and implementation of the complete street elements required for Mile One Street.

Bicycle Lanes Design

Class IV bicycle lanes to be included will meet the AASHTO Bicycle Design Guidelines, Caltrans' DIB # 89 for Class IV bikeways, NACTO Urban Bicycle Design Guide, and the recent bike pavement marking strategies used elsewhere in the City, such as green pavement enhancements in vehicle/bicycle conflict zones.

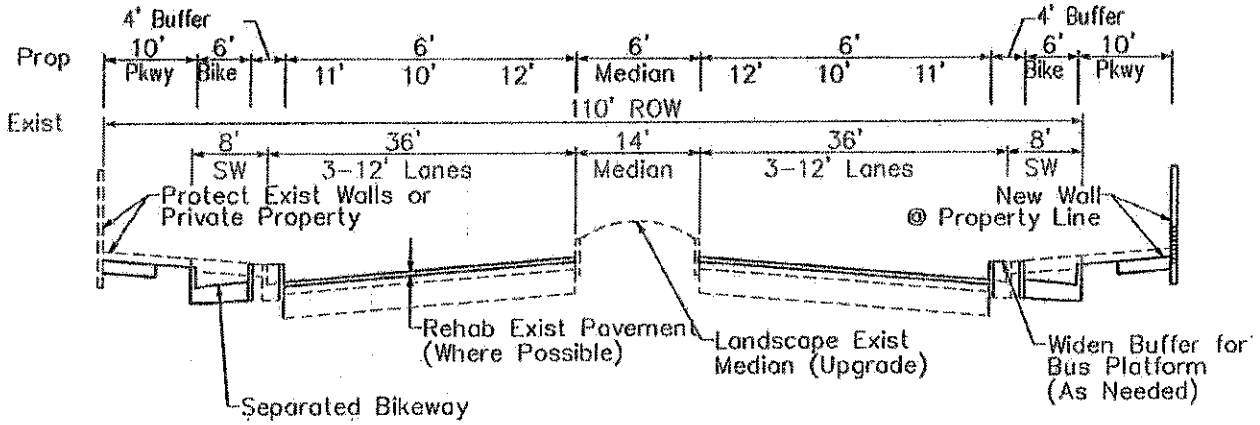
The proposed bicycle facility will include a 6-foot bike lane separated by a planted raised curb buffer, 4 feet wide. Lower shrubs and planting will be used in the buffer in order to avoid sight distance conflicts. The bicycle lane will designed with a concrete pavement (PCC) in order to minimize maintenance and visually differentiate the path.

Folsom Boulevard Streetscape, Beautification, and Enhancement Project Rancho Cordova, CA

Roadway

The proposed total street width will be 120 feet, consistent with the City's Street standards for a major separated Arterial. Mark Thomas understands very well how the City can accommodate all of the project elements into the desired roadway width.

The existing 14-foot raised landscaped median will be protected-in-place. Turn pockets and turn bay lengths shall be modified as needed or as dictated by the supporting traffic report.



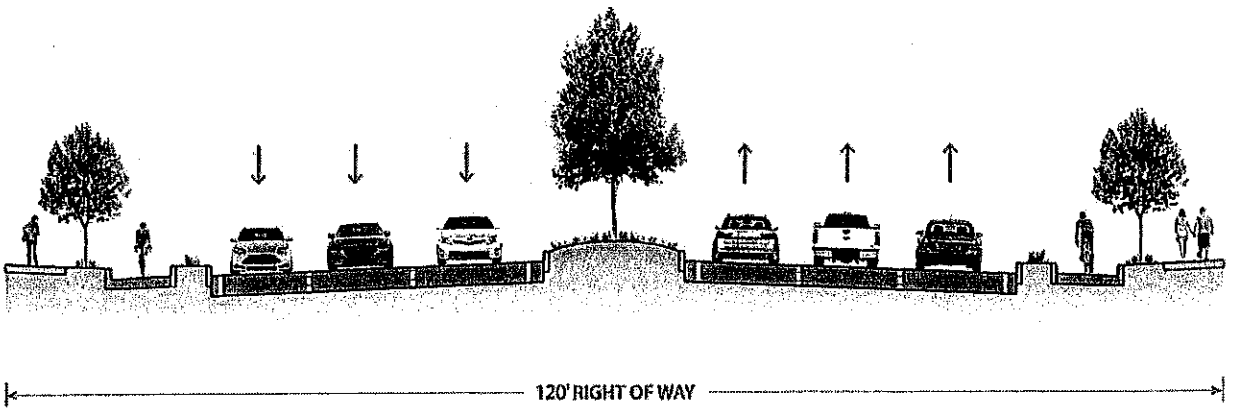
Proposed Roadway Improvements

Landscaping

It is understood that both the proposed parkways and the raised bike lane buffer will be planted per the latest water conservation requirements, and per the City's preferences and pallete requirements. The final landscaping will match the adjacent project aesthetics that were recently completed.

In addition to the parkway landscaped strip, any unused property behind the sidewalk will be considered for BMP installations.

Proposed Street Section



Typical Section at ROW Constraint

Bus Stops

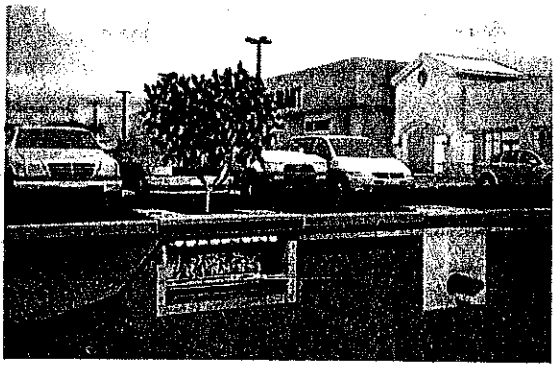
It is assumed that the bus line along Mile One Street will remain active. The bicycle buffer prohibits the buses to pull into the curb closest to the sidewalk, therefore a bus platform is necessary adjacent to the outside (lane #3) travel lane, Mark Thomas will provide a few proven designs for bus stop design along corridors with Class IV bike lanes for consideration and will provide a recommendation on a case-by-case scenario.

Storm Drain Upgrades

Storm drain improvements within this portion of Mile One Street will be per the City's Master Drainage Plan. Mark Thomas will conduct a hydrology analysis to verify the location and sizes of the proposed inlets and hydraulic analysis and modeling to confirm the Master Plan's recommendations for main line improvements.

Water Quality Management

Mark Thomas will prepare a Water Quality Management Plan (WQMP) with specific BMPs to satisfy the EIR requirements and the City's Low Impact Development requirements. Similar to those installed at other parkway locations for similar projects, a low maintenance and easily implemented bioretention system, such as Filterra, could be installed. The unit cost of these systems includes the requirements desired by the City of BMPs.



Filterra® Bioretention System

Utilities Coordination

Mark Thomas' approach to the utility coordination task will include the typical "ABC" process from Caltrans, where major and minor risk items are identified. We will take a second step which is to be located those conflicting utilities to a satisfactory level of confidence using a combination of potholing and other locating strategies that may be more cost efficient. This additional effort will reduce risks during construction and provide both the City and Mark Thomas the information necessary to make informed decision during the design phase.

RELEVANT PROJECT EXPERIENCE

Mark Thomas team has planned and designed a wide variety of locally and federally funded capital improvement projects throughout California, including for public agencies in Orange and Los Angeles Counties. Such projects have included complete streets design, roadway reconstruction, pavement rehabilitation, active transportation planning, signing and striping, ADA improvements and upgrades, operational improvements, multimodal enhancements, highway widenings, and storm drainage facilities. Below is a table highlighting our relevant project experience.

Project	Description
Bayside Drive Improvements Project *Newport Beach, CA* Year Completed: 2017-On-going	Mark Thomas is providing engineering, geometric and transportation design services to complete this this roadway project that will greatly improve pedestrian safety, bicycle connectivity, and overall vehicular and multimodal operations in the City of Newport Beach. This project includes four distinct elements; pavement rehabilitation, improvements to the PCH intersection which involves Caltrans approvals, traffic calming elements, and bicycle and pedestrian improvements. Key services that we are providing include: **Complete Streets:** We will improve vehicle, bicycle, pedestrian, and transit connectivity with the addition of bike lanes, sidewalks, mid-block crossing, and crosswalks to provide an inviting and safe corridor. **Pavement Rehabilitation:** We will implement creative rehabilitatation strategies for the pavement along Bayside Drive which shows signs of recent crack seals and significant wear at the ECH intersection. **Caltrans Approval and Permitting:** Improvements to the intersection with ECH will require approvals from Caltrans. We will submit the encroachment permit as soon as the geometry has been approved. **Urban Design:** We will develop high level landscape concepts for the landscaping and hardscape design that will include raised medians, islands, decorative pavement treatments, sidewalks and crosswalks, and planting and irrigation. **Client Reference:** Patrick Arciniega, PE, City of Newport Beach (Public Works Department) Phone: 949.644.3311 I 100 Civic Center Drive, Newport Beach, CA 92658
Multiple Pavement Rehabilitation Projects *Fullerton, CA* Year Completed: 2013-On-going	Mark Thomas has prepared final design for four pavement rehabilitation projects on various roadways throughout the City of Fullerton. Work along these corridors included the evaluation of the existing pavement and the development of final plans for rehabilitation or replacement. The design included replacing non-ADA compliant curb ramps and replacing concrete sidewalk, curb, and gutter that were in poor condition. These projects include our on-going Chapman Avenue project and: **Commonwealth Avenue:** Rehabilitated 3,900 linear feet of Commonwealth Avenue between Vermont Avenue to Brookhurst Road, including intersection with Brookhurst Road. **North Berkeley Avenue:** Rehabilitated 1,530 linear feet of North Berkeley Avenue between Harbor Boulevard and Valley View Drive. **Yorba Linda Boulevard:** Rehabilitated 2,600 linear feet of Yorba Linda Boulevard between Placentia Avenue and Bradford Avenue. **Sunny Crest Drive:** Rehabilitated 3,160 linear feet of Sunny Crest Drive between Valencia Mesa Drive and Valley View Drive. **Client Reference:** Jose Medina, City of Fullerton Phone: 714.738.6858 I 303 W. Commonwealth Avenue, Fullerton, CA 92832

Project	Description
Warner Avenue Widening and Improvements Project *Santa Ana, CA* Year Completed: 2015-On-going	We are providing design services to the City of Santa Ana for the widening and improvement of Warner Avenue, from Main Street to Oak Street. Warner Avenue will be widened from a four-lane undivided arterial to a six-lane divided arterial to conform to the City and County arterials master plan. The six-lane arterial includes a curb separated Class IV bike lane which will serve to connect two Class I bike lane facilities, a first within Orange County. The project also includes landscape improvements and permanent water quality improvement features within the parkway areas. A major component of the project is the installation of drainage infrastructure. The existing storm drainage system carries a major watershed system within a 66-inch reinforced concrete pipe. Our review of the existing and proposed drainage system resulted in value engineering savings that allowed the system to be downsized from the proposed 18-foot by 8-foot reinforced concrete box to an 88-inch reinforced concrete pipe. **Client Reference:** Sean Thomas, City of Santa Ana Phone: 714.647.5665 I 20 Civic Center Plaza M-36, Santa Ana, CA 92702
US 101 HOV and Rehabilitation Improvements Project *Santa Barbara, CA* Year Completed: 2017-On-going	Mark Thomas was selected by SBCAG to complete their segment of the project extending from the Cabrillo Boulevard Interchange to the Padaro Lane Interchange, a total of 4.5 miles. Our $300 million segment of the project includes multiple challenging design constraints, which include median and outside widening, reconstruction of two interchanges with existing left-lane exists at Cabrillo Boulevard and Sheffield Drive, replacement of three bridges over creeks in a FEMA-designated floodplain and floodway, retaining walls along a sea cliff, sound walls, and pavement rehabilitation. These improvements involve modifications to the existing highway profile throughout the corridor. This project requires close, and extensive coordination with Caltrans and SBCAG staff. **Client Reference:** Fred Luna, Santa Barbara County Association of Governments Phone: 850.961.8926 I 260 North San Antonio Rd, Ste B, Santa Barbara, CA 93110
Rosedale Highway (SR 58) Widening and Rehabilitation *Bakersfield, CA* Year Completed: 2017	Mark Thomas provided final design services for widening approximately 5.5 miles of SR 58 (Rosedale Highway) from SR 99 to Allen Road. This conventional highway is on the National Highway System within City of Bakersfield, County of Kern, and Caltrans District 6 right of way. The project adds one lane in each and a raised median, improved 12 traffic signals and installed signal interconnection. The design also includes a Class II bike lane, sidewalks, crosswalks, and ADA compliant curb ramps meeting new Caltrans Standards. A major component of the project is the rehabilitation of the existing pavement and the new lanes. The pavement in the existing lanes through the entire project was rehabilitated using grind and overlay technique. The pavement for the new lanes is a thicker section in order to withstand the heavy truck loads. **Client Reference:** Roani Sandoval, City of Bakersfield Phone: 661.326.3433 I 900 Truxtun Avenue, Suite 200, Bakersfield, CA 93301

REFERENCES

At Mark Thomas, we are proud of our track record of successfully completing projects on time, within budget, and meeting the needs of our clients. Below is a list of our references for whom we have delivered projects similar in scope. We are confident you will find that the highlighted projects demonstrate our ability to deliver the services you are seeking on this upcoming project.

Please contact our references below, who will attest to our record of excellence.

Reference and Client Contact Information	Project Title and Brief Description
Patrick Arciniega, PE City of Newport Beach Public Works Department 100 Civic Center Drive Newport Beach, CA 92658 Phone: 949.644.3311	**Bayside Drive Improvements Project, Newport Beach, CA.** Mark Thomas is providing engineering, geometric and transportation design services to complete this this roadway project that will greatly improve pedestrian safety, bicycle connectivity, and overall vehicular and multimodal operations in the city of Newport Beach. This project includes four distinct elements; pavement rehabilitation, improvements to the PCH (SR 1) intersection which involves Caltrans approvals, traffic calming elements, and bicycle and pedestrian improvements. Key services we are providing include pavement rehabilitation and strategies, complete streets and active transportation planning, Caltrans Approval and Permitting, urban design and landscape/hardscape design.
Sean Thomas City of Santa Ana Public Works 20 Civic Center Plaza M-36 Santa Ana, CA 92702 Phone: 714.647.5665	**Warner Avenue Widening and Improvements Project, Santa Ana, CA.** We are providing design services to the City of Santa Ana for the widening and improvement of Warner Avenue, from Main Street to Oak Street. Warner Avenue will be widened from a four-lane undivided arterial to a six-lane divided arterial to conform to the City and County arterials master plan. The six-lane arterial includes a curb separated Class IV bike lane which will serve to connect two Class I bike lane facilities, a first within Orange County. A major component of the project is the installation of drainage infrastructure. Our review of the existing and proposed drainage system resulted in value engineering savings that allowed the system to be downsized from the proposed 18-foot by 8-foot reinforced concrete box to an 88-inch reinforced concrete pipe. The project also includes landscape and water quality improvement features.
Jose Medina City of Fullerton 303 W. Commonwealth Ave. Fullerton, CA 92832 Phone: 714.738.6865	**Multiple Pavement Rehabilitation Projects, Fullerton, CA.** Mark Thomas has prepared final design for four pavement rehabilitation projects on various roadways throughout the City of Fullerton. Work along these corridors included the evaluation of the existing pavement and the development of final plans for rehabilitation or replacement. The design included replacing non-ADA compliant curb ramps and replacing concrete sidewalk, curb, and gutter that were in poor condition. Projects include: Chapman Avenue, Commonwealth Ave, North Berkeley Ave, Yorba Linda Blvd, and Sunny Crest Drive.
Roani Sandoval City of Bakersfield 900 Truxtun Avenue, Suite 200 Bakersfield, CA 93301 Phone: 661.326.3433	**Rosedale Highway (SR-58) Widening & Rehabilitation, Bakersfield, CA.** Mark Thomas provided final design services for widening approximately 5.5 miles of SR 58 (Rosedale Highway) from SR 99 to Allen Road. This conventional highway is on the National Highway System within City of Bakersfield, County of Kern, and Caltrans District 6 right of way. The project adds one lane in each and a raised median, improved 12 traffic signals and installed signal interconnection. The design also includes a Class II bike lane, sidewalks, crosswalks, and ADA compliant curb ramps meeting new Caltrans Standards.

SCOPE OF SERVICES AND SCHEDULE

The Mark Thomas team will address these key issues and deliver the project with a turnkey approach using the following scope of work, which has been based upon the scope of services listed in the RFP.

Task 1. Project Management

1. **Project Management/Coordination/Meetings:** Mark Thomas will provide ongoing general project management and coordination of sub consultants and internal staff. Agency coordination, including coordination with the City and other project stakeholders will also be provided.
2. **CPM Schedule, Progress Reports and Budgets:** At the project kick-off meeting, Mark Thomas will distribute a master CPM schedule as a draft for review by the Project Development Team (PDT). The draft CPM schedule will be updated, incorporating comments received from the PDT.
3. **Quality Assurance/Quality Control:** Mark Thomas' Quality Control plan consists of established procedures for performing the work (which are reassessed with each project), including methods for design calculations, establishing appropriate levels of design development for intermediate submittals, identification of required plan checks, design checklists, and methods of project documentation.

Task 1 Deliverables:

- Meeting Materials, Agendas and Minutes (Up to 15 meetings)
- CPM Master Schedule and updates as necessary

Task 2. Research and Data Collection

Mark Thomas will work with the City to obtain available record drawings and other pertinent data for the project including as-builts, GIS information, preliminary engineering reports, and utility information from the City of Santa Ana, Orange County Public Works and Caltrans as necessary.

Task 2 Deliverables:

- Records Obtained from City and Outside Agencies

Task 3. Design Survey

Site Control:

Establish a site-wide network of horizontal/vertical control to serve as the basis for any subsequent boundary, topographic, or construction staking surveys that may be required throughout the course of the project. CL Surveying and Mapping will reference an assumed horizontally, and available local agency vertical datum, unless specifically requested otherwise.

Centerline/Right-of-Way Establishment/Mapping:

Conduct the field measurements necessary to re-trace the centerlines and rights-of-ways within the project limits. This effort does not constitute a full and complete boundary survey of the adjacent land parcels. Survey monuments located and indicated on the survey will be limited to existing centerline monuments found to be present along the streets, and all associated ties as indicated.

Topography and Street Cross Sections:

Mark Thomas will perform a field topographic survey to document existing site topography and planimetrics. Substantial visible improvements will be located within the street right of way, including lane striping, utilities, manholes, valve covers, utility vaults and covers, sign posts, signs, trees, utility poles, traffic signal poles, cross gutters, local depressions, catch basins, driveway openings, sidewalks, corner access ramps, fire hydrants, parkway drains, etc. Visible indications of surface utilities lying within the project limits will be located, as will accurate lid/rim elevations for drainage structures present. Sewer manholes will be dipped for invert elevations.

Street cross-sections will be taken at 50-foot intervals. The standard cross-sectional data will consist of Back of Walk, Top of Curb, Flow Line, Gutter Lip, and Crown for both sides of the street.

The topographic data will be downloaded, processed and tied to the horizontal and vertical control established for this project. The topographic data will be plotted in CAD and a digital terrain model (DTM) created for the existing ground surface. The final deliverables will include the digital terrain model, topographic data plotted in CAD and an ASCII file of the topographic survey points.

Monument Preservation Pre-Construction:

Pre-construction corner records will be prepared for those existing centerline monuments located within the project limits, estimated at fourteen (14). These corner records will be prepared in accordance with the California Land Surveyor's Act 8771 (b) and filed with the Orange County Surveyor's Office.

Monument Preservation Post-Construction:

After construction is completed, these corner records may be utilized to re-establish the monuments that may be destroyed during the pavement rehabilitation work. Post-construction corner records would then be prepared and filed with Orange County.

Task 3 Deliverables:

- AutoCAD drawing and ASCII point files
- Hard Copy of Survey field notes, sketches and photographs
- One (1) PDF copy of the recorded Corner Records and/or Record of Survey

Task 4. Utility Coordination

1. **Utility Mapping:** Mark Thomas will utilize As-Built data and utility maps obtained by the utility companies to prepare base mapping and identify all utilities on the plans that are within the project limits.
2. **Utility Conflict Mapping Procedure:** Mark Thomas will assist the City with the typical "ABC" process of utility letters, which includes:
   a. Utility "A" Letter – The Utility "A" Letters will be sent to each utility to request as-built mapping of their facilities.
   b. The utility mapping developed for the PS&E will be verified. The mapping will be verified through topographic surveys.
   c. Utility "B" Letter – Maps showing the utility mapping and the proposed improvements will be sent to the utility companies for verification.
   d. Utility "C" Letter – Final plans along with a letter will be sent to the utility companies showing the existing utilities and the final design.
3. **Potholing (Utilized to locate utilities to mitigate potential conflicts):** Mark Thomas will retain a vacuum pothole company to positively identify the depths, material type, and size of known critical facilities. 20 Potholes have been estimated for this scope.

Task 4 Deliverables:

- Utility mapping shown on the basemapping
- Certified List of Utilities per USA
- Utility Company Correspondence Letters ("ABC" Letters)
- Pothole Data (20)

Task 5. Geotechnical Investigation

As required for the development of the final design plans, Mark Thomas' subconsultant, Diaz Yourman, will review available information pertinent to the site and collect subsurface information in order to develop recommendations for the design and construction of the proposed improvements. In addition to the background review, the Geotechnical scope includes:

- Pre-field activities
- Field explorations
- Laboratory testing
- Geotechnical Analysis and Report Preparation.

Task 5 Deliverables:

- Final Geotechnical Report with pavement, wall design recommendations. Soil infiltration rates.
- Boring logs

Task 6. Water Quality Management Plan

Mark Thomas will prepare a Water Quality Management Plan (WQMP) for the proposed roadway in accordance with the Santa Ana Regional Water Quality Control Board (Order No. R8-2009-0030/NPDES No. CAS618030). Mark Thomas will incorporate Low Impact Development Best Management Practices to the maximum extent practicable, for example the use of similar existing infiltration facilities used elsewhere in the City to maintain the aesthetics of recently constructed improvements within the project limits and where feasible per site specific conditions. The United States Environmental Protection Agency (USEPA) document "Managing Wet Weather with Green Infrastructure: Green Streets" will be used to satisfy the compliance requirements for this priority project.

Task 6 Deliverables:

- Draft and Final Water Quality Management Plans
- Inclusion of chosen BMP's within the Construction documents.

Task 7. Hydrology/Hydraulic Analyses and Report

Mark Thomas will conduct hydrology analysis of the proposed roadway surface and hydraulic analysis of the existing in order to verify the recommended storm drain upgrades as part of the City's Master Drainage Plan (2017). The new roadway tributary areas will be analyzed in accordance with City and County of Orange Hydrology manual for a 50 year storm event. The results from the hydrology analysis will be used to identify additional inlets and other necessary improvements.

Task 7 Deliverables

- Draft and Final Hydrology/Hydraulic Analyses Report

Task 8-12. Final Design (PS&E)

Preparation of Plans:

Mark Thomas will prepare 60%, 95% and 100% level design plans, specifications and estimates based on the approved concept design. The PS&E packages will include, at minimum:

- Title Sheet
- Typical Sections
- Street Plans
- Construction Details
- Intersection Grading Plans
- Drainage Improvements plans
- Soundwall Plans
- Signing and Striping
- Erosion Control Plans
- Street Lighting
- Utility Disposition
- Irrigation and Landscaping
- Traffic Control & Staging Plans

Final cross sections at every 25-feet will be provided at the submittal of the 100% level design plans.

Special Provisions:

Mark Thomas will prepare specifications using the City's boilerplate and the latest version of the Greenbook. The specifications will be submitted along with the draft plans to the City at all submittals for approval. Mark Thomas will also prepare any special provisions relating to the design plans, as needed.

Cost Estimate:

Mark Thomas will prepare (in MS Excel) an Engineer's Estimate of Construction Costs based on estimated quantities and available construction cost utilizing Caltrans Contract Cost Data, RS Means and/or readily available data from similar past projects. Backup of all quantities and unit cost will be provided prior to construction. Mark Thomas will utilize contingency values based on industry standards, however, City to agree upon these values.

Task 8. Design Concept Plan

Immediately after the kick-off meeting and review of any existing data files, Mark Thomas will continue the Geometric Design Refinement of the project. The plans will include horizontal and vertical design and design calculations for the roadway realignment.

A draft Engineer's Estimate of Construction Cost will be prepared at this level to begin the value engineering analysis.The City will review the Concept Design Plan and after resolution of any geometric design comments, the PS&E can be started.

Task 9. 60% PS&E

Mark Thomas will prepare the 60% plans once the geometric design has been approved. Estimate of Cost will be updated and the first draft of the technical specification will be prepared. The draft Drainage Report and the draft Geotechnical Report will be submitted for review.

Task 10. 95% PS&E

Mark Thomas will update the PS&E for 95% completion after City review comments are resolved.

In addition to the 95% PS&E, the Geotechnical Report and Drainage Report will be re-submitted for approval.

Task 11. 100% PS&E

After 95% review comment resolution, Mark Thomas will update the PS&E for 100% submittal and prepare the final cross sections.

Task 12. Final PS&E

After approval of the 100% PS&E, Mark Thomas will submit the appropriate number of hard copies and electronic copies of the Construction Documents per RFP requirements.

Tasks 8-12 Deliverables:

- Plans (30%, 60%, 95%,100% and Final)
- Specifications (60%, 95%, 100% and Final)
- Estimate of Construction Cost (30%, 60%, 95%,100% and Final)
- General Cross Sections (100%)

Task 13. Bid Support

Mark Thomas will provide services during the bid phase of the project by reviewing and responding to Request for Clarifications and issuing Addenda to the bid package, as necessary, to facilitate construction. Additional addenda not included in the original project scope will be considered extra work.

Task 13 Deliverables:

- Responses to Bid RFI's and necessary Addenda

Task 14. Construction Support

Mark Thomas will provide assistance to the City during the construction phase of this project. This includes: attending meetings, answering RFI's, reviewing submittals, reviewing shop drawings, field observations, interpretation of bid documents, and clarifications. Mark Thomas will also assist the City in reviewing Construction Change Orders and changes in field conditions.

Task 14 Deliverables:

- Response to Construction RFI's (40 maximum)
- Review of Submittals (20 maximum)

Task 15. As-builts

Upon completion of construction and during project closeout, Mark Thomas will prepare record drawings from a redlined set (provided by the City) documenting revisions to the final conformed bid set for City records.

Task 15 Deliverables:

- As-built Record Drawings

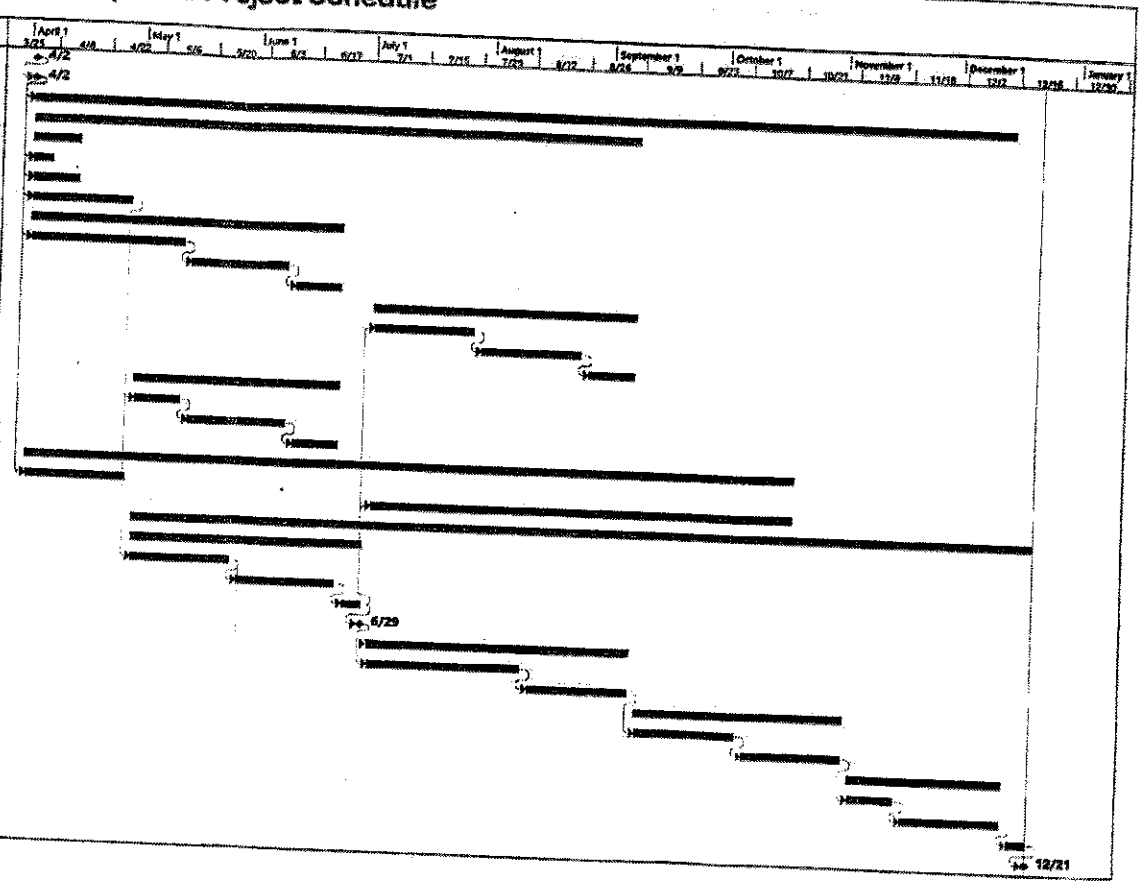
25E-638

PROJECT SCHEDULE

Below is our schedule which details the work phases to be completed, tasks we will accomplish, and deliverables we will provide to the City for this project.

Proposed Project Schedule

ID	Task Name	Duration	Start	Finish
1	Project Award to Mark Thomas	0 days	Mon 4/2/18	Mon 4/2/18
2	Kick Off Meeting with City of Santa Ana	0 days	Mon 4/2/18	Mon 4/2/18
3	Task 1 - Project Coordination and Management	37 wks	Mon 4/2/18	Fri 12/14/18
4	Research, Studies, and Data Collection Phase	115 days	Mon 4/2/18	Fri 9/7/18
5	Task 2 - Collect Existing Data	10 days	Mon 4/2/18	Fri 4/13/18
6	Field Walk	1 wk	Mon 4/2/18	Fri 4/6/18
7	Record Research and Collect Existing Data	2 wks	Mon 4/2/18	Fri 4/13/18
8	Task 3 - Design Survey and Monumentation	4 wks	Mon 4/2/18	Fri 4/27/18
9	Task 5 - Geotechnical Analysis and Report	60 days	Mon 4/2/18	Fri 6/22/18
10	Field Explorations and Draft Report	6 wks	Mon 4/2/18	Fri 5/11/18
11	City Reviews Draft Geotechnical Report	4 wks	Mon 5/14/18	Fri 6/8/18
12	Final Geotechnical Report	2 wks	Mon 6/11/18	Fri 6/22/18
13	Task 6 - Water Quality Management Plan	50 days	Mon 7/2/18	Fri 9/7/18
14	Prepare Draft-Final WQMP	4 wks	Mon 7/2/18	Fri 7/27/18
15	City review of Draft-Final WQMP	4 wks	Mon 7/30/18	Fri 8/24/18
16	Finalize WQMP	2 wks	Mon 8/27/18	Fri 9/7/18
17	Task 7 - Hydrology/Hydraulic Analyses and Modeling	40 days	Mon 4/30/18	Fri 6/22/18
18	Perform Drainage Analyses and Draft Report	2 wks	Mon 4/30/18	Fri 5/11/18
19	City Reviews Draft Drainage Report	4 wks	Mon 5/14/18	Fri 6/8/18
20	Final Drainage Report	2 wks	Mon 6/11/18	Fri 6/22/18
21	Task 4 - Utility Coordination	145 days	Mon 4/2/18	Fri 10/19/18
22	Utility Requests and Mapping	4 wks	Mon 4/2/18	Fri 4/27/18
23	Utility Relocation Coordination	16 wks	Mon 7/2/18	Fri 10/19/18
24	Final Design Phase (Both PS&E Packages)	170 days	Mon 4/30/18	Fri 12/21/18
25	Task 8 - Concept Design	45 days	Mon 4/30/18	Fri 6/29/18
26	Complete Geometric Design Plans	4 wks	Mon 4/30/18	Fri 5/25/18
27	City Review and Comments Resolution	4 wks	Mon 5/28/18	Fri 6/22/18
28	Finalize Geometric Design Plans (30%)	1 wk	Mon 6/25/18	Fri 6/29/18
29	City Approves Geometric Design	0 days	Fri 6/29/18	Fri 6/29/18
30	Task 9 - 60% PS&E	50 days	Mon 7/2/18	Fri 9/7/18
31	Prepare 60% PS&E	5 wks	Mon 7/2/18	Fri 8/10/18
32	City Review and Comments Resolution - 60% PS&E	4 wks	Mon 8/13/18	Fri 9/7/18
33	Task 10 - 95% PS&E	40 days	Mon 9/10/18	Fri 11/2/18
34	Prepare 95% PS&E	4 wks	Mon 9/10/18	Fri 10/5/18
35	City Review and Comments Resolution - 95% PS&E	4 wks	Mon 10/8/18	Fri 11/2/18
36	Task 11 - 100% PS&E	30 days	Mon 11/5/18	Fri 12/14/18
37	Prepare 100% PS&E	2 wks	Mon 11/5/18	Fri 11/16/18
38	City Review and Comments Resolution - 100% PS&E	4 wks	Mon 11/19/18	Fri 12/14/18
39	Task 12 - Prepare and Submit Final PS&E	1 wk	Mon 12/17/18	Fri 12/21/18
40	City Approves PS&E	0 days	Fri 12/21/18	Fri 12/21/18



NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California
County of _____

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

See Attached
Notary Public Document

_____
Notary Public Signature

Notary Public Seal

California Jurat Certificate

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Orange } S.S.

Subscribed and sworn to (or affirmed) before me on this 13th day of March (Month),

20 18, by Robert Himes (Name of Signer (1)) and

(Name of Signer (2)), proved to me on the basis of

satisfactory evidence to be the person(s) who appeared before me.

Signature of Notary Public

TORU HORIMACHI
Notary Public – California
Orange County
Commission # 2225278
My Comm. Expires Jan 11, 2022

Seal

For other required information (Notary Name, Commission No. etc.)

OPTIONAL INFORMATION

Although the information in this section is not required by law, it could prevent fraudulent removal and reattachment of this jurat to an unauthorized document and may prove useful to persons relying on the attached document.

Description of Attached Document

The certificate is attached to a document titled/for the purpose of

Non-Collusion Affidavit

containing _____ pages, and dated _____

Additional Information

Method of Affiant Identification

Proved to me on the basis of satisfactory evidence:
○ form(s) of identification ○ credible witness(es)

Notarial event is detailed in notary journal on:

Page # _____ Entry # _____

Notary contact: _____

Other

☐ Affiant(s) Thumbprint(s) ☐ Describe: _____

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Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Mark Thomas and Company, Inc.

Signed and Printed Name: Rob Himes

Title President

Date March 13th, 2018

Appendix
ATTACHMENT 3-3: NON DISCRIMINATION CERTIFICATION CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: _____

Title: President

Firm: Mark Thomas and Company, Inc.

Date: March 13th, 2018

KEY STAFF RESUMES

ARTURO VIVAR, PE

Arturo brings more than 16 years of experience delivering transportation design projects within Southern California. He has extensive experience providing civil and transportation design for roadway widenings, intersection modifications, pavement rehabilitation, and multimodal enhancements. Arturo is experienced in transportation and civil engineering projects for public agencies. His projects have involved roadway widenings, highway interchange improvements, street rehabilitation and drainage improvements, in accordance to the Caltrans HDM, AASHTO, and local agency requirements.

PROJECT ROLE
Project Manager

EDUCATION
BS in Civil Engineering, California State University, Fullerton

REGISTRATION
CA C70076

REPRESENTATIVE PROJECTS

BAYSIDE DRIVE IMPROVEMENTS PROJECT, NEWPORT BEACH, CA
Deputy project manager for this improvement project in Newport Beach. Mark Thomas was recently selected to provide engineering, geometric and transportation design services to complete this this roadway project that will greatly improve pedestrian safety, bicycle connectivity, and overall vehicular and multimodal operations. Key services include Caltrans approval and permitting, pavement rehabilitation, complete streets/urban design, and bike/ped improvements.

MULTIPLE PAVEMENT REHABILITATIONS, FULLERTON, CA
Mark Thomas is providing on-call civil engineering services for the City of Fullerton. Services include roadway pavement design, drainage study, storm drain and sanitary sewer systems, storm water management practices and other miscellaneous civil engineering and maintenance work. The following task orders are currently in progress or recently completed and are representative of the sample projects to be completed as part of the on-call contract: Chapman Avenue, Yorba Linda Boulevard Pavement Rehabilitation, Commonwealth Avenue Reconstruction Project, Berkeley Avenue Pavement Rehabilitation, and Sunny Crest Drive Reconstruction Project.

WARNER AVENUE WIDENING AND IMPROVEMENTS, SANTA ANA, CA
Project manager for the final PS&E to widen over 1,600 linear feet of Warner Avenue from Main Street to Oak Street. The project converts the roadway from a four lane undivided arterial to a six-lane divided arterial to conform to the City & County arterials master plan. The six lane arterial includes curb separated Type IV bike lane which will serve to connect two Type I bike lane facilities.

SR 58 (ROSEDALE HIGHWAY) WIDENING AND IMPROVEMENTS PROJECT, BAKERSFIELD, CA
Project manager responsible for internal and external technical design coordination and the roadway design engineer of record for widening approximately 5.5 miles of SR 58/Rosedale Highway from SR 99 to Allen Road. The project adds one lane in each direction, median improvements, and turn lanes at specific intersections.

US 101 HOV & REHABILITATION PROJECTS, SANTA BARBARA, CA
Project support for the the preliminary design services to evaluate geometrics for $300M, 4.5-mile HOV widening and pavement rehabilitation projects. The project involves the preparation of 35% "Decision-Point Documents" for highway and interchange improvements along US 101 from Cabrillo Boulevard to Padaro Lane. Project elements include reconstruction of two interchanges with left-lane off-ramps, replacement of three bridges of FEMA-regulated creeks, retaining walls along the sea cliff, sound walls, and pavement rehabilitation.

ROB HIMES, PE

Rob has more than 31 years of experience in municipal and transportation engineering. He has worked with municipalities, agencies and Caltrans to plan and design highway, roadway, bridge, and utility infrastructure improvements. Rob is a Principal of the firm and specializes in all aspects of transportation projects ranging from feasibility studies to final PS&E. He has a detailed understanding of the Caltrans HDM, AASHTO "Green Book", and other applicable design guidelines and criteria. His focus is on client service, ensuring the delivery of accurate work that serves our client's goals, while working within budget and targeted schedule.

PROJECT ROLE
Principal in Charge/
Associate in Charge

EDUCATION
BS in Civil Engineering, University of California, Berkeley

REGISTRATION
CA C45787

REPRESENTATIVE PROJECTS

BAYSIDE DRIVE IMPROVEMENTS PROJECT, NEWPORT BEACH, CA
Principal in charge for this improvement project in Newport Beach. Mark Thomas is providing engineering, geometric and transportation design services to complete this this roadway project that will greatly improve pedestrian safety, bicycle connectivity, and overall vehicular and multimodal operations. Key services include Caltrans approval and permitting, pavement rehabilitation, complete streets/urban design, and bike/ped improvements.

MULTIPLE PAVEMENT REHABILITATIONS, FULLERTON, CA
Mark Thomas is providing on-call civil engineering services for the City of Fullerton. Services include roadway pavement design, drainage study, storm drain and sanitary sewer systems, storm water management practices and other miscellaneous civil engineering and maintenance work. The following task orders are currently in progress or recently completed and are representative of the sample projects to be completed as part of the on-call contract: Chapman Avenue, Yorba Linda Boulevard Pavement Rehabilitation, Commonwealth Avenue Reconstruction Project, Berkeley Avenue Pavement Rehabilitation, and Sunny Crest Drive Reconstruction Project

US 101 HOV & REHABILITATION PROJECTS, SANTA BARBARA, CA
Principal in charge/project manager responsible for overseeing the preliminary design services to evaluate geometrics for the $300M, 4.5-mile HOV widening and pavement rehabilitation projects. The project involves the preparation of 35% "Decision-Point Documents" for highway and interchange improvements along US 101 from Cabrillo Boulevard to Padaro Lane. Project elements include reconstruction of two interchanges with left-lane off-ramps, replacement of three bridges of FEMA-regulated creeks, retaining walls along the sea cliff, sound walls, and pavement rehabilitation.

SR 58 (ROSEDALE HIGHWAY) WIDENING AND IMPROVEMENTS PROJECT, BAKERSFIELD, CA
Principal in charge for final design services for widening approximately 5.5 miles of SR 58/Rosedale Highway from SR 99 to Allen Road. The project will add one lane in each direction, median improvements, and turn lanes at some intersections.

I-5/KATELLA AVENUE UNDERCROSSING, ANAHEIM, CA
Principal in charge responsible for development and submittal of project approval document, geometric alternatives and final design (with mandatory/ advisory design exception approval), and contract documents. Project includes utility investigation, identification and coordination with utility owners for facility relocation designs and review of traffic analysis, environmental, and water quality documents.

RAVI SHAH, PE, QSD/P

Ravi has more than 10 years of experience providing project management expertise in the design of highway and local infrastructure improvements. Managing numerous simultaneous projects, leading teams and building consensus are a few of the many strengths Ravi has developed as a project engineer. Ravi is well versed at managing fast-paced, multi-agency/discipline projects.

PROJECT ROLE
Civil/Roadway Lead

EDUCATION
BS in Civil Engineering, Cal Poly Pomona

REGISTRATION
CA C79183
QSD/P 25656

REPRESENTATIVE PROJECTS

BAYSIDE DRIVE IMPROVEMENTS PROJECT, NEWPORT BEACH, CA
Roadway/Drainage design engineer for this improvement project in Newport Beach. Mark Thomas is providing engineering, geometric and transportation design services to complete this this roadway project that will greatly improve pedestrian safety, bicycle connectivity, and overall vehicular and multimodal operations. Key services include Caltrans approval and permitting, pavement rehabilitation, complete streets/urban design, and bike/ped improvements.

WARNER AVENUE WIDENING AND IMPROVEMENTS, SANTA ANA, CA
Project engineer for the final PS&E to widen over 1,600 linear feet of Warner Avenue from Main Street to Oak Street. The project will convert the roadway from a four lane undivided arterial to a six-lane divided arterial to conform to the City and County arterials master plan. The six lane arterial includes curb separated Type IV bike lane which will serve to connect two Type I bike lane facilities including the Pacific Electric Bicycle Trail. Responsibilities include development of cross section alternatives, roadway design, and drainage improvements.

US 101 HOV & REHABILITATION PROJECTS, SANTA BARBARA, CA
Project engineer responsible for preliminary design services to evaluate geometrics for $300M, 4.5-mile HOV widening and pavement rehabilitation projects. Project elements also include reconstruction of two interchanges with left-lane off-ramps, replacement of three bridges of FEMA-regulated creeks, retaining walls along the sea cliff, sound walls, and pavement rehabilitation.

SR 58 (ROSEDALE HIGHWAY) WIDENING AND IMPROVEMENTS PROJECT, BAKERSFIELD, CA
Project engineer responsible for overseeing the coordination and relocation of impacted utilities and the design of stage construction plan sheets for widening approximately 5.5 miles of SR 58/Rosedale Highway from SR 99 to Allen Road. The project will add one lane in each direction, median improvements, and turn lanes at certain intersections.

STATE COLLEGE BOULEVARD RAILROAD GRADE SEPARATION PROJECT, FULLERTON, CA
Construction support for the development of the grade separation design, preparation of final PS&E for construction, drainage design, drainage plans and profiles, and hydrology and hydraulic calculations. The project includes a railroad bridge, special design retaining walls, pump station, signal and lighting modifications, parking lot site improvements, water and sewer relocations, utility coordination, and survey and right of way support.

KEN DOTY, PE, QSD

Ken has more than 30 years of experience in municipal and transportation engineering with Mark Thomas. He is experienced in all aspects of the preparation of PS&E specializing in transportation improvement projects for public agencies, including Cities, Counties, and Caltrans facilities. He is experienced in the preparation of the hydrology and hydraulic reports, and. has led the design of drainage, storm drain improvements, temporary drainage and water line during construction, and water and sewer relocations for a variety of projects including complete streets, roadway rehabilitations, highway/interchange widenings and improvements, and grade separations.

PROJECT ROLE
Drainage/Hydraulics Lead

EDUCATION
BS in Civil Engineering, Oregon State University

REGISTRATION
CA C47228
QSD 47228

REPRESENTATIVE PROJECTS

US 101 HOV & REHABILITATION PROJECTS, SANTA BARBARA, CA
Project engineering support for the $300M, 4.5-mile HOV widening and pavement rehabilitation projects. Project elements include reconstruction of two interchanges with left-lane off-ramps, replacement of three bridges of FEMA-regulated creeks, retaining walls along the sea cliff, sound walls, and pavement rehabilitation.

YORBA LINDA BOULEVARD PAVEMENT REHABILITATION PROJECT PS&E, FULLERTON, CA
Project manager responsible for preparing geotechnical report and final design plans, specification and estimate for the reconstruction of Yorba Linda Boulevard from Placentia Avenue to Bradford Avenue. The project is approximately 2,600 feet in length and will include the reconstruction of curb, gutter, sidewalk, cross gutters and various curb ramps to meet current ADA standards.

NORTH BERKELEY AVENUE PAVEMENT RECONSTRUCTION AND REHABILITATION, FULLERTON, CA
Project manager responsible for preparing geotechnical report and final design plans, specification and estimate for the reconstruction of North Berkeley Avenue between Harbor Boulevard and Valley View Drive. The project is approximately 1,530 feet in length and will include the reconstruction of curb, gutter, sidewalk, cross gutters and various curb ramps to meet current ADA standards.

STATE COLLEGE BOULEVARD RAILROAD GRADE SEPARATION PROJECT, FULLERTON, CA
Project manager responsible for storm drainage, sanitary sewer and water phases, and construction support services for this grade separation project. The sanitary sewer plans were split into the City of Fullerton sewer and the Orange County Sanitation District sewer lines. The water line belonged to the City of Fullerton. The project includes a railroad bridge, special design retaining walls, pump station, signal and lighting modifications, parking lot site improvements, water and sewer relocations, utility coordination, and survey and right of way support.

SR 405/SR 605 HOV CONNECTOR, ORANGE COUNTY, CA
Project manager responsible for drainage, quality control, and utilities for this $102M project to add HOV connectors. Design tasks include the development of typical cross sections and design and layout of the temporary drainage systems for each construction stage, and evaluation of utility protection and relocations. Project responsibilities also included the detailed review of the soundwall design for all the project soundwalls, as well as review of the stage construction including the development of 100 cross sections.

JARED LINDO

Jared has more than 7 years of experience in municipal and transportation engineering. Over the course of his career at Mark Thomas, he has been involved in the utility coordination and utility mapping, preparation of traffic control plans, right of way acquisition, project design, striping, and preparation of plans, project reports and estimates for a variety of projects for public agencies throughout California.

PROJECT ROLE
Utilities Coordination

EDUCATION
BS in Civil Engineering, California State University, Fresno

REGISTRATION
EIT 135986

REPRESENTATIVE PROJECTS

SR 58 (ROSEDALE HIGHWAY) WIDENING/IMPROVEMENTS, BAKERSFIELD, CA
Design engineer responsible for project staging, utility mapping, traffic handling, and utility coordination. There are extensive utility relocations involved, requiring extensive coordination. The five mile roadway widening project crosses two boundary lines and is coordinated with three governing agencies. Improvements include an ADA corridor, widened roadway, reduced medians, new curb, gutter, and sidewalk.

WARNER AVENUE WIDENING AND IMPROVEMENTS, SANTA ANA, CA
Design support for the final PS&E to widen over 1,600 linear feet of Warner Avenue from Main Street to Oak Street. The project converts the roadway from a four lane undivided arterial to a six-lane divided arterial to conform to City and County arterials master plan. The arterial includes curb separated Type IV bike lane which will serve to connect two Type I bike lane facilities. Responsibilities include development of cross section alternatives, roadway design, and drainage improvements.

I-710 UTILITY RELOCATION STUDY, LOS ANGELES COUNTY, CA
Design engineer responsible for preparation of a utility relocation study along the central segment of the I-710 Corridor, between the I-405 interchange and the Los Angeles River. The project requires extensive coordination with utility companies and other agencies as utility relocation would impact underground major gas, oil, sewer, communication, and water lines, and the relocation of Southern California Edison's 220-kv transmission corridor and 66-kv lines.

US 101 HOV & REHABILITATION PROJECTS, SANTA BARBARA, CA
Project engineer for this $300M, 4.5-mile HOV widening and pavement rehabilitation project. Project elements include reconstruction of two interchanges with left-lane off-ramps, pavement rehabilitation, replacement of three bridges of FEMA-regulated creeks, retaining walls along the sea cliff, and sound walls.

BROADWAY STREETSCAPE IMPROVEMENTS, FRESNO, CA
Design engineer responsible for plan preparation and design. Project design includes grading, drainage, utility mapping, and bulb-out design. The purpose of the project was to create a pedestrian friendly corridor, beautification of community and revitalization of downtown.

ERIK SMITH, PLA

Erik has more than 22 years of experience and is the leader of Mark Thomas' landscape architecture and planning division. His experience has involved a full spectrum of professional services from feasibility studies, master planning, streetscape design and community outreach to construction management. His knowledge of various safety, traffic calming and streetscape issues has been essential to public agency clients in achieving workable solutions. Recent projects include conceptual design and construction documents for roadway improvements, streetscape design, complete streets, trails and traffic calming projects. Erik also leads our team in the development of grant applications which includes ATP, HSIP, and other regional grant applications.

PROJECT ROLE
Landscape Architect Lead

EDUCATION
BS in Landscape Architecture, California Polytechnic State University, San Luis Obispo

REGISTRATION
CA 4585

REPRESENTATIVE PROJECTS

BAYSIDE DRIVE IMPROVEMENTS, NEWPORT BEACH, CA
Landscape architect/urban design lead of this improvement project for which Mark Thomas is providing full service landscape architecture, engineering, geometric and transportation design services to complete this this roadway project that will greatly improve pedestrian safety, bicycle connectivity, and overall vehicular and multimodal operations. The project includes four distinct elements including streetscape enhancements, improvements to the PCH intersection, traffic calming elements, and bicycle and pedestrian improvements Critical services we are providing include urban design (landscaping/hardscape design including raised medians, islands, decorative pavement treatments, sidewalks and crosswalks, and planting and irrigation), complete streets design, pavement rehabilitation, and Caltrans approval and permitting.

WARNER AVENUE WIDENING AND IMPROVEMENTS, SANTA ANA, CA
Landscape architect for the final PS&E to widen over 1,600 linear feet of Warner Avenue from Main Street to Oak Street. The project converts the roadway from a four lane undivided arterial to a six-lane divided arterial to conform to the City and County arterials master plan. The six lane arterial includes curb separated Type IV bike lane which will serve to connect two Type I bike lane facilities including the Pacific Electric Bicycle Trail. The project includes landscape improvements and permanent water quality improvement features within new medians and parkway areas. A key component of this project was the introduction of low water use and low maintenance plants and irrigation, and enhancing the overall aesthetics of the corridor. Responsibilities included development of conceptual landscape plan and final design of plantings and irrigation.

US 101 HOV & REHABILITATION PROJECTS, SANTA BARBARA, CA
Landscape architect for this $300M, 4.5-mile HOV widening and pavement rehabilitation project. Project elements include reconstruction of two interchanges with left-lane off-ramps, pavement rehabilitation, replacement of three bridges of FEMA-regulated creeks, retaining walls along the sea cliff, and sound walls.

GOLDEN STATE CORRIDOR ECONOMIC DEVELOPMENT INFRASTRUCTURE IMPROVEMENTS PROJECT, FRESNO, CA
Project manager leading the bicycle planning and design for improvements to 12.9 miles of Golden State Boulevard. The goals of the project are to revitalize and improve the corridor and stimulate economic development. The project includes reconfiguring medians, turn pockets, improvements to at-grade UPRR crossings, and intersection modifications to improve traffic safety and operations, and extensive pavement rehabilitation.

CL SURVEYING AND MAPPING

Lam Le, PLS 8231 – Project Surveyor / Director of Mapping

Education: Aerospace Engineering, California State Polytechnic University Pomona

Experience: Mr. Le has over 21 years of experience as a Project Manager, Project Surveyor and CADD operator. His technical experience includes CAD drafting using CAICE, MicroStation InRoads, AutoCAD using SoftDesk, creating DTMs for earthwork quantities, road profiling, creating coordinate geometry figures for boundary analysis, computer-aided design and drafting. Mr. Le's duties include project management and coordination along with field support on multiple projects. He has provided multiple legal descriptions for easements, lot line adjustments and property descriptions and has done extensive title analysis for property establishment and ALTA Surveys.

