

**CITY OF SANTA ANA
CONTRACTOR AGREEMENT FOR
ON-CALL ENGINEERING SERVICES WITH
PSOMAS**

THIS AGREEMENT is made and entered into on this 16th day of August 2022 by and between PSOMAS (“Contractor”), 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 Contractor having special skill and knowledge in the field of on-call water resources engineering services pursuant to RFP 22-002.
- B. Contractor represents that Contractor is able and willing to provide such services to the City.
- C. On April 21, 2020, City Council approved agreements with Tetra Tech, Inc., Michael Baker International, Inc., Psomas, Stantec Consulting Services, Inc., NV5, Inc., Huitt-Zollars, Inc., Kimley-Horn and Associates, Inc., and TAIT & Associates, Inc. (“2020 Agreements”) to provide on-call engineering services for the Public Works Agency, Water Resources Division.
- D. On March 16, 2021, the City amended the 2020 Agreements to increase the funding amount by \$950,000 for the remainder of the term to allow these services to be utilized for additional civil works projects included in the current and future fiscal years’ Capital Improvement Programs (CIPs). These agreements remain in full force and effect.
- E. The City finds that new agreements under RFP 22-002 are required for additional services for new civil works projects as the funding capacity has been reached under the 2020 Agreements.
- F. In undertaking the performance of this Agreement, Contractor represents that it is knowledgeable in its field and that any services performed by Contractor 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

Contractor shall perform during the term of this agreement, the services described in the scope of work that was included in RFP No. 22-002 and that is attached as **Exhibit A**, and as further delineated in Contractor’s proposal, which is attached as **Exhibit B** and incorporated in full. The Scope of Work under this Agreement is not intended to cover any civil works projects assigned to the 2020 Agreements.

2. COMPENSATION

- a. Contractor under this Agreement. Contractor shall be paid only for services performed under the Agreement at the rates and charges identified in **Exhibit C**. Contractor is one of six Contractors selected to provide on-call engineering services. The total aggregate amount, among the six contractors, shall not exceed the shared aggregate amount of \$2,000,000 during the term of this agreement, including any extension periods. All reimbursable expenses must be approved in writing by the City before they are incurred by Contractor. City shall not be responsible for any reimbursable costs incurred by Contractor without the advance written approval of City.
- 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. City shall not be assessed any late fees for payments rendered after forty-five (45) days. 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 three (3) year term with the option for the City to grant up to two (2) one (1) 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

Contractor 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, Contractor agrees to fully comply with such Prevailing Wage Laws. Contractor 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

Contractor 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 Contractor performs the services which are the subject matter of this Agreement; however, the services to be provided by Contractor shall be provided in a manner consistent with all applicable standards and regulations governing such services. Contractor 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 Contractor under this Agreement (“Documents & Data”). Contractor 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. Contractor represents and warrants that Contractor has the legal right to license any and all Documents & Data. Contractor makes no such representation and warranty in regard to Documents & Data which were provided to Contractor 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

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01 covering CGL on an “occurrence” basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:** Insurance Services Office Form Number CA 0001 covering, Code 1 (any auto), or if Consultant has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than **\$1,000,000** per accident for bodily injury and property damage.
3. **Workers’ Compensation** insurance as required by the State of California, with Statutory Limits, and Employer’s Liability Insurance with limit of no less than **\$1,000,000** per accident for bodily injury or disease.
4. **Professional Liability** (Errors and Omissions) Insurance appropriate to the Consultant’s profession, with limit no less than **\$1,000,000** per occurrence or claim.

If the Consultant maintains broader coverage and/or higher limits than the minimums shown above, the Entity requires and shall be entitled to the broader coverage and/or the higher limits maintained by the contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Entity.

Other Insurance Provisions

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

Additional Insured Status

The Entity, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 forms if later revisions used).

Primary Coverage

For any claims related to this contract, the **Consultant's insurance coverage shall be primary** insurance primary coverage at least as broad as ISO CG 20 01 04 13 as respects the Entity, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the Entity, its officers, officials, employees, or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

Notice of Cancellation

Each insurance policy required above shall state that **coverage shall not be canceled, except with notice to the Entity.**

Waiver of Subrogation

Consultant hereby grants to Entity a waiver of any right to subrogation which any insurer of said Consultant may acquire against the Entity by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Entity has received a waiver of subrogation endorsement from the insurer.

Self-Insured Retentions

Self-insured retentions must be declared to and approved by the Entity. The Entity may require the Consultant to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or Entity.

Acceptability of Insurers

Insurance is to be placed with insurers authorized to conduct business in the state with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the Entity.

Claims Made Policies

If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided ***for at least five (5) years after completion of the contract of work.***
3. If coverage is canceled or non-renewed, and not ***replaced with another claims-made policy form with a Retroactive Date*** prior to the contract effective date, the Consultant must purchase “extended reporting” coverage for a minimum of ***five (5) years*** after completion of contract work.

Verification of Coverage

Consultant shall furnish the Entity with original Certificates of Insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing all policy endorsements to Entity before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant’s obligation to provide them. The Entity reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

Subcontractors

Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that Entity is an additional insured on insurance required from subcontractors.

Special Risks or Circumstances

Entity reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

8. INDEMNIFICATION

Contractor 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 Contractor, 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 Contractor

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 Contractor'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 Contractor.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Contractor 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 Contractor to the City pursuant to this Agreement.

10. RECORDS

Contractor shall keep records and invoices in connection with the work to be performed under this Agreement. Contractor 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 Contractor under this Agreement. All such records and invoices shall be clearly identifiable. Contractor 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. Contractor 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 Contractor under this Agreement.

11. CONFIDENTIALITY

If Contractor receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Contractor 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 Contractor disclosed in a publicly available source; (c) is in rightful possession of the Contractor without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Contractor without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Contractor 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 specified under this Agreement.

13. DISCRIMINATION

Contractor 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. Contractor affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Contractor, 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 Contractor. 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 Contractor 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 Contractor, Contractor 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 contractors retained by City.

16. TERMINATION

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

Contractor 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

Contractor 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. Contractor 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. 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:

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

PSOMAS
Maira Salcedo, PE, ENV SP
Project Manager/Primary Contact,
5 Hutton Centre Drive, Suite 300
Santa Ana, CA 92707

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.

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.

[Signatures on the following page]

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

ATTEST:

CITY OF SANTA ANA


Daisy Gomez
Clerk of the Council

Kristine Ridge
City Manager

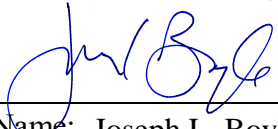
APPROVED AS TO FORM:

SONIA R. CARVALHO
City Attorney

CONTRACTOR:

By: 

Jose Montoya
Assistant City Attorney



Name: Joseph L. Boyle
Title: Vice President

RECOMMENDED FOR APPROVAL:

Nabil Saba, P.E.
Executive Director
Public Works Agency

EXHIBIT A

CITY OF SANTA ANA
REQUEST FOR PROPOSALS
FOR
ON-CALL WATER RESOURCES ENGINEERING SERVICES
RFP NO. 22-002

INTRODUCTION/BACKGROUND

The City of Santa Ana intends (City) to select several qualified firms to provide professional services for a variety of projects and programs on an as-needed or “on-call” basis. Each firm selected will enter into a Professional Services Agreement to provide such services. Throughout the term of the Professional Services Agreement, the City may request task order proposals for individual projects and/or programs as the need for such services arises. The task order proposal fee shall be based on the hourly rates provided by the firm in response to this RFP.

If a task order proposal is selected, a Notice-to-Proceed will be issued based on an agreed-upon specific scope of services and fee for that task order. The firm may utilize in-house staff and/or sub-consultants to complete each task order. **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, and include these administrative costs in their proposed project management fees.**

Prime consultant mark-ups for sub-consultant work will not be allowed.

SCOPE OF SERVICES

Provide professional engineering services for planning, design, and construction support for domestic water, recycled water, sanitary sewer, storm sewer, and related facility projects.

In general, each task order shall include, at minimum, the following project management services:

- Project Schedule

Create schedules with the critical milestones for the major tasks involved in a project. Update the schedule monthly, or more often, as required by the City. Schedules shall be submitted in PDF format unless other format is requested by the City.

- Meetings

Attend meetings and/or job walks, as requested by the City. Prepare meeting agendas and meeting minutes.

- Monthly Project Status Report

Prepare Monthly Project Status Reports that show an accurate accountability of work effort rendered and a continuous appraising and monitoring of both work progress and financial conditions on a project.

The fee for project management services, including time and related expenses, shall be included in each task order proposal.

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Firms may propose on any category listed below (1-5). The services to be performed may include, but shall not be limited to, the following:

1. PLANNING, RESOURCES, AND DESIGN

Provide water engineering services to conduct water capital improvement projects, which may involve one or multiple disciplines, including planning studies, hydraulic modeling, feasibility studies, design of pipelines, wells, pump stations, pressure regulating stations, reservoirs, water quality and water treatment, waste and recycled water quality and treatment, hydrogeology, engineering support during construction, and encompassing associated services such as Architecture, Structural, Civil, Mechanical, HVAC, Landscape Architecture, Geotechnical, Environmental, Electrical, Instrumentation, and Control.

a. Planning Studies and Feasibility Studies

Provide engineering, financial, and planning services to perform pipeline alignment and facility siting studies, water system planning studies, recycled water system planning and feasibility studies, water demand and supply studies, rate studies, asset management, and other studies that may be required in water system planning. Provide consulting services related to water resources and conservation. Studies may include water supply assessments, water supply verifications, urban water management plans, water use surveys and others studies that may be required for water resources and conservation programs

b. Hydraulic Modeling

Perform Water System Master Planning including Comprehensive Studies, Hydraulic Analysis, Transient Analysis, Fire Flow Analysis, and Flow Optimization.

c. Condition Assessment

Provide comprehensive condition assessment of the City's water system, including seismic, structural, security and vulnerability. Assessment of the structural integrity of the pipe shall include identifying leaks, pipe damage, pipe defect, loss of pipe wall thickness due to corrosion or erosion, etc., along the length of the pipe. Provide reports and memorandums with maps and exhibits as required to detail results of the study including likelihood of failure, risk and consequence of failure. Reports and/or technical memorandums shall also include detailed explanation of data collected and used for the study, any assumptions made as well as recommendations for short-term and long-term risk mitigation strategies.

d. Design Services

Provide consulting services for the design of water facilities, including water wells, pump stations, pressure regulating stations, reservoirs, water quality and treatment, water mains,

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recycled water supply and distribution facilities, associated appurtenances, as well as other related components of the facilities such as buildings, landscape, grading, drainage, etc. for a complete and operative project.

e. Other Related Services

Provide other related services including, but not limited to, the following:

i. Architecture

Provide consulting services for architectural design, architectural renderings, line-of-sight analyses, building sections, code interpretation issues and other architectural related issue.

ii. Structural

Provide consulting services for structural investigations of the City's existing facilities, seismic analysis, miscellaneous structural calculations, and design on the City's existing and proposed systems and structures.

iii. Civil

Provide consulting services for general engineering services as required for the project. Scope of work may include but is not limited to site design, street improvements, grading, drainage, preparation of Water Quality Management, Erosion Control, and Stormwater Pollution Prevention Plans, and related calculations and reports as necessary.

iv. Mechanical, HVAC

Provide consultation, engineering, and design services on modification, upgrade, and replacement of existing mechanical and HVAC systems, including piping, plumbing, support systems, controls, code interpretation, and related calculations as necessary.

v. Landscape Architecture

Provide consulting services for landscape architecture design, including landscape planting plans, renderings and views of proposed landscape plantings, and landscape installation inspection services. Provide consultation for irrigation system design and inspection.

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vi. Geotechnical Engineering Services

Conduct geotechnical investigations, including field explorations and tests, laboratory tests, and seismic investigations, to assess the general conditions of a project site area and prepare geotechnical reports of final design and construction recommendations. Field explorations may require drilling plans and classification of underlying soils and must be done under the supervision of a licensed geotechnical engineer or registered geologist. Investigations may include slope stability analysis of reservoir embankments, foundations, retaining walls, and dams and earthen dam monitoring and inspection to comply with California Department of Water Resources, Division of Safety of Dams (DSOD) and other City requirements. Provide seismic hazard analyses and site-specific seismic criteria, as needed, for project design.

vii. Hydrogeology

Provide consulting services on groundwater issues related to and including rehabilitation of existing potable water production wells, siting and design of new potable water production wells, destruction of inactive wells, evaluation of contamination plumes, and groundwater modeling. Evaluate the hydrogeology of proposed potable water production well sites and investigate proposed wells. Determine design parameters and requirements necessary to drill, operate, and maintain proposed wells; proposed well construction (casing diameter, locations of perforated intervals); and proposed operation of wells. Prepare Drinking Water Source Assessment and Protection (DWSAP) plans for proposed potable water production wells.

Provide inspection, hydrogeologic analysis and recommendations during new potable water production well drilling and existing well destruction activities, including, but not limited to, on site consulting geologists, geological sampling and formation analysis, geophysical logging and interpretation, sieve analyses, final well construction recommendations, and quality assurance and assistance in achieving conformance with the construction specifications and applicable codes and standards.

viii. Environmental Compliance Services

Provide consulting services for the preparation of environmental documents and support studies to comply with California Environmental Quality Act (CEQA), which may include an Initial Study, Negative Declaration, Mitigated Negative Declaration, Addendum, or Environmental Impact Report, or Supplement or Subsequent EIR, National Environmental Policy Act (NEPA) when complying

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with federal grants, permit applications with support studies, aesthetic simulations, and other environmental compliance tasks that may be needed.

ix. Recycled Water Compliance

Provide assistance with compliance requirements for recycled water treatment and distribution system monitoring and reporting.

x. Electrical, Instrumentation & Control Services

Provide consultation, engineering, and design services on modification, upgrade, troubleshooting, restarting, adjusting control settings, and replacement of existing electrical systems, including motor control centers, motor starters, electrical panels, and instrumentation and control systems, including SCADA systems.

xi. Engineering Support During Bidding and Construction

Review and respond to RFI's and review and approve shop drawings submitted by contractor for conformance with the contract documents. Review progress reports and payments as required. Prepare supplementary sketches and details, as required, to resolve field construction problems that may be encountered. Provide project inspection as needed. Provide assistance in ensuring regulatory compliance, as needed. Prepare the "as constructed" corrections to the original drawings and specifications. Attend meetings on behalf of the City and assist in Public Relations, as needed.

xii. Plan Check Services

Provide consulting services for plan checking improvement plans to determine compliance with applicable standards, guidelines, policies, rules, ordinances, and codes.

2. CONSTRUCTION MANAGEMENT

Provide construction management and inspection services during construction. The tasks of construction management and inspection shall include, but not be limited to:

a. Construction Management and Coordination with Contractor

Provide construction management and coordinate as needed for the project. Review and coordinate construction schedule and activities; conduct and attend meetings on behalf of the City. Provide permit compliance documentation, follow up, and support for all permits and clearances required on a project. The construction management team may also be asked to attend meetings and assist in maintaining public relations as needed.

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b. Project Administration

Provide review of, recommend, and prepare change order(s) and/or extra work order(s) as needed on construction project. Coordinate and process RFI's and shop drawings submittals, and ensure construction conformance with the contract documents. Review and adjust progress pay estimates prepared and submitted by the contractor for conformance with the contract documents.

c. Construction Inspection

Provide construction inspection by qualified inspectors and maintain daily inspection reports, construction progress reports, and project logs, etc., of the progress of the construction work. Secure record drawing information from the construction contractor. Provide start-up support for a Project, including final acceptance testing, support, and final completion sign off. Prepare the Final Construction Report.

3. PIPELINE DESIGN

Provide consulting services for the design of water mains, transmission mains, siphons and associated appurtenances. Provide preliminary and final design services including the preparation of plans, specifications, and cost estimates. Provide bidding assistance, construction support, and final as-builts as needed for projects.

4. ELECTRICAL, INSTRUMENTATION & CONTROL SERVICES

Provide consultation, engineering, and design services on modification, upgrade, troubleshooting, restarting, adjusting control settings, and replacement of existing electrical systems, including motor control centers, motor starters, electrical panels, and instrumentation and control systems, including SCADA systems components, instrumentation, communication system components, security cameras, door/gate access controls, information technology for SCADA system and cybersecurity support for PLC/HMI/OIT software and custom applications for the City Water System.

5. GEOTECHNICAL ENGINEERING SERVICES

Conduct geotechnical investigations, including field explorations and tests, laboratory tests, and seismic investigations, to assess the general conditions of a project site area and prepare geotechnical reports of final design and construction recommendations. Field explorations may require drilling plans and classification of underlying soils and must be done under the supervision of a licensed geotechnical engineer or registered geologist. Investigations may include slope stability analysis of reservoir embankments, foundations, retaining walls, and dams and earthen dam monitoring and inspection to comply with California Department of Water Resources, Division of Safety of Dams (DSOD) and other City requirements. Provide seismic hazard analyses and site-specific seismic criteria, as needed, for project design.

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RFP NO. 22-002

Proposals shall explicitly state which category listed above (1-5) is being proposing on. If there are any exceptions to the core of requested services above, proposers shall list said exceptions in their proposal (matrix form).

GENERAL REQUIREMENTS AND PROJECT DELIVERABLES

The Consultant's services for plans specifications and estimates (PS&E) for engineering projects and special studies/investigations shall be in conformance, if applicable, with the following: Title 24 of the California Code of Regulations (California Building Standards Code), American Water Works Association, California Department of Transportation, Americans with Disabilities Act, City of Santa Ana Municipal Code (SAMC), professional Standards established by the City, and any other federal, state, or local guidelines required in the project.

As part of the PS&E package, 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 for 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

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In case of conflict, ambiguities, discrepancies, errors, or omissions, the consultant shall submit the matter to the City for clarification.

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 III.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 document. 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 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.

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.

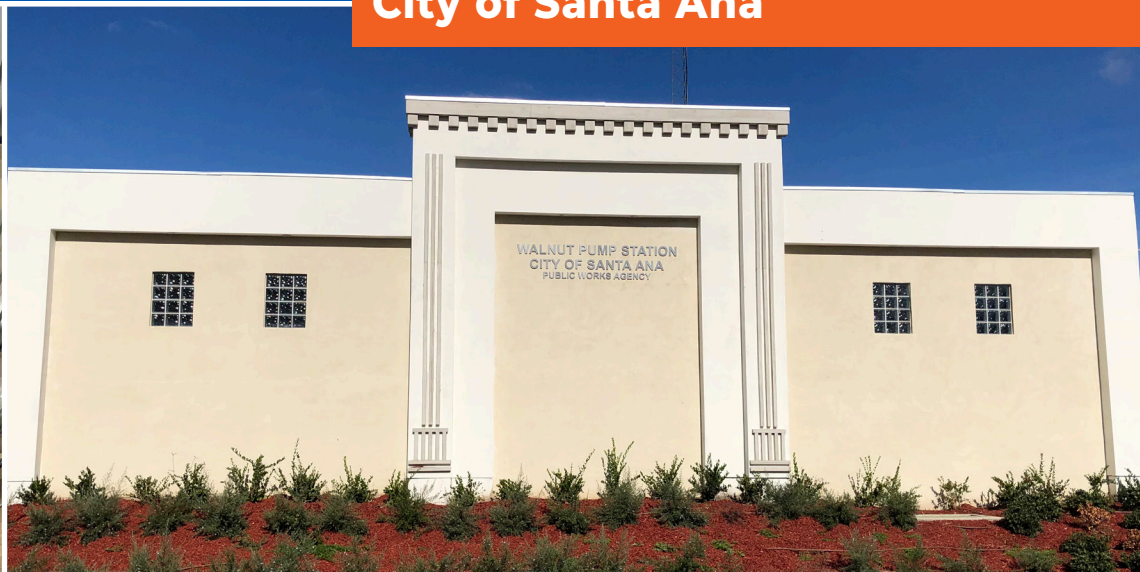
CITY OF SANTA ANA
REQUEST FOR PROPOSALS
FOR
ON-CALL WATER RESOURCES ENGINEERING SERVICES
RFP NO. 22-002

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 fee proposals.
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.

EXHIBIT B

ON-CALL WATER RESOURCES ENGINEERING SERVICES

City of Santa Ana



RFP NO.: 22-002 | 05.24.2022

Submitted To:
City of Santa Ana, Public Works Agency
Robert Aguirre, PE, Project Manager
220 S. Daisy Avenue, M-85, Santa Ana, CA 92703

PSOMAS

May 24, 2022

Robert Aguirre, PE
Project Manager
City of Santa Ana, Public Works Agency
220 S. Daisy Avenue, M-85
Santa Ana, CA 92703

Subject: Proposal for On-Call Water Resources Engineering Services, RFP No. 22-002

Dear Mr. Aguirre:

Psomas is providing for your review and consideration our proposal for On-Call Water Resources Engineering Services. Our project team has reviewed the RFP and understands the City of Santa Ana is looking for qualified firms to assist them in providing the necessary water resources engineering design services on an as-needed basis. Therefore, Psomas has assembled a project team of highly qualified professionals who are experts in their fields.

Leading the team is Project Manager, Maira Salcedo, PE, who will also serve as the City's primary point of contact for the duration of this contract. Maira's relevant project experience includes serving as project manager for the City's Well 29 Rehabilitation project and the Walnut Pump Station Upgrade project. In addition to her extensive water facility design experience, Maira has recent relevant experience in water pipeline design and the rehabilitation of sewer mains. Maira's qualifications include training through the NASSCO PACP (Pipeline Assessment Certification Program) and MACP (Manhole Assessment Certification Program), making her uniquely qualified to assess the condition of sewer mains and manholes.

Supporting Maira are Psomas Project Managers, Mike Swan, PE, and Nancy Baker, PE. Mike specializes in water and sewer planning and hydraulic modeling, as well as design of all types of water and sewer facilities. Nancy is an expert in water and sewer facilities design and replacements.

1.B. Contract Agreement Statement: Psomas has read the City of Santa Ana's Standard Agreement and concurs with all provisions as contained in the Agreement provided in the Appendix section of the RFP as Attachment 2.

As Principal-in-Charge and a Vice President of Psomas, I, Joseph Boyle, have the authority to contractually bind the company. We consider the City of Santa Ana one of our top clients and look forward to continuing to provide professional services that exceed your expectations.