Bayside Drive Topographic Survey, Newport Beach, CA
CL Survey performed a field topographic survey of a 1.3-mile segment of Bayside Drive from East Coast Highway to Jamboree Road-Marine Avenue in the city of Newport Beach. The roadway is a secondary arterial that serves as direct access to homes, a collector for several neighborhoods, bypass to Coast Highway, and scenic pedestrian and bicycle corridor. They performed a field topographic survey of the proposed project site to document existing site topography and planimetrics. Substantial visible improvements were located within the street right of way, including utilities, manholes, valve covers, utility vaults and covers, sign posts, signs, trees, utility poles, traffic signal poles, cross gutters, local depressions, catch basins, driveway openings, sidewalks, corner access ramps, fire hydrants, parkway drains, etc. Visible indications of surface utilities lying within the project limits were located, as will accurate lid/rim elevations for drainage structures present. Street cross sections were taken at 25-foot intervals. The standard cross-sectional data will consist of a back of walk elevation, Top of Curb, Flow Line, Gutter Lip, and crown for both sides of the street.

Anza Avenue Rehabilitation - Torrance, CA - Performed a field topographic survey of Anza Avenue in the city of Torrance. Anza Avenue is a north-south arterial that serves Torrance and the South Bay region. The segment from 190th St to Sepulveda Boulevard is a four-lane roadway with center turn lanes and carries approximately 26,000 vehicles per day. Performed a field topographic survey of the proposed site to document existing site topography and planimetrics. Substantial visible improvements were located within the street right of way, including utilities, manholes, valve covers, utility vaults and covers, sign posts, signs, trees, utility poles, traffic signal poles, cross gutters, local depressions, catch basins, driveway openings, sidewalks, corner access ramps, fire hydrants, parkway drains, etc. In addition, the horizontal location of all existing striping, STOP Bars, etc. were also horizontally located. Visible indications of surface utilities lying within the project limits were located, as will accurate lid/rim elevations for drainage structures present. Cross Section elevations were taken at 50-foot intervals.The standard cross-sectional data consisted of a back of walk elevation, Top of Curb, Flow Line, Gutter Lip, ¼ point and crown for both sides of the street. This topographic survey extended to a minimum of 50 feet beyond the project limits and side streets.

City of Long Beach, Various Annual Street Improvements, Long Beach, CA
Provided survey services for the improvements on streets and alleys within the City of Long Beach. Services include monument preservation, construction staking for curb and gutter, drainage and bus pads.

Long Beach Airport – Taxiway A, D, & J (Long Beach, CA)
CL Surveying was responsible for providing survey services for the improvements on Taxiway A and D. Improvements includes full reconstruction of both Taxiway A & D along with rough grading and drainage.

Long Beach Airport – Runway 7L-25R – Long Beach, CA: CL Surveying was responsible for providing construction survey services for the improvements on Runway 7L-25R. Improvements include full reconstruction of Runway 7L-25R along with rough grading and drainage.

DIAZ•YOURMAN & ASSOCIATES
Geotechnical Services

S. Niranjanan, PE, GE
Geotechnical Manager

Emphasis

- Street Widenings and Improvements
- New Pavements and Pavement Rehabilitation
- Pedestrian Crossings
- Bike Paths
- Project Management

Education

2000/Master of Civil Engineering/Civil Engineering/Washington State University

1997/Bachelor of Science/Civil Engineering/University of Peradeniya Sri Lanka

Professional Registration

2009/Geotechnical Engineer/CA/2819

2004/Professional Engineer/CA/67023

Memberships

American Society of Civil Engineers

Professional Overview

Mr. Niranjanan is a registered geotechnical engineer with over 17 years of geotechnical engineering project experience, including pavement evaluation and rehabilitation, street widenings, bike paths, highway improvements, sound walls and retaining walls, buildings, bridges, grade separations and other transportation infrastructure projects. He has coordinated, performed, or directed geotechnical investigations for over 200 projects, many of which have been for Cities in Orange and Los Angeles Counties, as well as Riverside and San Bernardino Counties. He has practical experience in all aspects (design and construction) of geotechnical engineering, including site selection, field investigations, engineering analyses, recommendations, construction observation and testing, and preparation of geotechnical reports and recommendations.

Professional Experience

OCTA OC Streetcar Project, Santa Ana, CA – Geotechnical manager for the design and construction of a two-track streetcar system from the Santa Ana Regional Transportation Center in Santa Ana to the proposed Regional Transit Connection and station in Garden Grove, approximately 4 miles long. The project includes design and construction of a 2-story maintenance and storage facility building and two new bridge structures (Santa Ana Bridge and Westminster Avenue undercrossing). The maintenance and storage facility is planned to house all light revenue maintenance functions, including operations. This will accommodate administration, operations, maintenance, repair bays, and parts storage. A maintenance building, a wash building, parking lots, and a fire lane are proposed for this facility. Responsible for reviewing existing geotechnical/geological data, coordinating permitting process for geotechnical encroachment permits from various agencies such as OCTA, City of Santa Ana, and County of Orange, coordinating subsurface explorations, assigning laboratory testing performed engineering analyses, attending design meetings, and preparing geotechnical reports with geotechnical recommendations in accordance with Caltrans guidelines.

Jamboree/Barranca Interchange Improvement, Irvine, CA – Geotechnical project engineer for improvements to the Jamboree/Barranca intersection in Irvine. The improvements include the addition of a fifth northbound lane on Jamboree Road, approximately 1,000 feet long; addition of a right-turn pocket from northbound Jamboree Road into the Griswold property; construction of new pavement, curb and gutter, sidewalk, and access ramps; and relocation of a storm drain. DYA's services included securing encroachment permits, conducting a geotechnical subsurface exploration, performing laboratory tests on selected soil samples, performing engineering analyses to develop conclusions and recommendations regarding subsurface conditions, site preparation and grading, bedding and backfill, pavement thickness for new pavements, and soil corrosion potential; and preparing a geotechnical report. Mr. Niranjanan coordinated the field investigation and conducted analyses.

Bristol Street and Baker Street Intersection Improvements, Costa Mesa, CA – Geotechnical manager for the addition of a third eastbound and westbound through lane on Baker Street approximately 200 feet long in both directions west of the intersection of Bristol Street and Baker Street. DYA performed a subsurface investigation, laboratory testing, engineering analyses, and a geotechnical report with recommendations for earthwork and grading, corrosion potential and new flexible and rigid pavement sections. Mr. Niranjanan developed and coordinated the field investigation and analyses and prepared the geotechnical report with recommendations.

EXHIBIT B

MARK THOMAS

RATE SCHEDULE (S)

EXHIBIT A

Mark Thomas & Company, Inc. Rate Schedule

Expires June 30, 2018*

HOURLY CHARGE RATES

Engineering Services

Sr. Principal	$369
Principal	$340
Sr. Engineering Manager	$288
Engineering Manager	$247
Practice Area Leader	$247
Sr. Project Manager	$208
Sr. Technical Lead	$208
Project Manager	$172
Technical Lead	$172
Sr. Project Engineer	$145
Sr. Technical Engineer	$145
Project Engineer	$125
Design Engineer II	$111
Design Engineer I	$90
Sr. Technician	$106
Technician	$77
Intern	$52

Urban Planning/Landscape Architecture Services

Sr. LAUD Division Manager	$217
LAUD Division Manager	$184
Sr. LAUD Project Manager	$162
LAUD Project Manager	$147
Sr. Project Landscape Architect	$111
Project Landscape Architect	$96
Landscape Designer	$75
Intern	$52

Special Services

Sr. Inspector	$108
Inspector	$78
Expert Witness	$390
Strategic Consulting	$390

Survey Services

Sr. Survey Manager	$205
Survey Manager	$185
Sr. Project Surveyor	$165
Project Surveyor	$145
Sr. Surveyor	$125
Surveyor	$110
Lead Survey Technician	$135
Sr. Survey Technician	$110
Survey Technician	$90
Survey Intern	$60
Single Chief	$120
Single Chainman	$105
Apprentice	$70
1 Person Field Crew	$160
2 Person Field Crew	$240
3 Person Field Crew	$330

Project Support/Coordination Services

Sr. Project Accountant	$111
Project Accountant	$90
Sr. Project Coordinator	$108
Project Coordinator	$86
Sr. Project Assistant	$81
Project Assistant	$58
Sr. Technical Writer	$94
Technical Writer	$58
Sr. Graphic Designer	$101
Graphic Designer	$72

Grant Writing Services

Sr. Funding Specialist	$150
Funding Specialist	$120

OTHER DIRECT COSTS

Reimbursables including, but not limited to:

Reproductions, Filing Fees and Field Expenses	Cost Plus 5%
Mileage	Per IRS Rate
Outside Consultant Fees	Cost Plus 5%

**Rates subject to escalation with new hourly rate schedule as of July 1, 2018*

25E-652

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (GENERAL ENGINEERING)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between Willdan Engineering ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of nine (9) consultants selected to provide services for general engineering projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $2,000,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be

expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in

any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees, for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana

20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: Willdan Engineering
2401 East Katella Avenue, Suite 300
Anaheim, CA 92806
Attn: David Hunt, PE, Senior Vice President / Director of Engineering

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall

be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

EXHIBIT A

COPY

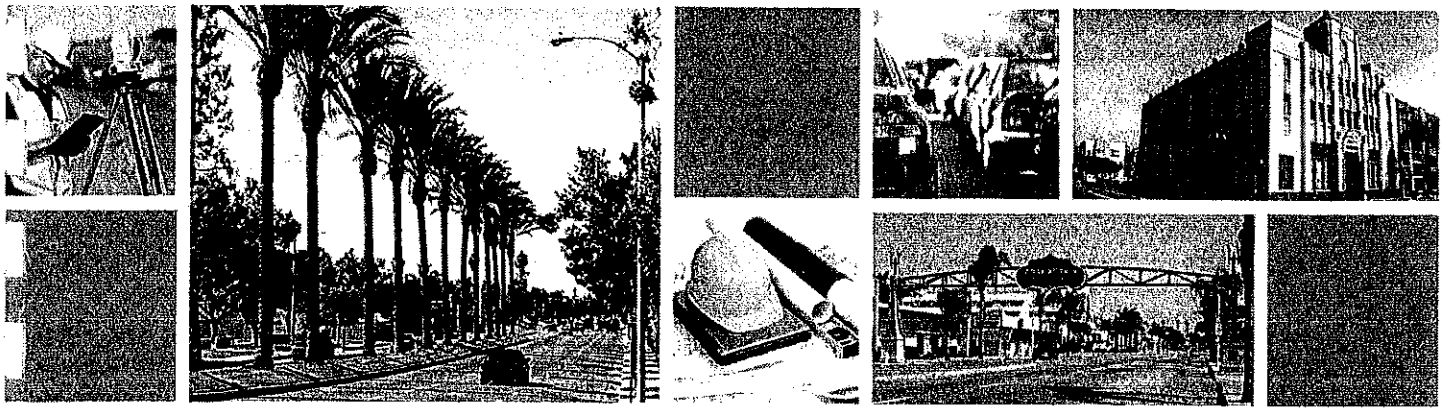
City of Santa Ana

Proposal

On-Call Engineering Services

RFP No. 17-083

March 20, 2018



WILLDAN

25E-661

WILLDAN

Cover Letter

March 20, 2018

City of Santa Ana
Attn.: Armando Fernandez
Public Works Agency;
20 Civic Center Plaza; 3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

Subject: Proposal for On-Call Engineering Services, RFP No. 17-083

The City of Santa Ana is seeking civil engineering consultants to retain on as-needed or on-call basis for general engineering design. Willdan has been providing on-call civil engineering services for over 53 years and is well suited to partnering with the City to achieve a fast-track approach for their large range of improvement projects. Willdan's proposed team members are experienced working together as an integral part of municipal agency on-call improvement projects such as with the City of Lakewood, the City of Paramount, the City of Los Alamitos, the City of Brea, the City of San Juan Capistrano, and the city of South Gate. The advantages Willdan's project team brings to the City include:

- **Strong Project Manager.** Mr. Tyrone Peter will act as Project Manager. In his 11-year career, Mr. Peter has acquired comprehensive public works experience including project management, design and construction support of roadways, traffic signals, waterlines, sewer lines and drainage systems projects. He has worked directly for public agencies providing engineering services to various cities within Orange, Los Angeles, Fresno, Riverside, San Diego, San Bernardino counties. This extensive experience working with local agencies will be invaluable in providing the perspectives needed to assist the City with the services and projects awarded.
- **No Learning Curve.** Our technical personnel have a thorough knowledge of engineering principles and infrastructure performance requirements. This includes updating our working knowledge of applicable regulations, standards, practice manuals, design guides and criteria, City of Santa Ana Municipal Code and specifications available through Caltrans, APWA, AWWA, CWA, SDWA, CDPH, ADA, and California Title 24.
- **Proven Ability to Deliver Requested Services While Supporting City's Goals.** The City has a firm commitment to the ideal of a quality community. This ideal underpins the City's goals and objectives and requires a very high standard of integrity at all levels. From fiscal responsibility to responding to community concerns, the expectation is for excellence. Willdan is the right firm to help the City achieve these commitments and expectations as they are directly in line with our internal goals of providing the highest level of service to our clients. Willdan has a reputation as an exceptional problem solver and client advocate whose business model centers around our clients' best interests.

We look forward to working with the City to implement as-needed public work improvements. If there are any questions regarding our submittal, please contact Mr. Peter by mail at Willdan Engineering, 2401 East Katella Avenue, Suite 300, Anaheim, CA 92806; by phone at (714) 940-6300; by cell phone at (714) 393-1963; or by email at tpeter@willdan.com.

Respectfully submitted,

Willdan Engineering

David Hunt, PE
Senior Vice President/Director of Engineering

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* The City of Santa Ana did not agree to the below stated contract changes, and they were not included in the final agreement considered for approval by the City Council.

City of Santa Ana

Contract Agreement Statement

Willdan has reviewed the Standard Agreement and shall meet these requirements upon selection with the following wording suggested by our corporate attorney that is summarized below.

Section 2 – Compensation, Paragraph B.

Recommend change to 30 days.

b. Payment by City shall be made within 45 days (forty-five) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals which may reasonably be expected by City.

Section 4 – Prevailing Wage

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wages rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

Delete: "agents"

Section 6 – Ownership of Materials

be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Add: "Consultant shall be indemnified and defended against any damages resulting from any use not within the purposes intended by this Agreement, including the release of this material to third parties for a use not intended by this Agreement."

at Consultant shall maintain and as described below:

shall maintain commercial general

Section 7 - Insurance

liability insurance naming the City, its officers, employees, agents, and Delete: "agents" representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, and Delete: "agents" tional insured(s); (b) be primary and not contributory with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

Section 8 - Indemnification

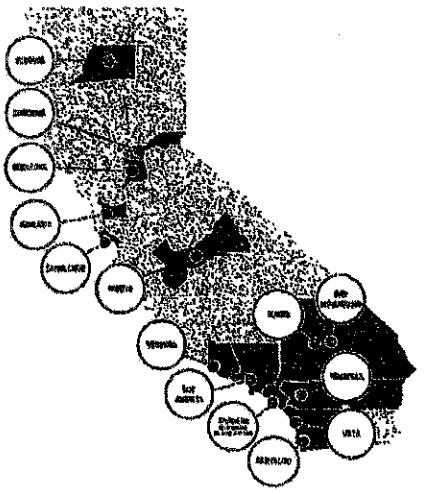
8. INDEMNIFICATION

Delete: "agents"

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, contractors, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for proper Delete: "agents" rise from the negligent operations of the Consultant, its subcontractors, agents, employees, or other persons acting on its behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suff Add: "reasonable" pyents referred t effects, arising from this Agreement. The Consultant pay all costs for the defense of the City, including fees City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

Delete this sentence: "regarding any action by a third party challenging the validity of this Agreement, or"

Firm and Team Experience



Company Profile

Founded in 1964 with the specific intent of providing municipal consulting services, Willdan Engineering (Willdan), a California corporation, is a subsidiary of Willdan Group, Inc. (WGI), a publicly-traded company. Willdan has supported implementation of community visions through engineering, planning, construction management, construction inspection, building safety, and staff augmentation services. Willdan has completed various types of projects for over 60 percent of the cities and counties in California.

Firm Background and Qualifications

Willdan offers a full complement of consulting services that encompass civil, structural, traffic, structural, right-of-way, geotechnical, and special district engineering; municipal planning; public works inspection; construction management; and building safety. Willdan has a broad understanding of public agency needs and issues. Additionally, many provide the added value of having served in public agency management positions prior to joining Willdan. With this depth of experience, expertise, knowledge, and resources, Willdan offers comprehensive solutions that are timely, cost effective, and tailored to meet individual community needs.

Firm Core Competencies

Willdan's expertise in the core disciplines necessary to provide on-call services to the City of Santa Ana is presented herein.

Survey and Right-of-Way Engineering

Willdan provides a wide range of surveying, mapping, and right-of-way engineering services for major transportation improvements, street widenings, sewer and water improvements, urban redevelopment, final and parcel maps, and legal descriptions. Field services provided by Willdan and/or our subconsultants include conducting boundary surveys and/or research, topographic base mapping, right-of-way easement stakeout, construction staking, and site surveys.

Geotechnical Engineering

Willdan provides a full gamut of geotechnical studies, engineering geology, and materials testing and inspection, including subsurface exploration, geologic and seismic hazard assessment, soil testing, engineering and pavement analyses and designs, construction support (soils and materials testing and inspection), and special studies. Willdan's soils and materials testing laboratory is licensed by the City of Los Angeles and by Caltrans, and participates in the AMRL and CCRL proficiency programs.

Pavement Engineering/Management

Willdan has been at the forefront for many years in developing new and more cost-effective approaches to rehabilitating pavement structures of deteriorated streets. Design specifications have been tested and refined for various processes using methods and materials proven to be economical and effective in their application. Through our roles as city engineer for various agencies, Willdan receives important feedback regarding the most efficient construction materials and methods to implement for each type of condition encountered, actual performance of each different rehabilitation method over extended periods – what is sustainable, and field conditions discovered during construction that warrant special contract provisions.

Civil Engineering

Willdan's civil engineers offer a full complement of roadway and highway design, including feasibility studies (site evaluation/grading/earthwork), project study and project reports, final design plans and specifications, erosion control and site remediation, storm water management, NPDES compliance, utility conflict analysis, ADA analysis and compliance, value engineering analysis, cost estimating and scheduling, and constructability review. Willdan provides assistance during bidding and provides engineering support during construction.

Structural Engineering

Willdan provides complete structural engineering support for design, analysis, inspection, and evaluation of structural systems such as bridges, sound walls, retaining walls, and buildings. Our specific bridge expertise encompasses an extensive working knowledge of all related agency criteria and methodology for design of new bridges, bridge rehabilitations, and bridge widenings. We are current on the latest requirements for seismic analysis and design procedures. In addition, our staff has in-depth knowledge of various federal, state, and local requirements for preparing project development documents, design and construction documents, and approval processing. In addition to their design expertise, our structures staff has also had tremendous success obtaining HBP funds.

Traffic Engineering

Willdan's traffic engineers serve as contract city traffic engineers or provide traffic engineering services throughout California. They are experts in conducting traffic surveys and data collection, investigating motorist and vehicle characteristics, identifying and making recommendations on traffic safety and utilizing traffic laws and enforcement to determine traffic signal timing, and evaluating highway operations. Willdan prepares traffic engineering designs to warn, regulate, and guide traffic. We develop geometric design and channelization, traffic signal and street lighting plans, parking lot designs, and traffic control plans for construction.

Drainage Engineering

Willdan has expertise in hydrology, drainage, and flood control – ranging from local and regional drainage and flood control improvements to hydraulic and sediment transport analyses of major rivers. Quality engineering solutions in drainage and stormwater management are one of the primary elements of our public works experience. Willdan has prepared many watershed and floodway studies, completed flood control and drainage engineering projects, and performed design and construction inspection services throughout California.

Water Resources Engineering

Willdan provides services for water system planning, analysis, design, construction inspection, and operational assessment involving well design, rehabilitation, and evaluation; reservoir design and rehabilitation; pump station design and modifications; modeling analysis of partial and entire systems; water transmission and distribution pipelines; and coordination with system telemetry and metering specialists. We are experienced with the Department of Water Resources, Drinking Water Division, public health agencies, and Title 22 provisions.

Environmental Compliance, Permits, and Planning Support

Willdan's environmental planners frequently assists cities in the environmental review process, either in preparing and processing CEQA/NEPA environmental documents, such as negative declarations and environmental impact reports, or in reviewing documents on behalf of the lead or responsible agencies. In providing environmental and urban planning services, we utilize our staff of planners and environmental specialists and call upon the expertise of other disciplines within the company, including traffic engineers, hydrologists, water and wastewater engineers, and landscape architects.

Landscape Architecture

Willdan's landscape architects focus on designing landscapes for public improvements such as park and recreational facilities, community centers, and roadway beautification. Our landscape architects apply their talents and knowledge of site analysis, user needs programming, site design, landscape preservation, land management and reclamation, water conservation, and arboriculture.

On-Call Contract Expertise

Current On-Call Contracts Client Cities

- *Brea*
- *San Juan Capistrano*
- *Los Alamitos*
- *South Gate*
- *Westlake Village*
- *Lakewood*
- *Paramount*
- *Calabasas*
- *Rolling Hills Estates*
- *Thousand Oaks*
- *Rialto*
- *Elk Grove*

On-call engineering services are Willdan's foundation. Our staff includes former public agency employees or contract agency staff. Therefore, we understand the importance and purpose of as-needed contracts and are very familiar with the processes and procedures for such services. Within the last seven years, Willdan has completed projects and task orders for more than 200 as-needed/on-call contracts. This experience and the relevant experience of our dedicated and available key personnel are what best suits Willdan to provide the City with on-call engineering services. Our history of working with as-needed contracts has well prepared our staff to respond to all requests for services in a positive, efficient manner. Our firm's commitment to responsive service and successful project delivery has given us a reputation as a firm that can be trusted to listen and to deliver an end product our clients envision and embrace. We begin our approach to this work by adhering to these basic principles:

- Approach each project with a spirit of resourcefulness and excellence
- Maintain high standards of technical quality
- Seek appropriate solutions that fit the project
- Conduct business with truthfulness and high ethical standards

Firm Accomplishments

Willdan has a strong reputation for completing projects on time and within budget. In addition, we are proud that our design services have resulted in numerous awards for our clients' projects. A representative list of project awards includes:

Agency Name	Project Name	Project-of-the-Year Award Category
LACMTA	Orange Line Extension	APWA Transportation
City of Rolling Hills	Palos Verdes Drive North Bike Lane Improvements	APWA Traffic Mobility and Beautification
City of Covina	Sewer System Replacements	APWA Drainage Water and Wastewater
City of Los Alamitos	Coyote Creek Park	APWA Recreation and Athletic Facilities
City of Glendale	Chevy Chase Drive 968 Reservoir	APWA Water
City of Santa Clarita	Magic Mountain Parkway/Interstate 5 Interchange Expansion	APWA Streets and Transportation
City of Fountain Valley	Recreation Center Expansion	ASCE
City of Westlake Village	Lindero Canyon Road Bridge	APWA Transportation
City of Elk Grove	Citywide LED Luminaire Installation	APWA Environmental
City of Elk Grove	Bond Road and Bader Road Intersection Signal	APWA Transportation
City of Elk Grove	Island Park Improvements	APWA Parks and Trails
City of Elk Grove	Grant Line Road Widening and Grade Separation	APWA Transportation
City of Elk Grove	Long Leaf Bridge	APWA Environmental
City of Yreka	Stormwater Attenuation and Floodplain Restoration	APWA Environmental

Project Team

Project Manager

Mr. Tyrone Peter, PE will serve as Project Manager and be responsible for delivery of services in accordance with the established scope of services for projects awarded under this on-call contract. Mr. Peter possesses a strong work ethic and leadership skills that enable him to provide clear priorities and direction in project delivery. Using his ability to assess his staff's strengths, Mr. Peter positions his team members where they can be most successful. He uses his collaborative nature to build and maintain consensus among a variety of stakeholders to the benefit of project delivery. During his career, Mr. Peter has served as Project Manager, Civil Engineering Task Leader, Supervising Engineer, Senior Engineer, Design Engineer, and Designer for over 200 street improvement projects with design contracts ranging from $5,000 to $2.9 million.

Mr. Peter develops trusting partnerships with project stakeholders through open and honest communication. He will work closely and collaboratively with the City's project representatives to determine optimal use of Willdan's project team. While a highly cost-effective team has been assembled for this project, Mr. Peter will continuously look for ways to improve efficiency and effectiveness.

Subconsultant Team

Willdan's vast staffing resources enable us to provide services with a minimum of subconsultant assistance. For this on-call contract, our in-house team will be augmented with one subconsultant – AeroTech Surveys, Inc. for field and aerial surveys and electrical engineering. Willdan ensures all subconsultants provide the same caliber of performance that Willdan provides by holding our subconsultants accountable to Willdan's high standards of performance, scheduling, and budgetary controls. For federal-/state-funded projects, Willdan has a database of disadvantaged business enterprises that we will utilize to cull select specialty disciplines in support of the City's stated project DBE goal.

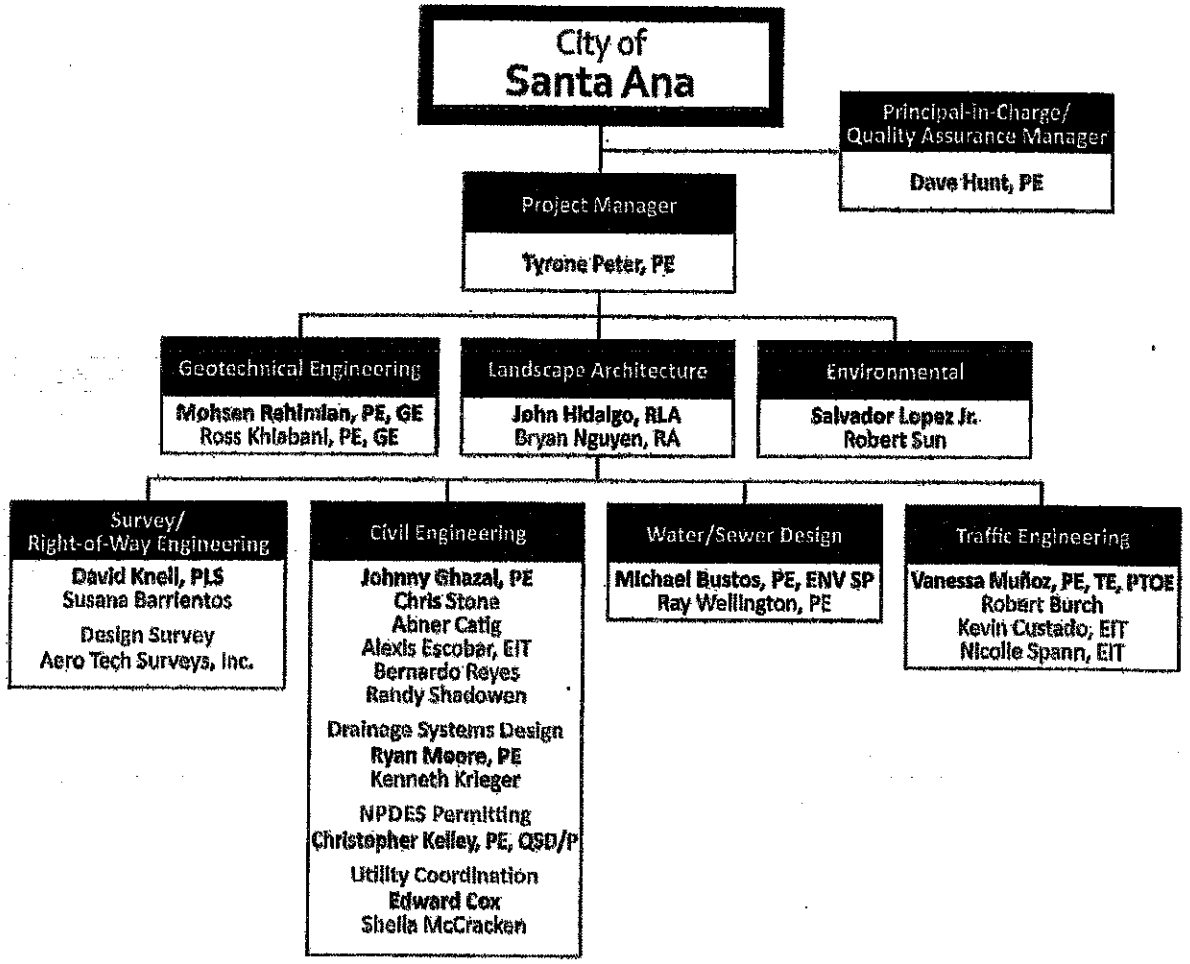
AeroTech Surveys, Inc.

Schmidt Geomatic Mapping, Inc., doing business as AeroTech Surveys, is a California corporation founded 41 years ago. It is a state-certified woman-owned small business enterprise. The firm provides aerial mapping services supported with land surveying services. Under the direction of a California-licensed land surveyor, the staff at AeroTech provides comprehensive services to meet client mapping needs. They plan the aerial control layouts, flight coverage, imagery acquisition, photogrammetric mapping, and CAD editing. AeroTech's survey crews set and survey the aerial control network and provide site-specific surveys. Project capabilities include monument recovery, monument preservation, baseline control networks, benchmark elevation surveys, alignment surveys, cross sections, deformation surveys, and more.

Project Organization

The organization chart presented below identifies our key personnel and illustrates the communication and reporting relationships and project roles for Willdan's key team. This chart illustrates current Willdan employees and represents the depth of technical support personnel that may be utilized for an on-call project award. This is far from an exhaustive list of our staff resources. Willdan understands that key staff cannot be replaced without consent of the City. Our organization chart includes our two subconsultants and depicts their line of reporting and communication.

Resumes for Key staff have been included on the following page.



Tyrone Peter, PE
Project Manager
Profile Summary

Education: BS, Engineering and Civil Engineering, Tamil Nadu College of Engineering
Civil Engineering, Murugappa Polytechnic

Registration: Civil Engineer, California No. 81888

Affiliations: American Public Works Association
American Society of Civil Engineers

Experience: 11 Years

Mr. Tyrone Peter is an accomplished civil engineer for multi-discipline and multi-agency infrastructure projects and is known for providing innovative, quality engineering services to ensure project delivery within budget and schedule. As the project manager for the City's On Call Engineering Services project, with qualified staff and resources, he will be responsible for successful project delivery.

Mr. Peter's 11 plus years of experience managing and designing all types of public works projects provide a solid foundation to understand what is needed to deliver a successful project and make him the perfect fit for overseeing the entire project as well as specific civil engineering tasks His comprehensive experience includes design of state highway, new street, street widening, street realignment, pavement rehabilitation, light rail and railroad, grade separation, flood control facility, water, and sewer projects. Mr. Peter has supervised feasibility study, project study report, project report, construction document preparation as well as grade certification issuance, construction administration, and construction inspection.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Civil Engineering Task Leader responsible for oversight of all civil engineering services and preparing necessary reports, plans, specifications, and estimates documentation. Performance of these responsibilities required expertise and knowledge in street, traffic, drainage, structural, and pavement design, ADA standards, public outreach, pedestrian safety, and water quality. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Project Manager responsible for overall project management and oversight required for the corridor improvements from Alameda Street to Hunt Avenue. Performance of these responsibilities required expertise and knowledge in street and pavement design, ADA standards, public outreach, environmental documentation, Green Street design, and watershed management planning. The improvements involved increasing traffic capacity by reconfiguring the roadway from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Civil Engineering Task Leader responsible for providing and overseeing all civil improvement design required for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Performance of these responsibilities required expertise and knowledge in intersection design, bike lanes, ADA standards, street geometric design, light-rail standards, parking lot and roadside safety design. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians, irrigation system, ADA access curb ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping. Three stations were constructed or reconstructed.

Los Alamitos Boulevard Median Improvements, City of Los Alamitos, California. Project Manager responsible for overall project management and oversight required for the improvements between Cerritos Avenue and Katella Avenue. Performance of these responsibilities required expertise and knowledge in street improvement, pavement rehabilitation, public outreach, signing and striping, street lights, and planting and irrigation. Improvements involved raised median, pavement delineation, landscape and irrigation improvements, street lighting and traffic signal improvements at intersections with Florista Street and Sausalito Street. There was minor traffic signal modification at intersections with Katella Avenue and Cerritos Avenue.

Placentia MetroLink Station Phase I and II, Orange County Transportation Authority, Orange County, California. Project Manager responsible for providing and overseeing all civil improvement design required for infrastructure improvements for the new station. The project site involved approximately 4.75 acres to provide a MetroLink commuter rail station that meets current and future transit demand and ADA requirements. The project goal fostered train ridership growth in the region. The station was planned as part of a key component of transit-oriented development envisioned in the Westgate Specific Plan for the City of Placentia. The project improvements included street, railroad track, and pedestrian improvements; rail platforms; and lighting, signing and striping of four parking facilities for 425 vehicles.

Downs Street Widening, City of Ridgecrest, California. Civil Engineering Task Leader responsible for providing and overseeing all civil improvement design required for the widening improvements. Performance of these responsibilities required expertise and knowledge in alternative pavement design, benefit/cost analysis, right-of-way engineering, street design, and utility coordination. The project includes environmental compliance, right-of-way research, and design. The project limits are Upjohn Avenue and Ridgecrest Boulevard. Improvements include street widening and new curb, gutter, curb ramps, and sidewalks. The preliminary engineering services include utility research, right-of-way research, field investigations, soils testing, and ground survey.

Street Improvements Phase II, City of Los Alamitos, California. Project Manager responsible for overall project management and oversight required for resurfacing of the following projects in the Phase II city-wide program:

- Via El Mercado Street Improvements
- Old Town West Improvements (Chestnut Street, Walnut Street, Florista Street)
- Commercial Street Improvements (Cerritos Avenue, Ball Road, Reagan Street, Humboldt Street, Portal Drive, Winners Circle, Los Alamitos Boulevard, Los Vaqueros Circle)

Performance of these responsibilities required expertise and knowledge in pavement rehabilitation strategies, ADA standards, and signing and striping. Willdan conducted site reconnaissance to observe the pavement condition, conducted coring, testing and engineering analysis and summarized the findings in a geotechnical report. Per the recommendation, the City streets within the project limits were ground and resurfaced with 2-inch thick asphalt-rubber hot mix or removed and replaced with asphalt concrete over aggregate base or with joint plain cement concrete. All manhole, water valve, anode, and monitoring well covers within the project limits were adjusted to grade. Curbs and driveways were protected in place. Sidewalks were improved and ramps were improved to current ADA requirements.

David Knell, PLS

Survey and Right-of-Way Engineering Task Leader

Profile Summary

Education: BS, Cartography, Boston University, Boston
Civil Engineering and Land Surveying Classes, California State University, Long Beach

Registration: Land Surveyor, California No. 5301

Affiliations: California Land Surveyors Association
Southern California Experts & Consultants

Experience: 41 Years

Mr. David Knell has been involved in preparing and checking numerous parcel maps and tract maps, ALTA surveys, records-of-survey, lot line adjustments, parcel map waivers, certificates of compliance, and boundary determination. He is responsible for preparing legal descriptions and sketches for a wide range of easements involving utilities, air space reservations, and construction projects. Mr. Knell works with major utilities and title companies in determining easements and correcting defective legal descriptions. His experience includes supervising field crews, overseeing an office staff dealing with various survey projects, and extensive experience with local, state, and federal agencies.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Survey and Right-of-Way Engineering Task Leader responsible for oversight of all office and field survey services and preparing necessary right-of-way engineering documentation. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Survey Task Leader responsible for providing and overseeing all mapping and right-of-way engineering required for the corridor improvements from Alameda Street to Hunt Avenue. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Survey Task Leader responsible for providing and overseeing all mapping and right-of-way engineering required for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians; irrigation system, ADA access curb ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping.

Los Alamitos Boulevard Median Improvements, City of Los Alamitos, California. Survey Task Leader responsible for providing and overseeing all mapping and right-of-way engineering required for the improvements between Cerritos Avenue and Katella Avenue. Improvements involved raised median, pavement delineation, landscape and irrigation improvements, street lighting and traffic signal improvements at intersections with Florista Street and Sausalito Street. There was also minor traffic signal modification at intersections with Katella Avenue and Cerritos Avenue.

Mohsen Rahimian, PE, GE
Material Testing Engineer
Profile Summary
Education: MS, Civil Engineering, Tehran University, Tehran
Registration: Civil Engineer, California, No. 73396
Geotechnical Engineer, California, No. 3059
Experience: 29 Years

Mr. Mohsen Rahimian possesses expertise in geotechnical and material engineering, testing, investigation, design, and construction and has lent that expertise to a wide spectrum of public works projects. Mr. Rahimian has substantial experience in conducting and managing geotechnical and material testing and inspection services during construction. He has performed diversified geotechnical assignments, including pavement design, shallow and deep foundation design, settlement evaluations, liquefaction studies, and slope stability analyses. Mr. Rahimian experience includes geotechnical, civil, and structural design and construction management.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Geotechnical Engineer responsible for quality assurance materials testing. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Placentia MetroLink Station Phase I and II, Orange County Transportation Authority, Orange County, California. Geotechnical Engineer responsible for quality assurance materials testing required for infrastructure improvements for the new station. The project site involved approximately 4.75 acres to provide a MetroLink commuter rail station that meets current and future transit demand and ADA requirements. The project goal fostered train ridership growth in the region. The station was planned as part of a key component of transit-oriented development envisioned in the Westgate Specific Plan for the City of Placentia. The project improvements included street, railroad track, and pedestrian improvements; rail platforms; and lighting, signing and striping of four parking facilities for 425 vehicles.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Geotechnical Engineer responsible for quality assurance materials testing required for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians, irrigation system, ADA access curb ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping.

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Geotechnical Engineer responsible for quality assurance materials testing required for the corridor improvements from Alameda Street to Hunt Avenue. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Johnny Ghazal, PE, QSD
Civil Engineering Task Leader
Profile Summary

Education: BS, Civil Engineering, California Polytechnic State University, Pomona

Registration: Civil Engineer, California No. 76395
Qualified SWPPP Developer/Practitioner, California Stormwater Quality Association No. 849

Affiliations: American Society of Civil Engineers

Experience: 14 Years

Mr. Johnny Ghazal possesses diversified civil engineering experience throughout California covering public works and private sector projects, preceded by six years of residential and commercial construction experience. His private sector experience includes designing master-planned communities involving tentative tract maps; grading plans; improvement plans for streets, water, and sewer; and storm drain facilities. Mr. Ghazal's experience includes design of capital improvement projects for street, water, sewer, and storm drain improvements.

As a certified QSD, Mr. Ghazal has facilitated water quality related permitting – having prepared and reviewed many storm water pollution prevention plans and water quality management plans for various public agencies. He currently assists multiple agencies with data entry on the State's SMARTS system.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Civil Design Engineer responsible for assisting with drainage and other civil improvement design. Performance of these responsibilities requires expertise and knowledge in City and County standards, guidelines, and procedures and hydrology and hydraulic modeling. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Civil Design Engineer responsible for assisting with drainage and other civil improvement design for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Performance of these responsibilities required expertise and knowledge with City and County standards, guidelines, and procedures; trail design. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians, irrigation system, ADA access curb ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping. Three stations were constructed or reconstructed.

Ninth Street Safety Improvements, City of Highland, California. Civil Design Engineer responsible for assisting with drainage and other civil improvement design for street widening at specific locations. Performance of these responsibilities required expertise and knowledge in highway design, pavement rehabilitation strategies, and addressing impacts to private properties for transitioning the improvements. Project improvements involved slurry sealing the project limits; restriping the project limits to incorporate two 13-foot through lanes, one 12-foot two-way left-turn lane, 5-foot Class II bicycle lanes; and 8-foot parking lanes; installing pedestrian count-down heads at five signalized intersections; and installing an in-pavement roadway lighting system with advance flashing beacons. Services provided include civil, traffic, pavement, and drainage engineering, survey and right-of-way engineering, utility coordination and relocation, and landscape architecture.

Gary Gordon, PE
Structural Engineering Task Leader
Profile Summary

Education: BS, Civil Engineering, California State University, Chico
Registration: Civil Engineer, California No. 42176
Affiliations: American Public Works Association
American Society of Civil Engineers
American Concrete Institute
Experience: 32 Years

Mr. Gary Gordon has 32 years of comprehensive experience, including project management, design, and construction management of bridge, roadway, traffic signal, waterline, sewer, drainage, and airport projects. In 2015, Mr. Gordon was placed in charge of Willdan' bridge and structural engineering team. With this new assignment, he now oversees projects such as Mariposa County's rehabilitation/replacement of five bridges that is currently in the preliminary engineering phase.

Mr. Gordon's career includes serving as a staff member of the Shasta County Department of Public Works, Caltrans Division of Structures, and the City of Redding's Department of Public Works performing detailed and complex design, construction management, and division management and supervision. Throughout his career, Mr. Gordon's focus has been on the delivery of road and bridge projects and the various appurtenances associated with them.

Mr. Gordon has dealt with complex environmental compliance issues involving CEQA and NEPA as well as developed considerable experience with resource agency permitting issues. The experience and insight gained from working directly with these agencies have proven invaluable in understanding and appreciating the varying needs of the different types of agencies that Willdan serves and developing the best solutions for those needs.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Structural Engineering Task Leader responsible for responding to structural requests for information during construction and redesigning various structural elements to accommodate utility lines discovered during construction. Performance of these responsibilities requires expertise and knowledge in various structural building codes such as ACI, AASHTO, and CBC as well as construction practices and principles. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Lakewood Boulevard/Del Amo Boulevard Hot Spot Intersection Improvement, City of Lakewood, California. Structure Engineering Task Leader responsible for overall structural design of culvert structural and retaining walls. Performance of these responsibilities requires expertise and knowledge in various design codes such as ACI and LACFCD for work within a concrete channel under Los Angeles County Flood Control District jurisdiction. The project entailed widening Lakewood Boulevard north of Del Amo Boulevard; modifying/replacing median islands; widening Del Amo Boulevard; modifying traffic signals; relocating street lights per street/median island modifications; modifying a box culvert/channel wall; and extending a Class II bike lane.

John Hidalgo, RLA
Landscape Architecture Task Leader
Profile Summary

Education: BS, Landscape Architecture, California State Polytechnic University, Pomona
European Study Tour, California Polytechnic State University, School of Architecture, Pomona

Registration: Landscape Architect, California No. 35511
Licensed Contractor, California C-27 No. 713613

Affiliations: American Society of Landscape Architects
California Parks and Recreation Society
California Landscape Contractors Association

Experience: 24 Years

Mr. John Hidalgo possesses in-depth expertise in landscape architecture design development, preparation of plans and specifications, plan reviews, and construction observation. Mr. Hidalgo is familiar with various local, state, and federal codes, regulations, procedures, and standards relating to construction, safety, park and facility planning, and other landscape and irrigation amenities. He has successfully completed projects in compliance with these various standards. Mr. Hidalgo has experience representing project owners during the plan review process. He possesses comprehensive experience in both field observation and construction. Mr. Hidalgo responsibilities include managing park and street beautification design, low-impact developments, plan reviews, and construction observation.

Relevant Project Experience

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Landscape Architecture Task Leader responsible for providing and overseeing all landscape and irrigation design required for the corridor improvements from Alameda Street to Hunt Avenue. Performance of these responsibilities required expertise and knowledge in current landscape design ideas for drought-adaptive landscape and irrigation technology. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Landscape Architecture Task Leader responsible for providing and overseeing all landscape and irrigation design required for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Performance of these responsibilities required expertise and knowledge in working with the City of Los Angeles and the Metropolitan Transportation Authority guidelines and procedures. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians, irrigation system, ADA access cur b ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping.

Los Alamitos Boulevard Median Improvements, City of Los Alamitos, California. Landscape Architecture Task Leader responsible for providing and overseeing all landscape and irrigation design – along with illustrative graphic concept presentations to the City Council – required for the improvements between Cerritos Avenue and Katella Avenue. Performance of these responsibilities required expertise and knowledge in graphic design and photographic view simulations of before-and-after scenarios. Improvements involved raised median, pavement delineation, landscape and irrigation improvements, street lighting and traffic signal improvements at intersections with Florista Street and Sausalito Street.

Vanessa Muñoz, PE, TE, PTOE
Traffic Engineering Task Leader
Profile Summary

Education: BS, Civil Engineering, California Polytechnic State University, Pomona

Registration: Professional Traffic Operations Engineer
Civil Engineer, California, No. 67583
Traffic Engineer, California, No. 2341

Affiliations: City Traffic Engineers
American Public Works Association
Institute of Transportation Engineers

Experience: 19 Years

Ms. Vanessa Muñoz is an accomplished engineer with experience in multi-discipline and multi-agency traffic and transportation projects. She has supervised completion of over 1,000 projects, for a variety of large- to small-scale projects and has designed over 500 signalized intersections for client cities, outside agencies, and Caltrans. She is responsible for analysis, coordination, and preparation of plans, specifications, and estimate for traffic signals, signing, striping, traffic control, flashing beacons, street lighting, interconnect, parking lots, street widening and resurfacing projects.

Ms. Muñoz has secured funding through the Safe Routes to School and Highway Safety Improvement Program (HSIP) grants and has managed projects that include federal funds such as SRTS, HSIP, ARRA, STIP, and STPL. She is extremely familiar with the Local Assistance Procedures Manual, has coordinated approvals of NEPA/CEQA, and understands procedures for allocation of construction funds and issuance of the E-76 form.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Project Manager/ Traffic Engineering Task Leader responsible for overall project management and oversight in addition to oversight of all traffic engineering services and preparing necessary reports, plans, specifications, and estimates documentation. Performance of these responsibilities requires expertise and knowledge in traffic signal design, traffic impact analysis, street lighting, traffic signal intra-communication, and pedestrian safety, and vehicular ingress/egress safety. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Traffic Engineering Task Leader responsible for providing and overseeing all traffic engineering services required for the corridor improvements from Alameda Street to Hunt Avenue. Performance of these responsibilities required expertise and knowledge in traffic signal design, traffic impact analysis, street lighting, and traffic signal intra-communication. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Salvador Lopez
Environmental Task Leader
Profile Summary
Education: BS, Urban and Regional Planning, California State Polytechnic University, Pomona
Experience: 18 Years

Mr. Salvador Lopez has more than 18 years of planning experience that spans all aspects of planning, including current, advance, and environmental planning, as well as active transportation planning and housing and community development. He is highly experienced at managing multi-disciplinary teams in the development of policy and long-range planning documents for public agencies.

Relevant Project Experience

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Environmental Compliance Task Leader responsible for providing and overseeing all environmental services required for the corridor improvements from Alameda Street to Hunt Avenue. Performance of these responsibilities requires expertise and knowledge in City and County standards, policies, and procedures; general plan practices; and NEPA/CEQA conformance. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Garfield Avenue Corridor Improvements, City of Paramount, California. Environmental Compliance Task Leader responsible for providing and overseeing all environmental services required for street improvements between the north City and the south City limits. The design involved street widening to accommodate a third lane in each direction; street resurfacing; two concrete intersections; concrete sidewalk, curb and gutter, and driveway approach reconstruction; catch basin construction; streetscape improvements for raised landscaped medians and modifications to existing medians; two entry monument signs; and traffic signal modifications at nine locations along the Garfield Avenue corridor. Services included civil, traffic, and drainage engineering; survey and mapping; utility relocation; landscape architecture; and pavement management.

Lakewood Boulevard Regional Corridor Capacity Enhancement, City of Lakewood. Environmental Compliance Task Leader responsible for providing and overseeing all environmental services required for complete street/green street improvements between the north City limits and Del Amo Boulevard. Performance of these responsibilities requires expertise and knowledge in City and County standards, policies, and procedures; general plan practices; NEPA/CEQA conformance; complete streets; sustainability planning; and low-impact development standards. Improvements involved street widening and median improvements; Class II bike lanes in both directions; turn lanes; landscape planting and irrigation; overhead distribution and transmission power undergrounding; sidewalk, curb and gutter, and driveway approach reconstruction; street resurfacing; catch basin construction; storm water quality improvements to comply with Green Streets policy; bike lockers, bus shelter, and traffic signal modifications. Services provided include civil, traffic, pavement, drainage, and geotechnical engineering; landscape architecture, survey and right-of-way engineering, and utility coordination and relocation.

Michael Bustos, PE, ENV, SP

Water and Sewer Engineer Construction Manager

Profile Summary

Education: BS, Civil Engineering (Magna Cum Laude), California Polytechnic State University, San Luis Obispo
Caltrans Resident Engineer Academy

Registration: Civil Engineer, California No. 73173
Envision Sustainability Professional, Institute for Sustainable Infrastructure

Affiliations: City Traffic Engineers
American Public Works Association
Institute of Transportation Engineers

Experience: 16 Years

Mr. Michael D. Bustos is responsible for design and construction management of projects such as roadway reconstructions, drainage improvements, pipelines, pavement rehabilitation, street improvements, and grading. Mr. Bustos has served as resident engineer for over a dozen federally- and state-funded projects over the last five years. He has gained valuable experience in on-site construction management, off-site construction administration, inspection, design, and plan checking during his 13 years with Willdan.

Relevant Project Experience

Trunk Water Replacement, Morongo Band of Mission Indians, Banning, California. Project Engineer/Construction Manager. Engineer of Record responsible for preparation of plans, specifications, and estimate for construction of 16-inch water main on Porters, Morongo, and Martin Roads. Mr. Bustos also served as Construction Manager during construction, and was responsible for contract administration, materials testing, and public works observation.

Firestone/Atlantic Design, City of South Gate, California. Reclaimed Water Design Engineer. Mr. Bustos provided construction phase design support for installation of a 10-inch reclaimed water line on Firestone Blvd. The project was constructed by the City and maintained by Central Basin Municipal Water District. Willdan provided surveying, civil engineering, geotechnical engineering, and utility coordination services for street improvements on Firestone Boulevard from Dorothy Avenue to Lotta Avenue and on Atlantic Avenue from Patata Street to Branyon Avenue. As part of our design services, Willdan provided final civil plans, including street design, storm drain, sewer and water relocation, traffic signal modification and installation, signing and striping, street lighting, contract specifications, and engineer's estimate for widening both Firestone Boulevard and Atlantic Avenue. In addition, Willdan prepared a project report and cost estimates, including aerial topography and street centerlines; roadway geometrics; hydrology study; sewer study; water study; utility relocation concepts; geotechnical recommendations; turn pocket lengths; landscaping.

Rehabilitation of Well No. 25, City of South Gate, California. Project Engineer. Mr. Bustos assisted while managing the hydrogeological sub-consultant: Hopkins Groundwater Consultants, Inc. (Hopkins) in providing well rehabilitation consultation services to the City. The well had been out of service for three years due to a sanding problem. When in operation, production from the lower half of the 1,300 feet deep well was providing only 20 percent of the overall well production. Following initial consultation, Mr. Bustos and Hopkins prepared a well condition assessment to allow the City to explore their rehabilitation options, then select a method that would possibly allow the City to regain production from the perforated zones of the existing casing. Mr. Bustos facilitated well condition assessment and inspection services during well cleaning and video survey (aided by Hopkins). The completed well review provided the City with an accurate assessment of the well's current conditions and recommendations for rehabilitation. Following the well conditions review, and at the request of the City, Mr. Bustos and Hopkins prepared specifications for the City's preferred rehabilitation method.

Brief biographies for our technical support team are provided below.

Technical Support Team

Sueana Barrientos

Project Role
- Survey Analyst

Credentials Profile
- BS, Civil Engineering
- 13 Years' Experience

Background Summary
Ms. Susana Barrientos possesses strong project experience with right-of-way drawings, subdivision maps, parcel maps, tract maps, and surveys. She is experienced in preparing geometric plans, project reports, and project study reports. Mr. Barrientos is proficient with computer-aided drafting programs.

Ross Khlabani, PE, GE

Project Role
- Geotechnical and Pavement Engineering Analyst

Credentials Profile
- Civil Engineer, California No. 37156
- Geotechnical Engineer, California No. 2202
- MS, Geotechnical Engineering
- BS Equivalent, Geology
- 34 Years' Experience

Background Summary
Mr. Ross Khiabani performs diversified geotechnical engineering involving soil mechanics and foundations, soil stabilization, landslide analysis and stabilization, settlement evaluations, liquefaction studies, slope stability analyses, laboratory testing, and inspection during construction. His vast experience includes commercial, industrial, bridges, roads, freeways, and water and wastewater facilities projects.

Chris Stone

Project Role
- Civil Drafter/Designer

Credentials Profile
- Civil Engineer, Arizona, No. 55200
- Graduate Courses, Mathematics, Oregon State University and Engineering Mechanics, Montana State University
- BS, Civil Engineering, Montana State University
- 23 Years' Experience

Background Summary
Mr. Chris Stone has experience in transportation and traffic engineering, street and roadway design engineering, water and wastewater engineering, flood control hydrologic and hydraulic design engineering, tract map and parcel mapping, grading, and structural engineering. He has participated in all technical aspects of projects including preliminary engineering, construction document preparation, and reviews.

Abner Catig

Project Role
- Civil Drafter/Designer

Credentials Profile
- BS, Civil Engineering Cebu Institute of Technology, Philippines
- Los Angeles County Hydrologic Method California State University, Long Beach
- 31 Years' Experience

Background Summary
Mr. Abner Catig possesses expertise in design of flood control and drainage improvements, grading and site plans, hydrology studies, sewer improvements, storm drains, and streets and highways. He has extensive knowledge of Caltrans, Los Angeles County Department of Public Works, and Orange County Environmental Management Agency design criteria and guidelines.

Alexis Escobar, EIT

Project Role
- Civil Drafter/Designer

Credentials Profile
- Engineer-In-Training, California No. 161058
- BS, Civil Engineering, California State Polytechnic University, Pomona
- 1 Year Experience

Background Summary
Mr. Alexis Escobar is a recent graduate and has gained design experience providing engineering design assistance to projects involving street improvements, district/city entrance enhancements, parks, a new MetroLink train station, corridor enhancements, and providing on-call engineering design services.