Sincerely,

P S O M A S



Joseph L. Boyle, PE
Vice President



Maira Salcedo, PE, ENV SP
Project Manager/Primary Contact

5 Hutton Centre Drive
Suite 300
Santa Ana, CA 92707

Tel 714.751.7373
Fax 714.545.8883
www.Psomas.com

STATEMENT OF QUALIFICATIONS

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1.C FIRM AND TEAM EXPERIENCE

Dedicated to balancing the natural and built environment, Psomas provides sustainably engineered solutions to public and private sector clients. As a full-service consulting firm, we help our clients create value by planning, designing, and delivering complex projects.

Markets served include water, transportation, land development, and energy with the following services offered:

- ▶ Water and wastewater engineering
- ▶ Construction management
- ▶ Civil engineering
- ▶ Land surveying and geospatial services including use of drones, 3D laser scanning and subsurface utility locating
- ▶ Site development engineering
- ▶ Transportation and traffic engineering
- ▶ Structural engineering
- ▶ Environmental planning and resource management
- ▶ Land planning and urban design
- ▶ Land use entitlements
- ▶ GIS consulting

Psomas is a recognized leader and longtime proponent of environmental, social, and economic sustainability and brings a truly holistic approach to our practice and our projects. A founding member of the Institute for Sustainable Infrastructure (ISI), Psomas is committed to promoting a progressive standard of sustainability in both design and company policy. We currently have over 100 staff who are ENV SPs (Envision Sustainability Professionals through ISI) and/or LEED APs.

The cornerstone of our business approach is to first focus on our clients’ long-term needs and then direct our strategic growth accordingly. Our core strength is our multi-disciplined teams of experts—top-notch staff who produce award-winning projects for our clients through innovation, creativity, and cutting-edge technical expertise.

Founded in 1946, Psomas provides services from offices throughout California, Arizona, Utah, and Washington.

CONTRACT CATEGORIES

1. Planning, Resources, and Design
2. Construction Management
3. Pipeline Design

Demonstrated Record of Success

For over 25 years, Psomas has been providing engineering design and planning services to the City of Santa Ana for water and wastewater systems. From the rehabilitation of aging infrastructure to the design of new systems, Psomas’ strength is in providing economical solutions that minimize impacts to residents and the environment, as well as minimizing costs to City rate payers. Our project experience includes pipelines, pump

stations, lift stations, reservoirs, pressure force mains, and gravity sewer pipelines.

Key Personnel Qualifications

We have assembled a project team that is well suited to the specific requirements of this contract, headed by our primary point of contact and project manager, Maira Salcedo, PE, MACP, PACP, ENV SP. Maira has extensive recent experience with water facilities, such as pump stations, wells and pipelines, as well as sewer replacement and rehabilitation projects. She is highly familiar with the City of Santa Ana staff and design criteria, having served as the project manager for the City's Walnut Pump Station Upgrade project and Well 29 Rehabilitation project.

Maira has recent experience in managing sewer rehabilitation/replacement projects for the Long Beach Water Department, City of Hermosa Beach and Rossmoor/Los Alamitos Area Sewer District, and is currently serving as district engineer, on a consulting basis, for Rossmoor/Los Alamitos Area Sewer District.

Subconsultants

We contract only with companies that have proven track records of providing exceptional quality work products in a timely and cost-efficient manner and, therefore, have included the following subconsultants on our team as shown below:



14051 Burbank Blvd,
Suite 300
Sherman Oaks, CA 91401
T: 818.506.0418

Richard C. Slade & Associates LLC (RCS)

Hydrogeology

Richard Slade has over 50 years of hydrogeologic experience in California, the last 39 of which have been as owner, president and principal groundwater geologist of Richard C. Slade & Associates LLC (RCS), consulting groundwater geologists.

RCS clients include city water departments, county water agencies, water districts, engineering firms, environmental attorneys, and numerous wineries and vineyards. RCS, a privately held company, is on a sound and stable financial footing and has continuously been in business in Southern California since 1983. RCS maintains one office in the Sherman Oaks area of Los Angeles, and all employees are based in that office.



10540 Talbert Ave,
Suite 100
Fountain Valley, CA
92708
T: 714.963.8077

SPEC Services, Inc. (SPEC)

Electrical and Controls

SPEC Services, Inc., is located in Fountain Valley and has over 40 years of experience in multi-discipline projects. Their core engineering and design disciplines include mechanical, electrical and controls, civil/structural, pipeline, survey, construction management, process systems, project controls, and other support disciplines. They have engineered and designed thousands of projects, including pump stations, storage and distribution terminals, and process facilities throughout the West and Southwest. They have more than 30 years of experience in water and wastewater facilities



22391 Gilberto, Suite E
Rancho Santa Margarita,
CA 92688
T: 949.766.5102



23241 Arroyo Vista
Rancho Santa Margarita,
CA 92688
T: 949.888.6513



17992 Mitchell Avenue,
Suite 110
Irvine, CA 92614
T: 949.756.0150

including extraction water wells, treatment plants, reservoirs, and pump stations.

Arcon Structural Engineers, Inc. (Arcon)

Architectural Design and Structural Engineering

Arcon is a structural engineering consulting firm founded as a California corporation in June 1998. The firm specializes in structural design of new office, commercial, industrial and residential buildings, and support structures for telecommunications and mining industries, as well as in the design of civil structures related to transportation and infrastructure construction and rehabilitation. The firm is experienced in providing these services for private sector projects led by civil engineering firms, architects, developers and constructors, and public sector projects under the jurisdiction of the California Department of Transportation and other local county and city agencies. The firm's headquarters is located in Rancho Santa Margarita.

GMU Geotechnical, Inc. (GMU)

Geotechnical Engineering

GMU Geotechnical, Inc. (GMU) has been providing geotechnical services to a wide variety of private and public sector clients in Southern California for over 50 years. This includes a long history of capital improvement projects for Orange County and private development projects within County jurisdiction. GMU has extensive experience in the design and construction of numerous public works projects, including roads, bridges, flood control channels, pavement projects, streetscapes, parks, and other infrastructure improvement projects. GMU also has a complete in-house laboratory that is approved by Caltrans, Orange County, City of Los Angeles, and other public agencies.

Lynn Capouya, Inc. (LCI)

Landscape Architecture

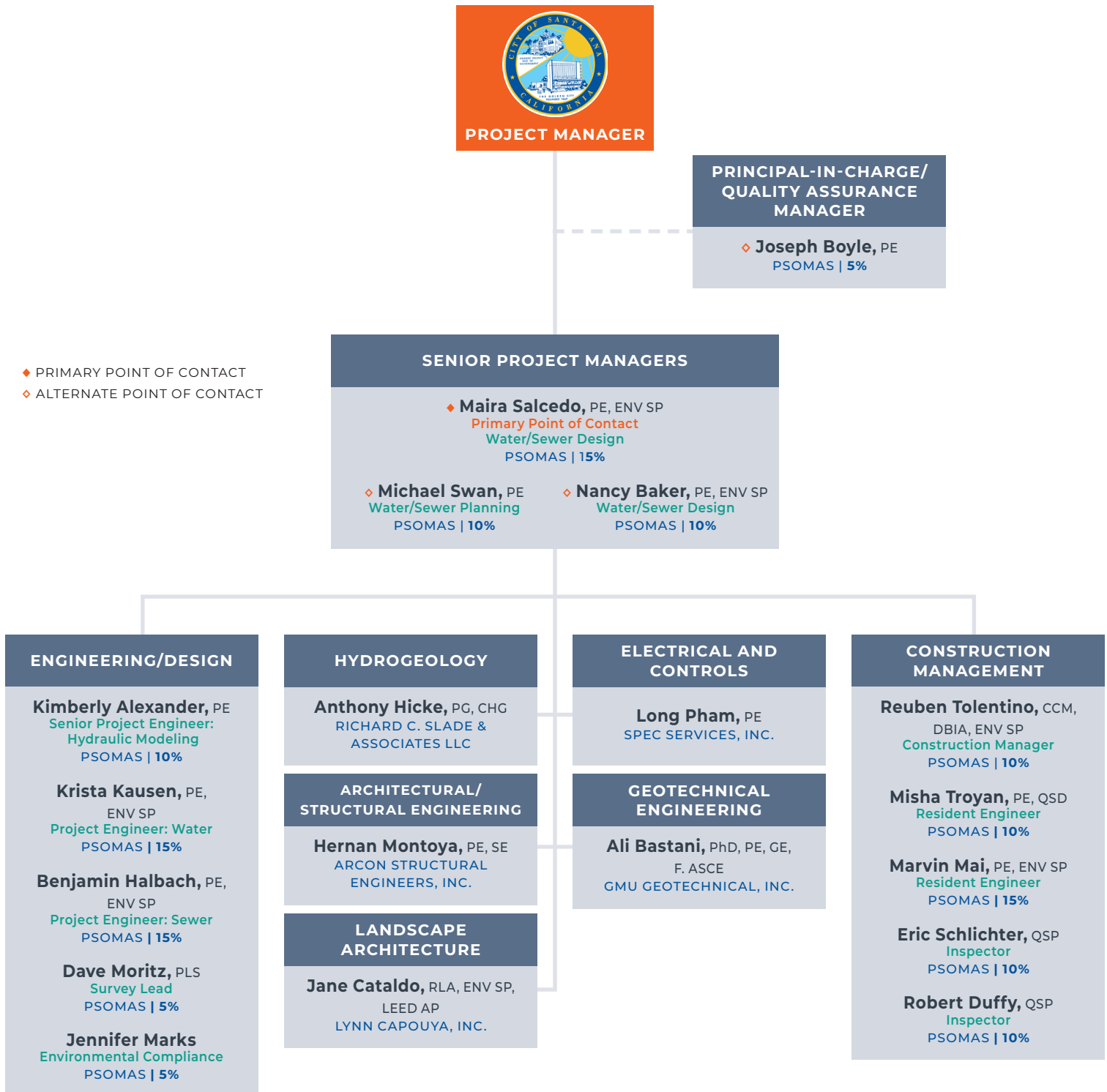
Lynn Capouya, Inc. (LCI), founded in 1979, is a privately-owned full-service Landscape Architectural Firm specializing in public works, infrastructure, master plan, sustainability, and campus projects. LCI currently employs a full-time staff of 10 with three licensed landscape architects, two LEED accredited professionals, and a certified irrigation designer/water auditor.

Resumes

The Psomas team members are highly qualified and have a proven record of responsiveness for our clients. Staff assigned to this contract understand the importance of coordinating closely with City staff to ensure project construction and maintenance projects move forward in a manner that meets the City's objectives and schedule constraints, while at the same time complying with applicable City requirements. Resumes for all personnel shown on the organization chart are included as an attachment at the end of this document.

Organization Chart

An organizational chart identifying Psomas' committed team for this On-Call Water Resources Engineering Services contract, as well as their roles, reporting relationships, and availability percentages, is included below.



1.D UNDERSTANDING OF NEED

Task Order Approach

Psomas recognizes that defining the project scope is a critical first step in controlling cost and schedule. Establishing a detailed and well researched project scope during Task Order development is key to this process. Communicating any out of scope elements that may arise during the course of the project as a result of unforeseen issues, or newly adopted regulatory or agency requirements, is essential to keep City staff informed and eliminate any surprises during the later stages of the project.

Upon receipt of a task order, Joe Boyle will select the appropriate project manager from within our team and develop a comprehensive scope of work through a five-step process. We have found that by establishing a clear definition of the project scope in terms of budget, deliverable, and schedule, and working to minimize scope, projects are delivered within budget and on schedule and expectations are met.

Our five-step process is as follows:

1	Identify the goals and objectives on the project through meetings with City staff.
2	Perform research, including field visits, gathering as-built information, utility research, and preliminary document reviews. This is also the point at which the team will begin to evaluate risks associated with the project. If applicable, the team will meet with field operations staff and key stakeholders.
3	Scoping meeting with City staff to discuss findings. Determine possible environmental (CEQA/NEPA) and permit requirements. Identify/confirm funding limits and sources.
4	Prepare a draft scope and fee broken down by phase or milestones, including subconsultant services needed, and present this to City staff. Verify with all team members the tasks, goals, and scope of services are clearly understood.
5	Finalize scope of work and submit to the City for review.

Resources and Responsiveness

With a large contingent of local resources from which to draw, the Psomas project team can respond to whatever needs may arise. By

managing a balanced client workload among our staff, Psomas is able to respond within one day to meet with the City. This keeps the project momentum moving forward so the Psomas team is in place and ready to work within days of receiving a Notice to Proceed. Our experienced managers have the knowledge and skills required to navigate the hurdles that may arise during the course of the project.

The Psomas team understands the importance of meeting deadlines in a timely manner. We commit to providing adequate staffing (as to both number of personnel and their qualifications) for each task. Being a firm with over 700 employees, Psomas is the “right size” firm for this contract—big enough to handle any task order, but adept enough to provide the City of Santa Ana that personal touch and responsiveness.

Project Management Approach

Psomas’ approach to project delivery involves a combination of administrative or management steps and procedures that ensure the project scope objectives are met, on time and within budget. The elements of the project management effort can generally be identified as communication, thorough documentation and quality control. Maira Salcedo and all of our staff engineers have the project management tools in place to ensure all aspects of the delivery process are implemented, and the goals and expectations of City staff are met.

Communication

Communication starts with scope negotiation, a signed contract and a kick-off meeting, and continues through the completion of the project. Without communication, a project will simply not be delivered. Psomas takes great pride in our communication protocols and abilities. Our ultimate goal is to be an extension of City staff, and to ensure the City’s project manager is always up-to-date on the status of each task, so there are no surprises.

Project Tracking

Psomas recognizes the need for tracking project budgets along with progress in order to minimize the risk of overruns. Each week,

our project manager receives project summary reports detailing hours charged and costs for that particular period and for the project to date. On our monthly invoices, the client is provided with the hours and costs charged to the job for that month, and a budget summary that shows the amount spent to date and the amount remaining.

Psomas uses project management software that tracks schedule and budget by task. Work schedule modifications can be made to keep the project on track.

Schedule Control

For each project, Psomas develops and maintains a project schedule that identifies key milestones and critical path items. The schedule is frequently updated and shared with the project team and stakeholders. To make sure the project remains on schedule, the following strategies are used:

- ▶ Constant communication with the City's project manager to identify critical items
- ▶ Quick response to design questions, field issues, and other requests
- ▶ Commitment to respond within 24 hours (replies to emails or voicemails)
- ▶ Monitoring of the project schedule to compare progress versus plan
- ▶ QA/QC verification of subconsultant products and progress
- ▶ Sharing of design files, meeting notes, and other documents on Psomas' ProjectWeb to ensure all team members are using the most recent information

Using these tools, Psomas is able to maintain the project schedule by monitoring time-critical items such as agency/stakeholder review periods, utility relocations, right-of-way acquisitions, and environmental permitting issues.

Documentation

Proper documentation is critical for all projects, but especially for projects funded with multiple funding sources including local, state, and federal dollars. Psomas team members have a wealth of experience delivering projects for local agencies that use local, state, and federal funds. Psomas'

document control management policies make sure files are complete and accurate and meet the requirements of the funding source. Our typical monthly project progress reports include the status of deliverables, utility and outside-agency efforts, cost and schedule snapshot and analysis, and issues discussion and recommended resolution actions. These monthly progress reports will be tailored to the needs and desires of the City.

Quality Assurance/Quality Control

Psomas has responsibility for the accuracy and completeness of the maps, plans, reports, calculations, and construction cost estimates under its scope of work and will meet that responsibility through the implementation of a quality assurance plan. Our QA/QC Program is based upon the belief that "Nothing is more important than design quality."

The individuals responsible for our Quality Control Program (QCP) are the project manager and the quality control manager. Our QCP will be implemented over the duration of the project, and is not merely a series of individual events/plan checks at a few points on the schedule.

There are three major stages in our QCP: quality assurance (are we doing the right things?), quality control (are we doing things right?), and post-completion quality evaluation (what can we do better?). Couple the three stages with a robust training program, and you have a staff with the experience, expertise, and the QA/QC tools to deliver a quality product every time.

In the quality planning stage, Psomas uses the kick-off meeting to determine your QCP expectations. Joseph Boyle, PE, our quality assurance manager, will then develop a work plan with the project manager based upon the client's input, the schedule, and the budget. The work plan identifies specific work products and establishes a set of relevant measures and standards of quality for each task that may result from this on-call contract. Once work on the project begins, we move on to the quality control stage. In this stage we track the execution of the work plan, review our designs and work products, and communicate with the client and team

members. We provide project information through our cloud-based file sharing tools, allowing all team members to monitor the progress of our work plan. In this stage, the quality control manager also facilitates detailed technical reviews of our field work and design, and those of all team

members, to make sure they meet the quality standards defined in the quality planning stage. This review is continuous throughout the life of the project and will deliver a smooth process and buildable final product.

1.E RELEVANT PROJECT EXPERIENCE

Rehabilitation of Well 29

Santa Ana, CA



CLIENT CONTACT: City of Santa Ana
200 S. Daisy Street, Santa Ana, CA 92703
Armando Fernandez, Senior Civil Engineer
714.647.3316

KEY PERSONNEL: Joseph Boyle | Maira Salcedo
Krista Kausen | Jennifer Marks
Dave Moritz

YEAR COMPLETED: Ongoing

SUBCONSULTANTS: Arcon | GMU | SPEC | RCS | LCI

Psomas was retained by the City of Santa Ana to provide consultant services for preparation of construction plans and technical specifications for rehabilitation of the City's existing Well 29; the relocation of an existing tennis court; and construction of a cement masonry unit (CMU) building, pertinent related site improvements, and water pumping equipment. In addition to the well pump and redesigned discharge piping, the building will house the electrical switchboard and the pump motor control center. Drilling of the well occurred in 1980, with the subsequent installation of pumping facilities occurring in 1982. Well 29 is one of three wells pumping water from the groundwater basin to the Walnut Street Reservoir as part of the City's Walnut Pump Station System. Due to the age of the well and the deterioration of the well's capacity and equipment, the City wishes to rehabilitate Well 29 and reconfigure the existing site. The City is seeking to improve the productivity of the well by conducting rehabilitation operations, and subsequently placing it back into service.

Walnut Pump Station Upgrade

Santa Ana, CA



CLIENT CONTACT: [City of Santa Ana](#)
200 S. Daisy Street, Santa Ana, CA
92703 | Armando Fernandez, Senior Civil
Engineer | 714.647.3316

YEAR COMPLETED: 2019

KEY PERSONNEL: Joseph Boyle | Maira Salcedo
Benjamin Halbach | Dave Moritz

SUBCONSULTANTS: Arcon

Psomas was retained through an on-call design contract with the City of Santa Ana to prepare a preliminary design report, plans and specifications for the construction of new masonry buildings at Walnut Pump Station. Design scope included new 3,650 SF pump building to replace an obsolete building built in 1956 and enclose five existing vertical turbine pumps. The building architecture was designed using an Art Deco style to match the recently remodeled Santa Ana High School located across the street.

The main building included a new pump room, operations workshop, electrical control room, office space, and bath and shower facilities. Then design also included a separate 200 SF industrial storage building for sodium hypochlorite and POL fuel, a carport structure to shade a generator, an 8-foot-high CMU perimeter wall, and two tennis practice courts and practice walls in the adjacent park to mask the perimeter fencing. Two existing steel supply mains were relocated due to the new building footprint and included design of two new valve vaults.

On the City's behalf, Psomas submitted this project through ISI Envision and achieved a Bronze award.

Cast Iron Main Replacement

Long Beach, CA



CLIENT CONTACT: [Long Beach Water Department](#)
1800 E. Wardlow Road
Long Beach, CA 90807 | Wendy Chen,
Senior Project Engineer | 562.570.2324

YEAR COMPLETED: 2019

KEY PERSONNEL: Joseph Boyle | Nancy Baker
Benjamin Halbach

SUBCONSULTANTS: Arcon

As part of our on-call Water Mainline Engineering Support Services for Long Beach Water Department (LBWD), Psomas provided design engineering services for preparation of preliminary and final construction documents (plans, details, and a material list) for the replacement of 6,150 feet of 4-, 6-, 8-, 10-, and 12-inch cast iron pipelines. The project involved the replacement of pipeline appurtenances including gate valves, hydrants, air/vacuum assemblies, service meters and respective fittings. The scope of services included utility research and field reconnaissance. Utility research included obtaining a list of all known utility owners from our on-line account with Underground Service Alert, a thorough records research, website investigations of County facilities, and field verification of visible surface facilities by our project design team. Psomas follows up on all of our utility research efforts by obtaining as-built plans from each utility owner and incorporating the facilities into the design plans. As part of the on-call contract, Psomas responded within 48 hours of issuance of the Notice to Proceed.

Pressure Reducing Stations

Anaheim, CA

UNDER
ON-CALL
CONTRACT



CLIENT CONTACT: City of Anaheim, Water Engineering
201 South Anaheim Boulevard, Suite 601,
Anaheim, CA 92805 | Candice Espinoza,
Associate Engineer | 714.765.5323

YEAR COMPLETED: 2021

KEY PERSONNEL: Joseph Boyle | Maira Salcedo
Krista Kausen | Benjamin Halbach

SUBCONSULTANTS: Arcon

Psomas was retained through an on-call contract with the City of Anaheim to prepare construction documents for rehabilitation and/or replacement of Pressure Reducing Station (PRS) Nos. 30, 31, 32, and 43 and construction of a new PRS No. 73. The existing PR stations were constructed in the 1960s and have experienced significant corrosion and overall deterioration. Design services included preparation of a preliminary design memorandum to establish the basis of design, and preparation of construction plans, technical specifications and engineer's estimate. In order to conform with the City budget allocated for this project, two bid packages were being prepared:

- ▶ Bid Package 1 – PRS Nos. 32, 43 and 73
- ▶ Bid Package 2 – PRS Nos. 30 and 31

PRS Nos. 30 and 31 are located in underground vaults in busy city streets and involved removal and replacement of all piping, fittings, pressure reducing valves, isolation valves, and all appurtenances within the existing vaults. Nos. 32 and 43 were reconstructed in new locations outside the roadway of existing city streets and involved new vaults, piping, fittings, valves, and related appurtenances. No. 73 is a new facility constructed within an existing parkway and provides an additional connection between the City's 640 and 555 Zones.