Bernardo Reyes

Project Role
- Civil Drafter/Designer

Credentials Profile
- 12 Years' Experience

Background Summary
Mr. Bernardo Reyes is responsible for preparation of CADD drawings utilizing both MicroStation and AutoCad for public works project geometric plans and final plans, specifications, and estimates. His experience includes design of street widening, street realignments, drainage facilities, sewer improvements, and waterline improvements.

Randy Shadowen

Project Role	Credentials Profile
▪ Civil Drafter/Designer	▪ Autodesk AutoCAD Certified Professional ▪ Autodesk AutoCAD Civil 3D Certified Associate ▪ 17 Years' Experience

Background Summary

Mr. Randy. Shadowen is responsible for preparation of Micro Station and AutoCAD drawings, both for geometric plans and final construction bid documents for a variety of local street, highway and railroad projects and flood control projects and for projects on the state freeway and highway system that are subject to review by Caltrans.

Ray Wellington, PE	Credentials Profile
Project Role ▪ Water and Sewer Engineer	▪ Civil Engineer, California, No. 25131 ▪ Traffic Engineer, California No. 958 ▪ BS, Civil Engineering, California State Polytechnic University, Pomona ▪ Graduate Courses, Public Administration ▪ Technical and Managerial Seminars and Workshops ▪ Resident Engineer Academy (UC-ITS) ▪ 43 Years' Experience

Background Summary

Mr. Ray Wellington has performed numerous infrastructure planning, funding, design and construction improvement projects with specific experience in arterial roadways, local streets, and highways includes initial project planning, scoping, design oversight, right-of-way engineering, plan and specification reviews, bidding process, and construction management and inspection.

Ryan Moore, PE	Credentials Profile
Project Role ▪ Drainage Engineer	▪ Civil Engineer, California No. 82724 ▪ MS, Environmental Engineering ▪ BS, Civil Engineering ▪ 6 Years' Experience

Background Summary

Mr. Ryan Moore is responsible for designing street, drainage, regional BMP, and sewer projects. This includes preparation of hydrology and hydraulic reports, plans, specifications, and estimate for storm drain, sanitary sewer, water, street improvements and permits for various public agencies in Southern California.

Kenneth Krieger	Credentials Profile
Project Role ▪ Hydrology/Hydraulic Analyst	▪ 25 Years' Experience

Background Summary

Mr. Kenneth Krieger specializes in developing and executing hydraulic modeling software for flood control, storm drain and sewer related projects. He has performed hydrology and hydraulic calculations on numerous flood control channels, storm drains and performed capacity analysis for complete sewer systems.

Bryan Nguyen, RLA	Credentials Profile
Project Role ▪ Planting/Irrigation Architect	▪ Landscape Architect, CA No. 4967 ▪ BS, Landscape Architecture ▪ 17 Years' Experience

Background Summary

Mr. Bryan Nguyen is experienced with developing conceptual landscape plans with extensive graphic vignettes such as photographic before and after simulations; and the preparation of construction documents. Mr. Nguyen is proficient in preparing irrigation water and landscape management specification documents and performing agency contract landscape plan reviews.

Christopher Kelley, PE, QSD/P	Credentials Profile
Project Role ▪ Water Quality Engineer	▪ Civil Engineer, California No. 83179 ▪ QSD/P, CA Stormwater Quality Association No. 25874 ▪ 10 Years' Experience

Background Summary

Mr. Christopher Kelley is responsible for design and review of public works improvement projects, including streets, highways, storm drains, and water quality improvements. He designs and reviews low-impact development reports and best management practices under numerous MS4 permits to comply with the National Pollutant Discharge Elimination System MS4 Permit.

Robert Burch	Credentials Profile
Project Role	▪ AA, Liberal Arts ▪ 24 Years' Experience
▪ Traffic Designer/Drafter	▪ Post Certified Radar Operator

Background Summary

Mr. Robert Burch provides traffic design services for client cities, outside agencies, and California Department of Transportation (Caltrans) projects. Mr. Burch offers expertise in design and drafting. His experience relates to preparing plans, specifications, and estimates for traffic signals, signing and striping, street lighting, traffic control, and stage construction projects and utilizing Caltrans standards.

Kevin Custado, EIT	Credentials Profile
Project Role	▪ Engineer-in-Training, CA No. 153964 ▪ BS, Civil Engineering
▪ Traffic Designer/Drafter	▪ 2 Years' Experience

Background Summary

Mr. Kevin Custado specializes in traffic engineering investigations and planning and is knowledgeable in highway engineering processes and their application to operating systems. Mr. Custado is experienced with geometric design of transportation projects, including alignment reconfigurations, estimation of quantities, and plan and profile generation using AASHTO and Caltrans design manuals.

Nicolle Spann, EIT	Credentials Profile
Project Role	▪ Engineer-in-Training, CA No. 156551 ▪ BS, Civil Engineering
▪ Traffic Designer/Drafter	▪ 5 Years' Experience

Background Summary

Ms. Nicolle Spann specializes in traffic engineering investigations and planning. She is knowledgeable in highway engineering processes and their application to operating systems. Ms. Spann is experienced in traffic impact analyses, including trip generation, trip distribution, and level-of-service analyses. She is very experienced with authoring engineering and traffic surveys and clearly conveys her knowledge of the California MUTCD in recommending speed limits for these surveys. Ms. Spann has experience with signing, striping, and signal design.

Robert Sun	Credentials Profile
Project Role	▪ BA, Social Ecology ▪ 17 Years' Experience
▪ CEQA Exemption Specialist	

Background Summary

Mr. Robert Sun possesses experience in local government planning, emphasizing discretionary case processing and long-range advance planning programs. He prepares NEPA-related environmental studies for roadway improvement and housing projects and assists with preparing strategic plans to revitalize downtowns.

Edward Cox	Credentials Profile
Project Role	▪ United Association Local 250 Apprentice Program ▪ 33 Years' Experience
▪ Utility Coordinator	

Background Summary

Mr. Edward Cox is highly knowledgeable and experienced with utility coordination and relocation. He is adept at utility research and location; notifying utilities as required; and ensuring communication with involved utility agencies is accurate, complete, and results in successful utility relocation without delays to the improvement project.

Sheila McCracken	Credentials Profile
Project Role	▪ 25 Years' Experience
▪ Utility Coordinator	

Background Summary

Ms. Sheila McCracken assists with design and preparation of a variety of local street, highway, railroad, and flood control projects – all of which included utility research and base mapping. She has been responsible for preparing CADD drawings for geometric plans and final plans, specifications, and estimates for several projects on the state freeway and highway system requiring Caltrans review.

Understanding of Need

The City of Santa Ana's Public Works Agency is seeking experienced professional consultants to retain on as-needed or on-call basis for various general engineering design and related supporting services involving public facilities and infrastructure needs. Additionally, the City's RFP contains two 'tasks' to be addressed by selecting either Option A, Option B or both A and B by providing representational scopes of work, schedule and fee. Below is our outline that demonstrates the understanding of the work to be provided.

Scope of Work

Per the RFP, the following is a representation of how Willdan defines the scope for Water Resources projects (Option A) and General Engineering design other than Water Resources (Option B). For Tasks that are largely similar, such as Project Management, the scope has been combined for Option A and B as noted in following Task headers.

Task 1 – Project Management – *Option A and Option B*

Task 1 Deliverables
- Meeting schedules, attendance, rosters, matrix, meeting agendas and minutes
- Detailed project schedule
- Monthly project reports

Willdan understands effective project management is a necessity to maintain project control. Because of this, Willdan approaches each project with a Project Management Plan (PMP). The PMP identifies the project team, stakeholders, scope, potential project challenges, and establishes a QA/QC plan, project tasks, deliverables, and milestones. The PMP establishes regular meetings with City staff, utility companies and other participating agencies, as required, to discuss work progress, schedule, and related issues to exchange information, discuss and resolve issues, and to maintain progress of the project. The PMP is the overarching resource that ensures effective communication and complete project control. In addition, Willdan will dedicate a Project Manager to manage the performance of the project including, but not limited to, facilitating coordination between the design team, the City of Santa Ana, utility companies, and other stakeholders directly affected by the proposed project. The Project Manager will supervise, coordinate, monitor and review the project design for conformance with City standards, policies, and procedures and will be responsible for:

- Maintaining continuous communication with City Project Manager, including meetings to review the preliminary design and project status at 30-, 60-, and 100-percent completion.
- Providing monthly project status report, or as specified in the PMP.
- Overseeing project delivery targeting proposed schedule and minimizing project budget.

Willdan will facilitate a pre-design meeting with City representatives to review the project in detail. Willdan will determine requirements and procedures for design, ongoing review, and coordination. In consultation with City representatives, Willdan will determine relevant issues specific to the project, design standards, and funding limits. Progress meetings will be held monthly or more frequently if needed, with City staff, permitting agencies and utility companies as needed.

Task 2 – Agency and Utility Coordination – *Option A and Option B*

Subtask 2.01 – Conditions Review. *Option A:* Willdan will review available well data to be provided by the City of South Gate, including well completion and testing reports, well geophysical logs, well inspection videos, hydraulic efficiency tests, water quality tests, and other pertinent information. Willdan will use the information provided by the City to prepare an assessment summary letter including discussion of the risks and benefits associated with alternative rehabilitation procedures. The summary letter will also identify if any additional testing is required prior to, or during well rehabilitation to fill data gaps or provide essential information.

Task 2.02 Deliverables
- Well Assessment Summary Letter
- Meeting agendas and minutes
- Utility notification letters
- Utility matrix

Subtask 2.02 – Agency and Utility Coordination. *Option A AND Option B:* Willdan will request utility atlases from utility companies known to operate and/or maintain facilities within the project areas for reference in the improvement plans. Willdan will conduct a utility investigation to identify utilities that will be impacted and will research prior rights to clearly identify parties responsible for relocation of the affected utilities. Willdan will coordinate the utility improvements with the identified utility companies, including the impacts to high-hazard/high-pressure facilities.

Per the City's Request for Proposal, coordination with utility companies will include:

- Prepare initial request for utility information such as atlas sheets, mapping, or as-built plans and develop utility base map based upon information received from utility companies.

- Submit 30-, 60-, and 100-percent plans to those utility companies with facilities in immediate project area for review and comment.
- Coordinate with utility companies to implement upgrade of facilities (upon request), as needed, within project limit and Maintain contact log.
- Determine any utility upgrades or installations that will be required to service existing and proposed improvements and coordinate installation of required upgrades with each affected utility company
- Lead efforts to identify ownership of unknown utility lines

Task 3 – Environmental Compliance and Permits – *Option A and Option B*

It is anticipated that the projects will qualify for Categorical Exemption Section 15301 Class 1(c) under existing highways and streets improvements that allows for roadway improvements for the purpose of public safety and has no significant effects on the environment. Willdan will perform its due diligence as part of this task to verify exemptions criteria set by California Environmental Quality Act (CEQA) under Article 19 of Categorical Exemptions and make necessary recommendations to the City. The City's Planning Division will make the final environmental determination. To satisfy CEQA requirements for the project, Willdan will prepare a notice of exemption for the City's use. We will assist with posting of the notice and with filing the Notice of Exemption with the County Clerk.

If Willdan believes that further detailed environmental studies and reports are needed to comply with CEQA and or National Environmental Protection Act (NEPA), subject to confirmation by City Staff, Willdan will meet and discuss with the applicable resource/regulatory agencies to confirm the necessary work effort and identify the cost and schedule to prepare the environmental reports, applications for permits and obtain clearance through all applicable agencies as additional scope of work. As part of Clean Water Act, a NPDES permit may be required for alternate discharging during well rehabilitation.

Task 3 Deliverables
- CEQA Categorical Exemption Form

Task 4 – Preliminary Engineering – *Option A and Option B*

Subtask 4.01 – Site Visit and Evaluation. Visual inspection is important for quality assurance and ensures a common-sense design. Willdan will conduct a site visit to attain a comprehensive understanding of the existing site facilities and constraints. Willdan will catalog existing conditions and facilities through photographs and field notes to be used as a reference during design.

An initial assessment will be performed to evaluate the existing condition of the water well. Based on the initial evaluations, rehabilitation options will be proposed. The entire well will have to pulled and the casing will have to be video inspected. Common causes of reduced well capacity could be sanding, rupture of casing, mineral build-up, heavy encrustation, screen damage, screen clogging or mechanical failures of the pump. Depending on the assessment, rehabilitation could include brushing and bailing casing, replacing ruptured casing, adding an elongated nozzle to bull to reduce sand flow, chemical treatment, remachine the pump and or rewind. After the initial evaluation, Willdan will work with City's current maintenance and repair contractor to rehabilitate the well or will work with the City to bid out the project.

Subtask 4.02 – Field Survey and Right-of-Way. Willdan will perform a field survey to ensure the accuracy and constructability of the final construction plans. For this project the survey will:

- Establish right-of-way through record research and/or survey.
- Option A: Ground Survey to map the existing facilities and utility alignment. The utility survey will include manholes, covers, and depth of cover when required.
- Option B: Topographic/ground survey will be required to determine existing grades and facilities. To ensure acceptable cross-slopes full street sections will be surveyed and analyzed at 25-foot intervals, driveways, and at approaches. The topographic survey shall extend a minimum of 200 feet beyond limits of construction within the public right-of-way, where possible. Full street sections include obtaining field data at all control or critical points, such as CL, BCR, ECR, and at any grade breaks between lips of gutters, and/or edges of pavement, and flow lines. Where applicable to the project scope, survey of private property improvements shall be included.

Subtask 4.02 Deliverables
- One electronic copy of all field survey data in Microstation V8i format

Subtask 4.03 – Geotechnical Investigation and Pavement Rehabilitation Strategies. All geotechnical investigation and analysis shall be performed by a state-licensed geotechnical engineer with expertise in pavement design. Willdan will conduct geotechnical investigations to measure the existing pavement sections and collect representative samples of subgrade soils for laboratory testing as described below. The task work includes:

- Field exploration including coring, drilling, and sampling at three locations to the maximum drilled depth of 10 feet below ground surface within the limits of the project site. Upon receipt of notice to proceed, a site visit will be performed to mark the core/boring locations and evaluate access conditions for drilling equipment. Willdan will call USA for underground utility locating at least 48 hours before any field work is performed. However, all available subsurface utility information should be provided/ identified prior to initiating field exploration to reduce the potential for damaging existing utilities. Traffic control will be provided during drilling.
- Borings/cores will be measured and visually logged in the field by an experienced representative. The log will include pavement sections thicknesses and subgrade conditions. The samples will be transported to Willdan's geotechnical laboratory for testing.
- Laboratory testing of collected representative subgrade soils will determine their index and engineering properties.
- Option A: Geotechnical investigation will be used to identify the soil properties for the trenching and backfill of proposed utilities.
- Option B: Providing recommendations for alternative new pavement sections.
- Option B: Performing a percolation test within a boring drilled to a depth between 5 and 10 feet for BMP and green streets implementation (if needed).
- Providing a draft report and presenting our findings, conclusions, and recommendations for review by the City. After receiving the City's comments, a final report incorporating the comments will be provided to the City. The report will be supported with a map illustrating boring/core locations and a summary of laboratory test results.

Subtask 4.03 Deliverables
- Three hard copies of draft geotechnical report and one electronic PDF copy
- Three hard copies of final geotechnical report and one electronic PDF copy

Subtask 4.04 – Preliminary Design Report Willdan will compile a Preliminary Design Report (PDR) for review and approval by the City. The report will contain a summary of the initial reconnaissance notes, utility provided information, field survey findings, any photographs of conditions for discussion, and the base design concept with preliminary construction cost estimate. The report will be discussed with City representatives to make reliable, cost effective decisions about the proposed street improvements, water and sewer rehabilitation/replacement methods.

Subtask 4.04 Deliverables
- Preliminary Design Report

During preparation of the PDR, Willdan will review existing information, such as the pavement management report, city sewer and water documents and field review of the street to make recommendations regarding the construction needs, including the location and extend of missing or damaged sidewalk, curbs and gutter, access ramps, driveways, sewer and water repairs. In addition, the report will address the disposition of existing utilities and coordination, and anticipated requirements.

Task 5 – Plans, Specifications, and Engineer's Estimate - *Option A and Option B*

Subtask 5.01 – Construction Plans.

Willdan will prepare conceptual plans for City review, comment and approval. Upon approval of the concept plans, the final design phase will be initiated. Willdan will submit plans at the 30-, 60-, and 100-percent levels of completion. The City will provide review comments at all design stages. Willdan will address comments received from the submittal reviews, including comments received from other affected agencies and utilities. Willdan will submit one, original, signed set of full-sized plans, a signed, unbound, set of final specifications, and a copy of the final engineer's opinion of construction cost to the City. One set of Mylars will be produced after 100% plans are approved by the City (upon request). Plans will conform to City standard plans and CADD standards and be prepared utilizing Microstation V8i software.

Task 5.01 Deliverables
- Three hard copies of full-size conceptual plan layout and one electronic PDF format
- Three hard copies of full-size and half-size plan submittals at 30-, 60-, and 100-percent completion milestones, one electronic PDF copy, and one electronic Microstation copy in V8i format.

Option A: The plans be prepared in sufficient detail to bid the rehabilitation of the identified well – method to be determined by the City after review of the assessment report – and the proposed sewer and water facilities. Utility plans will be drafted at 40-scale and plans will display all referenced standard plans including trenching details.

Option B: The plans will consist of a Title Sheet/ Typical notes, Roadway Plans, Construction Details, Signing and Striping, Landscape, and Storm Water Biofiltration (if required in complete streets). The Roadway Plans will

consist of two sheets and will be drafted at 20-scale. The Roadway Improvement Plans will include the topographic survey and utility base plan information, limits of removal, and limits of repairs for pavement, curb and gutter, driveway configuration, ADA curb ramps, etc. All other improvement plan sheets will be drafted at 40-scale.

Subtask 5.02 – Specifications.
Willdan will prepare technical special provisions for bidding per City standards. The City will provide boilerplate specifications. Special provisions will be prepared utilizing Greenbook and Caltrans formats (latest editions).

Task 5.02 Deliverables
- One electronic PDF copy and one electronic Word copy of technical and special provisions at 60- and 100-percent completion milestones

Subtask 5.03 – Engineer's Construction Cost Estimate.
Willdan will prepare a construction cost estimate to accompany the 30-, 60-, and 100-percent plan deliverables. Quantity calculations and final construction cost estimates will be prepared in accordance with City requirements to establish the project budget.

Task 5.03 Deliverables
- One electronic PDF copy and one electronic Excel copy of engineer's cost estimate at concept and 30-, 60-, and 100-percent completion milestones

Task 6 – Construction Bidding Phase Services - *Option A and Option B*

Willdan will prepare a construction bid package per City standards. Willdan will advise the City of the appropriate responses to bidders' technical questions. If an addendum is determined appropriate by the City, Willdan will prepare revised plans, specifications, and/or quantity estimates. Willdan will provide support during construction bidding phase services and advertising period by:

Task 6 Deliverables
- Construction bid package
- Addenda, as necessary
- Log of bidder inquiries

- Attending pre-bid meeting
- Assisting in analysis of bids, as necessary
- Logging questions and responses to bidders' questions regarding the bid documents
- Issue addendum to bid documents to answer questions raised, if required

Task 7 – Preconstruction and Job Site Meetings - *Option A and Option B*

Willdan will attend the preconstruction meeting, job walk, and job-site meetings, as required, over the course of construction. Willdan assumes one preconstruction meeting and three job site meetings.

Task 7 Deliverables
- Meeting minutes

Task 8 - Respond to Requests for Information and Submittals - *Option A and Option B*

Willdan will provide responses to contractor's requests for information about the plans and specifications. This task includes conferring with the City's construction manager, as appropriate, regarding the requests to address unforeseen site conditions and/or provide field design recommendations. Regularly scheduled construction observation is specifically excluded from this scope of work. Up to 10 responses to requests for information are included in the scope.

Task 8 Deliverables
- Log requests for information and provide responses
- Field design recommendations
- Field meeting minutes
- Design details

Task 9 – Prepare Record Drawings/As-Builts - *Option A and Option B*

Within 60 days following completion and acceptance of the project, Willdan will furnish the City with a complete set of revised original tracings showing as-built conditions on Mylar. Revisions will be solely based upon as-built information provided by the City's construction manager and the contractor.

Task 9 Deliverables
- One complete set of original record drawings on Mylar, one electronic PDF copy, and one Microstation V8i

Relevant Project Experience

Willdan has chosen the following representative summaries for completed projects that exemplify Willdan's extensive expertise and relation to the Scope of Work detailed in the RFP.

Firestone Boulevard Capacity Enhancement

City of South Gate
8650 California Avenue
South Gate, CA 90280

Client Contact: *Arturo Cervantes, Public Works Director*
(323) 563-9512
Project Dates: *2015 to 2017 (design completed; construction ongoing)*
Project Team: *Tyrone Peter, David Knell, John Hidalgo, Vanessa Muñoz, Mohsen Rahimian, Salvador Lopez, Alexis Escobar, Ross Khiabani, Ray Wellington, Michael Bustos, Kenneth Krieger, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Bryan Nguyen, Sheila McCracken, Robert Burch, Chris Stone, Edward Cox, Christopher Kelley, Kevin Custado, Nicolle Spann, Robert Sun, Elroy Kiepke, Ryan Moore*

Willdan is providing civil and traffic engineering design and other appurtenant services for street improvements from Alameda Street to Hunt Avenue funded through Metro and local funds. The project is a complete rehabilitation of roadway improvements that involve widening the street from four to six; rehabilitating street pavement sections, including localized removal and replacement of failed roadway; installing landscaped and hardscaped medians, including drought-resistance plants, irrigation system, and lighting system; reconstructing deficient sidewalk, curb, gutter, driveway approaches, and ADA-noncompliant curb ramps; planting street parkway trees without irrigation, green streets technologies, and complete streets

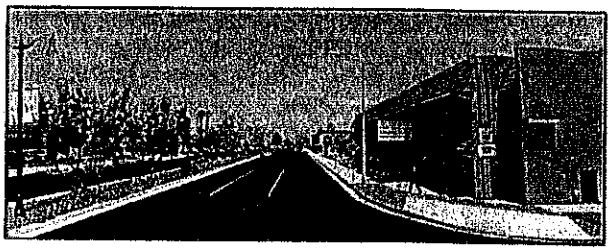
Artistic elements and gateway corridor entrance are included in the design. Other improvements include bus shelters and bus turnouts; traffic signal modifications with battery backup, pedestrian countdown heads, and upgrades to LED where possible. Signals will be synchronized to reduce traffic congestion and improve bus speeds.

Los Alamitos Boulevard Median Improvements

City of Los Alamitos
3191 Katella Avenue
Los Alamitos, CA 90720

Client Contact: *Steven Mendoza, Community Development Director*
(562) 431-3538 extension 300
Project Dates: 2015 to *2017 (design completed; construction ongoing)*
Project Team: *Tyrone Peter, David Knell, John Hidalgo, Mohsen Rahimian, Michael Bustos, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Bryan Nguyen, Sheila McCracken, Robert Burch, Chris Stone, Edward Cox, Kevin Custado, Elroy Kiepke*

Willdan provided civil and traffic engineering and other appurtenant services for street improvements between Cerritos Avenue and Katella Avenue. As one of three improvement segments, the project involves raised medians with landscaping and irrigation, hardware, decorative street lights, electrical receptacles for seasonal tree lighting, tree uplights and monument signs. Median improvements were optimized through traffic analysis and vehicle turning movement modeling.



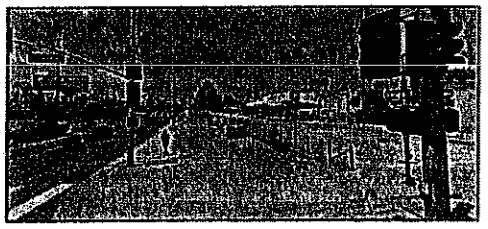
Crosswalks at four signalized intersections will be removed and replaced with integral colored concrete. A storm drain on Serpentine Drive will be modified. Portions of the project limits will receive a 12-inch-thick full-depth asphalt concrete over 8-inch-thick compacted subgrade. Willdan assisted the City with public outreach to garner input through town hall meetings, open houses, and public hearings.

Orange Line Extension

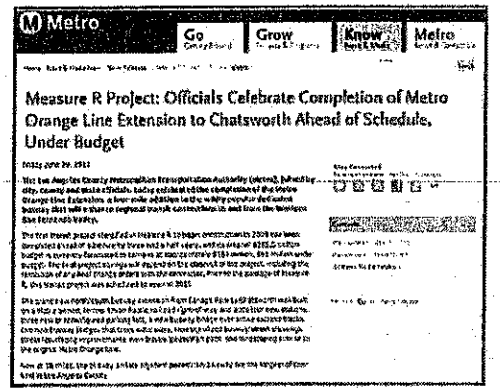
Los Angeles Metropolitan Transit Authority/
Brutoco Engineers and Constructors, Inc.
One Gateway Plaza
Los Angeles, CA 90012

Client Contact: *Scott McConnell, Project Manager*
(213) 922-7257
Project Dates: *2010 to 2012*
Project Team: *Tyrone Peter, David Knell, Johnny Ghazal, John Hidalgo, Vanessa Muñoz, Mohsen Rahimian, Ross Khiabani, Ray Wellington, Michael Bustos, Kenneth Krieger, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Bryan Nguyen, Sheila McCracken, Robert Burch, Chris Stone, Edward Cox, Christopher Kelley, Ryan Moore*

The design-build MOL extension between Chatsworth and Canoga Stations in the San Fernando Valley along Canoga Avenue is a dedicated roadway consisting of two 14-foot travel lanes. At stations, the busway lane widens to provide passing lanes for buses. The 28-foot wide roadway is within the Metro right-of-way and is 100 feet wide in most locations -- providing adequate room for landscaping as well as space for fences, privacy walls, drainage facilities, and a bikeway/pedestrian path adjacent to the busway.



The busway was designed for future conversion to light-rail transit service. A Class I bikeway that includes a pedestrian path was designed and constructed within the Metro right-of-way from the terminus of the existing MOL bikeway/pedestrian path at Canoga Avenue, north to Lassen Street and along Lassen Street to connect within the existing bike path on the east side of the existing Browns Creek drainage channel. Street and pedestrian crossings were improved on nine streets where the busway intersects the crossing street. A bus parking lot was constructed on the Metro-owned property at Marilla Street and Owensmouth Avenue. Park-and-ride facilities were included at three stations, providing approximately 1,074 additional parking spaces. Design-build solutions and design creativity reduced MTA's construction estimate and saved over $61 million in construction costs.


Metro

Go | Grow | Know | Metro

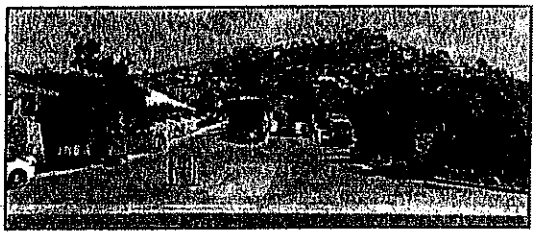
Measure R Project: Officials Celebrate Completion of Metro Orange Line Extension to Chatsworth Ahead of Schedule, Under Budget

Emerald Bay Main Gate Safety Improvements

Emerald Bay Service District
600 Emerald Bay
Laguna Beach, CA 92651

Client Contact: *Michael Dunbar, General Manager*
(949) 494-8572
Project Dates: *2015 to 2017*
Project Team: *Tyrone Peter, David Knell, Johnny Ghazal, Gary Gordon, Vanessa Muñoz, Mohsen Rahimian, Ross Khiabani, Ray Wellington, Michael Bustos, Kenneth Krieger, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Sheila McCracken, Robert Burch, Edward Cox, Christopher Kelley, Kevin Custado, Ryan Moore*

Willdan is providing civil and traffic engineering design and other appurtenant services for safety improvements connected with the community's main gate entrance. The improvements involve widening Shamrock Road 25 feet, reconstructing the entrance guardhouse approximately 40 feet north of the existing location; grading Shamrock Road and the adjacent slope to accommodate the roadway widening and desired landscaping; installing upgraded lighting; installing ADA-compliant curbs, ramps and retaining/monument walls; widening the right-turn pocket and installing a 175-foot-long raised median at the intersection of Pacific Coast Highway and Shamrock Road; mitigating soil with 200 18-inch diameter drilled displacement columns, and installing street striping and signage within Caltrans' right-of-way. The project required processing Caltrans encroachment permit and County of Orange general grading permit packages. Widening Shamrock Road provides an additional lane in each



direction for improved vehicular ingress and egress. The slope will be graded and recompacted to accommodate the roadway widening – extending the top of the adjacent slope and extending the toe of the slope by 28 feet into Swanson Park.

Placentia MetroLink Station Phases I and II

Orange County Transportation Authority
550 South Main Street
Orange, CA 92868

Client Contact: *Lora Cross, Project Manager (714) 560-5788*
Project Dates: *2012 to 2017 (design completed; construction ongoing)*
Project Team: *Tyrone Peter, David Knell, Mohsen Rahimian, John Hidalgo, Alexis Escobar, Ross Khabani, Ray Wellington, Kenneth Krieger, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Bryan Nguyen, Sheila McCracken, Robert Burch, Chris Stone*

Willdan prepared plans, specifications, and estimates for a MetroLink commuter rail station in the City of Placentia. The station is located on tracks owned by the BNSF Railway east of State Route 57 at the northeast corner of Melrose Street and Crowther Avenue. The project site involved approximately 4.75 acres to provide a MetroLink commuter rail station that meets current and future transit demand and ADA requirements. The project is expected to foster train ridership growth in the region. The station was planned as part of a key component of transit-oriented development envisioned in the Westgate Specific Plan for the City of Placentia. The project improvements included street, railroad track, and pedestrian improvements; rail platforms; and lighting, signing and striping of four parking facilities for 425 vehicles.

Water Well Rehabilitation- Well No 25

City of South Gate
8650 California Avenue
South Gate, CA 90280

Client Contact: *Arturo Cervantes, Public Works Director (323) 563-9512*
Project Dates: *2008-2010*
Project Team: *Mike Bustos, Selena Midden*

The City of Southgate rehabilitated its Well No. 25 due to holes in the existing low carbon steel wire wrap screen, which has limited well production. The holes in the wire wrap screen were in the lower 650' of the 1350' deep well. As a result, the production from the lower 650' of Well No. 25 was only 20% of the overall well production.

The City desired to fill the lower 650' of the well with concrete slurry to eliminate the zones with holes in the wire wrap screen. The City required a hydrogeologist to review, evaluate, and assess the proposed rehabilitation program, based on the information provided by the City, including, but not limited to, well completion reports, well geophysical logs, well inspection videos, hydraulic efficiency tests, and water quality test results.

After review and assessment of the existing well conditions, a summary report was prepared and provided to the City discussing the risks and benefits associated with alternative rehabilitation procedures. Plans and specifications for well rehabilitation were prepared based on the City's direction resulting from review of the hydrogeologist's summary report. After well rehabilitation was completed, a test pump was conducted to determine the maximum output of the well.

References

The clients we have chosen to verify our reputation and qualifications will confirm our dedication to expert technical ability, excellent service, and project commitment. We encourage the City to contact these references. We are confident these references will illustrate that Willdan is the ideal candidate for this project.

City of South Gate

8650 California Avenue
South Gate, CA 90280

Contact: Arturo Cervantas, Director of Public Works/ City Engineer, 323-563-9512
Services: Traffic Engineering, Civil Engineering, Landscaping, Environmental Compliance, Public Outreach, Public Artwork, Water Design and Engineering

City of Los Alamitos

3191 Katella Avenue
Los Alamitos, CA 90720

Contact: Steven Mendoza, Director of Public Works/City Engineer, (562) 431-3538
Services: Traffic Engineering, Civil Engineering, Landscaping, Storm Drain Design, Public Outreach

Emerald Bay Services District

600 Emerald Bay
Laguna Beach, CA 92651
Contact: Michael Dunbar, General Manager, (949) 494-8571
Services: Traffic Engineering, Civil Engineering, Landscaping, Permit Management, Grading

City of Covina

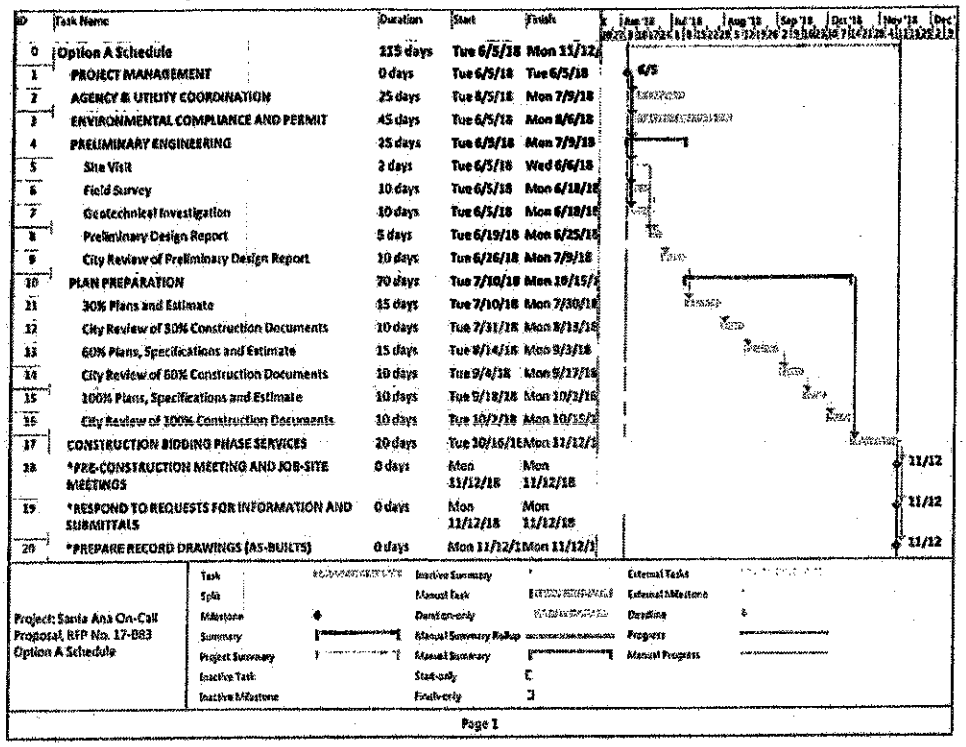
125 E. College Street
Covina, CA 91723
Contact: Laura Lara, former assistant engineer now with city of Pomona, 909-620-2281
Services: Water/Sewer Design, Civil Engineering

Scope of Services and Schedule

Below is Willdan's matrix of involvement for the work detailed in Attachment 1 of the RFP, and the scope of services and schedule for the 'tasks' – Options A and B.

Areas of Work	Performed by Willdan Staff	Performed with Qualified Sub-Consultant
Civil – Design	Y	
Transportation/Traffic	Y	
Structural	Y	Y
Geotechnical	Y	
Land Surveying		Y
Architectural		Y
Landscape Architectural & Irrigation	Y	
Environmental	Y	Y
Electrical		Y
Mechanical		Y
Instrumentation & Control System		Y
Fire Protection	Y	
Financial & Economic Consulting	Y	
Supplemental Tasks		
Hydraulic modeling of water distribution, stormwater, and sewer collection systems	Y	Y
Evaluation & Studies related to water wells, reservoirs, treatment, disinfection, pressure control, & sewage lift sta.	Y	Y
Evaluations, studies, drawings, documentation and recommendations on Electrical & Industrial Control systems		Y
Mapping Services	Y	
Legal description preparations	Y	
Grant writing services	Y	
Environmental / Planning Support	Y	Y
Construction Management Support	Y	
Pavement management	Y	Y
Special engineering studies/reports/compliance & investigations	Y	Y
Regulatory compliance with Federal, State & Local agencies	Y	
Financial/cash flow analysis – public works programs	Y	
Assessment & District formation services	Y	
Sustainable Infrastructure services	Y	
Right-of-Way studies	Y	

Schedule/Timeline to Complete the Project

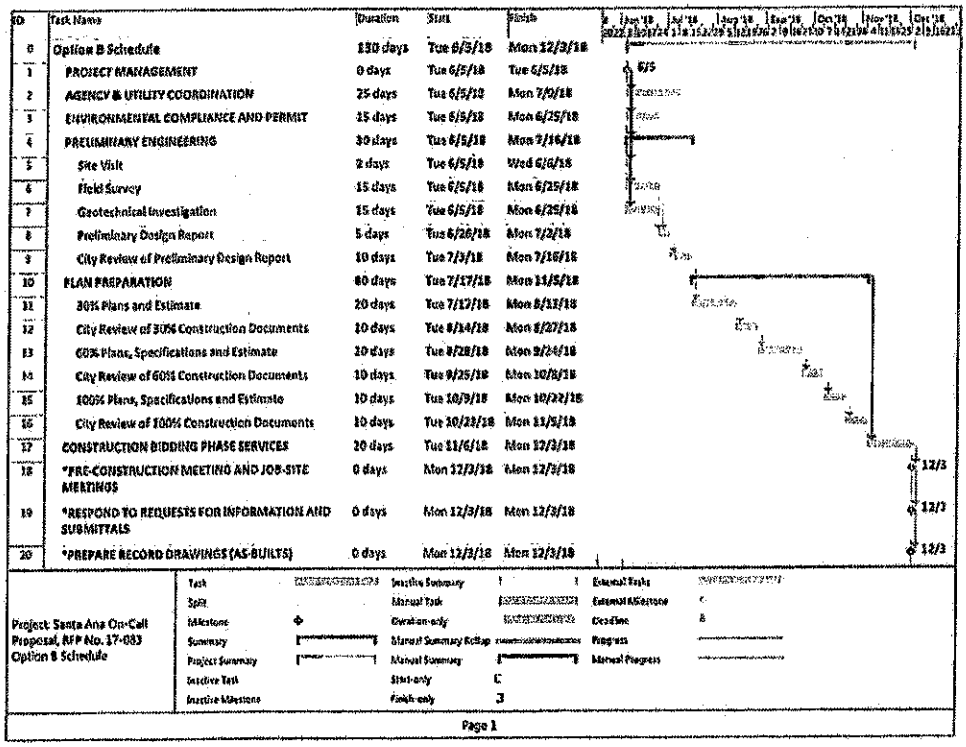


ID	Task Name	Duration	Start	Finish
0	Option A Schedule	115 days	Tue 6/5/18	Mon 11/12/18
1	PROJECT MANAGEMENT	0 days	Tue 6/5/18	Tue 6/5/18
2	AGENCY & UTILITY COORDINATION	25 days	Tue 6/5/18	Mon 7/9/18
3	ENVIRONMENTAL COMPLIANCE AND PERMIT	45 days	Tue 6/5/18	Mon 8/6/18
4	PRELIMINARY ENGINEERING	25 days	Tue 6/5/18	Mon 7/9/18
5	Site Visit	2 days	Tue 6/5/18	Wed 6/6/18
6	Field Survey	10 days	Tue 6/5/18	Mon 6/18/18
7	Geotechnical Investigation	10 days	Tue 6/5/18	Mon 6/18/18
8	Preliminary Design Report	5 days	Tue 6/19/18	Mon 6/25/18
9	City Review of Preliminary Design Report	10 days	Tue 6/26/18	Mon 7/9/18
10	PLAN PREPARATION	70 days	Tue 7/10/18	Mon 10/15/18
11	30% Plans and Estimate	15 days	Tue 7/10/18	Mon 7/30/18
12	City Review of 30% Construction Documents	10 days	Tue 7/31/18	Mon 8/13/18
13	60% Plans, Specifications and Estimate	15 days	Tue 8/14/18	Mon 9/3/18
14	City Review of 60% Construction Documents	10 days	Tue 9/4/18	Mon 9/17/18
15	100% Plans, Specifications and Estimate	10 days	Tue 9/18/18	Mon 10/1/18
16	City Review of 100% Construction Documents	10 days	Tue 10/2/18	Mon 10/15/18
17	CONSTRUCTION BIDDING PHASE SERVICES	20 days	Tue 10/16/18	Mon 11/12/18
18	*PRE-CONSTRUCTION MEETING AND JOB-SITE MEETINGS	0 days	Mon 11/12/18	Mon 11/12/18
19	*RESPOND TO REQUESTS FOR INFORMATION AND SUBMITTALS	0 days	Mon 11/12/18	Mon 11/12/18
20	*PREPARE RECORD DRAWINGS (AS-BUILTS)	0 days	Mon 11/12/18	Mon 11/12/18

Project: Santa Ana On-Call Proposal, RFP No. 17-083 Option A Schedule

Task · Split · Milestone · Summary · Project Summary · Inactive Task · Inactive Milestone · Inactive Summary · Manual Task · Duration-only · Manual Summary Rollup · Manual Summary · Start-only · Finish-only · External Tasks · External Milestone · Deadline · Progress · Manual Progress

Page 1



ID	Task Name	Duration	Start	Finish
0	Option B Schedule	130 days	Tue 6/5/18	Mon 12/3/18
1	PROJECT MANAGEMENT	0 days	Tue 6/5/18	Tue 6/5/18
2	AGENCY & UTILITY COORDINATION	25 days	Tue 6/5/18	Mon 7/9/18
3	ENVIRONMENTAL COMPLIANCE AND PERMIT	15 days	Tue 6/5/18	Mon 6/25/18
4	PRELIMINARY ENGINEERING	30 days	Tue 6/5/18	Mon 7/16/18
5	Site Visit	2 days	Tue 6/5/18	Wed 6/6/18
6	Field Survey	15 days	Tue 6/5/18	Mon 6/25/18
7	Geotechnical Investigation	15 days	Tue 6/5/18	Mon 6/25/18
8	Preliminary Design Report	5 days	Tue 6/26/18	Mon 7/2/18
9	City Review of Preliminary Design Report	10 days	Tue 7/3/18	Mon 7/16/18
10	PLAN PREPARATION	80 days	Tue 7/17/18	Mon 11/5/18
11	30% Plans and Estimate	20 days	Tue 7/17/18	Mon 8/13/18
12	City Review of 30% Construction Documents	10 days	Tue 8/14/18	Mon 8/27/18
13	60% Plans, Specifications and Estimate	20 days	Tue 8/28/18	Mon 9/24/18
14	City Review of 60% Construction Documents	10 days	Tue 9/25/18	Mon 10/8/18
15	100% Plans, Specifications and Estimate	10 days	Tue 10/9/18	Mon 10/22/18
16	City Review of 100% Construction Documents	10 days	Tue 10/23/18	Mon 11/5/18
17	CONSTRUCTION BIDDING PHASE SERVICES	20 days	Tue 11/6/18	Mon 12/3/18
18	*PRE-CONSTRUCTION MEETING AND JOB-SITE MEETINGS	0 days	Mon 12/3/18	Mon 12/3/18
19	*RESPOND TO REQUESTS FOR INFORMATION AND SUBMITTALS	0 days	Mon 12/3/18	Mon 12/3/18
20	*PREPARE RECORD DRAWINGS (AS-BUILTS)	0 days	Mon 12/3/18	Mon 12/3/18

Project: Santa Ana On-Call Proposal, RFP No. 17-083 Option B Schedule

Task · Split · Milestone · Summary · Project Summary · Inactive Task · Inactive Milestone · Inactive Summary · Manual Task · Duration-only · Manual Summary Rollup · Manual Summary · Start-only · Finish-only · External Tasks · External Milestone · Deadline · Progress · Manual Progress

Page 1

Fee Proposal

Per the City's Request for Proposal, the fee proposal has been submitted under separate sealed envelope.

Certifications

Non-Collusion Affidavit

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed Dale Hurst

State of California
County of See attached Notarial Certificate

Subscribed and sworn to (or affirmed) before me on this ____ day of _____, 20__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Notary Public Signature

Notary Public Seal

CALIFORNIA JURAT WITH AFFIANT STATEMENT GOVERNMENT CODE § 8202

☒ See Attached Document (Notary to cross out lines 1–6 below)
See Statement Below (Lines 1–6 to be completed only by document signer[s], *not* Notary)

Signature of Document Signer No. 1 *Signature of Document Signer No. 2 (if any)*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 12th day of March, 2018, by
Date Month Year
(1) David Hurt
(and (2)),
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

CATHALEEN D. STEELE
Commission # 2148423
Notary Public - California
Orange County
My Comm. Expires Apr 13, 2020

Signature Cathaleen D. Steele
Signature of Notary Public

Seal
Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: Non-Collusive Affidavit Document Date: 3/12/18
Number of Pages: 1 Signer(s) Other Than Named Above: none

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Non-Lobbying Certification

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm: Willdan

Signed and Printed Name: David Hunt David Hunt

Title: Sr. Vice President

Date: 3/12/18

Non-Discrimination Certificate

Appendix A
ATTACHMENT A-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

25E-696

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

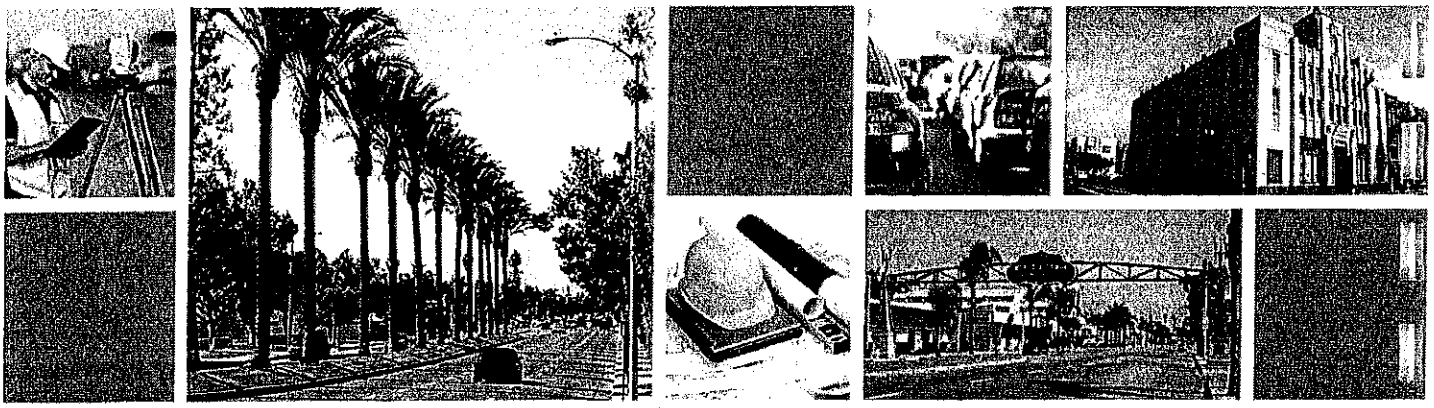
Signed: Dan Hurt

Title: Sr. Vice President

Firm: William

Date: 3/12/18

25E-697



WILLDAN

2401 E. Katella Avenue, Suite 300
Anaheim, California 92806-5909
T 714.940.6370 | F 714.940.4930

www.willdan.com

Exhibit C – Willdan's Schedule of Hourly Rates

WILLDAN

WILLDAN ENGINEERING

Schedule of Hourly Rates

Effective July 1, 2017 to June 30, 2018 (Version 06/27/17)

ENGINEERING	
Technical Aide I	$62
Technical Aide II	80
Technical Aide III	99
Drafter I	100
Drafter II	116
Senior Drafter	129
GIS Analyst I	134
GIS Analyst II	152
GIS Analyst III	166
Designer I	134
Designer II	139
Traffic Engineer I	180
Traffic Engineer II	196
Senior Designer I	147
Senior Designer II	154
Assistant Engineer I	106
Assistant Engineer II	127
Assistant Engineer III	133
Assistant Engineer IV	138
Associate Engineer I	140
Associate Engineer II	148
Associate Engineer III	155
Design Manager	157
Senior Design Manager	163
Senior Engineer I	158
Senior Engineer II	161
Senior Engineer III	164
Senior Engineer IV	177
Supervising Engineer	182
Project Manager I	144
Project Manager II	164
Project Manager III	179
Project Manager IV	196
Program Manager	201
City Engineer I	196
City Engineer II	206
Principal Project Manager	196
Deputy Director	206
Director	209
Principal Engineer	227

BUILDING AND SAFETY	
Assistant Code Enforcement Officer	$82
Plans Examiner Aide	88
Code Enforcement Officer	94
Asst. Construction Permit Specialist	94
Construction Permit Specialist	99
Senior Code Enforcement Officer	111
Assistant Building Inspector	111
Sr. Construction Permit Specialist*	116
Supervising Construction Permit Specialist	123
Building Inspector*	123
Supervisor Code Enforcement	134
Plans Examiner I	134
Senior Building Inspector	134
Plans Examiner II	147
Supervising Building Inspector	147
Inspector of Record	161
Deputy Building Official	161
Plan Check Engineer	161
Building Official	166
Supervising Plan Check Engineer	166
Principal Project Manager	196
Deputy Director	206
Director	209

CONSTRUCTION MANAGEMENT	
Labor Compliance Specialist	$111
Labor Compliance Manager	139
Utility Coordinator	147
Assistant Construction Manager	139
Construction Manager	163
Senior Construction Manager	168
Project Manager IV	196
Deputy Director	206
Director	209

INSPECTION SERVICES	
Public Works Observer I*	$86
Public Works Observer II*	95
Senior Public Works Observer I*	103
Senior Public Works Observer II*	114
Senior Public Works Observer III*	124
Senior Public Works Observer IV*	131
Senior Public Works Observer V*	139

LANDSCAPE ARCHITECTURE	
Assistant Landscape Architect	$116
Associate Landscape Architect	134
Senior Landscape Architect	147
Principal Landscape Architect	166
Principal Project Manager	196

MAPPING AND EXPERT SERVICES	
Survey Analyst I	$116
Survey Analyst II	134
Calculator I	116
Calculator II	129
Calculator III	140
Senior Survey Analyst	152
Supervisor - Survey & Mapping	168
Principal Project Manager	196

PLANNING	
Community Development Technician	$99
Planning Technician	99
Assistant Community Development Planner	123
Assistant Planner	123
Associate Community Development Planner	134
Associate Planner	134
Senior Community Development Planner	152
Senior Planner	152
Principal Community Development Planner	166
Principal Planner	166
Planning Manager	184
Deputy Director	206
Director	209

ADMINISTRATIVE	
Administrative Assistant I	$73
Administrative Assistant II	88
Administrative Assistant III	103
Project Accountant I	83
Project Accountant II	97
Project Controller I	103
Project Controller II	116

*169/hour for Prevailing Wage Project

Mileage reimbursement will be charged at the current Federal guideline rate at the time of billing. Vehicles will be charged at a monthly rate of 500.

Additional billing classifications may be added to the above listing during the year as new positions are created. Consultation in connection with litigation and court appearances will be quoted separately. The above schedule is for straight time. Overtime will be charged at 1.5 times, and Sundays and holidays, 2.0 times the standard rates. Blueprinting, reproduction, messenger services, and printing will be invoiced at cost plus fifteen percent (15%). A sub consultant management fee of fifteen percent (15%) will be added to the direct cost of all sub consultant services to provide for the cost of administration, consultation, and coordination. Valid July 1, 2017 thru June 30, 2018; thereafter, the rates may be raised once per year to the value between the change of the Consumer Price Index for the Los Angeles/Orange County/Sacramento/San Francisco/San Jose area and five percent.

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (WATER RESOURCES)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between Willdan Engineering ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the Water Resources Division of the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of five (5) consultants selected to provide services for water resources projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $1,200,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of

performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to

Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

   (i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

   (ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees, for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council

City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: Willdan Engineering
2401 East Katella Avenue, Suite 300
Anaheim, CA 92806
Attn: David Hunt, PE, Senior Vice President / Director of Engineering

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without

the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

EXHIBIT A

COPY

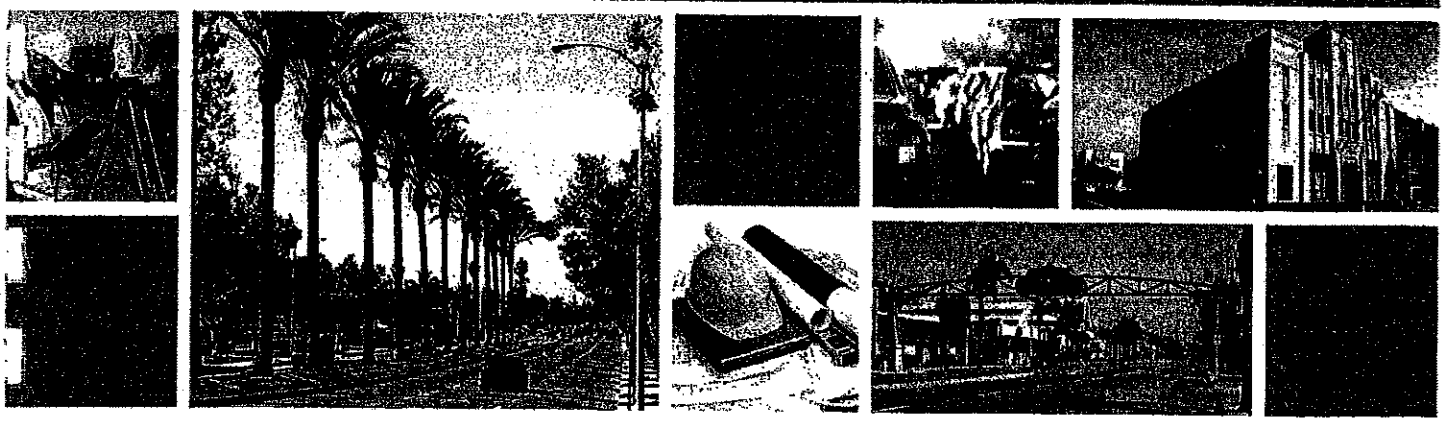
City of Santa Ana

Proposal

On-Call Engineering Services

RFP No. 17-083

March 20, 2018



WILLDAN

25E-711

WILLDAN

Cover Letter

March 20, 2018

City of Santa Ana
Attn.: Armando Fernandez
Public Works Agency;
20 Civic Center Plaza; 3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

Subject: Proposal for On-Call Engineering Services, RFP No. 17-083

The City of Santa Ana is seeking civil engineering consultants to retain on as-needed or on-call basis for general engineering design. Willdan has been providing on-call civil engineering services for over 53 years and is well suited to partnering with the City to achieve a fast-track approach for their large range of improvement projects. Willdan's proposed team members are experienced working together as an integral part of municipal agency on-call improvement projects such as with the City of Lakewood, the City of Paramount, the City of Los Alamitos, the City of Brea, the City of San Juan Capistrano, and the city of South Gate. The advantages Willdan's project team brings to the City include:

- **Strong Project Manager.** Mr. Tyrone Peter will act as Project Manager. In his 11-year career, Mr. Peter has acquired comprehensive public works experience including project management, design and construction support of roadways, traffic signals, waterlines, sewer lines and drainage systems projects. He has worked directly for public agencies providing engineering services to various cities within Orange, Los Angeles, Fresno, Riverside, San Diego, San Bernardino counties. This extensive experience working with local agencies will be invaluable in providing the perspectives needed to assist the City with the services and projects awarded.
- **No Learning Curve.** Our technical personnel have a thorough knowledge of engineering principles and infrastructure performance requirements. This includes updating our working knowledge of applicable regulations, standards, practice manuals, design guides and criteria, City of Santa Ana Municipal Code and specifications available through Caltrans, APWA, AWWA, CWA, SDWA, CDPH, ADA, and California Title 24.
- **Proven Ability to Deliver Requested Services While Supporting City's Goals.** The City has a firm commitment to the ideal of a quality community. This ideal underpins the City's goals and objectives and requires a very high standard of integrity at all levels. From fiscal responsibility to responding to community concerns, the expectation is for excellence. Willdan is the right firm to help the City achieve these commitments and expectations as they are directly in line with our internal goals of providing the highest level of service to our clients. Willdan has a reputation as an exceptional problem solver and client advocate whose business model centers around our clients' best interests.