Sewer Planning & Modeling

Anaheim, CA

UNDER
ON-CALL
CONTRACT



CLIENT CONTACT: City of Anaheim
201 South Anaheim Boulevard, Suite
601, Anaheim, CA 92805 | Keith Linker,
Principal Civil Engineer | 714.765.4141

YEAR COMPLETED: Ongoing

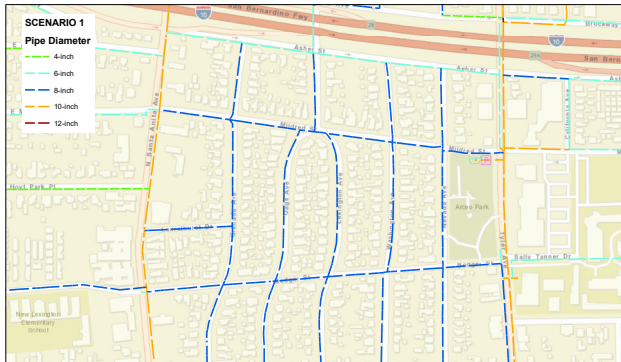
KEY PERSONNEL: Michael Swan | Kimberly Alexander

SUBCONSULTANTS: Arcon

Since 2010, Psomas has performed 34 separate sewer studies for the City of Anaheim Public Works Department on three separate competitively procured on-call contracts. These studies are required when developer projects are determined to have the potential to increase sewer flow downstream. Psomas estimates the proposed additional flow and then utilizes the latest hydraulic model of the City's sewer collection system, which Psomas keeps up-to-date to route the flow through the system to a point where it discharges to the Orange County Sanitation District's system. If acceptable depth-to-diameter ratio parameters are exceeded in any downstream facility, recommended improvements are generated and made a condition of development approval.

Water Main Replacement

El Monte, CA



CLIENT CONTACT: City of El Monte
11333 Valley Boulevard
El Monte, CA 91731
Lee Torres, City Engineer | 626.580.2055

YEAR COMPLETED: Ongoing

KEY PERSONNEL: Joseph Boyle | Maira Salcedo | Michael Swan | Benjamin Halbach | Kimberly Alexander | Dave Moritz

SUBCONSULTANTS: GMU

Psomas was retained by the City to provide PS&E, surveying, environmental and permitting, community outreach, and construction support services for the replacement of approximately 6,900 LF of 4- and 6-inch water mains with 8- and 12-inch mains in two areas of the City's distribution system due to their age and to improve fire flow and reliability. Because this is the first phase of a major water main replacement project, the scope also included updating the City's hydraulic model and running various scenarios to determine if the City should standardize on 6- and 10-inch or 8- and 12-inch pipelines for replacement of their aging, smaller diameter mains. This will eliminate the need to stock various different pipe sizes, fittings, valves and appurtenances.

Psomas accomplished the scenario modeling, prepared an economic analysis, compared flow and pressure results, and prepared a technical memorandum documenting the analyses and presenting recommendations. After completion of the final design, Psomas will combine plans for sewer improvements in one of the two neighborhoods with the water improvement plans into one bid set so it can be constructed as one coordinated project to limit disruption to residents and business owners.

On-Call Engineering Services

El Monte, CA



CLIENT CONTACT: City of El Monte
11333 Valley Boulevard
El Monte, CA 91731
Lee Torres, City Engineer | 626.580.2055

YEAR COMPLETED: Ongoing

KEY PERSONNEL: Michael Swan | Kimberly Alexander

Beginning in 2015, Psomas was retained by the City to update their hydraulic model from a 2010 Water Master Plan and provide on-call modeling services. This update entailed revising demands and supply source data for wells pumping into the system. Following the model update, Psomas has run scenarios for a couple of proposed development projects testing fire flow and developing capital improvement requirements for these new developments.

Hidden Hills Booster Pump Station

Yorba Linda, CA



CLIENT CONTACT: [Yorba Linda Water District](#)
4622 Plumosa Drive, Yorba Linda, CA
92885 | Rosanne Weston, Engineering
Manager | 714.701.3100

YEAR COMPLETED: Ongoing

KEY PERSONNEL: Michael Swan | Krista Kausen

Psomas was retained by BlackRock, a private developer, to prepare a preliminary design report followed by plans and specifications, and construction support services for improvements to a Yorba Linda Water District booster pump station. These improvements called for increasing the station's capacity and were a condition of a development agreement to construct a residential development in the foothills of Yorba Linda. Psomas is designing this project to YLWD specifications with funding shared between BlackRock and the District.

This project consists of removing one 200-GPM pump and pump can within an existing station, and replacing it with an 1,800-GPM, VFD-driven pump. In conjunction with this pump replacement to improve fire-fighting capacity in this pressure zone to be funded by the developer, the District requested that Psomas also replace all existing, outdated electrical and control equipment to be installed in a new, separate electrical room, add a gas-driven emergency generator, add a fence around the perimeter of the site, and replace a damaged meter vault and the meter within the vault. All this work needs to be carefully sequenced and scheduled within a limited shutdown window to minimize downtime for the pump station.

Sewer Rehabilitation

Rossmoor and Los Alamitos, CA



CLIENT CONTACT: [Rossmoor/Los Alamitos Area Sewer District](#)
3243 Katella Avenue, Los Alamitos, CA
90720 | Sarah Borbon, General Manager
562.431.2223

YEAR COMPLETED: 2018

KEY PERSONNEL: Maira Salcedo | Michael Swan
Benjamin Halbach

Psomas provided design of the sewer segment rehabilitation in various locations in Rossmoor and the City of Los Alamitos. Psomas staff reviewed 60,000 feet of sewer system CCTV tapes and made appropriate recommendations for repairs where needed. The rehabilitation design comprised a combination of CIPP lining of approximately 2,830 feet of 8-inch through 18-inch-diameter sewer in 11 separate locations; UV-Cured Point Repairs (trenchless) at 68 locations; removal and replacement of approximately 860 feet of 8- and 10-inch-diameter pipe in four areas; and point repairs to 8-inch through 18-inch pipe at 14 different locations.

Psomas' responsibilities included preparation of construction plans and specifications, bid phase assistance, construction phase engineering, and inspection services.

Lift Station Emergency Storage Basin

Rancho Santa Margarita, CA



CLIENT CONTACT: Santa Margarita Water District
26111 Antonio Parkway Rancho Santa
Margarita, CA 92688 | Jaime Aguilar,
Senior Project Engineer | 949.459.6582

YEAR COMPLETED: Ongoing

KEY PERSONNEL: Joseph Boyle | Nancy Baker
Krista Kausen | Jennifer Marks

SUBCONSULTANTS: Arcon

Psomas provided engineering services for the design of an emergency storage basin (ESB) for Santa Margarita Water District's (SMWD's) Coto de Caza Lift Station. SMWD has a policy to install ESB's at each of its lift stations. The purpose of the ESB is to contain wastewater from overflowing into the surrounding area during an emergency event. The ESB was designed to provide storage volume for three hours of average daily flows. The ESB is a reinforced concrete structure approximately 45 feet by 45 feet with a depth of 30 feet. The ESB was designed with three chambers. Submersible pumps in the first chamber pump into the second chamber with gravity flow from the second chamber to the third chamber. Key design features include design of the cast-in-place concrete ESB; submersible pump selection; coordination of an existing SDG&E power supply line relocation; construction of a retaining wall and concrete drainage swale between the ESB and access road; access improvements to allow a tanker truck access to the ESB; and design of overflow pipeline, drain pipeline and sluice gates. Psomas' scope of services includes preliminary and final design; construction plans, specifications, and estimates of probable construction costs; and engineering support during construction.

On-Call District Engineering Services

Trabuco Canyon, CA



CLIENT CONTACT: Trabuco Canyon Water District
32003 Dove Canyon Drive
Trabuco Canyon, CA 92679
Lorrie Lausten, Associate Engineer
949.858.0277 ext. 130

YEAR COMPLETED: Ongoing

KEY PERSONNEL: Michael Swan | Kimberly Alexander

Since 2003, Psomas has provided on-call hydraulic modeling of the District's water system. The model has been used to determine capital improvement requirements for numerous proposed developments over the years including testing fire flow. Most recently, modeling was performed to determine optimum hydraulic/operational parameters for a proposed upgraded booster pump station and new reservoir, including testing reservoir turnover using extended period simulation techniques.

1.F REFERENCES

- | | |
|---|---|
| 1 | <p>City of El Monte
11333 Valley Boulevard, El Monte, CA 91731
Lee Torres, City Engineer 626.580.2055
ltorres@elmonteca.gov</p> <p><i>A description of the City of El Monte's projects is on page 11</i></p> |
| 2 | <p>Rossmoor/Los Alamitos Area Sewer District
3243 Katella Avenue, Los Alamitos, CA 90720
Sarah Borbon, General Manager 562.431.2223
LosAISewerDistrict@gmail.com</p> <p><i>A description of the District's project is on page 12</i></p> |
| 3 | <p>Yorba Linda Water District
4622 Plumosa Drive, Yorba Linda, CA 92885
Rosanne Weston, Engineering Manager
714.701.3100 rweston@ylwd.com</p> <p><i>A description of the District's project is on page 12</i></p> |

SCOPE OF SERVICES AND SCHEDULE



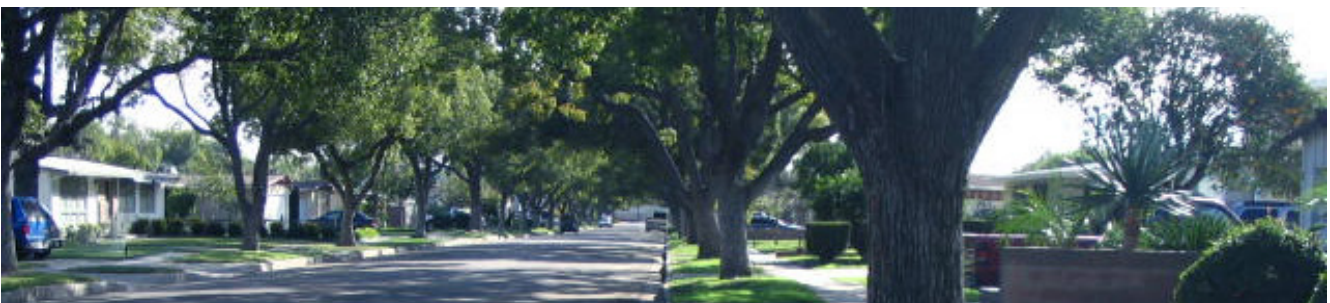
The City intends to retain consultants on an as-needed basis to perform professional services for a variety of water resources engineering projects. The projects may include water and sewer pipeline design, facility capital and rehabilitation improvements, storm drain improvements, and other related projects. On occasion, environmental and planning support services may also be requested. Firms selected for projects may need to include geotechnical, electrical, mechanical, structural and other specific project related services.

Psomas professionals will provide in-house services for civil/mechanical engineering, surveying, environmental, and construction management. Psomas will retain subconsultants for all other scope of service tasks listed in the RFP. A resource matrix, included on page 15, identifies all scope tasks identified in the City's RFP and the team members who will be responsible for execution of those tasks.

ISI: Envision Sustainability Rating System

We commend the City's continued efforts and commitment in regard to implementation of sustainable projects. As a founding member of the Institute for Sustainable Infrastructure (ISI) and key player in the development of ISI's Envision rating system, Psomas has over 120 professionals credentialed as ENV SPs (Envision Sustainability Professional). Maira Salcedo, PE, ENV SP, as Psomas' Assistant Project Manager for the Walnut Pump Station Upgrade, was responsible for nominating the project and ultimately obtaining a bronze level award. Maira is also responsible for nominating the Well 29 Rehabilitation project for an Envision award.

We look forward to assisting the City in any future efforts to construct sustainable infrastructure projects and nominating them for potential Envision awards. While not all projects will be appropriate for an Envision rating, Psomas endeavors to incorporate sustainable elements in every infrastructure project we plan or design. In order to demonstrate our approach to responding to a task order request from the City of Santa Ana, we have provided on pages 16 and 17 a typical scope of services and schedule for a sewer replacement project.





RESOURCE MATRIX

Personnel	Category 1 – Planning, Resources, and Design																Category 2 Construction Management			Category 3 – Pipeline Design
	Planning, Studies and Feasibility Studies	Hydraulic Modeling	Condition Assessment	Design Services	Architecture	Structural	Civil	Mechanical / HVAC	Landscape Architecture	Geotechnical	Hydrogeology	Environmental Compliance	Recycled Water Compliance	Electrical, Instrumentation, and Control	Engineering Support During Construction	Plan Check	Construction Management and Coordination	Project Administration	Construction Inspection	
Joseph Boyle, PE Principal-in-Charge and Quality Assurance Manager	✓		✓	✓			✓						✓		✓	✓				✓
Maira Salcedo, PE, ENV SP Senior Project Manager/Primary Point of Contact	✓		✓	✓			✓	✓							✓					✓
Michael Swan, PE Senior Project Manager	✓	✓	✓	✓			✓						✓		✓	✓				✓
Nancy Baker, PE, ENV SP Senior Project Manager	✓		✓	✓			✓	✓					✓		✓	✓				✓
Kimberly Alexander, PE Senior Project Engineer	✓	✓																		
Krista Kausen, PE, ENV SP Senior Project Engineer	✓		✓	✓			✓	✓							✓	✓				✓
Benjamin Halbach, PE, ENV SP Project Engineer	✓			✓			✓	✓							✓	✓				✓
Misha Troyan, PE, QSD Resident Engineer																	✓	✓		
Jennifer Marks Environmental Compliance												✓								
Reuben Tolentino, CCM, DBIA, ENV SP Construction Manager																	✓			
David Moritz, PLS Survey Lead				✓																✓
Marvin Mai, PE, ENV SP Resident Engineer																	✓	✓		
Eric Schlichter, QSP Inspector																			✓	
Robert Duffy, QSP Inspector																			✓	
Anthony Hicke, PG, CHG Hydrogeology (Richard C. Slade & Associates LLC)											✓									
Hernan Montoya, PE, SE Architectural/Structural Engineer (Arcon Structural Engineers)			✓		✓	✓														
Jane Cataldo, RLA, ENV SP, LEED AP Landscape Architecture (Lynn Capouya, Inc.)									✓											
Long Pham, PE Electrical and Controls (SPEC Services, Inc.)														✓						
Ali Bastani, PhD, PE, GE, F.ASCE Geotechnical Engineering (GMU Geotechnical, Inc.)										✓										

Sample Scope Of Services

The tables below illustrate the typical detailed tasks and deliverables.

PRELIMINARY DESIGN

1	Attend kick-off meeting at City to discuss scope, schedule, and lines and methods of communication between Psomas team and City staff.
2	Verify pipe information from “as-builts,” confirmed by cleaning and CCTV. Develop/confirm existing and build-out flow using tributary area, land use and flow factors. Model system to confirm flows and d/D for each reach.
3	Perform utility research by contacting all potential utility companies and conducting field walk.
4	Develop/confirm required pipe sizing using build-out flow and City capacity criteria.
5	Provide survey services as required.
6	Conduct up to two (2) 15-foot-deep borings.
7	Prepare draft PDR, meet with City staff to review comments, and finalize PDR.
Deliverables: Utility research correspondence and plans gathered to date, CCTV logs and video file, geotechnical report (all on digital media), draft and final PDR, meeting agendas and minutes.	

50% DESIGN

8	Based on preliminary alignment, perform up to five (5) potholes to verify existing utility depths.
9	Prepare 50% PS&E submittal.
Deliverables: Final utility research correspondence and plans, 50% PS&E submittal.	

FINAL DESIGN

10	Coordinate work with City and impacted agencies prior to securing approval to proceed with final design.
11	Prepare 90% PS&E submittal including a project description and forms suitable for City staff's use in preparing environmental documentation for the project.
12	Prepare 100% PS&E submittal based on comments from 90% submittal review and other requirements.
13	Prepare agenda for, attend and prepare minutes for monthly meetings with City staff during the design phase to review project issues and status reports and monitor schedule progress.
Deliverables: 90% PS&E submittal with return of 50% City redlines and comments; 100% PS&E submittal with return of 90% City redlines and comments; Final PS&E submittal (ready for printing/bidding) with 100% City redlines and comments, meeting agenda and minutes.	

BID/AWARD AND CONSTRUCTION SUPPORT SERVICES

14

Provide support services during bid/award phase to answer contractor questions and plan clarifications and prepare addenda for revisions, if necessary. Assist City staff in bid analysis and preparation of award documents.

15

Provide engineering support services during construction to attend pre-construction meeting, respond to RFIs, review submittals, observe construction, make potential plan revisions to address unforeseen conditions, and prepare record drawings.

Deliverables: Addenda, if required, RFI responses, submittal review, record drawings. A sample project schedule is provided on Page 18.

SCHEDULE

Psomas maintains excellent working relationships that have proven our track record for providing high quality work products in a timely and cost-effective manner. A hypothetical schedule may be found on page 18 and details the typical work phases to be completed, the tasks to be accomplished, the deliverables to be provided, and the schedule/timeline to complete a project, based upon the requested Scope of Work detailed in Attachment 1 of the RFP.

Section 3

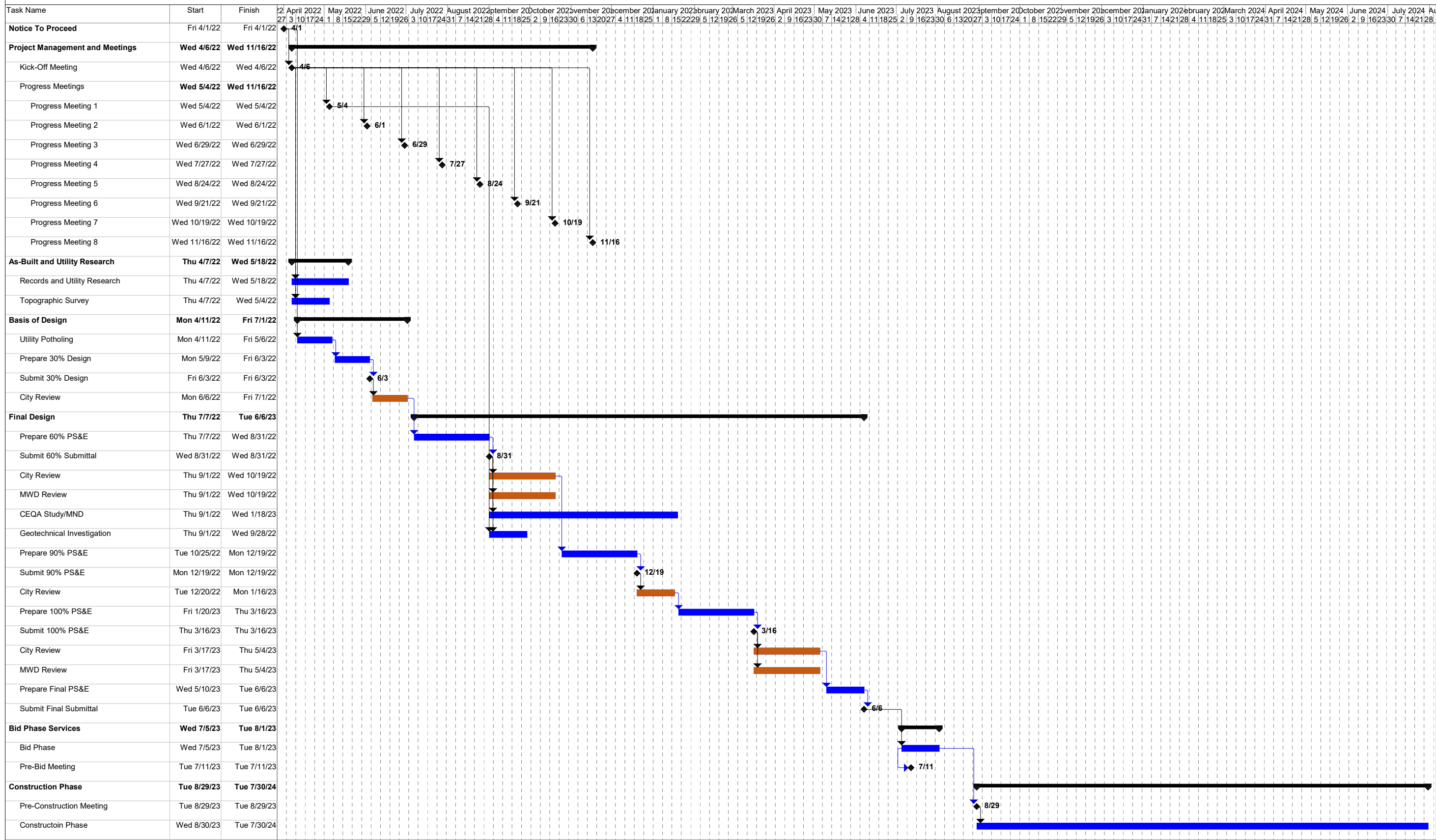
FEE PROPOSAL

Per the City's request, our fee proposal will be submitted separately and concurrent with the technical proposal, both submitted electronically in PlanetBids and as a hard copy in a separately sealed envelope, clearly labeled as "Fee Proposal." This will include Psomas' Standard Hourly Fee Schedule.



SAMPLE SCHEDULE

CITY OF SANTA ANA
SA-2 PRS Relocation



CERTIFICATIONS

The following forms are signed and included as part of our proposal submittal package:

- ▶ **Attachment 3-1:** Non-Collusion Affidavit
- ▶ **Attachment 3-2:** Non-Lobbying Certification
- ▶ **Attachment 3-3:** Non-Discrimination Certification
 - Prime
 - Subconsultants

Psomas

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 17 day of May, 2022 by Joseph L. Boyle, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Jackie L. Slichta
 Notary Public Signature



PsomasNON-LOBBYING CERTIFICATION

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 Psomas

Signed and Printed Name:  Joseph L. Boyle, PE, ENV SP

Title Vice President

Date May 24, 2022

PsomasNON-DISCRIMINATION CERTIFICATION

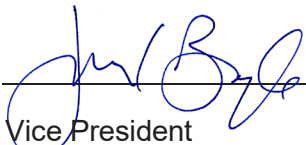
The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

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

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:  Joseph L. Boyle, PE, ENV SP
Title: Vice President
Firm: Psomas
Date: May 24, 2022

Arcon Structural Engineers, Inc.NON-DISCRIMINATION CERTIFICATION

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

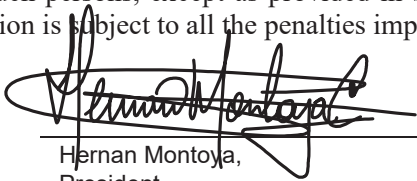
1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to 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

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:



Hernan Montoya,
President

Title:

Firm:

Arcon Structural Engineers, Inc.

Date:

May 16, 2022

CMU Geotechnical, Inc.NON-DISCRIMINATION CERTIFICATION

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.
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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:



Gregory Silver

Title:

President/CEO

Firm:

GMU Geotechnical, Inc.

Date:

May 16, 2022

Lynn Capouya, Inc.NON-DISCRIMINATION CERTIFICATION

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.
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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

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: Lynn Capouya

Title: President

Firm: Lynn Capouya, Inc.

Date: 5/16/2022

Richard C. Slade & Associates LLCNON-DISCRIMINATION CERTIFICATION

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

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,

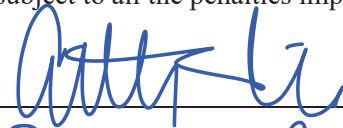
No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating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

Signed: _____

Title: _____

Firm: _____

Date: _____



PRINCIPAL GROUNDWATER GEOLOGIST

RICHARD C. SLADE & ASSOC LLC

5/17/2022

SPEC Services, Inc.NON-DISCRIMINATION CERTIFICATION

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

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:

Electrical Department Manager

Firm:

SPEC Services, Inc.

Date:

5/18/2022



Maira Salcedo, PE, ENV SP

Primary Point of Contact/Senior Project Manager: Water/
Sewer Design

Maira Salcedo has 17 years of experience in design of sewer systems, water systems, and report preparation on public works projects throughout Southern California. Her computer experience includes AutoCAD (including Civil3D), ArcView, MS Project, and various spreadsheet and word processing software packages.

REGISTRATION

2011/CA/Professional
Engineer/Civil/77370

EDUCATION

2006/BS/Civil Engineering/
California State University,
Fullerton

CERTIFICATIONS

Envision Sustainability
Professional/Institute for
Sustainable Infrastructure

Pipeline Assessment
Certification Program/
NASSCO/U-508-7002

Manhole Assessment
Certification Program/
NASSCO/U-508-7002

EXPERIENCE

With Psomas for 16 years;
with other firms for 1 year

Experience

Bristol Street Water Main Replacement – Santa Ana, CA: Project Engineer for preparation of plans and specifications for replacement of 4,600 LF of 16-inch diameter ductile iron pipe that has experienced several leaks and breaks within the past few years due to corrosive soil conditions. Based on recommendations of the corrosivity analysis of the geotechnical report, the design used 16-inch C900 (DR 14) PVC pipe with AWWA C217 wax coating over the ductile iron fittings and valves. The project also included the use of Type V cement in all thrust blocks as the soil was found to be high in sulfates.

Orange County Streetcar Project – Santa Ana, CA: Project Engineer for the design of the water system facility relocations and installations in support of a four-mile light rail project in the City of Santa Ana.

2018 Sewer Rehabilitation Project – Rossmoor, Los Alamitos, CA: Project Manager for the design of sewer segment rehabilitation in various locations in Rossmoor and the City of Los Alamitos. As District Engineer, Psomas staff reviewed 60,000 feet of sewer system CCTV tapes and made appropriate recommendations for repairs where needed. The rehabilitation design comprised a combination of CIPP lining of approximately 2,830 feet of 8-inch through 18-inch-diameter sewer in 11 separate locations; UV-Cured Point Repairs (trenchless) at 68 locations; removal and replacement of approximately 860 feet of 8- and 10-inch-diameter pipe in four areas; and point repairs to 8-inch through 18-inch pipe at 14 different locations. Duties included obtaining preliminary encroachment permits from the City of Los Alamitos and the County of Orange, coordination for project advertising, evaluation of the bids received, and recommendation of project award. Construction of the project is anticipated for March 2019.

Well 28D Equipping Design – Bellflower, CA: Project Manager for preparation of plans and specifications for new 1,500-GPM, 250-hp vertical turbine well pump equipment, including vertical turbine pump, mechanical piping, bypass valve and air gap connection to storm drain, 600-amp electrical service, 1,120 SF masonry pump, electrical, chemical feed, and SCE meter building designed to blend into residential neighborhood, sodium hypochlorite on-site generation system, sodium fluoride feed system, HVAC, plumbing, and fencing.

Well 12C, Liberty Utilities – Compton, CA: Project Manager for preparation of plans and specifications for new 1,500-GPM, 150-hp vertical turbine well



Maira Salcedo,
PE, ENV SP
(Continued)

pump equipment, including vertical turbine pump, mechanical piping, bypass valve and air gap connection to storm drain, 400-amp electrical service, 1,008 SF masonry pump, electrical, chemical feed, and SCE meter building designed to blend into residential neighborhood, bulk sodium hypochlorite on-site generation system, ammonia feed system, sodium fluoride feed system, HVAC, plumbing, and fencing.

El Segundo/McKinley/Stanford/131st Water Main Replacement Project – Los Angeles, CA: Project Manager for preparation of plans and bid quantities for the construction of two projects in the City of Los Angeles designated as North Project; El Segundo Boulevard/McKinley Avenue/Stanford Avenue/131st Street Water Main Project; and South Project, McKinley Avenue Water Main Project. The North Project included 1,514 LF of 8-inch ductile iron domestic water pipelines. The South Project included 1,408 LF of 8-inch ductile iron domestic water pipelines. Both projects included the installation of several 6-inch fire hydrants, valves, 1-inch services, house-lines, and tie-ins, and the abandonment of 4-inch and 6-inch water mains. The work effort included transferring services from the alleys behind homes into the main residential street.

“The Case” Malibu Canyon Road and HRL Water Main Upgrades Project – Malibu, CA: Project Manager for preparation of final design plans for construction of approximately 3,800 LF of 12-inch CML&C welded steel domestic waterline in Malibu Canyon Road and 1,600 LF CML&C welded steel domestic waterline in HRL’s Potter Road for the County of Los Angeles Department of Public Works. Project design also included connections to existing water mains; installation of water meters and fire hydrants; detailing the supply connection to an existing 300,000-gallon water tank and existing 6-inch inlet/outlet piping to a smaller water tank; and a new tank drain pipe to replace the old tank drain pipe on the existing 47,000-gallon tank.

Rosecrans Booster Pump Station Replacement Project Initial Study and Mitigated Negative Declaration – Buena Park, CA: Project Manager for this project, which involved construction of a new pump station at the site of the existing Rosecrans Booster Pump Station in order to serve residents and properties in the upper zones of the Buena Park potable water system. Original pumping capacity was less than 3,500 GPM, which did not meet peak-hour (3,531 GPM) or maximum-day-plus-fire (5,395 GPM) demands. The newly constructed 1,949 SF pump station building includes four separate rooms, pump room, electrical room, generator room, and disinfection room. The project also required grading for vehicle turnaround space, installation of a detention basin, and a surge tank pad.

As-Needed Water Engineering Design Services – Anaheim, CA: Project Engineer for ongoing professional engineering services under as-needed contracts for the City's Water Services Division of the Public Utilities Department. Projects have included a variety of water facilities design projects including pump station upgrades, domestic well pumping facilities, domestic water reservoir mixing improvements, reservoir and pump station condition assessments and water supply assessments.

Construction of Well No. 59 and Destruction of Well No. 36 – Anaheim, CA: Project Engineer for preparation of preliminary design report, plans, and specifications for a new 3,000 GPM, 350 hp vertical turbine deep well pump equipment, including vertical turbine pump; mechanical piping; bypass valve and air gap connection to storm drain; 800-AMP electrical service; 810 SF masonry parapet building with roll-away end for well; bulk sodium hypochlorite feed system; HVAC; plumbing; and masonry fencing.



Joseph Boyle, PE

Principal-in-Charge/Quality Assurance Manager

Joe Boyle has 38 years of experience in the planning and design of wastewater facilities, water transmission, distribution, and storage facilities. He has prepared plans and specifications for water and sewer main, storm drain, and roadway design, as well as provided construction phase services. He also has extensive experience in the planning and design of public works projects, including site development, grading and storm drain design, and streets and highways.

REGISTRATION

1989/CA/Professional
Engineer/Civil/44497

EDUCATION

1984/BS/Civil Engineering/
California Polytechnic State
University, San Luis Obispo

EXPERIENCE

With Psomas for 26 years;
with other firms for 12 years

Experience

Walnut Pump Station Upgrade – Santa Ana, CA: Project Manager for the preparation of preliminary design report, plans and construction cost estimating for the construction of a new 3,650 SF CMU precision block building including the footprint of the existing control building and extending north to enclose the existing outdoor pump station and a small masonry storage building. Other notable design items included demolition of the existing control building and sand trap; the construction of an 8-foot high CMU perimeter wall, 10-foot concrete tennis practice wall, two tennis practice courts, 20'x50'x14' carport, rerouting of 24-inch inlet line, design of a gooseneck structure to allow groundwater to be manually bypassed around the reservoir to storm drains, electrical equipment and conduits, and site improvements.

Well 29 Rehabilitation Engineering Design Services – Santa Ana, CA: Project Manager for the preparation of preliminary design report, construction plans, and technical specifications for the rehabilitation of Well 29. Project scope includes the assessment of the existing well and preparation of technical specifications for well rehabilitation, and design of a new building to enclose the existing well, including a pump room, electrical control room and storage room. The existing pump and 200-hp motor, as well all mechanical equipment, is to be replaced.

Orange County Streetcar Project – Santa Ana, CA: Project Manager for the design of the water system facility relocations and installations in support of a four-mile light rail project in the City of Santa Ana.

Rehabilitation/Replacement of Pressure Reducing Station Nos. 30, 31, 32, and 43 and Construction of New PRS No. 73 – City of Anaheim, CA: Project Manager to prepare construction documents for rehabilitation and/or replacement of Pressure Regulation Station (PRS) Nos. 30, 31, 32, and 43 and construction of a new PRS No. 73. The existing PR stations were constructed in the 1960's and have experienced significant corrosion and overall deterioration. Design services included preparation of a preliminary design memorandum to establish the basis of design, preparation of construction plans, technical specifications and engineer's estimate. In order to conform with City budgetary numbers allocated for this project, two bid packages are being prepared: Bid Package 1 – PRS Nos. 32, 43 and 73 and Bid Package 2 – PRS Nos. 30 and 31.



Joseph Boyle, PE
(Continued)

Construction of Well No. 59 and Destruction of Well No. 36 – City of Anaheim, CA: Project Manager for preparation of preliminary design report, plans, and specifications for new 2,000-GPM, 250-HP vertical turbine deep well pump equipment; mechanical piping; bypass valve and air gap connection to storm drain; 800-AMP electrical service; 810 SF masonry parapet building with roll-away end for well; bulk sodium hypochlorite feed system; HVAC; plumbing; and masonry fencing.

As-Needed Engineering Services for the Long Beach Water Department – Long Beach, CA: Project Director for ongoing professional engineering services for numerous water and sewer design plans and contract documents for Long Beach Water Department. Projects include replacement of more than 55,000 LF of 4- to 12-inch water mains, sewer rehabilitation and replacements, large diameter (30- to 48-inch) valve replacements, and replacement of chemical storage tanks at the LBWD Groundwater Treatment Plant.

As-Needed Water Engineering Design Services – Anaheim, CA: Principal-in-Charge for ongoing professional engineering services under as-needed contracts for the City's Water Services Division of the Public Utilities Department. Projects have included a variety of water facilities design projects including pump station upgrades, domestic well pumping facilities, domestic water reservoir mixing improvements, reservoir and pump station condition assessments and water supply assessments.

Planning Area 2 (Esencia) Lift Station and SC-6 Flow Control Facility – Rancho Santa Margarita, CA: Principal-in-Charge for preparation of a preliminary design report and construction documents for the SC-6 Flow Control Facility. In order to serve Rancho Mission Viejo's Planning Area 2 of the The Ranch Plan, domestic water was taken from the 60" diameter South County Pipeline near Cow Camp Road and Esencia Street through a new turnout structure designated as Service Connection 6 (SC-6). Domestic water will pass through the SC-6 Flow Control Facility and reduce system pressure as well as control the amount of flow delivered to Zone I and Zone II of the District's water system. Facilities included a new masonry building housing the flow control equipment, as well as a metering vault containing 24" meter and related mechanical piping and valves. Psomas was responsible for preparing construction plans, technical specifications, bid documents and providing construction phase engineering services.

Parkview Pump Station Expansion Project – Anaheim, CA: Principal-in-Charge for design of an expansion to the Parkview Pump Station to increase the capacity from 4,500 to 9,500 gpm. Psomas' responsibilities included design report preparation, preparing contract documents, cost estimates, permit processing and bidding and construction phase services. Principal-in-Charge for preparation of preliminary design report, plans and specifications for construction of new domestic water pump station with two 200 hp vertical turbine pumps with 5,000 GPM pumping capacity, masonry block building, mechanical piping, electrical, SCADA, site improvements, propane fuel system and retaining wall.



Michael Swan, PE

Senior Project Manager: Water/Sewer Planning

Mike Swan has 47 years of experience in project engineering and management of diverse public works and public finance projects throughout Southern California. He has extensive experience in water resources master planning and design, as well as the development and implementation of financing for these and other public works projects.

REGISTRATION

1975/CA/Professional
Engineer/Civil/25737

EDUCATION

1970/BS/Civil Engineering/
University of California,
Davis

CERTIFICATIONS

Envision Sustainability
Professional/Institute for
Sustainable Infrastructure

EXPERIENCE

With Psomas for 20 years;
with other firms for 27
years

Experience

As-Needed Water Engineering Design Services – Anaheim, CA:

Project Manager for ongoing professional engineering services under as-needed contracts for the City's Water Services Division of the Public Utilities Department. Projects have included a variety of water facilities design projects including pump station upgrades, domestic well pumping facilities, domestic water reservoir mixing improvements, reservoir and pump station condition assessments and water supply assessments.

Water Master Plan and Financial Plan Update – Huntington Beach, CA: Project Manager for the 2012 Update of the City's water master plan and financial plan update. The water master plan portion included update of the hydraulic model to include extended period simulation analyses based on real-time SCADA information, update of projected future demands and peaking data, analysis of supply reliability, and development of a CIP including cost estimates. Then a financial plan was prepared including review of existing capacity charges, reserve fund requirements, rates and recommended adjustments, as appropriate.

Mountain View Park Well Drilling and Equipping – Chino, CA: Project Manager for the planning, siting and preparation of separate plans and specifications for drilling and equipping of a new groundwater well for the City of Chino. In order to provide water supply for the College Park planned community being constructed by Lennar Homes, a new well was needed. Psomas worked with City staff to analyze various sites and recommended a site in Mountain View Park. Psomas worked with various City staff departments, primarily Parks and Recreation, to use a corner of this existing park site in exchange for providing some park amenities including ball park fencing and an equipment storage building. The well is currently being drilled and the equipping plans and specifications, including pump, motor, electrical, building, landscape, and park improvement plans, are nearing completion. In conjunction with this water supply project, Psomas also designed a 2.5-mile transmission main to pipe water from this well and two others along the route to a regional water treatment facility currently under construction.

Groundwater Supply Analysis – Buena Park, CA: In conjunction with an update to the City of Buena Park's Water Master Plan, managed an analysis of exactly what would be required for the City to supply 100% of their water demand from groundwater. This analysis considered monthly demand and production capabilities and developed a phased CIP including moving forward with the development of two additional wells. Using hydrogeologic information, existing well production records, and hydraulic modeling of the City's



Michael Swan, PE (Continued)

transmission/distribution system, alternative sites were analyzed. These sites were then ranked so the City can proceed with more detailed siting studies, then potential land acquisition and/or negotiations with internal departments, such as parks and recreation, once financing is in place for the CIP.

Combined East Area Master Plan of Sanitary Sewers and Financial Implementation Plan – Anaheim, CA:

Project Manager to prepare a computer-based hydraulic model and master plan report to evaluate the sewer system within the eastern portion of the City of Anaheim, located east of SR-57 and SR-91, to identify sewer system needs for existing and build-out peak dry weather flows (PDWF). This area encompassed approximately 12,658 gross acres (20 square miles) and has an existing population totaling approximately 80,000. This analysis resulted in \$711,167 (September 2005 dollars) in recommended capital improvements necessary to correct system deficiencies in the build-out PDWF condition, including existing system improvement costs.

South Central Anaheim Sewer Study – Anaheim, CA: Project Manager for a sewer study within an approximately 1,800-acre area tributary to two major trunk sewer systems along Katella Avenue and Ball Road in the City of Anaheim. The study area encompasses some of the highest flow generating land uses in the City including the Anaheim Resort, Disneyland, the Platinum Triangle, and portions of Downtown Anaheim. Psomas identified capacity constraints within the system under build-out scenarios during modeling conducted for the Central Area Sanitary Sewer Master Plan. Alternative improvement projects were evaluated by focusing on diversion of flow to other tributary systems to free up capacity in the constrained major trunk sewers. Alternatives were evaluated based construction feasibility, planning level construction costs, and the quantity of flow diverted. The most favorable alternatives were then evaluated at the concept design level through utility research with recommended improvements ranked to maximize capacity, limit cost, and provide for continued growth with the study area.

On-Call Water System Modeling – El Monte, CA: Project Manager for updating the 2010 hydraulic model files for the City's water distribution system into InfoWater software. The model was updated based on system improvements, recent demand data, and current well data and operation to accurately depict existing conditions. The model has subsequently been used to conduct fire flow analyses for the City in conjunction with proposed development projects and to determine required system improvements to meet the City's water service criteria.

010 Sewer Master Plan Update – Yorba Linda, CA: Project Manager for the analysis of hydraulic model results for existing and build-out conditions, and to developed the CIP to correct existing system capacity deficiencies as well as provide service to future development of the District through 2030. Prepared the Sewer Master Plan report which documents the entire project work effort, including a sewer GIS audit, extensive flow monitoring, and model development and calibration for the entire sewer collection system of approximately 161 miles of pipe. Development and flow projections for future land use conditions were created, including incorporation of some existing septic system areas into the collection system.

**REGISTRATION**

2005/CA/Professional
Engineer/Civil/67448

EDUCATION

1999/BS/Civil Engineering/
California State University,
Long Beach

CERTIFICATIONS

Envision Sustainability
Professional/Institute for
Sustainable Infrastructure

EXPERIENCE

With Psomas for 3 years;
with other firms for 30
years

Nancy Baker, PE, ENV SP

Senior Project Manager: Water/Sewer Design

Nancy Baker has 33 years of civil engineering experience in the water industry. She has extensive knowledge and experience in project management and the planning and design of water and wastewater facilities including pipelines, pumping facilities, lift stations, pressure reducing stations, domestic water well equipping, and water and wastewater treatment facilities. Nancy's pipeline experience includes over 150 miles of new pipeline design and rehabilitations projects for water mains and recycled water mains ranging in diameter from 6- to 48-inches.

Experience

Cast Iron Main Replacement - Rosebay Street - Long Beach, CA:

Project Manager to provide design engineering services for this project which includes preparation of preliminary and final construction documents for the replacement of 6,150 feet of 4-, 6-, 8-, 10-, and 12-inch cast iron pipelines. The project involves replacement of pipeline appurtenances including gate valves, hydrants, air/vacuum assemblies, service meters and respective fittings. The scope of services included utility research and field reconnaissance.

Rehabilitation of Wells 41 and 43 including Hydrogeologist Design & Construction Phase Services - Anaheim, CA:

Project Manager to prepare a technical memorandum and construction bid documents for the rehabilitation of Well 41 and Well 43. These wells are over 30 years old and are currently out of service due to reduced specific capacity as a result of biofilm growth on the well screens. In conjunction with the hydrogeologist, well data for the two wells was analyzed (caliper and gyroscopic surveys, driller's logs, video logs, water quality data, etc.) and a technical memorandum prepared with recommendations for rehabilitation, including cleaning and installation of a full casing liner. Bid documents were prepared for Well 43, including construction plans and technical specifications. Well 41 rehabilitation was postponed until a later date until new California standards are established for PFOS and PFOA chemicals found in groundwater.

Coto de Caza Life Station Emergency Storage Basin - Coto de Caza, CA:

Project Manager/Engineer for preparation of a preliminary design study, final design, contract bid documents, and engineering services during construction for the construction of an ESB at the existing Coto de Caza Lift Station. The 45-foot x 38-foot x 25-foot deep cast-in-place reinforced concrete basin is designed to contain sewer overflows from the lift station during emergency events. Project includes coordination of an existing SDG&E power supply line relocation, site improvements to allow tanker truck access to the ESB, including relocation of entrance gate and site walls/fences, and design of overflow and drain pipelines. The ESB is designed to contain three hours of the lift station's average daily flow within three interior chambers. The sewage is transferred among the chambers by two 10 HP submersible pumps and a series of sluice gates. The design includes electrical and instrumentation improvements to monitor and control the ESB chamber levels.



Nancy Baker,
PE, ENV SP
(Continued)

Flow Meter in ROV 253 – Anaheim, CA: Project Manager for a preliminary design report (PDR) and design documents for construction of a new flow meter on an existing 36-inch cement mortar lined and coated steel transmission main located near ROV (remote operated valve) 253 located in Santa Ana Canyon Road at the intersection of Mohler Drive. The project includes determination of the optimum design to measure the flow by either an insertion type flowmeter located in an new concrete utility vault or installation of a new magnetic type flowmeter in the existing Vault M-68. Both alternative requires instrumentation, power, SCADA and remote monitoring controls and integration with the Water Division SCADA system.

Engineering Design Services for Drilling Two New Wells (Wells 60 and 61) – Anaheim, CA: Project Manager to provide hydrogeological evaluation, design, and resident hydrogeology for two new wells. These two wells are part of Anaheim's PFAS Groundwater Treatment Plants (GWTP) project that is constructing centralized and wellhead treatment plants to make up for lost groundwater production due to the presence of PFAS chemicals. The key objectives of this project included review existing studies, reports, logs, and plans and provide recommendations on layouts, materials, and equipment required for the well development. Preparation of construction documents that include drawings and cost estimates, and develop pertinent well construction technical specifications. Assisting in acquiring permits. Providing services during bidding through award and hydrogeological support during construction. The two wells are currently under construction and the project is on track to meet the highly accelerated construction schedule.