We look forward to working with the City to implement as-needed public work improvements. If there are any questions regarding our submittal, please contact Mr. Peter by mail at Willdan Engineering, 2401 East Katella Avenue, Suite 300, Anaheim, CA 92806; by phone at (714) 940-6300; by cell phone at (714) 393-1963; or by email at tpeter@willdan.com.

Respectfully submitted,

Willdan Engineering

David Hunt, PE
Senior Vice President/Director of Engineering

910005/06-140/P18-044_14761

* The City of Santa Ana did not agree to the below stated contract changes, and they were not included in the final agreement considered for approval by the City Council.

Contract Agreement Statement

Willdan has reviewed the Standard Agreement and shall meet these requirements upon selection with the following wording suggested by our corporate attorney that is summarized below.

Section 2 – Compensation, Paragraph B.

Recommend change to 30 days.

b. Payment by City shall be made within 45 days (forty-five) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals which may reasonably be expected by City.

Section 4 – Prevailing Wage

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

Delete: "agents"

Section 6 – Ownership of Materials

be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Add: "Consultant shall be indemnified and defended against any damages resulting from any use not within the purposes intended by this Agreement, including the release of this material to third parties for a use not intended by this Agreement."

nt, Consultant shall maintain and as described below:

all maintain commercial general...

Section 7 - Insurance

liability insurance naming the City, its officers, employees, agents, and Delete: "agents" representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, and Delete: "agents" tional insured(s); (b) be primary and not contributory with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

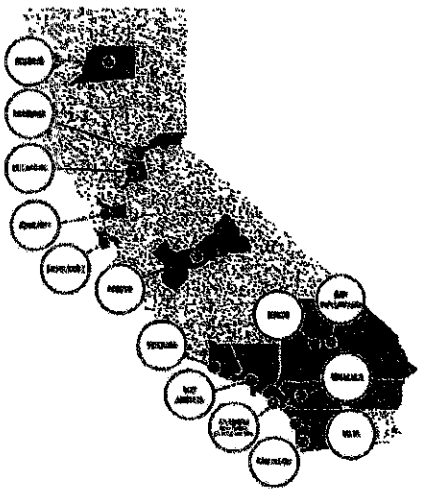
Section 8 - Indemnification

8. INDEMNIFICATION

Delete: "agents"

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, contractors, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property Delete: "agents" rise from the negligent operations of the Consultant, its subcontractors, agents, employees, or other persons acting on its behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suf Add: "reasonable" events referred t Delete this sentence: "regarding any effects, arising from this Agreement." The Consultant action by a third party challenging the pay all costs for the defense of the City, including fees validity of this Agreement, or" City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

Firm and Team Experience



Company Profile

Founded in 1964 with the specific intent of providing municipal consulting services, Willdan Engineering (Willdan), a California corporation, is a subsidiary of Willdan Group, Inc. (WGI), a publicly-traded company. Willdan has supported implementation of community visions through engineering, planning, construction management, construction inspection, building safety, and staff augmentation services. Willdan has completed various types of projects for over 60 percent of the cities and counties in California.

Firm Background and Qualifications

Willdan offers a full complement of consulting services that encompass civil, structural, traffic, structural, right-of-way, geotechnical, and special district engineering; municipal planning; public works inspection; construction management; and building safety. Willdan has a broad understanding of public agency needs and issues. Additionally, many provide the added value of having served in public agency management positions prior to joining Willdan. With this depth of experience, expertise, knowledge, and resources, Willdan offers comprehensive solutions that are timely, cost effective, and tailored to meet individual community needs.

Firm Core Competencies

Willdan's expertise in the core disciplines necessary to provide on-call services to the City of Santa Ana is presented herein.

Survey and Right-of-Way Engineering

Willdan provides a wide range of surveying, mapping, and right-of-way engineering services for major transportation improvements, street widenings, sewer and water improvements, urban redevelopment, final and parcel maps, and legal descriptions. Field services provided by Willdan and/or our subconsultants include conducting boundary surveys and/or research, topographic base mapping, right-of-way easement stakeout, construction staking, and site surveys.

Geotechnical Engineering

Willdan provides a full gamut of geotechnical studies, engineering geology, and materials testing and inspection, including subsurface exploration, geologic and seismic hazard assessment, soil testing, engineering and pavement analyses and designs, construction support (soils and materials testing and inspection), and special studies. Willdan's soils and materials testing laboratory is licensed by the City of Los Angeles and by Caltrans, and participates in the AMRL and CCRL proficiency programs.

Pavement Engineering/Management

Willdan has been at the forefront for many years in developing new and more cost-effective approaches to rehabilitating pavement structures of deteriorated streets. Design specifications have been tested and refined for various processes using methods and materials proven to be economical and effective in their application. Through our roles as city engineer for various agencies, Willdan receives important feedback regarding the most efficient construction materials and methods to implement for each type of condition encountered, actual performance of each different rehabilitation method over extended periods -- what is sustainable, and field conditions discovered during construction that warrant special contract provisions.

Civil Engineering

Willdan's civil engineers offer a full complement of roadway and highway design, including feasibility studies (site evaluation/grading/earthwork), project study and project reports, final design plans and specifications, erosion control and site remediation, storm water management, NPDES compliance, utility conflict analysis, ADA analysis and compliance, value engineering analysis, cost estimating and scheduling, and constructability review. Willdan provides assistance during bidding and provides engineering support during construction.

Structural Engineering

Willdan provides complete structural engineering support for design, analysis, inspection, and evaluation of structural systems such as bridges, sound walls, retaining walls, and buildings. Our specific bridge expertise encompasses an extensive working knowledge of all related agency criteria and methodology for design of new bridges, bridge rehabilitations, and bridge widenings. We are current on the latest requirements for seismic analysis and design procedures. In addition, our staff has in-depth knowledge of various federal, state, and local requirements for preparing project development documents, design and construction documents, and approval processing. In addition to their design expertise, our structures staff has also had tremendous success obtaining HBP funds.

Traffic Engineering

Willdan's traffic engineers serve as contract city traffic engineers or provide traffic engineering services throughout California. They are experts in conducting traffic surveys and data collection, investigating motorist and vehicle characteristics, identifying and making recommendations on traffic safety and utilizing traffic laws and enforcement to determine traffic signal timing, and evaluating highway operations. Willdan prepares traffic engineering designs to warn, regulate, and guide traffic. We develop geometric design and channelization, traffic signal and street lighting plans, parking lot designs, and traffic control plans for construction.

Drainage Engineering

Willdan has expertise in hydrology, drainage, and flood control – ranging from local and regional drainage and flood control improvements to hydraulic and sediment transport analyses of major rivers. Quality engineering solutions in drainage and stormwater management are one of the primary elements of our public works experience. Willdan has prepared many watershed and floodway studies, completed flood control and drainage engineering projects, and performed design and construction inspection services throughout California.

Water Resources Engineering

Willdan provides services for water system planning, analysis, design, construction inspection, and operational assessment involving well design, rehabilitation, and evaluation; reservoir design and rehabilitation; pump station design and modifications; modeling analysis of partial and entire systems; water transmission and distribution pipelines; and coordination with system telemetry and metering specialists. We are experienced with the Department of Water Resources, Drinking Water Division, public health agencies, and Title 22 provisions.

Environmental Compliance, Permits, and Planning Support

Willdan's environmental planners frequently assists cities in the environmental review process, either in preparing and processing CEQA/NEPA environmental documents, such as negative declarations and environmental impact reports, or in reviewing documents on behalf of the lead or responsible agencies. In providing environmental and urban planning services, we utilize our staff of planners and environmental specialists and call upon the expertise of other disciplines within the company, including traffic engineers, hydrologists, water and wastewater engineers, and landscape architects.

Landscape Architecture

Willdan's landscape architects focus on designing landscapes for public improvements such as park and recreational facilities, community centers, and roadway beautification. Our landscape architects apply their talents and knowledge of site analysis, user needs programming, site design, landscape preservation, land management and reclamation, water conservation, and arboriculture.

On-Call Contract Expertise

Current On-Call Contracts Client Cities

- *Brea*
- *San Juan Capistrano*
- *Los Alamitos*
- *South Gate*
- *Westlake Village*
- *Lakewood*
- *Paramount*
- *Calabasas*
- *Rolling Hills Estates*
- *Thousand Oaks*
- *Rialto*
- *Elk Grove*

On-call engineering services are Willdan's foundation. Our staff includes former public agency employees or contract agency staff. Therefore, we understand the importance and purpose of as-needed contracts and are very familiar with the processes and procedures for such services. Within the last seven years, Willdan has completed projects and task orders for more than 200 as-needed/on-call contracts. This experience and the relevant experience of our dedicated and available key personnel are what best suits Willdan to provide the City with on-call engineering services. Our history of working with as-needed contracts has well prepared our staff to respond to all requests for services in a positive, efficient manner. Our firm's commitment to responsive service and successful project delivery has given us a reputation as a firm that can be trusted to listen and to deliver an end product our clients envision and embrace. We begin our approach to this work by adhering to these basic principles:

- Approach each project with a spirit of resourcefulness and excellence
- Maintain high standards of technical quality
- Seek appropriate solutions that fit the project
- Conduct business with truthfulness and high ethical standards

Firm Accomplishments

Willdan has a strong reputation for completing projects on time and within budget. In addition, we are proud that our design services have resulted in numerous awards for our clients' projects. A representative list of project awards includes:

Agency Name	Project Name	Project-of-the-Year Award Category
LACMTA	Orange Line Extension	APWA Transportation
City of Rolling Hills	Palos Verdes Drive North Bike Lane Improvements	APWA Traffic Mobility and Beautification
City of Covina	Sewer System Replacements	APWA Drainage Water and Wastewater
City of Los Alamitos	Coyote Creek Park	APWA Recreation and Athletic Facilities
City of Glendale	Chevy Chase Drive 968 Reservoir	APWA Water
City of Santa Clarita	Magic Mountain Parkway/Interstate 5 Interchange Expansion	APWA Streets and Transportation
City of Fountain Valley	Recreation Center Expansion	ASCE
City of Westlake Village	Lindero Canyon Road Bridge	APWA Transportation
City of Elk Grove	Citywide LED Luminaire Installation	APWA Environmental
City of Elk Grove	Bond Road and Bader Road Intersection Signal	APWA Transportation
City of Elk Grove	Island Park Improvements	APWA Parks and Trails
City of Elk Grove	Grant Line Road Widening and Grade Separation	APWA Transportation
City of Elk Grove	Long Leaf Bridge	APWA Environmental
City of Yreka	Stormwater Attenuation and Floodplain Restoration	APWA Environmental

Project Team

Project Manager

Mr. Tyrone Peter, PE will serve as Project Manager and be responsible for delivery of services in accordance with the established scope of services for projects awarded under this on-call contract. Mr. Peter possesses a strong work ethic and leadership skills that enable him to provide clear priorities and direction in project delivery. Using his ability to assess his staff's strengths, Mr. Peter positions his team members where they can be most successful. He uses his collaborative nature to build and maintain consensus among a variety of stakeholders to the benefit of project delivery. During his career, Mr. Peter has served as Project Manager, Civil Engineering Task Leader, Supervising Engineer, Senior Engineer, Design Engineer, and Designer for over 200 street improvement projects with design contracts ranging from $5,000 to $2.9 million.

Mr. Peter develops trusting partnerships with project stakeholders through open and honest communication. He will work closely and collaboratively with the City's project representatives to determine optimal use of Willdan's project team. While a highly cost-effective team has been assembled for this project, Mr. Peter will continuously look for ways to improve efficiency and effectiveness.

Subconsultant Team

Willdan's vast staffing resources enable us to provide services with a minimum of subconsultant assistance. For this on-call contract, our in-house team will be augmented with one subconsultant – AeroTech Surveys, Inc. for field and aerial surveys and electrical engineering. Willdan ensures all subconsultants provide the same caliber of performance that Willdan provides by holding our subconsultants accountable to Willdan's high standards of performance, scheduling, and budgetary controls. For federal-/state-funded projects, Willdan has a database of disadvantaged business enterprises that we will utilize to cull select specialty disciplines in support of the City's stated project DBE goal.

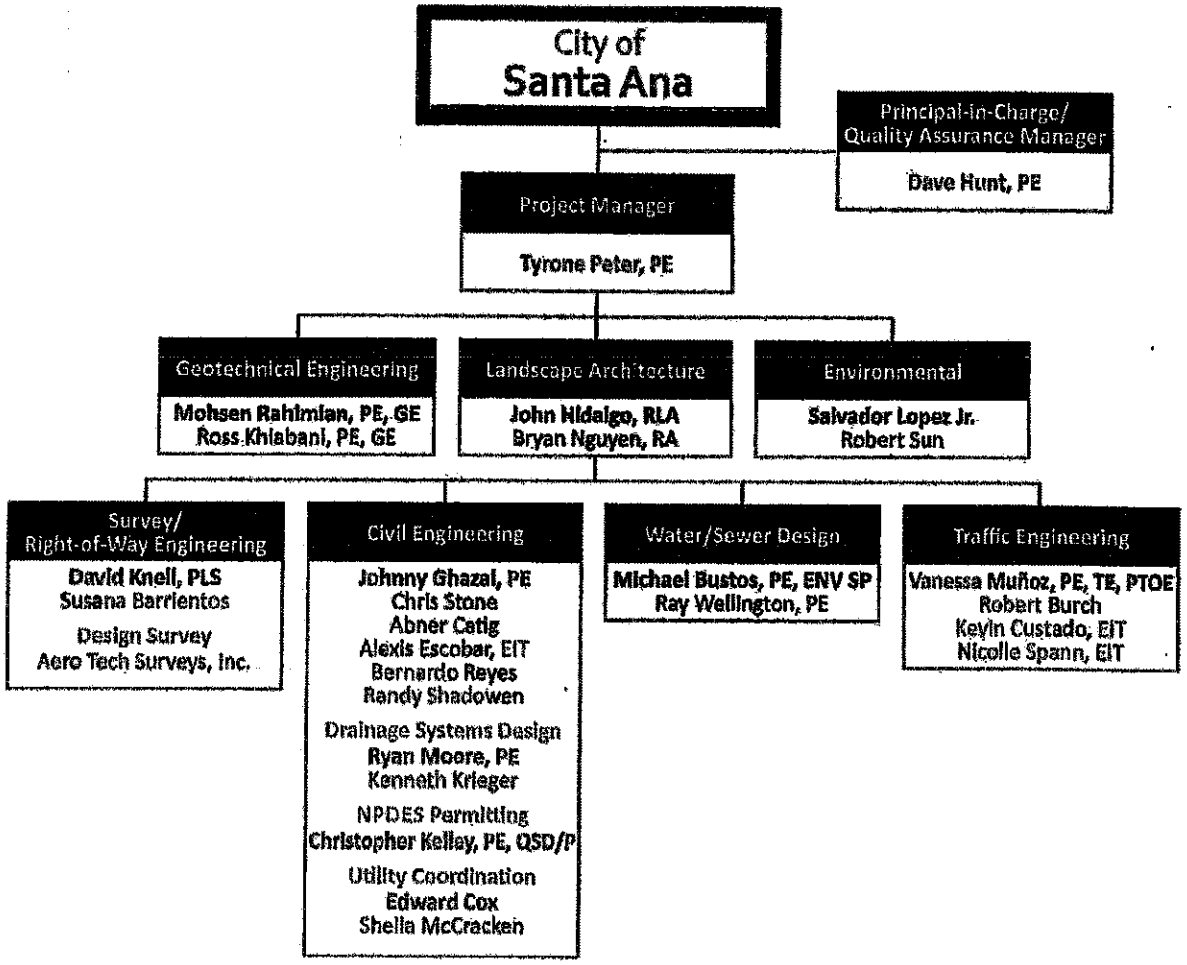
AeroTech Surveys, Inc.

Schmidt Geomatic Mapping, Inc., doing business as AeroTech Surveys, is a California corporation founded 41 years ago. It is a state-certified woman-owned small business enterprise. The firm provides aerial mapping services supported with land surveying services. Under the direction of a California-licensed land surveyor, the staff at AeroTech provides comprehensive services to meet client mapping needs. They plan the aerial control layouts, flight coverage, imagery acquisition, photogrammetric mapping, and CAD editing. AeroTech's survey crews set and survey the aerial control network and provide site-specific surveys. Project capabilities include monument recovery, monument preservation, baseline control networks, benchmark elevation surveys, alignment surveys, cross sections, deformation surveys, and more.

Project Organization

The organization chart presented below identifies our key personnel and illustrates the communication and reporting relationships and project roles for Willdan's key team. This chart illustrates current Willdan employees and represents the depth of technical support personnel that may be utilized for an on-call project award. This is far from an exhaustive list of our staff resources. Willdan understands that key staff cannot be replaced without consent of the City. Our organization chart includes our two subconsultants and depicts their line of reporting and communication.

Resumes for Key staff have been included on the following page.



Tyrone Peter, PE
Project Manager
Profile Summary

Education: BS, Engineering and Civil Engineering, Tamil Nadu College of Engineering
Civil Engineering, Murugappa Polytechnic

Registration: Civil Engineer, California No. 81888

Affiliations: American Public Works Association
American Society of Civil Engineers

Experience: 11 Years

Mr. Tyrone Peter is an accomplished civil engineer for multi-discipline and multi-agency infrastructure projects and is known for providing innovative, quality engineering services to ensure project delivery within budget and schedule. As the project manager for the City's On Call Engineering Services project, with qualified staff and resources, he will be responsible for successful project delivery.

Mr. Peter's 11 plus years of experience managing and designing all types of public works projects provide a solid foundation to understand what is needed to deliver a successful project and make him the perfect fit for overseeing the entire project as well as specific civil engineering tasks His comprehensive experience includes design of state highway, new street, street widening, street realignment, pavement rehabilitation, light rail and railroad, grade separation, flood control facility, water, and sewer projects. Mr. Peter has supervised feasibility study, project study report, project report, construction document preparation as well as grade certification issuance, construction administration, and construction inspection.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Civil Engineering Task Leader responsible for oversight of all civil engineering services and preparing necessary reports, plans, specifications, and estimates documentation. Performance of these responsibilities required expertise and knowledge in street, traffic, drainage, structural, and pavement design, ADA standards, public outreach, pedestrian safety, and water quality. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Project Manager responsible for overall project management and oversight required for the corridor improvements from Alameda Street to Hunt Avenue. Performance of these responsibilities required expertise and knowledge in street and pavement design, ADA standards, public outreach, environmental documentation, Green Street design, and watershed management planning. The improvements involved increasing traffic capacity by reconfiguring the roadway from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Civil Engineering Task Leader responsible for providing and overseeing all civil improvement design required for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Performance of these responsibilities required expertise and knowledge in intersection design, bike lanes, ADA standards, street geometric design, light-rail standards, parking lot and roadside safety design. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians, irrigation system, ADA access curb ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping. Three stations were constructed or reconstructed.

Los Alamitos Boulevard Median Improvements, City of Los Alamitos, California. Project Manager responsible for overall project management and oversight required for the improvements between Cerritos Avenue and Katella Avenue. Performance of these responsibilities required expertise and knowledge in street improvement, pavement rehabilitation, public outreach, signing and striping, street lights, and planting and irrigation. Improvements involved raised median, pavement delineation, landscape and irrigation improvements, street lighting and traffic signal improvements at intersections with Florista Street and Sausalito Street. There was minor traffic signal modification at intersections with Katella Avenue and Cerritos Avenue.

Placentia MetroLink Station Phase I and II, Orange County Transportation Authority, Orange County, California. Project Manager responsible for providing and overseeing all civil improvement design required for infrastructure improvements for the new station. The project site involved approximately 4.75 acres to provide a MetroLink commuter rail station that meets current and future transit demand and ADA requirements. The project goal fostered train ridership growth in the region. The station was planned as part of a key component of transit-oriented development envisioned in the Westgate Specific Plan for the City of Placentia. The project improvements included street, railroad track, and pedestrian improvements; rail platforms; and lighting, signing and striping of four parking facilities for 425 vehicles.

Downs Street Widening, City of Ridgecrest, California. Civil Engineering Task Leader responsible for providing and overseeing all civil improvement design required for the widening improvements. Performance of these responsibilities required expertise and knowledge in alternative pavement design, benefit/cost analysis, right-of-way engineering, street design, and utility coordination. The project includes environmental compliance, right-of-way research, and design. The project limits are Upjohn Avenue and Ridgecrest Boulevard. Improvements include street widening and new curb, gutter, curb ramps, and sidewalks. The preliminary engineering services include utility research, right-of-way research, field investigations, soils testing, and ground survey.

Street Improvements Phase II, City of Los Alamitos, California. Project Manager responsible for overall project management and oversight required for resurfacing of the following projects in the Phase II city-wide program:

- Via El Mercado Street Improvements
- Old Town West Improvements (Chestnut Street, Walnut Street, Florista Street)
- Commercial Street Improvements (Cerritos Avenue, Ball Road, Reagan Street, Humboldt Street, Portal Drive, Winners Circle, Los Alamitos Boulevard, Los Vaqueros Circle)

Performance of these responsibilities required expertise and knowledge in pavement rehabilitation strategies, ADA standards, and signing and striping. Willdan conducted site reconnaissance to observe the pavement condition, conducted coring, testing and engineering analysis and summarized the findings in a geotechnical report. Per the recommendation, the City streets within the project limits were ground and resurfaced with 2-inch thick asphalt-rubber hot mix or removed and replaced with asphalt concrete over aggregate base or with joint plain cement concrete. All manhole, water valve, anode, and monitoring well covers within the project limits were adjusted to grade. Curbs and driveways were protected in place. Sidewalks were improved and ramps were improved to current ADA requirements.

David Knell, PLS
Survey and Right-of-Way Engineering Task Leader
Profile Summary

Education: BS, Cartography, Boston University, Boston
Civil Engineering and Land Surveying Classes, California State University, Long Beach

Registration: Land Surveyor, California No. 5301

Affiliations: California Land Surveyors Association
Southern California Experts & Consultants

Experience: 41 Years

Mr. David Knell has been involved in preparing and checking numerous parcel maps and tract maps, ALTA surveys, records-of-survey, lot line adjustments, parcel map waivers, certificates of compliance, and boundary determination. He is responsible for preparing legal descriptions and sketches for a wide range of easements involving utilities, air space reservations, and construction projects. Mr. Knell works with major utilities and title companies in determining easements and correcting defective legal descriptions. His experience includes supervising field crews, overseeing an office staff dealing with various survey projects, and extensive experience with local, state, and federal agencies.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Survey and Right-of-Way Engineering Task Leader responsible for oversight of all office and field survey services and preparing necessary right-of-way engineering documentation. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Survey Task Leader responsible for providing and overseeing all mapping and right-of-way engineering required for the corridor improvements from Alameda Street to Hunt Avenue. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Survey Task Leader responsible for providing and overseeing all mapping and right-of-way engineering required for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians, irrigation system, ADA access curb ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping.

Los Alamitos Boulevard Median Improvements, City of Los Alamitos, California. Survey Task Leader responsible for providing and overseeing all mapping and right-of-way engineering required for the improvements between Cerritos Avenue and Katella Avenue. Improvements involved raised median, pavement delineation, landscape and irrigation improvements, street lighting and traffic signal improvements at intersections with Florista Street and Sausalito Street. There was also minor traffic signal modification at intersections with Katella Avenue and Cerritos Avenue.

Mohsen Rahimian, PE, GE
Material Testing Engineer
Profile Summary
Education: MS, Civil Engineering, Tehran University, Tehran
Registration: Civil Engineer, California, No. 73396
Geotechnical Engineer, California, No. 3059
Experience: 29 Years

Mr. Mohsen Rahimian posseeses expertise in geotechnical and material engineering, testing, investigation, design, and construction and has lent that expertise to a wide spectrum of public works projects. Mr. Rahimian has substantial experience in conducting and managing geotechnical and material testing and inspection services during construction. He has performed diversified geotechnical assignments, including pavement design, shallow and deep foundation design, settlement evaluations, liquefaction studies, and slope stability analyses. Mr. Rahimian experience includes geotechnical, civil, and structural design and construction management.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Geotechnical Engineer responsible for quality assurance materials testing. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Placentia MetroLink Station Phase I and II, Orange County Transportation Authority, Orange County, California. Geotechnical Engineer responsible for quality assurance materials testing required for infrastructure improvements for the new station. The project site involved approximately 4.75 acres to provide a MetroLink commuter rail station that meets current and future transit demand and ADA requirements. The project goal fostered train ridership growth in the region. The station was planned as part of a key component of transit-oriented development envisioned in the Westgate Specific Plan for the City of Placentia. The project improvements included street, railroad track, and pedestrian improvements; rail platforms; and lighting, signing and striping of four parking facilities for 425 vehicles.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Geotechnical Engineer responsible for quality assurance materials testing required for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians, irrigation system, ADA access curb ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping.

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Geotechnical Engineer responsible for quality assurance materials testing required for the corridor improvements from Alameda Street to Hunt Avenue. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Johnny Ghazal, PE, QSD
Civil Engineering Task Leader
Profile Summary

Education: BS, Civil Engineering, California Polytechnic State University, Pomona

Registration: Civil Engineer, California No. 76395
Qualified SWPPP Developer/Practitioner, California Stormwater Quality Association No. 849

Affiliations: American Society of Civil Engineers

Experience: 14 Years

Mr. Johnny Ghazal possesses diversified civil engineering experience throughout California covering public works and private sector projects, preceded by six years of residential and commercial construction experience. His private sector experience includes designing master-planned communities involving tentative tract maps; grading plans; improvement plans for streets, water, and sewer; and storm drain facilities. Mr. Ghazal's experience includes design of capital improvement projects for street, water, sewer, and storm drain improvements.

As a certified QSD, Mr. Ghazal has facilitated water quality related permitting – having prepared and reviewed many storm water pollution prevention plans and water quality management plans for various public agencies. He currently assists multiple agencies with data entry on the State's SMARTS system.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Civil Design Engineer responsible for assisting with drainage and other civil improvement design. Performance of these responsibilities requires expertise and knowledge in City and County standards, guidelines, and procedures and hydrology and hydraulic modeling. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Civil Design Engineer responsible for assisting with drainage and other civil improvement design for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Performance of these responsibilities required expertise and knowledge with City and County standards, guidelines, and procedures; trail design. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians, irrigation system, ADA access curb ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping. Three stations were constructed or reconstructed.

Ninth Street Safety Improvements, City of Highland, California. Civil Design Engineer responsible for assisting with drainage and other civil improvement design for street widening at specific locations. Performance of these responsibilities required expertise and knowledge in highway design, pavement rehabilitation strategies, and addressing impacts to private properties for transitioning the improvements. Project improvements involved slurry sealing the project limits; restriping the project limits to incorporate two 13-foot through lanes, one 12-foot two-way left-turn lane, 5-foot Class II bicycle lanes; and 8-foot parking lanes; installing pedestrian count-down heads at five signalized intersections; and installing an in-pavement roadway lighting system with advance flashing beacons. Services provided include civil, traffic, pavement, and drainage engineering, survey and right-of-way engineering, utility coordination and relocation, and landscape architecture.

Gary Gordon, PE
Structural Engineering Task Leader
Profile Summary

Education: BS, Civil Engineering, California State University, Chico
Registration: Civil Engineer, California No. 42176
Affiliations: American Public Works Association
American Society of Civil Engineers
American Concrete Institute
Experience: 32 Years

Mr. Gary Gordon has 32 years of comprehensive experience, including project management, design, and construction management of bridge, roadway, traffic signal, waterline, sewer, drainage, and airport projects. In 2015, Mr. Gordon was placed in charge of Willdan' bridge and structural engineering team. With this new assignment, he now oversees projects such as Mariposa County's rehabilitation/replacement of five bridges that is currently in the preliminary engineering phase.

Mr. Gordon's career includes serving as a staff member of the Shasta County Department of Public Works, Caltrans Division of Structures, and the City of Redding's Department of Public Works performing detailed and complex design, construction management, and division management and supervision. Throughout his career, Mr. Gordon's focus has been on the delivery of road and bridge projects and the various appurtenances associated with them.

Mr. Gordon has dealt with complex environmental compliance issues involving CEQA and NEPA as well as developed considerable experience with resource agency permitting issues. The experience and insight gained from working directly with these agencies have proven invaluable in understanding and appreciating the varying needs of the different types of agencies that Willdan serves and developing the best solutions for those needs.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Structural Engineering Task Leader responsible for responding to structural requests for information during construction and redesigning various structural elements to accommodate utility lines discovered during construction. Performance of these responsibilities requires expertise and knowledge in various structural building codes such as ACI, AASHTO, and CBC as well as construction practices and principles. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Lakewood Boulevard/Del Amo Boulevard Hot Spot Intersection Improvement, City of Lakewood, California. Structure Engineering Task Leader responsible for overall structural design of culvert structural and retaining walls. Performance of these responsibilities requires expertise and knowledge in various design codes such as ACI and LACFCD for work within a concrete channel under Los Angeles County Flood Control District jurisdiction. The project entailed widening Lakewood Boulevard north of Del Amo Boulevard; modifying/replacing median islands; widening Del Amo Boulevard; modifying traffic signals; relocating street lights per street/median island modifications; modifying a box culvert/channel wall; and extending a Class II bike lane.

John Hidalgo, RLA

Landscape Architecture Task Leader

Profile Summary

Education: BS, Landscape Architecture, California State Polytechnic University, Pomona
European Study Tour, California Polytechnic State University, School of Architecture, Pomona

Registration: Landscape Architect, California No. 35511
Licensed Contractor, California C-27 No. 713613

Affiliations: American Society of Landscape Architects
California Parks and Recreation Society
California Landscape Contractors Association

Experience: 24 Years

Mr. John Hidalgo possesses in-depth expertise in landscape architecture design development, preparation of plans and specifications, plan reviews, and construction observation. Mr. Hidalgo is familiar with various local, state, and federal codes, regulations, procedures, and standards relating to construction, safety, park and facility planning, and other landscape and irrigation amenities. He has successfully completed projects in compliance with these various standards. Mr. Hidalgo has experience representing project owners during the plan review process. He possesses comprehensive experience in both field observation and construction. Mr. Hidalgo responsibilities include managing park and street beautification design, low-impact developments, plan reviews, and construction observation.

Relevant Project Experience

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Landscape Architecture Task Leader responsible for providing and overseeing all landscape and irrigation design required for the corridor improvements from Alameda Street to Hunt Avenue. Performance of these responsibilities required expertise and knowledge in current landscape design ideas for drought-adaptive landscape and irrigation technology. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Orange Line Extension, Brutoco Engineering & Construction, Inc./Los Angeles County Metropolitan Transportation Authority, Los Angeles, California. Landscape Architecture Task Leader responsible for providing and overseeing all landscape and irrigation design required for the design/build of the MOL extension from the Chatsworth Station to Canoga Station in the San Fernando Valley along Canoga Avenue. Performance of these responsibilities required expertise and knowledge in working with the City of Los Angeles and the Metropolitan Transportation Authority guidelines and procedures. Willdan prepared plans, specifications, and estimate for street widening, raised landscaped medians, irrigation system, ADA access cur b ramps, bicycle paths, park-and-ride and parking lot facilities, traffic signal modifications, communication conduits, and signing and striping.

Los Alamitos Boulevard Median Improvements, City of Los Alamitos, California. Landscape Architecture Task Leader responsible for providing and overseeing all landscape and irrigation design – along with illustrative graphic concept presentations to the City Council – required for the improvements between Cerritos Avenue and Katella Avenue. Performance of these responsibilities required expertise and knowledge in graphic design and photographic view simulations of before-and-after scenarios. Improvements involved raised median, pavement delineation, landscape and irrigation improvements, street lighting and traffic signal improvements at intersections with Florista Street and Sausalito Street.

Vanessa Muñoz, PE, TE, PTOE
Traffic Engineering Task Leader
Profile Summary

Education: BS, Civil Engineering, California Polytechnic State University, Pomona

Registration: Professional Traffic Operations Engineer
Civil Engineer, California, No. 67583
Traffic Engineer, California, No. 2341

Affiliations: City Traffic Engineers
American Public Works Association
Institute of Transportation Engineers

Experience: 19 Years

Ms. Vanessa Muñoz is an accomplished engineer with experience in multi-discipline and multi-agency traffic and transportation projects. She has supervised completion of over 1,000 projects, for a variety of large- to small-scale projects and has designed over 500 signalized intersections for client cities, outside agencies, and Caltrans. She is responsible for analysis, coordination, and preparation of plans, specifications, and estimate for traffic signals, signing, striping, traffic control, flashing beacons, street lighting, interconnect, parking lots, street widening and resurfacing projects.

Ms. Muñoz has secured funding through the Safe Routes to School and Highway Safety Improvement Program (HSIP) grants and has managed projects that include federal funds such as SRTS, HSIP, ARRA, STIP, and STPL. She is extremely familiar with the Local Assistance Procedures Manual, has coordinated approvals of NEPA/CEQA, and understands procedures for allocation of construction funds and issuance of the E-76 form.

Relevant Project Experience

Emerald Bay Main Gate Safety Improvements, Emerald Bay Service District, Laguna Beach, California. Project Manager/ Traffic Engineering Task Leader responsible for overall project management and oversight in addition to oversight of all traffic engineering services and preparing necessary reports, plans, specifications, and estimates documentation. Performance of these responsibilities requires expertise and knowledge in traffic signal design, traffic impact analysis, street lighting, traffic signal intra-communication, and pedestrian safety, and vehicular ingress/egress safety. Willdan provided civil and traffic engineering design and other appurtenant services for safety improvements at the main gate entrance. Improvements involved road widening, guardhouse relocation and reconstruction; grading to accommodate the roadway widening and landscaping; installing upgraded lighting, ADA-compliant curbs and ramps, and retaining and monument walls; widening the right-turn pocket and installing a median; and installing street striping and signage within Caltrans' right-of-way.

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Traffic Engineering Task Leader responsible for providing and overseeing all traffic engineering services required for the corridor improvements from Alameda Street to Hunt Avenue. Performance of these responsibilities required expertise and knowledge in traffic signal design, traffic impact analysis, street lighting, and traffic signal intra-communication. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Salvador Lopez
Environmental Task Leader
Profile Summary
Education: BS, Urban and Regional Planning, California State Polytechnic University, Pomona
Experience: 18 Years

Mr. Salvador Lopez has more than 18 years of planning experience that spans all aspects of planning, including current, advance, and environmental planning, as well as active transportation planning and housing and community development. He is highly experienced at managing multi-disciplinary teams in the development of policy and long-range planning documents for public agencies.

Relevant Project Experience

Firestone Boulevard Capacity Enhancement, City of South Gate, California. Environmental Compliance Task Leader responsible for providing and overseeing all environmental services required for the corridor improvements from Alameda Street to Hunt Avenue. Performance of these responsibilities requires expertise and knowledge in City and County standards, policies, and procedures; general plan practices; and NEPA/CEQA conformance. The improvements involved roadway widening from four to six lanes; pavement rehabilitation; landscape and hardscape medians; median lighting; sidewalk, curb and gutter, and driveway approach reconstruction; ADA-compliant ramps; parkway trees; artistic elements, corridor entrance monument; bus shelter and bus turnouts; and traffic signal modifications. Services provided included civil, traffic, pavement, and drainage engineering; landscape architecture, survey and right-of-way engineering; and utility relocation.

Garfield Avenue Corridor Improvements, City of Paramount, California. Environmental Compliance Task Leader responsible for providing and overseeing all environmental services required for street improvements between the north City and the south City limits. The design involved street widening to accommodate a third lane in each direction; street resurfacing; two concrete intersections; concrete sidewalk, curb and gutter, and driveway approach reconstruction; catch basin construction; streetscape improvements for raised landscaped medians and modifications to existing medians; two entry monument signs; and traffic signal modifications at nine locations along the Garfield Avenue corridor. Services included civil, traffic, and drainage engineering; survey and mapping; utility relocation; landscape architecture; and pavement management.

Lakewood Boulevard Regional Corridor Capacity Enhancement, City of Lakewood. Environmental Compliance Task Leader responsible for providing and overseeing all environmental services required for complete street/green street improvements between the north City limits and Del Amo Boulevard. Performance of these responsibilities requires expertise and knowledge in City and County standards, policies, and procedures; general plan practices; NEPA/CEQA conformance; complete streets; sustainability planning; and low-impact development standards. Improvements involved street widening and median improvements; Class II bike lanes in both directions; turn lanes; landscape planting and irrigation; overhead distribution and transmission power undergrounding; sidewalk, curb and gutter, and driveway approach reconstruction; street resurfacing; catch basin construction; storm water quality improvements to comply with Green Streets policy; bike lockers, bus shelter, and traffic signal modifications. Services provided include civil, traffic, pavement, drainage, and geotechnical engineering; landscape architecture, survey and right-of-way engineering, and utility coordination and relocation.

Michael Bustos, PE, ENV, SP

Water and Sewer Engineer Construction Manager

Profile Summary

Education: BS, Civil Engineering (Magna Cum Laude), California Polytechnic State University, San Luis Obispo
Caltrans Resident Engineer Academy

Registration: Civil Engineer, California No. 73173
Envision Sustainability Professional, Institute for Sustainable Infrastructure

Affiliations: City Traffic Engineers
American Public Works Association
Institute of Transportation Engineers

Experience: 16 Years

Mr. Michael D. Bustos is responsible for design and construction management of projects such as roadway reconstructions, drainage improvements, pipelines, pavement rehabilitation, street improvements, and grading. Mr. Bustos has served as resident engineer for over a dozen federally- and state-funded projects over the last five years. He has gained valuable experience in on-site construction management, off-site construction administration, inspection, design, and plan checking during his 13 years with Willdan.

Relevant Project Experience

Trunk Water Replacement, Morongo Band of Mission Indians, Banning, California. Project Engineer/Construction Manager. Engineer of Record responsible for preparation of plans, specifications, and estimate for construction of 16-inch water main on Porters, Morongo, and Martin Roads. Mr. Bustos also served as Construction Manager during construction, and was responsible for contract administration, materials testing, and public works observation.

Firestone/Atlantic Design, City of South Gate, California. Reclaimed Water Design Engineer. Mr. Bustos provided construction phase design support for installation of a 10-inch reclaimed water line on Firestone Blvd. The project was constructed by the City and maintained by Central Basin Municipal Water District. Willdan provided surveying, civil engineering, geotechnical engineering, and utility coordination services for street improvements on Firestone Boulevard from Dorothy Avenue to Lotta Avenue and on Atlantic Avenue from Patata Street to Branyon Avenue. As part of our design services, Willdan provided final civil plans, including street design, storm drain, sewer and water relocation, traffic signal modification and installation, signing and striping, street lighting, contract specifications, and engineer's estimate for widening both Firestone Boulevard and Atlantic Avenue. In addition, Willdan prepared a project report and cost estimates, including aerial topography and street centerlines; roadway geometrics; hydrology study; sewer study; water study; utility relocation concepts; geotechnical recommendations; turn pocket lengths; landscaping.

Rehabilitation of Well No. 25, City of South Gate, California. Project Engineer. Mr. Bustos assisted while managing the hydrogeological sub-consultant: Hopkins Groundwater Consultants, Inc. (Hopkins) in providing well rehabilitation consultation services to the City. The well had been out of service for three years due to a sanding problem. When in operation, production from the lower half of the 1,300 feet deep well was providing only 20 percent of the overall well production. Following initial consultation, Mr. Bustos and Hopkins prepared a well condition assessment to allow the City to explore their rehabilitation options, then select a method that would possibly allow the City to regain production from the perforated zones of the existing casing. Mr. Bustos facilitated well condition assessment and inspection services during well cleaning and video survey (aided by Hopkins). The completed well review provided the City with an accurate assessment of the well's current conditions and recommendations for rehabilitation. Following the well conditions review, and at the request of the City, Mr. Bustos and Hopkins prepared specifications for the City's preferred rehabilitation method.

Brief biographies for our technical support team are provided below.

Technical Support Team

Susana Barrientos

Project Role
- Survey Analyst

Credentials Profile
- BS, Civil Engineering
- 13 Years' Experience

Background Summary
Ms. Susana Barrientos possesses strong project experience with right-of-way drawings, subdivision maps, parcel maps, tract maps, and surveys. She is experienced in preparing geometric plans, project reports, and project study reports. Mr. Barrientos is proficient with computer-aided drafting programs.

Ross Khiabani, PE, GE

Project Role
- Geotechnical and Pavement Engineering Analyst

Credentials Profile
- Civil Engineer, California No. 37156
- Geotechnical Engineer, California No. 2202
- MS, Geotechnical Engineering
- BS Equivalent, Geology
- 34 Years' Experience

Background Summary
Mr. Ross Khiabani performs diversified geotechnical engineering involving soil mechanics and foundations, soil stabilization, landslide analysis and stabilization, settlement evaluations, liquefaction studies, slope stability analyses, laboratory testing, and inspection during construction. His vast experience includes commercial, industrial, bridges, roads, freeways, and water and wastewater facilities projects.

Chris Stone

Project Role
- Civil Drafter/Designer

Credentials Profile
- Civil Engineer, Arizona, No. 55200
- Graduate Courses, Mathematics, Oregon State University and Engineering Mechanics, Montana State University
- BS, Civil Engineering, Montana State University
- 23 Years' Experience

Background Summary
Mr. Chris Stone has experience in transportation and traffic engineering, street and roadway design engineering, water and wastewater engineering, flood control hydrologic and hydraulic design engineering, tract map and parcel mapping, grading, and structural engineering. He has participated in all technical aspects of projects including preliminary engineering, construction document preparation, and reviews.

Abner Catig

Project Role
- Civil Drafter/Designer

Credentials Profile
- BS, Civil Engineering Cebu Institute of Technology, Philippines
- Los Angeles County Hydrologic Method California State University, Long Beach
- 31 Years' Experience

Background Summary
Mr. Abner Catig possesses expertise in design of flood control and drainage improvements, grading and site plans, hydrology studies, sewer improvements, storm drains, and streets and highways. He has extensive knowledge of Caltrans, Los Angeles County Department of Public Works, and Orange County Environmental Management Agency design criteria and guidelines.

Alexis Escobar, EIT

Project Role
- Civil Drafter/Designer

Credentials Profile
- Engineer-in-Training, California No. 161058
- BS, Civil Engineering, California State Polytechnic University, Pomona
- 1 Year Experience

Background Summary
Mr. Alexis Escobar is a recent graduate and has gained design experience providing engineering design assistance to projects involving street improvements, district/city entrance enhancements, parks, a new MetroLink train station, corridor enhancements, and providing on-call engineering design services.

Bernardo Reyes

Project Role
- Civil Drafter/Designer

Credentials Profile
- 12 Years' Experience

Background Summary
Mr. Bernardo Reyes is responsible for preparation of CADD drawings utilizing both MicroStation and AutoCad for public works project geometric plans and final plans, specifications, and estimates. His experience includes design of street widening, street realignments, drainage facilities, sewer improvements, and waterline improvements.

Randy Shadowen

Project Role	Credentials Profile
▪ Civil Drafter/Designer	▪ Autodesk AutoCAD Certified Professional ▪ Autodesk AutoCAD Civil 3D Certified Associate ▪ 17 Years' Experience

Background Summary

Mr. Randy Shadowen is responsible for preparation of Micro Station and AutoCAD drawings, both for geometric plans and final construction bid documents for a variety of local street, highway and railroad projects and flood control projects and for projects on the state freeway and highway system that are subject to review by Caltrans.

Ray Wellington, PE	Credentials Profile
Project Role ▪ Water and Sewer Engineer	▪ Civil Engineer, California, No. 25131 ▪ Traffic Engineer, California No. 958 ▪ BS, Civil Engineering, California State Polytechnic University, Pomona ▪ Graduate Courses, Public Administration ▪ Technical and Managerial Seminars and Workshops ▪ Resident Engineer Academy (UC-ITS) ▪ 43 Years' Experience

Background Summary

Mr. Ray Wellington has performed numerous infrastructure planning, funding, design and construction improvement projects with specific experience in arterial roadways, local streets, and highways includes initial project planning, scoping, design oversight, right-of-way engineering, plan and specification reviews, bidding process, and construction management and inspection.

Ryan Moore, PE	Credentials Profile
Project Role ▪ Drainage Engineer	▪ Civil Engineer, California No. 82724 ▪ MS, Environmental Engineering ▪ BS, Civil Engineering ▪ 6 Years' Experience

Background Summary

Mr. Ryan Moore is responsible for designing street, drainage, regional BMP, and sewer projects. This includes preparation of hydrology and hydraulic reports, plans, specifications, and estimate for storm drain, sanitary sewer, water, street improvements and permits for various public agencies in Southern California.

Kenneth Krieger	Credentials Profile
Project Role ▪ Hydrology/Hydraulic Analyst	▪ 25 Years' Experience

Background Summary

Mr. Kenneth Krieger specializes in developing and executing hydraulic modeling software for flood control, storm drain and sewer related projects. He has performed hydrology and hydraulic calculations on numerous flood control channels, storm drains and performed capacity analysis for complete sewer systems.

Bryan Nguyen, RLA	Credentials Profile
Project Role ▪ Planting/Irrigation Architect	▪ Landscape Architect, CA No. 4967 ▪ BS, Landscape Architecture ▪ 17 Years' Experience

Background Summary

Mr. Bryan Nguyen is experienced with developing conceptual landscape plans with extensive graphic vignettes such as photographic before and after simulations; and the preparation of construction documents. Mr. Nguyen is proficient in preparing irrigation water and landscape management specification documents and performing agency contract landscape plan reviews.

Christopher Kelley, PE, QSD/P	Credentials Profile
Project Role ▪ Water Quality Engineer	▪ Civil Engineer, California No. 83179 ▪ QSD/P, CA Stormwater Quality Association No. 25874 ▪ 10 Years' Experience

Background Summary

Mr. Christopher Kelley is responsible for design and review of public works improvement projects, including streets, highways, storm drains, and water quality improvements. He designs and reviews low-impact development reports and best management practices under numerous MS4 permits to comply with the National Pollutant Discharge Elimination System MS4 Permit.

Robert Burch	Credentials Profile	
Project Role	▪ AA, Liberal Arts	▪ 24 Years' Experience
▪ Traffic Designer/Drafter	▪ Post Certified Radar Operator	

Background Summary

Mr. Robert Burch provides traffic design services for client cities, outside agencies, and California Department of Transportation (Caltrans) projects. Mr. Burch offers expertise in design and drafting. His experience relates to preparing plans, specifications, and estimates for traffic signals, signing and striping, street lighting, traffic control, and stage construction projects and utilizing Caltrans standards.

Kevin Custado, EIT	Credentials Profile	
Project Role	▪ Engineer-in-Training, CA No. 153964	▪ BS, Civil Engineering
▪ Traffic Designer/Drafter		▪ 2 Years' Experience

Background Summary

Mr. Kevin Custado specializes in traffic engineering investigations and planning and is knowledgeable in highway engineering processes and their application to operating systems. Mr. Custado is experienced with geometric design of transportation projects, including alignment reconfigurations, estimation of quantities, and plan and profile generation using AASHTO and Caltrans design manuals.

Nicolle Spann, EIT	Credentials Profile	
Project Role	▪ Engineer-in-Training, CA No. 156551	▪ BS, Civil Engineering
▪ Traffic Designer/Drafter		▪ 5 Years' Experience

Background Summary

Ms. Nicolle Spann specializes in traffic engineering investigations and planning. She is knowledgeable in highway engineering processes and their application to operating systems. Ms. Spann is experienced in traffic impact analyses, including trip generation, trip distribution, and level-of-service analyses. She is very experienced with authoring engineering and traffic surveys and clearly conveys her knowledge of the California MUTCD in recommending speed limits for these surveys. Ms. Spann has experience with signing, striping, and signal design.

Robert Sun	Credentials Profile	
Project Role	▪ BA, Social Ecology	▪ 17 Years' Experience
▪ CEQA Exemption Specialist		

Background Summary

Mr. Robert Sun possesses experience in local government planning, emphasizing discretionary case processing and long-range advance planning programs. He prepares NEPA-related environmental studies for roadway improvement and housing projects and assists with preparing strategic plans to revitalize downtowns.

Edward Cox	Credentials Profile	
Project Role	▪ United Association Local 250 Apprentice Program	▪ 33 Years' Experience
▪ Utility Coordinator		

Background Summary

Mr. Edward Cox is highly knowledgeable and experienced with utility coordination and relocation. He is adept at utility research and location; notifying utilities as required; and ensuring communication with involved utility agencies is accurate, complete, and results in successful utility relocation without delays to the improvement project.

Sheila McCracken	Credentials Profile
Project Role	▪ 25 Years' Experience
▪ Utility Coordinator	

Background Summary

Ms. Sheila McCracken assists with design and preparation of a variety of local street, highway, railroad, and flood control projects – all of which included utility research and base mapping. She has been responsible for preparing CADD drawings for geometric plans and final plans, specifications, and estimates for several projects on the state freeway and highway system requiring Caltrans review.

Understanding of Need

The City of Santa Ana's Public Works Agency is seeking experienced professional consultants to retain on as-needed or on-call basis for various general engineering design and related supporting services involving public facilities and infrastructure needs. Additionally, the City's RFP contains two 'tasks' to be addressed by selecting either Option A, Option B or both A and B by providing representational scopes of work, schedule and fee. Below is our outline that demonstrates the understanding of the work to be provided.

Scope of Work

Per the RFP, the following is a representation of how Willdan defines the scope for Water Resources projects (Option A) and General Engineering design other than Water Resources (Option B). For Tasks that are largely similar, such as Project Management, the scope has been combined for Option A and B as noted in following Task headers.

Task 1 – Project Management – *Option A and Option B*

Task 1 Deliverables
- Meeting schedules, attendance, rosters, matrix, meeting agendas and minutes
- Detailed project schedule
- Monthly project reports

Willdan understands effective project management is a necessity to maintain project control. Because of this, Willdan approaches each project with a Project Management Plan (PMP). The PMP identifies the project team, stakeholders, scope, potential project challenges, and establishes a QA/QC plan, project tasks, deliverables, and milestones. The PMP establishes regular meetings with City staff, utility companies and other participating agencies, as required, to discuss work progress, schedule, and related issues to exchange information, discuss and resolve issues, and to maintain progress of the project. The PMP is the overarching resource that ensures effective communication and complete project control. In addition, Willdan will dedicate a Project Manager to manage the performance of the project including, but not limited to, facilitating coordination between the design team, the City of Santa Ana, utility companies, and other stakeholders directly affected by the proposed project. The Project Manager will supervise, coordinate, monitor and review the project design for conformance with City standards, policies, and procedures and will be responsible for:

- Maintaining continuous communication with City Project Manager, including meetings to review the preliminary design and project status at 30-, 60-, and 100-percent completion.
- Providing monthly project status report, or as specified in the PMP.
- Overseeing project delivery targeting proposed schedule and minimizing project budget.

Willdan will facilitate a pre-design meeting with City representatives to review the project in detail. Willdan will determine requirements and procedures for design, ongoing review, and coordination. In consultation with City representatives, Willdan will determine relevant issues specific to the project, design standards, and funding limits. Progress meetings will be held monthly or more frequently if needed, with City staff, permitting agencies and utility companies as needed.

Task 2 – Agency and Utility Coordination – *Option A and Option B*

Subtask 2.01 – Conditions Review. *Option A:* Willdan will review available well data to be provided by the City of South Gate, including well completion and testing reports, well geophysical logs, well inspection videos, hydraulic efficiency tests, water quality tests, and other pertinent information. Willdan will use the information provided by the City to prepare an assessment summary letter including discussion of the risks and benefits associated with alternative rehabilitation procedures. The summary letter will also identify if any additional testing is required prior to, or during well rehabilitation to fill data gaps or provide essential information.