Miscellaneous Water Vault Rehabilitation, Replacement, and/or Abandonment Project, M-2, M-3, M-8, M-10, M-25, M-26, M-33, M-49, M-55, M-68, and M-94 – Anaheim, CA: Project Manager/Project Engineer for design engineering and engineering services during construction to rehabilitate, replace, and/or abandon 11 water vaults located throughout the City of Anaheim. Project included replacement of butterfly, plug, and gate valves ranging in size from 20 to 36 inches. Replacements included replacement of valves within the existing vaults and direct burial of three 36-inch flanged butterfly valves and appurtenances. A preliminary design report/memorandum was prepared to document the results of a conditional assessment for each of the vaults. Preliminary and final construction documents were prepared based on the preliminary design report.

Rehabilitation of Wells 41 and 43 – Anaheim, CA: Project Engineer to prepare a technical memorandum and construction bid documents for the rehabilitation of Well 41 and Well 43. These wells are over 30 years old and are currently out of service due to reduced specific capacity as a result of biofilm growth on the well screens. In conjunction with our hydrogeologist (Richard Slade and Associates), well data for the two wells was analyzed (caliper and gyroscopic surveys, driller's logs, video logs, water quality data, etc.) and a technical memorandum prepared with recommendations for rehabilitation, including cleaning and installation of a full casing liner. Bid documents were prepared for Well 43, including construction plans and technical specifications. Well 41 rehabilitation was postponed until a later date until new California standards are established for PFOS and PFOA chemicals found in groundwater.



Kimberly Alexander, PE

Senior Project Engineer: Hydraulic Modeling

Kimberly Alexander's 28 years of experience includes hydrologic and hydraulic modeling and analysis, water resources management, facilities master plans, groundwater modeling, and contaminant transport modeling. She has developed methods for comparing various management alternatives by combining mathematical modeling and optimization programming and taking into account financial incentive programs and political constraints.

REGISTRATION

1997/CA/Professional
Engineer/Civil/57087

EDUCATION

1994/MS/Water Resources
& Environmental
Engineering/University of
California, Irvine
1992/BS/Civil Engineering/
University of California,
Irvine

EXPERIENCE

With Psomas for 26 years;
with other firms for 2 years

Experience

On-Call Water System Modeling – El Monte, CA: Project Engineer for updating the 2010 hydraulic model files for the City's water distribution system into InfoWater software. The model was updated based on system improvements, recent demand data, and current well data and operation to accurately depict existing conditions. The model has subsequently been used to conduct fire flow analyses for the City in conjunction with proposed development projects and to determine required system improvements to meet the City's water service criteria.

As-Needed Water Engineering Design Services – Anaheim, CA: Project Engineer for ongoing professional engineering services under as-needed contracts for the City's Water Services Division of the Public Utilities Department. Projects have included a variety of water facilities design projects including pump station upgrades, domestic well pumping facilities, domestic water reservoir mixing improvements, reservoir and pump station condition assessments and water supply assessments.

Water Master Plan Studies – Brea, CA: Project Engineer for the preparation of an update to the existing Water Master Plan for the City of Brea and its sphere of influence. Responsible for the analysis of the entire system using a 4000 pipe H2ONET computer model. Evaluated various water supply scenarios, system storage and replenishment, proposed new developments within the service area, fire flow throughout the system, and related deficiencies and recommended improvements.

Mission Creek and Garnet Hill Sub-Basins Groundwater Modeling – Coachella Valley, CA: Project Engineer for preparing a groundwater model to evaluate various alternatives that will be developed as part of the Water Management Plan for the Mission Creek and Garnet Hill sub-basins in the Coachella Valley. The objective of the modeling effort was to support management decisions on a regional basis. The modeling effort using MODFLOW was intended to identify general trends in the groundwater system and potential effects from various water management alternatives that will be developed as part of the Water Management Planning process.

Disneyland Park Potable Water System Study – Phase 1 – Anaheim, CA: Project Engineer for the development of a hydraulic model of the Disneyland Park potable water distribution system. This InfoWater model was developed to evaluate the capacity of the system to meet demands for both existing



Kimberly
Alexander, PE
(Continued)

conditions and future conditions including Galaxy's Edge. As a first step, water utility drawings provided by resort staff were converted into GIS, which includes a database of all system components identified in the utility drawings. Average and peak water use was developed based on inflow data through three service connections to the City of Anaheim water system, a water utility fixture inventory by collected by Resort staff utilizing a Psomas developed ESRI application for field collection and ArcGIS online, and discussion with resort staff on non-domestic uses including washdown, irrigation, and makeup water to attractions and equipment. The model was calibrated to hydrant flow tests performed throughout the park and SCADA data at the three water service connections. Priority improvements were identified to provide increased flow capacity to move water between all three connections and improve water pressure within the park. Improvements were also identified related to a proposed project within the park to increase fire flow. Recommendations were made for future work to refine the model through additional data collection and analysis.

Arbor Street and Locust Avenue Sewer Improvement (SC-0373) – Long Beach, CA: Project Engineer for preparation of a sewer study for an area with approximately 15,000 LF of sewer mains with much of the system constructed in the 1930s and 1940s. Sewers in the study area present many challenging issues including portions with capacity constraints, sags, a siphon under a storm channel, a crossing under a railroad, and sewers running under backyards and a mobile home park. A hydraulic model was prepared in InfoSewer using the City's sewer GIS and available as-builts. Flow monitoring was conducted, and the model was calibrated to both dry and wet weather flow conditions. The calibrated model was used to develop potential improvements that would upsize, divert, and/or realign facilities to alleviate capacity issues identified for peak dry and wet weather flow. Utility research and sewer manhole surveys were conducted to determine feasible alternatives and recommendations for capital improvements. A preliminary design report documented the entire study with recommended capital improvements.

City of Pomona Well 36 Pumping Equipment & Transmission Main – Pomona, CA: Project Engineer for construction management services for a water transmission main pipeline which connects two existing wells (Well Nos. 21 and 24), as well as a new well (Well No. 36) to the City's Anion Exchange Plant (AEP). The pipeline is sized to accommodate a future fourth well (Well No. 38). Psomas designed the pump and wellhead equipment for Well No. 36.

2020 Sewer Master Plan Update – , CA: Project Engineer for preparation of Yorba Linda Water District's (YLWD) 2020 Sewer Master Plan. YLWD nearly doubled its sewer service area since the previous master plan, taking over the eastern portion of the sewer system that was previously under the control of the City of Yorba Linda. The InfoSewer model was updated and expanded for the entire service area of approximately 9,000 acres using the District's sewer GIS. The update involves extensive sewer flow monitoring for model calibration and determining sewer loading factors by land use type. Build-out land use projections are being used to analyze ultimate conditions. Adding existing septic systems to the sewer collection system is also being evaluated. Existing and build-out model scenarios will be used to develop a capital improvement program for the District along with a complete documentation of the sewer master plan update. This master plan will update the 2010 Sewer Master Plan prepared by Psomas teamed with IDModeling.



Krista Kausen, PE, ENV SP

Project Engineer: Water

Krista Kausen has 11 years of engineering experience in the water and wastewater industry involving design and construction of pump stations, wells, pipelines, and treatment plants. Her background includes environmental analysis, hydrology, hydraulics, water quality and treatment, and construction support services. She also has on-site field and inspection experience for various projects in Orange and Los Angeles counties.

REGISTRATION

2015/CA/Professional
Engineer/Civil/84217

EDUCATION

2011/BS/Civil Engineering/
University of California,
Irvine

CERTIFICATIONS

Envision Sustainability
Professional/Institute for
Sustainable Infrastructure

EXPERIENCE

With Psomas for 7 years;
with other firms for 4 years

Experience

Rehabilitation of City Well 29 – Santa Ana, CA: Project Engineer for preparation of construction plans and technical specifications for rehabilitation of the City's existing Well 29; the relocation of an existing tennis court; and construction of a cement masonry unit (CMU) building, pertinent related site improvements, and water pumping equipment. In addition to the well pump and redesigned discharge piping, the building will house the electrical switch board and the pump motor control center.

Construction of Well No. 59 and Destruction of Well No. 36 – Anaheim, CA: Project Engineer for preparation of preliminary design report, plans, and specifications for a new 3,000 GPM, 350 hp vertical turbine deep well pump equipment, including vertical turbine pump; mechanical piping; bypass valve and air gap connection to storm drain; 800-AMP electrical service; 810 SF masonry parapet building with roll-away end for well; bulk sodium hypochlorite feed system; HVAC; plumbing; and masonry fencing.

La Palma Complex Reservoir Rehabilitation and Pump Station Replacement – Anaheim, CA: Project Engineer for providing construction phase engineering for replacement of a 60-year-old pump station and reservoir facilities in central Anaheim. The project included design of a new aluminum roof, hopper bottom tank retrofit in the footprint of an existing 4 MG reservoir which resulted in savings to the City of approximately \$2 million over conventional concrete or steel alternatives. Scope of services included demolition of a 3 MG reservoir and complete replacement of the existing pump station with a new 10,000 GPM pump station.

Miscellaneous Vaults and PR Station CIP Project Condition Assessment – Anaheim, CA: Project Engineer to provide engineering consulting services to perform a condition assessment to rehabilitate and upgrade 14 of their water system vaults and pressure regulating (PR) stations. The project included preparation of the scope of work for the first year's design-build request for proposal (RFP) package. The condition assessment included review of existing record drawings, comments from APUW engineering and operations staff, and visual assessment of the vault structure, internal piping and equipment to determine the extent of any required upgrades or replacements. Workshops were held with APUW, to discuss the initial findings of the assessment and determine a risk category of high, medium or low based on operational criticality for each vault. Rough order of magnitude level construction cost



Krista Kausen,
PE, ENV SP
(Continued)

estimates were developed for the agreed upon improvements for each facility and the projects were phased over a five-year period.

Rosecrans Booster Pump Station Replacement Project – Buena Park, CA:

Project Engineer for this project, which involved construction of a new pump station at the site of the existing Rosecrans Booster Pump Station in order to serve residents and properties in the upper zones of the Buena Park potable water system. Original pumping capacity was less than 3,500 gallons per minute (gpm), which did not meet peak-hour (3,531 gpm) or maximum-day-plus-fire (5,395 gpm) demands. The newly constructed 1,949-square-foot pump station building includes four separate rooms: pump room, electrical room, generator room, and disinfection room. The project also required grading for vehicle turnaround space, installation of a detention basin, and a surge tank pad.

Keith Reservoir – Corona, CA: Project Engineer for preparation of onsite pipelines, valves and mechanical design for a proposed 2.5 MG prestressed concrete reservoir. Design included 16-inch inlet/outlet piping, valve vault, reservoir mixing system, 16-inch overflow pipe and 12-inch drain line. Scope of services included preliminary design report, construction plans, specifications and bidding and construction phase engineering.

Laguna Sewer Lift Station Rehabilitation – Laguna Beach, CA: Project Engineer for preparation of construction plans and specifications for rehabilitation of the Laguna SOCWA sewer pump station and other improvements. The existing wet well was in a deteriorated condition and required rehabilitation of all interior concrete surfaces and installation of a new PVC liner. Various improvements included sewage bypass plans, site improvements, odor control system, mechanical piping and valve replacements, manholes and sewer pipelines.

Hidden Hills Booster Pump Station Final Design – Yorba Linda, CA: Project Engineer for preparation of construction plans and specifications for the Hidden Hills Booster Pump Station Improvements project for Yorba Linda Water District. The project includes the replacement of a small 250-gpm jockey pump, motor, and appurtenances with an 1,800-gpm VFD pump, modifications to existing pump station building including the addition of new electrical room and new roof, and the design of on-site emergency standby Natural Gas engine-generator system.

Coto de Caza Life Station Emergency Storage Basin – Coto de Caza, CA:

Project Engineer for preparation of a preliminary design study, final design, contract bid documents, and engineering services during construction for the construction of an ESB at the existing Coto de Caza Lift Station. The 45-foot x 38-foot x 25-foot deep cast-in-place reinforced concrete basin is designed to contain sewer overflows from the lift station during emergency events. Project includes coordination of an existing SDG&E power supply line relocation, site improvements to allow tanker truck access to the ESB, including relocation of entrance gate and site walls/fences, and design of overflow and drain pipelines. The ESB is designed to contain three hours of the lift station's average daily flow within three interior chambers. The sewage is transferred among the chambers by two 10 HP submersible pumps and a series of sluice gates. The design includes electrical and instrumentation improvements to monitor and control the ESB chamber levels.

**REGISTRATION**

2017/CA/Professional Engineer/
Civil/87555

EDUCATION

2014/BS/Civil Engineering/
University of California, Irvine

CERTIFICATIONS

Envision Sustainability
Professional/Institute for
Sustainable Infrastructure

Manhole Assessment
Certification
Program/#U-1115-07002009/
NASSCO/U-1115-07002009

Pipeline Assessment Certification
Program/#U-1115-07002009/
NASSCO/U-1115-07002009

EXPERIENCE

With Psomas for 8 years

Benjamin Halbach, PE, ENV SP

Project Engineer: Sewer

Benjamin Halbach has eight years of experience in design of water and sewer systems and facilities, including design of new pipelines, pipeline and manhole assessment and rehabilitation, transmission valve replacements, pump stations, and groundwater production wells. His experience includes involvement in all phases of client deliverable creation, including comprehensive plan development in AutoCAD Civil 3D, specification writing, and detailed cost estimates. Ben's design experience also includes site layout plans and rough grading. Benjamin has worked on projects for a variety of clients throughout southern California, including Liberty Utilities, UC Irvine, Irvine Ranch Water District, Elsinore Valley Municipal Water District, Long Beach Water Department, and the cities of Anaheim, Hermosa Beach, and Newport Beach.

Experience

Orange County Streetcar Project – Santa Ana, CA: Project Engineer for the design of the water system facility relocations and installations in support of a four-mile light rail project in the City of Santa Ana.

Engineering Design Services for Drilling Two New Wells (Wells 60 and 61) – Anaheim, CA: Project Engineer to provide hydrogeological evaluation, design, and resident hydrogeology for two new wells, Wells 60 and 61. These two wells are part of Anaheim's PFAS Groundwater Treatment Plants (GWTP) project that is constructing centralized and wellhead treatment plants to make up for lost groundwater production due to the presence of PFAS chemicals. The key objectives of this project included review existing studies, reports, logs, and plans and provide recommendations on layouts, materials, and equipment required for the well development. Preparation of construction documents that include drawings and cost estimates, and develop pertinent well construction technical specifications. Assisting in acquiring permits.

Construction of Well No. 59 and Destruction of Well No. 36 – Anaheim, CA: Design Engineer for preparation of preliminary design report, plans, and specifications for a new 3,000 GPM, 350 hp vertical turbine deep well pump equipment, including vertical turbine pump; mechanical piping; bypass valve and air gap connection to storm drain; 800-AMP electrical service; 810 SF masonry parapet building with roll-away end for well; bulk sodium hypochlorite feed system; HVAC; plumbing; and masonry fencing.

As-Needed Engineering Services for the Long Beach Water Department – Long Beach, CA: Project Engineer for ongoing professional engineering services for numerous water and sewer design plans and contract documents for Long Beach Water Department. Projects include replacement of more than 55,000 LF of 4- to 12-inch water mains, sewer rehabilitation and replacements, large diameter (30- to 48-inch) valve replacements, and replacement of chemical storage tanks at the LBWD Groundwater Treatment Plant.

South Long Beach Sewer Improvement Project – Long Beach, CA: Project Engineer for this project for 74 sanitary sewer pipelines (20,700 feet)



Benjamin Halbach,
PE, ENV SP
(Continued)

within the South Long Beach service area that were assessed and recommended for replacement or rehabilitation. Psomas reviewed the CCTV and inspection reports for all 74 segments, evaluated the inspection logs and videos. Based upon the review, a matrix with recommendations for each segment was developed and reviewed with LBWD to determine the selected design approach. The final design plans resulted in 59 segments (or about 17,000 LF) to be lined (CIPP), 200 feet to be removed and replaced from manhole to manhole, 23 segments (or 237 lineal feet) of point repair/pipe replacement and 24 segments (or 106 lineal feet) of segment lining.

West Street/Candy Lane Water Improvements – Garden Grove, CA: Staff Engineer for preparation of plans and specifications for approximately 8,600 LF of 8- and 12-inch domestic water pipeline replacement. Project included permitting and coordination with Caltrans and Union Pacific Railroad.

Hermes Street, Water Pipeline Replacement, Golden State Water Company– Los Angeles County, CA: Staff Engineer for the Hermes Street project which is located in GSWC's Norwalk System and includes design of approximately 4,800 feet of 8-inch ductile iron pipe. The existing 4- and 6-inch cast iron mains are currently in the backyards of homes and this project is relocating the water mains to the street right-of-way for better maintenance. The project area consists of five residential streets, including Hermes Street, Achilles Street, Kalnor Avenue, Kenney Street and Lakeland Road.

Gardena Boulevard Area Main Replacements, Phases I, II and III – Gardena and Los Angeles, CA: Staff Engineer for preparation of plans and specifications for approximately 8,600 LF of 8- and 12-inch domestic water pipeline replacement. Project included permitting and coordination with Caltrans and Union Pacific Railroad.

Cerritos Avenue from Euclid Street to Alley East of 9th Street Sewer Siphon Removal – Anaheim, CA: Staff Engineer for this project that involved analyzing the City's sewer system to determine the feasibility of the removal of two existing sewer siphons. The first siphon crossed the Orange County Public Works channel, which is a double 8-foot-wide by 8-foot-high reinforced concrete box in the intersection of Cerritos Avenue and 9th Street. The second siphon was also near this intersection and crossed an existing 48-inch storm drain pipe. The project included the replacement of 500 feet of existing sewers in the alley east of 9th Street as part of the recommendations of the Combined Central Anaheim Area Master Plan of Sanitary Sewers prepared in September 2006. In addition, a hydraulic modeling analysis of potential alternative alignments and flow routing scenarios was performed, along with the preparation of a preliminary design report, design review workshop, and preparation of construction plans and specifications.

Well 12C Design – Compton, CA: Design Engineer for designing a wellhead building including a pump room with space for required electrical and instrumentation equipment, and water disinfection equipment room with on-site chlorine generation equipment and a water treatment equipment room with fluoridation and ammonia systems. Plan sheets addressed civil site-work components including grading, fencing, on-site piping, valves, meters, and other mechanical equipment including the well pump, structural, plumbing, disinfection, electrical, instrumentation, landscape architectural and irrigation elements. The project also included preparation of a geotechnical report and a site boundary and design survey. Psomas prepared almost a thousand pages of technical specifications.



David Moritz, PLS

Survey Lead

Dave Moritz has 31 years of experience in the survey industry, specializing in right-of-way engineering, utility mapping and large scale infrastructure projects. He has spent a large portion of his career working in client offices to provide program management, project management and staff augmentation services. He has developed survey programs that support large right-of-way acquisition and subsurface utility engineering (SUE) projects.

As leader of the Orange County survey team, he is responsible for project planning and coordinating work among in-house staff, clients and subconsultants. He serves as client liaison, attends coordination and kickoff meetings, and is the primary contact person on various contracts. Dave is also involved in the coordination and oversight of work among clients, title companies, project surveyors and CAD staff, as well as in-house civil engineers. Dave has worked in Los Angeles, Orange, Riverside, San Bernardino, Imperial, Santa Barbara, San Luis Obispo, Ventura, and Kern counties.

REGISTRATION

1997/CA/Professional Land Surveyor/7388

EDUCATION

1993/BS/Civil Engineering/
California State Polytechnic
University, Pomona

EXPERIENCE

With Psomas for 28 years;
with other firms for 3 years

Experience

Metropolitan Water District - Inland Feeder Riverside Pipeline South

– **Riverside County, CA:** Survey Manager for construction surveying services for the Eastside Reservoir project consisting of approximately 7 miles of 145 1/2-inch diameter steel pipeline and concrete transition structure to and from the San Diego Canal. Work also included the demolition of two stilling wells and the construction of one new one, review of construction drawings, primary and secondary horizontal and vertical control based on the state plane coordinate system, right-of-way layout, pipeline layout at grade and in the trench and as-built drawings where required.

Citywide Sanitary Sewer System Repair and Rehabilitation Program –

Anaheim, CA: Survey Technician to provide sewer repair and rehabilitation project services for the City. Sixty-one (61) sewer segments were included in this phase and services included evaluating the conditions using GIS atlas map sheets and adding utility information, recommending rehabilitation methods, and designing and providing construction support for the projects under this phase of the program.

Chemical Terminal Monitoring Wells Survey – Carson, CA: Project Manager for surveying over 1,500 wells, borings, and other monitoring devices at the 450-acre terminal, as well as the surrounding areas where off-site monitoring wells were installed.

Questar Pipeline 29 Palms to Essex – Riverside and San Bernardino

Counties, CA: Project Manager for survey services including survey control, right-of-way support, pre-construction staking and right-of-way layout, pipeline repair and valve replacement as-built surveys, north and south connector as-built surveys, preparation of record as-built drawings of the 115 mile alignment, in support of a 115 mile, 16-inch pipeline repair project across portions of San Bernardino and Riverside counties.



David Moritz, PLS
(Continued)

Sullivan Canyon Survey - SoCalGas Lines 407 and 3003 – Los Angeles, CA: Project Manager for the following civil engineering and surveying services: design roadway grading and hillside drainage/inlet repairs, develop erosion control mitigation measures along roadway, process local agency permits with regulatory agencies, performed control surveys, boundary and right-of-way surveys, topographic and design surveys, aerial mapping (digital orthophotography and traditional photogrammetric mapping), designation of staging areas and pipeline dig locations, construction support, construction staking; and DFG and RWQCB environmental impact area calculations.

Line 1600, 1601, 2010 and 3011 Retrofit Project – San Diego County, CA: Survey Manager for surveying and mapping services for this 60+ mile pipeline retrofit project to prepare pipelines for pigging operations. Project required valve replacements, design surveys, pressure limiting stations, and interconnect pipelines tying into existing Company lines. Responsible for control surveys; design surveys; topographic surveys; locating and marking property lines, rights-of-way, easements and pipeline features; preparing legal descriptions; creating design background to be used by SDG&E design engineers for additional in-house design work; as-built surveys; preparation of completion drawings; pressure regulating station staking; environmental survey impact limit staking; and pipeline detection and alignment surveys.