Task 2.02 Deliverables
- Well Assessment Summary Letter
- Meeting agendas and minutes
- Utility notification letters
- Utility matrix

Subtask 2.02 – Agency and Utility Coordination. *Option A AND Option B:* Willdan will request utility atlases from utility companies known to operate and/or maintain facilities within the project areas for reference in the improvement plans. Willdan will conduct a utility investigation to identify utilities that will be impacted and will research prior rights to clearly identify parties responsible for relocation of the affected utilities. Willdan will coordinate the utility improvements with the identified utility companies, including the impacts to high-hazard/high-pressure facilities.

Per the City's Request for Proposal, coordination with utility companies will include:

- Prepare initial request for utility information such as atlas sheets, mapping, or as-built plans and develop utility base map based upon information received from utility companies.

- Submit 30-, 60-, and 100-percent plans to those utility companies with facilities in immediate project area for review and comment.
- Coordinate with utility companies to implement upgrade of facilities (upon request), as needed, within project limit and Maintain contact log.
- Determine any utility upgrades or installations that will be required to service existing and proposed improvements and coordinate installation of required upgrades with each affected utility company
- Lead efforts to identify ownership of unknown utility lines

Task 3 – Environmental Compliance and Permits – *Option A and Option B*

It is anticipated that the projects will qualify for Categorical Exemption Section 15301 Class 1(c) under existing highways and streets improvements that allows for roadway improvements for the purpose of public safety and has no significant effects on the environment. Willdan will perform its due diligence as part of this task to verify exemptions criteria set by California Environmental Quality Act (CEQA) under Article 19 of Categorical Exemptions and make necessary recommendations to the City. The City's Planning Division will make the final environmental determination. To satisfy CEQA requirements for the project, Willdan will prepare a notice of exemption for the City's use. We will assist with posting of the notice and with filing the Notice of Exemption with the County Clerk.

If Willdan believes that further detailed environmental studies and reports are needed to comply with CEQA and or National Environmental Protection Act (NEPA), subject to confirmation by City Staff, Willdan will meet and discuss with the applicable resource/regulatory agencies to confirm the necessary work effort and identify the cost and schedule to prepare the environmental reports, applications for permits and obtain clearance through all applicable agencies as additional scope of work. As part of Clean Water Act, a NPDES permit may be required for alternate discharging during well rehabilitation.

Task 3 Deliverables
- CEQA Categorical Exemption Form

Task 4 – Preliminary Engineering – *Option A and Option B*

Subtask 4.01 – Site Visit and Evaluation. Visual inspection is important for quality assurance and ensures a common-sense design. Willdan will conduct a site visit to attain a comprehensive understanding of the existing site facilities and constraints. Willdan will catalog existing conditions and facilities through photographs and field notes to be used as a reference during design.

An initial assessment will be performed to evaluate the existing condition of the water well. Based on the initial evaluations, rehabilitation options will be proposed. The entire well will have to pulled and the casing will have to be video inspected. Common causes of reduced well capacity could be sanding, rupture of casing, mineral build-up, heavy encrustation, screen damage, screen clogging or mechanical failures of the pump. Depending on the assessment, rehabilitation could include brushing and bailing casing, replacing ruptured casing, adding an elongated nozzle to bail to reduce sand flow, chemical treatment, remachine the pump and or rewind. After the initial evaluation, Willdan will work with City's current maintenance and repair contractor to rehabilitate the well or will work with the City to bid out the project.

Subtask 4.02 – Field Survey and Right-of-Way. Willdan will perform a field survey to ensure the accuracy and constructability of the final construction plans. For this project the survey will:

- Establish right-of-way through record research and/or survey.
- Option A: Ground Survey to map the existing facilities and utility alignment. The utility survey will include manholes, covers, and depth of cover when required.
- Option B: Topographic/ground survey will be required to determine existing grades and facilities. To ensure acceptable cross-slopes full street sections will be surveyed and analyzed at 25-foot intervals, driveways, and at approaches. The topographic survey shall extend a minimum of 200 feet beyond limits of construction within the public right-of-way, where possible. Full street sections include obtaining field data at all control or critical points, such as CL, BCR, ECR, and at any grade breaks between lips of gutters, and/or edges of pavement, and flow lines. Where applicable to the project scope, survey of private property improvements shall be included.

Subtask 4.02 Deliverables
- One electronic copy of all field survey data in Microstation V8i format

Subtask 4.03 – Geotechnical Investigation and Pavement Rehabilitation Strategies. All geotechnical investigation and analysis shall be performed by a state-licensed geotechnical engineer with expertise in pavement design. Willdan will conduct geotechnical investigations to measure the existing pavement sections and collect representative samples of subgrade soils for laboratory testing as described below. The task work includes:

- Field exploration including coring, drilling, and sampling at three locations to the maximum drilled depth of 10 feet below ground surface within the limits of the project site. Upon receipt of notice to proceed, a site visit will be performed to mark the core/boring locations and evaluate access conditions for drilling equipment. Willdan will call USA for underground utility locating at least 48 hours before any field work is performed. However, all available subsurface utility information should be provided/ identified prior to initiating field exploration to reduce the potential for damaging existing utilities. Traffic control will be provided during drilling.
- Borings/cores will be measured and visually logged in the field by an experienced representative. The log will include pavement sections thicknesses and subgrade conditions. The samples will be transported to Willdan's geotechnical laboratory for testing.
- Laboratory testing of collected representative subgrade soils will determine their index and engineering properties.
- Option A: Geotechnical investigation will be used to identify the soil properties for the trenching and backfill of proposed utilities.
- Option B: Providing recommendations for alternative new pavement sections.
- Option B: Performing a percolation test within a boring drilled to a depth between 5 and 10 feet for BMP and green streets implementation (if needed).
- Providing a draft report and presenting our findings, conclusions, and recommendations for review by the City. After receiving the City's comments, a final report incorporating the comments will be provided to the City. The report will be supported with a map illustrating boring/core locations and a summary of laboratory test results.

Subtask 4.03 Deliverables
- Three hard copies of draft geotechnical report and one electronic PDF copy
- Three hard copies of final geotechnical report and one electronic PDF copy

Subtask 4.04 – Preliminary Design Report Willdan will compile a Preliminary Design Report (PDR) for review and approval by the City. The report will contain a summary of the initial reconnaissance notes, utility provided information, field survey findings, any photographs of conditions for discussion, and the base design concept with preliminary construction cost estimate. The report will be discussed with City representatives to make reliable, cost effective decisions about the proposed street improvements, water and sewer rehabilitation/replacement methods.

Subtask 4.04 Deliverables
- Preliminary Design Report

During preparation of the PDR, Willdan will review existing information, such as the pavement management report, city sewer and water documents and field review of the street to make recommendations regarding the construction needs, including the location and extend of missing or damaged sidewalk, curbs and gutter, access ramps, driveways, sewer and water repairs. In addition, the report will address the disposition of existing utilities and coordination, and anticipated requirements.

Task 5 – Plans, Specifications, and Engineer's Estimate - *Option A and Option B*

Subtask 5.01 – Construction Plans.
Willdan will prepare conceptual plans for City review, comment and approval. Upon approval of the concept plans, the final design phase will be initiated. Willdan will submit plans at the 30-, 60-, and 100-percent levels of completion. The City will provide review comments at all design stages. Willdan will address comments received from the submittal reviews, including comments received from other affected agencies and utilities. Willdan will submit one, original, signed set of full-sized plans, a signed, unbound, set of final specifications, and a copy of the final engineer's opinion of construction cost to the City. One set of Mylars will be produced after 100% plans are approved by the City (upon request). Plans will conform to City standard plans and CADD standards and be prepared utilizing Microstation V8i software.

Task 5.01 Deliverables
- Three hard copies of full-size conceptual plan layout and one electronic PDF format
- Three hard copies of full-size and half-size plan submittals at 30-, 60-, and 100-percent completion milestones, one electronic PDF copy, and one electronic Microstation copy in V8i format.

Option A: The plans be prepared in sufficient detail to bid the rehabilitation of the identified well – method to be determined by the City after review of the assessment report – and the proposed sewer and water facilities. Utility plans will be drafted at 40-scale and plans will display all referenced standard plans including trenching details.

Option B: The plans will consist of a Title Sheet/ Typical notes, Roadway Plans, Construction Details, Signing and Striping, Landscape, and Storm Water Biofiltration (if required in complete streets). The Roadway Plans will

consist of two sheets and will be drafted at 20-scale. The Roadway Improvement Plans will include the topographic survey and utility base plan information, limits of removal, and limits of repairs for pavement, curb and gutter, driveway configuration, ADA curb ramps, etc. All other improvement plan sheets will be drafted at 40-scale.

Subtask 5.02 – Specifications.
Willdan will prepare technical special provisions for bidding per City standards. The City will provide boilerplate specifications. Special provisions will be prepared utilizing Greenbook and Caltrans formats (latest editions).

Task 5.02 Deliverables
- One electronic PDF copy and one electronic Word copy of technical and special provisions at 60- and 100-percent completion milestones

Subtask 5.03 – Engineer's Construction Cost Estimate.
Willdan will prepare a construction cost estimate to accompany the 30-, 60-, and 100-percent plan deliverables. Quantity calculations and final construction cost estimates will be prepared in accordance with City requirements to establish the project budget.

Task 5.03 Deliverables
- One electronic PDF copy and one electronic Excel copy of engineer's cost estimate at concept and 30-, 60-, and 100-percent completion milestones

Task 6 – Construction Bidding Phase Services - *Option A and Option B*

Willdan will prepare a construction bid package per City standards. Willdan will advise the City of the appropriate responses to bidders' technical questions. If an addendum is determined appropriate by the City, Willdan will prepare revised plans, specifications, and/or quantity estimates. Willdan will provide support during construction bidding phase services and advertising period by:

Task 6 Deliverables
- Construction bid package
- Addenda, as necessary
- Log of bidder inquiries

- Attending pre-bid meeting
- Assisting in analysis of bids, as necessary
- Logging questions and responses to bidders' questions regarding the bid documents
- Issue addendum to bid documents to answer questions raised, if required

Task 7 – Preconstruction and Job Site Meetings - *Option A and Option B*

Willdan will attend the preconstruction meeting, job walk, and job-site meetings, as required, over the course of construction. Willdan assumes one preconstruction meeting and three job site meetings.

Task 7 Deliverables
- Meeting minutes

Task 8 - Respond to Requests for Information and Submittals - *Option A and Option B*

Willdan will provide responses to contractor's requests for information about the plans and specifications. This task includes conferring with the City's construction manager, as appropriate, regarding the requests to address unforeseen site conditions and/or provide field design recommendations. Regularly scheduled construction observation is specifically excluded from this scope of work. Up to 10 responses to requests for information are included in the scope.

Task 8 Deliverables
- Log requests for information and provide responses
- Field design recommendations
- Field meeting minutes
- Design details

Task 9 – Prepare Record Drawings/As-Builts - *Option A and Option B*

Within 60 days following completion and acceptance of the project, Willdan will furnish the City with a complete set of revised original tracings showing as-built conditions on Mylar. Revisions will be solely based upon as-built information provided by the City's construction manager and the contractor.

Task 9 Deliverables
- One complete set of original record drawings on Mylar, one electronic PDF copy, and one Microstation V8i

Relevant Project Experience

Willdan has chosen the following representative summaries for completed projects that exemplify Willdan's extensive expertise and relation to the Scope of Work detailed in the RFP.

Firestone Boulevard Capacity Enhancement

City of South Gate
8650 California Avenue
South Gate, CA 90280

Client Contact: *Arturo Cervantes, Public Works Director*
(323) 563-9512
Project Dates: *2015 to 2017 (design completed; construction ongoing)*
Project Team: *Tyrone Peter, David Knell, John Hidalgo, Vanessa Muñoz, Mohsen Rahimian, Salvador Lopez, Alexis Escobar, Ross Khlabani, Ray Wellington, Michael Bustos, Kenneth Krieger, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Bryan Nguyen, Sheila McCracken, Robert Burch, Chris Stone, Edward Cox, Christopher Kelley, Kevin Custado, Nicolle Spann, Robert Sun, Elroy Klepke, Ryan Moore*

Willdan is providing civil and traffic engineering design and other appurtenant services for street improvements from Alameda Street to Hunt Avenue funded through Metro and local funds. The project is a complete rehabilitation of roadway improvements that involve widening the street from four to six; rehabilitating street pavement sections, including localized removal and replacement of failed roadway; installing landscaped and hardscaped medians, including drought-resistance plants, irrigation system, and lighting system; reconstructing deficient sidewalk, curb, gutter, driveway approaches, and ADA-noncompliant curb ramps; planting street parkway trees without irrigation, green streets technologies, and complete streets

Artistic elements and gateway corridor entrance are included in the design. Other improvements include bus shelters and bus turnouts; traffic signal modifications with battery backup, pedestrian countdown heads, and upgrades to LED where possible. Signals will be synchronized to reduce traffic congestion and improve bus speeds.

Los Alamitos Boulevard Median Improvements

City of Los Alamitos
3191 Katella Avenue
Los Alamitos, CA 90720

Client Contact: *Steven Mendoza, Community Development Director*
(562) 431-3538 extension 300
Project Dates: *2015 to 2017 (design completed; construction ongoing)*
Project Team: *Tyrone Peter, David Knell, John Hidalgo, Mohsen Rahimian, Michael Bustos, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Bryan Nguyen, Sheila McCracken, Robert Burch, Chris Stone, Edward Cox, Kevin Custado, Elroy Klepke*

Willdan provided civil and traffic engineering and other appurtenant services for street improvements between Cerritos Avenue and Katella Avenue. As one of three improvement segments, the project involves raised medians with landscaping and irrigation, hardware, decorative street lights, electrical receptacles for seasonal tree lighting, tree uplights and monument signs. Median improvements were optimized through traffic analysis and vehicle turning movement modeling.

Crosswalks at four signalized intersections will be removed and replaced with integral colored concrete. A storm drain on Serpentine Drive will be modified. Portions of the project limits will receive a 12-inch-thick full-depth asphalt concrete over 8-inch-thick compacted subgrade. Willdan assisted the City with public outreach to garner input through town hall meetings, open houses, and public hearings.

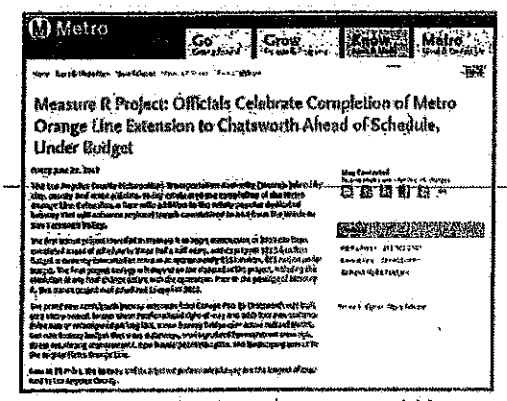
Orange Line Extension

Los Angeles Metropolitan Transit Authority/
Brutoco Engineers and Constructors, Inc.
One Gateway Plaza
Los Angeles, CA 90012

Client Contact: *Scott McConnell, Project Manager*
(213) 922-7257
Project Dates: *2010 to 2012*
Project Team: *Tyrone Peter, David Knell, Johnny Ghazal, John Hidalgo, Vanessa Muñoz, Mohsen Rahimian, Ross Khiabani, Ray Wellington, Michael Bustos, Kenneth Krieger, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Bryan Nguyen, Sheila McCracken, Robert Burch, Chris Stone, Edward Cox, Christopher Kelley, Ryan Moore*

The design-build MOL extension between Chatsworth and Canoga Stations in the San Fernando Valley along Canoga Avenue is a dedicated roadway consisting of two 14-foot travel lanes. At stations, the busway lane widens to provide passing lanes for buses. The 28-foot wide roadway is within the Metro right-of-way and is 100 feet wide in most locations -- providing adequate room for landscaping as well as space for fences, privacy walls, drainage facilities, and a bikeway/pedestrian path adjacent to the busway.

The busway was designed for future conversion to light-rail transit service. A Class I bikeway that includes a pedestrian path was designed and constructed within the Metro right-of-way from the terminus of the existing MOL bikeway/pedestrian path at Canoga Avenue, north to Lassen Street and along Lassen Street to connect within the existing bike path on the east side of the existing Browns Creek drainage channel. Street and pedestrian crossings were improved on nine streets where the busway intersects the crossing street. A bus parking lot was constructed on the Metro-owned property at Marilla Street and Owensmouth Avenue. Park-and-ride facilities were included at three stations, providing approximately 1,074 additional parking spaces. Design-build solutions and design creativity reduced MTA's construction estimate and saved over $61 million in construction costs.


Metro

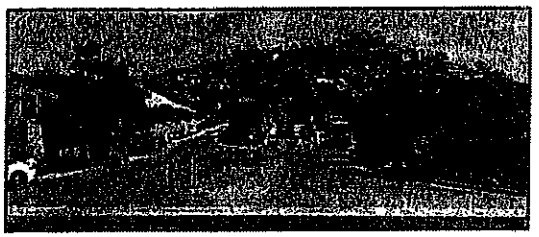
Measure R Project: Officials Celebrate Completion of Metro Orange Line Extension to Chatsworth Ahead of Schedule, Under Budget

Emerald Bay Main Gate Safety Improvements

Emerald Bay Service District
600 Emerald Bay
Laguna Beach, CA 92651

Client Contact: *Michael Dunbar, General Manager*
(949) 494-8572
Project Dates: *2015 to 2017*
Project Team: *Tyrone Peter, David Knell, Johnny Ghazal, Gary Gordon, Vanessa Muñoz, Mohsen Rahimian, Ross Khiabani, Ray Wellington, Michael Bustos, Kenneth Krieger, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Sheila McCracken, Robert Burch, Edward Cox, Christopher Kelley, Kevin Custado, Ryan Moore*

Willdan is providing civil and traffic engineering design and other appurtenant services for safety improvements connected with the community's main gate entrance. The improvements involve widening Shamrock Road 25 feet, reconstructing the entrance guardhouse approximately 40 feet north of the existing location; grading Shamrock Road and the adjacent slope to accommodate the roadway widening and desired landscaping; installing upgraded lighting; installing ADA-compliant curbs, ramps and retaining/monument walls; widening the right-turn pocket and installing a 175-foot-long raised median at the intersection of Pacific Coast Highway and Shamrock Road; mitigating soil with 200 18-inch diameter drilled displacement columns, and installing street striping and signage within Caltrans' right-of-way. The project required processing Caltrans encroachment permit and County of Orange general grading permit packages. Widening Shamrock Road provides an additional lane in each



direction for improved vehicular ingress and egress. The slope will be graded and recompacted to accommodate the roadway widening – extending the top of the adjacent slope and extending the toe of the slope by 28 feet into Swanson Park.

Placentia MetroLink Station Phases I and II

Orange County Transportation Authority
550 South Main Street
Orange, CA 92868

Client Contact: *Lora Cross, Project Manager*
(714) 560-5788
Project Dates: *2012 to 2017 (design completed; construction ongoing)*
Project Team: *Tyrone Peter, David Knell, Mohsen Rahimian, John Hidalgo, Alexis Escobar, Ross Khiabani, Ray Wellington, Kenneth Krieger, Randy Shadowen, Bernardo Reyes, Susana Barrientos, Bryan Nguyen, Sheila McCracken, Robert Burch, Chris Stone*

Wildan prepared plans, specifications, and estimates for a MetroLink commuter rail station in the City of Placentia. The station is located on tracks owned by the BNSF Railway east of State Route 57 at the northeast corner of Melrose Street and Crowther Avenue. The project site involved approximately 4.75 acres to provide a MetroLink commuter rail station that meets current and future transit demand and ADA requirements. The project is expected to foster train ridership growth in the region. The station was planned as part of a key component of transit-oriented development envisioned in the Westgate Specific Plan for the City of Placentia. The project improvements included street, railroad track, and pedestrian improvements; rail platforms; and lighting, signing and striping of four parking facilities for 425 vehicles.

Water Well Rehabilitation- Well No 25

City of South Gate
8650 California Avenue
South Gate, CA 90280

Client Contact: *Arturo Cervantes, Public Works Director*
(323) 563-9512
Project Dates: *2008-2010*
Project Team: *Mike Bustos, Selena Midden*

The City of Southgate rehabilitated its Well No. 25 due to holes in the existing low carbon steel wire wrap screen, which has limited well production. The holes in the wire wrap screen were in the lower 650' of the 1350' deep well. As a result, the production from the lower 650' of Well No. 25 was only 20% of the overall well production.

The City desired to fill the lower 650' of the well with concrete slurry to eliminate the zones with holes in the wire wrap screen. The City required a hydrogeologist to review, evaluate, and assess the proposed rehabilitation program, based on the information provided by the City, including, but not limited to, well completion reports, well geophysical logs, well inspection videos, hydraulic efficiency tests, and water quality test results.

After review and assessment of the existing well conditions, a summary report was prepared and provided to the City discussing the risks and benefits associated with alternative rehabilitation procedures. Plans and specifications for well rehabilitation were prepared based on the City's direction resulting from review of the hydrogeologist's summary report. After well rehabilitation was completed, a test pump was conducted to determine the maximum output of the well.

References

The clients we have chosen to verify our reputation and qualifications will confirm our dedication to expert technical ability, excellent service, and project commitment. We encourage the City to contact these references. We are confident these references will illustrate that Willdan is the ideal candidate for this project.

City of South Gate

8650 California Avenue
South Gate, CA 90280

Contact: Arturo Cervantas, Director of Public Works/ City Engineer, 323-563-9512
Services: Traffic Engineering, Civil Engineering, Landscaping, Environmental Compliance, Public Outreach, Public Artwork, Water Design and Engineering

City of Los Alamitos

3191 Katella Avenue
Los Alamitos, CA 90720

Contact: Steven Mendoza, Director of Public Works/City Engineer, (562) 431-3538
Services: Traffic Engineering, Civil Engineering, Landscaping, Storm Drain Design, Public Outreach

Emerald Bay Services District

600 Emerald Bay
Laguna Beach, CA 92651
Contact: Michael Dunbar, General Manager, (949) 494-8571
Services: Traffic Engineering, Civil Engineering, Landscaping, Permit Management, Grading

City of Covina

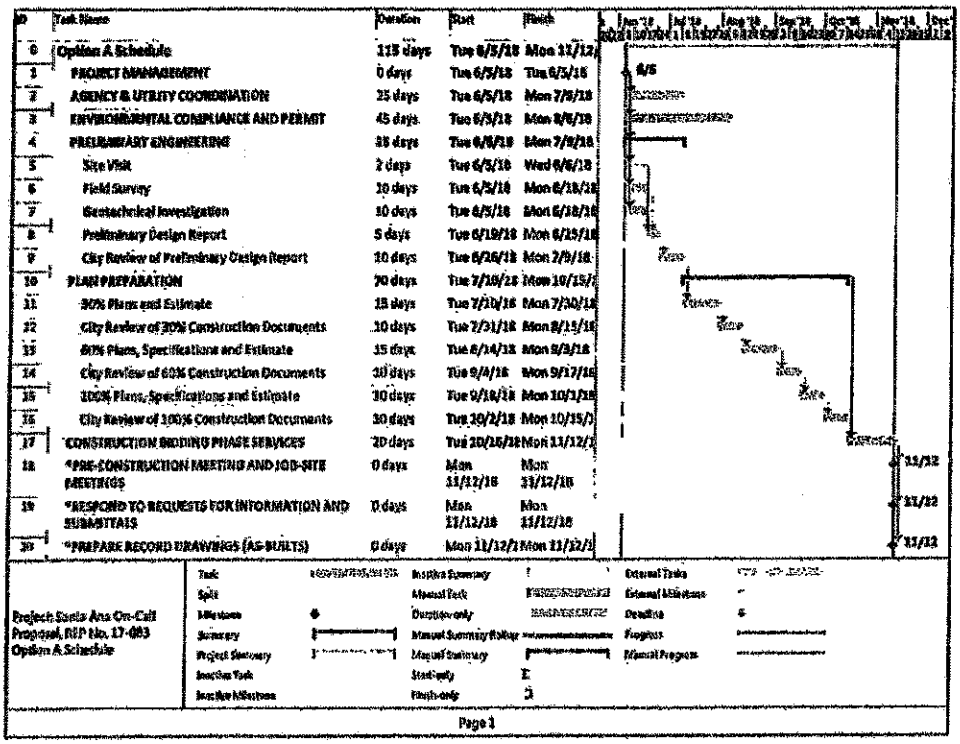
125 E. College Street
Covina, CA 91723
Contact: Laura Lara, former assistant engineer now with city of Pomona, 909-620-2281
Services: Water/Sewer Design, Civil Engineering

Scope of Services and Schedule

Below is Willdan's matrix of involvement for the work detailed in Attachment 1 of the RFP, and the scope of services and schedule for the 'tasks' – Options A and B.

Areas of Work	Performed by Willdan Staff	Performed with Qualified Sub-Consultant
Civil – Design	Y	
Transportation/Traffic	Y	
Structural	Y	Y
Geotechnical	Y	
Land Surveying		Y
Architectural		Y
Landscape Architectural & Irrigation	Y	
Environmental	Y	Y
Electrical		Y
Mechanical		Y
Instrumentation & Control System		Y
Fire Protection	Y	
Financial & Economic Consulting	Y	
Supplemental Tasks		
Hydraulic modeling of water distribution, stormwater, and sewer collection systems	Y	Y
Evaluation & Studies related to water wells, reservoirs, treatment, disinfection, pressure control, & sewage lift sta.	Y	Y
Evaluations, studies, drawings, documentation and recommendations on Electrical & Industrial Control systems		Y
Mapping Services	Y	
Legal description preparations	Y	
Grant writing services	Y	
Environmental / Planning Support	Y	Y
Construction Management Support	Y	
Pavement management	Y	Y
Special engineering studies/reports/compliance & investigations	Y	Y
Regulatory compliance with Federal, State & Local agencies	Y	
Financial/cash flow analysis – public works programs	Y	
Assessment & District formation services	Y	
Sustainable infrastructure services	Y	
Right-of-Way studies	Y	

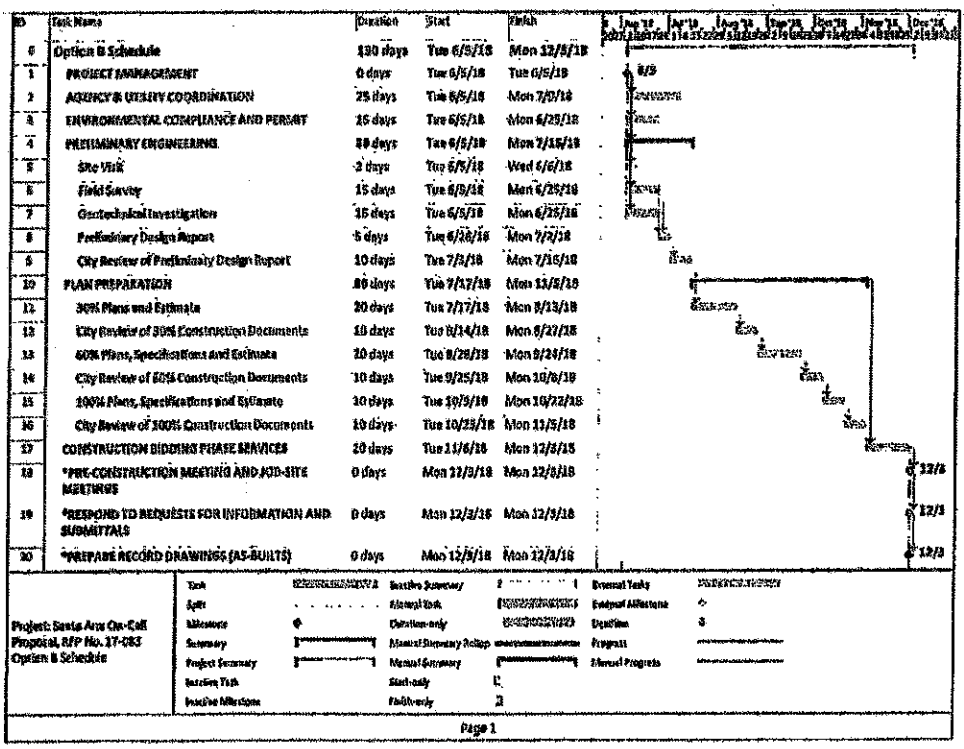
Schedule/Timeline to Complete the Project



ID	Task Name	Duration	Start	Finish
0	Option A Schedule	115 days	Tue 6/5/18	Mon 11/12/
1	PROJECT MANAGEMENT	0 days	Tue 6/5/18	Tue 6/5/18
2	AGENCY & UTILITY COORDINATION	25 days	Tue 6/5/18	Mon 7/9/18
3	ENVIRONMENTAL COMPLIANCE AND PERMIT	45 days	Tue 6/5/18	Mon 8/6/18
4	PRELIMINARY ENGINEERING	35 days	Tue 6/5/18	Mon 7/23/18
5	Site Visit	2 days	Tue 6/5/18	Wed 6/6/18
6	Field Survey	10 days	Tue 6/5/18	Mon 6/18/18
7	Geotechnical Investigation	10 days	Tue 6/5/18	Mon 6/18/18
8	Preliminary Design Report	5 days	Tue 6/19/18	Mon 6/25/18
9	City Review of Preliminary Design Report	10 days	Tue 6/26/18	Mon 7/9/18
10	PLAN PREPARATION	70 days	Tue 7/10/18	Mon 10/15/
11	30% Plans and Estimate	15 days	Tue 7/10/18	Mon 7/30/18
12	City Review of 30% Construction Documents	10 days	Tue 7/31/18	Mon 8/13/18
13	60% Plans, Specifications and Estimate	15 days	Tue 8/14/18	Mon 9/3/18
14	City Review of 60% Construction Documents	10 days	Tue 9/4/18	Mon 9/17/18
15	100% Plans, Specifications and Estimate	10 days	Tue 9/18/18	Mon 10/1/18
16	City Review of 100% Construction Documents	10 days	Tue 10/2/18	Mon 10/15/
17	CONSTRUCTION BIDDING PHASE SERVICES	20 days	Tue 10/16/18	Mon 11/12/
18	*PRE-CONSTRUCTION MEETING AND JOB-SITE MEETINGS	0 days	Mon 11/12/18	Mon 11/12/18
19	*RESPOND TO REQUESTS FOR INFORMATION AND SUBMITTALS	0 days	Mon 11/12/18	Mon 11/12/18
20	*PREPARE RECORD DRAWINGS (AS-BUILTS)	0 days	Mon 11/12/1	Mon 11/12/1

Project: Santa Ana On-Call Proposal, RFP No. 17-083 Option A Schedule

Page 1



ID	Task Name	Duration	Start	Finish
0	Option B Schedule	130 days	Tue 6/5/18	Mon 12/3/18
1	PROJECT MANAGEMENT	0 days	Tue 6/5/18	Tue 6/5/18
2	AGENCY & UTILITY COORDINATION	25 days	Tue 6/5/18	Mon 7/9/18
3	ENVIRONMENTAL COMPLIANCE AND PERMIT	15 days	Tue 6/5/18	Mon 6/25/18
4	PRELIMINARY ENGINEERING	30 days	Tue 6/5/18	Mon 7/16/18
5	Site Visit	2 days	Tue 6/5/18	Wed 6/6/18
6	Field Survey	15 days	Tue 6/5/18	Mon 6/25/18
7	Geotechnical Investigation	15 days	Tue 6/5/18	Mon 6/25/18
8	Preliminary Design Report	5 days	Tue 6/26/18	Mon 7/2/18
9	City Review of Preliminary Design Report	10 days	Tue 7/3/18	Mon 7/16/18
10	PLAN PREPARATION	80 days	Tue 7/17/18	Mon 11/5/18
11	30% Plans and Estimate	20 days	Tue 7/17/18	Mon 8/13/18
12	City Review of 30% Construction Documents	10 days	Tue 8/14/18	Mon 8/27/18
13	60% Plans, Specifications and Estimate	20 days	Tue 8/28/18	Mon 9/24/18
14	City Review of 60% Construction Documents	10 days	Tue 9/25/18	Mon 10/8/18
15	100% Plans, Specifications and Estimate	10 days	Tue 10/9/18	Mon 10/22/18
16	City Review of 100% Construction Documents	10 days	Tue 10/23/18	Mon 11/5/18
17	CONSTRUCTION BIDDING PHASE SERVICES	20 days	Tue 11/6/18	Mon 12/3/18
18	*PRE-CONSTRUCTION MEETING AND JOB-SITE MEETINGS	0 days	Mon 12/3/18	Mon 12/3/18
19	*RESPOND TO REQUESTS FOR INFORMATION AND SUBMITTALS	0 days	Mon 12/3/18	Mon 12/3/18
20	*PREPARE RECORD DRAWINGS (AS-BUILTS)	0 days	Mon 12/3/18	Mon 12/3/18

Project: Santa Ana On-Call Proposal, RFP No. 17-083 Option B Schedule

Page 1

Fee Proposal

Per the City's Request for Proposal, the fee proposal has been submitted under separate sealed envelope.

Certifications

Non-Collusion Affidavit

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed Dale Hurst

State of California
County of See attached Notarial Certificate

Subscribed and sworn to (or affirmed) before me on this ____ day of ____, 20__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Notary Public Signature

Notary Public Seal

25E-743

CALIFORNIA JURAT WITH AFFIANT STATEMENT **GOVERNMENT CODE § 8202**

☒ See Attached Document (Notary to cross out lines 1–6 below)
☐ See Statement Below (Lines 1–6 to be completed only by document signer[s], *not* Notary)

Signature of Document Signer No. 1 *Signature of Document Signer No. 2 (if any)*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 12th day of March, 2018.
Date *Month* *Year*
by
(1) David Hunt
(and (2)),
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

KATHALEEN D. STEELE
Commission # 2146423
Notary Public - California
Orange County
My Comm. Expires Apr 13, 2020

Signature Kathaleen D. Steele
Signature of Notary Public

Seal
Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document: Non-Collusion Affidavit Document Date: 3/12/18
Number of Pages: 1 Signer(s) Other Than Named Above: none

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Non-Lobbying Certification

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm: Willdan

Signed and Printed Name: David Hunt David Hunt

Title: Sr Vice President

Date: 3/12/18

Non-Discrimination Certificate

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

25E-746

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

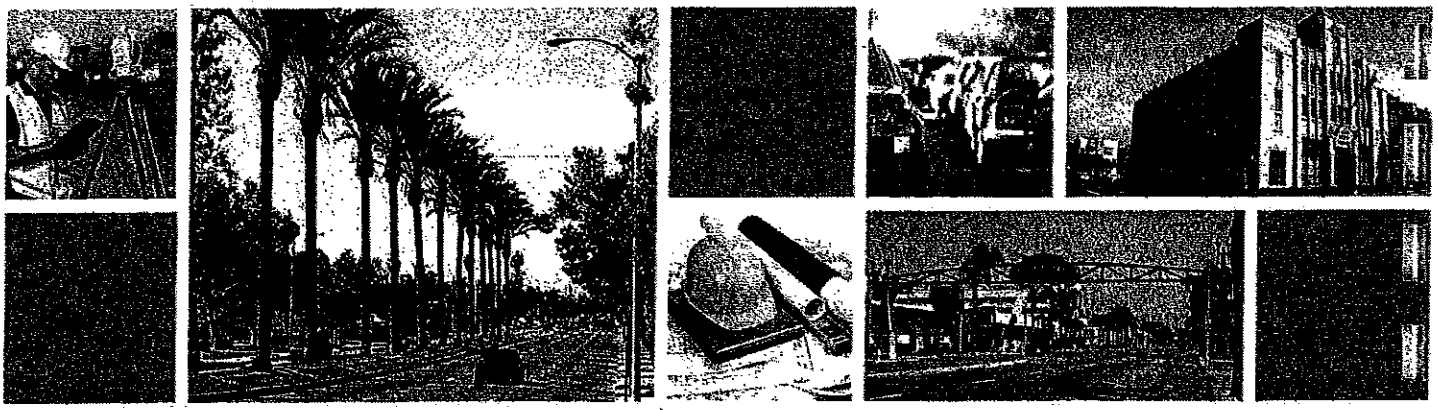
No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: David Hurst

Title: Sr. Vice President

Firm: Willdan

Date: 3/12/18



WILLDAN

2401 E. Katella Avenue, Suite 300
Anaheim, California 92806-5909
T 714.940.6370 | F 714.940.4930

www.willdan.com

25E-750

Exhibit C – Willdan's Schedule of Hourly Rates

WILLDAN

WILLDAN ENGINEERING

Schedule of Hourly Rates

Effective July 1, 2017 to June 30, 2018 (Version 06/27/17)

ENGINEERING	
Technical Aide I	$62
Technical Aide II	80
Technical Aide III	99
Drafter I	100
Drafter II	116
Senior Drafter	129
GIS Analyst I	134
GIS Analyst II	152
GIS Analyst III	166
Designer I	134
Designer II	139
Traffic Engineer I	180
Traffic Engineer II	196
Senior Designer I	147
Senior Designer II	154
Assistant Engineer I	106
Assistant Engineer II	127
Assistant Engineer III	133
Assistant Engineer IV	138
Associate Engineer I	140
Associate Engineer II	148
Associate Engineer III	155
Design Manager	157
Senior Design Manager	163
Senior Engineer I	158
Senior Engineer II	161
Senior Engineer III	164
Senior Engineer IV	177
Supervising Engineer	182
Project Manager I	144
Project Manager II	164
Project Manager III	179
Project Manager IV	196
Program Manager	201
City Engineer I	196
City Engineer II	206
Principal Project Manager	196
Deputy Director	206
Director	209
Principal Engineer	227

BUILDING AND SAFETY	
Assistant Code Enforcement Officer	$82
Plans Examiner Aide	88
Code Enforcement Officer	94
Asst. Construction Permit Specialist	94
Construction Permit Specialist	99
Senior Code Enforcement Officer	111
Assistant Building Inspector	111
Sr. Construction Permit Specialist*	116
Supervising Construction Permit Specialist	123
Building Inspector*	123
Supervisor Code Enforcement	134
Plans Examiner I	134
Senior Building Inspector	134
Plans Examiner II	147
Supervising Building Inspector	147
Inspector of Record	161
Deputy Building Official	161
Plan Check Engineer	161
Building Official	166
Supervising Plan Check Engineer	166
Principal Project Manager	196
Deputy Director	206
Director	209

CONSTRUCTION MANAGEMENT	
Labor Compliance Specialist	$111
Labor Compliance Manager	139
Utility Coordinator	147
Assistant Construction Manager	139
Construction Manager	163
Senior Construction Manager	168
Project Manager IV	196
Deputy Director	206
Director	209

INSPECTION SERVICES	
Public Works Observer I*	$86
Public Works Observer II*	95
Senior Public Works Observer I*	103
Senior Public Works Observer II*	114
Senior Public Works Observer III*	124
Senior Public Works Observer IV*	131
Senior Public Works Observer V*	139

LANDSCAPE ARCHITECTURE	
Assistant Landscape Architect	$116
Associate Landscape Architect	134
Senior Landscape Architect	147
Principal Landscape Architect	166
Principal Project Manager	196

MAPPING AND EXPERT SERVICES	
Survey Analyst I	$116
Survey Analyst II	134
Calculator I	116
Calculator II	129
Calculator III	140
Senior Survey Analyst	152
Supervisor - Survey & Mapping	168
Principal Project Manager	196

PLANNING	
Community Development Technician	$99
Planning Technician	99
Assistant Community Development Planner	123
Assistant Planner	123
Associate Community Development Planner	134
Associate Planner	134
Senior Community Development Planner	152
Senior Planner	152
Principal Community Development Planner	166
Principal Planner	166
Planning Manager	184
Deputy Director	206
Director	209

ADMINISTRATIVE	
Administrative Assistant I	$73
Administrative Assistant II	88
Administrative Assistant III	103
Project Accountant I	83
Project Accountant II	97
Project Controller I	103
Project Controller II	116

*169/hour for Prevailing Wage Project

Mileage reimbursement will be charged at the current Federal guideline rate at the time of billing. Vehicles will be charged at a monthly rate of 500.

Additional billing classifications may be added to the above listing during the year as new positions are created. Consultation in connection with litigation and court appearances will be quoted separately. The above schedule is for straight time. Overtime will be charged at 1.5 times, and Sundays and holidays, 2.0 times the standard rates. Blueprinting, reproduction, messenger services, and printing will be invoiced at cost plus fifteen percent (15%). A sub consultant management fee of fifteen percent (15%) will be added to the direct cost of all sub consultant services to provide for the cost of administration, consultation, and coordination. Valid July 1, 2017 thru June 30, 2018; thereafter, the rates may be raised once per year to the value between the change of the Consumer Price Index for the Los Angeles/Orange County/Sacramento/San Francisco/San Jose area and five percent.

AGREEMENT TO PROVIDE ENGINEERING SERVICES ON AN ON-CALL BASIS (GENERAL ENGINEERING)

THIS AGREEMENT is made and entered into this 19th day of June, 2018 by and between Stantec Consulting Services, Inc. ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. On February 22, 2018, the City issued Request for Proposal No. 17-083, by which it sought a consultant to provide engineering services on an on-call basis for the City's Public Works Agency.

B. Consultant submitted a responsive proposal that was among those selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 17-083.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional contracting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

On an on-call basis, and at the City's sole discretion, Consultant shall perform the services that were described in the scope of work that was included in RFP No. 17-083 and as more specifically delineated in Consultant's proposal, which is attached as Exhibit A and incorporated in full.

2. COMPENSATION

a. City neither warrants nor guarantees any minimum or maximum compensation to Consultant under this Agreement. Consultant shall be paid only for actual services performed under this Agreement at the rates and charges identified in Exhibit B. Consultant is one of nine (9) consultants selected to provide services for general engineering projects on an as-needed basis under RFP No. 17-083. The total compensation for these services provided by all such consultants selected under RFP No. 17-083 shall not exceed $2,000,000 during the term of the Agreement, including any extension periods.

b. Payment by City shall be made within forty-five (45) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures.

Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals and Scope of Work, which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on June 18, 2021, unless terminated earlier in accordance with Section 17, below. The term of this Agreement may be extended for one 2-year period upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subconsultants to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subconsultant prepares under this Agreement.

Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subconsultants, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, volunteers and representatives as additional insured(s); (b) be primary with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the California Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:

(i) Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.

(ii) Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.

(iii) Certificates and policies shall state that the policies shall not be cancelled or reduced in coverage or changed in any other material aspect, by consultant, without thirty (30) days prior written notice to the City.

(iv) Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, consultants, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant or its subconsultants, agents, employees, or other persons acting on their behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend, indemnify and hold harmless the City, its officers, agents, representatives, and employees against any and all liability, including costs, and attorney's fees,

for infringement of any United States' letters patent, trademark, or copyright contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interest and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City: Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax 714- 647-6956

Executive Director
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, CA 92702
Fax 714-647-5635

To Consultant: Stantec Consulting Services, Inc.
38 Technology Drive, Suite 100
Irvine, CA 92618
Attn: Sherry Weinmeier, PE, LEED AP, ENV SP, Project Manager

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these timeframes, weekends, federal, state, County or City holidays shall be excluded.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant regarding the subject matter herein, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant,

Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

17. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

18. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, relation, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities or in connection with any activities under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

19. JURISDICTION-VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

20. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

21. MISCELLANEOUS PROVISIONS

a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

b. All exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

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

ATTEST:

MARIA D. HUIZAR
Clerk of the Council

CITY OF SANTA ANA

RAUL GODINEZ II
City Manager

APPROVED AS TO FORM
SONIA R. CARVALHO
City Attorney

By: John M. Funk
John M. Funk
Assistant City Attorney

CONSULTANT

Name:
Title:

RECOMMENDED FOR APPROVAL

Edwin "William" Galvez, P.E.
Acting Executive Director
Public Works Agency

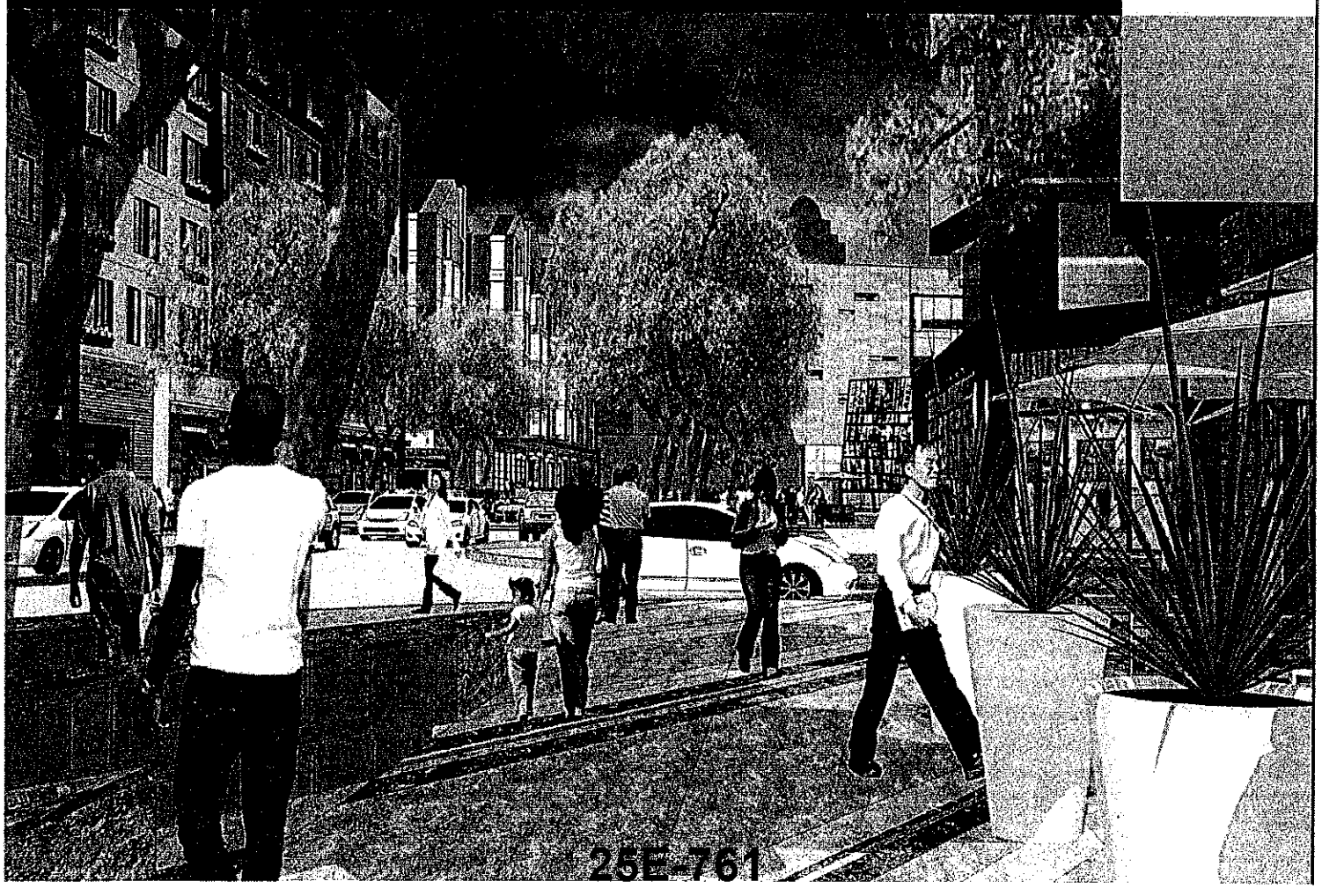
Stantec

EXHIBIT A

RFP #17-083

Proposal to Provide On-Call Engineering Services **Option B: General Engineering**

City of Santa Ana
March 20, 2018



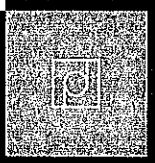
25E-761

TAKE A LOOK AROUND

1. Statement of Qualifications	**1-11**
A. Cover Letter	1
B. Contract Agreement Statement	2
C. Firm and Team Experience	2
D. Understanding of Need	6
E. Relevant Project Experience	7
F. References	11
2. Scope of Services and Schedule	**12-18**
3. Fee Proposal *(separately sealed envelope)*	A1
4. Certifications *(not included in page count)*	B1-B5
Attachment 3-1: Non-Collusion Affidavit	B1
Attachment 3-2: Non-Lobbying Certification	B3
Attachment 3-3: Non-Discrimination Certification	B4
Appendix *(not included in page count)*	C1-C27
Résumés	C1

We design with community in mind

1. Statement of Qualifications



A COVER LETTER

March 20, 2018

Armando
Fernandez
Project Manager
Public Works Agency
20 Civic Center Plaza,
3rd floor reception,
Ross Annex
Santa Ana, CA 92701

RE: RFP No. 17-083
On-Call Engineering
Services ***(Option B: General Engineering)***

Dear Mr. Fernandez and Selection Committee Members:

A vibrant and diverse community with unmatched character, the City of Santa Ana (City) works diligently to maintain and enhance your infrastructure, facilities, and parks. To proactively manage this significant and ongoing effort, you look to consulting partners who understand your vision to provide the expertise and support needed to keep your City moving forward. **Stantec Consulting Services Inc. (Stantec)** is an ideal-fit partner for you and your upcoming projects.

Full A-E capabilities from preliminary engineering to final PS&E and construction. Your contract and tasks orders will benefit from our broad experience in all A-E service areas.

Project manager Sherry Weinmeier, PE, LEED AP, ENV SP, and her team are known for expertly providing preliminary engineering through PS&E on roadway, bridge, parks, bicycle and pedestrian trails/paths, water, and community development projects. She is available and committed to deliver the same outstanding, full-service experience to Santa Ana.

Successful City relationship and understanding of your processes and procedures. Our extensive agency experience throughout Orange County and Southern California spans several local cities, including Santa Ana. Sherry, and deputy project managers Susan Reid, PE, and Jeff Wilkerson, PE, recently provided design and study services for the City's 5th Street Cycle Track, a project intended to increase safety and bicycle use. The team's work was delivered on schedule and within budget.

On-call expertise with a deep in-house bench. Managing on-call contracts is one our specialties. Sherry has successfully managed and delivered more than a dozen task orders for five Orange County agency contracts in the past five years—several with Susan, Jeff, and our core and support team members. Together, your project leadership has more than 160 years of directly applicable experience to meet your contract's specific needs. Our project managers will draw on our diverse and talented local general engineering and environmental staff to deliver what you need, when you need it.

Local, available staff. Your on-call needs are our priority. Sherry, Susan, or Jeff will match technical experts to your task order needs. Our team is local and 100% committed and responsive—efficiently delivering high-quality services on your task orders and project needs.

Project manager, Sherry is authorized to make legally binding commitments for Stantec. She will serve as your primary representative and contact person for this proposal and any potential presentation/interview.

We look forward to supporting your many upcoming projects and welcome the opportunity to further discuss how we can serve the dynamic Santa Ana community.

Respectfully,

Sherry Weinmeier, PE, LEED AP, ENV SP
Project Manager
sherry.weinmeier@stantec.com
(949) 923-6265

Mohammad Helal, PE
Principal-In-Charge
mohammad.helal@stantec.com
(949) 923-6962

B CONTRACT AGREEMENT STATEMENT

We have reviewed your proposed RFP/contract terms in Attachment 2 and believe that should we be selected for this assignment, we will be able to conclude a mutually satisfactory contract with you.

C FIRM AND TEAM EXPERIENCE

Firm profile: Local presence

The Stantec community unites approximately 22,000 employees working in over 400 locations across 6 continents.

We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

Our comprehensive local experience in Santa Ana and greater Orange County area makes us ideally-suited for this contract. We have been serving the Southern California community since 1983 and are committed and eager to continuing our services.

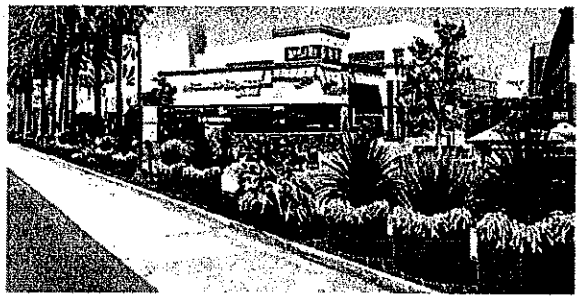
Over the past 35 years, we have provided professional consulting services on many miles of trails, roadways, and utilities, as well as have designed numerous acres of parks and recreational facilities, commercial, retail, and residential developments throughout the City and Orange County. We are intimately familiar with your standards, procedures, and personnel.

Located only 12 miles from your office, we will respond quickly to your requests. Our well-established Design Quality Control Program has been utilized on your past projects, and has proven to keep your schedules and budgets on track.

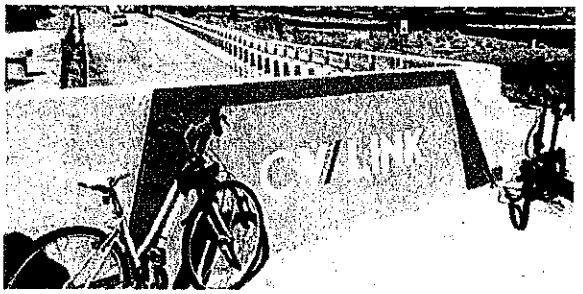
SECTION	PAGE
Organization chart, including key personnel	3
Team member availability and experience table	4-5
Résumés	Appendix C1-C27

Our diverse experience includes...

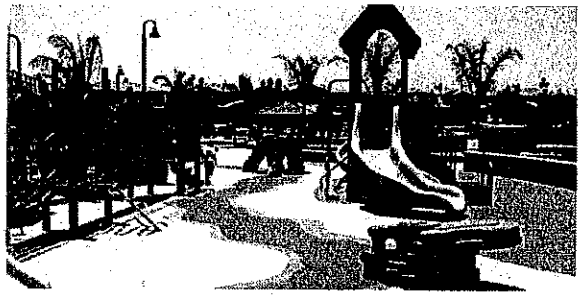
Protected bikeways and Complete Streets



Streetscapes



Multi-use paths



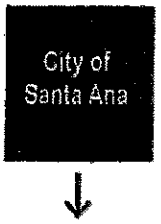
Local and regional parks

Signal design and synchronization

Organization Chart

Our organization chart—with key personnel noted—demonstrates how our team members are organized and managed to help ensure projects run smoothly and efficiently. Project manager, Sherry is our primary contact person and will lead our presentation interview, if requested. Our optional deputy project manager will be selected at the time of the award based on project fit and availability. Should Sherry be unavailable at any point, the City should contact Susan Reid and/or Jeff Wilkerson.

Each team member has been selected based on their similar project experience, strong understanding of your community, and workload availability. The majority of our team members have collaborated on related projects for the last decade. We will engage our additional support service categories at the right time based on the task order.



LEADERSHIP

Principal-In-Charge
Mohammad Helal, PE

Project Manager
Sherry Weinmeier, PE, LEED BD+C, ENV SP ●

Deputy Project Manager *(optional)*
Susan Reid, PE ●
Jeff Wilkerson, PE ●

QA/QC
Rock Miller, PE, PTOE
(Rock E. Miller & Associates)

CORE TEAM

Civil Design
Carlos Pineda, PE, LEED AP, QSP/QSD ●
Jeff Wilkerson, PE ●
Susan Reid, PE ●
Vijay Pampara, EIT

Transportation/Traffic
Keith Rutherfurd, TE ●
Daryl Zerfass, PE, PTP

Landscape Architecture and Irrigation
Mark LaRue, ASLA, LEED AP ●
Steve Cook, RLA

IN-HOUSE SUPPORT SERVICES

WATER

Roger Chung, PE, QSP/QSD ●
Dan Villines, PE

ENVIRONMENTAL AND REGULATIONS/COMPLIANCE

Principal Scientist
Michael Weber ●

Environmental Planning
Kevin Kohan
Jared Varonin

SURVEY, MAPPING, AND LEGAL

Greg Sebourn, PLS ●
Jason Shockley, PLS

GRANT WRITING

Carlos Pineda, PE, LEED AP, QSP/QSD ●
Jonathan Delgado, EIT

GEOTECHNICAL AND HAZMAT

Jaret Fischer, PE
Kevin Miskin, PE

AS-NEEDED

Construction support
Electrical
Mechanical

● *Key personnel*

We've designated team members who are available, dedicated, and experts in their field. Below please find approximate average percentage of each individual's time devoted to this project—you can feel confident this contract is our priority and we are committed to its successful completion.

Our résumés provided in the Appendix detail our team members' experience on similar projects and engineering expertise.

Team member availability and experience table

TEAM MEMBER/ROLE	PERCENT AVAILABLE FOR THIS PROJECT	RELEVANT EXPERIENCE									
		CITY/LOCAL EXPERIENCE	TASK ORDER/ON-CALL EXPERIENCE	TRAFFIC/ROADWAY IMPROVEMENTS	COMPLETE STREETS	PRELIMINARY/FINAL PS&E IMPROVEMENTS	STAKEHOLDER ENGAGEMENT	BIKEWAY IMPROVEMENTS (CLASS I, II, III, IV)	PARKWAY/PATHWAY ENHANCEMENTS	ADA IMPROVEMENTS	LOCAL AND REGIONAL PARKS
Sherry Weinmeier, PE, LEED BD+C • Project Manager	30%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mohammad Helal, PE Principal-in-Charge	10%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rock Miller, PE, PTOE QA/QC	10%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Carlos Pineda, PE, LEED AP, QSP/QSD • Civil Design and Grant Writing	25%	✓	✓	✓		✓	✓			✓	✓
Susan Reid, PE • Deputy Project Manager and Civil Design	75%	✓	✓	✓	✓	✓		✓		✓	✓
Jeff Wilkerson, PE • Deputy Project Manager and Civil Design	50%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vijay Pampara, EIT Civil Design	90%	✓	✓	✓	✓	✓		✓	✓	✓	✓
Keith Rutherfurd, TE • Transportation/Traffic	50%	✓	✓	✓	✓	✓	✓	✓		✓	
Daryl Zerfass, PE, PTP Transportation/Traffic	25%	✓	✓	✓	✓	✓	✓	✓	✓	✓	

• *Key personnel*

TEAM MEMBER/ROLE	PERCENT AVAILABLE FOR THIS PROJECT	RELEVANT EXPERIENCE									
		CITY/LOCAL EXPERIENCE	TASK ORDER/ON-CALL EXPERIENCE	TRAFFIC/ROADWAY IMPROVEMENTS	COMPLETE STREETS	PRELIMINARY/FINAL PS&E IMPROVEMENTS	STAKEHOLDER ENGAGEMENT	BIKEWAY IMPROVEMENTS (CLASS I, II, III, IV)	PARKWAY/PATHWAY ENHANCEMENTS	ADA IMPROVEMENTS	LOCAL AND REGIONAL PARKS
Mark LaRue, ASLA, RLA • Landscape Architecture and Irrigation	25%	✓	✓	✓	✓	✓	✓		✓	✓	✓
Steve Cook, RLA Landscape Architecture and Irrigation	75%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Roger Chung, PE, QSP/QSD • Water	75%	✓	✓	✓		✓	✓				✓
Dan Villines, PE Water	25%	✓	✓	✓		✓	✓				✓
Michael Weber • Environmental and Regulations/Compliance	25%	✓	✓				✓		✓	✓	✓
Kevin Kohan Environmental and Regulations/Compliance	25%	✓	✓		✓		✓		✓	✓	✓
Jared Varonin Environmental and Regulations/Compliance	25%	✓	✓		✓		✓		✓	✓	✓
Greg Sebourn, PLS • Survey, Mapping, and Legal	25%	✓	✓	✓		✓	✓		✓	✓	✓
Jason Shockley, PLS Survey, Mapping, and Legal	25%	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Jonathan Delgado, EIT Grant Writing	25%	✓	✓	✓	✓	✓		✓			
Jaret Fischer, PE Geotechnical and Hazmat	50%	✓	✓	✓	✓	✓		✓			
Kevin Miskin, PE Geotechnical and Hazmat	25%	✓	✓	✓		✓					

• *Key personnel*

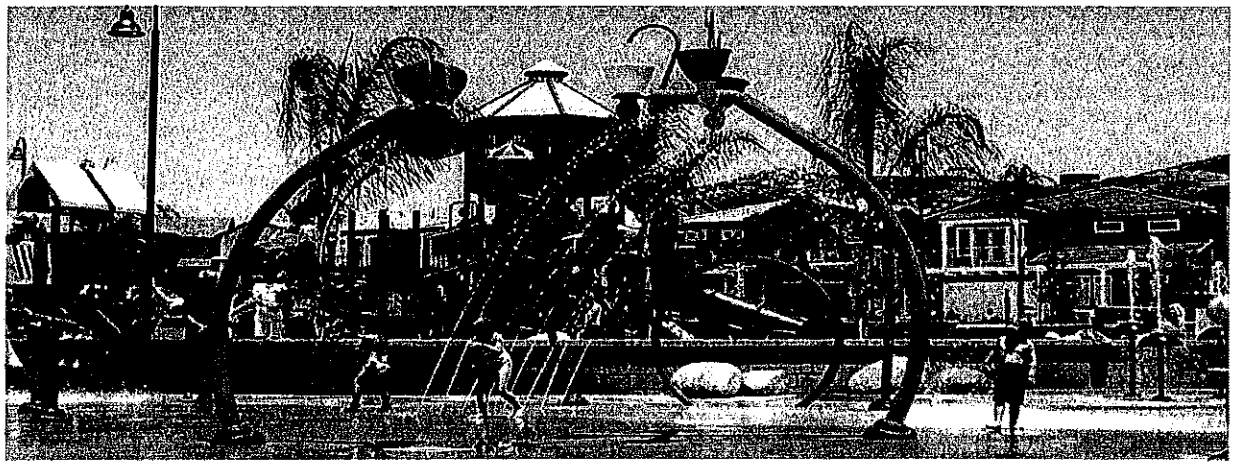
D UNDERSTANDING OF NEED

The City requires an experienced consultant to provide general engineering services on an on-call, as-needed basis. We are qualified and available to support your needs in-house, including:

- Water and sewer infrastructure design and rehabilitation
- Storm drain improvements
- Sidewalks
- Bike paths
- Curb and gutter replacement
- Pavement rehabilitation
- Traffic design and/or studies
- Landscape and irrigation
- Park and recreational design
- Grant writing
- Environmental planning support services
- Planning, design, construction, and post-construction phases

Having served the City and other public agencies throughout Orange County on a variety of on-call contracts over the past several years, we've established a proven successful engineering approach, which we will apply to this contract. Our one-team culture has conditioned us to effectively support on-call assignments. Our quality management program involves maintaining open and constant communication between all involved parties, assigning our most qualified personnel to respective tasks when their services are needed, as well as providing a single point of contact for all services.

Our detailed scope of services and approach for **Option B (General Engineering)** is provided in Section 2: Scope of Services and Schedule. Our scope of services also identifies any assumptions and/or exclusions used in preparation of the scope of services and associated fee estimate.



5. RELEVANT PROJECT EXPERIENCE

We bring decades of experience helping communities achieve and advance their Complete Streets goals. We have the depth of resources to provide all A-E tasks in-house—from preliminary engineering all the way through final PS&E.

The below table highlights our similar, recent projects, followed by full descriptions for a few.

PROJECT NAME	YEAR COMPLETED	LOCAL/SOUTHERN CALIFORNIA	TRAFFIC/ROADWAY IMPROVEMENTS	FULL A-E SERVICES	PRELIMINARY ENGINEERING	FINAL PS&E	COMPLETE STREET OBJECTIVES	LANDSCAPE ARCHITECTURE	PARKWAY ENHANCEMENTS	SAFETY IMPROVEMENTS	STAKEHOLDER COORDINATION
Santa Ana Cycle Track	Ongoing	✓	✓		✓		✓	✓		✓	✓
MacArthur Boulevard/ Talbert Avenue Signal Synchronization Program	2014	✓	✓							✓	✓
Campus Drive/Bristol Street Intersection Improvement	2016	✓	✓	✓	✓	✓	✓	✓		✓	✓
Redondo Beach Cycle Track	2016	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anaheim Resort District Plan Update	Ongoing	✓					✓	✓	✓	✓	
Maine Avenue Complete Streets	2015	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CV Link	Ongoing	✓	✓	✓	✓	✓	✓			✓	✓
Heritage Park Parking Lot Improvements	2014	✓			✓	✓		✓	✓	✓	✓
OC Great Park Sports Park	2017	✓				✓		✓	✓	✓	✓
Culver Drive/University Avenue Intersection Widening	2015	✓	✓	✓	✓	✓	✓	✓		✓	✓
Hazard Avenue Corridor Bikeway Improvement Project	Ongoing	✓	✓	✓	✓		✓			✓	✓
Burbank Channel Bikeway Project	Ongoing	✓	✓	✓	✓	✓	✓	✓		✓	✓

MacArthur Boulevard/
Talbert Avenue Signal Synchronization
Program, Santa Ana, CA

Year completed: 2014
Client name: Orange County Transportation Authority
Contact person and phone number:
Vinh Nguyen, PE; (714) 647-5612
Team members: Stantec staff
Relevancy: Improved traffic flow along high-volume arterial, revamped control equipment, critical City roadway

We optimized traffic flow along this high-capacity arterial road by synchronizing 26 traffic signals—improving existing systems with new control equipment to accurately monitor conditions, improve communication capabilities, and better respond to traffic needs. The existing traffic signal control and interconnect equipment was upgraded to be fully compatible. The upgrade improved communications between each city's traffic management centers, allowing regional communication exchange about status and programming. New timing plans were developed permitting for increased compatibility across the city boundaries. All 26 existing signals were synchronized based on four time periods: early morning, noon, evening peak, and off-peak. We used signal timing software to account for day-to-day variations in traffic flows. Before and after travel times and delay studies were fine-tuned by our skilled staff, making slight adjustments to traffic signal timing parameters to improve performance, reallocate green time, and adjust the sequencing slightly reducing stops and delays.

Campus Drive/Bristol Street Intersection
Improvement, Orange County, CA

Year completed: 2016
Client name: John Wayne Airport
Contact person and phone number:
Steven Carrillo; (949) 252-6020
Team members: S. Weinmeier (Project Manager), S. Reid (Project Engineer)
Relevancy: Full PS&Es and construction support services through project completion, comprehensive A-E services, improved traffic flow and safety

We provided architecture and engineering services to widen southbound Campus Drive and an additional 600-foot-long, third right-turn lane onto northbound Bristol Street. Our work included partially demolishing and reconstructing an existing maintenance building, reconstructing existing traffic facilities, installing a new overhead sign, relocating utilities, and providing minor grading and re-vegetation. We coordinated closely with JWA, the County of Orange, Caltrans, and the City of Newport Beach to satisfy stakeholder's needs.

We provided full PS&Es and construction support services throughout the successful project completion.

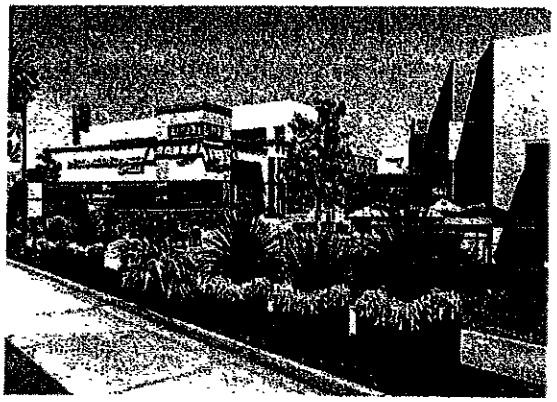
Redondo Beach Cycle Track, Redondo, CA

Year completed: 2016
Client name: City of Redondo Beach
Contact person and phone number:
Maureen Lull; (310) 318-0661x4525
Team members: R. Miller (Project Principal and Traffic Engineer), S. Weinmeier (Civil Engineering Lead), S. Reid (Design Lead), V. Pampara (Design Engineer), S. Cook (Landscape Architect)
Relevancy: Comprehensive A-E services, preliminary and final PS&Es, innovative bikeway network

Designing a link from the Hermosa Beach "Strand" to Redondo Beach's Marina District complex improved accessibility for bicyclists and pedestrians and provided aesthetic and safety enhancements. Our full in-house services included civil engineering and topographic surveys, traffic engineering and planning, and landscape architecture.

We prepared final plans for the roadway rehabilitation that featured a new separated bikeway (cycle track) and a new Welcome Park on lands that were formerly used as a parking lot. We also prepared concept drawings, performed traffic analysis, road diet simulation, and field surveys. We also provided conceptual visualization, cycle track design, and pavement rehabilitation.

We advocated for and ultimately designed a Welcome Park, replacing the existing wall that encumbered the bicycle link between Hermosa Beach and Redondo Beach. The new Welcome Park affected the existing parking capacity—something we had considered in our overall design. To maintain or exceed the current level of parking in the coastal area, coupled with the typical large harbor vehicles, the improvements were designed within strict geometric constraints. We implemented a cycle track, as well as increased the number of parking stalls by providing reverse-angle parking to allow drivers better visibility to the approaching cyclist.

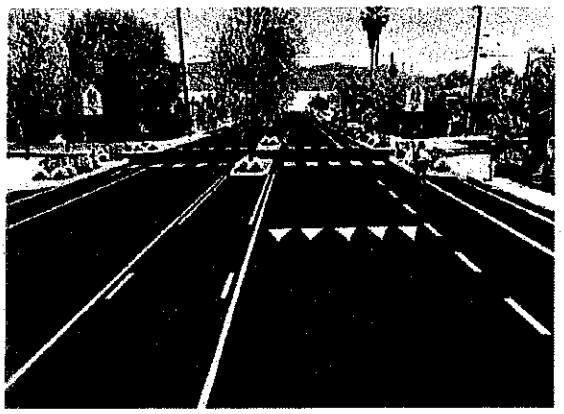


Anaheim Resort District Plan Update, Anaheim, CA

Year completed: Ongoing
Client name: City of Anaheim
Contact person and phone number:
Mike Atkinson; (714) 981-6855
Team members: S. Cook (Project Manager)
Relevancy: Streetscape improvements in highly-visible destination, support from visioning through construction, implementing unique

We are helping the City of Anaheim, Disneyland, restaurateurs, hoteliers, and other Resort District stakeholders bring their streetscape and frontages from the existing garden theme to a more relevant urban theme. We are helping create a feeling of uniqueness to not only encourage visitors to visit, but then to remain in the District longer to enjoy the districts offerings.

Our team of diverse disciplines played a key role throughout the process—from visioning to construction. One of the first phases includes updating the four major entries to the Resort District, which involves unique LED color changing lighting on the palm trees and inside the monuments, sidewalk, and other paving updates, street furnishing, and softscape.



Maine Avenue Complete Streets, Baldwin Park, CA

Year completed: 2015
Client name: City of Baldwin Park
Contact person and phone number:
David Lopez; (626) 960-4011 x458
Team members: S. Weinmeier (Civil Engineering Lead), V. Pampara (Design Engineer), S. Cook (Landscape Architect), R. Miller (Project Principal and Traffic Engineer)
Relevancy: Provided support from feasibility analysis through final design, Complete Streets focus, comprehensive A-E services

The City of Baldwin Park has established an aggressive Complete Streets program for the community, including goals to increase walking and bicycling. Maine Avenue is a potentially underutilized corridor that is being transformed into a quality multimodal corridor, improving access to the City's downtown and Metrolink station.

We analyzed multimodal transportation needs for the corridor, including a first phase that has been funded through the State/Federal Safe Routes to School (SRTS) program. The analysis included feasibility for a road diet to provide space to address sidewalk ADA deficiencies and bicycle lanes. Roundabouts and curb extensions are being featured prominently in the completed plan.

We have recently completed the final design phase, funded through the ATP program. We also led public outreach and grant administration.

CV Link, Coachella Valley, CA

Year completed: Ongoing
Client name: Coachella Valley Association of Governments
Contact person and phone number:
LeGrand Velez; (760) 346-1127
Team members: S. Weinmeier (Engineering Project Manager), D. Villines (Drainage/Hydrology), V. Pampara (Project Engineer), S. Reid (Project Engineer)
Relevancy: Complete Streets focus, comprehensive A-E services, state-of-the-art multimodal trail

Connecting Coachella Valley cities and tribal lands with a safe, continuous, multimodal trails for pedestrians, bicyclists, and low-speed electric vehicles.

CV Link's design will change the landscape of the Coachella Valley with features and forms unprecedented in trail design. The CV Link Master Plan calls for 52 trail miles, 690 permanent jobs, 12 million annual vehicle miles saved, and $1.47 billion in economic benefits for the area. The results will include relieved congestion on Highway 111, improved air quality, increased tourist amenities and mobility, community recreation and fitness, and a stimulated economy.

The Stantec team, led by Sherry Weinmeier, provided civil and traffic studies and design improvements for this world-class network of shared trails that links communities from Palm Springs to Coachella. Our scope included flood studies and the civil design improvement plans for the alignment within the public road right of way, including traffic signals, ADA improvements, and intersection controls.

F REFERENCES

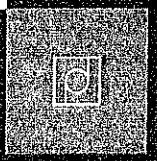
Satisfied clients are the strongest testament to a well-managed project. We encourage you to reach out to the contacts listed below as part of your selection process.

CLIENT REFERENCE	PROJECT NAME	YEAR COMPLETED
Coachella Valley Association of Governments **LeGrand Velez** **(760) 346-1127**	**CV Link**	**Ongoing**
City of Anaheim Mike Atkinson (714) 981-6855	Anaheim Resort District Plan Update	Ongoing
City of Burbank Ross Young (818) 238-5210	Burbank Channel Bikeway	Ongoing
City of Redondo Beach Maureen Lull (310) 318-0661x4525	Redondo Beach Cycle Track	2016
John Wayne Airport Steven Carrillo (949) 252-6020	Campus Drive/Bristol Street Intersection Improvement	2016
City of Mission Viejo Richard Schlesinger (949) 470-3079	Oso Parkway Roadway Widening Improvements	2015
Orange County Transportation Authority Vinh Nguyen, PE (714) 647-5612	MacArthur Boulevard/ Talbert Avenue Signal Synchronization Program	2014

"Stantec's team has an extensive amount of experience and leadership necessary to perform engineering services on public work projects of any size and magnitude... Their highly-qualified staff has consistently demonstrated the ability to work well with integrating multiple disciplines, jurisdictions, and resource agencies necessary in completing a project."
–Richard Schlesinger, PE;
City Engineer, City of Mission Viejo

We design with community in mind

2. Scope of Services and Schedule



2 SCOPE OF SERVICES AND SCHEDULE

Approach: Option B

Our proposal addresses the services anticipated for General Engineering, Option B—Complete Street design for a theoretical 1,000-foot-long roadway between improved intersections.

Achieving your goals begins with preparing an effective Project Plan. Critical to the overall project success is getting started in the right direction with a clear understanding of project goals and expectations. We realize a successful project requires a complete understanding of what is important to you, as well as the associated risks.

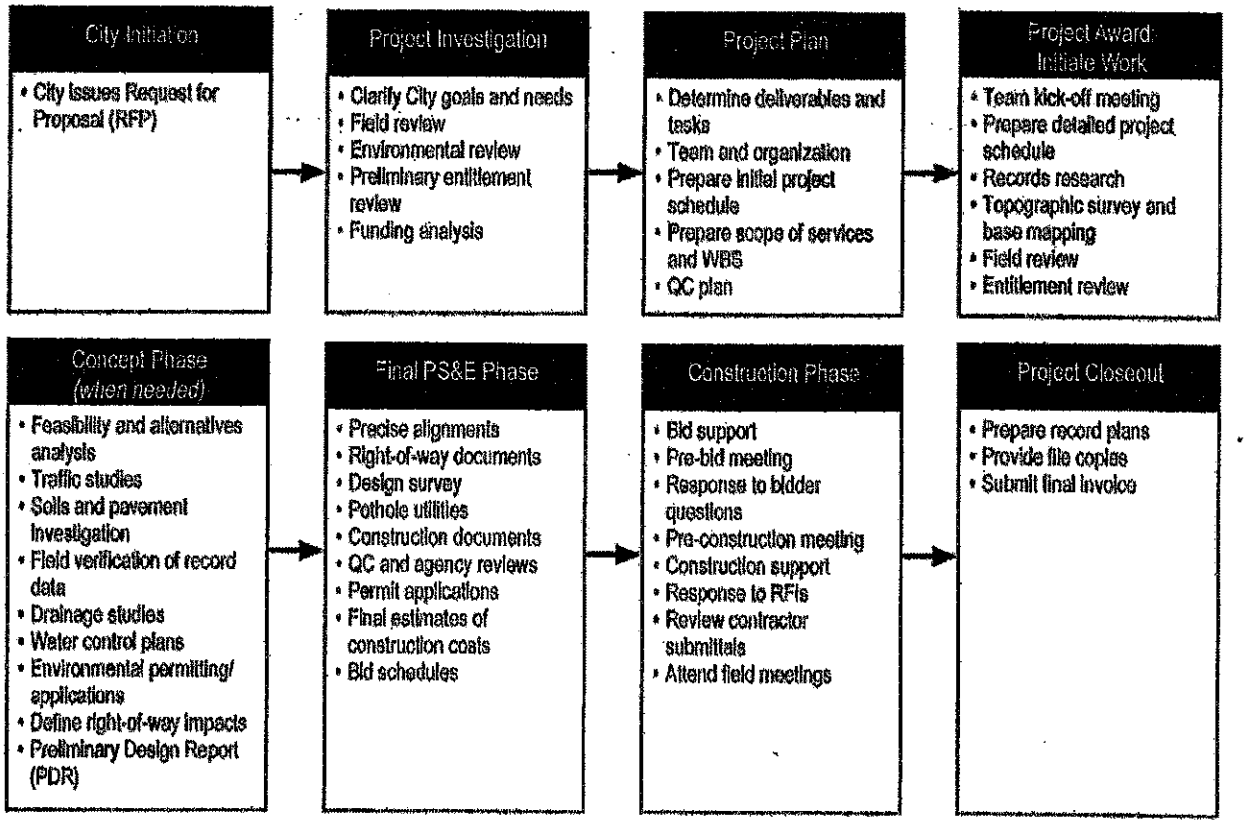
Key elements of our approach to help ensure we maintain schedule and budget includes:

- Understanding your goals
- Determining the funding requirements and constraints
- Clearly defining deliverables
- Determining the regulatory oversight
- Defining and managing critical path tasks and project risks
- Assigning the most qualified personnel
- Preparing and maintaining a detailed schedule
- Providing complete and accurate deliverables

Our Project Plan is one of the key elements of our overall Project Management Framework and includes the detailed scope of services and work breakdown structure (WBS), project schedule, team members and organization, risk assessment and tracking, and QC plan. It is a resource for all team members and will guide the delivery phase.

Our typical workflow is depicted on the following diagram:

Workflow Diagram



The work deliverables will be managed using the following WBS. Each team member will log their labor hours associated with each task on a daily basis. It will be reviewed by the project manager on a weekly basis. Monthly invoicing will also utilize the same tasks or rolled-up tasks, in a format agreeable to the City.

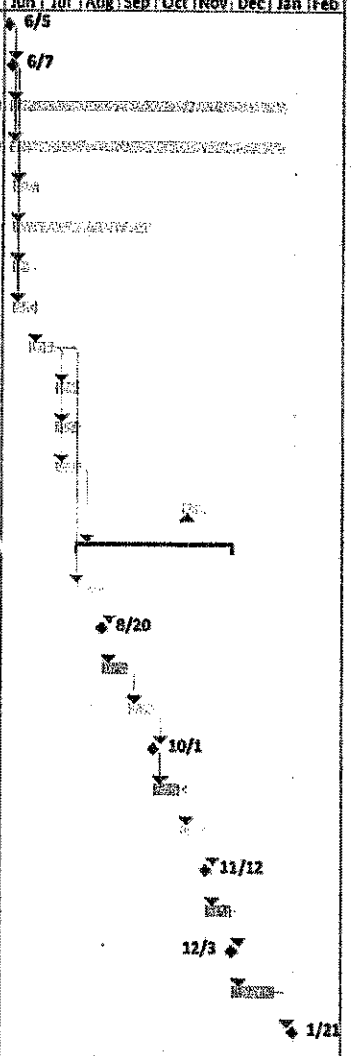
WORK BREAKDOWN STRUCTURE (WBS)
Fee Proposal to Provide Design Services for Mile One Street Widening
To: The City of Santa Ana, March 20, 2018
By: Stantec Consulting Services Inc.

Tasks	Task Description	Est. Hours	Direct Cost	Fee
1	Project Coordination			
	1.1 Coordination, Management, QA/QC (6 months)			
	1.2 Project Meetings (6 months)			
2	Records Search and Field Review			
3	Utility Search and Coordination (0 Potholes)			
4	Design Survey and Base Map			
5	Environmental Service (CEQA NOE)			
6	Precise Alignments			
7	Drainage and Stormwater Quality			
8	Landscape Planting and Irrigation Design			
9	Striping and Signing			
10	Traffic Control Plans			
11	Plans, Specification and Estimates (PS&E)			
	a. 30% Submittal			
	b. 60% Submittal			
	c. 100% (Final) Submittal			
12	Bid & Construction Phase Support			
	Subtotal Hours			
	Subtotal Cost			

The schedule follows a similar outline as the WBS, with more detail to show the supporting tasks necessary to complete each deliverable. Task deliverables will be managed in accordance with the schedule. A typical schedule for a 1,000-foot-long roadway project is provided below.

SANTA ANA STREET IMPROVEMENT PROJECT
PRELIMINARY PROJECT SCHEDULE
PREPARED FOR: CITY OF SANTA ANA
PREPARED BY: STANTEC CONSULTING

ID	Task Name	Duration	Start	Finish
1	NOTICE TO PROCEED	0 days	Tue 6/5/18	Tue 6/5/18
2	KICK-OFF MEETING	0 days	Thu 6/7/18	Thu 6/7/18
3	Task 1.1-Project Coordination, Management, QA/QC	8 mons	Tue 6/5/18	Mon 1/14/19
4	Task 1.2-Project Meetings (Approx. Monthly)	8 mons	Tue 6/5/18	Mon 1/14/19
5	Task 2-Record Search and Field Review	3 wks	Fri 6/8/18	Thu 6/28/18
6	Task 3-Utility Search and Coordination	16 wks	Fri 6/8/18	Thu 9/27/18
7	Task 4-Design Survey and Base Map	2 wks	Fri 6/8/18	Thu 6/21/18
8	Task 5-Environmental Services (CEQA NOE)	3 wks	Fri 6/8/18	Thu 6/28/18
9	Task 6-Precise Alignment Plans	3 wks	Fri 6/22/18	Thu 7/12/18
10	Task 7-Drainage and Stormwater Quality	3 wks	Fri 7/13/18	Thu 8/2/18
11	Task 8-Landscape Planting and Irrigation Design	3 wks	Fri 7/13/18	Thu 8/2/18
12	Task 9-Signing and Striping	3 wks	Fri 7/13/18	Thu 8/2/18
13	Task 10-Traffic Control Plans	3 wks	Tue 10/23/18	Mon 11/12/1
14	Task 11-Plans, Special Provisions and Estimates	90 days	Tue 7/31/18	Mon 12/3/18
15	Prepare 30% Plans	3 wks	Tue 7/31/18	Mon 8/20/18
16	Submit 30% Plans	0 days	Mon 8/20/18	Mon 8/20/18
17	Agency Review of 30% Plans	3 wks	Tue 8/21/18	Mon 9/10/18
18	Response to 30% Review	3 wks	Tue 9/11/18	Mon 10/1/18
19	Submit 60% Plans	0 wks	Mon 10/1/18	Mon 10/1/18
20	Agency Review of 60% Plans	3 wks	Tue 10/2/18	Mon 10/22/1
21	Response to 60% Review	3 wks	Tue 10/23/18	Mon 11/12/1
22	Submit 100% Plans	0 days	Mon 11/12/18	Mon 11/12/1
23	Final Agency Review and Approval	3 wks	Tue 11/13/18	Mon 12/3/18
24	Submit Signed Originals	0 days	Mon 12/3/18	Mon 12/3/18
25	Task 12.1-Bid & Construction Support (Early Start)	5 wks	Tue 12/4/18	Mon 1/7/19
26	Task 12.2-Early Start Constr. Support (Approx. 6 mo.)	0 days	Mon 1/21/19	Mon 1/21/19



MILE ONE STREET PROJECT
MARCH 20, 2018

Task		Manual Task	
Split		Duration-only	
Milestone		Manual Summary Rollup	
Summary		Manual Summary	
Project Summary		Start-only	
External Tasks		Finish-only	
External Milestone		Deadline	
Inactive Task		Progress	
Inactive Milestone		Manual Progress	
Inactive Summary			

The following assumptions were made in developing our scope of services and fee estimate for the theoretical 1,000-foot-long roadway project:

- Work limit lies between two recently completed intersections; therefore, traffic signal modifications are not required.
- The project and reconstruction area is greater than 5,000 square feet; therefore, a Water Quality Management Plan will be required and is included in this scope of services.
- Drainage studies are limited to the local area and offsite studies are not required.
- Right of way base mapping is provided by the City. This scope of services includes design survey, including 50-foot cross sections and critical and tie-in locations.
- Environmental services includes the preparation of a Categorical Exclusions and Notice of Exemption. It is assumed that technical studies are not required.
- General concept plans are prepared by others; however, this scope of services will develop the precise alignment prior to preparation of the final PS&E development.
- This proposal assumes approximately two intersecting and reconstructed driveways and associated ADA access points at each along the 1,000 foot route. Driveways and ADA access points will be detailed on the roadway paving plans.
- Major utility relocations are not anticipated; however, minor adjustments to grade or relocations will be required, including storm drain inlets, fire hydrants, meters, manholes, and overhead utilities. New irrigation meters are assumed required and water services is available along the project frontage.
- City standard lighting fixtures and placement will be utilized. Non-standard or custom lighting is not anticipated.
- Project is completed in one phase.
- The buffer between the bike lane and vehicle lane is a 4-foot raised buffer with pavers.
- Displaced and relocated parking (if relevant) is not included in this scope of services.
- Right of way widening along east of the street has already been required. No impact to the existing medium is assumed.
- Potholing existing underground utilities is undetermined. If required, a budget of approximately $1,500 for a single pothole, in addition to $900 per each additional shall be included.
- Geotechnical and pavement recommendation report will be provided by the City.

As stewards of our roadway infrastructure, we deliver strategies to improve user experience, increase safety, enhance roadway aesthetics, and maximize return on investment of capital and maintenance dollars.

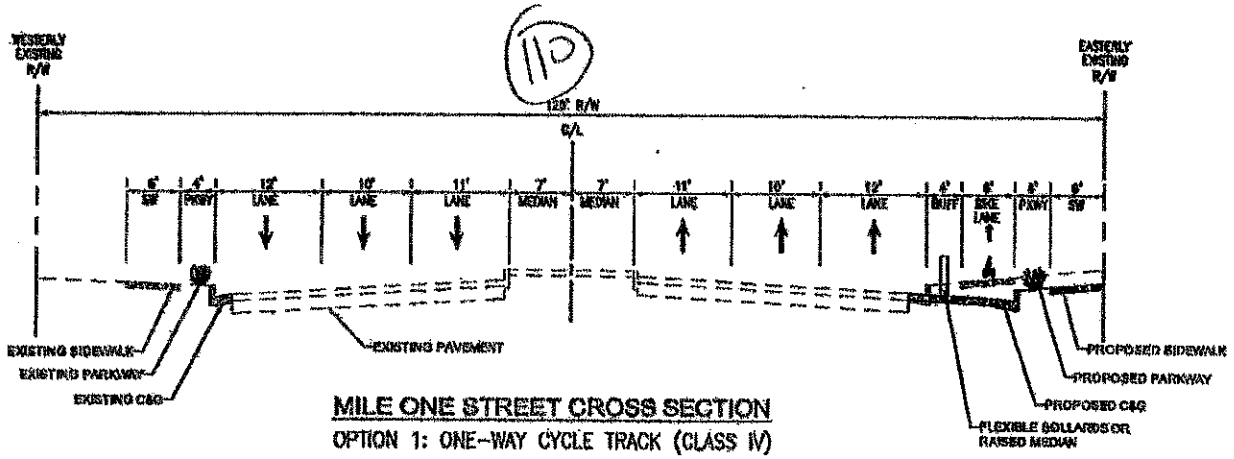
Scope of Services

Project Management, Coordination, and QA/QC

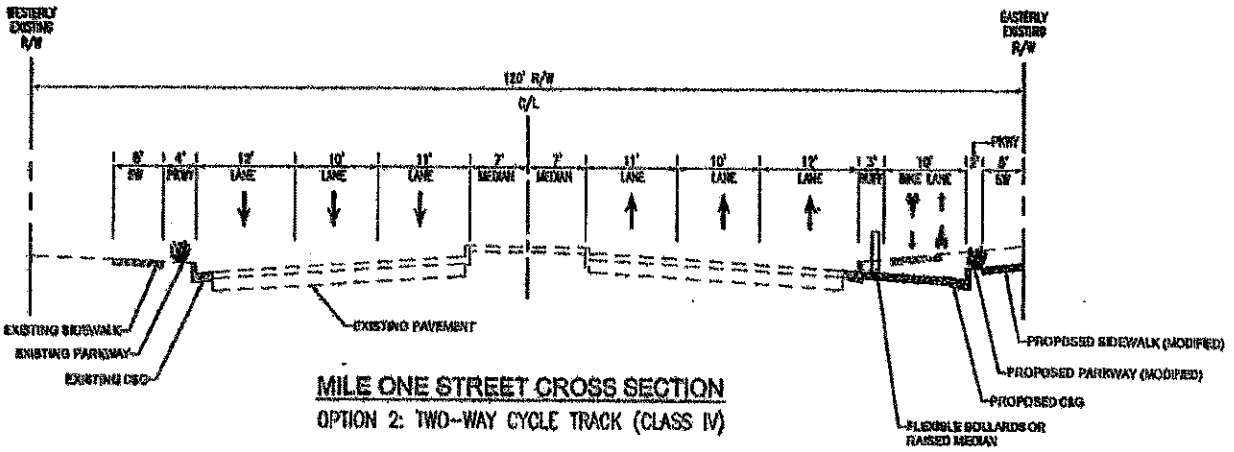
We will schedule a kick-off meeting with the City staff and other stakeholders to discuss the Project Plan, including the scope of services and schedule, as well as outline immediate tasks to commence. Our key team members will attend. We will discuss QA and QC procedures we will implement. Clear lines of communication between the City and our team members will be established. Meeting frequency and attendees will also be verified. For the purpose of this proposal, we have assumed one client meeting per month.

Research and Field Review

Immediately upon notice to proceed, we will obtain all relevant documents from the City (and County, if needed) and review project constraints. All existing utilities will be researched and identified and as-built plans will be used when available for locating substructures. We will conduct a thorough project site inspection to verify plan information obtained in our research. Information and location of existing utilities will be incorporated into the plans as a part of the base map preparation.



MILE ONE STREET CROSS SECTION
OPTION 1: ONE-WAY CYCLE TRACK (CLASS IV)



MILE ONE STREET CROSS SECTION
OPTION 2: TWO-WAY CYCLE TRACK (CLASS IV)

Utility Search and Coordination
We will coordinate with all the utility companies. Utilities within the project limits will be delineated on the base map and appropriate utility notifications will be prepared/issued and related follow-up will be preformed.

At a minimum, notifications will include:

- Utility information request
- Notice of intent to relocate
- Notice to relocate and request for service

We will submit improvement plans and related documents to utility companies at the appropriate plan development stage.

Design Survey and Base Map
We will obtain record maps, surveys, notes, tie sheets, and available horizontal/vertical control, as necessary, from the appropriate agencies. We will also prepare a Record Data Base Map that includes the existing centerlines, right-of-way limits, and property lines. The Base Map will be a digital compilation of the existing centerlines and adjacent property boundaries of record that encompass the project site. Information will be based solely on the compilation of record data and a minimum amount of field measurements to adequately tie the centerlines to the existing topography.

We will obtain an aerial topography and existing planimetric data. Additional ground survey data needed for the design will be obtained at critical tie-in locations. The Base Map will show record of existing utilities within the project area.

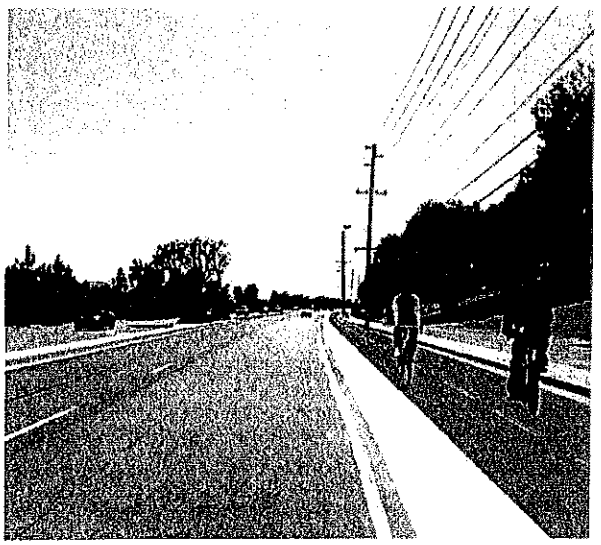
Environmental
Based on our review of the theoretical proposed project and the RFP, we anticipate that the project will qualify for a Categorical Exemption (Class 1) from the California Environmental Quality Act (CEQA). We will prepare a Notice of Exemption for your review and comment. Upon addressing your comments on the draft, we will finalize the Notice of Exemption and file it with the County Clerk—initiating a 35-day statute of limitation period that the public has to file legal challenges to the Notice of Exemption. This scope of services includes our participation in up to one meeting with you.

As an optional task, we can prepare an air quality/greenhouse gas emissions study and a noise study to support the CEQA exemption. It is assumed that these studies will show potential impacts would be less than significant.

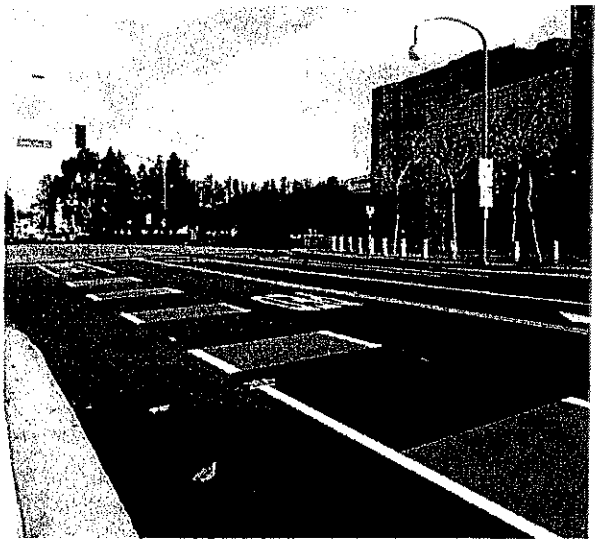
Assumptions

- No Federal money for design and excludes NEPA analysis
- Traffic study prepared by others to support the CEQA exemption that significant traffic impacts is not expected

Precise Alignment Plans
Precise alignment plans with accurate horizontal and vertical geometrics will be prepared based on your comments and concept plan approval. We will submit 30% plans (or geometric drawings) for your review prior to final PS&E development.



Separated Class IV bikeway (OC Loop concept).



On-street Class II bikeway (City of Santa Ana).

Drainage and Stormwater Quality

Drainage Study and Water Quality Management Plans (WQMP): Depending on project scope, we will prepare a drainage study to provide hydrologic and hydraulic design information to modify existing drainage structures in the project area. When needed, we will also work with you to prepare a Water Quality Management Plan and design appropriate Best Management Practices (BMP) to mitigate stormwater quality and quantity runoff.

Storm Drain Plans: Based on the Drainage Study, we will prepare storm drain plans for proposed and/or modified drainage facilities. We anticipate the need to relocate existing storm drain inlets to the new curb alignment near the intersecting street; therefore, this scope of services includes the reconstructed inlet and extended lateral. Hydraulic information will be shown on the plans.

Stormwater Pollution Prevention Plan (SWPPP)/Notice of Intent(NOI): Runoff during construction affects all downstream water bodies. We will prepare a project specific SWPPP and submit the NOI for construction to the RWQCB.

Landscape and Irrigation

We will provide landscape architecture services as required. While we have a long history of delivering attractive, innovative, and cost-effective solutions for streetscapes, open space, parks, and trails, our expertise goes beyond aesthetics and includes technical solutions from porous pavement systems, bioretention, biofilters, and infiltration basins. We will provide comprehensive services along the parkways, including:

- Grading and planting design
- Irrigation design
- Vegetation control, protection, and management plans
- Environmental mitigation
- Landscape restoration

It is understood the medians will not be reconstructed; however, we do anticipate landscape enhancements within the medians to upgrade to low water use systems and match the local character of the adjacent parkways.

Our approach combines a strong commitment to the most advanced thinking and techniques in environmentally sustainable design, construction, and long-term facilities management. With our diverse set of in-house landscape skills and expertise, we provide a comprehensive analysis of the site and its context, finding the most effective and creative sustainable development solutions. We create a responsive fit between site opportunities, site conditions, and project requirements to develop both economically viable and environmentally responsive landscape architecture design solutions.

Plans, Special Provisions, and Estimates

Utilizing data developed under various tasks previously noted, we will develop PS&E documents. These documents will provide the necessary detail for accurate survey and minimal questions during construction. PS&E documents will be subject to an internal review process and then submitted for your review and comment at the 30%, 60%, and 100% precise geometric stages. Based on your feedback, we will finalize the documents to prepare final documents for construction.

A typical list of plan sheets for a roadway, trail, or site improvement project will include the following:

- Typical cross sections and details
- Street plans and profiles
- Signing and striping
- Pavement rehabilitation
- Storm drain and water quality BMPs
- Landscape and irrigation
- Dry utility relocation
- Traffic control
- Notes, bid items, and quantities

The list will include approximately 15 sheets, including the title sheet. Plans will be drawn at a scale of 1"=20' with the exception of Signing and Striping Plans, which may be drawn at 1"=40'.

Bid and Construction Support

Questions arise during the bid phase and in the field during construction. We will act as your liaison from inception to completion to make sure the finished product is true to the original concept. We will help the construction team complete the project with the high level of quality required through our responsiveness and cooperativeness in providing timely processing of submittals and answers to design questions, as well as performing any necessary investigations and field revisions.

Construction File: After completing construction, we will prepare the Record Plans and compile electronic copies of the project document and design files for your records.

We recognize aesthetic and environmentally-friendly designs create opportunities for recreation, leisure, and education—increasing value and enhancing user experience.

We design with community in mind

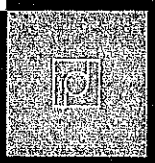
3. Fee Proposal

FEE PROPOSAL

As requested, we have included our fee proposal in a separately sealed envelope.

We design with community in mind

4. Certifications



Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California
County of _____

Subscribed and sworn to (or affirmed) before me on this ____ day of _____, 20__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

SEE ATTACHED

_____
Notary Public Signature

Notary Public Seal

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange

Subscribed and sworn to (or affirmed) before me on this 19 day of March, 2019, by Sherry Weinmeier,

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

CHRISTINE M. CHO
Commission No.2100718
NOTARY PUBLIC-CALIFORNIA
ORANGE COUNTY
My Comm. Expires MARCH 20, 2019

(Seal) Signature

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm Stantec Consulting Services Inc.

Signed and Printed Name: [signature] Sherry Weinmeier, PE, LEED BD+C, ENV SP

Title Principal, Transportation

Date 3/19/18

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: Sherry Weinmeier, PE, LEED BD+C, ENV SP

Title: Principal, Transportation

Firm: Stantec Consulting Services Inc.

Date: 3/19/18

Sherry Weinmeier *

PE, ENV SP, LEED AP BD+C

Project Manager

Education
- BS, Civil Engineering

Registrations/Certifications
- Professional Engineer #41751, CA
- Envision™ Sustainability Professional (ENV SP), Institute for Sustainable Infrastructure
- LEED AP Building Design + Construction, U.S. Green Building Council

Why select
- Proven PM—100s of successfully delivered projects, including 12+ task orders for 5 on-call contracts in the past 5 years
- Expansive concept-level through PS&E experience
- Successful local agency project experience, including with the City
- Proven record of quality and delivery

Sherry is a proven and highly respected leader in the A-E industry, having delivered civil engineering and design services for public agency clients throughout Southern California for more than 30 years. Sherry's extensive expertise includes concept-level infrastructure design through final design services for large-scale master planned communities, a wide range of local public works facilities, and award-winning multi-modal transportation facilities, including the recently completed Redondo Beach Cycle Track. Sherry's outstanding commitment to collaboration and communication, strong understanding of details, and dedication to owners' goals has resulted in her projects regularly being delivered on schedule and within budget.

Santa Ana Cycle Track, Santa Ana, CA (Project Manager)
Sherry managed the preliminary design and precise geometrics for this 2.4-mile separated bikeway in the City. She managed concept refinements and precise alignment studies for the protected bike lanes utilizing raised medians, landscape improvements, bulb-outs at designated intersections, and traffic signal modifications. The design will complete a one-way cycle track in each direction along Santa Ana Boulevard, 5th Street, and 6th Street connecting the Santa Ana Regional Transportation Center to the downtown civic center area. The total project length is approximately 2 miles of one-way cycle track and 0.4 miles of two-way cycle track.

CV Link, Coachella Valley, CA (Engineering Project Manager)
Sherry is providing design oversight and project management services for the civil and traffic engineering final PS&E design services for the on-street segments of CV Link. CV Link is a 50-mile shared use protected path connecting the Coachella Valley communities from Palm Springs to Coachella. We are working closely with the client and desert communities to design this world-class facility. CV Link is a $100 million project with nearly all funding in place.

Redondo Beach Cycle Track, Redondo Beach, CA (Civil Lead)
Sherry was the civil lead for providing full A-E services—from concept through final PS&Es—for proposed bicycle-friendly facilities along two roadways. She led preparation of concept drawings and final plans for the favored alternative, which includes a Class I separated cycle track and City Welcome Park while increasing parking capacity within the coastal zone. The project included traffic analysis and simulation of the road diet and roundabout, conceptual visualization, field survey and aerial topography, civil design of the cycle track, drainage facilities, landscape and site furnishings, and related signing and striping plans.

** Denotes projects completed with other firms*

Maine Avenue Complete Streets, Baldwin Park, CA (Roadway Task Lead)
Sherry delivered full A-E design services for the final PS&Es along Maine Avenue to enhance traffic calming and street beautification along this 1-mile corridor and roundabout. Design services included upgrades to existing ADA curb ramps, commercial and residential driveways for ADA compliance, bulb-outs, and roundabout design. This project included a road diet, which modified the four-lane roadway to provide a three-lane roadway, one through lane in each direction and a continuous median or center left-turn lane throughout, while improving pedestrian and bicycle safety.

Heritage Park Parking Lot Improvements, Irvine, CA (Project Manager)
Sherry managed a fast-track design improvement to a 4-acre parking lot originally constructed in 1976. Our design improves circulation, FDR construction methods, capacity, safety, water quality, and aesthetics. Careful concept element consideration included improved circulation and ADA facilities, increased capacity, visually pleasing design, sustainable features, and safety. Sherry prepared PS&E and construction documents and helped obtain approval from various City departments.

Hazard Avenue Corridor Bikeway Improvement Project, Orange County, CA (Project Manager)
Sherry oversaw an alternatives analysis and provided design support for an 8-mile bikeway through four Cities in Orange County. The bikeway consists of off-street segments along former rail right-of way, Class IV (Cycle Track) segments on a section of roadway that will be reduced from a four-lane arterial to two-lane collector with center turn lane (road diet), and bicycle boulevard segments through residential neighborhoods. A comprehensive traffic impact analysis was prepared for the Project Report and design concepts developed for the on-road segments. A special study to support an amendment of the County's Master Plan of Arterial Highways was prepared for the road diet segments.

OC Great Park Sports Park, Irvine, CA (Project Manager)
Sherry managed final engineering design services for the sport park's development and design, which includes 175 acres of recreational sports and fully compliant accessible site access. We designed precise grading, drainage, sewer and water, and traffic facilities. We are currently providing construction support services through completion.

Burbank Channel Bikeway Project, Burbank, CA (Project Manager)
Sherry managed our full A-E and environmental services, including final PS&Es to complete an important bikeway link through design of a Class I bikeway and multi-use trail along the Burbank Channel. We have provided graphics and presentations at council meetings, met with the community in open gatherings and one-on-one with the City, and helped develop a community survey to gather input from all interested members. Our concept and final designs looked closely at each of their concerns and provided detailed cost estimates of the proposed project alternatives.

Camino del Rio Roundabouts, San Clemente, CA (QA/QC PS&E)
Sherry oversaw the design of two large roundabouts and street design. Our roundabout solution proved to be well-received in addressing future traffic volume, speeding, and safety issues. We provided full A-E and final PS&E design services, including drought tolerant landscaping that improved circulation for pedestrians and bicyclists.

San Diego Creek Channel Bike Trail Relocation, Irvine, CA (Project Manager)
Sherry provided engineering services, including final PS&Es for restoring a 1.2-mile segment of the San Diego Creek Channel. Paved bicycle and hiking trails border the channel. Her scope included improvements to relocate the bike trail at Alton Parkway along the Canon USA property within the channel right of way. Channel structural improvements were designed to replace eroded and damaged areas of the channel including rip rap structures, grade control structures, and eroded soil cement ramps and slopes. The relocation includes grading, asphalt paving, fencing, ADA improvements, signage, striping improvements, and minor landscaping. Sherry prepared a detailed right-of-way mapping base to define the existing right of way and any new easements early in the design so the City could secure timely right-of-way acquisition.

Culver/University Intersection Improvement, Irvine, CA (Project Manager)
Sherry managed engineering, environmental, and architectural design services. She oversaw PS&E preparation and the design of roadway, grading, structures, storm drain, landscape, and utility construction documents to improve level of service at this busy intersection in conformance to Complete Streets goals. The project, scheduled for construction in summer of 2018, provides an additional through lane along Culver Drive in each direction and right-turn lanes to improve traffic flows.

Campus Drive/Bristol Street Intersection Improvement, Orange County, CA (Project Manager)
The project widened southbound Campus Drive to provide an additional 600-foot-long, third right turn lane onto northbound Bristol Street. The work included the partial demolition and reconstruction of an existing maintenance building, reconstruction of existing traffic facilities, installation of a new overhead sign, utility relocations, minor grading and re-vegetation. We provided traffic, civil, geotechnical, architecture, and landscape architecture services.

** Denotes projects completed with other firms*

Mohammad Heiat

PE

Principal-In-Charge

Education
- MS and BS, Civil Engineering

Registrations/Certifications
- Professional Engineer #45776, CA

Why select
- Extensive public works on-call project management and oversight
- Significant PS&E preparation for public infrastructure projects
- Expert in local agency processes, procedures, and standards
- Multi-disciplinary engineer

As a leader in the transportation field for more than 35 years, Mohammad has substantial civil engineering experience in a broad range of public works and private residential and commercial development projects. He's extensively experienced in capital improvement facilities design, roadway and intersection improvement plans, master plans, runoff management plans, and drainage structures.

Mohammad has served as project principal, quality control supervisor, project manager, and project engineer on the preparation of PS&Es for numerous public works and private infrastructure projects with emphasis on highway and street design, drainage and flood control facilities design, including culverts, open channels, and detention/ storage basins.