PSEP Hydrotest Pipeline Inspection Survey/GIS Alignment Sheet Generation – Blythe to Los Angeles, CA: Survey Manager for survey/GIS services on this 250-mile pipeline with approximately 20 miles classified as Category 4 segments including coordinating and providing field surveying for topographic mapping and high/low point elevation locations, boundary and right-of-way mapping, subsurface utility research and mapping. Performed collection of ILI pipeline inspection data, field survey data, and gas company asset data to produce alignment sheets for transmission pipeline extending from Arizona to Los Angeles. The sheets were mapped for hydro test sections along the route.

North-South, 63-Mile, 36-Inch-Diameter Pipeline – Riverside, CA: Survey Manager for survey, engineering, and project management services to Southern California Gas Company for the North-South Pipeline project which includes a 63-mile, 36-inch natural gas pipeline from Adelanto to Moreno Valley. The North-South Pipeline project progressed in phases that included creation of environmental base maps, plan and profile base maps, permit drawings, detail (IFB) drawings and construction drawings. Survey Manager providing surveying and mapping services in support of preparing Environmental Base Mapping, Plan/Profile Base Drawings, geotechnical, pothole and other special design survey support. Just recently, the Psomas team under Dave's leadership finalized the Environmental Base Mapping phase of the project both on time and under budget. His team has begun the next phase of the project to support the design and base mapping efforts.



Jennifer Marks

Environmental Compliance

Jennifer Marks is a senior project manager with over 23 years of experience in environmental documentation and analysis consistent with CEQA and NEPA. Jennifer's career has focused on a wide variety of projects, including specific plan and general plan analyses; transportation infrastructure; public works assignments related to water resources; and various utility infrastructure projects. She has also performed environmental consulting services for mixed-use, residential, office, higher education, and resort developments. She has managed multiple water and wastewater infrastructure projects, including projects for the Santa Margarita Water District; Irvine Ranch Water District; City of Anaheim Public Utilities Department for water projects and Public Works Department for sewer projects; and the Water Replenishment District of Southern California. She has also prepared environmental documentation and supplemental information to meet specific agency requirements, including those for the following agencies: Caltrans; State Water Resources Control Board; U.S. Bureau of Reclamation; U.S. Environmental Protection Agency; USACE; USFWS; CDFW; various local planning and development departments; and private developers.

EDUCATION

1999/BS/Natural Resources, Planning and Interpretation/Humboldt State University

EXPERIENCE

With Psomas for 22 years; with other firms for 1 year

Experience

Groundwater Treatment Plants Phase B and Groundwater Supply Wells Initial Study/Mitigated Negative Declaration (IS/MND) and CEQA-Plus Documentation – Anaheim, CA:

Project Manager for the preparation of an IS/MND and supplemental CEQA-Plus Documentation for the installation of ion-exchange groundwater treatment systems at the five locations in the City of Anaheim. The ion-exchange systems are intended to remove perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) from groundwater. Two new groundwater supply wells would be installed at one location and additional wells would be rehabilitated due to age. Psomas prepared a mitigated negative declaration for this project and completed additional technical studies to comply with CEQA-Plus guidelines pursuant to the Clean Water State Revolving Fund requirements.

La Palma Complex Reservoir Rehabilitation and Pump Station Replacement – Anaheim, CA:

Task Manager for providing construction phase engineering for replacement of a 60-year-old pump station and reservoir facilities in central Anaheim. The project included design of a new aluminum roof, hopper bottom tank retrofit in the footprint of an existing 4 MG reservoir which resulted in savings to the City of approximately \$2 million over conventional concrete or steel alternatives. Scope of services included demolition of a 3 MG reservoir and complete replacement of the existing pump station with a new 10,000 GPM pump station. Jennifer served as the Environmental Task Manager and assisted the City with preparation of the Aesthetics, Air Quality, Greenhouse Gas Emissions, and Noise Analyses for the IS/MND.

Irvine Lake Pipeline Conversion Project IS/MND – Orange County, CA: Project Manager for preparation of environmental documentation for



Jennifer Marks (Continued)

conversion of the northern segment of the Irvine Lake Pipeline from an untreated water pipeline to a recycled water pipeline for the Irvine Ranch Water District. The project involves construction of a new recycled water storage tank, installation of recycled water pipelines, and conversion of existing domestic water facilities to accommodate the recycled water supply. Psomas prepared a mitigated negative declaration for this project and completed additional technical studies to comply with CEQA-Plus guidelines pursuant to the Clean Water State Revolving Fund requirements. This project represents the first task order associated with Psomas' On-Call CEQA and NEPA Consultation Services agreement with IRWD.

Chiquita Water Reclamation Plant Expansion IS/MND – Orange County, CA:

Project Manager for the IS/MND for this Santa Margarita Water District project, which proposes the upgrade and expansion of the Chiquita Water Reclamation Plant (CWRP) to provide preliminary, primary, secondary, and tertiary wastewater treatment as well as the construction of a biosolids reduction system. The solids handling systems, biogas handling systems, odor control, and other ancillary mechanical, electrical, and instrumentation systems would be upgraded and expanded as part of the project to serve the projected future flows and loadings at the CWRP. Jennifer was the primary author of the IS/MND. She worked closely with both the Santa Margarita Water District and a third party group involved with the biosolids reduction system to complete the IS/MND within a compressed time frame.

Wellhead Treatment Facility Constraints Analysis and IS/MND (Well 56) –

Perris, CA: Project Manager for an Eastern Municipal Water District IS/MND and related technical analyses to evaluate the impacts of the construction of a wellhead treatment facility for the purpose of removal of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). A constraints analysis was prepared to evaluate several potential locations for the proposed wellhead treatment facilities. The site options were reduced to five feasible alternatives and Psomas prepared the CEQA documentation to fully evaluate each alternative.

Murrieta Road Transmission Pipeline Project IS/MND – Menifee, CA:

Project Manager, Archaeologist for the Eastern Municipal Water District IS/MND to construct and operate a 36- to 42-inch-diameter water transmission line from the Perris II Desalter Complex (Desalter) in the City of Menifee approximately 1.33 miles south, mostly in the Murrieta Road right-of-way, to La Piedra Road, where the proposed pipeline will connect to an existing 36-inch-diameter water main in La Piedra Road about 250 feet east of its intersection with Murrieta Road. Jennifer worked closely with the District to ensure that all concerns from the California Department of Fish and Wildlife were addressed. Jennifer also coordinated key biological and cultural survey efforts, including an on-site meeting with interested Tribal Representatives.

Rosecrans Booster Pump Station Replacement IS/MND – Buena Park,

CA: Environmental Project Manager for preparation of an IS/MND involving construction of a new pump station at the site of the existing Rosecrans Booster Pump Station in order to serve residents and properties in the upper zones of the Buena Park potable water system. Current pumping capacity is less than 3,500 GPM, which does not meet peak-hour (3,531 GPM) or maximum-day-plus-fire (5,395 GPM) demands. Jennifer coordinated closely with the City following public comment regarding use of the site as a former shooting range. Jennifer managed preparation of a Phase I Environmental Analysis was performed to rule out potential hazards associated with buried bullet casings.



Reuben Tolentino, CCM, DBIA, ENV SP

Construction Manager

Reuben Tolentino has 23 years of experience in providing construction management and inspection services. His experience includes management of staff and consultants, project management, construction management and inspection, constructability review, value engineering, construction documents and specifications, claim dispute resolution, contract administration, community outreach, bidding assistance, project controls, and scheduling review for both the public and private sectors.

Reuben's projects include federal, state, and privately funded projects from small tenant improvements to large construction programs. His vertical construction management experience consists of office buildings, police stations, correctional facilities, fire stations, 911 call centers, city hall renovations, community centers, airport facilities, theme parks, retail developments, libraries, holding tanks, and residential projects. Reuben has also provided these services for horizontal projects including infrastructure, roadway construction, traffic signals, landscaping, pavement rehabilitation, and spill containment projects.

Experience

Linda Vista Reservoir and Pump Stations – Anaheim, CA: Principal-in-Charge providing construction management for this critical domestic water storage and pumping facility that includes a 4 MG partially buried water storage tank and a 22,600 GPM, dual zone booster pumping station. The City selected Psomas to prepare the design and provide construction management services to replace the aging reservoir with a new 4 MG prestressed, partially buried concrete tank and pump station improvements. The existing pump station drew water from wet wells floating off the existing reservoir with water surface elevations ranging from near ground surface to 10 feet below grade. The new tank is mostly above ground, raising the tank overflow elevation to 30 feet above ground.

As-Needed Engineering Services – Coronado, CA: Construction Contract Manager responsible for managing professional services scope, schedule, budget, quality and resources for various construction management and inspection task orders on public works projects. Projects included pump stations, stormwater infiltration, storm drains, streets, curbs and gutters.

Westhaven Booster Pump Station – Garden Grove, CA: Project Manager on this \$2 million project that involved replacing existing booster pumps and gas engines with electric motors, while maintaining the current pump station discharge capacity, and replacing the existing well pump engine with an electric motor. The conversion of the station from natural gas to electric power necessitated the addition of a new concrete masonry unit building next to the existing pump station to house a permanent emergency engine generator as well as the electrical panels and switchgear. The project included a variety

EDUCATION

1997/BArch/Architecture/
California State Polytechnic
University, Pomona

CERTIFICATIONS

Certified Construction
Manager/Construction
Management Association
of America/2594

Envision Sustainability
Professional/Institute for
Sustainable Infrastructure

Designated Design-Build
Professional/Design-Build
Institute of America

EXPERIENCE

With Psomas for 16 years;
with other firms for 7 years



Reuben Tolentino,
CCM, DBIA, ENV
SP (Continued)

of vaults, conduits, piping, valves, flow meters, controls, and instrumentation replacement and repair items to update the facilities and repair deficiencies.

Headworks Improvements at Water Reclamation Plant 4 and Water Reclamation Plant 7 – Thermal and Indio, CA: Principal-in-Charge for this \$29 million wastewater treatment plant project for Coachella Valley Water District (CVWD). The work included similar headworks improvements at both Water Reclamation Plant (WRP) 4 and WRP 7. The physical construction at each site included: underground piping modifications; large buried structural concrete influent headworks facility with two influent fine screens, screening conveyor, screening compactors, and screening storage and disposal facility; influent pump station complete with three variable-speed raw sewage pumps; new grit removal facility building, which houses a grit removal system and bypass, grit pumping system, grit cyclone and grit classifier, and grit storage and disposal facility; new bio-tower facility for the removal of odors; and associated site improvements at both locations. Additionally, the WRP 7 project included street widening of portions of Avenue 38 and Madison Street, with street frontage improvements, including new landscaping, sidewalks, and block walls for visual screening.

Rehabilitation of West Garden Grove Well 22/Booster Pump Facility – Garden Grove, CA: Principal-in-Charge for this \$3.2 million project. The project consisted of the removal of the existing and installation of new natural gas engines, vertical turbine pumps, right angle drive, LPG system, pump discharge and piping, and other associated equipment. Also, included was the retrofit and improvement of the existing roof system, pump station floor drain system, sump pump and vault structure, and the Murphy control panel. This project also included PLC and SCADA programming and integration services and miscellaneous electrical wiring. The project also entailed removing the existing insertion venturi meter and installation of new magnetic flow meter in the existing meter vault, removal of existing and installation of new roof hatch and exterior double doors, and painting and finishing of existing and new building improvements.

Unilever HPC Engineering Support Services – Los Angeles, CA: Construction Manager for the installation of two 10,000 gallon pre-cast concrete holding tanks and a custom catch basin with pumps and controls for secondary spill containment of this personal care soap manufacturer's raw product tanks. The tank installation required permanent shoring and confined space entry procedures. The project also included rehabilitation of failed paving in front of the company's loading docks. All work was performed while the plant remained in operation. Responsibilities included reviewing submittals, construction observation and inspection, tracking and responding to contractor RFIs, change order negotiations, schedule review, and project close-out.

California American Water Company On-Call Inspection Services – Statewide, CA: Principal-in-Charge responsible for providing inspection services for various water infrastructure improvements and rehabilitation projects throughout the Monterey area. Work included waterline replacement, trench excavation, bedding, backfill, asphalt base, paving, striping, pressure testing, disinfection, and other related tasks. Projects included Seaside North Small Mains Replacement, Hillby Tie-In, Hidden Hills Small Mains Replacement, Aguajito Water Main Replacement, Folsom Booster Pump Station, Fairgrounds Bridge Pipeline, General Jim Moore School Pipeline, and the Toro Water Plant.



Misha Troyan, PE, QSD

Resident Engineer

Misha Troyan is a senior project manager at Psomas with 23 years of experience. He is responsible for the procurement and execution of project/construction management professional services contracts in the San Diego region within the transportation, water/wastewater, infrastructure, and public works markets. Experienced in public works construction management, organizational management, and contract administration for various project delivery methods including CM/GC, design-build, and design-bid-build.

REGISTRATION

2004/CA/Professional
Engineer/Civil/66019

EDUCATION

1999/BS/Civil Engineering
and Environmental
Engineering/University of
California, Berkeley

CERTIFICATIONS

Qualified SWPPP
Developer/California
Stormwater Quality
Association/23566

EXPERIENCE

With Psomas for 3 years;
with other firms for 20
years

Experience

Construction Management As-Needed Support Services, San Diego County Water Authority – San Diego, CA:

Project Manager/Task Order Manager responsible for managing professional services scope, schedule, budget and resources for various public works project task orders. Services included construction management, resident engineering, constructability reviews, quality assurance inspection, estimating and document control.

PCCP Relining Aqueduct Protection Program, San Diego County Water Authority, Various Projects within the County – San Diego, CA:

Served as Resident Engineer or Construction Manager managing scope, budget, schedule and quality for multiple large-diameter pipeline rehabilitation projects. Tasks included monitoring and evaluating schedule updates, providing cost control via Earned Value, issue tracking and claims avoidance, reviewing and negotiating change orders, overseeing Quality Assurance program and reporting and communication with the client and project stakeholders. Specific projects include:

- ▶ Pipeline 3 Relining: Sweetwater to Lower Otay
- ▶ Pipelines 3 and 4 Relining: Miramar to Scripps Ranch
- ▶ Pipeline 4 Relining: Paint Mountain to Del Dios Highway
- ▶ Pipeline 4 Relining: Del Dios Highway to Black Mountain Vent

San Diego County Water Authority, Pump Station Improvement Project – Twin Oaks Valley Water Treatment Plant:

Construction Manager responsible for managing scope, budget, schedule and quality of design-build project for rehabilitation and upgrades to Valley Center pump station rehabilitation project. Project scope included development of final design and construction documents; installation of three new 13.7 cfs vertical turbine pumps; removal and replacement of various electrically actuated valves (butterfly, sleeve, V-port ball, knife gate, plunger); new pump motor variable frequency drives (VFDs), motor control centers (MCCs), an active harmonic filter (AHF), redundant PLCs; and building improvements.

As-Needed Engineering Services – Coronado, CA:

Construction Services Task Order Manager responsible for managing professional services scope, schedule, budget, quality and resources for various construction management



Misha Troyan, PE, QSD (Continued)

and inspection task orders on public works projects. Projects included pump stations, stormwater infiltration, storm drains, streets, curbs and gutters.

Third, Fourth and I Avenue Storm Drain Project – Coronado, CA: Project Manager for full-time, on-site field inspection of the installation of approximately 2,000 feet of new storm drain pipes ranging in size between 24- and 48-inch diameters. In addition, two stormwater pumps will be installed along the new pipe alignment, and the reconstruction of an existing outfall into San Diego Bay including placement of riprap. Inspection services include inspecting project materials to verify compliance, attendance at pre-construction meeting, daily inspection reports, photographic and video documentation of pre-construction and post-construction project site conditions, and assistance with the preparation of project punch list. Survey services were also included in Psomas' scope.

Port of San Diego, Chula Vista Bayfront Construction Management Services – San Diego, CA: Resident Engineer for the Chula Vista Bayfront project serving as the District's representative during pre-construction, bid/award and construction on both developer-led projects and Port-managed projects. Current projects under the first phase of the program include the Costa Vista RV Park, Sweetwater Bicycle Path & Promenade, Soil Cleanup and Demolition, RIDA Resort Hotel & Convention Center, Sweetwater Park and Harbor Park.

El Norte Project Improvements Project – Escondido, CA: Project Manager for providing inspection support services including structures inspection, geotechnical testing and inspection, and materials testing and inspection. Project challenges include demolition and pile driving in close proximity to an existing 36-inch water line, traffic control, and cyclist/pedestrian safety on an active recreation trail through the project site.

San Diego County Water Authority, P2A Pump Station Improvement Project – Greater San Diego Area, CA: Construction Manager responsible for managing scope, budget, schedule and quality of design-build project for rehabilitation and upgrades to Valley Center pump station rehabilitation project. Project scope included development of final design and construction documents; installation of three new 13.7 cfs vertical turbine pumps; removal and replacement of various electrically actuated valves (butterfly, sleeve, V-port ball, knife gate, plunger); new pump motor variable frequency drives (VFDs), motor control centers (MCCs), an active harmonic filter (AHF), redundant PLCs; and building improvements.

San Diego County Water Authority, PCCP Relining Aqueduct Protection Program – Greater San Diego Area, CA: Served as Resident Engineer or Construction Manager managing scope, budget, schedule and quality for multiple large-diameter pipeline rehabilitation projects. Tasks included monitoring and evaluating schedule updates, providing cost control via Earned Value, issue tracking and claims avoidance, reviewing and negotiating change orders, overseeing Quality Assurance program and client/stakeholder coordination.

**REGISTRATION**

2014/CA/Professional
Engineer/Civil/82614

EDUCATION

2009/BS/Civil Engineering/
University of California, Los
Angeles

CERTIFICATIONS

Envision Sustainability
Professional/Institute for
Sustainable Infrastructure

EXPERIENCE

With Psomas for 3 years;
with other firms for 14 years

Marvin Mai, PE, ENV SP

Resident Engineer

Marvin Mai has 17 years of design and construction experience in a broad variety of public works projects including verifying compliance for city sidewalks, ADA ramps, paving, stormwater installations, and managing traffic control during construction.

Experience

FEMA Pre-Disaster Mitigation Grant, Willow Springs Water Bank – Kern County, CA: Project Manager developed subapplication for CalOES to obtain \$10 million in federal grant funding for the Willow Springs Water Bank project. Primary lead in determining requirements needed and developing project scope. Responsible for developing the scope of work, preparing sub application, benefit cost analysis, cost estimate, and preliminary drawings for the application.

Water Supply Distribution System Capital Replacement Study, Wheeler Ridge-Maricopa Water Storage District – Kern County, CA: Project Manager managed and developed inspection program of water supply distribution system consisting of pipelines, standpipes, canals, farm turnouts, motor control centers, groundwater wells, and pumping units. Analyzed existing condition of system, studied current maintenance and repair costs, and developed capital replacement costs.

Freeman Diversion Dam Notch Modification, United Water Conservation District – Ventura County, CA: Project Manager managed senior geotechnical and structural engineering team to develop 30% design, cost estimates, and outline specifications for a project consisting of a roughened ramp, notch modification of existing diversion dam, and radial gates to improve fish passage.

As-Needed Engineering Services for Implementation of the LACMTA Purple Line Extension, Segment 2 - CM – Beverly Hills, CA: Assistant Construction Manager for full-service project/construction management, design and community relations services and to serve as an agent for the residents and businesses of the City during construction of Metro's Purple Line subway project. Services include project management, review and development of interagency agreements, review and development of permit conditions, design review, construction management and oversight services, constructability and construction schedule review, community outreach, City Council and Commission presentations, QA/QC, and document control.

Contra Loma Bypass System Hydraulic Assessment, Contra Costa Water District – Contra Costa County, CA: Project Manager performed a hydraulic assessment to confirm the discharge capacity of the outlet through the bypass channel (emergency blowoff valve) at Contra Loma Dam. Completed a hydraulic analysis of the outlet capacity to determine if the outlet would meet California Division Safety of Dams criteria.

Carreon Ranch Site Assessment, Maricopa Orchards – Kern County, CA: Project Manager conducted an investigation to evaluate the site's potential as a favorable location for groundwater recharge and potential groundwater banking



Marvin Mai,
PE, ENV SP
(Continued)

operations based on historical information and boring data. Developed preliminary design and cost estimates to construct pertinent facilities.

North Kern Water Delivery Improvements (SCADA System) RFP

Development, North Kern Water Storage District – Kern County, CA: Project Manager for request for proposal (RFP) development to install water level sensors and SCADA system to existing groundwater well and canal sites.

United States Army Corps of Engineers (USACE) – Los Angeles District, CA:

Program Manager and Technical Leader for a \$2.5 million annual Federal permit program. Responsibilities included establishing definitive roles and recruiting capable personnel from the hydraulics, structural, geotechnical, environmental, and real estate sections to create a dedicated team; Developed and maintained high-level relationships with technical counterparts at critical partner agencies at the federal, state, and local levels; Negotiated and managed funding agreements (contracts) with partner agencies to expedite processing of high-priority permit requests; fiscally responsible for 11 funding agreements (~\$7 million total); Analyzed funding needs on a bi-weekly period for cost efficiency; translated between engineers and applicants to achieve a common understanding between technical concepts and business priorities and as a result, successfully executed over 100 Federal permits; frequently prepared letters and memos to internal departments, applicants, congressionals and other key stakeholders outlining the Corps' policies, identifying risks and recommending alternatives to proposals detrimental to the Corps' mission; optimized inefficiencies with internal communications, standardize review processes, and develop technical submittal checklist and design guidelines for applicants; initiated changes in response to policy and regulation changes; and developed workshop for annual stakeholder meetings with the Flood Control Districts of Southern California (7) and Arizona (10) to communicate Corps' Permit Program.

United States Army Corps of Engineers (USACE) – Los Angeles District,

CA: Civil Engineer to support the USACE Civil Works Mission, which involved flood risk management, ecosystem restoration, and infrastructure improvements. Responsibilities included drafting plans, coordination with multiple engineering disciplines, developing specifications, review of construction drawings/submittals, construction quality assurance, and design modifications. Notable projects/features of work included:

- ▶ **Lower Santa Ana River, Reach 9, BNSF Bridge Protection:** Served as junior engineer responsible for developing alignments to create plan and profile views of pier nose extension, wall abutment structures, emergency access roads, and bank protection.
- ▶ **Lower Santa Ana River, Reach 9, Phase 2B Embankment Protection:** Modified retaining wall design to protect electrical utilities and designed a custom drop inlet to address drainage. Served as the project lead in construction phase, which includes coordination and engineering support for Contractor, Local Sponsors, and Corps Construction Division. Lead designer for modifications during construction which included access driveway redesign for positive drainage, increasing bank protection with rock swale, and manhole grate redesign for increased flood capacity.
- ▶ **Fort Irwin National Training Center Storm Damage Civil Repair:** Served as lead engineer responsible for design of civil repairs of local drainage problems. Designs included sizing channels, detention basins and culverts, curb and gutter repairs, pavement repair, and retaining walls.