Howard Way, Century Place and 16th Street Roadway Rehabilitation, Costa Mesa, CA (Principal-In-Charge)
Mohammad oversaw engineering design services for the rehabilitation and re-construction of Howard Way, Century Place, and 16th Street. Project improvements included pavement reconstruction; reconstructing damaged curb and gutter, cross gutters, and sidewalks; driveways and driveway approaches; and wheel chair ramps to meet ADA requirements. Design plans comply with the latest Caltrans, Green Book, APWA, and City standards.

Oso Parkway Roadway Widening, Mission Viejo, CA (Project Manager)
Mohammad managed preparation of preliminary and final design plans for widening improvements on Oso Parkway between the I-5 freeway and County Club Drive. A traffic capacity and operation analysis was prepared for widening alternatives and the recommendation was to add one lane in each direction on Oso Parkway and modify the signals at County Club and Montanoso Drives. The widening improvements require the acquisition of additional right of way on both sides of the street and relocation of several utilities along the existing sidewalks. The box culvert for Oso Creek is being lengthened to accommodate the new lanes in each direction.

** Denotes projects completed with other firms*

Victoria Street Rehabilitation, Costa Mesa, CA (Principal-in-Charge/QC Supervisor)
Mohammad oversaw civil engineering and topographic surveying services to rehabilitate roadway pavement for Victoria Street from Harbor Boulevard to the Santa Ana River. There are several signalized intersections within the project limits, including intersections with Harbor Boulevard, Maple Avenue, Pomona Avenue, Placentia Avenue, National Avenue, American Avenue, Canyon Drive, and Victoria Place/Valley Road. The improvement scope included pavement rehabilitation; reconstruction/ rehabilitation of damaged curb and gutter, cross gutters, and sidewalks; driveways and driveway approaches; detailed design modifications to improve nuisance flow drainage problems; and wheel chair ramps to meet ADA requirements. He also prepared separate signing and striping plans and traffic control plans to implement the project improvements.

17th Street/Tustin Avenue and Harbor Boulevard/ Wilson Street Intersections Improvements, Costa Mesa, CA (Principal-in-Charge/QC Supervisor)
Mohammad oversaw PS&E preparation for intersection capacity and aesthetic improvements at the 17th Street/ Tustin Avenue and Harbor Boulevard/Wilson Street Intersections. Project capacity improvements at 17th Street/Tustin Avenue included exclusive right-turn lanes on the eastbound and northbound approaches and a far-side bus turn-out on eastbound 17th Street. The improvements at this location also included decorative crosswalks across all approaches of the intersection, new curb returns and ADA-compliant access ramps, new sidewalk and tree wells, raised medians with landscaping and irrigation systems, and new street lighting. Improvements at Harbor Boulevard and Wilson Street included an exclusive westbound right-turn lane, including retaining wall design. The firm prepared all street improvement plans for these projects, including roadway plan and profiles, detail sheets, traffic signal modification, signing and striping, and street lighting.

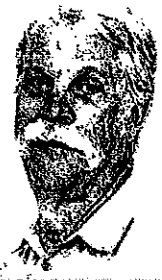
Smoketree Lane and Jeffrey Road Intersection Improvements, Irvine, CA (Principal-in-Charge)
Mohammad oversaw street widening improvements at the Smoketree Lane and Jeffrey Road intersection. Services included field design survey, roadway widening on Smoketree Lane to provide exclusive right and left-turn lanes at Jeffrey Road, right-of-way engineering, new traffic signal installation, signing and striping improvements, concrete bus pad installation, geotechnical and hydrology analysis, utility coordination and potholing, and landscaping and irrigation system improvements. We also prepared separate traffic control plans for project improvement construction.

Culver Drive and Walnut Avenue Intersection Improvements*, Irvine, CA (Principal-in-Charge)
Mohammad oversaw engineering design services, including widening improvements along the eastern side of Culver Drive between Walnut Avenue and Scottsdale; widening improvements along the western side of Walnut Avenue between Culver Drive and 500 feet west of Culver Drive; construction of raised medians, driveways, bus turnouts, and access ramps; utility relocations; and offsite grading. Services included final PS&E and right-of-way mapping. Final PS&E services included a design topographic survey; preparation of roadway plans and profile drawings for roadway widening; pavement rehabilitation; offsite grading, landscape, signing and striping, and intersection traffic signal plans; and technical specifications.

Jamboree Road Widening, Newport Beach, CA (QC Supervisor)
Mohammad oversaw engineering design services for widening improvements along the eastern side of Jamboree Road between Bristol Street North and Fairchild Road, at the MacArthur Boulevard intersection to provide one additional northbound through lane and one additional southbound left-turn lane on Jamboree Road. Services included preparing conceptual landscape and engineering plans, environmental documentation, right-of-way mapping, and final PS&E.

Final PS&E services included a design topographic survey; preparation of roadway plans and profile drawings for roadway widening; pavement rehabilitation; offsite grading, landscape, signing and striping, and intersection traffic signal plans; and technical specifications.

** Denotes projects completed with other firms*



Rock Miller

PE, PTOE

QA/QC (Rock E. Miller & Associates)

Education
- MS and BS, Civil Engineering

Registrations/Certifications
- Professional Engineer #29493 (Civil), #1139 (Traffic), CA
- Certified Professional Traffic Operations Engineer #205

Why select
- Recognized traffic and Complete Streets expert
- Detailed reviewer focusing on safety; quality; and sound, implementable solutions and improvements
- Recent City project experience and deep understanding of local needs
- Unmatched knowledge of regional, state, Federal, and International design guidelines

Rock is a passionate traffic and transportation engineer who specializes in planning with emphasis on active transportation and its contribution to placemaking, urban design, streetscapes, and overall mobility. He is a subject matter expert on walking, biking, and application to Complete Streets. Rock's 35 years of experience is well known to transportation professionals throughout North America, in part due to his service as International President of the 15,000-member Institute of Transportation Engineers (ITE) in 2012 and his continuing service on the U.S. National Committee on Uniform Traffic Control Devices and for the Transportation Research Board.

Rock is a strong advocate in developing and standardizing unique and innovative concepts to better serve walking and biking. He is also an excellent presenter and facilitator in building consensus for complex transportation projects. This expertise, coupled with his strong experience and credibility in traditional traffic engineering, operation of traffic signals and traffic safety, are of great value in presenting technically complex projects.

Santa Ana Cycle Track, Santa Ana, CA*
(Traffic Engineer/Active Transportation Planner)
Rock provided traffic engineering, design oversight, and active transportation plans for this 2.4-mile separated bikeway within the City of Santa Ana. The project involved concept refinements and precise alignment studies for the protected bike lanes utilizing raised medians, landscape improvements, bulb-outs at designated intersections, and traffic signal modifications.

Redondo Beach Cycle Track, Redondo Beach, CA*
(Project Manager)
Rock managed this project to develop plans for proposed bicycle friendly facilities along two important roadways within their Marina district. The project, opened in June 2015, provides benefits to motorized and non-motorized users, and further beautifies Redondo's Harbor Gateway. Rock provided traffic analysis and road diet and roundabout simulation, conceptual visualization, field survey and aerial topography, civil design of the cycle track, drainage facilities, and related signing and striping plans. He led the design concepts and stakeholder and commission meetings, along with several public workshops.

This project has won more than six technical awards and commendations to date and is used by more than one million cyclists annually.

** Denotes projects completed with other firms*

Maine Avenue Complete Streets, Baldwin Park, CA* (Principal-in-Charge)
Rock managed transportation planning and full A-E design services along Maine Avenue to enhance traffic calming and street beautification along this 1-mile corridor and roundabout located at the Maine Avenue and Olive Street intersection. The Maine Avenue corridor project was a road diet, which modified the four-lane roadway to provide a three-lane roadway, one through lane in each direction and a continuous median or center left-turn lane throughout, while improving pedestrian and bicycle safety.

CV Link, Coachella Valley, CA* (Principal-in-Charge)
Rock is providing traffic engineering and urban bikeway designs. This project will construct a 70-mile multi-use trail across the developed portions of the Coachella Valley from Palm Springs to Coachella city along the Whitewater River Wash. It will be separated from traffic for most of its length and will serve cyclists, hikers, neighborhood electric vehicles, and other eligible users.

OC Loop Feasibility Study, Orange County, CA* (Principal-in-Charge)
Rock oversaw feasibility study preparation to connect existing bicycle and recreational trails to form a continuous loop through North Orange County. The final project will cover more than 70 miles, including about 40 miles of existing beachfront and levee trails with 30 miles of new trail along smaller waterways, railroad rights of way, and urban separated bikeway segments. The project will include several complex structures to separate from freeways, high-volume arterials, active rail corridors, and challenging waterway channels.

Model Design Manual for Living Streets, Los Angeles, CA* (Non-motorized Transportation Expert)
Rock assisted the County of Los Angeles, Department of Public Health, in developing their Street Design Manual. This manual focuses on all users and all modes, seeking to achieve balanced street design that accommodates cars, while making sure that pedestrians, cyclists, and transit users can travel safely and comfortably. This manual also incorporates features to make streets lively, beautiful, and economically vibrant; as well as environmentally sustainable.

Rock participated in the two-day public charette program and helped author the report bicycle and liability chapters. The report outlines the objectives to achieve "living streets" goals, including making the roadways safe and pleasant for all users.

Short Range Bicycle Friendly Improvement Program, Long Beach, CA* (Project Manager)
Rock served as the project manager for the City of Long Beach efforts to become the most bicycle-friendly community in the Country. He has obtained three Requests to Experiment from the Federal Highway Administration for innovative bicycle facilities, including his award-winning green sharrow lane, downtown protected bikeway facilities, bicycle boulevards, and buffered bicycle lanes. Rock also identified and prepared plans to implement miles of bikeways through lane narrowing, eliminating travel lanes, and innovative treatments.

Burbank Channel Bikeway Project, Burbank, CA* (Principal-in-Charge)
Rock is managing full A-E and environmental services to the City of Burbank, which completes an important bikeway link through design of a Class I bikeway and multi-use trail along the Burbank Channel. This bikeway will extend from the City's Metrolink station south toward the Los Angeles River Trail located just beyond the City limits. We have provided presentations at council meetings, met with the community in open gatherings and one-on-one with the City, and helped develop a community survey to gather input from all interested members. Our concept designs looked closely at each of their concerns and provided detailed cost estimates of the proposed project alternatives.

Bicycle Improvement Program, Riverside, CA* (Project Manager)
Rock managed review of existing infrastructure and potential changes to improve bikeway infrastructure in Riverside. We helped identify potential projects that were easily implementable and inexpensive, while providing greatly improved bicycle facilities. We specifically analyzed various options for University Avenue and Blaine Street near University of California, Riverside, and analyzed Brockton Avenue from 10th Street to Bandini Street for a potential road diet. We also analyzed various other potential facilities, including Class III facilities and connections to the Santa Ana River trail.

** Denotes projects completed with other firms*

Carlos Pineda •

PE, LEED AP, QSD/QSP

Civil Design and Grant Writing

Education
- MS and BS, Civil/Structural Engineering
- MBA, Business

Registrations/Certifications
- Professional Engineer #C38639, CA
- U.S. Green Building Council LEED Accredited Professional
- Qualified Stormwater Pollution Prevention Plan Practitioner/Developer (QSP/QSD)

Why select
- Decades of public infrastructure engineering experience—from roadways to water and more
- Extensive PS&E preparation experience
- Fully knowledgeable of Caltrans, local agency, state, and Federal guidelines

Carlos' all-encompassing civil engineering and project management experience includes 34 years of working for both private and public sectors. Carlos' private sector design experience involves residential master planned communities, "in tract" residential improvements, and commercial centers, while his public work design experience consists of major arterials improvements, secondary highways and collectors, flood control and drainage projects, ADA retrofit, and safe routes to school projects.

Lincoln Avenue Phase I and II*, Anaheim, CA (Project Manager)
Carlos managed civil engineering design for the widening and realignment of 1.2 miles of Lincoln Avenue, from 200 feet west of West Street to the Caltrans right of way at SR-55, and the widening of a local public street. This was part of an Anaheim redevelopment project that involved the realigning Lincoln Avenue to create safer traffic conditions at the intersection of Lincoln and West Street, as well as the consolidating several Caltrans' right-of-way adjustments that resulted from the SR-5 and Lincoln Avenue interchange improvements.

North San Fernando Boulevard Safety Improvements*, Burbank, CA (Project Manager)
Carlos managed the safety improvements design for North San Fernando Boulevard between Grismer Avenue and Walnut Avenue, in accordance to the North San Fernando Master Plan. The project designed curb extensions to improve the alignment at various intersections, traffic signal modifications, adding bike lanes, left-turn lanes, and ADA ramps and crossings. Project funding utilized a Federal HSIP grant and it had to comply to Caltrans and Federal guidelines for design and construction procurement. Stantec prepared the PS&E package, as well as all associated documents and exhibits in Caltrans LAPM for Authorization to proceed with right-of-way acquisition and construction.

** Denotes projects completed with other firms*

Butterfield Stage Road, Phase 3 Improvements, Butterfield Stage Road and Rancho California Road Intersection Improvements, Temecula, CA (Project Manager)
Carlos managed civil engineering design and field survey services for the design of Butterfield Stage Road, Phase 3 Improvements. This project widened 4,300 lineal feet of Butterfield Stage Road from La Serena Way to Rancho California Road from a two to a four-lane roadway with bike lanes and a raised median. The project widened the easterly side of Butterfield Stage Road and the plans required permits from the City of Temecula, County of Riverside Transportation Department, and Flood Control District. The project involved extensive grading, 20-foot-high retaining wall design, and three drainage culvert extension. The project designed the Butterfield Stage Road and Rancho California Road Intersection Improvements, which included a traffic signal modification; widening of 1,000 linear feet of Rancho California Road, and drainage improvements. Design plans included plan and profile plans, signing and striping plans, grading plans, erosion control plans, drainage plans, retaining wall plans, street lighting plans, traffic signal modification plans, and a water quality management plan.

Almea Aldea Bulb-Out Installation and Buena Suerte/ La Miranda Median Improvement, Rancho Santa Margarita, CA (Project Manager)
Carlos managed the design of bulbouts, landscaping, and irrigation at two high-profile intersections in residential neighborhoods. The project also installed a median and associated landscaping and irrigation at another high profile intersection. Work also included public outreach in coordinating the work with nearby schools. The improvements improved pedestrian visibility and reduce vehicle speeds.

FY 2010-2011 Grouped CDBG Projects, Pomona, CA (Project Manager)
Carlos managed design activities, preparation of PS&E, right-of-way services, and as-needed construction management services for the following Community Development Block Grant (CDBG) funded projects: Citywide Alley Improvements (Project No. 213-64645); Citywide ADA Accessible Path of Travel-Alley Intersections and Curb Ramps (Project No.213-64646); Citywide Street Lights (Project No. 213-64647); and Sidewalk-Districts 2 and 3 (Project No. 213-64648).

Citywide Major Street Rehabilitation (FY 2013-2014 – FY 2014-2015), Pomona, CA (Project Manager)
Carlos managed engineering services for the major street rehabilitation/paving project, including project scoping recommendations; preliminary and final design; project management, including processing/administration of Federal and state funds; design oversight; bidding and award; construction management; inspection; and project reimbursement and close-out.

Cerritos Avenue Widening, Cypress, CA (Project Manager)
Carlos managed widening of Cerritos Avenue to relieve an existing bottleneck. The widening improvement design was accomplished without right-of-way acquisition. Improvements included street widening to provide additional through capacity; removal and replacement of curb, gutter, sidewalk, curb ramps, and driveways; relocation of traffic signals, power poles, light poles, fire hydrants, and utility boxes; and asphalt paving, traffic striping, retaining wall construction, and other appurtenant site improvements.

Pleasant Valley Road Improvements, Camarillo, CA (Project Manager)
Carlos provided civil engineering design to improve a 1.8-mile reach of Pleasant Valley Road, an important arterial highway in the City of Camarillo. This project resulted from a condition of approval for the development of Village at the Park, a 450-acre master-planned community. Improvements consisted of widening the road from two to four lanes; accommodating the widening of the bridge over Calleguas Creek and providing adequate freeboard at the Creek; two new traffic signals and a signal modification at Lewis Street; drainage improvements; and a sewer force main to serve the newly-developed community. The project required permits from the City of Camarillo, and coordination with Caltrans and the County of Ventura.

Jeffrey Road Infrastructure Improvements, Irvine, CA (Project Manager)
Carlos managed the preparation of infrastructure plans, including street improvements, right-of-way engineering, storm drains, streets, grading, water and sewer, dry utilities, specifications, and construction cost estimates for 1.5 miles of Jeffrey Road for the City of Irvine. This project also included 1 mile of Portola Parkway improvements. Both Jeffrey Road and Portola Parkway include realignments and street design for a six-lane highway with raised medians; pedestrian undercrossing; water and sewer relocations up to 36 inches in diameter; and dry utility design for electricity, gas, and cable. Improvement plans were processed and approved by the City of Irvine, Irvine Ranch Water District, and the County of Orange.

** Denotes projects completed with other firms*

Susan Reid •

PE

Deputy Project Manager and Civil Design

Education
- BS, Civil Engineering

Registrations/Certifications
- Professional Engineer #56872, CA

Why select
- 100+ successful projects, with vast majority involving concept-level to final PS&E design
- Significant on-call contract and task order delivery experience
- 20+ years of local agency infrastructure project experience

Susan's 20-year career providing engineering and design services for public and private infrastructure projects has involved roadways, pedestrian and bike trails/paths, hydrology and drainage, and environmental work. She has significant on-call contract and task order experience for local Orange County public works, water, parks, and transportation agencies. She is an expert in numerous precise geometrics and computer aided programs, including AutoCAD Civil 3D InRoads/MicroStation, WSPGW, and various Orange and Los Angeles County hydrology and hydraulics programs.

CV Link, Coachella Valley, CA (Project Engineer)
Susan is providing civil and traffic engineering final PS&E design services for the on-street segments of CV Link. CV Link is a 50-mile shared use protected path connecting the Coachella Valley communities from Palm Springs to Coachella. We are working closely with the client and desert communities to design this world-class facility. CV Link is a $100 million project with nearly all funding in place.

Laguna Beach Pathway Projects, Laguna Beach, CA (Project Engineer)
Susan provided civil engineering for the Top of the World pedestrian pathway and new pathway along Laguna Canyon Road, from the College of Art and Design to the City's Act V Parking Lot.

San Diego Creek Channel Bike Trail Relocation, Irvine, CA (Project Engineer)
Susan provided engineering services for restoring a 1.2-mile segment of the San Diego Creek Channel that is currently owned and maintained by Irvine. Paved bicycle and hiking trails border the channel. She is providing improvements to relocate the bike trail at Alton Parkway along the Canon USA property within the channel right of way. Channel structural improvements were designed to replace eroded and damaged areas of the channel including rip rap structures, grade control structures, and eroded soil cement ramps and slopes.

** Denotes projects completed with other firms*

Culver Drive/University Avenue Intersection and Widening, Irvine, CA (Project Engineer)
Susan provided full A-E services for the City at this major arterial intersection to improve the LOS and mitigate the future projected substandard LOS at the Culver Drive and University Drive intersection. She is helping provide civil engineering, right-of-way services, landscape design, flood control, utility relocations, and environmental permitting through final PS&E.

Redondo Beach Cycle Track, Redondo Beach, CA (Project Designer)
Susan helped develop plans for proposed bicycle friendly facilities along two important roadways within Redondo Beach's Marina district. She helped prepare concept drawings and final plans for the favored alternative, which includes a Class I separated cycle track and City Welcome Park while increasing parking capacity within the coastal zone. The project included traffic analysis and simulation of the road diet and roundabout, conceptual visualization, field survey and aerial topography, civil design of the cycle track, drainage facilities, landscape and site furnishings, and related signing and striping plans.

John Wayne Airport Campus Drive/Bristol Street Intersection Improvements, Orange County, CA (Project Designer)
Susan is providing design and engineering services. The project consists of widening southbound Campus Drive to provide an additional 600-foot-long, third right-turn lane onto northbound Bristol Street.

Burbank Channel Bikeway Project, Burbank, CA (Project Engineer)
We are providing full A-E and environmental services to the City of Burbank which completes an important bikeway link through design of a Class I bikeway and multi-use trail along the Burbank Channel. This bikeway will extend from the City's Metrolink station south toward the Los Angeles River Trail located just beyond the City limits. We have provided presentations at council meetings, met with the community in open gatherings and one-on-one with the City, and also helped develop a community survey to gather input from all interested members. Our concept designs looked closely at each of their concerns and provided detailed cost estimates of the proposed project alternatives. One of the interesting project challenges is the conversion of an abandoned rail road spur line bridge to be used for the bikeway with added protective railing. We are also providing at-grade crossings at four locations and linkages to dead-end streets at four locations.

Bayview Drive Improvements, County of Orange, CA (Project Engineer)
Susan provided professional engineering services for the street improvements including preparation of a Focused Study Report. Her services included an alternatives analysis to alleviate flooding and ponding issues, as well as avoid utility conflicts during the construction of a new storm drain and street improvements, right-of-way studies, detailed hydrology and hydraulics computations, and preparation of the Environmental Analysis Checklist.

Moulton Parkway Smart Street Widening Improvements, El Toro Road to Santa Maria Avenue, Laguna Woods, California (Project Engineer)
Susan served as project engineer for civil engineering and design services for Moulton Parkway Smart Street Improvements including Class 2 Bikeway from 400 feet north of El Toro Road to 500 feet north of Santa Maria Avenue. Improvements included raised median islands, median and parkway landscaping, concrete bus pads, street lights, modification of existing traffic signals, signing and striping, soil nail wall, retaining walls, wrought iron fencing, and adjusting and relocation of utilities. Stantec's services included preparing PS&E documents for the proposed improvements. Close coordination with the Orange County Public Works and other consultants was needed to achieve the goals of the project.

On-Call Street Improvements in Lake Forest's Light Industrial Area, Lake Forest, CA (Project Engineer)
Susan provided engineering for Front Street, Orange Avenue, and Whisler Drive—all located in a light industrial area—to improve roadway surface, drainage, and pedestrian access. The scope of work included preparation of numerous alternatives to design improvements with the least of right-of-way impact. She provided a design solution to an existing drainage sump with no storm drain outlet by modifying the street cross section to provide positive surface drainage towards an existing storm drain system.

Kline Drive Roadway and Storm Drain Improvements, County of Orange and City of Newport Beach, CA (Project Engineer)
Susan developed various alternatives to alleviate storm drain issues, prepared detailed hydrology and hydraulics computations, and prepared the County of Orange Environmental Analysis Checklist.

** Denotes projects completed with other firms*

Jeff Wilkerson •

PE

Deputy Project Manager and Civil Design

Education
- MS and BS, Civil Engineering

Registrations/Certifications
- Professional Engineer #63466, CA

Why select
- Experienced task manager for on-call contracts
- Extensive PS&E package preparation experience
- 18+ years local Orange County agency experience, including for Santa Ana

Jeff is an experienced engineer and project/task manager with 18 years of Orange County agency project experience, including for the City of Santa Ana. He regularly prepares PS&E packages for roadway improvements, site improvements, and water and sewer systems for numerous public and private agencies. He has significant knowledge of and experience adhering to and applying Caltrans; Green Book; APWA; and local agency, state, and Federal standards.

Santa Ana Cycle Track, Santa Ana, CA (Project Engineer)
Jeff assisted with the design and studies for the cycle track within the City of Santa Ana. We provided concept refinements and precise alignment studies for the protected bike lanes utilizing raised medians, landscape improvements, bulb-outs at designated intersections, and traffic signal modifications. The design will complete a one-way cycle track in each direction along 5th and 6th Streets. The goal is to have the cycle track reach the Santa Ana Regional Transportation Center. The total project length is 2 miles of one-way cycle track and 0.4 miles of two-way cycle track.

Jeffrey Bike Trail Extension*, Irvine, CA (Engineering Task Manager)
Jeff provided assistance for the extension of the Jeffrey Bike Trail. Services included survey and mapping, legal descriptions and plats, bike trail improvement plans, signing and striping, lighting plans, utility/SCE coordination, Caltrans encroachment permit processing, and construction costs and specifications.

Howard Way, Century Place and 16th Street Roadway Rehabilitation, Costa Mesa, CA (Project Manager)
Jeff managed engineering design services to rehabilitate and re-construct Howard Way, Century Place, and 16th Street. Project improvements included pavement reconstruction, reconstructing damaged curb and gutter, cross gutters, sidewalks, driveways and driveway approaches, and wheel chair ramps (WCR) to meet ADA requirements. Design plans were complied with the latest edition of Caltrans, Green Book, APWA, and City standards.

Victoria Street Rehabilitation, Costa Mesa, CA (Project Manager)
Jeff managed civil engineering and topographic surveying services to rehabilitate roadway pavement for Victoria Street from Harbor Boulevard to the Santa Ana River. There are several signalized intersections within the project limits.

** Denotes projects completed with other firms*

The scope included pavement rehabilitation, reconstruction/ rehabilitation of damaged curb and gutter, cross gutters, sidewalks, driveways and driveway approaches, detailed design modifications to improve nuisance flow drainage problems, and providing WCR to meet ADA requirements.

17th Street/Tustin Avenue and Harbor Boulevard/ Wilson Street Intersections Improvements, Costa Mesa, CA (Project Engineer)
Jeff prepared PS&E for intersection capacity and aesthetic improvements at the 17th Street/Tustin Avenue and Harbor Boulevard/Wilson Street intersections. Project capacity improvements at 17th Street/Tustin Avenue included exclusive right-turn lanes on the eastbound and northbound approaches and a far-side bus turn-out on eastbound 17th Street. The improvements also included decorative crosswalks across all approaches of the intersection, new curb returns and ADA-compliant access ramps, new sidewalk and tree wells, raised medians with landscaping and irrigation systems, and new street lighting.

Improvements at Harbor Boulevard and Wilson Street intersection included an exclusive westbound right-turn lane, including retaining wall design. We prepared all street improvement plans for these projects, including roadway plan and profiles, detail sheets, traffic signal modification, signing and striping, and street lighting.

Lakewood/Rosemead Boulevard at Telegraph Road Improvements, Downey, CA (Project Engineer)
Jeff helped design and construct street improvements and enhancements at the Lakewood Boulevard/Rosemead Boulevard intersection with Telegraph Road. This project was funded by the Truck Impacted Intersection Program Phase 2 through the Gateway Cities COG and Measure R funds as part of the I-605 Congestion Hot Spots Study. It was a joint effort between the cities of Downey and Pico Rivera combining the two funding sources and completing the improvement of this intersection as one comprehensive project. This project reconstructed the intersection with PCC pavement and widening to ultimate width to include additional through and turn lanes. The scope of work was to rehabilitate the roadway pavement and provide capacity-enhancing improvements. The pavement rehabilitation will involve complete pavement reconstruction utilizing PCC pavement for the intersection and all approaches in all directions.

This project provided additional turn and through lanes at the intersection in all approaches. The widening improvements will require additional right-of-way dedication and modification of the existing traffic signal, including providing right-turn overlap signal phasing on the northbound and eastbound approaches, and upgrades and relocations as appropriate.

Fairview Road and Wilson Street Intersection Improvements, Costa Mesa, CA (Project Manager)
Jeff managed the engineering design for the roadway improvements along Wilson Street from Columbia Drive to Newport Boulevard. The project involved widening both sides of Wilson Street to provide additional through lanes in both directions throughout the project limits. Services included conceptual planning, final PS&E and right-of-way mapping. The scope of the improvements included new asphalt pavement, curb and gutter, sidewalk, driveways, a bus turnout, ADA-compliant curb ramps, drainage improvements, utility relocations, private property improvements, signing and striping, and a traffic signal modification. Construction bid documents and an engineer's estimate were also prepared. Finally, legal descriptions, plats, and a programming cost estimate were prepared for the parcels where right-of-way acquisition that was required for the project improvements.

Newport Boulevard Widening, Newport Beach, CA (Project Manager)
Jeff managed this project that provided comprehensive professional services associated with the conceptual planning, final design and construction of street improvements and landscaping enhancements along Newport Boulevard from 30th Street to Via Lido.
The project included roadway widening and median improvements along Newport Boulevard to add an additional northbound through lane between 30th Street to 32nd Street and an additional southbound through lane between Via Lido to 32nd Street. Concrete bike lanes were constructed along both sides of Newport Boulevard to provide a connection to the existing bike lanes along 32nd Street, west of Newport Boulevard. The project also included constructing a new public parking lot on the northwest corner of the Newport Boulevard and 32nd Street intersection, which required the demolition of an existing building. This new public parking lot replaced the curbside public parking spaces lost due to the new roadway improvements. The project enhanced the visual quality of the project area with new landscaping and other decorative features and improved safety by introducing raised landscape medians on Newport Boulevard.

** Denotes projects completed with other firms*

Vijay Pampara

EIT

Civil Design

Education
- MS and BS, Civil Engineering

Registrations/Certifications
- Engineer-In-Training #141291, CA

Why select
- PS&E preparation experience
- City of Santa Ana project experience
- Well versed in and adheres to local city, state, and Federal agency processes and guidelines

Vijay provides engineering and design services for public and private infrastructure projects throughout Orange County, including the City of Santa Ana. He is experienced in all design stages, including PS&E package preparation. Additionally, Vijay has worked on numerous Caltrans and Southern California municipal projects, including interchange reconfiguration, roadway improvement, cost estimating, and hydrology/hydraulics design. His strengths also include AutoCad Civil 3D, InRoads, and Micro Station design tools.

Santa Ana Cycle Track, Santa Ana, CA (Design Engineer)
Vijay provided civil engineering design services for this 2.4-mile separated bikeway within the City of Santa Ana. We provided concept refinements and precise alignment studies for the protected bike lanes utilizing raised medians, landscape improvements, bulb-outs at designated intersections, and traffic signal modifications. The design will complete a one-way cycle track in each direction along Santa Ana Boulevard, 5th and 6th Streets connecting the Santa Ana Regional Transportation Center to the down town civic center area. The total project length is approximately 2 miles of one-way cycle track and 0.4 miles of two-way cycle track.

CV Link, Coachella Valley, CA (Design Engineer)
Vijay is providing civil and traffic engineering final PS&E design services for the on-street segments of CV Link. CV Link is a 50-mile shared use protected path connecting the Coachella Valley communities from Palm Springs to Coachella. We are working closely with the client and desert communities to design this world-class facility. CV Link is a $100 million project with nearly all funding in place.

Maine Avenue Complete Streets, Baldwin Park, CA (Design Engineer)
Vijay is designing ADA curb ramps, re-designing commercial and residential driveways for ADA compliance bulb-outs, and designing the roundabout. A road diet is proposed for the Maine Avenue corridor, which will modify the four-lane roadway to provide a three-lane roadway, providing one through lane in each direction and a continuous median or center left-turn lane throughout.

** Denotes projects completed with other firms*

Vijay is helping create existing and proposed surface, analyzed and designed the driveways along South Street to acquire minimum right of way for the new sidewalks. He designed ADA curb ramps and created cross sections and details for individual parcels per City standards.

Redondo Beach Cycle Track, Redondo Beach, CA (Civil Engineering Task Lead)
Vijay provided design engineering services for the preparation of plans and estimates for proposed bicycle friendly facilities along two important roadways within Redondo Beach's Marina district. He provided conceptual roundabout design geometrics that was presented in public meetings as one of the project alternatives.

Hazard Avenue Corridor Bikeway Improvement Project, Orange County, CA (Design Engineer)
Vijay provided engineering design services for a Class IV bikeway along the Hazard Avenue Corridor through the cities of Huntington Beach east to Santa Ana. The corridor improvement begins near the intersection of Bolsa Chica Street in the City of Westminster and extends east to the Santa Ana River in the City of Santa Ana, a distance of approximately 14 miles. The project included a traffic study to address the proposed 'road diet' and convert traffic lanes to Class IV on-street protected bike lanes.

South Street Gap Closure, Anaheim, CA (Design Engineer)
Vijay helped create existing and proposed surface, analyzed and designed the driveways along South Street to acquire minimum right of way for the new sidewalks. He designed ADA curb ramps and created cross sections and details for individual parcels per the City of Anaheim Standards.

Camino del Rio Roundabouts, San Clemente, CA (Project Engineer)
Vijay assisted with the design for the earlier project phases and assisted with final design plans for two large roundabouts and other street improvements. The City needed to address the potential for rising traffic volumes along Camino de Los Mares and Camino del Rio due to imminent completion of a new regional arterial link. Neighbors were concerned about increasing traffic volumes and sought improvements that would improve the neighborhood. The roundabout solution proved to be well-received in addressing future traffic volume, speeding, and safety issues. We proceeded to provide full design services for the roundabouts, including drought-tolerant landscaping that is appropriate to the neighborhood and improved circulation for pedestrians and bicyclists.

OC Great Park Sports Park, Irvine, CA (Design Engineer)
Vijay is providing civil engineering design services for the sport park's development and design, which includes 175 acres of recreational sports and fully compliant accessible site access. We are designing the precise grading, drainage, sewer and water, and traffic facilities. We are providing construction support services through completion.

I-405 Sepulveda Pass Widening*, Los Angeles, CA (Design Engineer)
Vijay designed and prepared construction documents, prepared master traffic signs impact document for the entire corridor during the bid preparation phase, and coordinated with various disciplines to help ensure smooth and timely project delivery. The project included widening and realigning 20 existing on and off-ramps, removing and replacing 3 bridge overcrossing structures, widening 14 mainline freeway under crossings, and replacing 6 ramp bridges. Key challenges included installing 18 miles of retaining and sound walls and performing road improvements on adjacent city streets.

SR-91/55/57 PSR, Irvine, CA (Design Engineer)
Vijay is helping preparing PSR/PDS, develop alternatives, detailed cost estimate, alternative schematics, typical cross sections, preliminary layouts, right of way acquisition exhibits. This study also explores continued improvements for the SR-55 and SR-91 freeway interchange complex, as well as evaluation of overall road capacity needs between the two major interchanges. Improvements to the SR-91 corridor and the interchanges will alleviate congestion and accommodate the needs for mobility, access, goods movement, and future traffic demands.

** Denotes projects completed with other firms*

Keith Rutherfurd •

TE

Transportation/Traffic

Education
- MS, Civil/Transportation Engineering
- BS, Administrative Studies

Registrations/Certifications
- Professional Engineer #001647, CA

Why select
- Regularly prepares PS&Es for local transportation and traffic projects
- Significant Orange County agency on-call experience, including Santa Ana
- Expert in transportation and traffic engineering and management

With a broad background in transportation and traffic engineering, Keith has a robust 30 years of experience in transportation analysis and preparing design plans. He performs technical analyses and studies, and prepares designs improvement plans and PS&Es for numerous private and public works projects. Keith has also served as an on-call consultant to public agencies, including for the City of Santa Ana. From road alignment studies; highway and street improvements design, including geometric studies, interchanges, and ramps to traffic engineering, including site impact studies, parking and bikeway studies, bus operations, signing, striping, traffic signal, and traffic control plan design—Keith is involved in all aspects of this field.

7th Street/Tustin Avenue and Harbor Boulevard/Wilson Street Intersections Improvements, Costa Mesa, CA (Project Manager)
Keith prepared PS&E for intersection capacity and aesthetic improvements at the 17th Street/Tustin Avenue and Harbor Boulevard/ Wilson Street intersections. Project capacity improvements at 17th Street/Tustin Avenue included exclusive right-turn lanes on the eastbound and northbound approaches, and a far-side bus turn-out on eastbound 17th Street. Improvements also included decorative crosswalks across all approaches of the intersection, new curb returns and ADA-compliant access ramps, new sidewalk and tree wells, raised medians with landscaping and irrigation systems, and new street lighting. Improvements at Harbor Boulevard and Wilson Street included an exclusive westbound right-turn lane including retaining wall design. Street improvement plans were prepared, including roadway plan and profiles, detail sheets, traffic signal modification, signing and striping, and street lighting.

Victoria Street Rehabilitation, Costa Mesa, CA (Traffic Design Engineer)
Keith provided design services for the rehabilitation of roadway pavement for Victoria Street from Harbor Boulevard to the Santa Ana River. There are several signalized intersections within the project limits. The scope of improvements included pavement rehabilitation, reconstruction/rehabilitation of damaged curb and gutter, cross gutters, sidewalks, driveways and driveway approaches, and detailed design modifications to improve nuisance flow drainage problems and providing wheel chair ramps (WCR) to meet ADA requirements.

Keith prepared separate signing and striping plans and traffic control plans to implement project improvements.

** Denotes projects completed with other firms*

Beach Boulevard/Warner Avenue Intersection Improvements, Huntington Beach, CA (Project Manager and Traffic Engineer)
Keith provided preliminary engineering, feasibility study, and project report preparation for improvements to this major intersection. Intersection widening alternatives included evaluation of exclusive right-turn lanes for existing and 2030 traffic conditions. Services included a laser-scan design survey, utility and right-of-way research, development of geometric alignment plans for each alternative, and implementation cost estimates. Technical memorandums were prepared for documentation of project features and design criteria and the traffic analysis. The traffic analysis identified level of service (LOS) improvements and design queues associated with each alternative using the Traffix and SynchroTM Models. An encroachment permit was obtained from Caltrans for conducting the design survey within state right of way.

Free Right Turn Lane at Fred Waring Drive and Highway 111, Palm Desert, CA (Traffic Design Task Manager)
Keith provided services for a free right turn lane from westbound Fred Waring Drive to northbound Highway 111. The proposed free right-turn lane will replace the existing dual right-turn lanes and will reduce congestion at the intersection by eliminating signalized control for the right-turn movement. The specific elements of work include traffic signal modifications and signing and striping design plans.

Oso Parkway Roadway Widening, Mission Viejo, CA (Traffic Design Task Manager)
Keith managed preliminary and final design plans for widening improvements on Oso Parkway between the I-5 freeway and County Club Drive. He prepared a traffic capacity and operations analysis of widening alternatives and recommended adding one lane in each direction on Oso Parkway and modifying the signals at the I-5 ramps County Club and Montanoso Drives. The widening improvements will require the acquisition of additional right of way on both sides of the street and relocation of several utilities along the existing sidewalks. The box culvert for Oso Creek will be lengthened to accommodate the new lanes in each direction.

I-5 Northbound Off-Ramp at La Paz Road/Muirlands Boulevard, Mission Viejo, CA (Design Manager)
This project, originally designed by the County of Orange, also included roadway improvements to La Paz Road and Muirlands Boulevard in addition to the off-ramp. The City of Mission Viejo, having assumed responsibility for project implementation, selected the firm to modify the original design to provide greater capacity improvement on the off-ramp. The improvements provided two additional lanes at the ramp terminus and included redesigning the geometric cross-section of the ramp, a raised channelization island, signing and striping, and traffic signal and ramp meter modification. This project required coordination and review from Caltrans.

Smoketree Lane and Jeffrey Road Intersection Improvements, Irvine, CA (Project Manager)
Keith oversaw widening improvements and traffic signal installation at the intersection of Smoketree Lane and Jeffrey Road in the City of Irvine. Services included field design survey, roadway widening on Smoketree Lane to provide exclusive right and left-turn lanes at Jeffrey Road, right-of-way engineering, new traffic signal installation, signing and striping improvements, concrete bus pad installation, geotechnical and hydrology analysis, utility coordination and potholing, and landscaping and irrigation system improvements. He also prepared separate traffic control plans for construction of the project improvements.

** Denotes projects completed with other firms*

Daryl Zerfass

PE, PTP

Transportation/Traffic

Education
- BS, Civil Engineering

Registrations/Certifications
- Professional Engineer #TR1824 (Traffic), CA
- Professional Transportation Planner #454, Transportation Professional Certification Board Inc.

Why select
- On-call traffic experience, including Orange County agencies
- Expert in traffic and transportation planning and engineering
- Significant design experience for local public infrastructure projects

Daryl has more than 25 years of experience in multiple aspects of traffic engineering and transportation planning. He has a proven record of managing large-scale traffic studies efficiently and effectively. His projects include freeway facility and interchange studies for PSRs and PRs, traffic impact studies for large-scale development projects, transportation studies for Specific Plans and General Plan updates, large-area transportation studies, corridor studies, transportation nexus fee studies, traffic model development, and land-use related circulation studies.

Hazard Avenue Corridor Bikeway Improvement Project, Orange County, CA (Traffic Task Manager)
Daryl provided a traffic analysis and design support for an 8-mile bikeway through four Orange County cities. The bikeway consists of off-street segments along former rail right of way, Class IV (Cycle Track) segments on a section of roadway that will be reduced from a four-lane arterial to two-lane collector with center-turn lane (road diet), and bicycle boulevard segments through residential neighborhoods. A comprehensive traffic impact analysis was prepared for the Project Report, and design concepts were developed for the on-road segments. A special study to support an amendment of the County's Master Plan of Arterial Highways was prepared for the road diet segments.

Beach Cities Living Streets Design Manual and Aviation Boulevard Multimodal Corridor, Redondo Beach, Manhattan Beach, and Hermosa Beach, CA (Quality Manager)
Daryl is quality manager for the Aviation Boulevard Multimodal Corridor Plan. Currently, bike facilities do not exist along the heavily congested Aviation Boulevard and no reasonably close parallel routes for bicyclists exist. We are identifying and conceptually designing improvements to bicycle and pedestrian facilities within the existing right of way to provide a welcoming living streets atmosphere.

** Denotes projects completed with other firms*

Costa Mesa General Plan and Active Transportation Plans, Costa Mesa, CA (General Plan Traffic Study)
Daryl prepared the traffic analysis for Costa Mesa's 2004 and 2016 General Plan updates. These projects included close coordination between the project team to implement a coordinated land use and transportation planning effort. The traffic studies serve as a resource document for the project's environmental documentation, as well as the new General Plan Circulation Element.

Fontana General Plan Traffic Study, Fontana, CA (Transportation Lead)
Daryl led the traffic analysis and circulation element update being prepared as part of Fontana's 2017 General Plan update. A comprehensive best practices report was prepared to inform the City and the steering committee of current planning practices regarding topics such as mixed use development, complete streets, VMT analysis, and multi-model transportation options. A version of the SBTAM traffic model was customized specific to the General Plan update to use for calculating VMT metrics and roadway traffic forecasts. Multiple community outreach events were held to determine the public's wishes and concerns regarding transportation in the City, which was used to develop new Goals and Policies for the Circulation Element.

SR-126 Feasibility Study Traffic Study, Los Angeles County, CA (Project Manager)
Daryl managed the traffic study that addressed the feasibility of enhancing the SR-126 corridor between Commerce Center Drive and the Ventura County line in the north Los Angeles County area. Improvements, such as adding intersection turn pockets, installing traffic signals, and implementing additional travel lanes were evaluated and a recommended corridor plan was developed. The enhancements will occur over time based on traffic capacity needs and a phasing plan for the improvements was determined based on land use growth projections. The study involved traffic operations analysis of the highway, signalized and unsignalized cross-street intersections, and the preparation of comprehensive traffic study reports.

I-5 HOV Lane Access Conversion Project from SR-57 to SR-39 (PSR/PR) Traffic Study, Orange County, CA (Project Manager)
Daryl managed the PSR traffic study that address the design of a "continuous access" feature that will convert the existing buffer separated and limited access HOV facilities to provide continuous access for I-5 between SR-57 and SR-39 (Beach Boulevard).

The work effort includes developing design year traffic forecasts, operational analysis of the continuous access configuration, and accident data review within the project limits.

I-5/El Toro Road Interchange (PSR) Traffic Study, Orange County, CA (Traffic Task Manager)
Daryl prepared the PSR traffic studies and the Traffic Engineering Performance Assessment (TEPA) for the proposed reconstruction of the I-5/El Toro Road interchange. The study effort included the development of multiple interchange concepts that were evaluated using a microsimulation model. Design year traffic forecasts were derived using the Orange County Transportation Analysis Model (OCTAM) and the local sub-area models of the Cities of Lake Forest and Laguna Hills.

Lake Forest Transportation Mitigation Program - 2014 Update, Lake Forest, CA (Project Manager)
Daryl managed this update to the City of Lake Forest's traffic fee program. The Lake Forest Transportation Mitigation (LFTM) program is utilized to fund roadway improvements throughout the City with costs allocated to development projects. The City's travel demand model was updated based on current development proposals, and an updated improvement program was developed based on the new traffic forecasts. Cost estimates for the identified improvements were utilized to develop traffic impact fees for various types of land development projects.

Lake Forest Portola Parkway Gap Closure, Lake Forest, CA (Project Manager)
Daryl managed an evaluation of the proposed Master Plan of Arterial Highways segment of Portola Parkway that would connect the Cities of Irvine and Lake Forest. The City's long-range traffic model was utilized to evaluate scenarios with and without the gap closure, and a Citywide level of service analysis of roadway links and intersection volumes was prepared to determine the need for the extension.

Saddleback Ranch Road Engineering Design, Lake Forest, CA (Traffic)
We are providing full A-E services for traffic calming, improvements to improve traffic operations in a residential and educational facility area. Conceptual studies were prepared and presented to the stakeholders in a number of workshops. The scope of work included preparing preliminary engineering studies and PS&E documents.

** Denotes projects completed with other firms*

Mark LaRue •

ASLA, LEED AP

Landscape Architecture and Irrigation

Education
- BS, Landscape Architecture

Registrations/Certifications
- Registered Landscape Architect #2881, CA
- LEED Accredited Professional, U.S. Green Building Council

Why select
- Exceptional streetscape experience with local public agencies and cities
- Significant experience designing within Caltrans standards
- Community-design focused

Mark's creativity, love for the outdoors, and passion for well-designed spaces have guided him in his three decades of landscape architectural design and project management work.

From park and recreation planning and streetscape design, to commercial and industrial developments, multi-family housing, and urban design, Mark combines his unique flair for design, organization, and effective use of space with his technical understanding to create designs that are not only aesthetically pleasing but also set the standard for excellence in functionality, constructibility, maintainability, and sustainability. Mark is a LEED Accredited Professional, and regularly seeks opportunities to apply sustainable design solutions appropriate for each project. He values living in the community where he works and seeing his contributions enjoyed by others.

Mecca Street Improvements, Mecca, CA (Senior Landscape Architect)
Mark served as the senior landscape architect for street improvement design for 33,000 square feet of roadways. The project included undergrounding utilities, adding sidewalks, right-of-way acquisitions, parkway landscaping and park design, drainage solutions, and research for a low water shelf community and to the unincorporated area known as the Town of Mecca. In addition, we helped design a new entry monument and traffic roundabout.

Katella Avenue Smart Street Improvements, Ninth Street to Humor Drive, Anahelm, CA (Landscape Architecture)
We provided civil engineering and design services for the project between Ninth Street and Humor Drive to reduce traffic congestion and enhance aesthetics along the corridor. Mark provided landscape architectural services, including inventory of existing planting and irrigation within and adjacent to the project to determine improvements to be maintained and salvaged. Detailed coordination was required to maintain existing landscape and connect new landscape improvements to adjacent privately owned and maintained landscaping

** Denotes projects completed with other firms*

State College Boulevard/Ball Road Intersection Improvement, Anaheim, CA (Landscape Architect)
Mark provided landscape architecture services for this improvement project. Improvements included the planting design and irrigation design to provide parkway planting and irrigation and median planting and irrigation. He provided final landscape improvement designs as part of the construction documents.

Sorrento Hills/Torrey Hills*, San Diego, CA (Landscape Architect)
Mark prepared the construction documents and provided construction management services for this 650-acre, mixed-used development project. He was responsible for the greenbelts, project monuments, slopes, a 14-acre community park, open space, brush management, and trail systems. Mark prepared the construction documents for the parkway, medians, and adjacent greenbelts for approximately 20 miles of streetscape located within the project. Due to the size, location (coastal zone), and production schedule, his construction services included the management of contract growing of the plant material.

El Camino Real/Carmel Mountain Road at Torrey Hills, San Diego, CA (Landscape Architect)
Mark prepared the landscape construction documents for complete streetscape improvements, including 3 miles of streetscape within the right of way along El Camino Real from Carmel Valley Road and Carmel Mountain Road and the adjacent slope improvements (roughly 40 acres of constructed slopes), that would ultimately be maintained by the Sorrento Hills Landscape Maintenance District. The streetscape design included access driveways and intersections for commercial, multi-family residential, light industrial egress. Through design and construction, these egress points were relocated. Mark helped coordinate the ongoing plan modifications with the adjacent land owners and their contractors to make the necessary modifications to accommodate for these changes. At the west end of the Carmel Mountain Road improvements, it was necessary to prepare for a future on ramp at I-5. The improvements were designed and processed in accordance with the Caltrans standards. Throughout the project, Mark coordinated closely with Caltrans and the local neighborhood representatives. He also provided construction management services from the time of preliminary construction through project buy-off from the maintenance district and/or Caltrans.

Blatchford Redevelopment Project, Edmonton, AB (Landscape Architect)
Mark was the engineering consultant for Stage 1 of the Blatchford Redevelopment Project. As the engineering consultant, we designed and engineered Stage 1, which included an estimated development area of four to six hectares. The scope included multi-family or mixed use parcels as well as the design and construction of stormwater management facilities and the offsite improvement that fell outside the boundaries of Stage 1. The project explored and exploited new technologies and sustainable initiatives that will cover the design and implementation of urban planning, water, wastewater and stormwater management, transportation, landscape architecture, sustainability implementation, electrical and energy systems, IT communications, geotechnical engineering, geomatics, and solid waste. Stage 1 was the first of many stages that will ultimately achieve the City of Edmonton's vision for the Blatchford Redevelopment project, which is intended to redevelop 217 Ha of land within the City's centre, into a vibrant and world-leading sustainable community.

Vista Sorrento Parkway at Torrey Hills, San Diego, CA (Landscape Architect)
Mark prepared the landscape construction documents for complete streetscape improvements, including 2 miles of streetscape within the right of way along Vista Sorrento Parkway. Some of the streetscape, and much of the adjacent slopes, fell within the Caltrans right of way at the I-805 and I-5 Interchange. Many of the landscape improvements also fell within the coastal region so it was necessary to coordinate and plan for special re-vegetation requirements and planting methods. Specialty seed mixes were designed for coastal permit approvals and custom planting techniques were implemented to aid in the establishment of the planted landscape. Mark aided in construction management services from the time of preliminary construction through project buy-off from the maintenance district and/or Caltrans. The improvements within the Caltrans right of way were designed to their standards and ultimately accepted to be maintained by Caltrans. The remaining treated areas were accepted by the City of San Diego and have been turned over to the Sorrento Hills Maintenance District.

** Denotes projects completed with other firms*

25E-813

Steve Cook

RLA

Landscape Architecture and Irrigation

Education
- BS, Agricultural Business Management

Registrations/Certifications
- Landscape Architect #4053, CA
- Landscape Irrigation Auditor #82148, Irrigation Association
- Landscape Contractor #C27-528894, CA

Why select
- Expert in community-customized landscape designs
- Recently delivered award-winning landscape project for an Orange County agency
- Expert in new and efficient irrigation delivery systems

Steve's 25 years of combined experience as a registered landscape architect, a licensed landscape contractor, a certified water auditor, and a member of the Environmental Protection Agency's (EPA) Watersense Partnership Program, provide him a broad base of valuable knowledge. His experience as a landscape architect and a certified landscape water auditor provide him the knowledge necessary to design the most current environmentally friendly and efficient irrigation delivery systems. As an EPA Watersense Partner, he stays abreast of the regional, as well as local policies—enabling him the ability to foresee technological and societal trends, and allowing him the advantage of incorporating relevant new irrigation elements or design techniques into current project designs accordingly.

San Diego Creek Channel Bike Trail Relocation, Irvine, CA (Landscape Architect)
Steve managed the landscape improvement services for restoring a 1.2-mile segment of the San Diego Creek Channel, which is currently owned and maintained by the City of Irvine. A Class I bicycle and hiking trail borders the channel. The Landscaped areas that were to be affected were managed by various property owners/ districts. Steve's early coordination efforts with these stakeholders allowed for a consensus on scope. As a result the first iteration of this project gained acceptance and approval.

Redondo Beach Cycle Track, Redondo Beach, CA (Landscape Architect Task Manager)
Steve developed plans for the bicycle friendly facilities along two important roadways within Redondo Beach's Marina district, as well as a welcome park at Redondo Beach's northern gateway at Hermosa Beach. His team also provided the colored graphics used at the stakeholder outreach meetings at which he presented the project's landscape elements. Steve's experience with plants that tolerate and even thrive in the coastal environments was of vital importance as this project is located within some of the harshest coastal influence. His input on the pavement materials and site furnishings, as well as the inter-nodal connection points for pedestrian/cyclists was essential for providing a safe and enjoyable experience for the various users.

** Denotes projects completed with other firms*

Laguna Beach Pathway Projects, Laguna Beach, CA (Landscape Architect)
Steve managed the landscape architecture portion of the PS&E preparation for the Top of the World (TOW) Pedestrian Pathway which connects the TOW neighborhood to the Orange County regional trail system, and new pathway adjacent to Laguna Canyon Road, from the College of Art and Design to the City's Act V Parking Lot. Both trails bisected natural coastal sage scrub so determining the lowest impact design while meeting the goals of the project fell within his team's scope. His experience in designing with natural materials, as well as his in-depth knowledge of this region's California native plant families, were keys to the success of these projects.

Golden Valley Road, Santa Clarita, CA (Landscape Architect)
Steve prepared the landscape concept plan for preliminary approvals and later the landscape construction documents. This project was a street widening and renovation project was adjacent to and spanned the Caltrans right of way at SR-14. He worked closely with the City's staff to incorporate the new landscape items into the existing. Existing points of connections were used where possible and new ones were installed where necessary. One particular challenge discovered during design was the lack of an existing power source for an area of new landscape. Steve's knowledge of cutting edge products within his industry, which is a result of maintaining his Certified Irrigation Auditor and EPA WaterSense Partner credentials, allowed him to suggest to the City the use of a newly released solar powered controller that would meet the most current water saving requirements. Avoiding the need to install a new electrical supply saved the City design and construction costs.

Miraloma Streetscape, Anaheim, CA (Landscape Architect)
Steve prepared the landscape concept plan for preliminary approvals and later the landscape construction documents. While the project was mainly a property conversion from commercial use to a ground water recharge basin, the streetscape was considered an important element for community acceptance.

Working closely with the staff of the Orange County Water District, Steve's past experience as a landscape contractor gave him the ability to accurately determine the existing planting and hardscape elements that could be salvaged to not only save money, but provide a more mature look to the finished product.

His knowledge of California native plant material and the most current irrigation methods and materials resulted in reduced cost relative to construction, water savings, and lower maintenance requirements.

Mecca Streets Revitalization - Economic Development Agency, Riverside, CA (Landscape Architect)
Steve prepared the landscape conceptual drawings and construction documents for this 2013 APWA merit award-winning neighborhood/community redevelopment project. He worked closely with representatives of the County of Riverside's Economic Development Agency and its Transportation Department to provide landscape architectural services that met the desires and needs of both. Steve's coordination with other disciplines was a key element of the preliminary design. The conceptual drawings that his team prepared were used to communicate the intent. The drawings were also used in the securing of development funds. Steve's team took the project from conceptual through construction documentation.

El Camino Real/Carmel Mountain Road at Torrey Hills, San Diego, CA (Landscape Architect)
Steve prepared the landscape construction documents for complete streetscape improvements, including 3 miles of streetscape within the right-of-way along El Camino Real from Carmel Valley Road and Carmel Mountain Road and the adjacent slope improvements (roughly 40 acres of constructed slopes), that would ultimately be maintained by the Sorrento Hills Landscape Maintenance District. The streetscape design included access driveways and intersections for commercial, multi-family residential, light industrial egress. Through design and construction, these egress points were relocated. Steve helped coordinate the ongoing plan modifications with the adjacent land owners and their contractors to make the necessary modifications to accommodate for these changes. At the west end of the Carmel Mountain Road improvements, it was necessary to prepare for a future onramp at I-5. The improvements within this area were designed and processed in accordance with the Caltrans standards.

Throughout the project, Steve coordinated closely with Caltrans and the local neighborhood representatives. He also provided construction management services from preliminary construction through project buy-off from the maintenance district and/or Caltrans.

** Denotes projects completed with other firms*

Roger Chung •

PE, QSP/QSD

Water

Roger has more than 16 years of civil engineering experience with expertise in hydrology, hydraulic, and structural analysis for drainage studies and master plans; and the preparation of design plans, specifications, and cost estimates for water supply and flood control facilities. He has provided hydraulic analysis and designed numerous water recharge and flood control projects in Orange County.

Education

- BS, Civil and Environmental Engineering

Registrations

- Professional Engineer #C65388, CA
- Qualified Stormwater Pollution Prevention Plan Practitioner/Developer, California Stormwater Quality Association

Relevant Experience

- SR-91 Corridor Improvement Project*, Riverside County, CA (Task Leader)
- Jamboree Road and I-5 Interchange Widening*, Irvine and Tustin, CA (Task Leader)
- Fullerton Road Grade Separation*, Industry, CA (Task Manager)
- Tustin Avenue and Rose Drive Grade Separation Project*, Orange County, CA (Drainage Task Manager)
- Rosecrans Avenue Grade Separation*, Santa Fe Springs, CA (Task Manager)

Dan Villines

PE

Water

Dan has 24 years of professional civil engineering experience in the technical field of water resources. His experience includes hydraulic and structural analyses for the preparation of design plans, specifications and cost estimates for retaining walls, flood walls, dams, detention basins, water supply, wastewater, and flood control facilities.

Education

- BS, Civil Engineering

Registrations

- Professional Engineer #55210, CA

Relevant Experience

- CV Link, Coachella Valley, CA (Drainage/Hydrology)
- Tustin Avenue and Rose Drive Grade Separation Project, Orange County, CA (Drainage Task Manager)
- City of Burbank On-Call Plan Check Services*, Burbank, CA
- San Diego Creek Invert Repair Project, Irvine, CA (Project Manager)
- Cactus Avenue Widening, Rialto, CA (Drainage/Water Quality Task Manager)
- Glen Helen Parkway Bridge Over Cajon Wash, San Bernardino, CA (Task Manager)
- Penmar Lane Drainage Improvements*, Pomona, CA (Project Manager)
- Rosecrans Avenue Grade Separation, Santa Fe Springs, CA (Task Manager)
- Fullerton Road Grade Separation, Industry, CA (Task Manager)

** Denotes projects completed with other firms*

Michael Weber •
Environmental and Regulations/Compliance

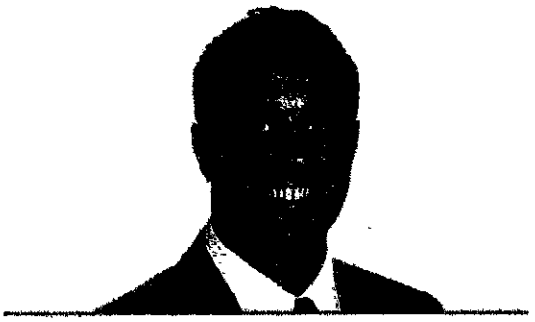
With more than 18 years of progressive environmental consulting experience, Michael's expertise involves land uses subject to discretionary agency approvals and public environmental review. He provides environmental services and leads multi-disciplinary teams through all project phases. Michael has experience with aerospace, commercial, education, industrial, oil and gas, power, recreation, renewable energy, residential, transportation, water, and wastewater land uses.

Education

- BS, Environmental Studies

Relevant Experience

- Laguna Canyon Road Pedestrian Pathway, Laguna Beach, CA (Environmental Task Manager)
- Top of the World Pedestrian Pathway, Laguna Beach, CA (Environmental Task Manager)
- Copper Cove Guardrail and Shoulder Installation, Calaveras County, CA (Senior Environmental Planner)
- Murphy's Grade Road Guardrail Improvement, Calaveras County, CA (Senior Environmental Planner)
- Transit Center Project, Vallejo, CA (Senior Environmental Planner)



Kevin Kohan
Environmental and Regulations/Compliance

Kevin coordinates major land development projects through the administrative review process at local, state, and federal levels for both public agency and private sector clients. He manages inter-disciplinary teams of regulatory compliance experts, planners, landscape architects, biologists, wetlands specialists, and mitigation monitors. Kevin has consulted on numerous endangered species Section 7 assignments—including coordinating a team of water engineers on implementing reclaimed water usage in Castaic, California. His clear understanding of state water issues and associated environmental policies has resulted in successfully working with the Riverside County Habitat Conservation Agency-Endangered Species. Additionally, Kevin has prepared and processed resource permits through the USACE, USFWS, CDFW, and RWQCB.

Education

- MA and BA, Urban Planning

Relevant Experience

- Main Street Downtown Corona*, Corona, CA (Environmental Task Manager)
- Nichols Road Bridge*, Lake Elsinore, CA (Urban Planner)
- Alberhill Villages Specific Plan*, Lake Elsinore, CA (Project Manager)
- Bridal Creek Specific Plan*, County of Riverside, CA (Urban Planner)

** Denotes projects completed with other firms*

Jared Varonin

Environmental and Regulations/Compliance

Jared manages our biological services program in Southern California. He is an established thought leader on issues relating to stream and wetlands restoration, fish migration, rare plants, and endangered species. Over the past 17 years, Jared has earned a reputation for persevering in the face of challenges and getting things done, applying his scientific expertise and experience to overcome complex environmental challenges, develop creative mitigation strategies, and analyze impacts.

Education

- BS, Ecology and Systematic Biology

Relevant Experience

- Westlake Trails Project*, Westlake Village, CA (Lead Biologist)
- Special Status/Pre-Construction Surveys and Biological Monitoring*, Simi Valley, CA (Project Manager/Lead Biologist)
- Virginia Colony Biological Assessment and Constraints Analysis*, Moorpark, CA (Lead Biologist)
- USACE Santa Ana River Marsh Habitat Restoration and Bird Surveys*, Orange County, CA (Project Manager/Lead Biologist)
- USACE Santa Ana River Mainstem Project*, Riverside/Orange Counties, CA (Project Manager/Lead Biologist)
- Calleguas Creek at Upland Road Landscape Installation Project*, Camarillo, CA (Project Manager/Lead Biologist)

Greg Sebourn •

PLS

Survey, Mapping, and Legal

Greg has more than 17 years of professional experience in numerous aspects of land surveying and mapping. His expertise includes business development; project management; client management; and surveying, mapping, and map checking services. Greg works with public and private entity clients throughout Southern California supporting monument preservation efforts; and design topographic, and construction surveys for pavement, sewer, and right-of-way improvement projects.

Education

- AS, Survey

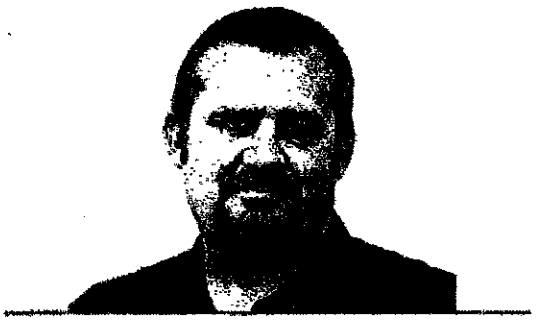
Registrations

- Professional Land Surveyor #8395, CA

Relevant Experience

- Lakewood Boulevard Improvements, Project Phase 3B and 3C, Downey and Pico Rivera*, Downey and Pico Rivera, CA (Project Surveyor)
- Oso Parkway Roadway Widening Improvements*, Mission Viejo, CA (Project Surveyor)
- On-Call Services, City of Anaheim Santa Ana Canyon Road Rehabilitation and Realignment*, Anaheim, CA (Survey Manager)
- Culver/University Intersection Widening*, Irvine, CA (Survey and Mapping Task Leader)
- Rosecrans Avenue/Marquardt Avenue Grade Separation, Santa Fe Springs Survey, Right-of-Way Engineering, Drainage, and Water Quality*, San Bernardino, CA (Project Surveyor)
- Bake Parkway/Lake Forest Drive Bridge, Channel and Street*, Irvine, CA (Project Surveyor)
- Jeffrey/Alton Intersection Improvements*, Irvine, CA (Survey and Mapping Task Leader)

** Denotes projects completed with other firms*



Jason Shockley

PLS

Survey, Mapping, and Legal

Jason has more than 25 years of surveying experience as a certified party chief in land and boundary, topographic surveys, wet utility infrastructure highway design, and construction surveys. He is proficient in utilizing coordinate geometry computer programs, total stations with data collectors, digital levels, and global positioning system equipment. Jason's areas of expertise include supporting large capital projects, geodetic and global positioning system surveys, state plane coordinate systems calculations and high precision vertical levels, survey field crew safety and training, and all aspects of the Caltrans Survey Manual and Staking Standards.

Registrations

- Professional Land Surveyor #9105, CA

Relevant Experience

- Orangethorpe Grade Separation, Placentia, CA (Survey Party Chief)
- Residential Street Rehab*, Manhattan Beach, CA (Party Chief)
- SR-91 Modification, Harbor Boulevard to SR-57*, Orange County, CA (Party Chief)
- SR-73/San Joaquin Hills Transportation Corridor*, Orange County, CA (Chainman)
- Orange County Sanitation District On-Call Surveying Services, Orange County, CA (Field Manager)
- County of Los Angeles Department of Public Works As-Needed Survey Services, Los Angeles County, CA (Field Manager)

Jonathan Delgado

EIT

Grant Writing

Jonathan has authored various grants for Southern California transportation clients, including Metro and Orange County Public Works. He is proficient in the Microsoft Office Suite, Google Earth GIS, Microsoft Project, EPANET, EPASWMM, HEC-HMS, AutoCAD, MicroStation, TruTraffic, and Synchro 8.

Education

- BS, Civil Engineering

Registrations

- Engineer-In-Training #152733, CA

Relevant Experience

- Orange County Public Works Grants (Federal Lands Access Program [FLAP], Active Transportation Plan [ATP], Hazard Mitigation Grant Program [HMGP], Environmental Cleanup Program [ECP]), Orange County, CA (Consultant)
- Metro ATP Grants (ATP and Transit and Intercity Rail Capital Program [TIRCP]), Los Angeles, CA (Engineering Assistant)
- Burbank Channel Bikeway Project, Burbank, CA (Support)
- Orange County Bicycle Loop, Orange County, CA (Engineering Assistant)
- Campus Drive/Bristol Street Intersection Improvement Project, Orange County, CA (Intern)
- Heritage Community Park Improvements, Irvine, CA (Transportation Intern)

** Denotes projects completed with other firms*

Jaret Fischer

PE

Geotechnical and Hazmat

Jaret has specialized in geotechnical and environmental engineering for more than 15 years. His responsibilities include managing geotechnical and environmental portfolios and projects for several major oil company clients, solar energy clients, and supporting the geotechnical needs of other regional offices. Jaret conducts and manages subsurface investigations, installs and monitors geotechnical instrumentation, communicates with clients, manages project budgets, prepares project scopes, analyzes laboratory data and potential geologic hazards, prepares geotechnical reports, and researches and writes Phase I and Phase II ESAs.

Education

- BS, Environmental Resources Engineering

Registrations

- Professional Engineer #80383, CA

Relevant Experience

- Roadway Expansion Project, Anaheim, CA (Senior Engineer)
- John Wayne Airport Campus Drive Widening Project, Newport Beach, CA (Senior Engineer)
- Culver/University Intersection Improvement Project, Irvine, CA (Senior Engineer)
- Environmental Site Assessments, Various Locations, CA (Project Engineer)
- Geotechnical Oversight, Various Locations, CA (Project Engineer)

Kevin Miskin

PE

Geotechnical and Hazmat

Kevin brings 20 years of experience in the environmental and geotechnical engineering industry. His strong background in environmental engineering, civil engineering, and construction management has provided the expertise and experience to manage all aspects of soil and groundwater assessment and remediation projects in accordance with local, state, and Federal regulations. Kevin has managed complex, large-scale soil and groundwater remediation projects; maintained major national accounts; provided technical support to the legal community; and performed environmental due diligence and risk evaluations for corporate mergers, as well as commercial and industrial facilities and portfolios.

Education

- MS and BS, Civil Engineering

Registrations

- Professional Engineer #48458, CA

Relevant Experience *(project manager for all)*

- Riverside Flood Control District, Riverside, CA
- Various Geotechnical Investigations, CA
- California Aqueduct, Lucerne Valley, Lucerne Valley, CA
- California Aqueduct, Hesperia, Hesperia, CA
- Santa Ana Watershed Authority, Santa Ana, CA
- Bridge Geotechnical Investigation, Lake Elsinore, CA
- Civic Center Geotechnical Investigation*, Moreno Valley, CA
- Caltrans ADL Investigation, Hinkley, CA
- Caltrans Bridge Expansion and Retrofits, County of Riverside and San Bernardino, CA
- Caltrans Initial Site Assessment and Naturally Occurring Asbestos Survey, Wrightwood, CA

** Denotes projects completed with other firms*

EXHIBIT B

Stantec

SCHEDULE OF BILLING RATES – 2018

Billing Level	Hourly Rate	Description
3 4 5	$90 $100 $110	**Junior Level position** ❑ Independently carries out assignments of limited scope using standard procedures, methods and techniques ❑ Assists senior staff in carrying out more advanced procedures ❑ Completed work is reviewed for feasibility and soundness of judgment ❑ Graduate from an appropriate post-secondary program or equivalent ❑ Generally, one to three years' experience
6 7 8	$115 $120 $130	**Fully Qualified Professional Position** ❑ Carries out assignments requiring general familiarity within a broad field of the respective profession ❑ Makes decisions by using a combination of standard methods and techniques ❑ Actively participates in planning to ensure the achievement of objectives ❑ Works independently to interpret information and resolve difficulties ❑ Graduate from an appropriate post-secondary program, with credentials or equivalent ❑ Generally, three to six years' experience
9 10 11	$135 $140 $150	**First Level Supervisor or first complete Level of Specialization** ❑ Provides applied professional knowledge and initiative in planning and coordinating work programs ❑ Adapts established guidelines as necessary to address unusual issues ❑ Decisions accepted as technically accurate, however may on occasion be reviewed for soundness of judgment ❑ Graduate from an appropriate post-secondary program, with credentials or equivalent ❑ Generally, five to nine years' experience
12 13 14	$160 $170 $180	**Highly Specialized Technical Professional or Supervisor of groups of professionals** ❑ Provides multi-discipline knowledge to deliver innovative solutions in related field of expertise ❑ Participates in short and long range planning to ensure the achievement of objectives ❑ Makes responsible decisions on all matters, including policy recommendations, work methods, and financial controls associated with large expenditures ❑ Reviews and evaluates technical work ❑ Graduate from an appropriate post-secondary program, with credentials or equivalent ❑ Generally, ten to fifteen years' experience with extensive, broad experience
15 16 17	$190 $212 $215	**Senior Level Consultant or Management** ❑ Recognized as an authority in a specific field with qualifications of significant value ❑ Provides multi-discipline knowledge to deliver innovative solutions in related field of expertise ❑ Independently conceives programs and problems for investigation ❑ Participates in discussions to ensure the achievement of program and/or project objectives ❑ Makes responsible decisions on expenditures, including large sums or implementation of major programs and/or projects ❑ Graduate from an appropriate post-secondary program, with credentials or equivalent ❑ Generally, more than twelve years' experience with extensive experience
18 19 20 21	$225 $235 $245 $260	**Senior Level Management under review by Vice President or higher** ❑ Recognized as an authority in a specific field with qualifications of significant value ❑ Responsible for long range planning within a specific area of practice or region ❑ Makes decisions which are far reaching and limited only by objectives and policies of the organization ❑ Plans/approves projects requiring significant human resources or capital investment ❑ Graduate from an appropriate post-secondary program, with credentials or equivalent ❑ Generally, fifteen years' experience with extensive professional and management experience

Survey Crews	Crew Size	Regular Rate	Overtime Rate
	1-Person	$180	$215
	2-Person	$260	$360
	3-Person	$360	$490

REQUEST FOR PROPOSALS (RFP)

FOR

ON-CALL ENGINEERING SERVICES

RFP NO.: 17-083

CITY OF SANTA ANA
Santa Ana Public Works Agency
20 Civic Center Plaza
Santa Ana, CA 92701

Armando Fernandez
Project Manager
(714) 647-5629 Office
afernandez@santa-ana.org

Approved for Release:

Jason Gabriel
Principal Civil Engineer
Public Works Agency

KEY RFP DATES (Subject to change at discretion of City):

Issue Date:	Thursday February 22, 2018
Letter of Intent:	Thursday March 1, 2018
Deadline for Requests for Information:	Tuesday March 13, 2018
Proposal Due Date:	Tuesday March 20, 2018; 3:00pm.
Projected Award Date:	Tuesday June 5, 2018

EXHIBIT 15

25E-823

NOTICE INVITING PROPOSALS

NOTICE IS HEREBY GIVEN that proposals will be received from qualified firms for On-Call Engineering Services.

Responses to this Request for Proposals (RFP) will be accepted until **Tuesday, March 20, 2018 at 3:00 p.m.** Proposals received after this date/time will not be considered. It is the responsibility of the proposer to ensure that any proposals submitted have sufficient time to be received by the City of Santa Ana prior to this proposal due date and time.

Proposals shall be enclosed in a sealed envelope and marked clearly with following information, formatted as follows:

"SEALED PROPOSAL FOR
ON-CALL ENGINEERING SERVICES
RFP NO. 17-083
IN THE CITY OF SANTA ANA
DO NOT OPEN WITH REGULAR MAIL."

City of Santa Ana
Attn.: Armando Fernandez
Public Works Agency;
20 Civic Center Plaza; 3rd Floor Reception, Ross Annex
Santa Ana, CA 92701

Proposals shall be mailed, hand delivered, or sent by courier service.
Proposals shall NOT be sent via telegraphic, electronic or facsimile.

All notifications, updates and addenda will be posted on the City's RFP Bid page at www.santa-ana.org/bids-rfps. Proposers shall be responsible for monitoring the site to obtain information regarding this solicitation. Failure to respond to required updates may result in a determination of a nonresponsive proposal.

LETTER OF INTENT - Interested firms shall submit a Letter of Intent of their pending proposal to the noted Project Manager by the required date as shown on the cover page of this RFP.
Letters shall be forwarded via certified mail or email and shall include the following information:

1. Use formal company letterhead.
2. Indication of company interest in the RFP.
3. Acknowledgement of candidate's responsibility to monitor the City's website for any amendments or modifications to the RFP.
4. Provision of correct, complete contact information.

TABLE OF CONTENTS

I.	**INTRODUCTION / PROJECT DESCRIPTION**	1
II.	**INSTRUCTIONS TO PROPOSERS**	3
	A. CITY RESPONSIBILITIES	
	B. PROPOSER RESPONSIBILITIES	
	C. REQUEST FOR INFORMATION OR CLARIFICATION	
	D. ADDENDA	
	E. LICENSES & PERMITS	
	F. INSURANCE	
	G. INFORMATION PACKET	
	H. PRE-PROPOSAL MEETING	
	I. CITY RIGHT TO REJECT	
	J. BID PROTESTS	
III.	**SUBMITTAL REQUIREMENTS**	5
	A. GENERAL	
	B. PROPOSAL CONTENTS	
	1. STATEMENT OF QUALIFICATIONS	
	2. SCOPE OF SERVICES AND SCHEDULE	
	3. FEE PROPOSAL	
	4. CERTIFICATIONS	
IV.	**PROPOSAL REVIEW (CONSULTANT SELECTION**	6
	A. EVALUATION AND RATING	
	B. SELECTION	
V.	**CONTRACT AWARD**	7
	A. REQUEST FOR COUNCIL ACTION	
	B. EXECUTION OF AGREEMENT	
VI.	**IMPLEMENTATION**	7
	A. KICK-OFF MEETING	
	B. NOTICE TO PROCEED	
VII.	**PUBLIC RECORDS**	7
VIII.	**APPENDIX**	
	ATTACHMENT 1: SCOPE OF WORK	
	ATTACHMENT 2: AGREEMENT	
	ATTACHMENT 3: CERTIFICATIONS	

25E-825

I. INTRODUCTION / PROJECT DESCRIPTION

Nature of Work:

The City of Santa Ana is seeking on-call engineering services. A detailed Scope of Work is included in the Appendix of this RFP as Attachment 1.

Number of Proposals and Signature:

Five (5) hard copies and one (1) digital file on labeled USB Flash Drive (or equivalent). One of the hard copies shall be marked as "ORIGINAL" and shall be signed by a company official with the power to bind the company and submitted to the City of Santa Ana. One (1) copy of your Fee Proposal shall be submitted.

The Statement of Qualifications shall be limited to a maximum of (10) double-sided pages (excluding front and back covers, section dividers and attachments such as resumes, forms). Font size shall be minimum 11-point Arial. Proposal exhibits shall be maximum 11" x 17".

Proposal Evaluation and Rating:

The criteria for evaluating the proposals submitted will take the following items into consideration:

• Firm/Team Experience	25%
• Understanding of Need	35%
• Relevant Project Experience	25%
• Schedule	10%
• References	5%

The City has established a proposal review committee to evaluate proposers based on the response to the RFP, which includes adherence to outlined directions and format, and the City evaluation criteria set forth above. A final score will be calculated for each submitted proposal and used to rank the proposers.

25E-826

Project Funding:

Funding sources for each project may vary for each project/task order assignment shall comply with the funding agency's requirements. Special conditions may apply. Refer to Attachment 1 (Scope of Work) in the Appendix of this RFP.

Prevailing Wages:

In accordance with the California State Labor Code, prevailing wage rates apply. Copies of the prevailing rate of per diem wages are on file with the Public Works Agency and shall be made available to any interested party on request.

Term of Contract Agreement:
The City desires to enter into a contract with the selected firm for an initial three (3) year term with a City option for one (1), two (2) year extension. This term is outlined in the Standard Consultant Agreement, as contained in the Appendix of this RFP as Attachment 2.

II. INSTRUCTIONS TO PROPOSERS

A. CITY RESPONSIBILITIES

The City will provide information in its possession relevant to preparation of required information in RFP. The City will provide only the staff assistance and documentation specifically referred to herein.

B. PROPOSER RESPONSIBILITIES

Point of Contact: The selected proposer will assume responsibilities for all services in its proposal. The selected proposer shall identify a sole point of contact with the greatest knowledge in regard to the required service operations and contractual matters, including payment of any and all charges resulting from the Agreement.

Evidence of Financial Capacity: Proposer may be requested to submit its most recent audited financial statement, evidencing proposer's financial capacity to fully perform the required services, including provision of equipment and personnel expenses over a ninety (90) day period. If said financial statement does not reflect full ninety (90) day operational capacity, proposer may include a letter of credit as evidence of supplemental capacity.

C. REQUEST FOR INFORMATION OR CLARIFICATION

All questions or requested clarifications shall be made in writing via e-mail to the Project Manager (contact information as noted on the cover page to this RFP) no fewer than five (5) calendar days prior to the date and time set for opening of proposals. No verbal requests or responses will be accepted. Significant interpretations or clarifications will be addressed via addenda to this RFP.

D. ADDENDA

Any changes in RFP from the date of release to date of submittal will result in an addendum or amendment. Notification of such addendum or amendment shall be posted on City's website, santa-ana.org/bids-rfps as set forth in the Notice Inviting Proposals. Addenda shall become part of the agreement documents.

E. LICENSES & PERMITS

The selected proposer shall be required to obtain a City of Santa Ana Business license within ten (10) business days of selection and must provide a copy to the City projects manager or designee prior to commencing any work in Santa Ana.

Additionally, Proposer will be responsible for obtaining any licenses/permits required by the Scope of Work.

F. INSURANCE

The Selected Proposer shall provide the required evidence of insurance coverage as set forth in the Scope of Work within ten (10) business days after receipt of notice that the contract has been awarded. Failure to provide the required insurance certificates shall be cause for the annulment of the award and the forfeiture of the proposal guaranty.

G. PAYMENT INFORMATION PACKET

The selected proposer shall return a completed payment information packet within ten (10) business days after the successful proposer has received notice that the contract has been awarded. The packet is available on the City's website: santa-ana.org/bids-rfps.

H. PRE-PROPOSAL MEETING

Should a pre-proposal be scheduled, the date, time and location is identified on the cover page of this RFP. The meeting will include discussion of the project scope and a question-and-answer session. It is highly recommended that the Proposer's key team members attend this meeting. Significant interpretations or clarifications will be addressed via addenda to this RFP, as described above in "Section D: Addenda."

I. CITY RIGHT TO REJECT

The City reserves the right to reject any or all proposals submitted and no representation is made hereby that any contract will be awarded pursuant to this RFP or otherwise.

The City reserves the right to accept or reject the combined or separate components of this proposal in part or in its entirety or to waive any minor inconsistency, informality or technical defect in the proposal.

The City reserves the right to reject, replace and approve any and all subcontractors. All subcontractor(s) shall be identified in the response to the RFP. Subcontractors shall be the responsibility of the successful proposer and the City shall assume no liability of such subcontractors.

J. BID PROTESTS

Proposers with concerns or rebuttal of any staff determination of non-responsiveness or non-responsibility may submit, in writing within five (5) business days, to the Project Manager, any concerns regarding the RFP process or staff determination. Such writing shall be considered by the City Manager or his designated representative, and may be acted upon within five (5) business days. If no action is taken within such time, there shall be no change to the staff determination. The exercise by Proposer of its right to submit written concerns shall be a condition precedent to seeking judicial review of any award of a contract hereunder.

III. SUBMITTAL REQUIREMENTS

A. GENERAL

I. The number of Proposal Copies and signature is specified in:
RFP SECTION I - INTRODUCTION / PROJECT DESCRIPTION.

II. Deadline:
Proposals are due to the City of Santa Ana at the date, time, and location specified in the Notice Inviting Proposals.

B. PROPOSAL CONTENTS

The proposal format and page limitation, if any, is specified in:
RFP SECTION I - INTRODUCTION / PROJECT DESCRIPTION.

1. STATEMENT OF QUALIFICATIONS

a. Cover Letter – Proposals shall include a letter signed by a principal or authorized representative who can make legally binding commitments for the entity.

b. Contract Agreement Statement: Proposal shall include a statement outlining your concurrence or concerns with any and all provisions as contained in the Agreement attached herein as Attachment 2 in the Appendix.

c. Firm and Team Experience: Proposal shall include a profile of the firm's experience. Include resumes of project team/sub-consultants that will be providing services which outline their technical and design experience. At a minimum, this should include the project manager/principal agent, associates in charge when project manager/principal agent is unavailable, key personnel, firm size, and an organization chart identifying only those who will perform work for the proposed project and the percentage of each individual's time devoted to this project. The project manager/principal agent shall be the primary contact person to represent your firm and will be the person to conduct the presentation, if invited for an interview.

d. Understanding of Need: Proposal shall include an outline which demonstrates the firm's understanding of the work. This outline should include anticipated approach, tasks necessary for successful completion, deliverables, and suggestions or special concerns that the City should be made aware of. Identify any assumptions and/or exclusions used in preparation of the scope of work and associated fee estimate.

e. Relevant Project Experience: Proposal shall include a list of projects which your firm or personnel have completed within the last 5 years, including significant work with public agencies. Project information should include project description, year completed, client name, along with a person to contact and their telephone number.

f. References: Proposal shall include a listing of relevant projects with references for three public entities for which Proposer has performed similar work within the past five (5) years.

2. SCOPE OF SERVICES AND SCHEDULE:
Proposal shall include a Scope of Services and Schedule which details the work phases to be completed, the tasks to be accomplished, the deliverables to be provided, and the schedule / timeline to complete the project, based upon the requested Scope of Work detailed in Attachment 1 of this RFP.

3. FEE PROPOSAL:
The fee proposal shall be submitted concurrently with the technical proposal, but in a separately sealed envelope, clearly labeled as "Fee Proposal." This shall include the firm's Standard Hourly Fee Schedule, a table outlining the tasks and team hourly effort for each of the major tasks, and a Project Fee Schedule as outlined in the Scope of Work.

The fee proposal will not be opened until the proposals have been evaluated by the proposal selection committee. The City will select the consultant based on qualifications, and then negotiate a contract price based on available funding.

4. CERTIFICATIONS:
The following forms shall be signed and included as part of the proposal submittal package:

- Attachment 3-1: Non-Collusion Affidavit
- Attachment 3-2: Non-Lobbying Certification
- Attachment 3-3: Non-Discrimination Certification

IV. PROPOSAL REVIEW (CONSULTANT SELECTION)

A. EVALUATION AND RATING
The criteria for evaluating the proposals are specified in:

RFP SECTION I - INTRODUCTION / PROJECT DESCRIPTION.

B. SELECTION
The committee may interview the top ranking proposers. The City will recommend award of the contract to the proposer who will provide the best value to the City. City reserves the right to begin negotiations and enter into a contract without interview or further discussions.

V. CONTRACT AWARD

A. REQUEST FOR COUNCIL ACTION

Following evaluation and rating by the proposal review committee, the Project Manager will recommend award of a contract to the proposer providing the best value to the City.

B. EXECUTION OF AGREEMENT

The Scope of Services, Schedule, and Fees submitted in the proposal will be the basis of any negotiation of final terms which will lead to a completed agreement ready for execution based on the standard Agreement attached herein as Attachment 2 in the Appendix.

VI. IMPLEMENTATION

A. KICK-OFF MEETING

A kick-off meeting will be held after award of contract. Consultant and its team will meet with City of Santa Ana staff to conduct introductions, discuss scope of services, and implementation process.

B. NOTICE TO PROCEED

Following the kick-off meeting, a formal Notice to Proceed (NTP) may be issued after the agreement is fully executed, and all required bonds, insurance documents and contents of the Information Packet have been received and approved.

For "On-Call" contracts, Consultant will be notified by individual City Project Managers on a case-by-case basis to request project/task specific proposals. Written NTPs will be then issued accordingly.

VII. PUBLIC RECORDS

All data, documents and other products used, developed, or produced during response preparation of the RFP will become property of the City. All responses to the RFP shall become property of the City. Proposer information identified as proprietary information shall be maintained confidential, to the extent allowed under the California Public Records Act.

Proposals will become public record after award of contract. Proposer information identified as proprietary information shall be maintained confidential, to the extent allowed under the California Public Records Act.

Appendix
ATTACHMENT 1
SCOPE OF WORK

CITY OF SANTA ANA
REQUEST FOR PROPOSALS
FOR
ON-CALL ENGINEERING SERVICES
RFP NO.: 17-083

Introduction / Background

The City of Santa Ana intends to retain Civil Engineering Consultants on an as-needed or "on-call" basis. The City's Public Works Agency is issuing this Request for Proposal (RFP) for all selected firms from the RFQ Process. A Professional Services Agreement will be entered into with several of the qualified firms Civil Engineering consultant(s) to provide professional services for a variety of projects on an on-call basis. On an on-call, as-needed basis, the selected firm(s) may later be asked to provide professional engineering services proposals on specific, project-by-project basis, based on an agreed-upon specific scope of services and fees.

In general, work consists of general engineering design projects. Funding sources for each project may vary for each project/task order assignment shall comply with the funding agency's requirements. The projects may include water and sewer infrastructure design and rehabilitation improvements, storm drain improvements; sidewalks, bike paths, curb and gutter replacement; slurry seal of residential streets; repair and overlay of asphalt concrete and/or PCC streets; signing, striping, neighborhood traffic studies, traffic signal modifications; landscaping and irrigation systems; park and recreational design, grant application writing, and other related projects as required. On occasion, environmental and planning support services may also be requested. The City may need consultant services for mapping and legal description preparation, construction management, staking and inspection. Occasionally the City may also need geotechnical, electrical, mechanical, structural, and other specific infrastructure related services.

The consultant shall be able to assist the City through this contract to provide the necessary services. The consultant shall utilize in-house staff and/or sub-consultants to complete the assignments to meet the City standards. **For specialized work for which the prime consultant shall require a sub-consultant, the prime consultant shall serve as an administrative liaison between the City and the sub-consultant.**

Prime consultant mark-ups for sub-consultant work will not be allowed.

All proposals, plans, drawings, specifications, estimates, grant applications, and/or studies will be subject to the final approval and satisfaction of the City of Santa Ana.

Scope of Services

The work consists of general engineering design and cost estimating for civil works projects, City facilities, Parks and other related projects as required.

The work in general, consists of work in the following areas and not limited to:

- Civil- Design
- Transportation/Traffic
- Structural
- Geotechnical
- Land Surveying
- Architectural
- Landscape Architectural and Irrigation
- Environmental
- Electrical
- Mechanical
- Instrumentation and Control Systems
- Fire Protection
- Land Surveying
- Financial and Economic Consulting Engineering

In addition to general engineering design projects Consultants may be asked to perform the following tasks:

- Hydraulic modeling of the water distribution, storm water, and sewer collection systems
- Evaluations, studies and recommendations related to water wells, reservoirs, water treatment systems, disinfection systems, pressure control systems, and sewage lift stations,
- Electrical and industrial control systems evaluations, studies, drawings, documentation and recommendations
- Mapping Services
- Legal Description Preparations
- Grant Writing- Services
- Environmental/Planning Support
- Construction Management Support
- Pavement Management
- Special Engineering Studies/Reports/Compliance and Investigations
- Regulatory Compliance with Federal and State and Local Agencies
- Financial/cash flow analysis- public works programs
- Assessment and District Formation Services
- Sustainable Infrastructure Services
- Right of Way Studies

If there are any exceptions to the core of requested services, proposers shall list said exceptions in their proposal (matrix form).

For specialized work for which the prime consultant shall require a sub-consultant, the prime consultant shall serve as an administrative liaison between the City and the sub-consultant.

The selected consultants must have the expertise, experience, and demonstrated resources available to perform the work described in this RFP.

Scope of Services Tasks

Water Resources- Option A

The City is currently seeking proposals for the design and construction support services for the Santa Ana Water Project:

This Project includes the rehabilitation of an existing water well approximately 30 years old, and the design of 1500 ft. of 12" PVC water main and the construction of 600 ft. of 15" sewer main on an arterial street. The City would like for the consultant to provide feedback regarding the material of choice for the sewer main improvements. Also, the City would like to connect this well to the water system, as right now it does connect to an existing onsite reservoir. This well is a sand producer, and currently the capacity has dropped by approximately 35% of its maximum yield of 2000 GPM. The depth of the well is approximately 1100 ft., it has a vertical turbine pump with a 250hp motor. In addition, the screens are made of mild steel. No video or any other preventive maintenance has been done in the past 15 years. Please list the options for rehabilitation and potential benefits between your proposed method/s of rehabilitation.

It is the City's desire to complete this project in a timely fashion manner. Please submit your proposals PS&E, design, working days and valued added engineering and all other documentation listed in this request for proposal. Indicate if your proposal is for Option A or Option B and or (A and B).

General Engineering other than Water Resources- Option B

The City is currently seeking proposals for the design and construction support services for the Mile One Street Project:

This shall be a complete street concept project. It is approximately 1,000 ft. long from intersection to intersection. Both of the existing intersections have been modified and are part of the complete street project previous phase. This project include street rehabilitation, construction of bicycle lane and sidewalk replacement, and parkway construction wide. The sidewalks are 6ft. wide and the parkway is 4 ft. wide too. This also involves the widening of the east side of Mile One Street to accommodate a new bicycle lane. All property right of way has been acquired the street is approximately 120ft. wide (property line to property line), it has three traffic lanes (12', 10' and 11') wide on each direction, the existing median is 14' wide. This median will not be modified but, it was designed with the complete street concept in mind on a previous phase, the vehicle buffer between the bicycle lane and the nearest traffic lane shall be 4ft. wide. The traffic index for this street is 55.

It is the City's desire to complete this project in a timely fashion manner. Please submit your proposals PS&E, design, working days and valued added engineering and all other documentation listed in this request for proposal. Indicate if your proposal is for Option A or Option B and or (A and B).

General Requirements and Project Deliverables

The Consultant's services for plans specifications and estimating (PS&E) for engineering project preparation and special studies/investigations shall include and in be in conformance with the latest editions of the following: Title 24 of the California Code of Regulations (California Building Standards Code). American Water Works Association, California Department of Transportation, the Americans with Disabilities Act, the City of Santa Ana Municipal Code (SAMC), professional Standards established by the City, and or federal, state and local guidelines established in the project.

As part of the preparation of the PS&E, the consultant shall prepare the special provisions pertaining to the items of work included in the plans that are not addressed on the latest editions of the applicable standards.

The Consultant shall have complete responsibility for the accuracy and completeness of all documents and plans prepared. The plans will be reviewed by the City of Santa Ana for conformity with the requirements of the Agreement. Reviews by the City of Santa Ana do NOT include detailed review or checking of design or the accuracy with which such designs are depicted in the documents and the plans. The documents and plans furnished under the Agreement shall be of a quality acceptable to the City of Santa Ana. The criteria for acceptance shall be a product of neat appearance, well organized, technically and grammatically correct, checked, and dated and having the maker and checker identified.

The Consultant shall have project management control procedures in effect during the entire time work is being performed under the Agreement. This task shall include the following:

- Project Management Plan- the consultant shall provide a detail management plan including information and coordination with other agencies to ensure compliance and completion of the (PS&E) packages. This plan shall include all milestones and task breakdown for each of the tasks and subtasks included therein. The project management shall be submitted to the Project Manager for review and within 15 calendar days of the issued Notice to Proceed
- Deliverables
- Quality Control/Quality Assurance (QA/QC) Plan
- Project Schedule/Invoicing
- Project Correspondence

In case of conflict, ambiguities, discrepancies, errors, or omissions, the consultant shall submit the matter to the City for clarification.

The Consultant shall perform engineering design services resulting in contract documents (plans, specifications and cost estimates "PS&E") for various projects on an as-needed basis. However, work tasks may include studies or a variety of engineering tasks. If requested by the City, the Consultant shall provide a Work Plan which includes a detailed schedule of the assigned project prior to the issuance of Notice to Proceed and/or Task Order. Specific Task Orders with Notices to Proceed ("NTPs") will be provided for project(s) at the discretion of the City. Work required per Task Order shall comply with the Scope of Services and additional provisions in each Task Order and this agreement.

The following services/items shall include, but are not be limited to:

1. Research existing records of utility companies and agencies and coordinate the proposed improvements with existing field conditions.

2. Conduct an environmental assessment for each project and prepare all documentation required to comply with California Environmental Quality Act (CEQA), and or National Environmental Protection Act (NEPA). (If required)

3. Provide all field survey and topographic work necessary to complete the design effort. Design level survey and base mapping of the project site shall be prepared in US Customary English units by a California licensed Land Surveyor in accordance with the City guidelines and in Microstation V8i Computer Aided Design and Drafting (CADD) format. The horizontal datum shall be NAD 83 and the vertical datum shall be NAVD 88. All survey field notes shall be on forms provided by the City, shall be neatly completed in pencil, and shall become property of the City upon completion of the project. Informal field investigations including marking of removal areas may be required for some of the sidewalk, curb and gutter, and pavement replacement projects.

4. Complete the design of projects including plans, specifications, and engineer's construction cost estimate. The Consultant shall contact manufacturers and/or contractors to verify the engineer's estimate prior to submitting to the City. Specifications shall be prepared in Microsoft Word and an electronic copy of the final version shall be furnished to the City. The City will provide the specification boiler plate to the Consultant.

5. If requested, all preliminary and bid sets of plans shall be plotted on bond or velum paper using Microstation V8i CADD software program. All drawings shall be completed per the City of Santa Ana CADD Standards and any special provisions thereof. For interim submittals, the City may opt to receive only PDF versions of the plans for reviewing purposes. If so, the Consultant team will provided plans and/or specifications accordingly.

6. All original plan sheets, the title sheet of the specifications, calculations, and reports shall be signed and stamped by the Consultant's licensed professional engineer responsible/in-charge of the project.

7. If a part of the on-call project scope, the Consultant shall provide support services during the bidding and construction phases of the project, including, but not limited to:

    a. Respond to bidder inquiries during the bidding process, including preparation of any addenda. Following award of the construction contract, the Consultant shall attend the pre-construction meeting.
    b. Review and approve all submittals and shop plan drawings required supporting the construction contract. The Consultant shall complete shop drawings reviews within two (2) weeks of receipt. Contract Change Order reviews shall be completed within two (2) working days of receipt.
    c. Respond to written Requests for Information (RFI) to provide clarification or resolve discrepancies in the contract documents. Responses shall be completed within three (3) working days.
    d. Provide periodic field reviews and bring to the attention of the City of Santa Ana any defects or deficiencies in the work by the construction contractor which the Consultant may observe. The Consultant shall have no authority to issue instruction on behalf of the City of Santa Ana, or to deputize another to do so.

8. If included in the on-call project scope, upon completion of construction, the Consultant shall prepare as-built plans and submit them to the City. The Consultant shall incorporate all changes to the plans electronically with all necessary revision notations. Once plans have been updated, a signed set of as-built plans shall be submitted to the City with an electronic copy (in Microstation V8i CADD and pdf formats) of the final as-built drawings via CD or e-mail.

9. The Consultant shall monitor the project progress, maintain project files, and control the quality of the work performed by in-house staff and/or sub-consultants. Incomplete (not meeting targeted completion) or poor quality work will not be accepted. The Consultant shall revise the documents within a revised schedule set by the City, which may require overtime. No additional compensation necessary for the consultant to complete this work to the satisfaction of the City shall be approved by the City for the required revisions. It is the responsibility of the Consultant to produce a professional-level quality of work product.

10. If included in the on-call project scope, attend meetings with the City staff as required.

11. If included in the on-call project scope, the Consultant shall coordinate plan check, design topics, permits and any other issues with the City, other Agencies, and all utility companies as required. At the direction of the City, the Consultant shall be the liaison with affected agencies.

12. If included in the on-call project scope, the Consultant shall be responsible for reviewing and approving addenda and clarifications to plans and specifications.

All information regarding the plans and specifications and or documentation related to the project and approved by the City, will then become property of the City.

A more detailed scope of work will be provided when/if a specific project or Task Order proposal is requested of a consultant. All tasks orders shall include the staff title, hours, hourly rate and totals as related to the project.

Construction Plans, Standard Specifications and Estimate (PS&E)

Preliminary Design- Attend project scope meeting with City Staff to review project details. Consultant shall field review, inspect and conduct all necessary surveys to prepare a Preliminary Design Report (PDR) or alternatives, preliminary cost estimate and preferred alternative as requested by the project manager.

A (PS&E) package shall be submitted to review at 30% design for independent City review.

A (PS&E) package shall be submitted to review at 60% design for independent City review.

A (PS&E) package shall be submitted to review at for FINAL independent design review.

The City will review and comment on the PS&E packages with a turnaround goal of (2) weeks. One (1) copy of the documents with comments will be returned to the consultant. Unless, several agencies are involved in the review process multiple documents with comments will be provided to the consultant.

After the final design comments have been incorporated the consultant shall provide the City

with final (PS&E) package ready for bid. See Section - General Requirements and Project Deliverables Section.

Project Schedule and Progress:

Progress review meetings shall be held at intervals deemed appropriate by the City. The Consultant shall furnish two copies of all completed work or partially completed update/status since the last progress review meeting. Progress reports shall be submitted monthly in electronic format indicating achievements and project schedule progress.

City Responsibilities:

The City will provide information in its possession relevant to the preparation of the required information in the RFP. The City will provide only the staff assistance and the documentation specifically in referred to herein.

- Furnish scope of work and provide general direction as needed for the assigned project
- All plan check coordination within the City
- Advertise, award, and administer of construction contract
- Electronic files (sample plans & specifications, City of Santa Ana's CADD Standards)
- Electronic files for title sheets and sheet borders
- Facilitate meeting space and coordination and City facilities

Fee Proposal:

In addition to Section IV.B.3 (Submittal Requirements: Fee Proposal) fee schedule shall be structured as follows:

The fee proposal shall include the firm's standard hourly fee schedule, and/or project fee schedule where applicable and as outlined in this this documents. A list of all positions and hourly rates required to perform the services described herein. A more detailed scope of work will be provided when/if a specific project or Task Order proposal is requested of a consultant.

Other Terms and Conditions:

1. The project will be implemented in compliance with the City of Santa Ana's policies, as well as Prevailing Wages and State/Federal Requirements.

2. The City regards the inclusion of California based designs, engineering, and construction professionals, facilities, and services as part of the Team to be highly desirable, but not mandatory.

3. The City reserves the right to amend this Request for Proposal by addendum prior to the final dates of submission.

4. All reports, proposals, or other data or materials which are submitted shall become the sole property of the City of Santa Ana with the exception of the confidential Financial Capacity information and sealed fee proposals which will be returned to all proposers after award of contract to the selected Team.

5. All products used or developed in the execution of any contract resulting from this request will remain in the public domain at the completion of this project.

6. The City has an affirmative action program. The purpose of the affirmative action program is to encourage certified minority business enterprises and women business enterprises. All submitting firms must have established affirmative action programs approvable by the City. During the RFP stage, all firms will need to complete a "Certification of Non-Discrimination by Contractors" for each firm on their team.

Appendix
ATTACHMENT 2
STANDARD AGREEMENT

CONSULTANT AGREEMENT
CITY OF SANTA ANA

THIS AGREEMENT is made and entered into this _____ day of _____, 2018 by and between _____, ("Consultant"), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California ("City").

RECITALS

A. The City desires to retain a consultant having special skill and knowledge in the field of:

The City of Santa Ana is seeking on-call engineering services.

B. Consultant represents that Consultant is able and willing to provide such services to the City.

C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional consulting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

Consultant shall perform during the term of this Agreement, the tasks and obligations including all labor, materials, tools, equipment, and incidental customary work required to fully and adequately complete the services described and set forth in **Scope of Services - Exhibit A**, attached hereto and incorporated by reference.

2. COMPENSATION

a. City agrees to pay, and Consultant agrees to accept as total payment for its services for City, the rates and charges identified in **Compensation - Exhibit B**. The total amount to be expended under this Agreement shall not exceed $xxxxxx during the term of this Agreement, including any extension periods exercised under Section 3.

b. Payment by City shall be made within 45 days (forty-five) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above for a **number (#) year term** with the option for the City to grant up to a **number (#)-year** renewals, exercisable by a writing by the City Manager and the City Attorney, unless terminated earlier in accordance with Section 16, below.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subcontractors to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not

be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subcontractors, if any, to obtain and maintain insurance as described below:

a. Commercial General Liability Insurance. Consultant shall maintain commercial general liability insurance naming the City, its officers, employees, agents, volunteers and representatives as additional insured(s) and shall include, but not be limited to protection against claims arising from bodily and personal injury, including death resulting therefrom and damage to property, resulting from any act or occurrence arising out of Consultant's operations in the performance of this Agreement, including, without limitation, acts involving vehicles. The amounts of insurance shall be not less than the following: single limit coverage applying to bodily and personal injury, including death resulting therefrom, and property damage, in the total amount of $1,000,000 per occurrence, with $2,000,000 in the aggregate. Such insurance shall (a) name the City, its officers, employees, agents, and representatives as additional insured(s); (b) be primary and not contributory with respect to insurance or self-insurance programs maintained by the City; and (c) contain standard separation of insureds provisions.

b. Business automobile liability insurance, or equivalent form, with a combined single limit of not less than $1,000,000 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

c. Worker's Compensation Insurance. In accordance with the provisions of Section 3700 of the Labor Code, Consultant, if Consultant has any employees, is required to be insured against liability for worker's compensation or to undertake self-insurance. Prior to commencing the performance of the work under this Agreement, Consultant agrees to obtain and maintain any employer's liability insurance with limits not less than $1,000,000 per accident.

d. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than $1,000,000 per claim with $2,000,000 in the aggregate.

e. The following requirements apply to the insurance to be provided by Consultant pursuant to this section:
   i. Consultant shall maintain all insurance required above in full force and effect for the entire period covered by this Agreement.
   ii. Certificates of insurance shall be furnished to the City upon execution of this Agreement and shall be approved by the City.
   iii. Certificates and policies shall state that the policies shall not be canceled or reduced in coverage or changed in any other material aspect without thirty (30) days prior written notice to the City.
   iv. Consultant shall supply City with a fully executed additional insured endorsement.

f. If Consultant fails or refuses to produce or maintain the insurance required by this section or fails or refuses to furnish the City with required proof that insurance has been procured and is in force and paid for, the City shall have the right, at the City's election, to forthwith terminate this Agreement. Such termination shall not affect Consultant's right to be paid for its time and materials expended prior to notification of termination. Consultant waives the right to receive compensation and agrees to indemnify the City for any work performed prior to approval of insurance by the City.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, contractors, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant, its subcontractors, agents, employees, or other persons acting on its behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend and indemnify the City, its officers, agents, representatives, and employees against any and all liability, including costs, for infringement of any United States' letters patent, trademark, or copyright infringement, including costs, contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours.

Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interests and shall not have interests, direct or indirect, which would conflict in any manner with performance of services. Conflict may be further specified in **Certifications - Exhibit C**, attached hereto and incorporated in this Agreement by reference.

13. DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, religion, sex, marital status, sexual orientation, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, training, utilization, promotion, termination or other employment related activities. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations and as further specified in **Certifications - Exhibit C**, attached hereto and incorporated in this Agreement by reference.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or

otherwise, have been made by any party, or anyone acting on behalf of any party, which is not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product(s) completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.

b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

17. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

18. JURISDICTION - VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

19. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

20. MISCELLANEOUS PROVISIONS

a. Additional provisions, if any, are identified as Additional Provisions, **Exhibit D**, attached hereto and incorporated into this Agreement by reference. No Exhibit D is attached in the absence of additional provisions.

b. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.

c. All Exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

21. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City:

Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax: 714- 647-6956

With courtesy copies to:

Jason Gabriel Principal Civil Engineer, PWA City of Santa Ana 20 Civic Center Plaza (M-36) P.O. Box 1988 Santa Ana, California 92702 Fax: 714- 647-5635	Sonia R. Carvalho City Attorney City of Santa Ana 20 Civic Center Plaza (M-29) P.O. Box 1988 Santa Ana, California 92702 Fax: 714- 647-6515

To Consultant:

First & Last Name
Title
Consultant Firm Name
Address
City, State, Zip
Fax:

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these time frames, weekends, federal, state, County or City holidays shall be excluded.

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

ATTEST:

Maria D. Huizar
Clerk of the Council

CITY OF SANTA ANA

Raul Godinez II
City Manager

APPROVED AS TO FORM:

SONIA R. CARVALHO
City Attorney

By: _____
John Funk
Assistant City Attorney

CONSULTANT:

(name) _____
(title)
Tax ID#
_____

RECOMMENDED FOR APPROVAL:

_____

Executive Director
Public Works Agency

Rev. 9-20-2017

EXHIBIT A

SCOPE OF SERVICES

EXHIBIT B

COMPENSATION
Fee Proposal including hourly rates
(from Consultant Proposal)

The total compensation may include a line item for the cost from the Fee Proposal, followed by a line item for any contingency, followed by a grand total not to exceed (NTE) Amount. This is what may be transferred to the front page of the contract.

EXHIBIT C

CERTIFICATIONS

C-1 through C-3

EXHIBIT D

ADDITIONAL PROVISIONS
Caltrans Forms

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California
County of_____

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

_____
Notary Public Signature

Notary Public Seal

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm _____

Signed and Printed Name: _____

Title _____

Date _____

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without, regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.

6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Execution Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: _____

Title: _____

Firm: _____

Date: _____