**CERTIFICATIONS**

Qualified SWPPP
Practitioner/California
Stormwater Quality
Association/23791

EXPERIENCE

With Psomas for 4 years;
with other firms for 36
years

Eric Schlichter, qsp

Inspector

Eric Schlichter has 40 years of experience providing construction management, lead inspection, public relations, and office administrative services on major projects including roadways, public infrastructure and buildings, and highway and bridge construction. He is highly experienced in the oversight of numerous operations on large project sites and has excellent communication and documentation skills required for complex and multiple discipline operations. Eric's extensive experience encompasses roadway, Caltrans, and various utility projects.

Experience

Water and Sewer Group 929 – San Diego, CA: Part time resident engineer for this \$350,000 project located in downtown San Diego. Work included replacing existing water and sewer with PVC and the construction of 99 ADA curb ramps. In order to avoid retrenching in the same streets, the project also replaced 2,000 LF of old concrete sewer mains with new PVC sewer mains. Complete street resurfacing and/or slurry seal was conducted after completion of the trench caps and acceptance of the mains and laterals. Located in a busy downtown community, Eric was responsible for coordinating traffic control and worked with residents and local businesses to minimize impacts to the community.

Harbor Drive Sewer Replacement – San Diego, CA: Construction Manager/Inspector for this 4.4 mile replacement of 16-inch cast iron water pipeline from the Harbor Drive Bridge to the Point Loma Reservoir.

Sewer and Water Group 1 – Del Mar, CA: Construction Manager and Inspector for this \$1.75M replacement of existing VCP sewer main and laterals with PVC. The project also included citywide manhole rehabilitation and CIPP.

Construction Management Inspection and Testing Services FY 08/09 Water and Sewer CIP Program – Pomona, CA: Construction Manager and Inspector responsible for the installation of approximately 10,000 LF of 16" drains, soil embankment and excavation, landscaping, and traffic control. Inspection services included coordination with survey crews, testing oversight, and daily inspection reports to the City.

Bayshore Swim Dock Revitalization – Long Beach, CA: Construction Inspector for various CIP projects citywide including administration of the Job Order Contracting (JOC) Program. This JOC project included a rebuild of the swim dock and pier, with the addition of water features to the swim dock such as water guns and a drinking fountain and the installation of a large aquatic playground near the swim dock, providing swimmers with the opportunity to participate in various activities like climbing, sliding and jumping, all on the water at no cost.

On-Call Construction Management and Inspection Services – Long Beach, CA: Construction Inspector responsible for the inspection of various infrastructure and development projects throughout the City, including the installation of wireless facilities in the City's downtown area.

**CERTIFICATIONS**

Qualified SWPPP
Practitioner/California
Stormwater Quality
Association/26617

EXPERIENCE

With Psomas for 4 years;
with other firms for 38
years

Robert Duffy, qsp

Inspector

Robert Duffy has 42 years of experience in the construction industry performing inspection, contract administration and construction management duties on civil construction projects. Various projects were water related construction projects including pipelines, pump stations, pressure reducing stations, lift stations, storage and treatment facilities. They have included CIP retaining walls, box culverts and other reinforced concrete structures, drainage facilities, surface improvements and road construction working with both the public and private sectors.

Experience

As-Needed Engineering Services – Coronado, CA: Construction Inspector for managing professional services scope, schedule, budget, quality and resources for various construction management and inspection task orders on public works projects. Projects included pump stations, stormwater infiltration, storm drains, streets, curbs and gutters.

Transbay Pump Station Evaluation and Repairs, Phase I – Coronado, CA: Full-time construction inspector responsible for the construction means, methods and techniques, safety measures, precautions and programs at the project site. Services included pre-construction, construction, and project closeout phase services.

Country Club Infiltration Project – Coronado, CA: Construction Inspector responsible for full-time, daily inspection of the work, the preparation of daily reports, photo documentation of site conditions, participation in change order resolution, attendance at progress review meetings, as requested, assistance with submittal review, review and monitor contractor's safety plan for compliance with Cal/OSHA, and review and monitor SWPPP requirements. Psomas was retained by the City of Coronado to provide construction administration and construction management support services in May of 2018.

Third, Fourth, and I Avenue Storm Drain Project – Coronado, CA: Construction Inspector responsible for full-time, on-site field inspection during construction. Inspection services included inspecting project materials to verify compliance, attendance at pre-construction meeting, daily inspection reports, photographic and video documentation of pre-construction and post-construction project site conditions, and assistance with the preparation of project punch list.

Padre Dam Municipal Water District – Santee, CA: District Construction inspector from 1992-2005. Inspected construction of miles of water transmission mains up to 60-inch CMLCSP; replacement of miles of wastewater mains up to 24 inch; sliplining of over three miles of 24 inch force main including connection to wastewater treatment plant; upgrades to influent lift station pumps, motors, switchgear, motor control center; upgrades to largest and most critical pump stations; and miles of private development water, recycled and wastewater facilities.

**REGISTRATION**

2005/CA/Professional
Geologist/886

2006/CA/Certified
Hydrogeologist
Geologist/858

EDUCATION

2000/BS/Geology
(Engineering Geology)/
University of California, Los
Angeles

EXPERIENCE

With Richard C. Slade &
Associates for 20 years;
with other firms for 1.5
years

Anthony Hicke, PG, CHG

RICHARD C. SLADE & ASSOCIATES LLC

Hydrogeology

Anthony Hicke has over 21 years of experience serving as lead geologist, project manager, and/or participated in a number of basin-wide groundwater studies in which hydrogeologic conceptual models of basins were developed. Anthony has provided technical advisory work and project management during construction, rehabilitation, and extraction/injection testing of numerous production water wells and monitoring wells for municipal and agricultural clients. He directs preparation of hydrogeological studies and technical documents reports as well as the preparation of technical documents intended to support the creation of Environmental Impact Reports (EIRs), and provides support for those projects throughout the approval process, including providing presentations to Planning Commissions and Boards of Supervisors summarizing and interpreting hydrogeologic data and results. Anthony is also an active participant with various industry groups, and provides presentations on various subjects related to his expertise and current practice. Since Richard Slade's appointment as the Upper Los Angeles River Area Watermaster in December 2008, Anthony has performed the duties of the Assistant ULARA Watermaster.

Experience

La Brea Subarea – Los Angeles, CA: Project Manager and Principal Hydrogeologist for well siting and development in the La Brea Subarea of the Central Groundwater Basin. Initially, RCS evaluated the groundwater production potential of six candidate well sites within in the La Brea Subarea. Following the well siting work, RCS designed and provided hydrogeologic services and field oversight for a new nested monitoring well was constructed as part of the evaluation work. In 2021 RCS provided field services and well design services for the first new municipal supply well constructed in the La Brea Subarea since the 1970s (La Cienega Well No. 1). Construction of the well was completed in late 2020. Testing showed that the well met the intended water production and water quality goals, with a recommended operational pumping rate of 500 GPM. Currently, RCS is providing hydrogeologic well design and field services associated with the construction of a triple-nested monitoring wells at the City's Sand Pit site property, with an estimated completion of May 2022. Data collected from the monitoring well will be used determine the feasibility of construction a new municipal-supply water well at the site.

High Desert Water Bank (HDWB), Antelope Valley-East Kern Water Agency (AVEK) – Western Antelope Valley, CA: Project Manager for owner's advisor services. RCS is currently providing hydrogeologic services as subcontractor to an engineering firm, where RCS and the firm are acting as the owner's advisor. AVEK is implementing a \$131 million groundwater bank in partnership with Metropolitan Water District to store up to 280,000 AF of Metropolitan's State Water project (SWP) water supply in AVEK's groundwater bank, with water recovery of up to 70,000 AFY over four consecutive years. RCS has provided technical oversight and support to the project engineer and AVEK, reviewing work product prepared by the design engineering/hydrology team contracted to design and build the project. RCS' work on the



Anthony Hicke, PG, CHG (Continued)

project has included: reviewing technical reports and proposals created by the design engineer/hydrogeologist team; reviewing technical specifications for well drilling work; performing field observations during well drilling and construction; reviewing subsurface hydrogeologic data, including geophysical electric logs, geologic logs, isolated aquifer zone testing data, and other data; reviewing proposed well designs; commenting on pumping testing procedures; and providing opinions and summaries to AVEK. To date, four production wells have been constructed at the property, with an additional 6 wells slated to begin construction in late Spring of 2022.

Well 17 Rehabilitation and Equipping – Chino, CA: Project Manager for rehabilitation of Well 17 that was constructed in 2006 and designed by RCS, however, the well was never placed on line and has remained idle since its construction. In 2021, the well was identified to be part of the City's Eastside Treatment Facility project. RCS is currently leading a well rehabilitation effort for the well, and is tasked with preparing technical specifications for the work, as well as field oversight during the work. Once complete, RCS will provide recommendations for normal operational use based on post-rehabilitation testing.

Indio Water Authority (IWA), Well Siting Study – Indio, CA: Project Manager and Principal Hydrogeologist for the well siting effort. RCS evaluated more than ten properties owned or accessible to IWA throughout the IWA service area that could be used as a new well site. RCS reviewed and summarized the hydrogeologic conditions throughout the IWA service area to identify the "hydrogeologically desirable" areas of the basing with respect to water quality and quantity. Each potential site was then evaluated for a number of factors including: potential well production rate; water quality impairments; distance to distribution infrastructure, construction suitability, permitting feasibility, among others. Working closely with IWA staff, RCS developed a ranking matrix to score each property so that the properties could be compared and ranked. RCS also included key design parameters for a future well at the selected site, as well as an approximate estimate of construction costs for the well for budgetary planning purposes. Construction at the RCS-proposed well site is expected to begin in late 2022.

Conceptual Groundwater Basin Model and Assessment of Available Groundwater Supplies, and Construction of City Hall Well – Santa Monica, CA: Senior Groundwater Geologist for the Safe Yield Study and Project Manager for City Hall Well construction. The initial RCS project involved providing a detailed hydrogeologic conceptual model of subsurface hydrogeologic conditions in each groundwater sub-basin, including: locations of known water wells; definition of groundwater flow directions and current water quality; identifying the base of fresh water; calculating groundwater in storage; defining aquifer parameters; evaluating water levels vs trends in historic rainfall; and preparing several cross sections using detailed correlations of E-logs from several water wells and numerous oil wells. Preliminary locations and drilling depths for new city wells were also identified. Additional work included preparation of Technical Specifications and Line Item Bid Sheets for a new city well at City Hall. RCS geologists were present in the field to: log the drill cuttings; evaluate the new E-logs; conduct isolated aquifer zone testing; prepare the final design of the well and monitor well construction development and testing of the new well.

**REGISTRATION**

1986/CA/Structural
Engineer/S002819

1983/CA/Professional
Engineer/Civil/36919

EDUCATION

1983/MS/Civil Engineering –
Major: Structures/California
State University, Long
Beach

1977/BS/Civil Engineering
– Major: Structures/
Universidad del Valle, Cali,
Colombia

EXPERIENCE

With Arcon Structural
Engineers for 24 years; with
other firms for 20 years

Hernan Montoya, SE, PE

ARCON STRUCTURAL ENGINEERS, INC.

Architectural/Structural Engineering

Hernan Montoya brings over 40 years of experience as a structural engineer designing a wide variety of structural projects, in charge of engineering, quality assurance, coordination with clients, other consultants and building officials, and field support for various commercial, residential, industrial, civil and public works projects. Private sector experience includes the structural design of hotels, restaurants, apartment complexes, senior housing, warehouses, office complexes, schools, mining plant equipment supports and structures. Municipal, local agency, and public sector experience include the design of bridges, sewage lift and water pump stations, earth retaining structures, channels, culverts, towers for wireless communications, refuse transfer stations and landfill gas to energy project structures.

Experience

Well No. 29 Rehabilitation – City of Santa Ana, CA: Structural and architectural design of a concrete block wall and steel framed roof building housing the pump room, electrical room, and SCE room for City of Santa Ana Public Works Agency as a sub-consultant to Psomas. The scope of work included preparation of 3-D architectural renderings and modifications to existing tennis court fencing.

Well No. 59 Building Facilities – City of Anaheim, CA: Structural design of a concrete block wall and steel framed roof building housing the storage room, chemical room, and electrical room, as well as a roll-away pump room for the City of Anaheim Public Utilities Department as a subconsultant to Psomas.

Coto de Caza Emergency Storage Basin – Coto de Caza, CA: Structural design of a 49'6"x42'-6"x25'-0" deep underground triple chamber concrete vault with limited space for shoring and high-water table, for Santa Margarita Water district as a sub-consultant to Psomas.

SC-6 Flow Control Facility and PA-2 Lift Station and SC-6 Turnout/FCF – Rancho Mission Viejo, CA: Structural design of Phases I & II building facility and cast-in-place underground vaults for Santa Margarita Water District as a subconsultant to Psomas.

Amethyst Pump Station – City of Victorville, CA: Structural design of 88'x34' concrete block wall and concrete deck roof pump station for the City of Victorville as subconsultant.

City of Ontario Well Roof Replacements – Ontario, CA: Structural design of removable wall and roof replacements for six well sites throughout the City of Ontario, as a subconsultant.

Teresa Plant Booster Pump Station Replacement – South San Gabriel, CA: Structural and architectural design of a 20'-0"x50'-0" concrete block wall and wood framed roof building housing the pump and electrical rooms for Golden State Water Company.



Jane Cataldo, RLA, ENV SP, LEED AP

LYNN CAPOUYA, INC.

Landscape Architecture

REGISTRATION

1985/CA/Landscape
Architect/2512

EDUCATION

1976/BArch/Landscape
Architecture/Cornell
University, Ithaca, NY

CERTIFICATIONS

LEED Accredited
Professional/U.S. Green
Building Council

EXPERIENCE

With Lynn Capouya, Inc.,
for 17 years; with other
firms for 27 years

As Design Director, Jane Cataldo has over four decades of experience in water related projects along with a variety of other project types including streetscapes, parks, plaza design both on-grade and on-structure, professional offices, shopping centers, industrial complexes, schools and public institutions, sports fields and turf renovation. Within the firm, she directs production staff and operations, ensuing timely project delivery. Jane has extensive experience working with the California environment and drought tolerant plant species. She is LEED certified and applies her knowledge of sustainability practices to achieve compliance with current water conservation legislation.

Experience

La Palma Complex Reservoir Rehabilitation and Pump Station –

Anaheim, CA: Responsible for the landscape architecture design involved in this pump station rehabilitation that included protection and preservation of existing trees, on-site runoff retention, water efficient plant palette and an upgraded irrigation system with a satellite-based controller and highly efficient. Current upgrades to this site include a water wise demonstration garden for K-12 students complete with four specific plant community zones, waterwise irrigation and interpretive signage.

Well Site 56 – Anaheim, CA: Worked with the Prime Consultant and City staff to design landscape and irrigation for all exposed perimeters of this new pump station. Set in an existing, established park, the facility required the landscape scheme blend into the surrounding neighborhoods. Existing plant materials were observed and maintained during the planning process. Additional plant materials were carefully chosen to complement the existing landscape.

Lane Channel Orange County Flood Control Channel Facility #F08, Orange County Public Works – Irvine, CA: Project Director for management and coordination of all bridging document preparation including plans, details and specifications for both landscape and irrigation. Throughout the process of document preparation Jane coordinated closely with the project design engineers and the County of Orange to prepare a comprehensive set of bid documents.

Adventure Park Stormwater Capture – Whittier, CA: Project Director for all management oversight and client correspondence for the design and plan preparation for this park project. LCI worked closely with the Los Angeles Department of Public Works and Watearth to develop landscape and irrigation plans for stormwater capture at this existing site. The sole purpose is to divert urban and stormwater runoff from nearby unincorporated County communities into an underground storage and water treatment system for future use. This project relies on a low-water use, drought tolerant plant palette and a stormwater capture method that ensures innovative irrigation design.



Jane Cataldo, RLA,
ENV SP, LEED AP
(Continued)

Anaheim Convention Center – Anaheim, CA: Senior Project Manager, for the design-build team to coordinate on- and off-site landscape and hardscape improvements for the Convention Center improvements. Project boundaries and the interface with existing facilities was a critical design item. The existing plaza areas were redesigned to provide a seamless transition between the new expansion and exhibit hall. The design incorporates all of the City of Anaheim Resort District Master Plan criteria and the most recent Water conservation ordinances, including the provision for future reclaimed water implementation.

Park to Playa Trail/Blair Hills Bridge – Los Angeles, CA: Senior Project Manager for all management oversight for design and plan preparation for this project. The bridge is a pedestrian and wildlife crossing connecting Stoneview Nature Center to Kenneth Hahn State Recreation area. Key objectives were the safe passage of pedestrians and indigenous wildlife over La Cienega Boulevard, incorporation of sustainable practices for stormwater capture, and conservation of natural resources. The scope of the project involved all phases of plan preparation from schematic design through construction administration. The project presented many challenges throughout the design that included designing a crossing that would attract many wildlife species of all sizes and requirements for safe passage, designing the crossing to satisfy numerous agencies and stakeholders, and creating a structure that would aesthetically integrate with the surrounding environment.

Peyton Drive Phase 3 and English Channel/Creek Habitat Mitigation – Chino Hills, CA: Project Director for development and completion of construction drawings and specifications for landscape and irrigation design. She worked closely with the City of Chino Hills, project engineers and biologists to execute all the documents outlined in the Compensatory Habitat and Mitigation Monitoring Plan approved by the U.S. Army Corps of Engineers. Some of the elements included the development of special native seed mixes for various areas within several different mitigation zones along with planting design for new channel keys downstream of the main project. Additionally, a temporary irrigation system design was included in the scope and equipment selection was consistent with all of the requirements of California AB 1881.

Well Site 54 – Anaheim, CA: As Project Manager, was responsible for working with Boyle Engineers and City staff to landscape and irrigate all exposed perimeters of this new pump station. Set in an existing, established residential neighborhood, the facility required the landscape scheme be integrated into the adjacent surroundings. The design for the project was completed using a 'California friendly' and native plant palette.



Long Pham, PE

SPEC SERVICES, INC.

Electrical and Controls

REGISTRATION

2003/CA/Professional
Engineer/Electrical/16621

2005/CA/Professional
Engineer/Control
Systems/7346

2016/HI/Professional
Engineer/General/17106

EDUCATION

1991/MS/Electrical
Engineering/California
State University,
Long Beach

1989/BS/Electrical
Engineering/*magna cum
laude*/California State
University, Long Beach

EXPERIENCE

With SPEC Services for 11
years; with other firms for
21 years

Long Pham has more than 32 years of experience in control systems/electrical engineering and engineering management. His experience includes working in the petrochemical industry for ExxonMobil, Chevron, ConocoPhillips, Phillips 66, Tesoro, BP, Rio Tinto Minerals, Pacific Pipeline Company, Calpine, INEOS Polypropylene Plant, and Venoco, and for utilities and municipal agencies. His experience also includes engineering service estimating, planning, and conceptual and detailed design of projects for water/wastewater agencies, refineries, petroleum terminals, pumps stations, and gas compressor stations.

In addition to leading a number of projects, Long is responsible for overseeing a group of 16 engineers and designers. His responsibilities include technical quality control for development and staffing of the department, engineering standards and procedures, technical performance, quality assurance and control, and successful execution of projects within budget and schedule requirements.

Experience

Standby Power and Reliability Improvements at Plant Nos. 1 and 2, Orange County Sanitation District – Fountain Valley, CA: Project Electrical Engineer providing supervision of two 2000kW emergency generator sets including the design of 12kV switchgear and generator control with manual and automatic synchronizing system. Selection and design of plant's power monitoring SCADA system for 12kV incoming services, central generating station, emergency generators and medium and low voltage power distribution system.

Plant 1 Trickling Filter Replacement, Orange County Sanitation District – Fountain Valley, CA: Project Engineer for the electrical and controls component. The project included preliminary development of design memoranda to set the scope of work, followed by detailed design of new power distribution and standby power systems and automation including controls interface with the existing plant SCADA systems. A new pump station with VFD pumps, trickling filters; underdrain system ventilation blowers and trickling filter arms complete the project.

Plant 2 EPSA Pump Station Replacement, Orange County Sanitation District – Fountain Valley, CA: Project Electrical and Controls Engineer for the electrical and controls component. The project includes preliminary development of technical memoranda to set the scope of work followed by detailed design of a new electrical distribution center fed from the plant central generation plant, 8MW standby power generation including 15kV switchgear, 3000 HP VFD, 480V MCCs and transformers to support the new pump station housing five 3000 HP pumps that will discharge 480MGD from the plant. Automated control design interfaces with existing plant SCADA system from independent PLCs at the new Annex and existing Ocean Outfall Booster Station



Long Pham, PE
(Continued)

to provide “seamless” transfer of control. Plant design was made with expanded flexibility for maintenance outages and future growth.

Arrow Lante Treatment Facility Project, Valley County Water District – Baldwin Park, CA: Project Electrical Engineer providing detailed engineering for the electrical and control systems engineering and design for the Arrow Lante Treatment Facility. Also provided control and automation portion of this project, which includes PLC and HMI programming, testing and commissioning. Coordination of Calgon’s ISEP system, Trojan’s LPUV system, Layne’s air strippers, and MC2 off-gas system required extra effort on the project. Automatic controls using several PLC platforms, a main computer, and variable frequency drives for pumps to control water levels and flows are highlights of the control systems.

PVRWRF Main Entrance Gate Modification Project, Eastern Municipal Water District – Perris, CA: Project Electrical Engineer providing civil/structural, electrical, and control system preliminary and final engineering/design for the Main Entrance Gate Modification project at Perris Valley Regional Water Reclamation Facility (PVRWRF). This project is to widen the driveway with an additional three feet on both sides, replace the existing gate, and install new split face block walls and signage at the main entrance.

El Centro Lift Station Pipe Replacement Project, Eastern Municipal Water District – Perris, CA: Project Electrical Engineer providing electrical and control system engineering/design support for El Centro Lift Station Pipe Replacement project. This project replaces discharge piping of the existing wet well pumps. To keep the lift station in operation during construction, temporary electric pumps will be installed in the bypass manhole to divert water to the lift station bypass Tee connection. SPEC will develop electrical documents and drawings to complete the bid package so that EMWD can bid out and select a contractor.

Sanderson Lift Station Pump Electrification Project, Eastern Municipal Water District – Perris, CA: Project Electrical Engineer providing preparation of electrical and control system preliminary and final engineering/design for the electrification of existing gas engine driven vertical turbine pump at the Sanderson Lift Station. Scope of work included coordination, power, grounding, motor and control schematics, and instrumentation of a new Variable Frequency Drive and motor installation in lieu of the engine. SPEC utilized their licensed civil engineers for foundation modifications and mechanical engineers provided input into the physical pump modifications.

**REGISTRATION**

1999/CA/Geotechnical
Engineer/2458

1995/CA/Professional
Engineer/Civil/53924

EDUCATION

PhD/Civil and
Environmental
Engineering/University of
California, Davis

MS/Civil and Environmental
Engineering/University of
California, Davis

BS/Civil Engineering/
Polytechnic of Tehran

EXPERIENCE

With GMU Geotechnical,
Inc. for 9 years; with other
firms for 19 years

Ali Bastani, PhD, PE, GE, F. ASCE

GMU GEOTECHNICAL, INC.

Geotechnical Engineering

Dr. Ali Bastani's professional experience entails performance, management and providing practical solutions for variety of projects including: (1) Geotechnical investigation and monitoring for foundation design of bridges, water reservoirs, pipelines, power plants, commercial and industrial facilities, and landfills; (2) Seismic ground motion studies, site response analysis, liquefaction analysis, determination of seismic induced deformations, and seismic retrofit evaluations; (3) Deep-seated and shallow landslide investigation, analysis, and mitigation; (4) Design of shoring and stabilization systems including tie back and soil nail retaining structures (5) Groundwater flow and contaminant transport evaluation and modeling; and (6) Seismic hazard evaluation, probabilistic and deterministic, for various seismic zones around the United States and abroad.

Experience

La Palma Complex Reservoir Rehabilitation and Pump Station

Replacement – Anaheim, CA: Geotechnical Engineer of Record for design of a new roof system for a 4 MG and replacement of an existing pump station. The new pump station will be constructed at the base of an existing 3 MG reservoir at the complex. The 3 MG reservoir will be removed and backfilled after construction of the new pump station.

Cerritos Avenue Siphon Elimination – Anaheim, CA: Geotechnical Engineer of Record for design of approximately 2,900 LF of sewer lines to remove or replace Cerritos Avenue siphon in Anaheim.

Tesoro (2) Reservoirs, Pipelines and Access Road, Santa Margarita

Water District – Rancho Mission Viejo, CA: Geotechnical Engineer of Record during design and construction of 3 MG and 2 MG reservoirs for providing potable and recycled water to Planning Area 2 of Rancho Mission Viejo. This project also included 1.4 miles of potable and recycled transmission mains and 0.8 miles of access roads along the eastern side and southern terminus of Chiquita Canyon in Rancho Mission Viejo.

San Juan Creek Improvement, Orange County Public Works – San

Juan Capistrano and Dana Point, CA: Project Manager/Engineer in charge of providing geotechnical design recommendations for mitigation of more than a mile of levees along San Juan Creek in the Cities of San Juan Capistrano and Dana Point. The proposed levee improvements were aimed to increase the channel capacity and minimize the adverse effects of erosion and scouring along the channel concrete lined slopes, which resulted in undermining and failure of portions of the creek levee during the January 2005 storms. Stability of levees was evaluated under static and dynamic conditions and mitigation measures were provided.

Syphon Dam and Reservoir, Irvine Ranch Water District – Orange

County, CA: Geological study, geotechnical evaluation and analyses of reservoir



Ali Bastani, PhD,
PE, GE, F. ASCE
(Continued)

slopes, and overall grading logistic study for the proposed 5,000-acre-feet recycled water reservoir which will replace the existing dam.

Trampas Canyon Dam and Reservoir, Santa Margarita Water District – Orange County, CA: Geotechnical Quality Assurance during construction of the 5,000-acre-feet recycled water reservoir that included construction of three earth fill embankment dams, a spillway, inlet/outlet works, pump station, and other appurtenant structures.

Santa Ana Delhi Channel, Orange County Public Works – Newport Beach, CA: Project Manager in charge of providing geotechnical design recommendations for 35% design for the proposed channel modifications downstream of Mesa Drive (STA 39+90) to Upper Newport Bay (STA 5+52) in the City of Newport Beach, California. Our investigations included 12 cone penetration tests and review of available geotechnical borings. The analyses included sheet pile wall design recommendations for increasing the channel capacity and mitigating the channel banks erosion and providing geotechnical recommendations in support of a Type Selection Report for the proposed pedestrian bridge replacements.

Greenville-Banning Channel (D03) Rehabilitation, Orange County Public Works – Santa Ana, CA: Project Manager in charge of providing geotechnical design recommendations for channel slope repairs from Centennial Road to West Segerstrom Avenue in Santa Ana. Our investigations included ten hollow-stem-auger borings and vertical and horizontal hand auger borings at seven locations to evaluate the existing slope conditions. A reinforced earth option was evaluated for stabilizing the channel slopes against erosion.

Fullerton Creek Channel Improvement, Orange County Public Works – Buena Park, CA: Project Manager in charge of providing geotechnical design recommendations for groundwater monitoring and design recommendations for the proposed channel modifications between Western Avenue (STA 105+80) and Dale Street (STA 167+00). Our investigations included four groundwater monitoring wells, seven dynamic cone penetration tests, eight borings, and fifteen cone penetration tests. Our field investigations were coordinated with the City of Buena Park, County of Orange, and property owners adjacent the channel. The analyses included soil nail wall designs for three overcrossings and finite difference numerical modeling for evaluation of the construction induced deformations during shoring installation, excavation, installation of the concrete channel, and release of restrains.

Gobernadora Multi Purpose Basin, Santa Margarita Water District – Orange County, CA: Geotechnical Engineer of Record during design and construction of 130 acre-feet basin south of Coto de Caza. This basin collects, purifies, and percolates niceness water from Coto de Caza run offs, which is pumped to a recycled water reservoir for reuse.



5 Hutton Centre Drive
Suite 300
Santa Ana, CA 92707
Tel 714.751.7373

www.Psomas.com

EXHIBIT C

May 24, 2022

Robert Aguirre, PE
Project Manager
City of Santa Ana, Public Works Agency
220 S. Daisy Avenue, M-85
Santa Ana, CA 92703

Subject: Fee Schedule for On-Call Water Resources Engineering Services, RFP No. 22-002

Dear Mr. Aguirre:

Attached is Psomas' Fee Schedule for the On-Call Water Resources Engineering Services contract (RFP No. 22-002). Should you have any questions, please contact me by phone at (714) 481-8060 or by email at JoeBoyle@Psomas.com.

Sincerely,

P S O M A S



Joseph Boyle, PE
Vice President

Fee Schedule – Page 1 of 2

Psomas

July 1, 2022 to June 30, 2023

Annual rate increases thereafter will be consistent with the Consumer Price Index (CPI)

Project Director/Principal-in-Charge	\$290	Cultural Resources Manager	\$150
Contract Manager/Project Manager	\$265	Cultural Resources Technician	\$95
Project Manager II	\$250	Biological Resources Manager	\$210
Assistant Project Manager	\$210	Regulatory Permitting Manager	\$205
Senior Project Engineer	\$205	Senior Restoration Ecologist	\$165
Project Engineer/Traffic Engineer	\$190	Senior Biologist	\$160
Civil Engineering Designer	\$155	Biologist	\$130
Assistant Civil Designer	\$130	Senior GIS Analyst	\$150
Design Engineer II	\$130	Technical Writer	\$100
Design Engineer I	\$105	Planner	\$170
Survey Senior Project Manager	\$260	Senior Resident Engineer	\$225
Survey Project Manager/Manager	\$210	Resident Engineer II	\$205
Survey Senior Project Surveyor, PLS	\$195	Resident Engineer I	\$185
Project Surveyor, PLS	\$185	Senior Structures Representative	\$225
Surveyor, PLS or LSIT	\$175	Structures Representative II	\$205
Survey Technician	\$150	Structures Representative I	\$185
GIS Manager	\$260	Senior Construction Manager	\$220
GIS Technician	\$85	Construction Manager II	\$200
Senior CAD Technician	\$165	Construction Manager I	\$180
CAD Technician	\$140	Senior Inspector	\$200
Land Use Entitlement Manager	\$275	Inspector	\$185
Plan Reviewer	\$190	Scheduler	\$170
Permit Tech I	\$170	Office Engineer	\$160
Permit Tech II	\$150	Labor Compliance	\$125
ADA Compliance/Access Specialist	\$190	Project Assistant/Administration	\$125
Senior Environmental Project Manager	\$230	Engineering Assistant, Intern	\$110
Environmental Project Manager	\$165	Administrative Support	\$95
Environmental Analyst	\$135		

Fee Schedule – Page 2

- ▶ Standard computer and technology costs are incorporated into these hourly rates, as well as direct labor, overhead, fringe benefits and fee.
- ▶ Rates include miscellaneous related costs: vehicle, cell phone, digital camera, and standard tools and equipment. All other direct expenses will be billed at cost.
- ▶ The above schedule is for straight time. Overtime for Construction Management/Inspection and Surveying services will be charged at 135 percent of the regular hourly rate. Sundays and holidays will be charged at 170 percent of the regular hourly rate.
- ▶ Minimum of four (4) hours will be charged per field crew deployment. Prevailing wage will be paid on all projects where field staff are providing services.
- ▶ A shift which commences after 2:00pm or before 4:00am, during any 24-hour period, commencing at 12:01am is subject to a 12.5 percent differential.
- ▶ Survey and other specialty equipment will be charged at a per unit per day rate.
- ▶ Expert witness testimony is two times the normal rate.
- ▶ Per Diem is calculated at current State Department of Transportation rates (or other appropriate agency rates).

Reimbursables

Mileage at \$0.575 per mile (or current IRS allowable rate) and parking expenses incurred by office employees are charged at cost. Prints, plots, messenger service, subsistence, air travel, and other direct expenses will be charged at cost plus five percent. The services of outside consultants will be charged at cost plus five percent.

Surveying Services

One-Person Survey Party	\$250
Two-Person Survey Party	\$350
Three-Person Survey Party	\$420
Field Supervisor	\$190

Hourly rates for field survey parties include normal usage of field equipment and are fully equipped rates.

Hourly Rates for field services increase on October 1 of every year and are subject to prevailing wages per California Department of Industrial Relations Determination LA-2020-1, and include normal usage of electronic distance measuring equipment and survey vehicle expenses.

Per Diem is calculated at current State Department of Transportation rates (or other appropriate agency rate).

Special Equipment and Other Costs

- ▶ \$250.00 per day – 3D Laser Scanner (Static)
- ▶ \$5,000.00 per day – 3D Laser Scanner (Mobile Mapping System)
- ▶ Standard computer and technology costs are incorporated into the hourly rates shown above.



2022 STANDARD SCHEDULE OF FEES

Principal Structural Engineer:	\$ 210.00 per hour
Structural/Bridge Engineer:	\$ 175.00 per hour
Project Architect:	\$ 175.00 per hour
Project Engineer:	\$ 160.00 per hour
Design Engineer:	\$ 135.00 per hour
Engineering Technician:	\$ 115.00 per hour
CAD Designer/Drafter:	\$ 115.00 per hour
Clerical:	\$ 60.00 per hour
<u>Reimbursable Expenses:</u>	
Plotting:	\$ 15.00 per vellum
	\$ 30.00 per mylar
Large Format Printing:	\$ 3.00 each (additional bond prints)
Photocopies:	\$ 0.10 each
Other reproduction & Courier:	At cost
Travel: Private Vehicle Mileage:	\$ 0.58 per mile
Per Diem:	\$ 70.00 per day
Other Travel Reimbursables:	At cost



2022-25 SCHEDULE OF CHARGES

PROFESSIONAL SERVICES

Document Preparation and Project Services	\$ 105.00/hour
CAD/GIS Design Engineer	\$ 120.00/hour
Staff Engineer or Geologist	\$ 165.00/hour
Senior Staff Engineer or Geologist	\$ 180.00/hour
Project Engineer or Geologist	\$ 200.00/hour
Senior Engineer or Geologist	\$ 235.00/hour
Associate Engineer or Geologist	\$ 255.00/hour
Principal/Director	\$ 280.00/hour

FIELD INSPECTION & TESTING SERVICES

Staff Engineering Technician	\$ 105.00/hour*
• Services provided under direct supervision of a Senior Engineering Technician	
Senior Engineering Technician	\$ 122.00/hour*
• Inspections for soils/grading, asphalt, concrete, batch plants, piles/caissons, etc.	
• Certifications by ACI, ICC, Caltrans, local jurisdictions, etc.	
Registered Special Inspector (<i>No 4-hour minimum</i>)	\$ 122.00/hour*
• Certifications by ACI, ICC, Caltrans, local jurisdictions, etc.	
• Reinforced concrete, Post-Tension, Masonry, Welding, Bolting, Fireproofing	
Instrumentation Engineer	\$ 165.00/hour
• Slope inclinometer and Piezometer monitoring	
• Manometer for floor-level surveys	
• Stormwater turbidity & pH meter	
• Groundwater monitoring - pressure transducer, datalogger, water chemistry meter, etc.	
• Pipeline video camera for drains, wells, etc.	
Engineering Seismological Technician (includes 3-channel seismograph)	\$ 165.00/hour
• Blast vibration monitoring	
• Construction vibration & noise monitoring (pile driving, drilling, demolition, etc.)	

***Notes:**

- (1) Rates include vehicle, nuclear density gauge, and equipment for testing, inspection, and sampling.
- (2) No 4-hour minimum charges apply.
- (3) Overtime is charged at 1.5 times the base rate. Overtime is defined as time worked on the project in excess of 8 hours per day and all time on Saturdays, Sundays, and holidays.
- (4) Prevailing Wage projects, additional hourly surcharge for Field Personnel per CA Labor Code §1720, et seq.

Add \$ 29.00/hour

LABORATORY TESTING SERVICES

Laboratory Testing	\$ 130.00/hour
<i>(For special materials testing and laboratory costs on a per-test basis, see GMU's Laboratory Fee Schedule)</i>	

OTHER CHARGES

Outside Services	Cost + 15%
Reimbursables & Reprographics	Cost



2022-2026 HOURLY RATE SCHEDULE

Attachment A

Direct Labor

Classification	2022 Hourly Rate	2023 Rate with 3% Esc	2024 Rate with 3% Esc	2025 Rate with 3% Esc	2026 Rate with 3% Esc
Principal	\$250.00	\$ 257.50	\$ 265.23	\$ 273.18	\$ 281.38
Project Manager / Landscape Architect / CID	\$165.00	\$ 169.95	\$ 175.05	\$ 180.30	\$ 185.71
Design Staff II	\$115.00	\$ 118.45	\$ 122.00	\$ 125.66	\$ 129.43
Design Staff I	\$100.00	\$ 103.00	\$ 106.09	\$ 109.27	\$ 112.55
Administrative Staff	\$95.00	\$ 97.85	\$ 100.79	\$ 103.81	\$ 106.92

Reimbursable expenses related to the project, whether for in-house, consultant or client use will be billed at 1.15 times direct cost. Such expenses include, but are not necessarily limited to:

- CAD plotting of check sets and presentation drawings
- Outside service scanning, printing, copying of drawings and documents of any size.
- In-house project related printing / copying (black/white and color), including draft and final reports, specifications, and drawings.
- Postage, delivery, and messenger service (prior client approval)
- Renderings, physical and digital scale models and animations.
- Videos, web services, opinion surveys.
- Travel expenses, including mileage, tolls, lodging and meals.
- Presentation boards.
- Software purchase and licensure on behalf of the client.

Hourly Billing Rates will be updated no more than once a year from the date of execution of this Agreement.



RICHARD C. SLADE & ASSOCIATES LLC
CONSULTING GROUNDWATER GEOLOGISTS

SCHEDULE OF CHARGES

January 2022

Professional Services

Hourly Rates

President	\$300.00
Principal	\$256.00
Senior Groundwater Geologist	\$220.00
Staff Groundwater Geologist	\$190.00
Field Groundwater Geologist	\$128.00
Clerical	\$ 98.00

Field Equipment Charges

Pressure Transducers (water level & barometric pressure monitoring during pumping tests)	\$ 50.00/wk.
Electric Tape Water Level Probe	\$ 25.00/day
Field Water Quality Probe (T, pH, EC)	\$ 50.00/day

Litigation, Depositions and Testimony

Depositions and trial testimony are charged at twice the hourly rate (4-hour minimum/day).

Travel Time and Mileage

Travel time for meetings and/or to job sites will be charged at our standard hourly rates. Mileage is charged at the current IRS rate.

Administrative Fee

In-house costs for phone, e-mail, fax, regular postage, printing, copying, binding, and records retention, unless otherwise provided for in our project proposal Scope of Services, will be charged an Administrative Fee of total project labor charges multiplied by 2.5%.

Outside Services

Any services and materials not ordinarily furnished by RCS, including subcontracted services (i.e., water quality laboratory testing), delivery services, reproduction and printing, etc., are billed at cost + 15%. Reproduction costs for large format printing, and/or high volume reproduction and binding of hard copy reports performed in-house by RCS staff, will be billed at rates similar to comparable outside services.

Conditions

RCS reserves the right to update this Schedule of Charges on January 1 of each year (the beginning of our Fiscal Year). Invoices are issued at our option on a monthly basis or when the work is completed. A service charge of 1½% will be payable on any amount not paid within 30 days. Any attorney fees or other costs incurred in collecting delinquent charges shall be paid by the client.

Client will furnish rights-of-way to land as required for field visits and field operations, such as sampling or testing of water wells.



SPEC Services, Inc.
10540 Talbert Ave., Suite 100 East
Fountain Valley, CA 92708
714.963.8077 Fax 714.963.0364
www.specservices.com

Page 1 of 2

RATE SCHEDULE
May 2022/Proposal 22-0195

LABOR RATES:

Design & Document Production

<u>Personnel Classification</u>	<u>Hourly Billing Rate</u>	<u>Personnel Classification</u>	<u>Hourly Billing Rate</u>
Design Drafter 1	\$73.00	Designer 4	\$155.00
Design Drafter 2	\$89.00	Designer 5	\$169.00
Designer 1	\$105.00	Designer 6	\$182.00
Designer 2	\$121.00	Project Administrative Assistant	\$89.00
Designer 3	\$139.00	Project Accountant	\$97.00

Engineering & Project Management

<u>Personnel Classification</u>	<u>Hourly Billing Rate</u>	<u>Personnel Classification</u>	<u>Hourly Billing Rate</u>
Engineer 1	\$124.00	Procurement Agent 1	\$97.00
Engineer 2	\$152.00	Procurement Agent 2	\$128.00
Engineer 3	\$176.00	Procurement Agent 3	\$159.00
Engineer 4	\$202.00	Project Coordinator	\$138.00
Engineer 5	\$228.00	Project Controls Specialist 1	\$124.00
Project Manager 1	\$176.00	Project Controls Specialist 2	\$152.00
Project Manager 2	\$202.00	Project Controls Specialist 3	\$176.00
Project Manager 3	\$228.00	Project Controls Specialist 4	\$198.00

Survey & Field Services

<u>Personnel Classification</u>	<u>Hourly Billing Rate</u>	<u>Personnel Classification</u>	<u>Hourly Billing Rate</u>
Survey Technician	\$93.00	1-Person Survey Crew*	\$168.00
Party Chief	\$143.00	2-Person Survey Crew*	\$261.00
Survey Manager	\$198.00	3-Person Survey Crew*	\$354.00

*Includes survey equipment rate

A 30% premium on labor rates will be charged on labor for client authorized overtime, emergency or priority work. This premium will not be charged without prior approval of the client.

EQUIPMENT RATES:

Survey Equipment	\$ 25.00 per hour
Laser Scanning Equipment	\$150.00 per hour
Drone Equipment	\$300.00 per day
In-House Aerial Imagery	\$500.00 Standard Access Fee
Computer Assisted Design/Drafting System	\$ 10.00 per hour
Caesar Piping Stress Analysis System	\$ 10.00 per hour
PLC Programming Software	\$ 10.00 per hour
SYNERGI Stoner Pipeline Hydraulic Simulation	\$ 30.00 per hour
AspenTech Suite	\$ 30.00 per hour
ETAP & SKM Electrical Analysis Software	\$ 10.00 per hour
ArcGIS Mapping Software	\$ 20.00 per hour
Pipeflo Hydraulic Simulation Software	\$ 30.00 per hour
ArcFlash Label Software	\$ 10.00 per label
Procore Software	as quoted per project

IN-HOUSE REPRODUCTION AND PLOTTING:

Size	Photo Copies		B&W Plots	Color Plots	
	B&W	Color	Bond	Bond	High Gloss
8.5"x11"	\$ 0.08	\$ 0.70	\$ 0.30	\$ 4.00	\$ 8.00
11"x17"	\$ 0.08	\$ 1.50	\$ 0.60	\$ 5.00	\$ 10.00
24"x36"			\$ 3.50	\$ 10.00	\$ 20.00
36"x48"			\$ 6.50	\$ 20.00	\$ 35.00

OTHER EXPENSES:

Automobile Expenses: Per Current IRS Rates

All other direct project expenses, including but not limited to travel and living expenses, postage and freight, subcontract services and materials, will be charged at cost plus 10%.

AGENCY PERSONNEL:

Staffing agency personnel will be billed the same as direct employees in accordance with the Labor Rates contained herein.

PAYMENT TERMS:

Monthly invoices, net 30 days

ANNUAL RATE ADJUSTMENTS:

Labor Rates shall be adjusted on January 1st each year based upon the percentage change in the Employment Cost Index (ECI): Series Title: Total compensation for Private industry workers in West, 12-month percent change [Series:CIU201000000240A-non seasonally adjusted].

Rev. 21A

